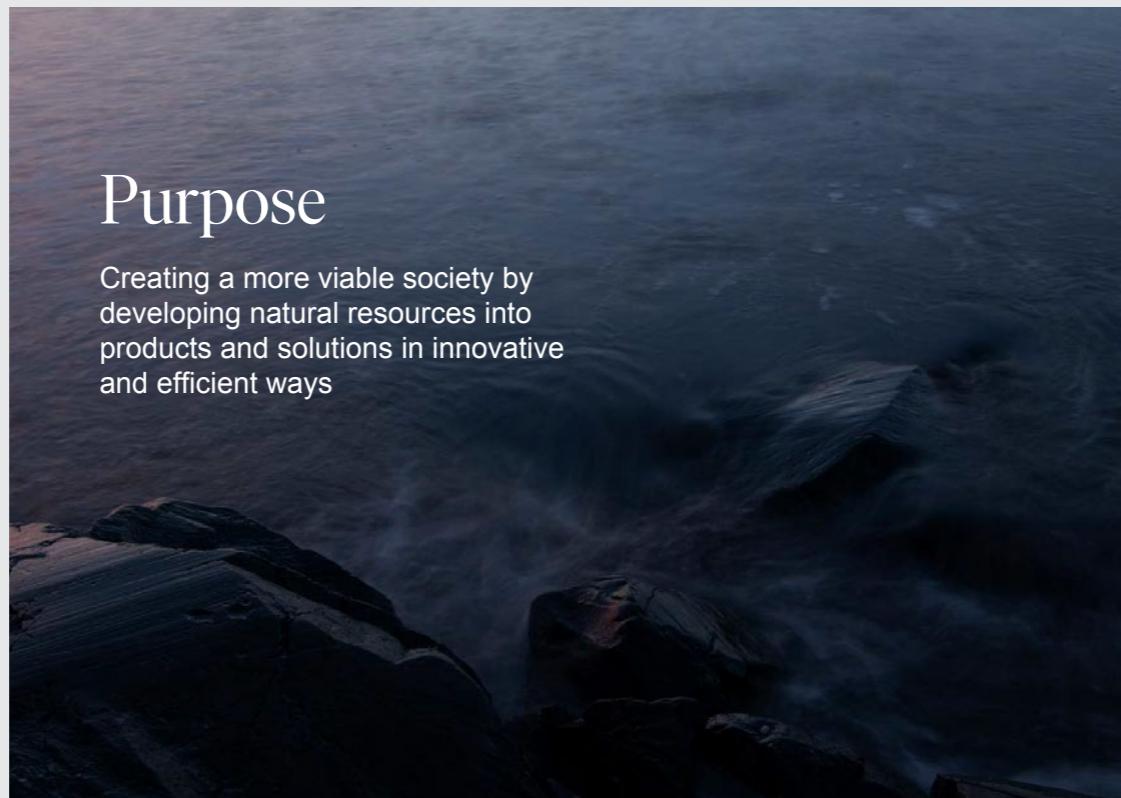
A woman with short brown hair, wearing a dark green hoodie, stands in a city street at night, looking down at her smartphone. She is smiling. The background is blurred, showing city lights, traffic lights, and other people walking. The overall atmosphere is modern and urban.

Annual report 2021



Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices



Purpose

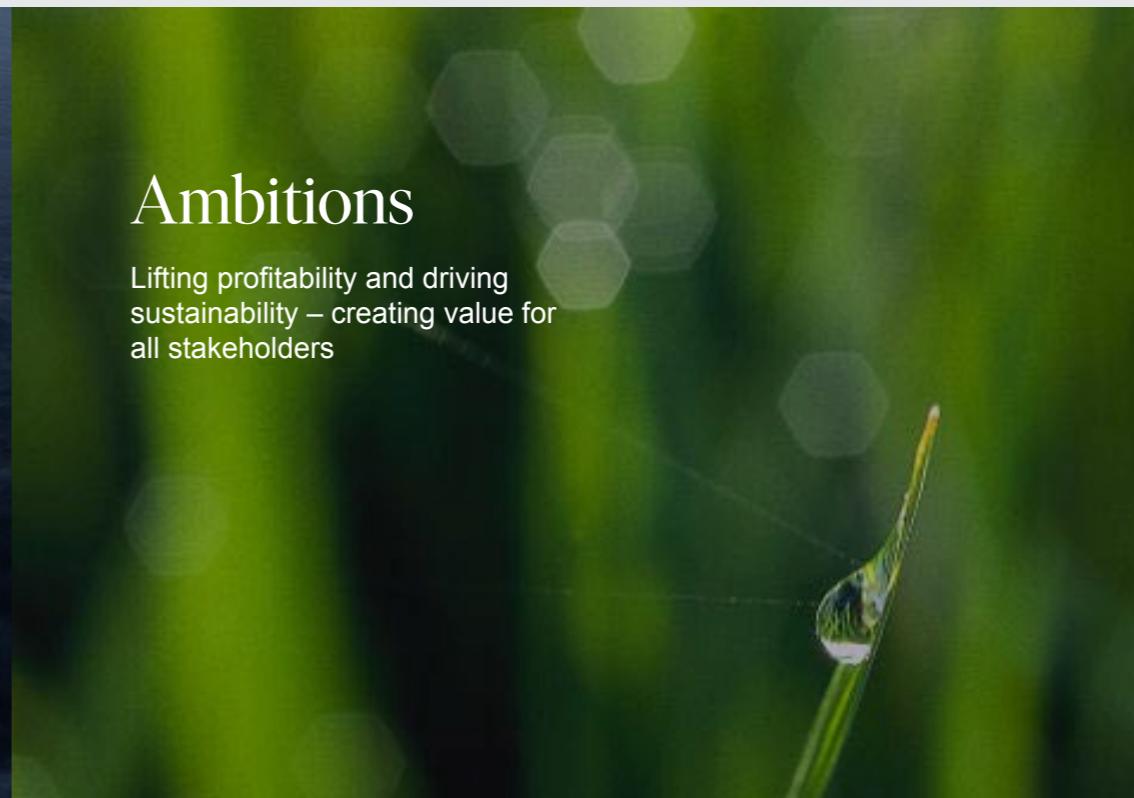
Creating a more viable society by developing natural resources into products and solutions in innovative and efficient ways



Strategic direction

Strengthen position in low-carbon aluminium and recycling

Diversify and grow in renewable energy



Ambitions

Lifting profitability and driving sustainability – creating value for all stakeholders



Sustainability

The basis for future position and profitability

Ambitions

Climate: Net-zero products, net-zero company, net-zero society

Environment: Protect biodiversity and reduce our environmental footprint

Society: Improve the lives and livelihoods wherever we operate

Hydro's Annual Report 2021

The enclosed Annual Report and Financial statements, together with the accompanying notes, fulfill Hydro's Norwegian statutory requirements for annual reporting.

The Annual Report 2021 is available in Norwegian on our website www.hydro.com. Paper copies of the report can also be ordered on our website.

Throughout the report, Hydro refers to Norsk Hydro ASA and its consolidated subsidiaries if not otherwise stated.

Content

4

Introduction

16

Our business

29

Performance review

36

Governance

73

Environment and social responsibility

111

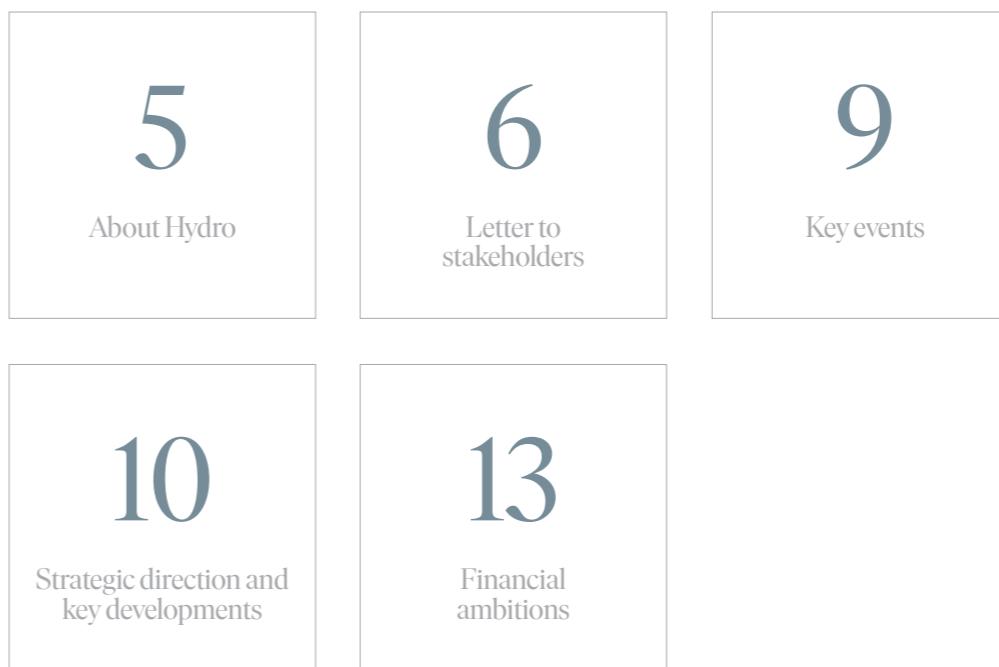
Financial statements

176

Appendices

Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices

Introduction



[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

About Hydro

Hydro is a leading aluminium and energy company committed to a sustainable future. Our purpose is to create more viable societies by developing natural resources into products and solutions in innovative and efficient ways.

Hydro is present throughout the aluminium value chain, from energy to bauxite mining and alumina refining, primary aluminium, aluminium extrusions and aluminium recycling.

Hydro Energy is a major renewables producer, market operator and developer of businesses for the energy transition. Hydro Bauxite & Alumina represents the first two links of the aluminium value chain through bauxite and alumina refining. Hydro Aluminium Metal is a leading supplier of extrusion ingots, sheet ingots, foundry alloys, wire rods and high-purity aluminium with a global production network. Hydro Extrusions delivers tailored aluminium components and solutions to more than 30,000 customers around the world.

During 2021, Hydro continued to deliver on its 2025 strategy, including further strengthening its low-carbon aluminium position as well as maturing business opportunities within new energy solutions. Hydro has long been recognized as a leader in sustainability, and the new sustainability ambitions on climate, environment and social responsibility launched in December 2021 will be a key driver for Hydro's competitive positioning going forward.

Hydro has the ambition of achieving net-zero carbon emissions by 2050 or earlier and is pursuing three decarbonization paths to reduce the carbon footprint of aluminium to net zero. Hydro will have the first commercial volumes of near-zero carbon product (defined as less than 0.5kg CO₂ per kg aluminium) available in 2022 based on using 100 percent post-consumer scrap.

We have more than a century of experience and expertise, and we want to continue to lead the way in creating industries that matter.



“With a continued search for new ideas and solutions and a century of knowledge and expertise, we want to continue to lead the way in creating industries that matter for people and the planet.”

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Letter to stakeholders

Sustainable value creation – building industries that matter

We are pleased to report Hydro's strongest financial results since becoming a focused aluminium and energy company in 2007, in a year that was otherwise defined by volatility and uncertainty. We attribute the performance to strong sales in historically strong aluminum markets and firm progress on our improvement agenda – but first and foremost we take great pride in our 31,000 employees who managed to maintain solid performance and focus during a global health crisis.

The aluminium market has been strong during 2021, with global demand outpacing supply growth, reducing inventories and supporting LME prices above USD 3,000 per tonne. Along with the firm economic recovery, the business environment has been heavily impacted by the pandemic, energy shock and supply chain disruptions – and increasing expectations on climate and sustainability from customers, markets and regulators.

We expect a healthy demand growth for aluminium of around 4 percent annually this decade. As a building block of modern societies, aluminum plays an important role in the transition towards a carbon-free economy. Lightweight, durable and infinitely recyclable, aluminium is a catalyst for reducing emissions in several sectors of the economy. We experience increasing interest and demand for our low-carbon aluminum in the market. This gives confidence that our efforts until now, combined with our strengthened climate ambitions announced at our Capital Markets Day in December last year, build a strong foundation for long-term value creation.

However, as a company we are not only defined by our climate footprint. Sustainability for Hydro goes beyond climate and the environment. Issues such as health, education and social development in the societies in which we operate will be even more important going forward as a basis for how we will deliver long-term value for our shareholders and society at large. This reflects Hydro's 116-year history and purpose, and how the success of Hydro has been closely and mutually interlinked with the societies we are a part of.

Based on The Hydro Way and our values – care, courage and collaboration – our ambition is lifting profitability and driving sustainability, creating sustainable value for all stakeholders.

A safe and secure work environment

Our most important responsibility starts with the health and safety of our employees. The Covid-19 pandemic has been distressful for our employees all over the world.

Sadly, we are mourning the loss of 35 good Hydro colleagues and contractors due to Covid-19 during the past two years. We commend the efforts of our plant managers, unions and all our employees that have been protecting the workplaces from the virus and keeping the wheels turning, and for supporting the local communities in which we operate.

Safe operations are our first priority. There were no fatalities, nor life-changing injuries, in 2021. We have emphasized high-risk incidents during 2021 and we are pleased that the number of high-risk incidents declined by almost 14 percent from the year before. However, the total number of recordable injuries per million hours worked increased to 3.3 in 2021, up from 2.7 in 2020. The ultimate target is an injury-free work environment and to make sure that every employee returns home from work safely.

Profitability and sustainability

Over the past two years we have worked with determination to implement our agenda Lifting profitability, Driving sustainability. We are impressed with our organization's ability to continuously focus on new improvement initiatives, even in times with strong markets. Through 2021 we have delivered NOK 6.3 billion of the total original improvement program of 7.4 billion.

With this momentum, we have now stretched the overall program to NOK 8.5 billion to be delivered by 2025.

One important lever for the strong performance in 2021 is that Alunorte and Paragominas in Brazil have been operating at full capacity utilization throughout the whole year, which is a result of the focus on improved asset integrity and increased robustness in both plants.



Strong demand, higher prices, robust operations with higher volumes and improved margins, in addition to determined improvement efforts, yielded a strong EBITDA result of 28 BNOK in 2021. We have lifted profitability across all our business areas, and we delivered a return on capital employed of 18.6 percent in 2021, which is well above our target of 10 percent over the cycle. In addition, Hydro ended 2021 with a net cash position of NOK 3.2 billion, from a net debt position of NOK 7.8 billion the previous year.

Having a clear profitability agenda has guided our prioritization in terms of portfolio development and capital allocation. We have worked within a strict capital allocation regime and allocated return-seeking funds where returns are highest. To support this, we concluded the strategic review and subsequent divestment of Hydro Rolling in 2021, providing capital for further profitable growth.

Moreover, we are satisfied that we have made the investment decision to switch fuel oil with natural gas at Alunorte which is a major enabler to reach our 30 percent CO₂ target by 2030.

Driving the green transition

In 2021, we sold three times the volume of our low-carbon brands Hydro REDUXA and Hydro CIRCAL compared to the year before. It strengthens our belief that our investments in sustainability will not only improve our impact on climate and the environment, but also demonstrates that aluminium is part of the solution by lowering the footprint of our customers' products. Increased sales of our greener products will contribute to our profitability going forward in a world that is increasingly turning words into action in its response to climate change.

The specific pull we experience in the market for the low-carbon aluminium products comes as a consequence of the decarbonization, electrification and circularity trends in sectors like automotive, building and construction, as well as renewable energy infrastructure.

The green transition will be challenging and require tremendous investments on a global scale. On the other hand, the green transition will also represent a lot of opportunities. We are determined to seize opportunities where Hydro's capabilities match global megatrends, enabling our company to take a leading position in the green transition.

Executing on Hydro 2025

In 2021, we have taken key steps in the execution of our 2025 strategy, strengthening our low-carbon aluminium position as well as maturing business opportunities within new energy solutions.

Cost reductions and operational excellence have continued to be our top priority in addition to continuing to shape the demand for aluminium and our low-carbon product portfolio as well as increasing recycling of post-consumer scrap.

Last year, we announced our ambition of becoming net zero in terms of direct and indirect emissions by 2050 or earlier.

We have defined three pathways to be able to produce carbon-free primary aluminium towards 2050. One pathway is to use carbon capture and storage technology to produce carbon-free primary aluminium. A second pathway is our proprietary carbon-free electrolysis technology called HalZero. This technology will keep the CO₂ in a closed loop and reuse it as a source of carbon in the electrolysis process. We are very enthusiastic about the prospects of both routes to carbon-free primary aluminium.

A faster pathway to carbon-free aluminium is more recycling of post-consumer aluminium scrap. Our ambition is to deliver the first commercial volumes of near-zero carbon aluminium already in 2022, based on 100 percent recycled post-consumer scrap. Our network of recyclers and their proximity to scrap suppliers and customers are key competitive advantages to enable and capture value from more circular business models.

The second pillar of our strategy is to grow and diversify in new energy solutions. Access to abundant renewable energy is crucial to make our own aluminium value chain carbon free and for the world to drive the green transition and reach its climate targets. In 2021, we continued to execute on our strategy to grow in new energy areas that will support decarbonization and develop profitable businesses for Hydro. These areas include renewable energy, batteries and hydrogen.

In executing our strategy, people are at the heart of our success. We depend on attracting and retaining the best people to lead the way. Leadership to develop people, drive change and deliver results is crucial to fostering our Hydro culture and in achieving the business strategy. We aim to

Adjusted RoaCE

18.6%

Free cash flow

10.5
BNOK

Zero
Fatal accidents

Adjusted
EBITDA

28 BNOK

nurture the entrepreneurship and commercial instinct within our organization and improve opportunities to develop competencies for operators, experts and leaders. We believe that diverse and inclusive teams lead to higher levels of innovation, a learning culture, better customer understanding and cultural awareness, as well as higher financial results. It also makes a better place to work.

Industries that matter

Climate, environment and social responsibility are deeply interconnected. Responsible business is a prerequisite for long-term value creation through access to new markets, lower cost of capital and access to best talent. Sustainability is also about creating value to society by improving lives and livelihoods where we operate.

Our environmental ambition emphasizes protecting biodiversity and reducing our environmental footprint, with a particular focus on eliminating landfilling of waste in the long term. A significant contribution here, is our pioneer tailings dry backfill method at our Paragominas bauxite mine in Brazil, which will eliminate the need to establish new tailings dams

We believe that we can only be successful as a business if the societies where we operate are thriving. The pandemic has shed light on how rising inequality among people and regions amplifies the vulnerabilities and risks in today's interconnected, yet fragmented world. We want to do our part, and are progressing on by promoting education, just transition and a responsible supply chain.

Hydro is engaging with a range of international organizations, working to improve industry standards for human rights, transparency and responsible production. Hydro is also a signatory to the UN Global Compact and a committed member of the Aluminium Stewardship Initiative (ASI).

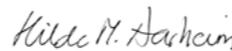
Hydro remains committed to driving long-term value and paying attractive dividends to our shareholders. We prioritize maintaining our investment-grade rating, and we are a stable dividend stock. We aim to pay out a minimum of 50 percent of adjusted net income over the cycle, with a floor of 1.25 NOK per share. In light of the strong financial performance last year, and reflecting our robust balance sheet, the Board of Directors has proposed a dividend of NOK 5.4 per share, equal to 80 percent of adjusted net income for 2021.

After the second year of the global Covid-19 pandemic, we would like to acknowledge the impressive efforts and relentless commitment by our employees, demonstrating once again that the people of Hydro are Hydro's greatest asset.

As a global aluminium and energy company, Hydro is committed to contribute to building industries that matter and creating sustainable value for all stakeholders.

**Dag Mejdell**

Chair

**Hilde Merete Aasheim**

President and Chief Executive Officer

Key events in 2021

January

Hydrovolt has started to construct world-leading battery recycling plant
[Read more](#)



March

Hydro completes sale of Hydro Rolling business area to KPS Capital Partners
[Read more](#)



Hydro aims to include recycling within its primary aluminium production in Norway
[Read more](#)



June

Hydro Husnes is back at full capacity for the first time in more than a decade
[Read more](#)



Hydro Rein and Eolus sign agreement to acquire wind project
[Read more](#)



August

Animals returning to reforested areas at Hydro's bauxite mine in Brazil
[Read more](#)



Hydro-supported social centers in Belém, Brazil near construction start
[Read more](#)



November

Hydro and Shell join forces to explore renewable hydrogen projects
[Read more](#)



Hydro on track to build new state-of-the-art recycling plant in Cassopolis, Michigan
[Read more](#)



February

Hydro completes ASI certification of entire aluminium extrusion network in Europe
[Read more](#)



April

Hydro to explore hydrogen opportunities
[Read more](#)



Hydro signs new long-term power contract for Norwegian aluminium portfolio
[Read more](#)

July

Hydro Extrusions decides to invest in production increases in Austria, Sweden and the US
[Read more](#)



October

Hydro investing in new automotive extrusion press in China
[Read more](#)



December

Hydro makes final build decision on Alunorte fuel-switch project
[Read more](#)



Hydro strengthens its Sunndal aluminium plant with a NOK 750 million investment
[Read more](#)

Hydro Sunndal invests in capacity expansion
[Read more](#)

Strategic direction and key developments

Sustainable value creation

Hydro is a leading industrial company committed to a sustainable future and to creating industries that matter. Hydro continues to grow stronger in terms of profitability and sustainability, thereby increasing long-term value for our stakeholders and improving lives and livelihoods where we operate. Our main priority remains providing a healthy and safe work environment for our workers.

Hydro's 2025 strategy aims to strengthen our position in low-carbon aluminium and explore growth opportunities in new energy. The strategy leverages our competitive advantages to seize opportunities within the current megatrends and the market's growing demand for low-carbon and renewable aluminium. Hydro has long been recognized as a leader in sustainability, and the new sustainability ambitions launched at Capital Markets Day 2021 will be key for the company's competitive positioning going forward.

Strong demand driven by global recovery and fiscal stimulus positively impacted Hydro's financial performance in 2021. However, the year was also affected by uncertainty from the ongoing pandemic, high energy prices, supply chain constraints, and higher raw material prices. These factors helped drive aluminium prices up to record levels in 2021, with LME prices above USD 3,000 per mt. Premiums were also at record-high levels, indicating a tight physical market.

Hydro lifted profitability across all business areas and achieved its full-year improvement program target by the third quarter of 2021. The completion of the restart of Line B at the primary aluminium plant in Husnes, Norway, was important to meet the increased market demand. The strategic review and

divestment of Hydro Rolling was completed in June, releasing capital that will be allocated to profitable growth opportunities in Recycling and Extrusions, and to further strengthening the balance sheet. In addition, the strong results contributed to greater cash generation in 2021. Hydro's profitability and sustainability agenda continues to guide capital allocation.

Green transition requiring low-carbon aluminium and renewable energy

The demand for semi-fabricated aluminium products outside China is estimated to rise 4 percent annually until 2030, with similar overall growth rates in key sectors like automotive and building and construction. Recycled aluminium production is expected to grow 5 percent annually until 2030 and become a larger share of total aluminium production.

Aluminium with a lower carbon footprint is seen as an important enabler for the green transition. Since the launch of our low-carbon products Hydro CIRCAL and Hydro REDUXA, the market has embraced low-carbon aluminium, as it enables our customers to meet their CO₂ abatement goals.

Hydro's customers across many sectors, including automotive, packaging, building and construction and electronics, are setting ambitious decarbonization targets. Low-carbon and recycled aluminium are key drivers toward reducing emissions in the supply chain for these industries.

Hydro expects a differentiation of the market, where demand for low-carbon and renewable aluminium will outpace the demand for aluminium from non-renewable energy sources. By 2030, the main demand segments are expected to require between 20 and 45 percent greener aluminium, with automotive customers at the top of that range.

Adjusted
RoaCE

18.6%

Adjusted
EBITDA

28 BNOK

Shareholder
payout

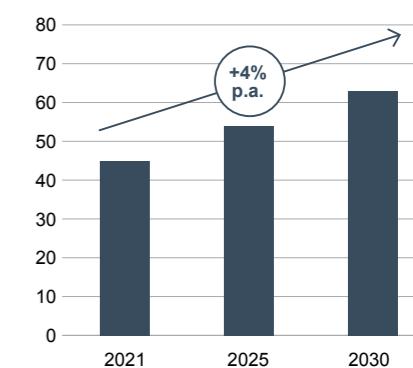
5.4 NOK/share

Hydro CIRCAL
production volumes

38 kmt

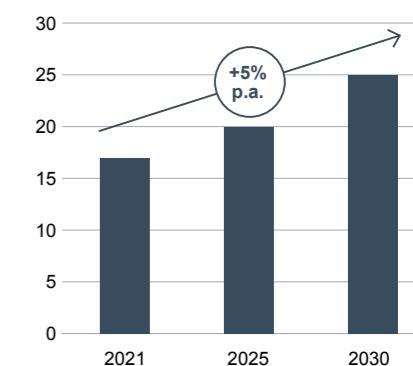
Semi-fabricated products demand

Million tonnes



Recycled aluminum production

Million tonnes



With renewables, energy efficiency and electrification, we can reduce 70 percent of global emissions. Renewable hydrogen can contribute toward the remaining 30 percent of emissions from hard-to-abate sectors such as heavy industry and the maritime sector.

Strengthen position in low-carbon aluminium

Our 2025 strategy aims to strengthen Hydro's position in low-carbon aluminium. Cost reductions and operational excellence remain priorities across the business areas and are reflected in the improvement program. Hydro's operations in Bauxite & Alumina and Aluminium Metal are both in the first quartile of their respective cost curves. In 2021, Alunorte

operated at nameplate capacity, and Tailings Dry Backfill technology to eliminate the need for permanent tailings storage facilities was implemented at Paragominas in Brazil. Hydro Extrusions continued to restructure their portfolio and implemented cost savings and productivity programs to improve profitability.

Revenue growth through commercial activities is an important part of mid to long-term value creation, especially in the downstream divisions, namely Metal Markets and Extrusions. These are market-driven initiatives where Hydro will leverage its solutions and partnerships to increase market shares in key segments, and to increase margins. Hydro Extrusions

is positioned for further growth through key investments. The commercial potential also utilizes Hydro's sustainability position to shape demand for our greener product portfolio. Over the past year, Hydro has seen increased demand for its low-carbon brand products Hydro CIRCAL and Hydro REDUXA, and expects to double sales of these products by 2025.

In addition to incremental growth in Extrusions and increasing greener products sales, growth in recycling is a strategic priority for Hydro. In 2020, Hydro set a strategic ambition to double its recycling of post-consumer scrap, providing EBTIDA uplift of NOK 0.7 billion to NOK 1.1 billion. Key investments into additional post-consumer scrap recycling capacity of 85,000 tonnes were announced in 2021, increasing total casthouse production by 305,000 tonnes. Volumes from some of these projects are expected already in 2022.

Hydro's decarbonization path

In 2021, Hydro launched a new climate ambition, reaffirming the target of cutting our own carbon emissions by 30 percent by 2030 and setting new ambitions of becoming net zero in terms of direct and indirect emissions from power generation (Scope 1 and 2) by 2050 or earlier.

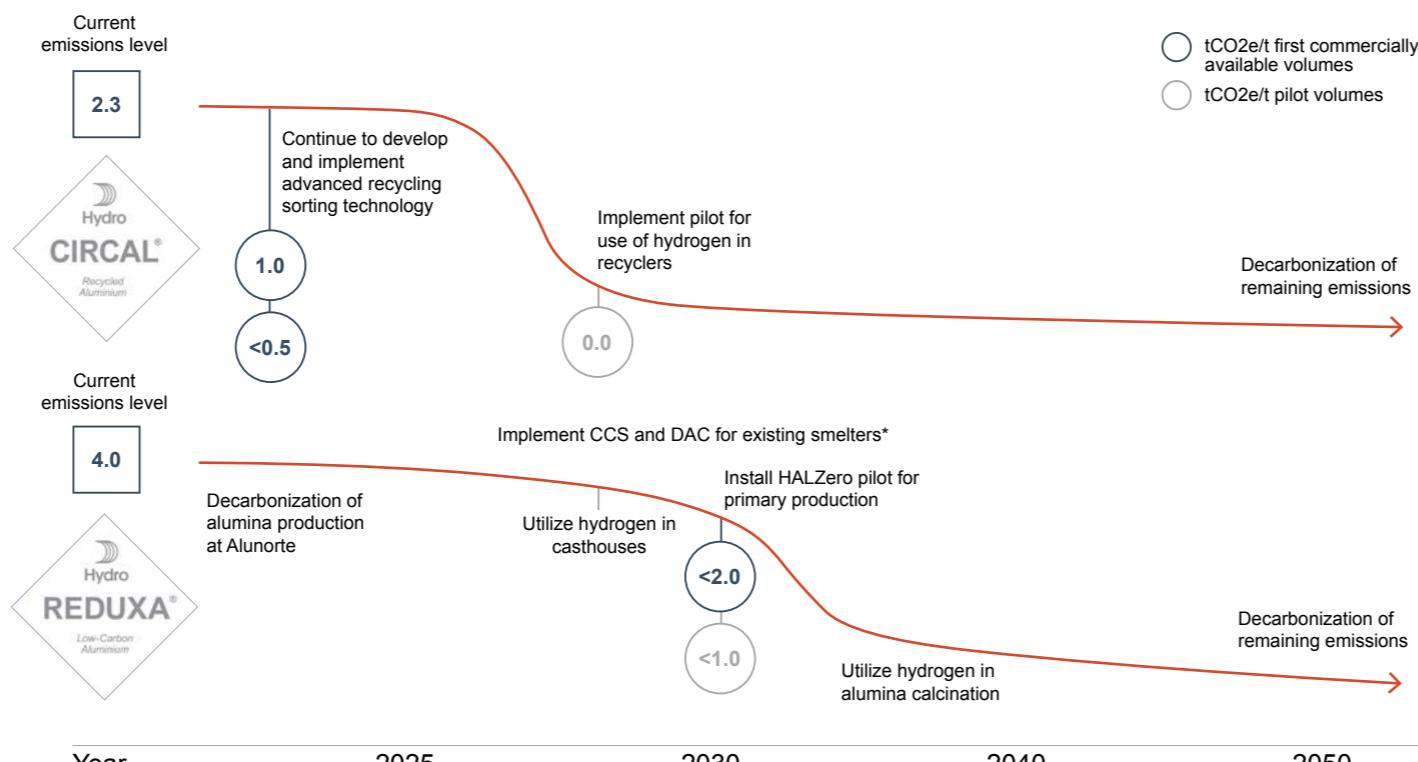
Hydro's roadmap to net-zero emissions by 2050 for the upstream aluminium business includes planned activities to replace fuel oil with natural gas and electrify boilers at the Alunorte alumina refinery in Brazil, where we also plan to pilot using hydrogen for calcination. Hydro made a final build decision to invest BRL 1.3 billion in the project to replace fuel oil with natural gas at Alunorte.

Achieving near-zero emissions throughout the value chain also requires that our portfolio of primary aluminium plants has access to a higher share of renewable energy and that renewable hydrogen, electricity, or biogas is available for use in the casthouses and recyclers.

Hydro is pursuing three technology pathways toward near-zero aluminium. To secure the value of existing primary aluminium plants, Hydro is developing carbon capture and storage (CCS) solutions that can be retrofitted into the existing plants. Hydro has evaluated more than 50 CCS technologies and is planning to test and pilot the most promising, up to industrial scale by 2030. The most likely outcome will be a combination of off-gas capture and direct air capture.

Net-zero products: Market-paced approach

Capitalize on market demand through circularity while decarbonizing primary value chain



Another pathway more suited for greenfield aluminium plants is Hydro's proprietary HalZero technology. This technology converts alumina to aluminium chloride prior to electrolysis in a process where chlorine and carbon are kept in closed loops, resulting in a fully decarbonized process. Hydro has been working on lab-scale development of this technology for five years and has now developed a roadmap to bring this to an industrial scale before 2030.

A third and faster pathway to zero-carbon aluminium is by recycling more post-consumer scrap. Using only post-consumer scrap, we will be able to produce a near-zero carbon product at a competitive cost. This will be made possible by Hydro's patented aluminium sorting technology and alloying expertise, in combination with replacing natural gas with renewable hydrogen or electrical heating at recyclers and casthouses. Near-zero carbon aluminium should be commercially available in small volumes during 2022.

Environment and social ambitions

Hydro is setting new ambitions in the areas of environment and social responsibility. Within environment, this includes protecting biodiversity and reducing the environmental footprint. For biodiversity, Hydro has set an ambition to achieve no net loss of biodiversity for all new projects, in addition to the existing 1:1 rehabilitation target for our mining operations. With regard to waste, we will continue to follow our existing 2030 targets for increased utilization of bauxite residue and reduced landfilling of spent pot lining. We will also aim to eliminate the need for new permanent bauxite residue storage by 2050 and to eliminate landfilling of all other recoverable waste by 2040.

Hydro's social ambition is to improve the lives and livelihoods of people wherever we operate. We have supplemented the existing target of empowering 500,000 people with education and skills development by 2030 with business-specific targets to support a just transition, and to ensure responsible business practices throughout Hydro's supply chain, providing traceability and transparency of key sustainability data for our products.

Growth in new energy

In 2021, Hydro continued to execute on its strategy to grow in new energy areas that can support the decarbonization of high-emitting industries. These areas include renewable energy, batteries and green hydrogen.

Hydro Rein

Hydro's renewable energy company, Hydro Rein, aims to develop renewable resources and other energy solutions to enable its industrial clients to succeed in the energy transition. Hydro Rein's ambition is to supply significant amount of Hydro's energy needs, while also serving customers outside the company. In May 2021, Hydro Rein signed a collaboration agreement with Equinor and RWE Renewables regarding a joint application for the upcoming South North Sea 2 offshore wind licensing round in Norway. In June 2021, Hydro Rein invested in the 260 MW Stor-Skälsjön project in Sweden, together with Swedish wind power developer Eolus. The project is expected to commence construction in the summer of 2022. In December 2021, Hydro Rein entered into an agreement with Eolus to acquire a 50 percent interest in nine early stage, wind power projects in Southern Sweden, with a combined potential capacity of up to 672 MW. In Brasil, Hydro Rein matured several large-scale, late-stage wind and solar opportunities, with the intention to sign one or more acquisitions in the first half of 2022. Hydro is contemplating a listing of the shares of Hydro Rein by way of an initial public offering in 2022.

Hydro Havrand

Hydro's green hydrogen unit, Hydro Havrand, was established in 2021. This unit will develop green hydrogen based on renewable energy to cut emissions in hard-to-abate sectors. Hydro Havrand leverages Hydro's 4 GW potential offtake, industrial competence and energy expertise as a springboard to decarbonize industrial processes. The business unit will offer competitive hydrogen to 3rd party industries as well as evolving hydrogen markets such as heavy duty trucking and maritime. Hydro Havrand is now maturing its portfolio and is positioning to capture global opportunities. During 2021, the unit has developed a portfolio of projects. The portfolio includes Hydro's aluminium plant in Årdal, Norway, Speira's (former Hydro Rolled Products) plant in Holmestrand and at the extrusion facility in Vetlanda, Sweden, all of which hold potential for 3rd party hydrogen offtake. Important capabilities to switch fuel consumption from carbon-based fuels to hydrogen are being developed to safely introduce hydrogen into industrial processes.

Batteries

Hydro's Batteries unit continues to build a sustainable and competitive battery business. During 2021, Hydro's 50/50 joint venture Hydrovolt built Europe's first industry scale sorting and scaling pilot for sustainable recycling of EV

batteries. Hydrovolt is on track to commence operation in first quarter of 2022. The pilot's capacity is being filled fast, and Hydrovolt is preparing further expansions. Hydro increased its holding in the global marine battery systems leader Corvus and is now largest owner. Batteries explored several opportunities of varying size and maturity and built a strong pipeline of investment opportunities within recycling, cell and pack solutions, and battery anode materials. Hydro's battery portfolio value developed favorably in 2021. Further strengthening of the portfolio is targeted for 2022 in order to create a solid platform for industrial growth in the emerging European battery industry.

Financial ambitions

Lifting cash flow, delivering higher returns

Hydro's financial ambition is to lift cash flows and generate capital and shareholder returns through a combination of longer-term financial priorities supported by near-term financial targets. At the same time, Hydro aims to differentiate through its strong sustainability position and to develop businesses where megatrends match Hydro's capabilities.

Supported by increasing interest from regulators, customers and financial markets, Hydro firmly believes that leading in sustainability is a strong foundation for long-term license to operate and a key driver for long-term profitability. By emphasizing climate, environment, integrity and social responsibility, as well as by developing greener business and product offerings, Hydro will reduce risks and create new profitable opportunities.

Hydro has developed a framework that establishes clear priorities for the use of cash to help guide the company's capital allocation decisions.



Profitability roadmaps

Hydro has a target to achieve an adjusted return on average capital employed (RoaCE) of 10 percent over the course of a business cycle. Hydro's view is that this metric illustrates the return generated by operational activities before financing activities and shareholder service. Performance should be viewed over several years, due to industry cyclicity as well as other factors impacting balance sheet figures. The RoaCE target should be compared to our long-term nominal cost of capital of 9 percent. Cost of capital and RoaCE targets

are differentiated for each business area, with the ambition to achieve a RoaCE above the respective cost of capital. The nominal long-term cost of capital for our business areas reflects the risk and volatility of earnings and cash flows in the underlying business activities.

Hydro's main efforts to realize targeted capital returns are summarized in the full value creation framework. The framework includes three levers all underpinned by Hydro's sustainability agenda: the improvement program, commercial ambitions, and strategic growth initiatives.

Operational excellence is key when it comes to maximizing value creation from current assets; and relies on the culture

Full value creation potential

Commercial initiatives

Growth and strategic initiatives

Improvement program

Maximizing value creation from current assets/operations

- Operational excellence
- Commercial excellence in daily operations
- Raw material efficiency, procurement
- Volume creep and capacity utilization
- Fixed cost optimization

Initiatives focused on influenceable parameters and continuous improvement

Pursuing market and customer-driven growth opportunities

- Margins and portfolio mix
- Low-carbon and circular product offerings
- Customer-driven incremental growth

Initiatives within the current business portfolio, dependent on market conditions

Major changes in business portfolio and/or strategic direction

- Entering new business segments/industries
- Organic (greenfield) or inorganic growth
- Portfolio review and divestments/closures
- Change in ownership structure

Initiatives outside the current business portfolio or representing a significant strategic move

of continuous improvement and good control over the influenceable parameters. These initiatives are developed consistently throughout the cycle regardless of the macro and market situation. In 2021, Hydro further increased its improvement program target by NOK 1.1 billion to NOK 8.5 billion by 2025.

The Bauxite & Alumina improvement program mainly focuses on ramping up production at Alunorte and Paragominas to full capacity. This accounts for NOK 2.7 billion out of the total Hydro improvement target, and was achieved during 2021. Other elements include optimization of the energy mix and consumption as well as fixed cost reductions.

Aluminium Metal target improvements across many categories. These include the restart of the Husnes Line-B smelter and volume ramp-up at Albras in Brazil, debottlenecking, cost reduction including overhead costs, as well as digitalization of processes through soft sensor technology, advanced analytics, and automation.

Extrusions has launched an extensive cost improvement program that includes SG&A cost reductions, portfolio reviews and restructuring as well as procurement initiatives. Operational excellence and efficiency improvements are reflected in the Extrusions Business System (EBS) initiative being implemented throughout the entire Extrusions organization.

Improvements in all business areas include savings related to increased efficiency within staff and support functions, with Global Business Services (GBS) contributing the most. A sizeable share of improvements comes from the Hydro-wide procurement initiative addressing measures within supplier management, demand and specification management, and process management across the company.

The commercial ambitions focus on market and customer-driven growth opportunities within the current portfolio. In 2021, Hydro has raised its commercial ambition by 1 BNOK to 2.5 BNOK by 2025. Execution and success rely on market support and customer demand and are therefore less certain. The commercial initiatives include new product development in Aluminium Metal; market share gain and gross margin improvement in Extrusions through optimized product mix, increased sales of green products and higher production capacity; as well as commercial activities in Bauxite & Alumina to achieve higher premiums on alumina and hydrate. Hydro's greener product offerings – Hydro CIRCAL and Hydro REDUXA – are an important driver of commercial value and account for approximately 20 percent of the total ambition by 2025.

Growth initiatives represent larger changes in the business portfolio. Hydro's strategy is to diversify and grow within the areas of recycling, renewable energy and batteries (as described above). These areas are supported by the current megatrends as well as by Hydro's core industrial expertise.

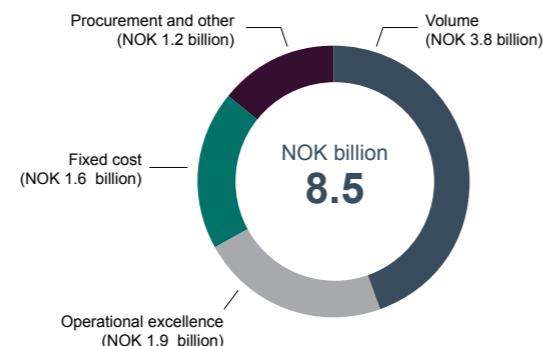
Financial strength and flexibility

Hydro's main strategy for mitigating risk related to volatility in cash flow is to maintain a strong balance sheet, investment grade credit rating and strong liquidity, while at the same time reducing the average cost position of production assets and allocating capital in line with our strategic ambitions. Hydro considers this crucial to navigate the industry cycles, to be able to invest during cyclical downturns, and to be able to access the capital markets at attractive terms. In certain circumstances, derivatives may be used to mitigate financial risk in the business area or group levels.

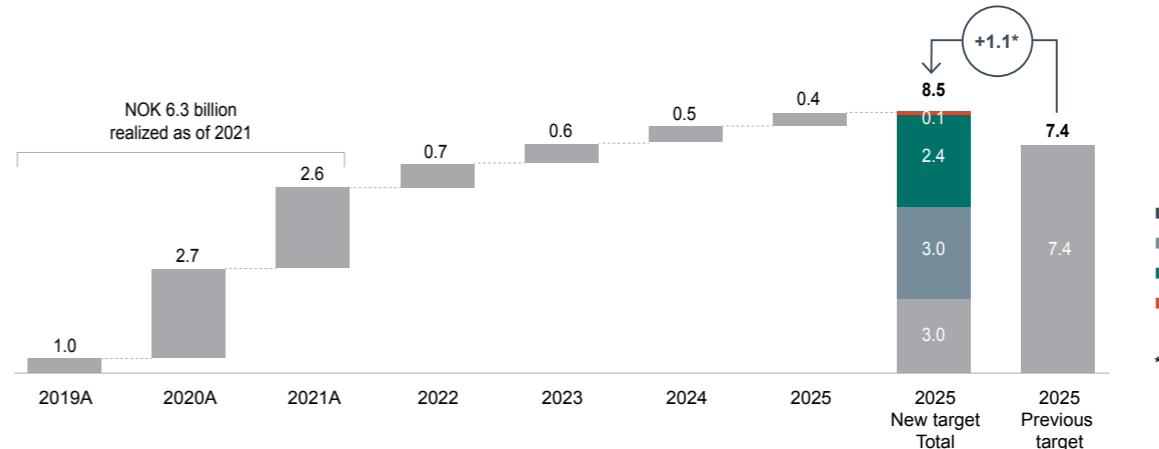
Currently, Hydro has a BBB rating with S&P Global and a Baa3 rating with Moody's, both with a stable outlook.

Hydro uses the ratio Adjusted net (cash) debt to adjusted EBITDA as the key indicator of balance sheet strength and the ability to absorb volatility in the markets. The target is to stay below two times during the cycle, which supports our target to maintain an investment grade credit rating. Given historical industry cyclicity, this means that the ratio will be well below two times in the stronger parts of the cycle, to be able to absorb the impact from industry cycle downturns and maintain financial flexibility in periods of adverse market

2025 accumulated improvement



2025 accumulated improvement potential by year



conditions. Historically, cash generation has been the limiting factor for Hydro's credit rating. Our primary response has been to maintain a strong balance sheet. Hydro continues to evaluate the optimal capital structure and takes this into account when proposing shareholder distribution.

A strong liquidity position is considered critical to support operations and investments through the industry cycle. In addition to a robust cash position, our liquidity is supported by a USD 1.6 billion revolving credit facility that expires in 2026. The margin on the facility is linked to Hydro's CO₂ emission reduction target, thereby linking financing costs to the progress on Hydro's main climate target and highlighting the important connection between sustainability and profitability. Additional sources of liquidity include overdraft facilities and short-term liquidity lines.

For further details, see [Note 7.1 Capital management](#) to the consolidated financial statements.

Clear principles for capital allocation

Hydro has clear priorities and guidelines for capital allocation. This is critical to deliver on the company's strategic direction and to support long-term financial performance. Investments are evaluated using different scenarios for macro and market development to support robustness in investment decisions. Hydro also uses differentiated cost of capital rates to reflect the underlying risk and exposures in each project.

Hydro divides capital expenditures into three categories: sustaining, return-seeking, and growth. The strategy is to allocate more growth and return-seeking capital to the areas with higher value generation potential, both from a profitability and sustainability perspective. Historic returns on investments, earnings volatility, differentiation potential and improved sustainability position play key roles in the allocation process.

All the business areas have been grouped into different strategic modes. The focus in Bauxite & Alumina and Aluminium Metal is to sustain and improve the current asset base, while Extrusions and Energy are in selective growth mode. Business activities in recycling, renewables and batteries have been identified as strategic growth areas.

Investments are generally funded by Hydro cash generation or debt. The plan is to base the Hydro Rein and Hydro Havrand initiatives primarily on external equity, either through public listing or through private placement, and with limited capital contribution from Hydro.

Hydro continues to optimize net operating capital levels both in absolute terms and in days of revenue, with due consideration given to the balance between capital release and supply chain robustness.

Robust shareholder payout

Long-term returns to shareholders should reflect the value created by Hydro, and consist of dividends and share price development. Hydro aims to provide its shareholders with a predictable dividend and a competitive return compared with alternative investments in similar companies.

Hydro's ambition is to pay out a minimum of 50 percent of adjusted net income to majority shareholders over the cycle,

with a dividend floor of NOK 1.25 per share. Hydro may evaluate share buybacks and additional dividends with due consideration given to alternative investment opportunities, and our financial situation and earnings outlook.

Sustainability position

To benefit from the lower cost of capital enabled by sustainability performance, we are continuing to develop our financing framework. The framework will be directly linked to our medium to long-term sustainability strategy and will provide an advantage in access to and cost of capital.

The EU taxonomy is a welcome approach to providing comparable financial data on green activities in the sector. Hydro's activities are partly covered by this, such as the manufacturing of primary aluminium, secondary aluminium, recycling, and renewable power generation. More information is available in the [Appendices](#).

Cost of capital differentiated based on risk profiles

Strategic modes for business areas reflect global megatrends and high-return opportunities



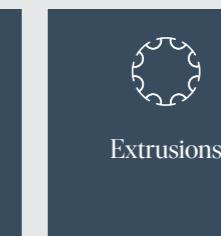
Bauxite &
Alumina



Aluminium
Metal



Metal
Markets
(recyclers)



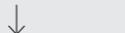
Extrusions



Energy*

Sustain and improve

10–11%



Reflecting higher capital intensity and expected volatility

Sustain and improve

10–11%



Reflecting higher capital intensity and expected volatility

Selective growth

7–8%



Recycling business with lower required capital, more stable margins

Selective growth

7–8%



Lower required capital, more stable margins

Selective growth

6–7%



Stable cash flows from hydropower assets in Norway

* Energy Classic: Hydro power and commercial activities in Energy, excluding new growth areas

Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices

Our business

17

Hydro's presence

18

Hydro's main inputs and outcomes

19

Business areas

25

Regulations

27

Market developments and outlook

Hydro's presence

Since 1905, Norway-based Hydro has turned natural resources into valuable products for people and businesses, and today employs more than 30,000 people in more than 140 locations in 40 countries. We own and operate businesses and have investments with a base in sustainable industries in a broad range of market segments for aluminium and metal recycling, and energy, renewables and batteries.

More than 30,000 customers worldwide



40

Countries
worldwide



31

Thousand
employees



6.3

Million tonnes
alumina production



2.2

Million tonnes
primary production



1.4

Million tonnes
recycled production

Hydro's main inputs and outcomes

MAIN INPUTS

Robust balance sheet • Workforce, technology and R&D • Relations to local authorities and communities
 • Environmental, social and economic impact in supply chain

- Bauxite resources
- Water
- Land clearance
- Bauxite pipeline
- Bauxite
- Caustic soda
- Lime
- Water
- Coal
- Oil
- Land use
- Water reservoirs
- Alumina
- Aluminium fluoride
- Electricity
- Coke
- Pitch
- Water
- Primary aluminium
- Process scrap
- Post-consumer scrap
- Natural gas
- NGL
- Extrusion ingot
- Electricity



Bauxite



Alumina



Energy



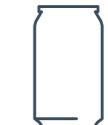
Primary



Casting



Extrusions



Products

MAIN OUTCOMES

Income and shareholder value • Salaries, taxes and suppliers' income • Health & safety, job satisfaction and skills
 • Community impact and stakeholder value • Reputation

Text in *italics* reflects mainly negative impacts.

- Bauxite
- Rehabilitated land
- Tailings
- *Biodiversity impact*
- Alumina
- *Bauxite residue*
- GHG emissions
- SO₂ emissions
- NOx emissions
- Hydropower
- Flood control
- *Regulated watersheds*
- *Biodiversity impact*
- Primary aluminium
- GHG emissions
- SO₂ emissions
- Spent potlining
- Standard, sheet and extrusion ingots, primary foundry alloys and wire rod
- NOx emissions
- Dross
- Extruded solutions for building and automotive industries, consumer goods etc.
- *Environmental impact*

Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices



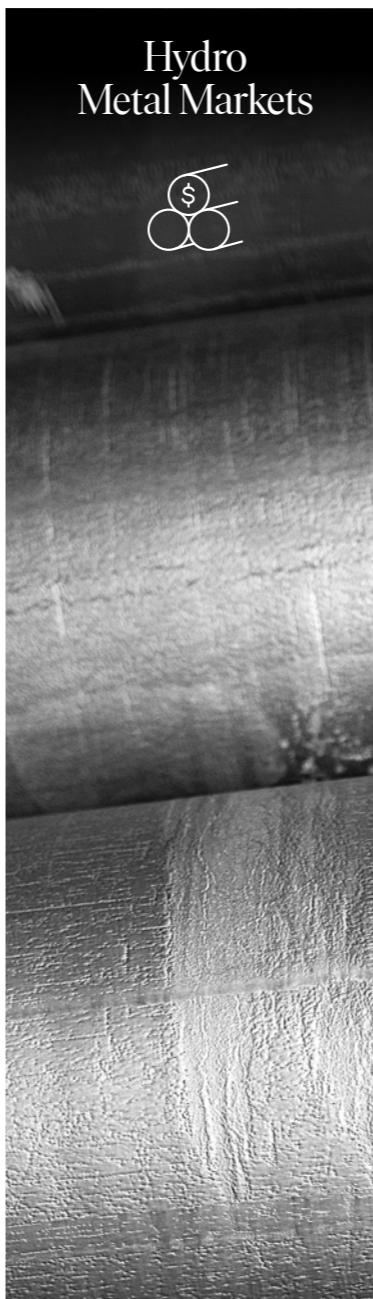
Business areas



Hydro Bauxite & Alumina



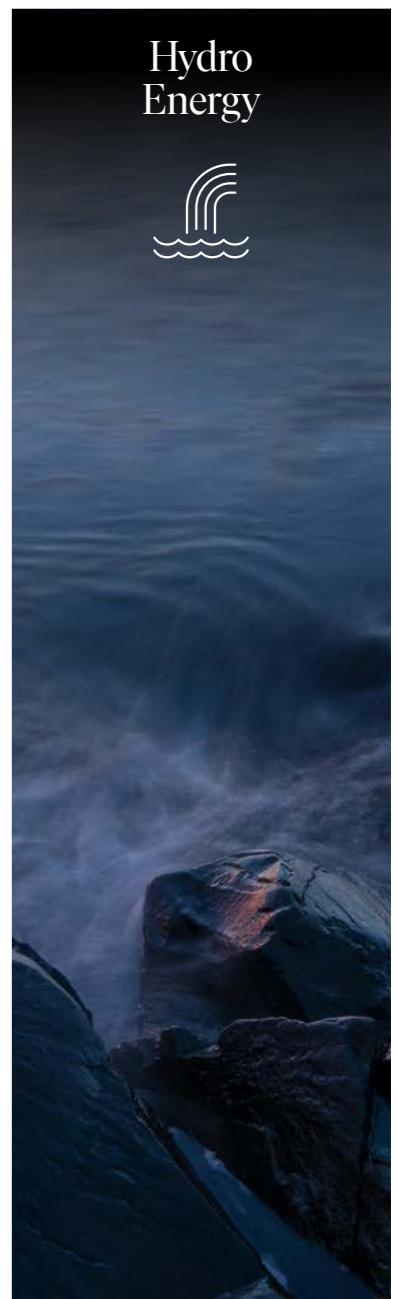
Hydro Aluminium Metal



Hydro Metal Markets



Hydro Extrusions



Hydro Energy





Hydro Bauxite & Alumina

Operations

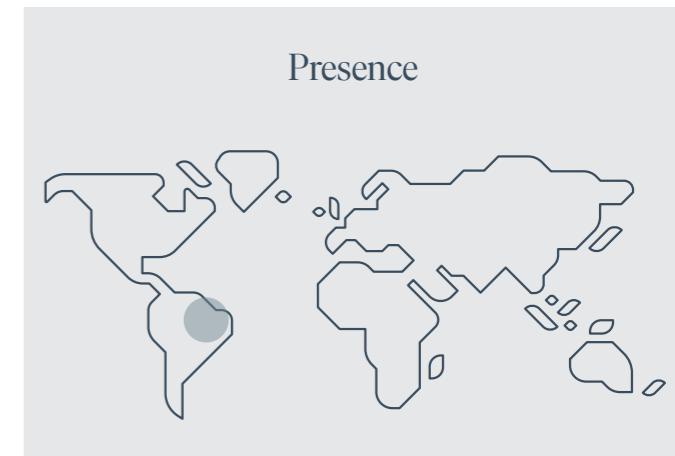
Hydro Bauxite & Alumina comprises our bauxite mining activities in Paragominas and our 5 percent interest in Mineracao Rio de Norte (MRN), both located in Brazil, as well as our 92 percent interest in the Brazilian alumina refinery, Alunorte. We mine bauxite from Paragominas using strip-mining technology. It is sorted and crushed for transportation as a slurry through a 240-kilometer-long pipeline, then refined into alumina at Alunorte. Bauxite from MRN is transported to Alunorte by ship. In addition to our equity interests in the MRN bauxite mine, we have volume offtake agreements for Vale's 40 percent interest in MRN, which amounted to 5.1 million mt in 2021. When operating at full production capacity, Hydro has a long position in bauxite of 3 million tonnes (assuming MRN produces 18 mt per annum) and 2–3 million tonnes of alumina.

Cost and revenue drivers

The main cost drivers for bauxite are labor, maintenance and consumables, electricity, and fuel for mining equipment. These account for around 75 percent of the cash cost of mining activities. Labor, the largest cost factor, accounting for about 30 percent, is influenced by Brazilian wage levels and productivity developments. Maintenance and consumables are influenced by inflation and operational efficiency.

The main cost drivers for alumina refining are bauxite, energy and caustic soda. These represent around 85 percent of cash costs. Energy costs are a mix of fuel, coal and electricity and account for about 30 percent of the total costs. Caustic soda represents around 15 percent of cash costs. Bauxite purchases from Paragominas, and those made under offtake agreements from MRN, are based on prices partly linked to LME prices and to alumina market prices.

Energy efficiency is an important part of Hydro's ongoing efforts to reduce air emissions.



Contribution to improve sustainability performance

Hydro's innovative Tailings Dry Backfill methodology at the Paragominas mine eliminates the need for new permanent tailings storage facilities, which, in turn, allows for the continuous rehabilitation of tailings as part of our ongoing mine rehabilitation process. In addition, Hydro Bauxite & Alumina participates in international collaborations, investigating possibilities to use bauxite residue as a resource for different applications. More information is available in the chapter on [environmental impact management](#) and [innovation](#).

Energy efficiency is an important part of Hydro's ongoing efforts to reduce air emissions. In order to facilitate this reduction, Hydro Bauxite & Alumina will partly replace fuel oil consumption with natural gas, which has lower greenhouse gas (GHG) emissions. This is an important enabler to reach our emission reduction targets. Read more about the Alunorte fuel-switch project in the [Climate Change](#) chapter.



Hydro Aluminium Metal

Operations

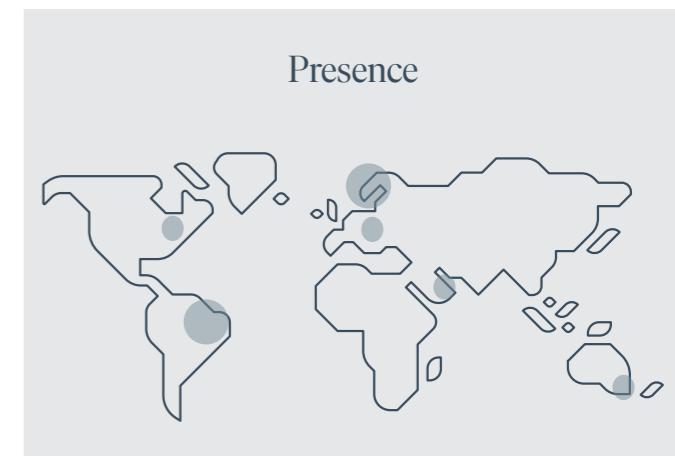
Hydro Aluminium Metal is one of the world's largest producers and suppliers of primary aluminium and value-added casthouse products. The business area consists of wholly owned aluminium metal plants in Norway and partly owned plants in Slovakia, Qatar, Australia, Canada and Brazil. The plants produce value-added products, such as extrusion ingot, primary foundry alloys, sheet ingot, wire rod and standard ingot.

Cost and revenue drivers

The main cost drivers for the production of primary aluminium include alumina, power and carbon, which together comprised about 75-80 percent of the cash costs of electrolysis metal in 2021. We use approximately two tonnes of alumina to produce one tonne of aluminium, representing 35-40 percent of the cash cost of primary aluminium. Energy represents on average 25-30 percent of cash costs, and carbon anodes consumed in the smelting process account for 15-20 percent. Realized aluminium prices and casthouse product premiums are the most important revenue drivers. Aluminium Metal has a history of continuous improvements, covering all relevant earnings drivers.

Internal supply contracts between our hydropower production operations and our aluminium metal business covered about half of the energy consumption of our wholly owned Norwegian metal plants in 2021. The remainder was mainly covered by new supply contracts, adding up to total annual supply of 8.6 TWh for the period 2021-2030, 5.6 TWh for the period 2021-2035, and 5.4 TWh for the period 2036-2039. This secures a significant part of the power consumption, in addition to our own hydropower production, required by our Norwegian plants for these periods. The new contracts comprise a mixture of hydropower and wind power.

Electricity for the Qatalum aluminium plant in Qatar is provided by an integrated natural gas-fired plant supplied with gas by Hydro's joint-venture partner, Qatar Petroleum. The rest of the global joint ventures are covered by medium to long-term contracts, expiring between end-2022 and end-2030.



Contribution to improve sustainability performance

More than 70 percent of the electricity used in Hydro's production of primary aluminium is based on renewable power. Going forward, Hydro Aluminium Metal will lower our carbon footprint further through reducing the carbon footprint of raw materials and energy, in addition to developing new technologies to address hard-to-abate emissions from the electrolysis process. The electrolysis abatement program is based on two methods. The first is our own proprietary HalZero technology for carbon-free processes, while the second is based on carbon capture and storage in combination with direct air capture to decarbonize our existing primary aluminium facilities. Read more about our pathways to net-zero in the [Innovation](#) chapter.

More than 70 percent of the electricity used in Hydro's production of primary aluminium is based on renewable power.



Hydro Metal Markets

Hydro Metal Markets, a part of Hydro Aluminium Metal, consists of the recycling business unit as well as all commercial activities, including sales marketing and distribution of the products from our primary metal and recycling plants.

Recycling

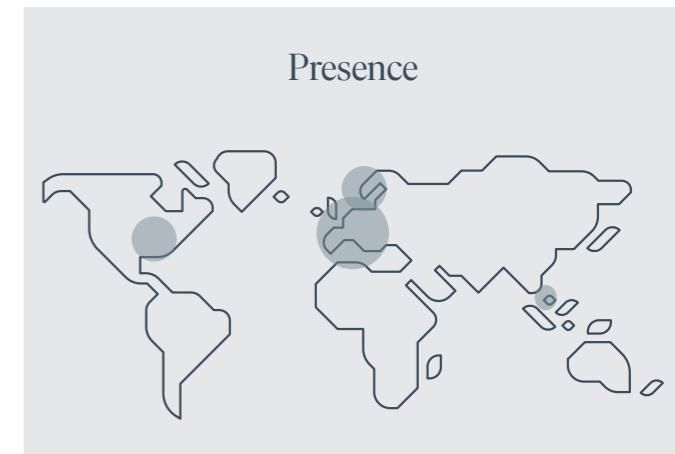
The Recycling business unit has seven recyclers that convert scrap metal and standard ingot into extrusion ingot. These plants have a total annual capacity of around 600,000 tonnes. It also operates the scrap shredding and sorting plant in Dormagen, Germany, with sorting capacity of 36,000 tonnes of post-consumer aluminium scrap per year. In addition, Recycling has several greenfield and brownfield projects under construction. The recyclers provide customers with flexible, energy-efficient and tailor-made metal supply with a low carbon footprint.

Commercial

Metal Markets supplies value-added products globally and offers a wide range of products and services, including low-carbon aluminium products. Our portfolio of production plants allows for a flexible, multi-sourcing system that enables significant, rapid and cost-effective volume adjustments for customers. Hydro has leading research and development competence in value-added casthouse products, supporting customers in their improvement work and in developing new products. The commercial activities of Metal Markets include metal sourcing and trading activities, which source standard ingot from third parties for remelting in Hydro's recyclers and primary casthouses, and which provide operational risk management through LME hedging activities.

Cost and revenue drivers

The results in Metal Markets consist of the operating results of the recyclers, margins on sales of third-party products and results from ingot and LME trading activities. Revenues for our recyclers are influenced by volumes, the LME price and product premiums. Costs are driven by the cost of scrap and standard ingot premiums, freight costs to customers and operational costs, including energy consumption and prices. Our results can be heavily influenced by currency effects and ingot inventory valuation effects.



Contribution to improve sustainability performance

Hydro Metal Markets is a large remelter and recycler of aluminium. Aluminium can be recycled infinitely without degradation in quality, and recycling requires 95 percent less energy than primary aluminium production. To reach our ambitions and address industry challenges, we are improving our processes to combine clean scrap with post-consumer scrap recycling. The technology is being rolled out to Hydro's remelting and recycling plants. Read more about Hydro's recycling and pilot in the [Climate Change](#) chapter.

Hydro Metal Markets supplies the market with the Hydro REDUXA and Hydro CIRCAL brands of low-carbon and recycled aluminium. Hydro CIRCAL is a range of products made with a minimum of 75 percent recycled, post-consumer scrap aluminium. By 2030, Hydro aims to offer a wide range of low-carbon and recycled aluminium products with even lower footprints in the market.



Hydro Extrusions

Operations

Hydro Extrusions is the world leader in extrusion-based aluminium solutions. The business area combines local expertise, a global network, and advanced research and development capabilities to offer everything from standard profiles to advanced solutions for most industries.

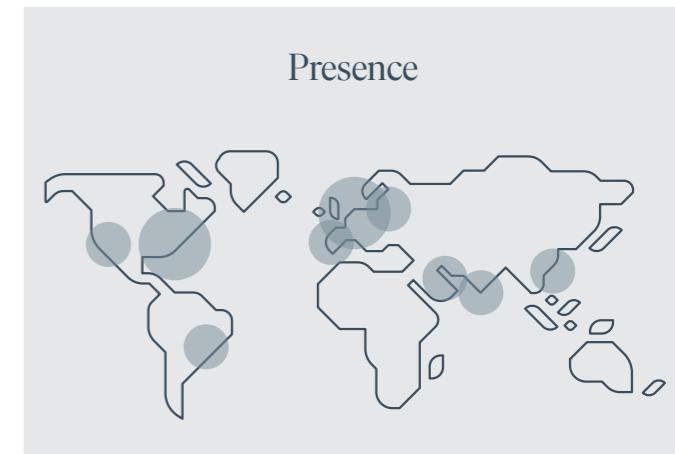
Extrusions had a market share of 17 percent in Europe and 21 percent in North America in 2021, and maintained solid positions in South America and Asia. Extrusions has four business units: Extrusion Europe, Extrusion North America, Precision Tubing and Building Systems. The business units are responsible for their respective value chains, from casthouses, aluminium extrusion and value-adding operations to commercial activities such as product development and sales.

An integrated and vital part of the extrusion value chain is remelting and recycling, and Extrusions operates 20 recycling facilities in total in Europe, North America and South America. About 200,000 tonnes of post-consumer scrap are used in the recycling operations, and Extrusions is aiming to increase this amount in the years to come.

Cost and revenue drivers

The extrusion industry is a margin business and the LME Aluminium cost element is passed on to the customer. Contracts are typically short to medium term. Hydro Extrusions will continue to shift its portfolio toward higher-margin products.

Hydro Extrusions is working with customers across many industries to reduce their CO₂ footprint.

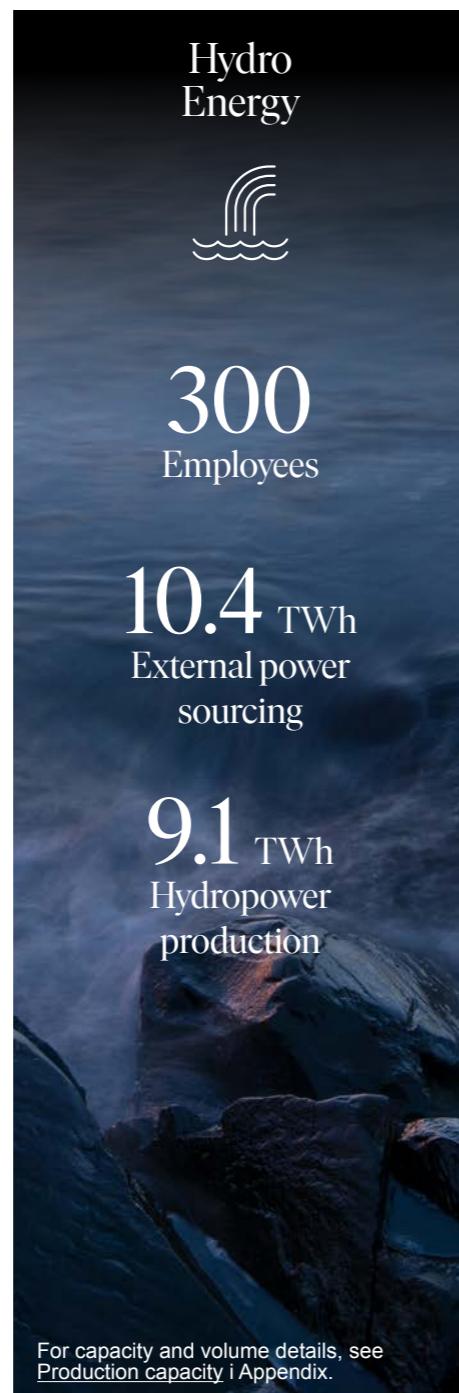


Presence

Contribution to improve sustainability performance

Hydro Extrusions is also working with customers across many industries to reduce their CO₂ footprint through its bespoke Hydro EcoDesign process, providing green certifications and Environmental Product Declarations and using low-carbon and recycled alloys. Examples include lighter transportation, better packaging to reduce cooling needs and food spoilage, and aluminium facades that lead to lower operating costs and enable buildings to generate as much energy as they use during operation.

Through initiatives to lower Hydro Extrusion's GHG emissions associated with energy and electricity consumption, some plants have entered into power purchase agreements with renewable power producers, while others are evaluating the possibilities of installing their own on-site renewable power generation. Read more about these initiatives in the [Climate Change](#) chapter.



Hydro Energy

Operations

Hydro Energy builds on more than a century of experience in power production, operations, trading and consumption. Energy is one of Norway's top three largest operators of hydropower and is a large power market player in the Nordics and Brazil. Energy provides Hydro and other industrial clients with affordable renewable power, sourced from our portfolio of hydro, solar, wind energy and green hydrogen.

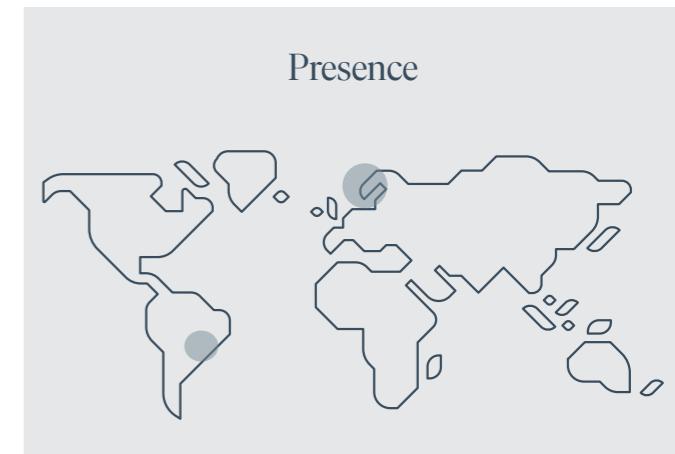
In Norway, Energy operates 39 hydropower plants, with combined installed capacity of 2.7 GW at the end of 2021. Adjusted for ownership shares, our captive production is 9.4 TWh in a normal year. Energy is an operator of 13.7 TWh renewable power production, in a normal year. In addition to the hydropower plants, Energy operates the Tonstad Windfarm (208 MW/0.7 TWh) in Norway, from which it purchases all volumes, balancing and optimizing production against its own hydropower production. Energy also purchases more than 9 TWh of renewable power annually in the Nordic market under long-term contracts.

As Hydro's energy competence center, Energy provides support to the company's business areas on large and complex industrial projects, power contracts, supply security and energy framework conditions.

Cost and revenue drivers

Production volumes and market prices are strongly influenced by hydrological conditions. Seasonal factors affect both supply and demand. Energy's cost base is relatively stable, although volatile spot volumes and prices may cause significant variations in quarterly revenues. Energy optimizes its power portfolio in the market and in cooperation with Hydro's aluminium plants.

Electricity prices are influenced by fuel costs (including emission-allowance costs), meteorological parameters and exchange transmission possibilities with adjoining markets, as well as by fluctuations in demand. An increase in intermittent generation from solar and wind power capacity has had a significant effect on price volatility in Europe's continental markets and influenced price developments in the Nordic market.



Contribution to improve sustainability performance

The overall carbon footprint of primary aluminium is highly dependent on the source of energy used to produce the metal. Hydro Energy helps Hydro and other industrial companies succeed with the green energy transition. The new energy ventures Hydro Rein, Hydro Havrand and Batteries play an important role in enabling a net-zero society. For example, switching from gas to hydrogen produced with renewable energy, would enable Hydro's downstream and primary aluminium sites to cut their CO₂ emissions by about 1.7 million tonnes, close to 15 percent of Hydro's baseline greenhouse gas emissions. You can read more about Hydro's energy production in the [Climate Change](#) chapter.

Hydro Energy helps Hydro and other industrial companies succeed with the green energy transition.

Regulations

Hydro is subject to a broad range of laws and regulations in the jurisdictions in which we operate. These laws and regulations impose stringent standards and requirements and potential liabilities relating to the construction and operation of our plants and facilities, air and water pollutant emissions, the storage, treatment and discharge of waste waters, the use and handling of hazardous or toxic materials, waste disposal practices, and the remediation of environmental contamination, among other things. Some of the laws and regulations deemed most material to Hydro's type of operations are elaborated below.

Bauxite & Alumina – regulation

Environmental Regulation

Hydro's operations in Brazil are subject to strict license and environmental regulations requirements.

Under Brazilian law, an environmental license is required for any activity that has the potential to pollute, which is often made subject to conditions to ensure regulatory compliance or to mitigate effects on the environment or local communities. Hydro's Brazilian operations hold several environmental licenses.

Particular regulations apply to our operations in the Mineracão Paragominas S.A. (Paragominas) mine, due to its location in the Amazônia region. The Brazilian Forest Code requires that 80 percent of a rural property with native forest in the Amazônia region must be preserved as an Environmental Legal Reserve, implying that a mine cannot be developed without a sustainable forest management plan. However, within states that have an Economic-Ecological Zoning, for the purpose of environmental restoration, the legal reserve requirement is set to 50 percent, applicable for our operations in Paragominas.

Greenhouse gas emissions

In 2020, Brazil reaffirmed the commitment to a 37 percent reduction in greenhouse gas emissions by 2025 and 43 percent by 2030 compared to 2005 levels, as first submitted as targets at the 2015 Climate Change Conference in Paris. An indicative long-term goal of climate neutrality (zero net emissions) by 2060 has also been established.

Mining regulation

Exploration of minerals requires an exploration license from the federal mining agency. The license grants an exclusive right to explore an area, subject to various requirements including compensation to the landowner and payment of an annual exploration fee to the National Mining Agency.

If the exploration identifies viable resources, a mining concession is granted, including an obligation to pay royalties to the government and landowners.

Aluminium regulations

Environment

Hydro's aluminium operations are subject to a broad range of environmental laws and regulations, both inside and outside the EU. These laws and regulations impose stringent environmental protection standards related to air emissions, water management, hazardous materials and waste management.

Greenhouse gas emissions

The aluminium industry is included in the EU Emissions Trading System (ETS). The aluminium industry is affected by the scheme directly and indirectly by the pass-through of CO₂ allowance costs by power producers into the power prices ("indirect effects").

Aluminium production is qualified as an industrial sector exposed to a significant risk of "carbon leakage" (i.e. risk of European operations losing market share to less carbon-efficient installations outside the EU). Aluminium producers therefore receive a higher percentage of free emission allowances compared to sectors not exposed to carbon leakage.

In July 2021, the Commission released a proposal for amendments of the ETS to make the scheme better aligned with Europe's new European Green Deal ambition with a total emission cut of 55 percent by 2030 compared to 1990 levels, up from 40 percent under present regulation. The final outcome of the proposal for amendments to the ETS regulation is expected to be finalized towards the end of 2023.

Trade and Tariffs

The international trade framework has a significant impact on Hydro's business through political developments (EU-US-China relations), the strategic agenda of key trading blocs (regional and bilateral free trade agreements, developments at the WTO, etc.), and technical instruments such as tariffs, anti-dumping duties and other trade measures.

The EU tariff rates on imports of alumina and primary and semi-finished aluminium products vary (from 3 to 7.5 percent), excluding aluminium metal produced in the EEA. Since 2020, the EU has in place anti-dumping duties on aluminium extrusions from China, currently in the range of 21.2-32.1 percent. The EU also has specific anti-dumping duties on certain aluminium products such as foil, wheels and radiators imported from China.

The US currently has a tariff of 10 percent on aluminium imports, excluding imports from Australia, Argentina, Canada and Mexico. In October 2021, the EU and the US agreed to pause an ongoing steel and aluminium trade dispute by replacing duties with a tariff-rate quota from January 1, 2022. This agreement covers imports from the EU to the US. Exports from Norway and Qatar will still be exposed to the tariffs unless a similar agreement is reached.

Energy regulations

Hydro's main production assets are hydropower-based and situated in Norway. The ownership and utilization of large Norwegian waterfalls for hydropower production is subject to various laws and regulatory requirements, including a requirement for concession from the Ministry of Petroleum and Energy. EU regulations of power markets as well as the EU Water Framework Directive are by and large implemented in Norwegian law.

Approximately one-third (3 TWh) of Hydro's normal annual production is subject to concession terms requiring Hydro to transfer ("revert") the production assets to the Norwegian state when the concession expires. The majority of concessions will expire around 2050. Reversion can be avoided if the power plants, or two-thirds or more of the shares of the entity that owns the power plants, are sold to a public entity prior to reversion.

Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices

Hydro is currently developing a portfolio of production assets within wind and solar power (Hydro Rein) and renewable hydrogen (Hydro Havrand) which are expected to build, own and operate assets in multiple jurisdictions.

Wind, solar and hydrogen are all subject to various regulatory matters, such as license requirements, grid access requirements, land and zoning regulations and HSE. The offshore wind and hydrogen industries are fairly new and regulations are currently under development in several jurisdictions.

EU taxonomy

The Taxonomy Regulation, in force from 2020, introduced an EU-wide classification system of environmentally sustainable activities for investment purposes. The regulation mandates certain companies to report on the extent to which their business activities are aligned with the taxonomy's definition of sustainable activities and sets disclosure requirements for financial institutions' investments.

Hydro's primary aluminium, recycling and hydropower activities are subject to the taxonomy under certain conditions. The delegated acts on the various climate-related objectives apply from January 1, 2022 (climate change mitigation and climate change adoption) and January 1, 2023 (the remaining objectives). Dependent on adoption by Norwegian legislation, Hydro's turnover derived from taxonomy qualifying activities as well as related capital expenditure and operational expenditure shall be reported as part of the non-financial statements from 2022. See [EU taxonomy](#) in appendices.

Market developments and outlook

The Covid-19 situation and its side effects continued to present a significant challenge to the global economy during 2021. While global economic activity rebounded relatively quickly in the first half of the year, supported by strong policy responses and low interest rates, significant uncertainty remains. Supply disruptions led to shortages and inflationary pressures on a range of key inputs, exerting downward pressure on growth rates in the second half of 2021.

Bauxite & Alumina

The World ex-China alumina market was oversupplied in 2021 with China absorbing the excess production as imports to balance the global market. Production increased during the year as new capacity started in Indonesia and India. Chinese alumina production growth was stable and demand growth for imported bauxite slowed.

The Platts alumina price index started the year at USD 305 per mt, ranging from USD 269 – 484 per mt during 2021. The price was relatively stable in the USD 270 – 300 per mt range for the first half of the year before increasing to its annual high of USD 484 per mt at the end of October, driven by higher Chinese alumina prices. Power supply shortages threatened to reduce alumina supply in Southern China and raw material prices increased significantly driving Chinese alumina prices to all-time highs. Prices decreased rapidly towards the end of the year as China's power supply shortages were alleviated. Unplanned production curtailments in Brazil and Jamaica also contributed to tighter global alumina markets.

The Platts alumina price index averaged USD 329 per mt for the year, a 21 percent increase compared to 2020. Prices as a percentage of LME varied, averaging 13.2 percent for the year compared with 15.7 percent in 2020. The price index at the end of 2021 represented 12.3 percent of the three-month LME.

China imported 3.3 million mt (3.1 million mt net of exports) of alumina in 2021 compared to net imports of 3.6 million mt in 2020. Australia accounted for 67 percent of imports followed by Vietnam and Indonesia with 13 percent and 12 percent, respectively.

China imported 107.4 million mt of bauxite in 2021, 4 percent lower than the previous year and the first annual decrease

since 2016. Imports from Guinea increased 4 percent from 2020 to 54.8 million mt, offset by decreases of 8 percent and 4 percent of imports from Australia (to 34.1 million mt) and Indonesia (to 17.8 million mt), respectively. These three countries accounted for 99 percent of China's bauxite imports, compared to 97 percent in 2020. In Guinea, bauxite mining and shipping operations were not impacted by a military coup in September.

The price of bauxite imported into China in 2021 increased to an annual average of USD 48 per mt CIF China compared to USD 45 per mt CIF China in 2020.

Primary Aluminium

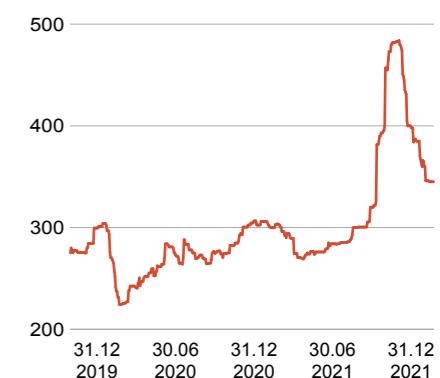
Global primary aluminium demand increased 9.2 percent in 2021 due to a strong global recovery supported by fiscal stimulus, with World ex. China experiencing a 14.2 percent demand increase. Global supply increased by 4.3 percent, resulting in a global deficit of around 1.2 million mt. Primary production growth in China increased 5.2 percent year-on-year in 2021 on high smelter profitability due to high aluminium prices but was limited by smelter closures in the second half of the year following power supply shortages. Demand in downstream segments increased throughout 2021 supported by strong end-user demand, especially in building and construction and packaging.

Three-month LME prices started the year around USD 1,980 per mt and ended the year at USD 2,808 per mt. Prices recovered throughout the year and reached their peak in mid-October at USD 3,149 per mt, fueled by a strong recovery and supply cuts across China as well as all-time high energy prices. After an initial correction to USD 2,533 in November prices increased again as rising gas and power prices in Europe resulted in the curtailment of several European smelters.

European and US standard ingot premiums started the year at USD 150 per mt and USD 323 per mt respectively. European standard ingot premiums improved throughout the year ending at USD 405 per mt as European smelters curtailed production. The US Midwest standard ingot premium peaked at USD 772 per mt in October but subsequently decreased in line with LME prices ending the year at USD 665 per mt.

Platts PAX development

USD/mt



LME price (3 month aluminium)

USD/mt



Global primary aluminium consumption increased by 9.2 percent to 68.7 million mt in 2021. Global supply increased by 4.3 percent to 67.5 million mt resulting in global deficit of around 1.2 million mt. For 2022, global primary aluminium demand is expected to increase by 2-3 percent and aluminium production is expected to increase by 1-2 percent, resulting in a global deficit in 2022.

Demand for primary aluminium outside China increased by around 14.2 percent in 2021, while corresponding production increased by 3.1 percent. Overall, production outside China exceeded demand by around 0.3 million mt in 2021. However, strong primary imports into China led to a substantial deficit outside China. Demand for primary aluminium outside China is expected to increase by around 4-5 percent in 2022. Corresponding production is expected to be up about 2-3 percent, leaving the world outside China in a balance in 2022. China is expected to continue importing primary metal in 2022, therefore the world outside China is expected to be in a deficit in 2022 after accounting for primary exports to China.

Demand for primary metal in China increased around 6.0 percent to 40.0 million mt in 2021. Chinese production increased by 5.2 percent in 2021, resulting in a large deficit for the year. Production growth was first supported by high prices but then restricted by insufficient power supply. Chinese primary production is expected to increase by 0-1 percent in 2022. Primary demand is estimated to increase by around 0-1 percent, resulting in a deficit in 2022.

LME stocks decreased in 2021 on the back of a global deficit market, from 1.31 million mt at the end of 2020 to 0.93 million mt at the end of 2021. Stocks decreased to a 15-year low of 0.88 million tonnes during December 2021. Total global inventories, including unreported inventories, are estimated to have decreased by 1.1 million mt in 2021. The total stock level is estimated to be around 9.7 million mt at the end of 2021.

The European demand for extrusion ingot, sheet ingot and wire rod increased in 2021 after declining in 2020. The consumption of primary foundry alloys was negatively affected by the ongoing shortage of semiconductors which lead to reduced demand in 2021 compared to 2020.

In Asia, the market continues its recovery path with robust demand in extrusion ingot. However, the recovery for primary foundry alloys stalled in second half 2021 due to the

continuing semiconductor and logistics supply disruption, and the alloy materials shortage that emerged in fourth quarter.

US consumption of extrusion ingot grew strongly in 2021 but was held back somewhat by labor and billet supply availability. Demand for primary foundry alloys, though higher than 2020, saw only modest growth as persistent semiconductor shortages restricted production of automobiles and light trucks.

Extruded Products

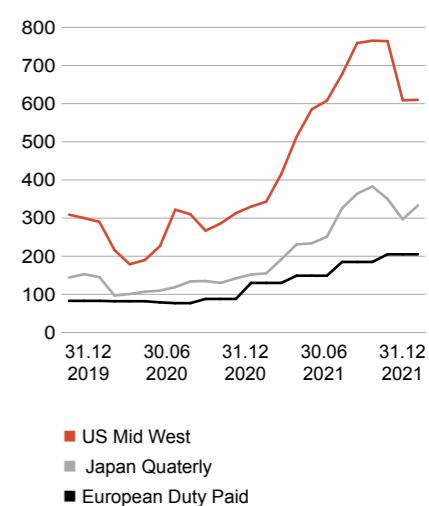
Demand for extrusions rebounded strongly in both Europe and North America throughout 2021 as economic activity picked up in both regions following the severe slowdown in 2020 amid Covid-19. The demand growth was particularly strong in transport and industrial segments such as electrical and machinery and equipment. The building and construction segment saw a more stable development throughout the year, supported by strong residential demand driven by refurbishing. However, the pandemic continued to influence the extrusion industry in 2021, particularly related to supply chain constraints. A predominant example was the lack of semiconductors in the transport sector which subdued automotive production and negatively impacted extrusion shipments in the second half of the year.

European demand is estimated to have increased by 12 percent compared to 2020. CRU estimates that European extrusion demand will increase by 3 percent in 2022 compared to 2021 but is dependent on improved automotive demand in the second half of 2022. North American demand is estimated to have increased 17 percent over compared to 2020. CRU estimates that North American extrusion demand will increase by 6 percent in 2022 compared to 2021.

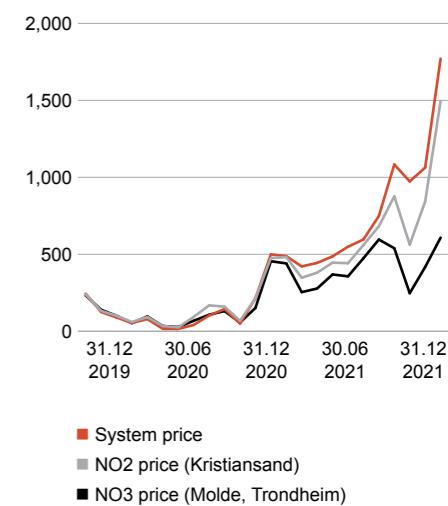
Energy market developments

Nordic electricity prices increased significantly during 2021, primarily due to weaker hydrology, a colder than normal winter season and lower than normal wind power production. High fuel prices affected continental power prices and resulted in stable export from the Nordic region, which gave further support to Nordic prices. Drier conditions and export capacity to the UK and the continent supported higher prices in southern Norway compared to the rest of the Nordic area. Significant price area differences in the Nordic region during the second half of the year have continued into early 2022.

Premiums
USD/mt



Energy spot price
NOK/MWh



Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices

Performance review

30

Key performance measures

31

Financial and ESG performance

34

Adjustments to EBIT

35

Hydro's key financial exposures

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Key performance measures

Key financial performance

NOK million	2021	2020
Revenue	149,654	114,291
Earnings before financial items, tax, depreciation and amortization (EBITDA) ¹⁾	26,050	18,390
Adjustments to EBITDA ¹⁾	1,959	(5,284)
Adjusted EBITDA¹⁾	28,010	13,106
<i>Hydro Bauxite & Alumina</i>	5,336	3,817
<i>Hydro Aluminium Metal</i>	13,500	3,593
<i>Hydro Metal Markets</i>	867	875
<i>Hydro Extrusions</i>	5,695	4,348
<i>Hydro Energy</i>	3,790	1,245
<i>Other and eliminations</i>	(1,178)	(771)
Adjusted EBITDA¹⁾	28,010	13,106
Earnings before financial items and tax (EBIT) ²⁾	17,887	9,356
Adjusted EBIT¹⁾	20,786	6,040
Net income (loss) from continuing operations	13,930	3,886
Adjusted net income (loss) from continuing operations¹⁾	14,905	2,848
Net income (loss) from discontinued operations	12	(2,226)
Earnings per share from continuing operations	5.92	1.99
Adjusted earnings per share from continuing operations¹⁾	6.77	1.32
Financial data		
Investments ^{1) 2)}	8,589	13,324
Net cash (debt) ¹⁾	3,213	(7,795)
Adjusted net cash (debt) ¹⁾	(7,019)	(23,297)
Adjusted Return on average Capital Employed (RoaCE) ¹⁾	18.6%	3.7%
Key operational information		
Bauxite production (kmt) ³⁾	10,926	8,640
Alumina production (kmt)	6,305	5,457
Realized alumina price (USD/mt) ⁴⁾	313	268
Primary aluminium production (kmt)	2,244	2,091
Realized aluminium price LME (USD/mt)	2,317	1,685
Realized USD/NOK exchange rate	8.55	9.42
Extrusions sales volumes to external market (kmt)	1,296	1,099
Power production (GWh)	9,055	11,522

Social and environmental performance

	2021	2020
Environmental performance		
Direct GHG emissions (Million tonnes CO2e) ⁵⁾	7.61	6.93
Indirect GHG emissions (Million tonnes CO2e) ⁶⁾	1.29	1.16
Alumina refining (mt CO2e per mt alumina)	0.61	0.65
Electrolysis in Aluminium Metal (mt CO2e per mt aluminium)	1.61	1.60
Recycled post-consumer scrap (Thousand mt) ⁷⁾	335	104
Bauxite residue (red mud) (Thousand mt)	5,384	4,827
Accumulated area disturbed (Hectares)	7,017	6,607
Accumulated area rehabilitated (Hectares)	1,697	1,455
Social performance		
Number of permanent employees	31,264	34,240
Share of women ⁸⁾	20%	18%
Women in top 50 management	36%	29%
Total recordable injuries (per million working hour)	3.3	2.7
Number of fatal accidents	0	0
High risk incidents	122	140
Training in business ethics (number of training modules completed)	25,709	34,330

¹⁾ Alternative performance measures (APMs) are described in the appendices to the Board of Directors' report.

²⁾ EBITDA and investments per segment are specified in Note 1.4 Operating and geographic segment information in the financial statements.

³⁾ Paragominas production, on wet basis.

⁴⁾ Weighted average of own production and third-party contracts. The majority of the alumina is sold linked to either the LME prices or alumina index with one-month delay.

⁵⁾ From consolidated operations equal to Scope 1.

⁶⁾ From consolidated operations equal to Scope 2.

⁷⁾ 2021 is the first year we have included Hydro Extrusions recycling data, making previous years' data not directly comparable.

⁸⁾ As percentage of permanent employees.

Financial and ESG performance

Financial performance

Adjusted EBITDA

Adjusted EBITDA for the full year 2021 increased compared to 2020. Higher all-in metal and alumina prices, improved volumes upstream, improved margins and volumes in Hydro Extrusions, and record high annual results from Hydro Energy, contributed positively to adjusted EBITDA. These positive elements were partly offset by higher raw material and fixed costs and negative currency effects.

Net income

Net income from continuing operations amounted to NOK 13,930 million compared to NOK 3,886 million. In addition to the factors described above, Net income from continuing operations included a net foreign exchange gain of NOK 1,404 million, a NOK 3,083 million unrealized gain on power and raw material contracts and a NOK 5,088 million unrealized loss on LME related contracts.

Divestments

On March 5, 2021, Hydro entered into an agreement to sell its Hydro Rolling business to KPS Capital Partners, and the sale was completed on June 1, 2021. The total enterprise value for Hydro Rolling, including the Bonn property sold to Cube

Real Estate, was EUR 1,407 million. The sale strengthens Hydro's ability to deliver on its strategic direction. See [Note 1.5 Significant subsidiaries and changes](#) to the financial statements for further information.

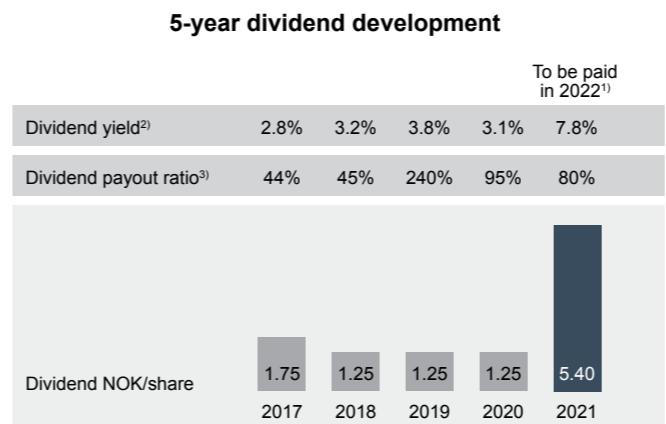
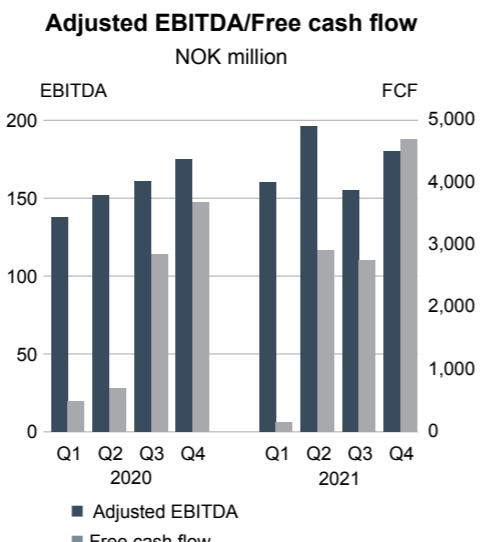
Return on average capital employed (RoaCE)

In 2021, Hydro achieved an adjusted return on average capital employed of 18.6 percent, significantly higher than the 3.7 percent achieved in 2020, and above the ambition to deliver 10 percent over the cycle. The main driver behind the high returns was the strong aluminium demand and pricing environment, following strong macroeconomic conditions due to the Covid-19 rebound. Aluminium Metal achieved the highest returns of the business areas at 28.3 percent. The other four business areas also achieved returns at or above the target level during 2021. Energy RoaCE more than doubled from 2020 to 2021, mainly driven by portfolio changes and expiry of legacy contracts.

Cash effective change in net operating capital¹⁾

Cash effective change in net operating capital from continuing operations amounted to NOK (8.6) billion during 2021,

¹⁾ For further details, see the [Alternative Performance Measures \(APM\)](#).



¹⁾ Pending approval from the AGM on May 10, 2022.

²⁾ Based on share price at year end.

³⁾ Average dividend per share divided by average adjusted earnings per share from continuing operations.

Adjusted Return on average Capital Employed (RoaCE)

	2021	2020
Hydro	18.6%	3.7%
Bauxite & Alumina	12.0%	5.9%
Aluminium Metal	28.3%	2.9%
Metal Markets	23.9%	21.6%
Extrusions	10.3%	6.2%
Energy	25.4%	8.7%

compared to NOK 1.6 billion during 2020, mainly driven by the increasing aluminium prices and strong customer demand seen during the year.

Capex¹⁾

Total capex in 2021 ended up at NOK 6.9 billion. Projects prioritized in 2021 include critical maintenance activities needed to safeguard Hydro's production assets in every business area. Examples also include smelter relining in Aluminium Metal, bauxite pipeline section replacement in Paragominas, power plant rehabilitation and upgrades in Energy, various upgrades of presses in Extrusions and recyclers in Metal Markets. Growth and return-seeking capex was mainly related to restart of Husnes line B in Aluminium Metal, customer-driven investments in Extrusions, and investments in Hydro Rein and Batteries in Energy.

Free cash flow¹⁾

Free cash flow from continuing operations ended up at NOK 10.5 billion in 2021, up from NOK 7.7 billion in 2020. Cash generation was supported by the high aluminium prices and strong customer demand through the year, partly offset by capex and negative cash effective change in net operating capital. Free cash flow excludes the impact from the Rolling business area, which is reported as net cash provided by discontinued operations.

Dividend

Hydro's Board of Directors proposed an annual dividend of NOK 5.4 per share for 2021. This represents an average five-year payout ratio of 71 percent of net income from continuing



operations attributable to equity holders, including proposed dividend, and a dividend yield of 7.8 percent at the end of 2021.

Net cash (debt)¹⁾

Hydro's net cash was NOK 3.2 billion at the end of 2021, compared to a net debt of NOK 7.8 billion at the end of 2020. The strong development was impacted by positive free cash flow and the sale of the Rolling business area, partly offset by dividend payments as well as currency and lease effects.

Adjusted net cash (debt)¹⁾

Hydro's adjusted net cash (debt) was NOK (7.0) billion at the end of 2021, an improvement from NOK (23.3) billion at the end of 2020. The positive development was driven by the change in net cash (debt) as well as lower pension obligations following the divestment of the Rolling business area, partly offset by increasing cash collateral.

Adjusted net (cash) debt to adjusted EBITDA ratio²⁾

Hydro's adjusted net (cash) debt to adjusted EBITDA was 0.4, well below the targeted maximum ratio of 2.0 over the cycle.

Liquidity

Hydro held NOK 22.9 billion in cash and cash equivalents, NOK 1.0 billion in time deposits and NOK 1.4 billion in money market funds, included in short-term investments, at the end of the year. Short-term bank deposits and money market funds are normally available at short notice. Norsk Hydro ASA has a USD 1.6 billion revolving multi-currency credit facility with a syndicate of international banks, maturing in December 2026. The facility was undrawn per year-end 2021. Overdraft facilities and liquidity lines also provide access to additional short-term liquidity.

Improvement program

By the end of 2021 Hydro realized NOK 6.3 billion in improvements, exceeding the original target of NOK 5.1 billion for the year. This represents ~75 percent of the total NOK 8.5 billion target by 2025, in line with the frontloaded profile of the program. Higher than expected fixed cost savings and restructuring gains in Extrusions combined with the Extrusions Business System (EBS) launched earlier in the year are the main reason for the over-performance.

Bauxite & Alumina reached full nameplate production capacity at Alunorte in 2021, thereby achieving the volume component of their improvement agenda. Aluminium Metal with their cost and efficiency agenda are a large contributor to the overall achievement, although running somewhat behind their plan as a result of operational challenges at Albras following a period of production curtailments. Hydro's target for 2022 is to achieve NOK 7 billion in accumulated improvements.

Commercial ambition

Hydro realized NOK 1.5 billion in commercial initiatives by the end of 2021 out of the total NOK 2.5 billion ambition by 2025. The majority of these came from Extrusions reflecting regained market shares post the cyber-attack in 2019 and a faster than expected market and margin recovery following weak demand in the midst of the global covid pandemic in 2020. Bauxite & Alumina achieved higher premiums on their alumina sales compared to their performance benchmark. Finally, Aluminium Metal has also contributed positively with increasing greener product sales as well as new launch of new products, such as HyForge. In total, 286 kt of CIRCAL and REDUXA were sold externally in 2021, which is around three times more than in 2020.

Moody's

Baa3

S&P

BBB

Exceeding target

Hydro realized

6.3
NOK billion

In improvements thereby exceeding its NOK 5.1 billion target for 2021

Average Adjusted net cash (debt)/
Adjusted EBITDA

0.4

¹⁾ For further details, see [Note 7.1 Capital management](#).

²⁾ For further details, see the [Alternative Performance Measures \(APM\)](#).

Environmental performance¹⁾

GHG emissions from consolidated operations (million mt CO2e)

Hydro's direct greenhouse gas emissions increased by around 10 percent while indirect emissions increased by almost 12 percent. The increase was mainly driven by increased Alumina and Primary Aluminium production volumes for 2021 compared with 2020.

Emissions per ton of alumina produced remained stable. Production at Alunorte reached nameplate capacity during 2021, increasing by around 15 percent from 2020.

Emission per ton of primary aluminium produced remained stable. Primary aluminium production volumes increased by around 7 percent mainly due to the restart of aluminium production at line B at the Husnes primary plant in Norway

Recycling

Aluminium Metal increased the utilization of post-consumer scrap by approximately 35 percent during 2021. The increase was mainly driven by Covid-19 related production curtailments in 2020 and the increase in post-consumer scrap usage in Azuqueca after investment in increased production.

Total recycled metal production increased around 10 percent in 2021 from 2020.

Bauxite residue (red mud)

Bauxite residue increased by around 10 percent in line with increased alumina production volumes.

Biodiversity

In 2021, 427 hectares of land were cleared, and 389 hectares mined. In total Hydro has disturbed around 7,000 hectares of land for our mining operation in Paragominas.

The accumulated area under rehabilitation was 2,646 hectares, adding approximately 160 hectares of land rehabilitated in 2021. Furthermore, we succeeded in our 1:1 rehabilitation of available mined areas within two hydrological seasons.

Social performance

Employees

The divestment of Hydro's Rolling business on June 1, 2021 resulted in a reduction of 5,000 employees, of which 650 employees were in Norway and the remaining mainly in Germany.

Hydro Extrusions grew by more than 1,000 employees during the year.

The share of women increased from 18 to 20 percent. The share of women in the top three organizational levels increased from 32 to 36 percent at the end of 2021.

Health and safety

The number of total recordable injuries rates deteriorated from 2.7 in 2020 to 3.3 in 2021. The majority of injuries were relatively minor, with no life-threatening nor life-changing injuries reported during the year.

The deployment of fatality prevention procedures and associated life-saving rules and behaviors continued in 2021, which contributed to a continued reduction in the number and rates of high-risk incidents with the potential to be fatal or life changing. There were no fatalities in our operations in 2021

Compliance

In 2021, training was provided e.g. on the topics of anti-corruption, Hydro's Code of Conduct, competition law, data privacy, trade sanctions and market regulations. Hydro employees completed around 26,000 compliance awareness and training modules.

See the section on [Environmental and social responsibility](#) and associated statements for further details on the metrics below

Zero fatalities	TRI
0	3.3

2020 (0) 2020 (2.7)

Direct GHG emissions*	7.74
Indirect GHG emissions*	3.57

Share of women employees	20%
	2020 (18%)

* From Hydro's ownership equity (Million tonnes CO2e)

¹⁾ Includes all consolidated operational units (defined as Hydro's ownership share exceeding 50 percent).

Adjustments to EBIT

Reported EBIT and net income

In addition to the factors discussed above, reported earnings before financial items and tax (EBIT) and net income include effects that are disclosed in the table below. Adjusting items to EBIT and adjusted net income (loss) are defined and described as part of the Alternative Performance Measures in the Appendices to the Annual report.

Items excluded from adjusted EBIT and net income¹⁾

NOK million	2021	2020
Unrealized derivative effects on LME related contracts	5,088	(336)
Unrealized derivative effects on power and raw material contracts	(3,083)	171
Significant rationalization charges and closure costs ²⁾	377	187
Community contributions Brazil ³⁾	217	129
Transaction related effects ⁴⁾	(304)	(5,407)
Net foreign exchange (gain)/loss ⁵⁾	(79)	-
Other effects ⁶⁾	(257)	(30)
Adjusting items to EBITDA	1,959	(5,284)
Impairment charges ⁷⁾	426	1,968
Depreciation ⁸⁾	513	-
Adjusting items to EBIT	2,899	(3,316)
Net foreign exchange (gain)/loss	(1,404)	3,800
Other finance (income) expense	-	(128)
Calculated income tax effect	(520)	(1,393)
Adjusting items to net income	976	(1,038)
Income (loss) tax rate	24%	19%
Adjusted income (loss) tax rate	25%	45%

¹⁾ Negative figures indicate reversal of a gain and positive figures indicate reversal of a loss.

²⁾ Significant rationalization and closure costs include a provision for costs related to reduction of overcapacity, closures and environmental clean-up activities in Hydro Aluminium Metal and Hydro Extrusions.

³⁾ Community agreements includes provisions for the TAC and TC agreements with the Government of Parà and Ministério Pùblico made in September 2018, including later adjustments for changes in cost estimates, and similar agreement.

⁴⁾ Transaction related effect includes gains(losses) of divestments as described in the Alternative Performance Measures section in the appendices.

⁵⁾ Realized currency gains and losses from risk management contracts and embedded currency derivatives in physical power and raw material prices.

⁶⁾ Other effects include adjustments as described in the Alternative Performance Measures section in the appendices.

⁷⁾ Impairment charges for 2021 include Slovalco smelter and various assets in Hydro Extrusions.

⁸⁾ Excess depreciation related to the anode producer Aluchemie which closed in 2021.

Hydro's key financial exposures

Hydro's operating results are primarily affected by price developments of our main products, raw materials, margin developments and fluctuations in the most significant currencies for Hydro, which are USD, NOK, EUR and BRL.

Hydro enters into derivative forward sale contracts both on the LME and with banks to secure prices on parts of the planned aluminium production as part of securing a margin level for periods up to about three years when considered beneficial. To mitigate the impact of exchange rate fluctuations, long-term debt is mainly maintained in currencies reflecting underlying exposures and cash generation.

The table shows sensitivities regarding aluminium prices and foreign currency fluctuations for 2022. The table illustrates the sensitivity of adjusted earnings, before tax, interest and depreciation to changes in these factors and is provided to supplement the sensitivity analysis required by IFRS, included in [Note 8.2 Financial instruments](#) to the financial statements. These sensitivities are on an adjusted basis, and do not consider revaluation effects of derivative instruments, which may influence earnings. The sensitivities include the impact from financial risk management contracts per December 31, 2021.

Legal proceedings

The Group is engaged in a large number of legal proceedings and disputes around the world. As of the date of this Annual Report, based on the Company's current assessment, neither the Company nor any other company in the Group are, nor have during the course of the last 12 months, been involved in any governmental, legal or arbitration proceedings, which may have, or have had in the recent past significant effects on the Company and/or the Group's financial position or profitability.

Sensitivities with 100% production

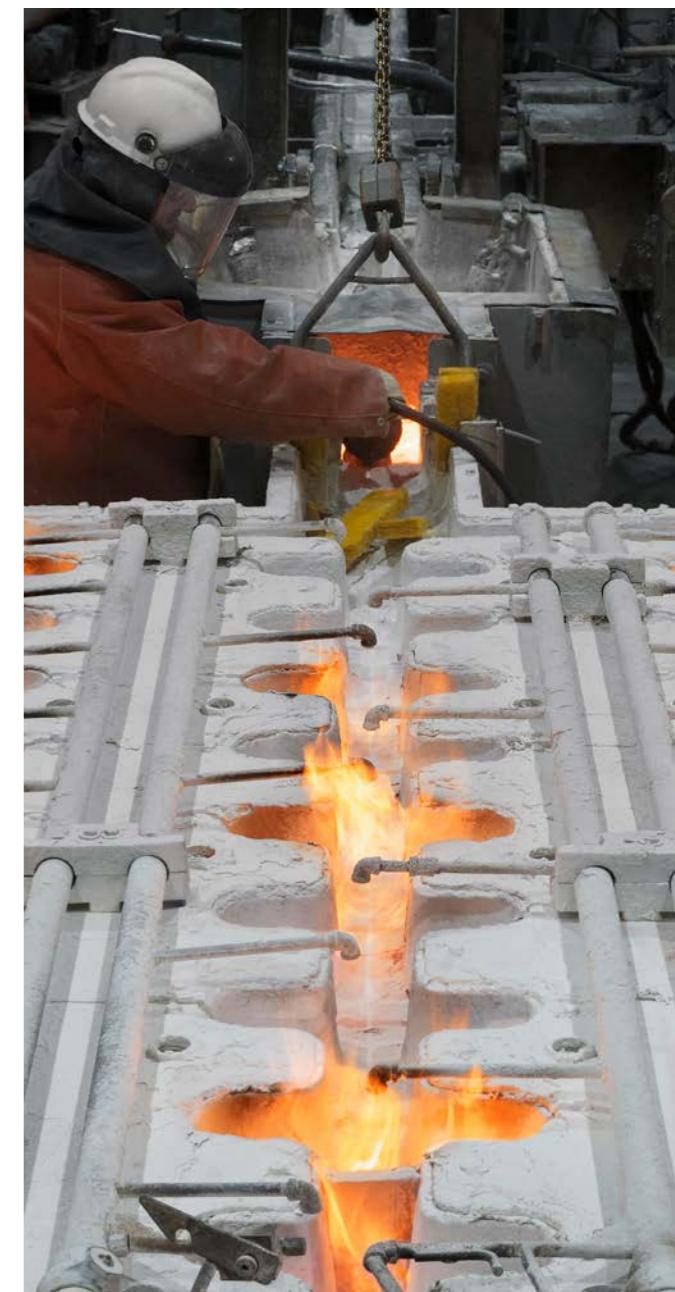
Commodity price sensitivity +10%

NOK million	Adj. EBITDA
Hydro Group Aluminium	3,730

Currency sensitivities +10%

NOK million	USD	BRL	EUR
Sustainable effect Adj. EBITDA	4,260	(520)	(240)
One-off reevaluation effect Financial items	(270)	640	(4,360)

Annual sensitivities based on normal annual production volumes and reflecting strategic hedge positions. LME USD 2,704 per mt, USD/NOK 8.63, BRL/NOK 1.56, EUR/NOK 9.97.



Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices

Governance

37

Risk review

48

The Hydro share

51

Reporting ESG – the Hydro way

53

Corporate governance

64

Norwegian Code of Practice for Corporate Governance

70

Integrity and compliance



Risk review

Enterprise risk management in Hydro

Risk management is an integral part of all our business activities and decisions.

The Board of Directors (BoD) sets expectations, oversees Hydro's risk management framework and monitors key risks through biannual updates which serve as an important foundation for the strategy and business planning processes. In addition, specific areas will be subject to more frequent updates. Progress on risk mitigation is reflected in the remuneration schemes of the Chief Executive Officer (CEO) and Corporate Management Board (CMB). The Board Audit Committee supports the BoD's supervisory role, primarily with respect to strategic and financial reporting risks. The CMB is responsible for Hydro's risk management framework at group level and assists the CEO in its execution.

Risk management is an integral part of all our business activities and decisions.

The further attribution of risk management roles in Hydro is supported by the development of a three lines of defense (3LoD) governance model.

The first line of defense resides with managers at all levels in business areas and corporate functions. They have the responsibility for and ownership of incident and HSE risks. Business areas and corporate functions ensure that risks within their respective areas of accountability are identified, assessed, adequately mitigated, documented and regularly updated.

The second line comprises governance owners and subject matter experts in different risk areas. They develop policies and procedures for managing risk and coordinate an annual risk assessment with a biannual status update. More broadly,

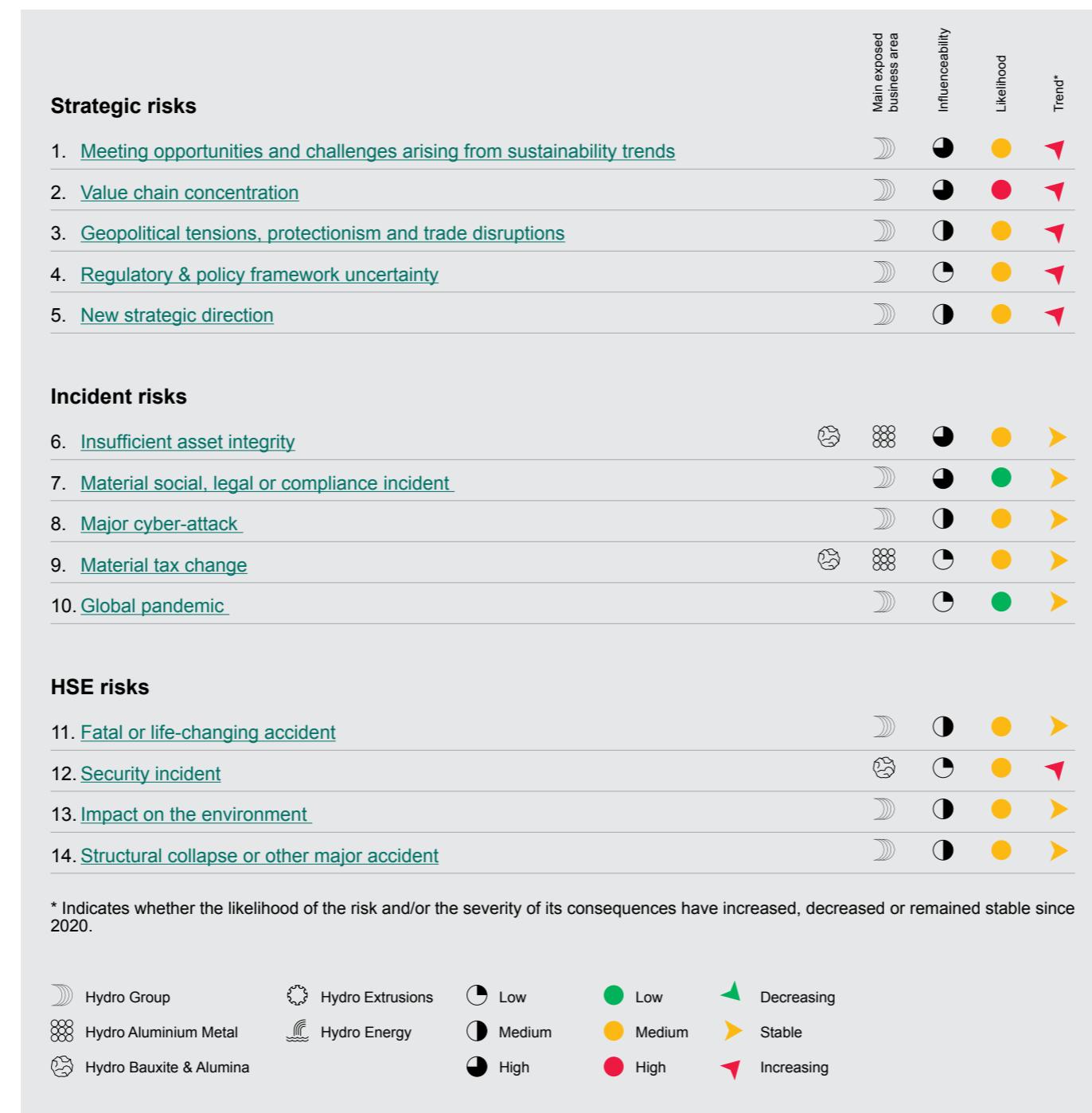
they support, challenge and monitor the first line of defense. The third line comprises Group Internal Audit & Investigation. This department independently evaluates whether Hydro's risk management, control and governance processes, as designed and represented by management, are adequate and contribute to the achievement of the organization's objective.

Through the 3LoD model, major risks are analyzed and managed according to Hydro's risk appetite through the annual strategy process, with a status update provided in the business planning process, while mitigating actions progress on an ongoing basis.

An overview of Hydro's key risks, including developments during the last 12 months and related mitigating actions, is included below. Overall, we have seen an evolution of the company's risk profile rather than a material change, with emphasis on the challenges of protectionism, regionalization and the company's new strategic direction. Despite Hydro's best efforts, our risk-mitigating initiatives may fail or prove to be inadequate to mitigate all risks. As our risks increase, decrease and change, and as new risks emerge over time, the information contained in this section should be carefully considered by investors.

Risk process





Hydro's risk categories

Strategic risks

Strategic risks are emerging challenges to the achievement of Hydro's strategic objectives. They could have a significant upside and are characterized by their large scale and potential long-term impact on sustainability and profitability. They are generally influenced by structural shifts in the external business environment.

Incident risks

Incident risks are mainly operational or influenced by operational processes. They will often, but not always, materialize suddenly and with immediate impact. Short-term mitigation is typically within Hydro's control. Hydro's main incident risks could impact several parts of the value chain with a broad range of consequences.

HSE risks

HSE risks relate to health, safety, security and/or environmental events. They are often operational or influenced by operational processes. Hydro's main HSE risks could influence multiple parts of the business. In addition to their HSE-related consequences, these risks may also result in major legal, social, reputational and financial impacts.

Strategic risks

1. Meeting opportunities and challenges arising from sustainability trends



Description

The expectations from internal and external stakeholders continue to evolve with regard to our sustainability performance. While our CO₂ footprint is among the lowest of aluminium producers, the production process remains energy and carbon-intensive. In addition, key stakeholders are increasingly looking beyond carbon and focusing on the overall sustainability footprint, including environmental and social factors.

Developments

Global awareness and attention toward sustainability continues to trend upwards. To a large degree, this is positive for Hydro compared to peers. In addition to current climate change targets, the focus on biodiversity and social aspects is expected to increase as decarbonization roadmaps become more mature. Customers' expectations reflect this across all aspects of sustainability and along the entire value chain.

Regulations are tightening, especially in Europe. Investments in research and development toward greener solutions are growing, which increases the drive to deliver sustainable materials. In general, all geographies, industries and companies are expected to come under increased scrutiny.

Consequences

A failure to deliver on expectations could negatively impact our license to operate, damage our reputation and increase the risk of substitution away from aluminium.

Mitigation

In 2020, Hydro established a new strategic direction, building on our profitability and sustainability agenda, with an aim to strengthen our position in low-carbon aluminum and grow within renewable energy. Hydro is committed to reduce its GHG emissions by 30 percent by 2030, with projects to reduce CO₂ emissions in the value chain such as a fuel switch to LNG and the electrification of boilers at Alunorte, while research on the use of hydrogen in the casthouses is being developed. A longer-term technology roadmap to decarbonize main processes such as primary smelting and recycling has been developed, with an ambition to become carbon neutral by 2050.

Alongside decarbonization, progress is made across key sustainability areas including stronger community relationships and the focus on environmental impacts such as biodiversity, waste and water in Brazil. Initiatives to improve our social and environmental impact are monitored, communicated and reported on a regular basis. Within primary aluminium production, Hydro is working on various methods to reduce direct emissions, while also targeting increased use of post-consumer scrap, thereby reducing total energy usage and metal waste.

In 2021, both Hydro's long-term sustainability ambitions and short-term targets have been updated based on technological and commercial developments, reinforcing Hydro's industry position.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

2. Value chain concentration

Description

We receive almost all our alumina from Hydro-owned operations in Brazil, whereby the bauxite mine at Paragominas supplies the majority of raw materials to the Alunorte alumina refinery through a pipeline.

Over the last few years, we experienced several challenges to the stability of our operations in Brazil due to a combination of factors involving physical climate incidents, asset integrity and a complex political and social environment. In response, we have made significant efforts to enhance the robustness of our operations in the region.

Consequences

Hydro's integrated aluminium production chain poses risks related to value chain concentration, where disruptions in the bauxite and alumina production located in one region in Brazil could negatively impact metal production in other parts of the company.

Developments

The Bauxite & Alumina assets operated at nameplate capacity throughout 2021, while the political and regulatory environment in Brazil has been relatively stable despite challenges relating to the Covid-19 pandemic.

Mitigation

In Brazil, actions have been taken to improve asset integrity, strengthen community relationships and reduce our long-term environmental impact. Systematic Corporate Social Responsibility efforts are ongoing, including the Sustainable Barcarena initiative and commitments stemming from the agreement with the Government of Pará and Ministério Público. Both in Brazil and globally, Hydro is engaged in a systematic dialogue with political, governmental, non-governmental and local communities regarding the social and regulatory challenges facing our operations and the communities in which we operate.

The physical adaption of assets and supply chain robustness are important mitigating factors against the risk posed by climate change related incidents, such as flooding, landslides, droughts, and the implications these may have on the local environment, and to our ability to continue safe operations and access to raw materials and markets.

Commercial activities within alumina and other raw materials provide access to key markets and other sources as a tool in managing supply disruption risk.



3. Geopolitical tensions, protectionism and trade disruptions

Description

Protectionism is the process by which countries impose barriers to free trade with the intention of protecting national interests. This reduces the free flow of goods and services, raising costs and reducing quality. Geopolitical tensions are often the underlying cause of such actions.

Trade and supply chain disruptions can impact the access to and cost of raw materials.

Consequences

Protectionism can harm trade and activity, as reversed trade integration can lower economic growth. Higher import duties and the introduction of other trade barriers increase costs, impact both the quantity and price of internationally traded goods and can further affect financial flows and credit conditions.

Developments

In March 2021, the European Union (EU) imposed anti-dumping duties on certain extrusions from China for a period of five years. The UK has also opened an anti-dumping investigation on certain Chinese extrusions, with a decision expected in 2022. The US and EU reached a temporary agreement regarding US Section 232 tariffs and EU retaliatory measures, resulting in suspension of WTO cases against each other.

Supply chain disruptions are impacting the supply of certain raw materials to our operations as well our customers' ability to receive goods for which they are dependent to run their operations. This has been further exacerbated by shipping constraints.

Mitigation

In general, Hydro is well positioned to handle challenges arising from protectionism and regionalization. The majority of our network of aluminium metal plants is located within large well-established markets, and our downstream operations have strong local presence in both Europe and North America. Hydro also actively participates in organizations aiming to promote and foster fair trade, such as European Aluminium and the U.S. Aluminum Association.

The supply chain risk is managed through a combination of physical inventory build-ups for key raw materials, selective hedging, long-term agreements with approved suppliers and commercial activities in the marketplace.



4. Regulatory & policy framework uncertainty

Description

The aluminium industry is subject to multiple local and global regulatory frameworks, including mining regulations, tariffs, labor laws and power industry regulations. Hydro thrives under competitive and predictive framework conditions.

Climate-related regulations in the EU such as the implementation of national and regional CO₂ taxes are at the forefront of the current uncertainty, with the US also increasing its focus.

Consequences

The sustainability driven developments in regulatory frameworks largely represent an opportunity for Hydro. There might however be unintended consequences arising from the complexity and uneven impact of legislation, potentially impacting aluminium's competitiveness versus other materials, the economic viability of our operations and/or our ability to conduct business in certain markets.

Developments

The growing pressure to meet climate goals is driving the pace of new regulations and their increased scope regarding all aspects of sustainability.

In July 2021, The European Commission published its "Fit for 55" climate legislative package, which includes extensive policies aimed at meeting tougher emissions targets. Among these, the carbon border adjustment mechanism and concurrent changes to existing carbon leakage legislation have the most consequences for the aluminium industry. The US is also considering the introduction of a similar mechanism.

The requirements for the first phase of the EU's common classification system for sustainable activities, EU Taxonomy, were formally adopted in June 2021 with the ultimate aim of strengthening capital flows toward sustainable activities. The first phase covers climate change mitigation and adaptation.

Mitigation

Hydro continues to actively engage with regulators and industry associations, where appropriate, to ensure that aluminium's position is taken into consideration. Hydro has been involved in the development of international frameworks on climate change and greenhouse gas emissions, supporting the establishment of a level playing field for the industry.

For power industry regulations, Hydro engages in various activities to support and promote sustainable energy policies in the regions in which we operate, in addition to securing competitive energy supplies for our own operations.



5. New strategic direction

Description

Hydro is exposed to disruptive technological developments by our direct competitors or by other competing materials and industries. Materials produced with technologies giving lower sustainability footprints could have a significant advantage and could challenge aluminium in key application areas.

Consequences

Successful industrialization of competing metals with lower sustainability footprints could increase the risk of substitution and potentially lower demand for aluminium.

Successful commercialization of breakthrough technological developments such as inert anodes would impact Hydro's comparative advantage as an aluminium producer with one of the lowest CO₂ footprints.

Our new business ventures into growth markets such as hydrogen, batteries, and solar energy expose Hydro to the increased risks associated with immature technologies, such as sudden breakthroughs rendering existing investments obsolete.

Developments

The increasing focus on sustainability is part of a long-term trend and expected to increase going forward. Many other industries and competing materials are researching CO₂-free production methods, including the production of steel using hydrogen.

Within the aluminium industry, several research initiatives are looking into inert anode technology to reduce direct process emissions.

Mitigation

Hydro views technology as a key enabler in delivering on the dual profitability and sustainability strategy. We conduct R&D in-house, and we participate in joint partnerships and projects with other leading industrial companies, universities, and research institutions. We also follow external developments closely.

We have identified a number of technology-based roadmaps to producing aluminium with near-zero to zero footprint, including recycling of post-consumer scrap, carbon capture, and CO₂-free primary production through a chloride-based process.

Within renewable energy, the technology risk is mitigated through selective partnerships and by taking limited positions to gain experience while limiting the downside.



Incident risks

6. Insufficient asset integrity

Description

Hydro is exposed to a range of risks and hazards that could result in disruptions to operations across our business areas through critical equipment breakdowns and power failures.

Consequences

Operational disruptions might reduce or interrupt production at key plants for significant periods of time, materially affecting our financial results and cash flows.

Some operations are located close to sizable communities where operational events could also result in significant and potentially lasting impacts on the environment as well as the health and safety of employees, contractors and nearby communities. Hydro might also be subject to claims, fines and further damage to our profitability or reputation.

Developments

The risk of a major operational incident in Hydro Bauxite & Alumina remains a subject of ongoing focus. There was no significant disruption in Bauxite & Alumina or any other business areas over the course of 2021, and the long-term risk will only lessen with the gradual implementation of our project pipeline to upgrade equipment across sites.

In Brazil, Alunorte and Vila Do Conde have been certified according to the ISO 55001 Asset Management standard while the certification of Paragominas is still in progress. A new short-term agreement valid through June 2022 has been signed with the Brazilian port authorities while negotiations for the concession of port operations are ongoing.

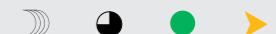
Mitigation

The replacement of the Paragominas bauxite pipeline continues to progress according to plan with 42 kilometers completed in 2021, while a similar scope of work is scheduled for 2022. A back-up power line is also being built for Paragominas and the pipeline. Meanwhile, the reliability of the pipeline is further secured through emergency diesel generators.

We have completed major improvements to Alunorte's water management systems, including new basins and water treatment facility upgrades, enhanced pumping systems and water pipes, instruments for automation and control and cameras for basin monitoring. Hydrological studies were also carried out in 2021.

Hydro Aluminium Metal made good progress on projects to replace or update critical equipment such as rectifiers, control pot systems and baking furnaces.

We perform regular inspections and maintenance activities, conduct comprehensive emergency-preparedness training with key personnel and maintain a range of business continuity plans across sites to best prevent and mitigate operational disruptions. Our resilience against power outages is ensured, where appropriate, by automated substations, power generating facilities and back-up facilities.



7. Material social, legal or compliance incident

Description

While Hydro has a strong commitment to act in compliance with applicable laws and regulations, we could be negatively affected by criminal or civil proceedings or investigations related, but not limited to, alleged anti-competitive or corrupt practices, product quality, environment, health and safety, data privacy, market regulation or trade sanctions. We could also be exposed to allegations or perceived failures to act in an ethical or socially responsible manner, particularly related to human rights breaches.

Consequences

Potential consequences range from fines or penalties, contractual, litigation and reputational risk, withdrawal of licenses, and suspension or operational shutdowns.

Developments

Hydro's exposure to social, legal and compliance risks are considered relatively stable. New business units within renewable energy, batteries and hydrogen require specific focus, while the divestment of the rolling business slightly reduced the overall risk footprint. Risks arising from regulatory developments within the various compliance areas are mitigated by continuous improvements of Hydro's compliance structures and processes.

One legal case involving a US subsidiary is in progress. There is a pending criminal investigation involving alleged violations of the Clean Air Act by Hydro's casthouse in The Dalles, Oregon. In 2021, The Dalles site resolved civil matters involving air and water environmental compliance requirements. In addition, Hydro Extrusion USA, LLC remains under a deferred prosecution agreement, the term of which is scheduled to end in April 2022.

Mitigation

Hydro's Code of Conduct requires adherence to laws and regulations as well as global directives and procedures. It is systematically implemented and maintained through our compliance system, which is based on a clear governance structure defining roles and responsibilities to manage the relevant compliance risks. While the system includes controls and activities to prevent, detect, report and respond to compliance failures, the core focus is on the prevention of material non-compliance incidents. In addition to policies, guidelines and procedures, Hydro maintains an extensive training program adapted to the company's risks and profile to continuously build and maintain a strong culture of compliance and integrity.

As part of Hydro's social responsibility strategy, we have defined priorities and overall goals and implemented these through specific directives, policies and procedures to manage social risks and opportunities throughout the company.



8. Major cyber-attack

Description

Hydro's Information Systems (IS) and Information Technology (IT) infrastructure is critical to all our operations, ranging from process control systems at production sites to central personnel databases and systems for external financial reporting.

Cyber crime is increasing globally, exposing Hydro to a range of threats to the integrity, availability and confidentiality of our systems. Threats may include attempts to access information, ransomware attacks, destructive installation of viruses, denial of service and other digital security breaches.

Consequences

A cyber breach could result in a broad range of impacts including HSE events, operational disruptions and the leakage of private or confidential data.

Developments

The underlying cyber security risk remains high as malicious actors innovate and evolve their techniques to increase their success rate.

Threats related to the cyber security of IT and industrial control systems have developed rapidly over the past year, supporting the overall assessment that our global risk remains high.

Contributing factors include the shift to remote work for relevant engineering and maintenance activities as well as the increasing trend of external incidents, including ransomware and supply-chain attacks. In response, Hydro continues to strengthen its defenses.

Mitigation

Progress continues to be made on delivering prioritized security capabilities based on best practice standards and frameworks for information technology and industrial control systems to protect the central IT infrastructure and industrial control system across business areas.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

9. Material tax change

Description

Hydro is committed to pay equitable taxes where the economic value is created. Our global reach involves complexity and potential volatility linked to regulatory changes on direct and indirect taxes as well as to OECD/EU initiatives, including Mandatory Disclosure Rules and the Global Tax Reform. In addition, multiple changes often occur in local tax regulations.

In Brazil, the tax system is complex and volatile, with a broad range of direct and indirect taxes levied at federal, state and municipal levels, including our ICMS tax framework from 2015. A tax reform is under discussion and a large portfolio of cases pertaining to Hydro's business in Brazil is disputed by tax authorities, of which close to half are covered by tax indemnification stemming from acquisitions.

Consequences

Changes to tax regulations can occur suddenly and materially impact Hydro's financial results as well as influence decisions with regard to future investment.

Developments

Qatalum's joint venture partners have not been able to agree on a common interpretation of the applicable tax law, and Qatalum decided to file its 2020 tax return applying a 35 percent tax rate on June 30, 2021. Hydro is pursuing alternative measures to protect its financial interest in this matter.

Regulatory changes such as the OECD/EU initiatives pertaining to the Global Tax Reform, and tax transparency, together with multiple changes in local tax regulations, constantly shift a global tax landscape that is challenging to predict and navigate.

Since the approval last year of the state tax deferral by the Brazilian National Council of Finance Policy (CONFAZ), the risk of an immediate removal is still present but has been reduced. Risks related to the portfolio of open tax cases and Brazil's tax reform remain stable.

Mitigation

Hydro is engaged in a systematic dialogue with local, state and federal politicians, industry associations, non-governmental organizations and local communities regarding the regulatory challenges facing our operations. The focus of this dialogue is on Hydro's contribution to a sustainable aluminium value chain and underlines the need for competitive and predictable framework conditions for our operations.

We continuously monitor and respond to global regulatory changes, including the development and implementation of Mandatory Disclosure Rules (MDR) guidelines as a response to the EU MDR Directive.

10. Global pandemic

Description

Hydro's vertically integrated value chain and global footprint are exposed to rapidly evolving and spreading communicable diseases.

The actions we take in anticipation of and response to a pandemic may affect our ability to maintain stable operations across business areas and corporate functions.

Consequences

High transmission rates among employees, contractors, stakeholders and communities may lead to the prolonged shutdown of operations, either due to government-imposed restrictions, insufficient manning, social unrest or our inability to provide a safe environment. Our suppliers and customers may also be inhibited from receiving raw materials, which could further disrupt production and sales.

On a broader scale, a global pandemic may significantly impact the demand for our goods as well as our ability to deliver to the market.

Developments

The Covid-19 pandemic continued to evolve throughout 2021 with the successful rollout of major vaccination programs being partially mitigated by more contagious variants. Tragically, we lost the lives of 33 employees and contractors since the start of the pandemic.

Hydro operated throughout this challenging period without any major disruptions through the strict adoption of rules set by relevant local authorities together with Hydro-specific measures. In addition, emphasis has been given to the mental health state of our staff impacted by long-standing social distancing rules, and we continue to encourage vaccination according to the guidelines set by authorities in countries where we operate.

Mitigation

Our strategy to minimize the operational impact of Covid-19 and prepare for future pandemics continues to be based on full compliance with rules complemented by a flexible range of Hydro-specific responses and robust emergency preparedness.

Where applicable, guidelines and regulations from national authorities such as those pertaining to travel restrictions, social distancing, home office or complete societal lockdowns, have been reflected in our internal policies and procedures. We evaluate our key pandemic-related risks and vulnerabilities through annual security and business-resilience assessments, which support the preparation and review of business-continuity plans.

Additional measures that have been used and could be reinstated include stock level increases for raw materials to reduce our exposure to supply chain disruptions as well as cash-preservation measures to reduce cost, capital expenditures and to ensure adequate liquidity to face the financial impact of potential shutdowns.



HSE risks

11. Fatal or life-changing accident

Description

Hydro's operations are varied, from mining in Brazil, aluminium smelting in Norway to extrusions in Europe, the US, South-America and China. Each activity poses serious safety risks that, if not controlled, could cause serious injuries or fatalities.

Despite Hydro's best efforts, high-risk incidents do occur. All such incidents are treated seriously and investigated to their root causes to prevent recurrence.

Consequences

Workplace-related loss of a life has a traumatic and long-lasting psychological effect on loved ones and colleagues. In addition, police or health and safety agencies might impose sanctions, including imprisonment and fines. Civil action could result in compensation claims.

Life-changing injuries affect the quality of life of the injured person and often require significant adjustments at home and work. This could be associated with long-lasting psychological impacts on the injured person and family, together with the need for ongoing financial support. In addition, Hydro might need to shut down its operations and may be subjected to fines, legal disputes, sanctions and reputational damage.

Developments

High-risk incidents with the potential for life-changing injury continue to decrease in both number and rate. However, we have experienced a small increase in injury-free but potentially fatal incidents with machinery-related safety near misses, and in Brazil, where several armed events targeting contractors involved in pipeline maintenance have occurred.

There were no life-threatening or life-changing injuries in 2021.

Mitigation

Hydro's approach to HSE and Security covers leaders who are committed to safety and who are highly visible on the factory floor with well-developed and robust HSE management systems, and employees and contractors who are engaged in HSE activities.

Control measures aimed at reducing the likelihood of fatal and life-changing incidents occurring have been developed and implemented in all business areas. Hydro's fatality-prevention procedures are well established and showing good progress. High-risk actions and completion rates are critically reviewed to ensure robust processes and learning across all sites. Quarterly health, safety, security and environment network meetings connect specialists from all business areas, who discuss preventative control measures following high-risk incidents and who share best practices and innovative solutions.

Machinery safety and asset-integrity incidents are receiving attention to further prevent failures, and constitute an improvement area for 2022.

12. Security incident

Description

Hydro is exposed to security risks such as public violence, robbery or theft. This risk is particularly relevant in the Barcarena region in Brazil.

Consequences

The outcome of security incidents could be psychological impact, a serious injury or in single or multiple fatalities. The risk of kidnapping and subsequent ransom demands is also present.

Security incidents could potentially be associated with environmental incidents through attacks on the pipeline or business interruptions.

Developments

Violence in Barcarena and surrounding areas continues to trend at concerning levels. Several firearms related incidents and robberies have occurred in relation to the pipeline replacement program. Additionally, recent armed hijacks of trucks used to carry extrusion materials in São Paulo have added to the concern.

Mitigation

Hydro's Bauxite & Alumina security team closely monitors security risks and maintains close contact with security authorities in operational areas. Security training for security teams based in Brazil is ongoing, and weekly security calls incorporate all Hydro locations in the country.

We monitor closely the performance of our security providers, one of which has achieved international accreditation and recognition.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

13. Impact on the environment



Description

The nature of Hydro's mining and industrial operations implies a potential climate and environmental risk exposure. Hydro is also exposed to risks related to the effects of known and unknown historical and current emissions to air, water and soil around large assets. These risks are usually long-term, and to a large extent related to our Bauxite & Alumina operations in Brazil.

Many operational sites in Hydro have some form of environmental legacy that will need to be remediated prior to site closure.

Hydro is focused on the prevention of spills and the unlicensed release of effluents or liquids.

Consequences

Such events could have a significant and potentially lasting impact on the aquatic life, flora, fauna and they may pose health risks to nearby communities if, for example, ground water becomes contaminated.

A significant spill of hazardous materials in a sensitive area such as a Norwegian fjord, river or the Brazilian rainforest would also cause a significant financial and reputational impact.

In addition, Hydro might need to shut down its operations and be subjected to fines or legal disputes.

Developments

Chemical usage and waste production are present at all sites and have an inherent risk of spills or leakages leading to HSE impacts. Aluminium Metal and Bauxite & Alumina are the business areas most exposed to a spill or leakage with significant HSE impact, due to the volumes of hazardous materials used and locations of large sites.

There has been a considerable reduction in severe and major incidents reported in 2021, compared to previous years.

There has been increased focus at the Schwandorf legacy site in Germany, with increased monitoring of ground work and remedial action to on-site chemical storage structures.

Mitigation

All Hydro sites are required to have action plans in place for known legacies. These are agreed with relevant regulatory bodies. Legacy remediation plans are suitable for known risks, but investigations may uncover unknown risks, while there is also an increased scrutiny of Brazil operations.

In order to reduce the risks for our operations, Hydro performs extensive risk assessments. These include the modelling of future weather patterns and their impact on Hydro's facilities based on existing climate models and scenarios from the Intergovernmental Panel on Climate Change (IPCC), and scenarios for policy and legal risk, technology, market and reputation risk. Environmental studies are underway in Barcarena and Norway, both due for completion in 2022. The rehabilitation plan for Paragominas is in place.

All sites are required to follow Group standards on chemical and waste management to mitigate the inherent risk of storing, handling and disposing of hazardous materials. We have increased our inspections on the integrity of storage areas across Business Areas, nonetheless some deficiencies still exist.



14. Structural collapse or other major accident

Description

Although the likelihood is considered to be low, there is a risk of major accidents such as the collapse of a hydropower dam, an incident at our tailings storage or bauxite residue storage facilities, the collapse of the entire port structure at the Alunorte alumina refinery, or a rupture of the bauxite slurry pipeline.

We consider in particular the potential failure of tailings storage facilities (Paragominas, MRN), bauxite residue storage facilities (Alunorte, Schwandorf), the bauxite slurry pipeline (Paragominas, Alunorte) and hydropower dams.

Consequences

If such accidents occur, they could have a significant and potentially lasting impact on the environment as well as the health and safety of employees, contractors and nearby communities. In addition, Hydro might need to shut down its operations and may be subjected to fines, legal disputes and reputational damage.

Developments

The stability of the Schwandorf bauxite residue deposits in Germany has progressed with a drilling program. The laboratory analysis and interpretation are still ongoing and the stability of the landfill has therefore not yet been established. This risk has remained stable over the past 12 months, with no new incident reported. Extensive repairs and maintenance to the pipeline took place in 2021 and is ongoing. There have been no incidents with crane failures or other significant defects in other structures during the year.

Mitigation

Hydro is continuously seeking to reduce the likelihood of major incidents with risk-mitigating activities through the commitment to comply with the Global Industry Standard on Tailings Management within the applicable deadlines. Other initiatives include Tailings Dry Backfill technology that will eliminate the long-term risk of failure at Paragominas.

Hydropower dams are highly regulated. At closed tailings facilities, the risk of failure under varying conditions, including extreme weather and seismic events (defined as events with a statistical return period of 1:10000), is under investigation. The Bauxite & Alumina pipeline repair and replacement program is ongoing, although there are security concerns associated with this activity due to the location of the pipeline and its access for maintenance, which we are addressing through our fatal risk management approach. Frequent contact with the port administration continues with improvements in maintenance and inspections regimes.

The Hydro share

Introduction

Hydro's share price closed at NOK 69.52 at the end of 2021. The return ex. dividend for 2021 was NOK 29.66, or 74 percent. Hydro paid its 2020 dividend in May 2021. Hydro's Board of Directors proposes to pay a dividend of NOK 5.4 per share for 2021, for approval by the Annual General Meeting on May 10, 2022, reflecting Hydro's strong financial position. The proposed payment demonstrates the company's commitment to provide a predictable dividend to shareholders.

The average five-year payout ratio is 71 percent. There were 2,068,998,276 issued shares at the end of 2021. A total of 1.3 billion Hydro shares were traded on the Oslo Stock Exchange (OSE) during 2021 at a value of NOK 74 billion, making Hydro the eighth-most traded company on the OSE. The average daily trading volume for Hydro shares on the OSE during 2021 was 5.3 million shares. Hydro's shares are listed on the Oslo Stock Exchange, while our American Depository Shares (ADSs) trade on OTCQX International in the US, the premium over-the-counter market tier.

Dividend policy

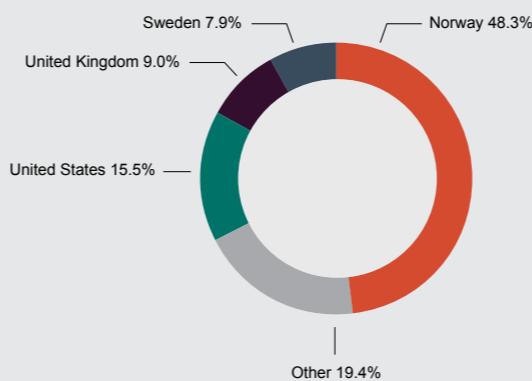
Long-term return to shareholders should reflect the financial value created by Hydro over time. Total shareholder return consists of dividends and share price development. Hydro's dividend policy is in the long term to pay out minimum 50 percent of adjusted net income as ordinary dividend over the cycle to our shareholders. The dividend policy has a floor of NOK 1.25 per share. In setting the dividend for a specific year, Hydro will take into consideration expected earnings, future investment opportunities, the outlook for world commodity markets and our financial position. Share buybacks or extraordinary dividends may supplement ordinary dividends during periods of strong financials, due consideration being given to the commodity cycle and capital requirements for future growth. The total payout should reflect Hydro's aim to provide its shareholders with competitive returns benchmarked against alternative investments in comparable companies. Hydro's Board of Directors normally proposes a dividend per share in connection with the publication of our fourth quarter results. The Annual General Meeting then considers this proposal in May each year, and

Top 15 shareholders

The Ministry of Trade, Industry and Fisheries	34.6%
Folketrygfondet	7.0%
BlackRock Institutional Trust Company, N.A.	2.3%
The Vanguard Group, Inc.	2.2%
DNB Asset Management AS	1.7%
BlackRock Investment Management (UK) Ltd.	1.5%
Storebrand Kapitalforvaltning AS	1.4%
EmCap Limited	1.2%
KLP Forsikring	1.2%
Grantham Mayo Van Otterloo & Co LLC	1.0%
State Street Global Advisors (US)	1.0%
Nordea Funds Oy	1.0%
Allianz Global Investors GmbH	0.8%
Alfred Berg Kapitalforvaltning AS	0.8%
SAFE Investment Company Limited	0.7%

See [main shareholder](#) list on Hydro website.

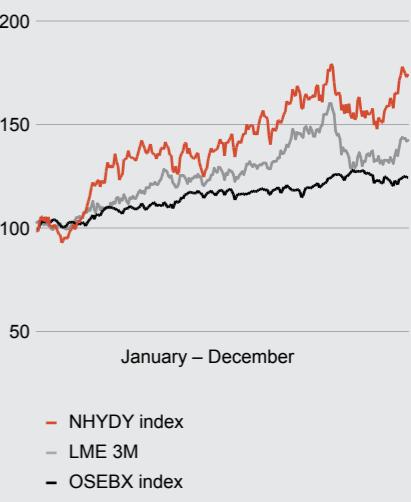
Geographical ownership distribution of shares



NHY share price development



Share price development vs OBX



the approved dividend is subsequently paid to shareholders in May or June. Hydro pays dividends once each year. For non-Norwegian shareholders, Norwegian tax will be deducted at source in accordance with the current regulations.

Buyback of shares

In periods when earnings are high, Hydro may consider buying back shares in addition to ordinary or extraordinary

dividend payments. This consideration will be made in the light of alternative investment opportunities and our financial situation. In circumstances when share buybacks are relevant, our Board of Directors proposes buyback authorizations to be considered and approved by the Annual General Meeting. Authorizations are granted for a specific time period and for a specific share price interval during which share buybacks can be made.

Common share data

	2021	2020	2019	2018	2017
Share price high, Oslo (NOK) ¹⁾	71.46	40.74	41.55	62.70	64.15
Share price low, Oslo (NOK) ¹⁾	36.99	19.14	26.49	38.69	41.03
Share price average, Oslo (NOK)	55.94	28.09	33.43	48.61	52.27
Share price year-end, Oslo (NOK)	69.52	39.86	32.64	39.21	62.35
Earnings per share from continuing operations	5.92	1.99	0.52	2.75	3.95
Adjusted earnings per share from continuing operations ²⁾	6.77	1.32	0.52 ³⁾	2.75 ³⁾	3.95 ³⁾
Dividend per share (NOK) ⁴⁾	5.4	1.25	1.25	1.25	1.75
Pay-out ratio ⁵⁾	80%	95%	240%	45%	44%
Dividend growth	332%	-	-	(29%)	40%
Pay-out ratio five year average ⁶⁾	71%	65%	54%	43%	46%
Adjusted net cash (debt) / Adjusted EBITDA ⁷⁾	0.36	1.95 ⁸⁾	2.27 ⁹⁾	1.2 ⁹⁾	0.45 ⁹⁾
Credit rating, Standard & Poor's	BBB	BBB	BBB	BBB	BBB
Credit rating, Moody's	Baa3	Baa3	Baa2	Baa2	Baa2
Non-Norwegian ownership, year-end	52%	52%	40%	41%	47%
Outstanding shares, average	2,050,818,686	2,048,766,546	2,047,057,976	2,045,796,971	2,044,105,404
Outstanding shares, year-end	2,051,475,662	2,049,124,718	2,047,648,790	2,046,302,797	2,044,697,348

¹⁾ Share price high and low based on closing price.

²⁾ [Alternative performance measures \(APMs\)](#) are described in the appendices.

³⁾ Amounts are as disclosed for the individual years reflecting the accounting policies applied for those years and Hydro's definition of APMs applied for the relevant years.

⁴⁾ 2021 dividend per share proposed by Board of Directors, dependent on approval from the Annual General Meeting May 10, 2022

⁵⁾ Dividend per share divided by adjusted earnings per share from continuing operations.

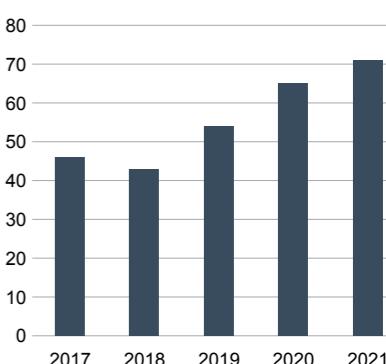
⁶⁾ Average dividend per share divided by average adjusted earnings per share from continuing operations for last five years.

⁷⁾ This ratio replaces the formerly used ratios Adjusted net cash (Debt) to Equity and Funds from operations to average Adjusted net cash (debt). See [Note 7.1 Capital management](#) in the consolidated financial statements.

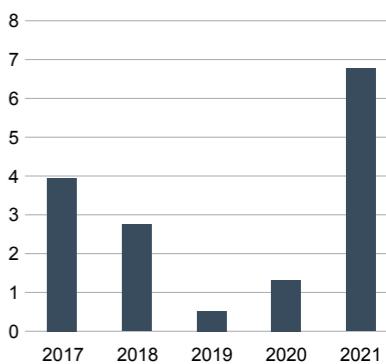
⁸⁾ Restated

⁹⁾ Adjusted net cash (debt) / Adjusted EBITDA

Pay-out ratio five-year average⁶⁾
 Percent



Adjusted earnings per share from continuing operations²⁾
 NOK



Funding and credit quality

Maintaining a strong financial position and an investment grade credit rating are viewed as important risk mitigating factors, supporting Hydro's possibilities for strategic development of its businesses. Access to external financial resources is required in order to maximize value creation over time, balanced with acceptable risk exposure. To secure access to debt capital on attractive terms, we aim at maintaining an investment grade credit rating from the leading rating agencies. Contributing toward this ambition to retain our credit rating, Hydro's targets, over the business cycle, a ratio of average Adjusted net cash (debt) to adjusted EBITDA below 2x. For further information, see [Note 7.1 Capital Management](#) in the Financial Statements section of this report.

American Depository Shares

JPMorgan Chase Bank NA, as depositary of the ADSs through its nominee company, Morgan Guaranty Trust Company, held interests in 13,040,512 ordinary shares, or 0.64 percent of the outstanding ordinary shares as of December 31, 2021. The interests are on behalf of 264 registered holders of ADSs.

Major shareholders and voting rights

As of December 31, 2021, Hydro had 56,562 registered shareholders as per the Norwegian Central Securities Depository (VPS). The Ministry of Trade, Industry and Fisheries of Norway was the largest of these with a shareholding of 34.26 percent of the total number of ordinary shares authorized and issued, and 34.55 percent of the total shares outstanding. As of the same date, the Government Pension Fund - Norway (Folketrygdfondet) owned 6.91 percent of the total number of ordinary shares issued and 6.97 percent of the total shares outstanding. There are no different voting rights associated with the ordinary shares held by the state. The Norwegian Ministry of Trade, Industry and Fisheries represents the Norwegian government in exercising the state's voting rights. The state has never taken an active role in the day-to-day management of Hydro and has for several decades not disposed of any of the ordinary shares owned by it, except when participating in the share buyback programs. All shares carry one vote. It is, however, a requirement of Norwegian legislation that a shareholder can only vote and have preferential subscription rights for shares

registered in their name. Shares registered with a nominee account must be re-registered in the Norwegian Central Securities Depository, Verdipapirsentralen (VPS), before the Annual General Meeting in order to obtain voting rights. This requirement also applies to our US-traded ADSs. Hydro cannot guarantee that beneficial shareholders will receive the notice for a general meeting in time to instruct their nominees to affect a re-registration of their shares. Hydro is organized under the laws of the Kingdom of Norway. It may be difficult for investors to effect service of process outside Norway upon Hydro or its directors and executive officers, or to enforce against Hydro or its directors and executive officers judgments obtained in other jurisdictions. Norwegian courts are unlikely to apply other than Norwegian law when deciding on civil liability claims under securities laws.

Information from Hydro

Communicating with the stock market is given high priority, and Hydro aims to maintain an open dialogue with market participants. Our objective is to provide sufficient information on a timely basis to all market participants to ensure a fair valuation of our shares. Information that is considered price sensitive is communicated by news releases and stock exchange announcements. We host regular meetings for investors in Europe and the US. The major brokers in Oslo and London publish equity research reports on Hydro. Previous annual and quarterly reports are available on www.hydro.com.

Annual General Meeting

The Annual General Meeting will be held at the company's offices at Drammensveien 260, Oslo, Norway, on Tuesday, May 10, 2022, at 10:00 CET. Shareholders who wish to attend are asked to inform the registrar by 16:00 CET on Thursday, May 5: DNB Bank ASA Registrar's Department P.O.Box 1600 Sentrum N-0021 Oslo, Norway. You may also register electronically on our website www.hydro.com/register or via VPS Investor Services. Any shareholder may appoint a proxy with written authority to attend the meeting and vote on his or her behalf. Voting rights are discussed under "Major shareholders and voting rights". It will also be possible to follow the meeting online.

Change of address

Shareholders registered in the Norwegian Central Securities Depository should send information on changes of address to their registrar and not directly to Hydro.

Financial calendar 2022¹⁾

May 3	First quarter results
May 10	Annual General Meeting
July 22	Second quarter results
October 25	Third quarter results

¹⁾ Hydro reserves the right to revise these dates.

See [updated calendar](#) on Hydro website.

Environment, Social & Governance reporting – The Hydro Way

The Hydro Way is our approach to business. It's an approach that has existed within Hydro since 1905 and guided our development over the years. The Hydro Way originates from our company's identity – our unique set of characteristics – and constitutes a way of doing things that differentiates us from other companies.

The Hydro Way explains how we run our business through:

- Our purpose
- Our values
- Our operating model

These principles help us set priorities and serve as a reference point when questions arise. Our purpose is supported by our values and defines how we conduct our business:

Hydro's purpose is to create a more viable society by developing natural resources into products and solutions in innovative and efficient ways.

In order to ensure a uniform high standard, Hydro's constituting documents and global directives lay down requirements for our operations, see [Corporate governance](#) for more information.

All elements of Hydro's environmental and social performance are integrated in Hydro's overall group strategy. In addition, we have specific support strategies, e.g. on climate change, environment and people – as described in the Environment and social responsibility section.

Hydro has been listed on the Dow Jones Sustainability Indices (DJSI) each year since the index series started in 1999. We are also listed on a number of other environmental, social and governance (ESG) indices including FTSE4Good, and the UN Global Compact 100 stock index.

Our reporting approach

We have based our environmental, social and governance reporting on The Hydro Way since 2004. Together with risk analysis and an extensive stakeholder dialogue we have defined the main elements of our reporting:

- Integrity and compliance
- Climate change
- Environmental impact management
- Innovation
- Organization and work environment
- Human rights
- Responsible supply chain
- Local community value creation

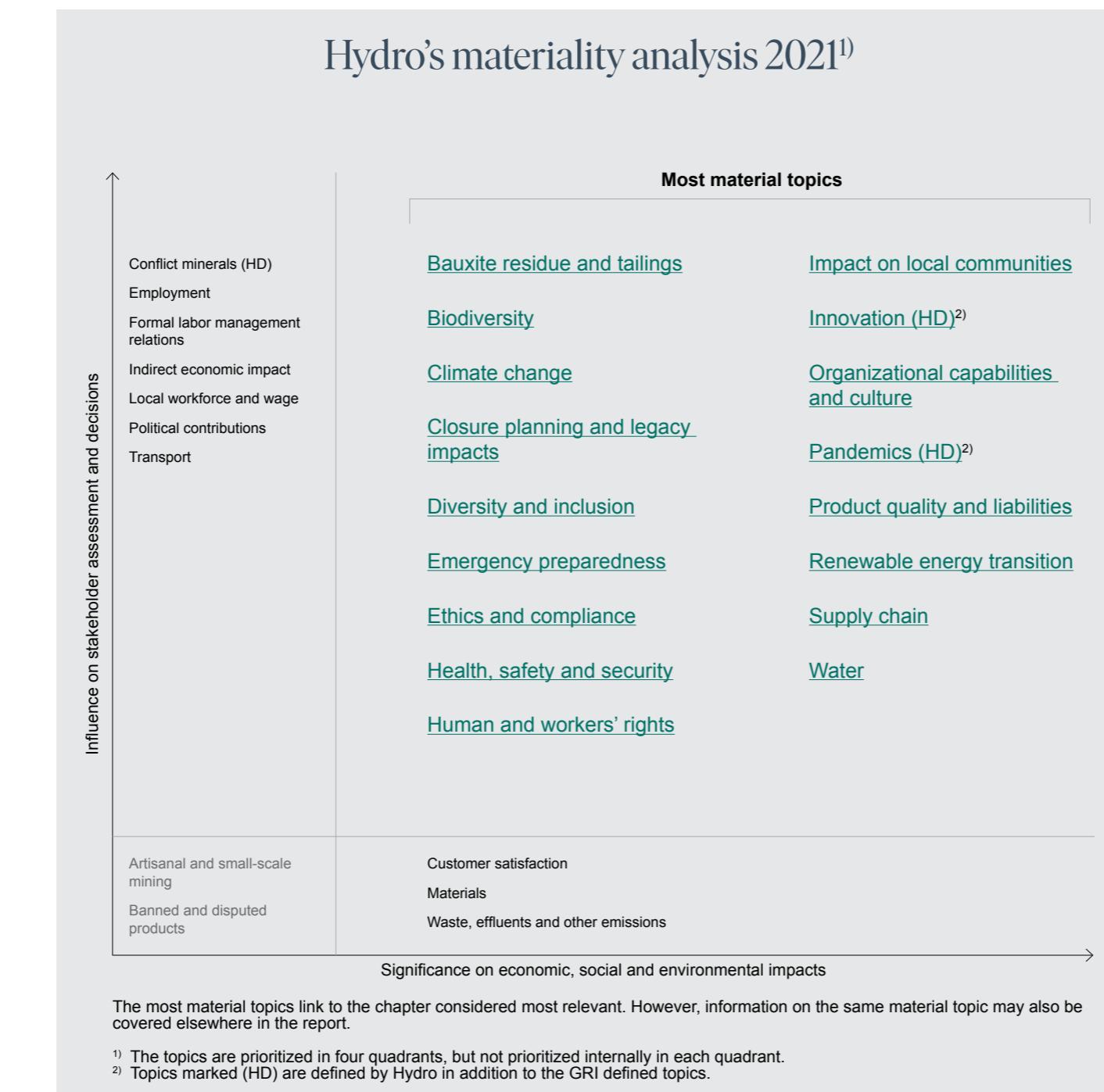
We use the GRI Standard 101 (2016) in defining which lower-level topics and indicators that are material to report on. The analysis is also based on our continuous stakeholder dialogue with key stakeholders as collected and evaluated by relevant specialists and leaders. Learn more about our [stakeholder dialogue](#). The materiality analysis is updated annually, to reflect internal and external developments, and approved by Hydro's Corporate Management Board.

The most material aspects related to our environmental and social issues are all included in the Introduction to the Environment and social performance section, which gives a high-level overview of Hydro's strategic direction, strengths and challenges. This information is further elaborated in other parts of this Annual Report. Our report is in accordance with the "Core" option as described by GRI 101 (2016). Hydro's GRI index can be found at [hydro.com/gri](#).

The information has been reviewed by Hydro's Corporate Management Board and has been approved by the Board of Directors. We comply with the Norwegian legal requirements on [country by country reporting](#). The report has also been approved by the Board of Directors.

The underlying details in the reporting are based on different reporting frameworks that are important to us, including the UN Global Compact, the GRI Standards, the International Council on Mining and Metals' (ICMM) 10 principles and Position Statements and the Aluminium Stewardship Initiative's (ASI) 11 principles and underlying criteria. The GRI index at [hydro.com/gri](#) also shows Hydro's adherence to the

UN Global Compact, ICMM and how we relate to ASI, UN Sustainable Development Goals and UN Guiding Principles on Business and Human Rights – and shows how the different frameworks connect with each other.



Material changes from 2020

- Split the previous topic Energy, GHG and other emissions into the topics Climate change and Renewable energy transition. Other emissions has been included in Waste, effluents and other emissions. The changes have been made to better reflect Hydro's relative impact on the topics
- Ethics and compliance has replaced Anti-competitive behavior, anti-corruption and data privacy to ensure a broader scope
- Closure planning now includes the term legacy impact to emphasize long-term impacts of closure planning and Hydro's ongoing work in rectifying this through its legacy work

We have chosen to merge and rename certain topics, compared to the GRI Standards, to make the titles more relevant to Hydro's operations and thus more intuitive to our stakeholders. An overview of these changes can be found on hydro.com/gri.

Corporate governance

Why it matters

Hydro is a public limited company organized with a governance structure based on Norwegian corporate law. Our corporate governance has been designed to provide a foundation for value creation and to ensure good control mechanisms. Hence, we maintain common requirements in the form of corporate directives that are mandatory for all parts of our organization.

Our governing documents and global directives help ensure that all our employees carry out their activities in an ethical manner and in accordance with current legislation and Hydro standards. The Board of Directors has approved our Code of Conduct, which applies to all employees throughout the world, as well as to all board members of Hydro and its subsidiaries. The code addresses compliance with laws and other matters such as handling of conflicts of interest and a commitment to equal opportunities for all employees. Our defined programs contribute to compliance with anti-corruption and basic human rights, and other relevant governance areas.

Hydro follows the most recent Norwegian code of practice for corporate governance from 2021.

Our approach

We have developed our governance structure through cooperation between our Corporate Management Board and our superior governance bodies to secure compliance with relevant laws and regulations, Hydro's corporate directives and to reflect business needs. Development of the governance structure is a continuous process.

As stated above, we follow the [Norwegian Code of Practice for Corporate Governance](#) of October 2021. Information regarding our shareholder policy can be found in [the Hydro Share](#) section. Hydro's strategic direction is described in the [Strategic direction](#) chapter.

Global directives and Code of Conduct

The Hydro Way represents our framework for leadership, organization and culture and is the foundation of our governance system. See [ESG reporting – The Hydro Way](#) for further information.

Our system is based on the delegation of responsibility to our business areas and to corporate functions whose duties include finance, tax and accounting, social responsibility, environment and governance, including legal and compliance. In order to maintain uniformly high standards, we set common requirements in the form of constituting documents and global directives. Constituting documents are approved by Hydro's Board of Directors, the corporate assembly or the general meeting of shareholders, while global directives are approved by the President and CEO. This information is made available to all employees.

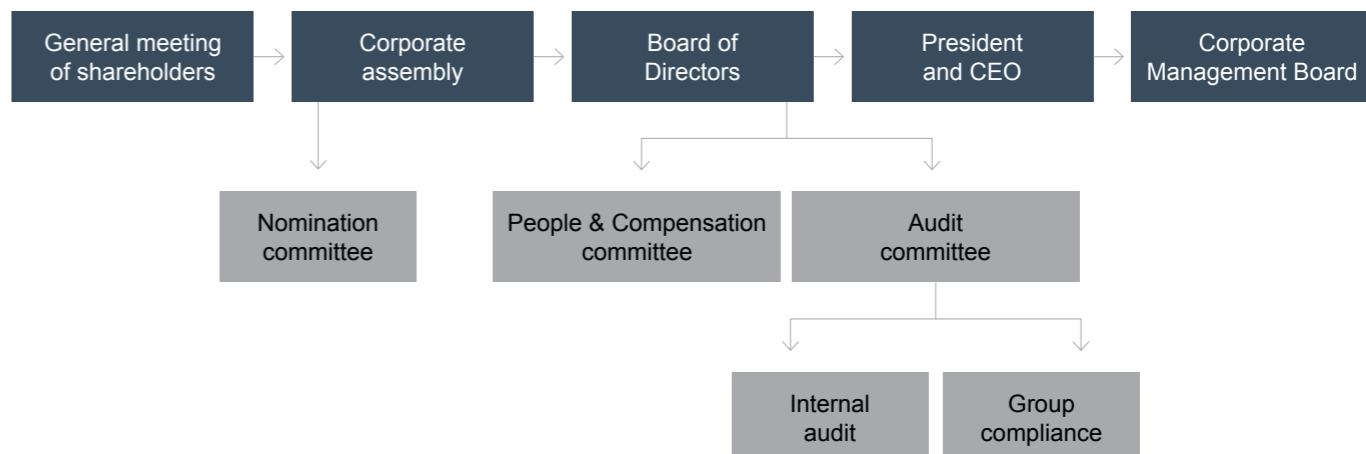
Hydro's Code of Conduct is a constituting document and applies to all Hydro employees throughout the world, as well as to board members of Hydro and its subsidiaries. See [Integrity and compliance](#) for more information about Hydro's Code of Conduct.

More comprehensive information about our governance practices, policies, code of conduct, and requirements can be found at [www.hydro.com/governance](#). For information about Hydro's Code of Conduct, other constituting documents and global directives, whistleblowing procedure and integrity program, see [www.hydro.com/principles](#).

Management compensation

Information concerning remuneration and remuneration policies, share ownership, loans outstanding and loan policy relating to Hydro's BoD and CMB is disclosed in [note 9.1–9.3 of the consolidated financial statements](#) and as a separate remuneration report to be published before the Annual General Meeting.

Governance bodies in Hydro¹⁾



[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Board of Directors



Dag Mejdell
Chair

Position

Non-executive director

Education

MSc in Economics and Business Administration (siviløkonom), Norwegian School of Economics (NHH)

Current directorships

Chair of Sparebank 1 SR Bank ASA, Chair of International Post Corporation, Chair of Mestergruppen AS, Chair of Torghatten Group AS



Irene Rummelhoff
Deputy chair

Position

Executive vice president, Marketing, Midstream and Processing, Equinor ASA

Education

MSc in Geology/Geophysics (sivilingeniør), Norwegian Institute of Technology (NTH)

Current directorships

None



Arve Baade
Director

Position

Full-time employee representative representing Industri Energi

Education

Certificate of apprenticeship in process studies

Current directorships

None



Rune Bjerke
Director

Position

Adjunct Executive in Residence, Norwegian School of Economics, previously CEO of DNB (2007-2019)

Education

BSc in Economics, University of Oslo; Master of Public Administration (MPA), Harvard University

Current directorships

Board member of Fremtind Forsikring AS, Chair of the Board of Wallenius Wilhelmsen ASA, Board member of Schibsted ASA



Liselott Kilaas
Director

Position

Independent advisor

Education

MSc Mathematical Statistics, University of Oslo; Master of Business Administration, IMD Lausanne, Switzerland

Current directorships

Board member of Orkla ASA, Folketrygfonden, Avonova AB, Coala AB, Peab AB, Nobina AB, Ambea AB, implantica Ab, Recover Nordic, IMD.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Peter Kukielski
Director



Sten Roar Martinsen
Director



Ellen Merete Olstad
Director



Thomas Schulz
Director



Marianne Wiinholt
Director

Position
CEO of Hudbay Minerals Inc.

Education
MSc Civil Engineering, Stanford University USA

Current directorships
Board member Hudbay Minerals Inc.

Position
Advisor Government Affairs

Education
Certificate of apprenticeship in electrochemistry

Current directorships
None

Position
Senior Contract Administrator, Hydro Aluminium AS, Metal Sourcing and Trading

Education
BA French language and culture, University in Perpignan

Current directorships
None

Position
Left the position as Group CEO for FLSmidth on January 1, 2022. Will join Bilfinger SE as Group CEO as of March 1, 2022

Education
PhD Mining & Mineral Processing, Rheinisch-Westfälische Universität Aachen RWTH

Current directorships
Board member Boart Longyear

Position
Executive vice president and Chief Financial Officer, Ørsted A/S

Education
State-Authorized Public Accountant, Copenhagen Business School (CBS)

Current directorships
Board member and Chair of the Audit Committee of Coloplast A/S

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

	Name	Place of residence	Year of birth	Position	Board committee	Meetings attended	Number of Hydro shares ¹⁾	Director since	Term expires
Dag Mejdell	Dag Mejdell	Oslo, Norway	1957	Chairperson	Chairperson Compensation and people committee	11	45,000 ²⁾	2012	2022
Irene Rummelhoff	Irene Rummelhoff	Hafsfjord, Norway	1967	Deputy Chairperson	Compensation and people committee	11	5,000	2014	2022
Arve Baade	Arve Baade	Sunndalsøra, Norway	1967	Director Employee representative		11	5,778	2018	2022
Rune Bjerke	Rune Bjerke	Oslo, Norway	1960	Director	Audit committee	11	20,500	2020	2022
Liselott Kilaas	Liselott Kilaas	Oslo, Norway	1959	Director	Audit committee	11	-	2018	2022
Peter Kukielski	Peter Kukielski	Vancouver, Canada	1956	Director		11	-	2019	2022
Sten Roar Martinsen	Sten Roar Martinsen	Kopervik, Norway	1962	Director Employee representative	Compensation and people committee	11	7,517	2005	2022
Ellen Merete Olstad	Ellen Merete Olstad	Oslo, Norway	1963	Director Employee representative	Audit committee	11	5,551	2020	2022
Thomas Schulz	Thomas Schulz	Rungsted Kyst, Denmark	1965	Director		11	-	2016	2022
Marianne Wiinholt	Marianne Wiinholt	Klampenborg, Denmark	1965	Director	Chairperson Audit committee	11	-	2016	2022

Total number of board meetings were 11.

¹⁾ As per December 31, 2021.

²⁾ Including shares owned by Nobel Partners, a private equity investment firm.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

John Thuestad
EVP Hydro Bauxite & Alumina

Hilde Vestheim Nordh
EVP People & HSE

Hilde Merete Aasheim
President and Chief Executive Officer

Arvid Moss
EVP Energy

Eivind Kallevik
EVP Hydro Aluminium Metal

Pål Kildemo
EVP and Chief Financial Officer

Anne-Lene Midseim
EVP Compliance, IP & General Counsel

Helena Nonka
EVP Corporate Development
(including Technology, Sustainability,
and Portfolio & Strategy)

Paul Warton
EVP Hydro Extrusions



[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Corporate Management Board

Hilde Merete Aasheim

President and Chief Executive Officer

Eivind Kallevik

EVP Hydro Aluminium Metal

Helena Nonka

EVP Corporate Development

Pål Kildemo

EVP and Chief Financial Officer

Anne-Lene Midseim

EVP Compliance, IP & General Counsel

Key experience

10 years of experience as Executive Vice President Hydro Primary Metal from 2008-2019, previously Head of Staff Functions and Corporate Services in StatoilHydro. Head of the integration between Statoil and Hydro's oil and gas activities in 2007. Head of Leadership and Culture in Hydro in 2005. Senior positions in Elkem from 1986-2005. In 2002 she was Head of the Silicon Division in Elkem and member of the Corporate Management Board. Aasheim also has work experience from Arthur Andersen & Co.

Key experience

Chief Financial Officer, Head of Finance Bauxite & Alumina. He has been Head of Corporate Financial Reporting, Performance and Tax, Head of Finance Aluminium Products, Head of Business Controlling Hydro Aluminium. Prior to Hydro, Kallevik worked six years on oil and gas financing for Christiania Bank og Kreditkasse in New York and Oslo.

Key experience

Executive Vice President Corporate Development, including Technology, Sustainability, and Portfolio & Strategy, at Hydro since April 2021. She brings experience as Global Head of New Business at SGS (2019-2021), General Manager of Corporate Strategy at Rio Tinto where she worked from 2007-2019 and as senior manager at Deloitte from 2001-2007

Key experience

Executive Vice President and Chief Financial Officer (CFO) of Norsk Hydro ASA and as a member of the Corporate Management Board since May 2019. Kildemo has held several key positions in the company, including Head of Investor Relations and Head of Finance in Primary Metal. Kildemo also served as acting Executive Vice President of Primary Metal just prior to becoming Chief Financial Officer

Key experience

Executive Vice President Compliance, IP & General Counsel, as well as EVP CSR, Legal and Compliance, since 2015. Midseim has worked in Hydro since 1998, with senior positions as Company Secretary, and as Head of Staffs in Bauxite & Aluminium. Resident Legal Advisor in East-Timor, Oil for development program (2006-2007), Lawyer for Norwegian law firm Vogt & co (1996-1998), Executive Officer in the Ministry of Oil and Energy (1994-1996)

Education

MSc in Economics and Business Administration (siviløkonom), the Norwegian School of Economics (NHH); State-authorized public accountant, certified from NHH

Education

Master of Business Administration from University of San Francisco

Education

LLM in Tax Law, HEC Montreal; MA in Political Science, Universite du Quebec a Montreal

Education

Master's degree in Economics and Finance from Heriot-Watt University

Education

Candidate in Jurisprudence (cand. jur.), University of Oslo

External directorships

Member of the International Council on Mining and Metals (ICMM)

External directorships

Member of Eurometaux Management Committee

External directorships

None

External directorships

Board position in Future Leaders Global

External directorships

Board member Gassco AS, Chair of the Board of Industriforsikring AS

Arvid Moss
 EVP Energy

Key experience

Executive Vice President Hydro Energy since 2010 and acting Head of Corporate Strategy and Business Development since 2019. Moss joined Hydro in 1991 and has held several senior management positions including project leader for the oil and gas merger agreement with Statoil, Head of Metal Products (2004-2006) and Head of Automotive Structures (1996-2001). Previously State Secretary and Chief of Staff in the Norwegian Prime Minister's office.

Hilde Vestheim Nordh
 EVP People & HSE

Key experience

Executive Vice President People and HSE since 2019. Hilde joined Hydro in 1995 and has held roles of Head of HSE & HR in Energy, HSE manager Karmøy, and casthouse manager at Karmøy.

John Thuestad
 EVP Hydro Bauxite & Alumina

Key experience

Executive Vice President, Hydro Bauxite & Alumina. Thuestad previously served as Head of Extrusion Europe in Hydro. Previous roles include EVP Group President Primary Metals in Alcoa and CEO of Elkem AS.

Paul Warton
 EVP Hydro Extrusions

Key experience

Executive Vice President for Hydro Extrusions. Warton previously served as global president Automotive Structures & Industry for Constellium. Prior to that, he worked for 17 years in the global aluminium extrusion industry with leadership positions in Sapa, Alcoa and Luxfer Group. He also worked for 10 years in manufacturing and commercial leadership positions in Tier 1 automotive companies at Federal Mogul and GKN.

Education

MSc in Economics and Business Administration (siviløkonom), Norwegian School of Economics (NHH)

External directorships

Chair of the Board in National Export Strategy Council as of July 1, 2021

Education

MSc in Materials Technology, Rheinisch Westfälische Technische Hochschule (RWTH)

External directorships

None

Education

MSc in Metallurgy (sivilingeniør), Norwegian University of Science and Technology (NTNU); MBA Carnegie Mellon University

External directorships

Member of the Executive Committee of International Aluminum Association (IAI) on behalf of Hydro. Board member Yara International ASA

Education

BSc in Production Engineering, University of Birmingham; MBA in Finance, London Business School

External directorships

Member of the Executive Committee of European Aluminum on behalf of Hydro

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

	Name	Place of residence	Year of birth	Employed in Hydro since	Current position since	Position	Number of Hydro shares ¹⁾
	Hilde Merete Aasheim ²⁾	Oslo, Norway	1958	2008	2019	President and Chief Executive Officer	120,594
	Eivind Kallevik	Oslo, Norway	1967	1998	2019	EVP Hydro Aluminium Metal	73,497
	Helena Nonka ³⁾	Geneva, Switzerland	1975	2021	2021	EVP Corporate Development (including Technology, Sustainability, and Portfolio & Strategy)	-
	Pål Kildemo	Bærum, Norway	1984	2008	2019	EVP and Chief Financial Officer	13,708
	Anne-Lene Midseim	Oslo, Norway	1968	1998	2015	EVP Compliance, IP & General Counsel	34,383
	Arvid Moss	Oslo, Norway	1958	1991	2010	EVP Hydro Energy	173,691
	Hilde Vestheim Nordh	Asker, Norway	1969	1995	2019	EVP People & HSE	26,500
	John Thuestad ⁴⁾	Asker, Norway	1960	2017	2018	EVP Hydro Bauxite & Alumina	58,691 ⁴⁾
	Paul Warton ⁵⁾	Tibshelf, United Kingdom	1961	2021	2021	EVP Hydro Extrusions	-
	Inger Sethov ⁶⁾	Bærum, Norway	1970	2005	-	EVP Communication and Public Affairs	36,125 ⁹⁾
	Einar Glomnes ⁷⁾	Oslo, Norway	1969	2004	-	EVP Rolled Products	- ⁹⁾
	Erik Fossum ⁸⁾	Asker, Norway	1969	1995	-	Interim EVP Hydro Extruded Solutions	1 ⁹⁾

EVP: Executive vice president

¹⁾ As per December 31, 2021.²⁾ Aasheim became President and CEO as of August 8, 2019. Aasheim was employed in Hydro 2005-2007 and was EVP for Primary Metal from 2008–2019.³⁾ Nonka became EVP Corporate Development as of April 1, 2021.⁴⁾ Including shares owned through Jothur AS, a private equity investment firm⁵⁾ Warton became EVP Hydro Extruded Solutions as of February 1, 2021.⁶⁾ Sethov left her position in Hydro as of May 31, 2021.⁷⁾ Glomnes left his position in Hydro as of June 1, 2021.⁸⁾ Fossum served as interim EVP from December 1, 2020 to February 1, 2021.⁹⁾ As per June 30, 2021.

Governance bodies

DESCRIPTION	DEVELOPMENTS AND EVENTS DURING THE REPORTING YEAR	REFERENCES
General meeting of shareholders <p>Company shareholders exercise ultimate authority through the general meeting. Shareholders registered in VPS, the Norwegian Central Securities Depository, five working days in advance of the general meeting of shareholders can vote in person or by proxy. Invitations are sent to shareholders or to the shareholder's security deposit bank.</p> <p>The general meeting of shareholders:</p> <ul style="list-style-type: none"> • Elects the shareholders' representatives to the corporate assembly • Determines the remuneration of the corporate assembly • Elects the external auditor and approves the auditor's remuneration • Approves the statutory report according to Norwegian requirements and financial statements, including the dividend proposed by the board of directors and recommended by the corporate assembly • Elects the nomination committee and determines their remuneration • Deals with any other matters listed in the notice convening the meeting <p>Shareholders may, at least four weeks before an ordinary general meeting, request in writing that proposals for resolutions are submitted to the general meeting, or that items are added to the agenda.</p>	<p>The Annual General meeting was held May 6, 2021</p>	<p>The protocols from the general meetings can be found at hydro.com/governance</p>
Corporate assembly¹⁾ <p>Eighteen members. Twelve are elected by the general meeting of shareholders, six are elected by and among the group's employees in Norway. The members are elected for a period of up to two years.</p> <p>In accordance with Norwegian law, the corporate assembly:</p> <ul style="list-style-type: none"> • Elects the Board of Directors and determines their remuneration • Nominates the external auditor to be elected by the general meeting of shareholders • Based on recommendations from the Board of Directors, makes decisions in matters relating to investments that are substantial in relation to Hydro's resources, and when closures and reorganizations will lead to significant changes for the workforce • Provides recommendations to the general meeting of shareholders with respect to approval of the board of directors' proposal regarding the financial statements and dividend 	<p>Four meetings. 99 percent meeting attendance.</p> <p>Members: Terje Venold (chairperson), Susanne Munch Thore (deputy chairperson), Berit Ledel Henriksen, Shahzad Abid, Unni Steinsmo, Jorunn Johanne Sætre, Odd Arild Grefstad, Nils Morten Huseby, Anne Kverneland Bogsnes, Birger Solberg, Lars Kjetil Skeie, Bjørn Petter Moxnes, Einar Øren, Svein Kåre Sund, Ørjan Norman, Andreas Bakken.</p> <p>Lars Kjetil Skeie stepped up from deputy to ordinary member as of July 1, 2021. Rolf Arnesen stepped down as of the same date.</p> <p>Deputy members: Hilde Christiane Bjørnland, Gisle L. Johansen, Hans Henrik Kloumann, Nils Bastiansen, Jon Martin Bratthammer, Morten Sundheim Jensen, Rune Guttormsen, Jan Einan, Aud Helen Halvorsen, Ann Kristin Prytz.</p>	<p>See Note 9.4 to the consolidated financial statements for remuneration and share ownership</p> <p>Articles of association §§ 7-8 at hydro.com/governance</p> <p>Read more about the proposal to discontinue the corporate assembly in Norwegian code of practice for corporate governance</p>

¹⁾ Norsk Hydro ASA has entered into an agreement with the company's unions to discontinue the corporate assembly of Norsk Hydro ASA. The Agreement is subject to the approval of the company's Annual General Meeting.

	DESCRIPTION	DEVELOPMENTS AND EVENTS DURING THE REPORTING YEAR	REFERENCES
	Nomination committee Minimum three and maximum four members appointed by the general meeting of shareholders. The chairperson of the committee and at least one of the other members shall be elected among the shareholder-elected corporate assembly members. Nominates candidates to the Board of Directors, the corporate assembly and the nomination committee, and proposes remuneration to the board, its sub-committees, the corporate assembly and the nomination committee.	21 meetings. 100 percent meeting attendance. Members: <ul style="list-style-type: none">• Terje Venold (chairperson)• Morten Strømgren• Berit Ledel Henriksen• Nils Bastiansen	Articles of association § 5A and biographical information can be found at hydro.com/governance
	Board of Directors The Board of Directors currently holds 10 members. Seven are elected by the corporate assembly, three elected by and among the company's employees in Norway, for a period of up to two years. In accordance with Norwegian law, the BoD assumes the overall governance of the company, ensures that appropriate management and control systems are in place and supervises the day-to-day management as carried out by the President and CEO. The BoD has an annual plan for its work. It includes recurring topics such as strategy review, business planning, risk and compliance oversight, financial reporting, people strategy, succession planning as well as HSE and CSR.	11 meetings. 100 percent meeting attendance. The Board of Directors has an annual plan for its work. It includes recurring topics such as strategy review, business planning, risk and compliance oversight, financial reporting, people strategy, succession planning as well as health and safety and sustainability including social responsibility, climate and environment. The BoD is closely following the market and macroeconomic developments relevant for the aluminium industry. High on the BoD's agenda in 2021 was Health and Safety, including the Covid-19 situation, and implementation of the Hydro 2025 strategy with focus on profitability and sustainability. Extraordinary meetings were held to handle critical matters. The BoD conducts an annual self-assessment of its work competence, and cooperation with management and an assessment of the chairperson. Further, the Board Audit Committee performs a self-assessment. The review was facilitated by the corporate advisory firm Egon Zehnder. The main conclusions of the assessment were submitted to the nomination committee, which in turn assessed the BoD's composition and competence.	The board's mandate can be found at hydro.com/governance Biographical information on the board members in the section on the Board of Directors .
	All shareholder-elected members are external. No members elected by employees are part of the company's executive management. Employee directors have no other service contractual agreements with the company outside of their employee contracts, though they are subject to their duties as board members.	All shareholder-elected members were in 2021 deemed to be independent according to the Norwegian standards. None of the company's non-employee board members had any other service contractual agreements with the company. Thomas Schulz was as of December 31, 2021 the CEO of the listed company FLSchmidt. Sales and purchases between FLSchmidt and fully owned Hydro subsidiaries totaled EUR 74,000 and BRL 7,094,000 in 2021. Schulz was not directly involved in these transactions.	See Note 9.3 Board of Directors and Corporate Assembly retirement plans to the consolidated financial statements for remuneration, share ownership and loans.

DESCRIPTION	DEVELOPMENTS AND EVENTS DURING THE REPORTING YEAR	REFERENCES
Compensation and people committee <p>Consists of three members of the Board of Directors (BoD).</p> <p>The committee shall assist the BoD in exercising its oversight responsibility, in particular in relation to compensation matters pertaining to the President & CEO and other members of the Corporate Management Board (CMB), other compensation issues of principal importance, and strategic people processes in the company, in particular related to succession, leadership and talent, and diversity and inclusion.</p> <p>The committee shall regularly consider the appropriateness and competitiveness of the remuneration arrangements for the CEO and other members of the CMB.</p>	<p>13 meetings. 97 percent meeting attendance.</p> <p>Members:</p> <ul style="list-style-type: none"> • Dag Mejell (chairperson) • Irene Rummelhoff • Sten Roar Martinsen¹⁾ <p>¹⁾ Martinsen is employed in Hydro and represented the employees through the Norwegian Confederation of Trade Unions (LO) up until October, 1 2021. We believe that such reliance does not adversely affect, in any material way, the ability of the compensation committee to act independently or to satisfy the other requirements.</p>	<p>The mandate can be found at hydro.com/governance</p>
Audit committee <p>The audit committee consists of four of the BoD members and meets the Norwegian requirements for independence and competence.</p> <p>The audit committee assists the board in exercising its oversight responsibility with respect to the integrity of the company's financial statements, financial reporting processes and internal controls, risk management and compliance system. In addition, the committee oversees qualifications, independence and performance of the external auditor and Hydro's internal audit function.</p> <p>To ensure the independence of the internal audit function, the head of Internal Audit reports to the board through the audit committee. The head of Group Compliance has a dotted reporting line to, and meets regularly with, the audit committee.</p> <p>The audit committee maintains a pre-approval policy governing the engagement of the company's external auditors to ensure independence.</p>	<p>10 meetings. 100 percent meeting attendance.</p> <p>For self-assessment, see information on the BoD above.</p> <p>Members:</p> <ul style="list-style-type: none"> • Marianne Wiinholt (chairperson) • Liselott Kilaas • Rune Bjerke • Ellen Merete Olstad²⁾ <p>²⁾ Olstad is employed in Hydro and represents the employees through the Central Cooperative Council. We believe that such reliance does not adversely affect, in any material way, the ability of the audit committee to act independently or to satisfy the other requirements.</p>	<p>The mandate can be found at hydro.com/governance</p>
President & CEO and Corporate Management Board <p>According to Norwegian corporate law, the President & CEO constitutes a formal governing body responsible for the daily management of the company. The President & CEO leads the Hydro with the assistance of the Corporate Management Board. The division of functions and responsibilities between the President & CEO and the BoD is defined in greater detail in the rules of procedures established by the board.</p> <p>The CMB, including the President & CEO, has a shared responsibility for promoting Hydro's objectives and securing the company's property, organization and reputation. Members of the CMB are also Executive Vice Presidents (EVPs) with responsibility for the respective business areas and corporate staffs.</p>	<p>20 meetings in 2021.</p> <p>Paul Warton was appointed EVP Hysro Extrusions with effect from February 1, 2021. Erik Fossum acted as interim EVP Hysro Extrusions from December 1, 2020 to February 1, 2021. Helena Nonka was appointed EVP Corporate Development January 4, 2021. Arvid Moss acted as interim EVP Corporate Development from November 1, 2019 to April 1, 2021</p>	<p>Biographical information on the board members in the section on the Corporate Management Board</p> <p>Notes 9.1 and 9.2 to the consolidated financial statements for remuneration, share ownership and loans.</p>

Board of Directors' report in relation to the Norwegian Code of Practice for Corporate Governance

This chapter provides a detailed overview of how Hydro follows the Norwegian code of practice for corporate governance of 2021. Information that Hydro must provide in accordance with the Norwegian Accounting Act, Section 3-3b is also included. This overview should be seen in context with the general corporate governance report provided in Hydro's annual report for 2021.

The Board of Directors of Norsk Hydro ASA actively supports sound management principles of corporate governance, and places emphasis on Hydro's compliance with the Norwegian code of practice for corporate governance and on explaining any deviations.

Deviations from the Norwegian code of practice for corporate governance

In the Board of Directors' assessment, we have three deviations, two from Section 6 and one from Section 14:

Section 6, General Meeting of Shareholders:

Hydro has two deviations from this section:

1) "*Ensure that the members of the Board of Directors are present at the General Meeting*": The entire Board of Directors has normally not participated in the general meeting. Matters under consideration at the general meeting of shareholders have not previously required this. The chairperson of the Board of Directors is always on hand to present the report and answer any questions. Other board members participate as needed. The Board of Directors considers this to be adequate.

2) "*Making arrangements to ensure an independent chair for the general meeting*": Section 9 in Hydro's articles of association states that the general meeting is chaired by the chairperson of the corporate assembly, or, in his or her absence, by the deputy chair. This arrangement has been approved by the company's shareholders through resolutions at the general meeting.

Section 14, Takeovers:

Hydro has one deviation from this section:

"*The Board of Directors should establish guiding principles for how it will act in the event of a takeover bid*": The Board

of Directors has chosen not to prepare explicitly formulated general principles for handling takeover bids. The reason for this is that the Norwegian state, represented by the Ministry of Trade, Industry and Fisheries, owns 34.26 percent of the Hydro shares (as of 31.12.2021) and the Ministry of Trade, Industry and Fisheries has by virtue of the Active Ownership Report (Report to the Storting no. 8 (2019-2020)) expressed a long-term ownership perspective in the company for the purpose of retaining a leading technology and industrial company with head office functions in Norway.

1. Statement of corporate governance

Hydro follows the most recent edition of the Norwegian code of practice for corporate governance from 2021. Hydro seeks to comply with international best practice standards when preparing its constituting documents and global directives. The Board of Directors monitors the subject of corporate governance actively and continuously. The Board of Directors approved this statement on the meeting of February 21, 2022 through the signing of the Annual Report.

2. Hydro's business

Hydro is a global aluminium and energy company with production, sales and trading activities throughout the value chain, from bauxite, alumina and energy generation to the production of primary aluminum and extruded products as well as recycling. Based in Norway, the company has approximately 31,000 employees involved in activities in 40 countries on all continents. Rooted in more than a century of experience in renewable energy production, technology development and partnerships, Hydro is committed to strengthening the viability of the customers and communities we serve.

The company's purpose, as stated in Section 2 of its articles of association, is to engage in industry, commerce and transport, to utilize energy resources and raw materials, and to engage in other activities connected with this purpose. Hydro is committed to creating value by taking a lead role in the green transition. Through this, we work to strengthen local community relations, communities and business partners through education and empowerment. Hydro's target is to ensure the safety of our employees and have an injury-

free work environment. Its business activities may also be conducted through participation in or in cooperation with other companies.

The Hydro Way represents our framework for leadership, organization and culture and is the foundation for our governance system, including Hydro's Code of Conduct which is approved by the Board of Directors. The board also oversees that Hydro has appropriate global directives for, among other things, risk management, HSE, people management and social responsibility. Sustainability, including environment and climate change, social responsibility, diversity, health, safety and work environment and compliance is integrated into the group's risk management and strategy processes and are at the center of applicable board considerations and decision-making throughout the year. The approach is discussed in more detail in the group's annual report as applicable.

The Board of Directors has an annual plan for its work. It includes recurring topics such as strategy review, business planning, risk and compliance oversight, financial reporting, people strategy, succession planning as well as health and safety, social responsibility, climate change and environment. The Board of Directors is closely following the market and macroeconomic developments relevant for the aluminium and energy industries.

High on the board's agenda was health and safety, including the Covid-19 situation, and implementation of the Hydro 2025 strategy "Lifting profitability, driving sustainability". Extraordinary meetings have been held to handle critical matters.

The Board of Directors conducts an annual self-assessment of its work competence and cooperation with management, including an assessment of the chairperson. Further, the Board Audit Committee performs a self-assessment. The review was facilitated by the corporate advisory firm Egon Zehnder. The main conclusions of the assessment were submitted to the nomination committee, which in turn assessed the board's composition and competence.

Norsk Hydro ASA has purchased and maintains a Directors and Officers Liability Insurance on behalf of the members of the Board of Directors and the CEO. The insurance also covers any employee acting in a managerial capacity and includes controlled subsidiaries. The insurance policy is issued by a reputable insurer with an appropriate rating.

References: Hydro's articles of association are available at hydro.com/governance. Learn more about The Hydro Way and Hydro's corporate directives at hydro.com/principles.

3. Equity and dividend

In the opinion of the Board of Directors, Hydro's equity capital is appropriate to the company's objectives, strategy and risk profile.

Hydro's dividend policy was revised in 2021, reflecting Hydro's ambitions to lift performance and cash returns to shareholder over the cycle. The revised dividend policy is to pay out a minimum of 50 percent of adjusted net income over the cycle with a NOK 1.25 per share dividend floor.

The dividend per share is proposed by the Board of Directors, based on Hydro's dividend policy, and approved by the general meeting of shareholders.

The Board of Directors may obtain authorization from the general meeting of shareholders to buy back Hydro shares in the market. In such cases, the board will normally request that the shares are acquired in the open market, and that the authority lasts no longer than until the next general meeting.

When the general meeting of shareholders considers whether or not to authorize the Board of Directors to carry out share capital increases for different purposes, each purpose must be considered separately by the meeting. Such authorization will be limited in time and will last no longer than until the date of the next general meeting. Authorization granted to the Board of Directors is restricted to specific purposes. Such authorization was last given in 2010 in connection with the Vale transaction.

See also item 4.

References: Learn more about Hydro's equity and dividend policy in [Shareholder information](#).

4. Equal treatment of shareholders

Hydro has one share class. All the shares have the same rights.

Transactions involving own shares are normally executed on the stock exchange. Buybacks of own shares are executed at the current market rate.

Shareholders who are registered in the Norwegian Central Securities Depository (VPS) may vote in person or by proxy at the general meeting of shareholders. Invitations are sent to the shareholders or to the bank/broker where the shareholder's securities account is held.

Sales of shares to employees in Norway are conducted at a discount to market value. See also Item 6.

Contact between the Board of Directors and the investors is normally conducted via company management. Under special circumstances the board, represented by the chairperson, may conduct dialogue directly with investors.

Regulation of share issues and preemptive rights are described in the company's articles of association.

State ownership

As of December 31, 2021 the Norwegian state, represented by the Ministry of Trade, Industry and Fisheries, owned 34.26 percent of Hydro's total issued shares. Hydro holds regular meetings with the Ministry, where topics discussed include Hydro's economic and strategic development, sustainability, and the Norwegian state's expectations regarding results and returns on investments. These meetings are comparable to what is customary between a private company and its principal shareholders. The meetings comply with the provisions specified in Norwegian company and securities legislation, not least with respect to equal treatment of shareholders. As a shareholder, the Norwegian state does not usually have access to more information than what is available to other shareholders. If state participation is imperative and the government must seek approval from the Norwegian parliament (Stortinget), it may be necessary to provide the Ministry with insider information. In such cases, the state is subject to the general rules that apply to the handling of such information.

References: Learn more about major shareholders in the [Shareholder information](#) and sale of the Hydro share to employees

in [Note 9.2 Employee remuneration](#) to the consolidated financial statements. Hydro's Code of Conduct can be found on www.hydro.com/principles. Hydro's articles of association can be found on www.hydro.com/governance. See also [Note 9.5 Related party information](#) to the consolidated financial statements.

5. Freely negotiable shares

The Hydro share is freely negotiable. It is among the most traded shares on the Oslo Stock Exchange and is subject to efficient pricing. As of December 31, 2021 the Norwegian state, represented by the Ministry of Trade, Industry and Fisheries, owned 34.26 percent of Hydro's shares, while the Government Pension Fund Norway owned 6.91 percent. Shareholding is based on information from the Norwegian Central Securities Depository (VPS) as of December 31, 2021. Due to lending of shares, an investor's holdings registered in its VPS account may vary.

References: Learn more about Hydro's equity and dividend policy under [Shareholder information](#).

6. General meeting of shareholders

The annual general meeting, to which all shareholders are invited, is the company's highest governing body. The company's articles of association are adopted here.

In 2021, the annual general meeting was held on 6 May and 57.67 percent of the total share capital was represented.

The annual general meeting was conducted digitally due to the Covid-19 pandemic, with a live webcast and electronic voting on each item.

Notice to a general meeting with supporting information is normally published on hydro.com more than three weeks in advance and is sent to the shareholders at least three weeks prior to the meeting.

Notice to a general meeting provides information on the procedures which shareholders must follow to participate in and vote at the meeting. Such notice also details:

- the procedure for representation by proxy, including the use of a form of proxy
- the right of shareholders to propose resolutions for consideration by the general meeting of shareholders
- the website where the notice of the meeting and other supporting documents will be made available

The following information is available at Hydro's website:

- information on the right of shareholders to propose matters for consideration by the general meeting of shareholders
- how to make proposals for resolutions for consideration by the general meeting or how to comment on matters for which no resolution is proposed
- form of proxy

Our aim is that resolution proposals and supporting information that are distributed are sufficiently detailed and comprehensive to enable shareholders to reach decisions on the matters to be considered at the meeting.

The notification deadline for shareholders wishing to attend the general meeting is no more than five days prior to the meeting.

Shares registered in a nominee account must be re-registered in the Norwegian Central Securities Depository (VPS) and be registered in the VPS on the fifth working day before the general meeting in order to obtain voting rights. Shareholders who are unable to attend in person may vote by proxy. Hydro will nominate a person who will be available to vote on behalf of shareholders as their proxy.

The general meeting votes for each candidate nominated for election to the company's corporate assembly and nomination committee.

To the extent possible, the form of proxy will facilitate separate voting instructions for each matter to be considered by the meeting and for each of the candidates nominated for election. It is possible to vote electronically in advance.

The general meeting is led by the chairperson of the corporate assembly, or, in his or her absence, by the deputy chair.

The chairperson of the Board of Directors, minimum one nomination committee representative, the President & CEO, the CFO and the company's auditor attend the general meeting.

References: Learn more about the general meeting of shareholders at hydro.com/investor.

Deviations: See the first page of this section.

7. Nomination committee

The nomination committee is comprised of minimum three members, maximum four, who are either shareholders or shareholder representatives. The committee's chairperson and members are appointed by the general meeting of shareholders. At least two, including the chairperson, must be elected from the shareholder-elected representatives in the corporate assembly. If the chairperson resigns as member of the nomination committee during the electoral period, the nomination committee shall elect among its members a new chairperson for the remainder of the new chairpersons electoral period.

All members of the nomination committee are independent of the Board of Directors. In accordance with Section 5A of Hydro's articles of association, the company must appoint a nomination committee. The main task is to provide a recommendation to the company's general meeting on the election of members to the corporate assembly, and a recommendation to the corporate assembly on the election of the shareholders' representatives on the BoD. In addition, the nomination committee submits proposals for remuneration to the members and deputies of the BoD and the corporate assembly and carries out an annual evaluation of the board's work.

The guidelines for the nomination committee have been approved by the annual general meeting, which also determines the remuneration to the committee members. All shareholders may propose candidates for the nomination committee at any time. In order to be considered at the next ordinary election, proposals must be submitted by the end of November in the year before the election year.

The recommendations of the nomination committee include details on the candidates' background and independence.

The nomination committee ensures that due attention is paid to the interests of the shareholder community and the company's requirements for competence, capacity and diversity. The nomination committee also takes account of relevant statutory requirements regarding the composition of the company's governing bodies.

According to its mandate, the nomination committee shall be receptive to external views and shall ensure that any deadlines for proposals regarding members of the corporate assembly, the nomination committee and the BoD are

published well in advance on the company's website. In carrying out its duties the nomination committee should actively maintain contact with the shareholder community and should ensure that its recommendations are anchored with major shareholders.

All members of the nomination committee are independent of Hydro's Board of Directors, CEO and other executive management staff. As the largest shareholder, the Norwegian state is represented on the nomination committee by Morten Strømgren from the Ministry of Industry and Fisheries and the Government Pension Fund Norway (Folketrygdfondet) by Nils Bastiansen.

References: Information on Hydro's articles of association, the nomination committee and its members can be found on hydro.com/governance. This is also where nominations to the committee can be submitted electronically.

Deviations: See the first page of this section.

8. Corporate assembly and Board of Directors - composition and independence

Detailed information about each board member can be found in the [corporate governance](#) chapter.

All board members, members of the board committees and members of the corporate assembly are independent of the company's executive management and material business relationships. One member and one deputy member of the corporate assembly are dependent of one of Hydro's largest shareholders: Kjetil Houg is CEO of the Government Pension Fund Norway (Folketrygdfondet) and was elected as a member of the corporate assembly in 2020. Nils Bastiansen, who is also an employee of the Government Pension Fund Norway, is a deputy member of the corporate assembly. Board member Liselott Kilaas is a board member of the Government Pension Fund Norway.

Thomas Schulz was, as of December 31, 2021 the CEO of the listed company FLSchmidt. Sales and purchases between FLSchmidt and fully owned Hydro subsidiaries totaled EUR 74,000 and BRL 7,094,000 in 2021. Schulz was not directly involved in these transactions.

Two-thirds of the corporate assembly and their deputies are elected by the general meeting of shareholders. The nomination committee nominates candidates with a view to



obtain a broad representation by the company's shareholders and other relevant stakeholders with competence in, for example, technology, finance, research, and corporate social responsibility. The corporate assembly elects the Board of Directors, including its chairperson and deputy chair.

Norsk Hydro ASA has entered into an agreement with its unions to discontinue the company's corporate assembly. Hydro was in dialogue with the unions through the fall of 2021 regarding employee democracy in a wider context and as part of this dialogue has agreed with the unions that the Corporate Assembly shall be discontinued. The agreement will be subject to the annual general meeting's approval in May. The dissolution of the corporate assembly will be effective as of such approval. If the agreement is approved by the annual general meeting, the number of employee representatives on the Board of Directors of Norsk Hydro ASA will be increased from three to four.

The corporate assembly is a distinctively Norwegian governing body, which according to the Norwegian Public Limited Liability Companies Act exercises supervision of the Board of Directors. If the corporate assembly is discontinued, the authority to elect the shareholder-elected board members of Norsk Hydro ASA and to determine the board remuneration will pertain to the general meeting.

In compliance with Section 5A of Hydro's articles of association, the Board of Directors consists of between nine and 11 members. These are elected for a period of up to two years.

The nomination committee aims to achieve a board composition that protects the interests of the shareholder community and the company's need for expertise, capacity and diversity. Emphasis is placed on the members complementing each other professionally and on the board's ability to function as a collegiate body.

As of December 31, 2021, the 10 members of the Board of Directors owned a total of 89,346 shares in Norsk Hydro ASA. Hydro does not have a share purchase program for board members, with the exception of the employee representatives, who are entitled to buy shares through the Norwegian employee share purchase scheme. All share purchase transactions are conducted in compliance with the Norwegian Securities Trading Act.

References: An overview of the members of the corporate assembly, the current composition of the Board of Directors and information about their independence is disclosed in the [Corporate governance](#) chapter, and in Hydro's articles of association which are available on [hydro.com](#).

9. The work of the Board of Directors

The Board of Directors (BoD) has established procedures for its own work and that of the company's management, with particular emphasis on clear internal division of responsibilities whereby the board has responsibility for supervising and administrating the company, and the company's management has responsibility for the general operation of the group.

Conflicts of interests and disqualification

Hydro's Code of Conduct contains guidelines for, among other things, how conflicts of interests that may arise should be handled with. The code applies to all of Hydro's board members and employees. It is the opinion of the Board of Directors that there were no transactions that were material between the group and its shareholders, board members, Corporate Management Board or related parties in 2021, except those described under Item 8.

If the chairperson of the BoD is or has been actively involved in a given case, for example in negotiations on mergers, acquisitions etc., another board member will normally lead discussions concerning that particular case.

The board's rules of procedures also contain provisions that any board member holding a key position in a company with competing activities may not participate in the discussion of or decision on matters where competition-sensitive issues are addressed. Further, the rules of procedures state that each board member has a duty to continually assess whether there are any circumstances which could undermine the general confidence in his or her independence, and also how the Board of Directors shall handle transactions with closely related parties.

The BoD has an annual work plan, with particular emphasis on objectives, strategy and implementation. It includes recurring topics such as strategy review, business planning, risk and compliance oversight, financial reporting, people strategy, succession planning as well as health and safety, and sustainability, including social responsibility, climate and environment. The BoD is closely following the market and

macroeconomic developments relevant for the aluminum industry. Since 2001, Hydro has had an audit committee and a compensation and people committee. The audit committee has four members and the people and compensation committee has three members. The shareholder-elected members are all independent of the company. In the opinion of the Board of Directors, the audit committee meets the Norwegian requirements regarding independence and competence.

The BoD conducts an annual self-assessment of its work, competence and cooperation with management and a separate assessment of the board's chairperson. In addition, the audit committee performs a self-assessment. The review was facilitated by the corporate advisory firm Egon Zehnder. The assessment results are submitted to the nomination committee, which in turn assesses the board's composition and competence.

References: Information about the Board of Directors and its committees, and the board members' competence can be found in the chapter Corporate Governance in Hydro's Annual Report 2021. The Board of Directors' mandate can be found at [hydro.com](#).

10. Risk management and internal controls

The Board of Directors is responsible for sound internal controls and appropriate risk management systems through, for example, an annual review of the key risk areas through the ERM system and the company's internal controls. The head of internal audit reports directly to the Board of Directors but is for administrative purposes placed under the purview of the chief financial officer (CFO).

Group Accounting and Reporting (GAR) has, on behalf of the CFO, the governing responsibility for processes across Hydro related to periodic financial reporting, and internal control over financial reporting (ICFR), and is primarily designed to provide reasonable assurance to our management and the Board of Directors regarding the preparation and fair presentation of our financial statements.

Hydro's ICFR framework is based on the COSO 2013 Internal Controls Integrated Framework, which consists of five interrelated components and 17 relevant principles that must be present and functioning. The five elements are: Control Environment, Risk Assessment, Control activities, Information and Communication, and Monitoring activities.

Our overall control environment for financial reporting is governed by our ICFR Global Directives, and reflects the tone set by the common attitudes, ethics, and values, and competence of top management and management, and all the rest of our employees.

The ICFR framework is implemented through a risk-based and top-down approach, to provide appropriate organization of the financial reporting, ensuring that Hydro's activities, accounts and management are subject to adequate control.

Hydro's disclosure committee assists the CEO and the CFO in ensuring fairness, accuracy, completeness, and timeliness of Hydro's public reports and disclosures. The disclosure committee is also an integral component of Hydro's disclosure controls and procedures, and assesses Hydro's effectiveness and compliance initiatives pertaining to ICFR. The disclosure committee reports quarterly a summary of its activities to the board audit committee. Through reporting from the disclosure committee, the audit committee takes an active role in ensuring the functioning of the ICFR framework. The Board of Directors meets regularly with the external auditor without members of the corporate management present.

The audit committee has established a pre-approval policy governing the engagement of Hydro's primary external auditors for audit and non-audit services to Hydro or any entity within the group. Under this pre-approval policy, the audit committee has defined and pre-approved subcategories of audit and non-audit services. The audit committee's preapproval policy includes annual monetary frames for each of the following categories of services:

- Audit
- Audit-related
- Tax
- Other - not related to financial audit and tax

Within the scope of the pre-approval policy, all services shall be pre-approved. The reported amounts for audit, audit-related, tax and other non-audit-related services are within the monetary frames established by the audit committee.

Hydro's internal control system includes all parts of Hydro's corporate directives, including our code of conduct and HSE and corporate social responsibility requirements. A more detailed description of the company's internal controls and risk management systems can be found at [hydro.com/governance](#)

References: A review of Hydro's major risks can be found in the section Enterprise risk management in Hydro. More information about Hydro's corporate directives can be found at [www.hydro.com/governance](#).

11. Remuneration of the Board of Directors

The shareholder-elected board members perform no duties for the company other than their board duties.

Remuneration is determined by the corporate assembly, based on the recommendation of the nomination committee. The nomination committee recommends compensation with the intention that it should reflect the board's responsibility, competence and time commitment as well as the company's complexity and global activities compared with the general level of directors' fees in Norway. Remuneration of the Board of Directors is based neither on performance nor on shares or share options.

References: All aspects of remuneration of the Board of Directors are described in [Note 9.3 Board of Directors and corporate assembly](#) to the consolidated financial statements. See also Hydro's articles of association.

12. Remuneration of the executive management

The Board of Directors has established a remuneration policy for remuneration of members of the executive management. The remuneration policy states that Hydro shall pay members of the executive management a compensation package that is competitive, but not market leading, and in line with good industry standards locally.

Where appropriate, compensation packages should also include a performance-based component. The performance-based incentive schemes shall support Hydro's business strategy and long-term interests and shall also contribute to ensuring that the company is run in a sustainable manner. Performance-based compensation has been capped in accordance with the Norwegian government's guidelines on executive remuneration.

The company's long-term incentive program is share-based with a lock-in period of three years. Hydro has no share option scheme.

The remuneration policy was approved by the shareholders at the general meeting in 2021. A revised policy will be presented for a binding vote at the general meeting in 2022. The approved policy will be available on Hydro's website. A new management remuneration report for 2021 will be presented to the general meeting in 2022 for an advisory vote. The remuneration report will be available on April 8, 2022 on [hydro.com](#).

References: Hydro's remuneration policy is available on Hydro's website. All aspects of remuneration of management are described in [Note 9.1 Management remuneration](#) as well as in the remuneration report for 2021. The employee share purchase plan is described in [Note 9.2 Employee remuneration](#).

13. Information and communication

Hydro's corporate culture embodies the principles of transparency and respect for others. Our ability to operate efficiently in the Norwegian market and internationally requires consistent and professional communication. We therefore adhere to the principles of transparency, honesty and accountability when interacting with our stakeholders.

Hydro has established guidelines for the company's reporting of financial and extra-financial information - requirements that go beyond financial reporting, such as the environment, social conditions and corporate governance. These guidelines are based on transparency and consideration of the requirement for equal treatment of all players in the securities market. This also pertains to contact with shareholders outside of the annual general meeting.

Shareholder information is available on [hydro.com](#). The financial statements and Annual Report are sent free of charge to shareholders on request. Notice of general meeting of shareholders is sent directly to shareholders with known addresses unless they have consented to receive these documents electronically. All information sent to the shareholders is made available on hydro.com when distributed. Presentation of the quarterly reports as well as the annual general meeting are simultaneously broadcasted through webcasts. All relevant information is sent to the Oslo Stock Exchange electronically for public storage.

Hydro has emergency plans in place at the relevant levels in the organization. These plans are exercised regularly. Rules for who can speak on behalf of the company are regulated through Hydro's Code of Conduct.

References: A financial calendar is available in Hydro's annual reports and at hydro.com/investor where also more information about webcasts and the Hydro share can be found, including key legal information for shareholders in Norsk Hydro ASA. Hydro's code of conduct is available on hydro.com/principles.

14. Takeovers

The Board of Directors will handle takeover bids in accordance with Norwegian law and the Norwegian code of practice for corporate governance. There are no defense mechanisms against acquisition offers in our articles of association or in any underlying steering document. We have not implemented any measures to limit the opportunity to acquire shares in the company. See also Item 5.

Deviations: See the first page of this section.

15. Auditor

The external auditor annually presents the main features of the audit plan to the audit committee.

The external auditor participates in all meetings of the audit committee. The minutes from these meetings are distributed to all board directors. This practice is in line with the EU audit directive. Each year the auditor presents the main elements of the audit, including uncorrected audit misstatements and internal control weaknesses.

The external auditor meets with the Board of Directors when the company's annual financial statements are approved. In the meeting, the auditor provide overview over the main elements of the audit, identified weaknesses in and suggestions for improvements to Hydro's internal controls. The Board of Directors holds meetings with the external auditor without members of the corporate management present.

Hydro places importance on independence and has clear guidelines regarding the use of services from external auditors. All services from the external auditor, including non-audit services, are subject to pre-approval as defined by the audit committee. The external auditor provides the audit committee with an annual written confirmation of

independence, and a summary of all non-audit services provided to Hydro during the year.

Remuneration of the auditor is stated in the Annual Report. It is also included as a separate agenda item to be approved by the annual general meeting of shareholders.

The new Public Audit Act entered into force on January 1, 2021. Extended tasks related to selection of an external auditor, purchase of audit services and follow-up of the external auditor are handled by the audit committee.

In 2020, the annual general meeting chose to retain KPMG as external auditor for the group, in accordance with a tender process. KPMG has been the auditor for Hydro since 2010. Lead Audit Partner has been part of the audit team since 2017. The lead Audit partner rotates every 7 years.

References: See [Note 10.4 Auditor's remuneration](#) to the consolidated financial statements.

[Material topics](#) covered
in this chapter:

Ethics and compliance



Integrity and compliance



Why is it important?

We are a global aluminium company, present in every step of the value chain, from mining to metal products and solutions. We are committed to applying ethical business practices and compliance throughout our organization and supply chain. Hydro's board-sanctioned Code of Conduct creates the foundation that supports our efforts to do the right things and to always act with integrity throughout our global organization wherever we operate and conduct business on behalf of Hydro.

Our approach

In Hydro, compliance is defined as adherence to applicable laws and regulations as well as Hydro's constituting documents and global directives. Specific policies and procedures as well as guidelines have been established to assist line management to adhere to Hydro's compliance requirements. Special emphasis is made on reducing the risk of non-compliance within finance, anti-corruption, competition, health, security, safety and environment.

Our compliance system is based on a clear governance structure defining roles and responsibilities regarding compliance and all compliance-related activities undertaken throughout the company.

For legal entities where Hydro holds less than 100 percent of the voting rights, we are working through their boards of directors to promote the principles in Hydro's Code of Conduct and our corporate directives. This includes, but is not limited to, HSE, anti-corruption and human rights.

The management of compliance risks, including risks related to corruption and human rights violations, are integrated in our business planning, enterprise risk management and follow-up process, including relevant risk-mitigating actions and key performance indicators. The progress of actions as well as any non-compliance matters are addressed in the quarterly internal board meetings that each business area has with the CEO, and an annual compliance report is submitted to the board of directors. The head of group compliance reports to the board of directors through the board audit committee at his own discretion and meets with the board of directors periodically and participates in all board audit committee meetings. Read more about Hydro's human rights management in the [Human Rights](#) section.

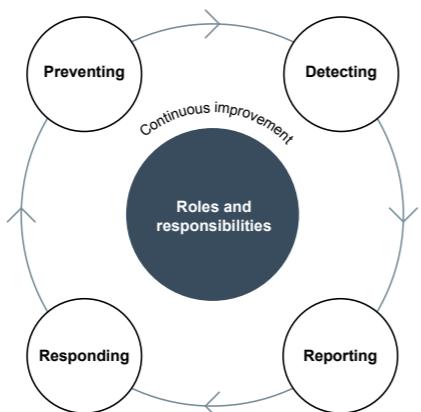
Combating corruption and respecting human rights are integral to our supplier requirements, see [Responsible supply chain](#) for more information. Procedures are in place to assess the integrity risk of business partners and detecting fraud. Regular transaction-based screening of customers and suppliers is also carried out, see [Note S10.5 Screening of business partners and supplier audits](#) to the social statements. In 2021, Hydro continued to evaluate its integrity risk management approach to ensure adequate management of relevant risks.

An integrity culture index was introduced in Hydro's employee engagement survey in 2020, benchmarking the employee perception of our integrity culture. The overall score of the index was within the first quartile of the defined external benchmark, which was one of the KPIs of the CEO scorecard. The results, which identified strengths and weaknesses, provided us with a good basis for specific and tailored compliance activities which were undertaken in 2021.

Hydro's global data protection procedure constitutes the company's binding corporate rules for data protection (BCR) and ensures compliance with the EU General Data Protection Regulation (GDPR). It was approved by the relevant EU data protection authorities in 2018. Designated data privacy coordinators for all business areas and staff functions form part of the data privacy network chaired by the head of data privacy. In 2021, we continued to work on the robustness of the data privacy network. Following the "Schrems II" judgement by the European Court of Justice in July 2020, Hydro set up a project to follow up on the recommendations by the European Data Protection Board on transfer of personal data from the EU/EEA to third countries.

We are committed to building a culture of trust where employees are comfortable to ask questions, seek guidance, raise concerns, and report suspected violations. Normally, concerns and complaints should be raised with the employee's superior. However, if the employee is uncomfortable with that, he or she may raise the issue with Human Resources, HSE (health, safety and environment), a union/safety representative, compliance, legal or internal audit. The employee can also use Hydro's whistle-blower channel, AlertLine, where concerns can be reported anonymously. All employees and on-site contractors can use the AlertLine in their own language at all times via toll-free phone numbers, Hydro's intranet or on [hydro.com](#). In certain countries, e.g. Spain, there are, however, legal restrictions

Integrity and compliance



on such reporting lines. AlertLine has in the past been mainly directed toward employees and contracted workers. However, in 2021 it was made available publicly on [hydro.com](#). For further information about the use of the AlertLine, please see [Note S10.1 Reported and confirmed cases of non-compliance](#) for more information.

The head of internal audit reports to the company's board of directors through the board audit committee. Every quarter, they inform the board audit committee and periodically the corporate management board about matters reported through the AlertLine. Hydro's internal audit has resources in Norway, Brazil and North America.

For more information about Hydro's performance on compliance, see [Note S10 Compliance](#) to the social statements in this report.

Transparency

Transparency is key to creating a global level playing field as well as to safeguard the company's reputation. Hydro reports in accordance with the GRI Standards and supports the Extractive Industries Transparency Initiative (EITI). Since 2005, we have reported payments to host governments related to exploration and extraction activities for bauxite. We also comply with the Norwegian legal requirements on [country-by-country](#) reporting. In accordance with the the Norwegian Transparency Act (valid from 2022), UK Modern Slavery Act and Australia Modern Slavery Act, we publish a transparency statement, see the [human rights](#) section. In

addition, we follow the Euronext guidelines to issuers for Environmental, Social and Governance (ESG) reporting.

Partnerships

Hydro works through industry and aluminium associations to improve the ESG standards within our industry and to establish a level playing field for global aluminium production.

Hydro is a member of the International Council on Mining and Metals (ICMM), which gives us the opportunity to participate in the development of industry practices on the environment and to share best practices. We are also a founding member of the Aluminium Stewardship Initiative (ASI).

The ongoing loss of biodiversity and degradation of ecosystems represent long-term risks for the industry and society at large. We see a need for more sustainable frameworks and participate in several initiatives, including the WBCSD's Ecosystem Program.

To increase our knowledge and secure a science-based approach to rehabilitation, the Biodiversity Research Consortium Brazil-Norway (BRC) was established in 2013. BRC consists of the University of Oslo and its Brazilian partners Museu Paraense Emílio Goeldi, Federal University of Pará and Federal Rural University of the Amazon, in addition to Hydro. The scope of the consortium is to create a research program connected to our mining operations. The aim is to strengthen Hydro's ability to preserve natural biodiversity and to better rehabilitate the areas where we mine bauxite. Seventeen research projects are progressing, and more projects are in the pipeline.

Joining forces in collective action is critical in the fight against corruption. Hydro has had a partnership with Transparency International for many years. Hydro is also a member of the Maritime Anti-Corruption Network (MACN), which provides valuable insight into the maritime industry – an important part of our supply chain. Through Alunorte, Albras, Mineração Paragominas and Norsk Hydro Brazil, Hydro has been a signatory of the Business Pact for Integrity and Against Corruption since 2018. The Pact is developed by the Ethos Institute in partnership with global organizations such as the United Nations and the World Economic Forum, seeking to unite companies with the objective of promoting a more ethical market and to eradicate bribery and corruption in Brazil.

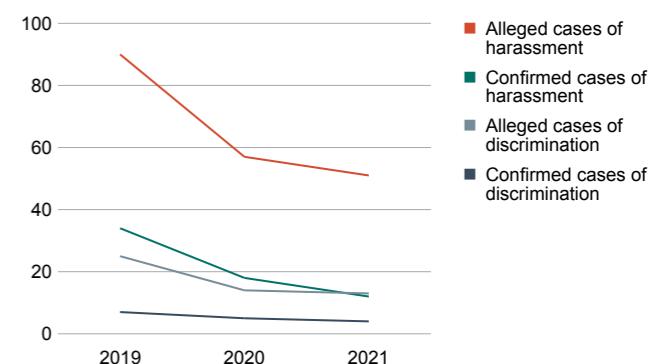
Hydro has had a long-standing partnership with Amnesty International Norway since 2002. The partnership is based on human rights education and dialogue meetings on relevant human rights dilemmas. We have also cooperated for many years with the Danish Institute for Human Rights for external expertise to further develop, maintain and strengthen our approach to human rights, including important input to develop our human rights procedures related to internal operations as well as the supply chain. The partnership was concluded at the end of 2021, but Hydro is still a member of their Nordic business network. To contribute to the strengthening of human rights frameworks, we also participate in other relevant forums, such as ICMM, ASI and UN Forum on Business and Human Rights.

Hydro is a Signature Partner of UNICEF Norway to contribute to quality education for children and adolescents. For information about our community investments and social programs, see the [Community investments and social programs](#) section. In 2021, Hydro participated in the Global Child Forum's Business Sounding Board. UNICEF and the Global Child Forum have guided us in the development of Hydro's child rights program.

In addition, we cooperate with global and local industry organizations, NGOs and other organizations. See [hydro.com](#) for an overview of important partnerships. For information about how we collaborate with other institutions within research and development, please see the section on [Innovation](#).

Alleged and confirmed cases of discrimination and harassment

Number of cases



Public affairs and lobbying

Hydro recognizes the value of engaging with public authorities and other stakeholders in relation to the development of various policy initiatives that impact our industry. We interact primarily with decision makers in countries where we have significant operations, such as Norway, Brazil and the US, as well as with regional structures like the European Union institutions. These interactions are mainly related to securing competitive, stable and predictable industry framework conditions, taxes and legislation that affect our activities.

We promote our views on issues of importance either through direct interaction with public authorities and other stakeholders, or through various industry associations. See GRI Standards 102-12 and 102-13 at hydro.com/gri.

In addition, we participate in think tanks, especially in Brussels, and engage regularly in discussions with various NGOs.

Most resources are dedicated to advocacy activities within the EU, Brazil, the US and Norway, through business associations, and to direct dialogue with authorities and decision makers. When relevant, we are in dialogue with applicable tax authorities in Norway, the EU and Brazil. We may also discuss fundamental tax developments and issues with other enterprises.

We support the principles of free and fair trade, and efforts to create a global level playing field. In our advocacy, we also support the climate targets set in the Paris Agreement.

Hydro supports market-based solutions for pricing of carbon emissions, like the EU Emissions Trading System (ETS). A decisive part of the EU regulation is the ability to compensate for the extra cost occurring within the EU, in order to maintain competitiveness for global industries like aluminium.

The European Green Deal was announced by the EU Commission in 2019, increased European climate protection targets 2030 were decided in December 2020, and the EU presented in July 2021 their Fit-for-55 proposal to enable greenhouse gas reductions in the next decade. It is a roadmap on policies to achieve carbon neutrality in the EU by 2050 and includes policies to develop markets for low-carbon and circular products, in combination with stricter targets for emission reduction. We see interesting opportunities in this roadmap as long as it is combined with competitive framework conditions.

For information on spending on public affairs and lobbying, see [Note S12 Public affairs and lobbying](#) to the Environment and social statements in this report.

According to our Code of Conduct, Hydro may not make financial contributions to political parties.

Stakeholder dialogue

Engaging with our stakeholders helps us understand what is expected of us, what is important to them, how we impact them and how we can solve common challenges. As a global company, Hydro participates in a wide range of activities, from local community meetings to national and international multi-stakeholder and industry association discussions. We are committed to interacting with all our stakeholders in an ethical and transparent manner. We strive to demonstrate integrity in everything we do.

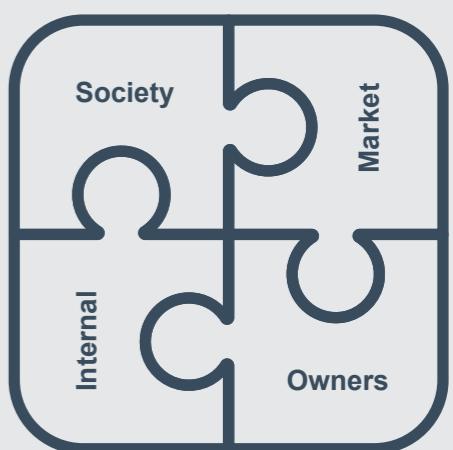
Our dialogue and engagement covers a large number of stakeholders and individuals, such as unions, works councils, academia, customers, suppliers, business partners, authorities, industry associations, non-governmental organizations and local communities, including vulnerable groups. This is shown in the figure on the following page.

We consult with interested and affected parties in the identification, assessment and management of all significant social, health, safety, environmental and economic impacts associated with our activities. For more information regarding stakeholder dialogue and human rights, see our section on [Rightsholder and stakeholder engagement](#).

Dialogue with affected groups gives input to plans, detailing our environmental and social responsibilities. We strive to act in an open and credible manner, and gather views from interested parties, aiming for a common understanding of the decisions that are made.

All business areas have a forum for dialogue between management and union or employee representatives. Hydro's Global Framework Agreement was last updated in 2016. While the negotiation of a new agreement was halted due to Covid-19, the parties are aiming to resume the negotiations in 2022.

Stakeholder dialogue in Hydro



- | | |
|--|--|
| Society | Market |
| <ul style="list-style-type: none"> • Academia • Authorities • Industry associations • Lobby groups • Local communities • Media • National and international unions • NGOs • Politicians • Public offices • R&D funding bodies | <ul style="list-style-type: none"> • Commodity and stock exchanges • Competitors • Customers • End users • Insurers and banks • Partners/joint ventures • Suppliers • Other business relations |
| Internal | Owners |
| <ul style="list-style-type: none"> • Board of Directors • Corporate Assembly • Employee representatives • Employees | <ul style="list-style-type: none"> • Owners/shareholders • The Norwegian government • Financial markets • Analysts • Traders • Brokers • Ratings agencies |

- Introduction
- Our business
- Performance review
- Governance
- Environment and social responsibility
- Financial statements
- Appendices

Environment and social responsibility

74
Environment
and social achievements

75
Climate
change

80
Environmental impact
management

85
Innovation

89
Human rights

96
Responsible
supply chain

100
Local community
value creation

103
Organization and
work environment

Environment and social achievements

Introduction

This chapter addresses Hydro's approach to environmental and social performance as well as innovation. The following sections reflect the material topics identified in Hydro's 2021 [Materiality analysis](#). We have an integrated approach to our reporting, and our Environment and Social sections should be seen in context with the other parts of Hydro's Annual Report 2021, in particular: [Letter to shareholders](#), [Introduction](#) and [Strategy](#) section, [Performance](#) and [Governance](#) section.

This chapter is part of Hydro's reporting in accordance with the GRI Standards.

Environmental achievements in 2021

In 2021, Hydro's total greenhouse gas (GHG) emissions decreased compared to our climate strategy's baseline, and we are still on track to deliver on our target of total emission reductions of 10 percent by 2025. We met our biodiversity targets in rehabilitating land at our mining site in Paragominas, Brazil. We recycled 335,000 tonnes of post-consumer aluminium scrap last year, enabling the production of a record amount of our low-carbon Hydro CIRCAL product (38,000 metric tonnes). In our tailings management, we implemented the Tailings Dry Backfill methodology, developed in 2020. This allowed us to return the tailings to mined areas as part of our land rehabilitation, and eliminated the need to build new tailings storage facilities. We have set new ambitions toward 2050, and aim to achieve net-zero greenhouse gas emissions, and no net loss of biodiversity in new projects.

Social achievements in 2021

In 2021, we made significant headway in managing our social impact. We educated almost 21,000 people as part of our ambition to provide quality education and capacity building to 500,000 people by 2030. Moreover, we contributed NOK 55 million in community investments, charitable donations and sponsorships around world. We set new social ambitions for 2050 in terms of managing our external social impact and aim to improve the lives and livelihood of people in the communities where we operate.

A new diversity and inclusion strategy was established, and we met our 2021 gender targets for employees, with women comprising 20 percent of the Hydro workforce. This was an increase of 2 percentage points compared to 2020. While our total recordable injury rate deteriorated from 2.7 in 2020 to 3.3 per million hours worked in 2021, the majority of injuries were classified as minor, with no life-threatening or life-changing injuries during the year. We recorded zero fatalities in 2021.

More quantitative information is included in the [environmental and social statements](#) with notes.

Hydro reports in accordance with the GRI Standards' "Core" option. Please see our GRI index at hydro.com/gri.

Hydro and the UN Sustainable Development Goals

The UN Sustainable Development Goals (SDGs) embrace a universal approach to the sustainable development agenda. They explicitly call on business to use creativity and innovation to address development challenges and recognize the need for governments to encourage sustainability reporting. Hydro has an impact on all of the 17 development goals, some more than others. Hydro has chosen eight goals that are the most important to us. These are highlighted throughout the report.

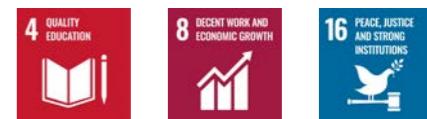
Materiality analysis

Our 2021 material topics reported on in this chapter can be found in our [Materiality Analysis](#).

Improving our footprint



Making a positive difference



Driving innovation





Climate change

Material topics covered in this chapter:

- Climate change
- Renewable energy transition
- Product quality and liabilities



Why it matters

The Paris agreement sets an ambition to limit global warming below 1.5 degrees. In response to this, Hydro has set its own net-zero ambition by 2050 or earlier and believes low-carbon aluminium products can play an important role in reducing global greenhouse gas (GHG) emissions. Alumina refining and electrolysis of primary aluminium are energy-intensive processes and constitute the majority of Hydro's GHG emissions. The energy source is a decisive factor for total as well as specific emissions, i.e. emissions per tonne of product produced. On the other hand, aluminium can save significant amounts of energy and GHG emissions in the use phase due to its lightweight properties.

Our approach

Hydro's overarching ambition toward 2050 is to reduce the climate impact of our value chain through greener sourcing, greener production and greener products. A crucial step in this direction is to explore different paths toward achieving net zero goals emissions toward 2050 or earlier and reduce our own emissions by 30 percent by 2030. Combined with

greener sourcing, we aim to help our customers to reduce their emissions.

Hydro's climate strategy is an integral part of our overall business strategy, aiming at driving improvements and development within the company. Impact on the climate strategy is also a criterion for all significant investment decisions. The strategy includes reducing the climate impact of our operations as well as taking advantage of business opportunities by enabling our customers to do the same.

Greener production

Our strategy emphasizes reducing our own emissions. We have established a roadmap toward our 2050 ambitions by reducing GHG emissions by 10 percent by 2025 and 30 percent by 2030, based on a 2018 baseline¹⁾. Changes in our production portfolio might influence these targets, but our aim is still to reduce our specific emissions, i.e. emissions per mt of aluminium produced. Following the sale of Hydro

¹⁾ 2017 for Paragominas, Alunorte and Albras due to the production embargo at Alunorte and curtailment at Albras and Paragominas in 2018.

Ambitions

Net zero

Scope 1 and 2 GHG emissions by 2050 or sooner

30%

Reduction in Scope 1 and 2 GHG emission by 2030

10%

Reduction in Scope 1 and 2 GHG emission by 2025

Performance

11.31

million tonnes Scope 1 and 2 GHG emissions, total equity ownership

0.63

GHG intensity of alumina refining (tonne CO₂e/tonne alumina) Scope 1 and 2

1.61

GHG intensity of electrolysis (tonne CO₂e/tonne aluminium) Scope 1

Rolling in June 2021¹⁾, the baseline emissions currently equal 11.3 million tonnes CO₂ equivalents (CO₂e), including direct emissions and indirect emissions from electricity generation (Scope 1 and 2 emissions).

Innovation and technology development are key enablers for reducing GHG emissions. We have initiated a significant R&D program toward 2030 with an ambition to assess alternative CO₂-free processes across the aluminium value chain.

We are exploring three pathways to deliver zero-carbon aluminium:

- Carbon capture and storage and direct air capture to decarbonize our existing primary aluminium facilities
- Our own proprietary HalZero technology for carbon-free processes
- Utilizing more post-consumer aluminium scrap. We aim to have the first commercially available volumes of aluminium with a near-zero footprint already in 2022. Read more about Hydro's technology in the [Innovation](#) chapter.

¹⁾ The baseline emissions have been adjusted by 2 million tonnes following the sale of Hydro Rolling in 2021.

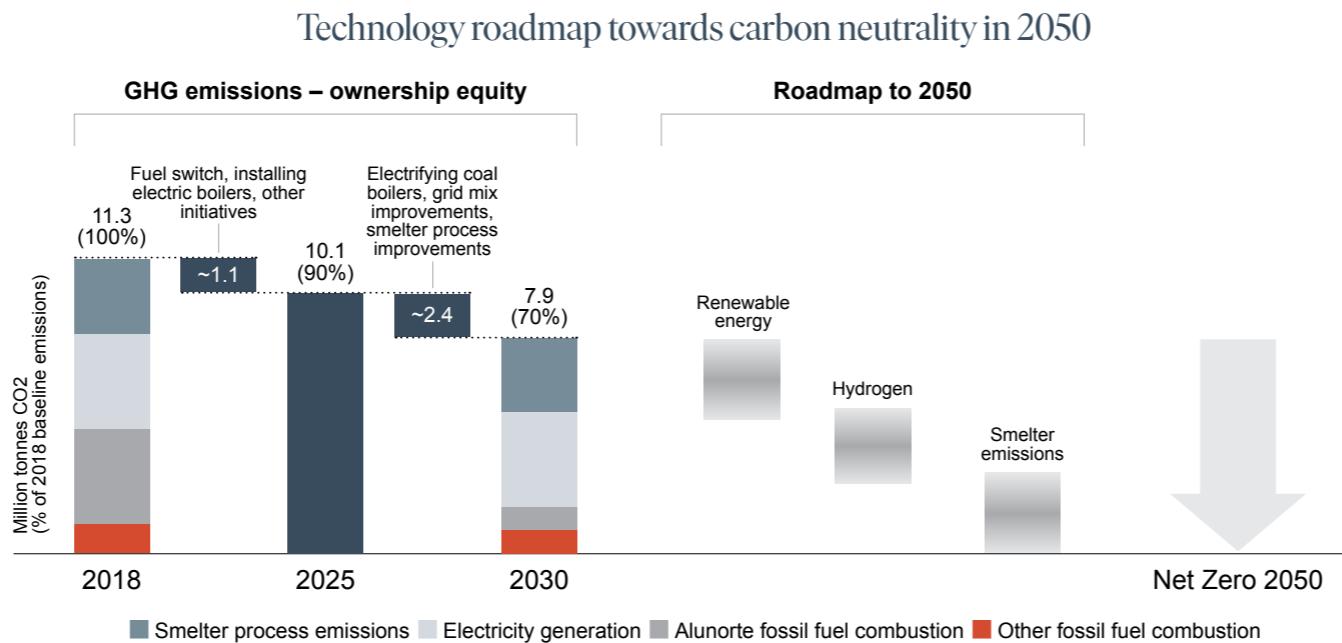
In addition, Hydro's new energy ventures, Hydro REIN, Hydro Havrand and Hydro Energy's Batteries unit can play an important role in enabling a net-zero society.

Using viable energy sources, reducing emissions and energy consumption

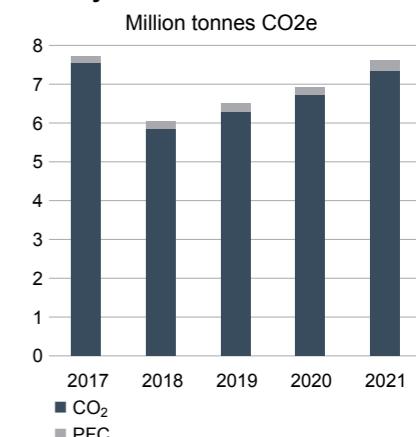
The overall carbon footprint of primary aluminium is highly dependent on the source of energy used to produce the metal. Consequently, in recent years, the electricity grid mix has been a key factor in deciding the location of Hydro's investments. More than 70 percent of the electricity used in Hydro's production of primary aluminium is based on renewable power.

In order to ensure continued supply of renewable power to Hydro's operations in Norway, we operate 39 hydropower plants with a combined installed capacity of 2.7 GW. Adjusted for ownership shares, our captive hydropower production is 9.4 TWh in a normal year. In addition, we operate a wind farm and purchase more than 9 TWh of renewable power annually in the Nordic market under long-term contracts.

The Qatalum aluminium plant in Qatar uses natural gas as its energy source. The International Panel on Climate Change



Direct greenhouse gas emissions from Hydro's consolidated activities



Hydro's direct greenhouse gas emissions increased in 2021 due to increased production volumes and restart of Hydro Husnes line B. Emissions per ton alumina and aluminium produced remained stable.

Greenhouse gas emissions from Hydro's ownership equity



Hydro's direct and indirect greenhouse gas emissions increased in 2021 due to increased production volumes and restart of Hydro Husnes line B. Emissions per ton alumina and aluminium produced remained stable.

Rolling credit facility

In 2019, Hydro signed a USD 1.6 billion revolving multi-currency credit facility with the margin linked to Hydro's GHG emissions target. The margin under the facility will be adjusted based on Hydro's progress to meet its annual targets to reduce GHG emissions by 10 percent by the end of 2025. In 2021, Hydro's emissions decreased by 1.9 percent¹⁾ compared to the climate strategy's baseline, adjusted for the Hydro Rolling divestment. Hydro did not expect emission reductions in 2021 due to higher production, but improved performance – especially at Alunorte – led to last year's reductions. Hydro is on track in delivering total emission reductions of 10 percent by 2025 compared to the 2018 adjusted baseline.

¹⁾ For the RCF and Hydro's climate strategy baseline indirect emissions in Norway are set to zero, and the performance reported here are consistent with that methodology. Indirect emissions in Norway in 2021 was 235,000 tonnes.

(IPCC) recognizes natural gas as an important transition fuel that can help reduce global temperature increases. Hydro owns 50 percent of Qatalum. Our share of Qatalum's production represents about 15 percent of our total primary aluminium production capacity, while representing 35 percent of our total equity Scope 1 and 2 emissions.

Energy efficiency is an important part of Hydro's ongoing efforts to reduce costs and air emissions. Our alumina refinery in Brazil, Alunorte, is among the most energy-efficient refineries in the world. Switching part of our fuel oil consumption at Alunorte to natural gas with lower GHG emissions is an important enabler to reach our emission reduction targets. The project is on track to reduce emissions by 700,000 tonnes of CO₂e by 2025. In addition, we are planning to install three electrical boilers with a potential to reduce emissions by an additional 400,000 tonnes of CO₂e by 2025.

Average electricity consumption at our consolidated production sites was 14.1 kWh per kilogram primary aluminium produced in 2021. The global average was 14.3

kWh in 2020¹⁾. We are now in the process of transferring Hydro's next generation of smelter technology, the Karmøy Technology Pilot, to our other primary aluminium metal plants, see the [Innovation](#) chapter for more information.

In Hydro Extrusions, our sites are working on different initiatives to lower their GHG emissions associated with energy and electricity consumption. As an alternative to purchasing the standard electricity mix from the grid, some plants have entered into power purchase agreements (PPAs) with renewable power producers. Many plants are also working with partners and governments to evaluate the possibilities of installing their own on-site renewable power generation. The sites are also working to improve energy efficiency through benchmarking, process improvements and when investing in new equipment.

Increasing recycling of aluminium

The inherent properties of aluminium make recycling attractive. It can be recycled infinitely without degradation in quality, and recycling requires 95 percent less energy than primary aluminium production.

Hydro is a large remelter and recycler of aluminium. We remelt process scrap from our own production and from other companies, as well as post-consumer scrap from the market. Due to contamination and alloy identification, it can be challenging to maintain aluminium's high-quality properties when recycling post-consumer scrap.

The carbon footprint of recycled pre-consumer scrap or process scrap is dependent on its metal origin. Thus, process scrap from aluminium produced by coal power comes with a much higher footprint than process scrap from hydropower-based aluminium.

After the sale of Hydro Rolling, we no longer include the business in our reporting or ambition on recycling. However, starting from 2021, Hydro Extrusions is included in our figures. Reported volumes from Aluminium Metal and Hydro Extrusions are 335,000 tonnes of post-consumer scrap and 1,018,000 tonnes of pre-consumer scrap. Hydro has increased its ambition to recycle 660,000 tonnes of post-consumer scrap by 2025.

Post-consumer scrap

Post-consumer scrap is defined as aluminium scrap that comes from products which have fulfilled the purpose for which they were produced. This scrap might range from aluminium cans with a lifetime of about 60 days to buildings with a lifetime of more than 50 years. When this scrap is recycled, it starts its second life as a recycled product, with no carbon footprint attached to it except from the remelting. As a result, post-consumer scrap has a carbon footprint of about 0.5 or less tonnes of CO₂ per mt of aluminium. This footprint results from scrap collection, transportation, sorting and remelting.

Process scrap

Process scrap arises during processing of aluminium products, such as extruded profiles or rolled foil. During processing of aluminium, typically between 20 and 30 percent of the metal ends up as process scrap. This process scrap has high value, and its recycling rate is close to 100 percent. However, the process scrap has never fulfilled its purpose as a product, and thus carries the carbon footprint of the original primary aluminium from which it is produced. This means that the carbon footprint of recycled process scrap is equal to the metal origin plus direct emissions from the remelting process itself.

To reach our ambitions, we are improving our processes to combine clean scrap with post-consumer scrap recycling. The technology is being rolled out to Hydro's remelting and recycling plants. These investments will increase our post-consumer scrap capacity by up to 20 percent at each plant.

Hydro's patented technology in scrap shredding and sorting is under further development, making it possible to produce high-quality products from post-consumer building and automotive scrap. Our Hydro CIRCAL product line offering aluminium with 75 percent post-consumer scrap has among the lowest carbon footprints in the aluminium industry.

To enable the sorting process of aluminium scrap by the different alloys to preserve the quality of the aluminium, we have developed a laser sorting technology, Laser Induced Breakdown Spectroscopy (LIBS). We have installed an industrial pilot line at Hydro's scrap sorting facility, St. Peter in Germany. We are now working on improvements of the pilot sorter to increase throughput and quality. Also, we have started development on a Hydro LIBS sorting machine that will be more flexible on the input of post-consumer scrap with a much higher throughput and more consistent quality of the sorted product. The ambition of the technology is to sort post-consumer scrap back into its original alloys for remelting in Hydro casthouses.

One of the challenges when recycling post-consumer scrap

is metal loss when the pieces are too small or thin, leading to dross. To address this issue we have developed a "screw extruder" to handle thin-gauge scrap such as chips, swarf or shredded material. The screw will compact the scrap and the larger metal pieces will reduce dross generation in the recycler.

Greener sourcing

The greener sourcing element in the climate strategy refers to Hydro's position as a purchaser of raw materials and energy. Hydro aims to source less carbon-intensive electricity and aluminium metal with a lower carbon footprint. We also aim to increase the use of post-consumer scrap in our metal production.

Scope 3 emissions refer to indirect emissions from purchased raw materials and services. While Scope 3 emissions constitute a minor part of total emissions from Hydro's own metal production, we purchase a significant amount of cold metal and aluminium scrap from external providers. As Hydro regards the carbon footprint of process scrap as equal to its metal origin, Hydro's Scope 3 emissions are significant when including externally sourced metal. In total, Hydro's Scope 3 emissions were 17 million tonnes of CO₂e in 2021, a reduction of 18 percent since 2018. The reduction was due to conscious sourcing of metal with a lower carbon footprint. Industry players who do not take the inherent carbon footprint of process scrap into account will report significantly lower

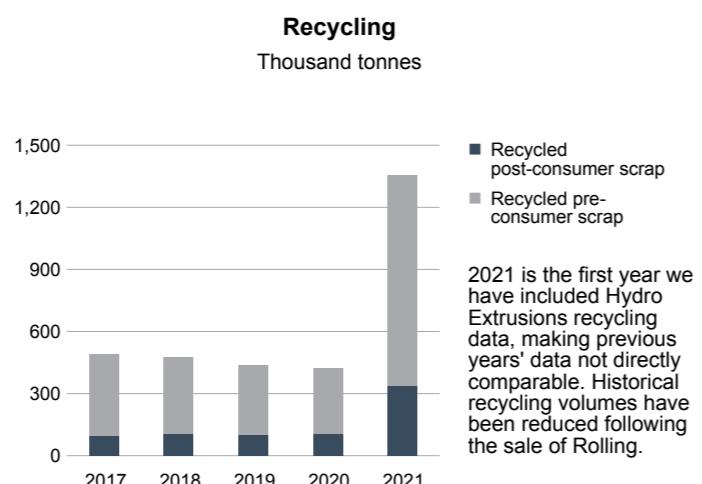
Scope 3 emissions. Hydro believes that this method of accounting is inaccurate, as it accounts for process scrap being carbon-neutral, when in reality the process scrap has the same inherent carbon footprint as its metal origin. Hydro believes that we need to focus on what drives real change toward the green transition and we need to exercise our role as a responsible supplier and customer to influence the right development. If Hydro were to regard process scrap as carbon-neutral, Hydro's Scope 3 emissions would be 10 million tonnes CO₂e in 2021.

Greener products

Aluminium has significant carbon footprint benefits in its use phase, especially due to its lightweight properties.

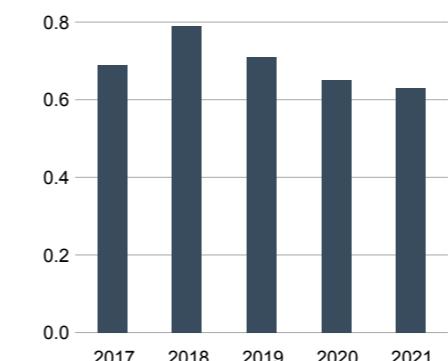
We work closely with customers to develop products that save energy and reduce emissions. Examples include lighter transportation, better packaging to reduce cooling needs and food spoilage, and aluminium facades that lead to lower operating costs and enable buildings to generate as much energy as they use during operation. As an example, replacing 1 kg of steel with aluminium in a car using fossil fuel or electricity from fossil sources reduces CO₂ emissions by about 20 kg of CO₂ due to aluminium's lightweight properties.

With 70 percent of Hydro's primary production using renewable electricity, and the low-carbon aluminium brands Hydro REDUXA and Hydro CIRCAL, we differentiate our



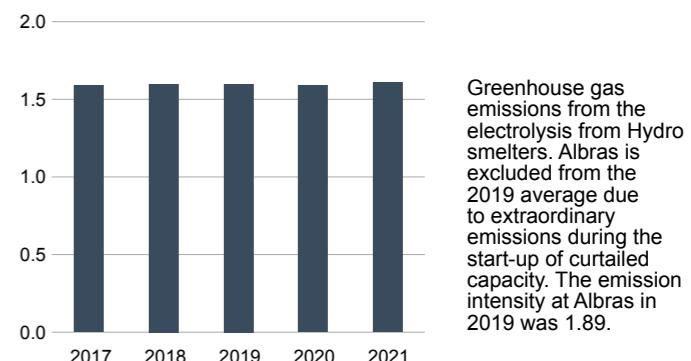
GHG emission intensity – alumina refining

Tonne CO₂e per mt alumina



GHG emission intensity – electrolysis

Tonne CO₂e per mt alumina



product portfolio from our peers, while supporting both margin and volume growth. Hydro earns additional premiums or volume commitments on its low-carbon products, and many customers choose Hydro's aluminium due to its low carbon footprint.

Reaching our 2030 climate ambition will result in an even lower carbon footprint from our products. By 2022, we aim to deliver the first commercial volumes of aluminium with 0.5-1 kg CO₂/kg aluminium footprint. This is a significant improvement, compared with the current 2.3 kg CO₂/kg aluminium in Hydro CIRCAL extrusion ingot based on 75 percent post-consumer aluminium scrap. Demand for low-carbon aluminium products is increasing and it is expected to continue growing. Hydro will make key capacity investments over the medium term to ensure our recycling portfolio can facilitate the increasing demand for Hydro CIRCAL.

The production capacity for near-zero carbon aluminium will be developed in line with market demand for this near zero-carbon aluminium. This is also reflected in the ambition to deliver Hydro REDUXA 2.0 with a carbon footprint of less than 2 tonnes of CO₂ per mt of aluminium by 2030. Read more about our pathways to delivering near-zero aluminium in the [Innovation](#) chapter.

Addressing risks related to climate change and adaptation

Our operations and facilities are subject to risks arising from physical climate change that may impact our operations. Effects of climate change could include changes in rainfall patterns, flooding, shortages of water or other natural resources, changing sea levels, changing storm patterns and intensities, and changing temperature levels. The changes may be acute and/or chronic. These changes could lead to operational and environmental incidents within our operations, for example by flooding of containment basins, increasing temperatures leading to increased emissions from processes, etc., that must be considered in our business strategy.

In order to reduce the risks for our operations and potential consequences related to climate change, we have performed extensive risk assessments. This includes modeling of future weather patterns and their impact on Hydro's facilities based on existing climate models and scenarios from the Intergovernmental Panel on Climate Change (IPCC). We have also assessed scenarios for policy and legal risk,

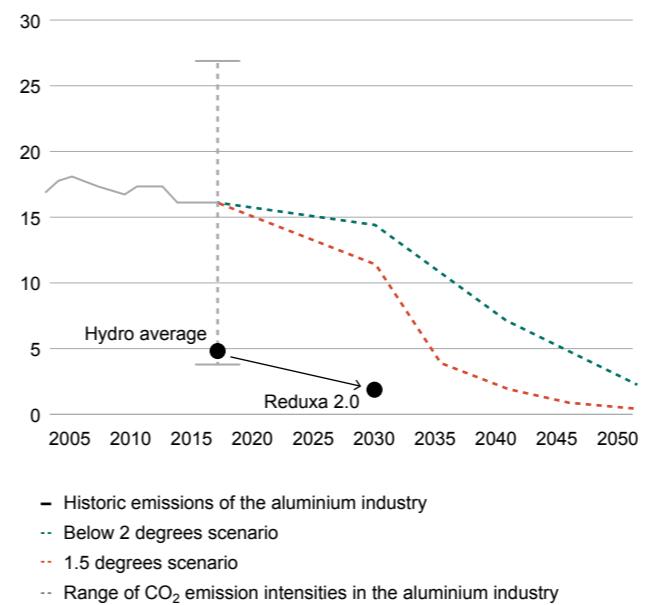
technology, market and reputation risk. Through our climate strategy, we aim to reach net-zero carbon emissions throughout Hydro by 2050 or earlier.

Hydro is a signatory to the [Task Force on Climate-Related Financial Disclosures \(TCFD\)](#).

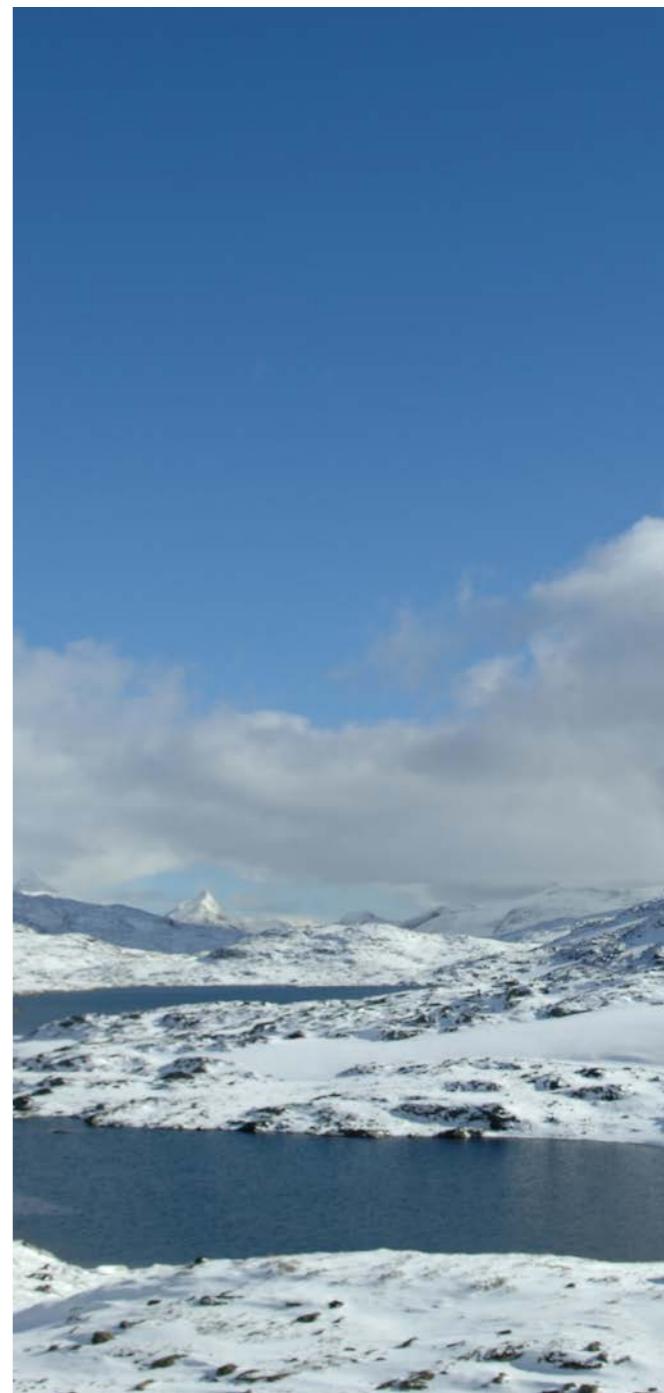
The transition to a low-carbon economy has associated technology and market risks, referred to as transition risks in the TCFD framework. To understand the impact of climate change and the implications of the Paris Agreement for the aluminium industry, Hydro has taken part in the International Aluminium Institute's work to develop greenhouse gas pathways toward 2050 consistent with the Paris Agreement. These are in-line with the International Energy Agency's 1.5 degree scenario, combined with IAI's analysis of demand in the aluminum market and material flows. These pathways are integrated in Hydro's strategy.

IAI emission projection pathways toward 2050

Tonnes CO₂e/t primary aluminium



Source: International Aluminium Institute (IAI), Hydro analysis



Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices



Environmental impact management

Material topics covered in this chapter:

- Biodiversity
- Water
- Waste, effluents and other emissions
- Bauxite residue and tailings
- Closure planning and legacy impacts



Why it matters

All industrial activity has the potential to impact the environment at local, regional and global scales. If not correctly managed, land-use change, resource utilization, emissions of pollutants, and disposal of hazardous waste all have the potential to cause long-term, irreversible impacts to nature and human health. To minimize such detrimental effects, Hydro must ensure management practices are used to identify and address the environmental risks associated with its operations.

Our approach

The goal of our 2050 environment strategy is to minimize our impact along the aluminum value chain by addressing the industry's key environmental challenges. We aim to do so by driving rehabilitation at our bauxite mine, developing and implementing viable management solutions for tailings and bauxite residue streams, while reducing waste to landfill from our downstream operations and significantly reducing our non-GHG emissions to air. We have set

longer-term ambitions to eliminate the need for permanent bauxite residue storage from 2050 and landfilling of all other recoverable waste by 2040. We also have the ambition to achieve no net loss of biodiversity in all new projects.

All of Hydro's sites shall follow our own internal policies and procedures, related to environmental management, supported by comprehensive health, safety and environment (HSE) management systems, audit programs, training and awareness initiatives. In addition, the large majority of our sites are [ISO 14001 certified](#) and many have received certification to ASI's Performance and Chain of Custody standards.

Ambitions

No net loss

Of biodiversity
in new projects

1:1

Rehabilitation of available mined areas within two hydrological cycles

Waste

Eliminate landfilling of all recoverable waste by 2040

Performance

167

Hectares land
rehabilitated

2,646

Total accumulated area in hectares undergoing rehabilitation

730

Thousand tonnes of hazardous and other waste

Biodiversity

All of Hydro's operations have the potential to impact negatively upon biodiversity and ecosystem services, through direct land-use change, harmful emissions to air, water and land, waste disposal, or introduction of invasive species. In 2021, we set an ambition to achieve no net loss of biodiversity in all new projects.

Mining

Hydro's only operated mine, the Paragominas bauxite mine, is located in the state of Pará in northern Brazil. It requires the removal of vegetation, topsoil and overburden to extract bauxite deposits from 8 to 12 meters underground and disturbs relatively large areas. Paragominas is in an area that is recognized as the deforestation belt around the central Amazon region (Arc of Deforestation). In the municipality of Paragominas, there has been a reduction in forest area of more than 30 percent over a period of almost 20 years. Much of this occurred before the establishment of the mine, and the area had been exposed to selective logging and clear cutting before commencement of operations in 2007.

We want to rehabilitate impacted areas as soon as practically possible. The rehabilitation target is rolling, aiming to begin the rehabilitation of all available mined areas within two hydrological seasons after their release from operations. This definition takes into account the nature of the mining and rehabilitation cycles, and the time lag necessary to ensure quality rehabilitation to restore biodiversity. It also takes into account that land periodically needs to be set aside for temporary infrastructure, e.g. roads and tailings facilities, in order to safely operate the mine. This is what we refer to as our 1:1 rehabilitation target. This rolling target was again met in 2021, when we rehabilitated 100 percent of the mined areas released in 2019.

We use three different methods for the rehabilitation of mined areas, based on different needs:

- Traditional rehabilitation (plantation of local species)
- Natural regeneration of vegetation
- Nucleation

Hydro has used nucleation in Paragominas since 2013. Topsoil is unevenly distributed to simulate natural landscape and trap rainwater. Piles of cut wood are distributed, creating shelters for animals and improving growing conditions for some plant species. The ambition is to establish a forest system of the same structure that is typical of the forest in the

area and to restore as much biodiversity as possible.

To increase our knowledge and secure a science-based approach to rehabilitation, the Biodiversity Research Consortium Brazil-Norway (BRC) was established in 2013. For more information, see our section on [partnerships](#).

The Paragominas mine currently operates two tailings storage facilities. With the implementation of the Tailing Dry Backfill technology (see section [Tailings and bauxite residue](#)), the need for additional storage infrastructure is avoided and the need for expansion of existing facilities is minimized. However, the land occupied by the existing facilities will need to be rehabilitated in the future. When tailings storage facilities are closed, they need to settle for at least five years before rehabilitation can begin. This will be managed differently to the rehabilitation approach used in the mined areas due to the specific nature of tailings, and will require a tailor-made rehabilitation strategy.

Hydropower operations

All of Hydro's hydropower reservoirs are located within or in close proximity to national parks and other protected areas in mountainous regions in southern Norway, including Hardangervidda and Jotunheimen. In addition to potential impacts on biodiversity, including changes in aquatic and terrestrial habitats along the waterways, our hydropower activities may also have impacts on recreation and tourism.

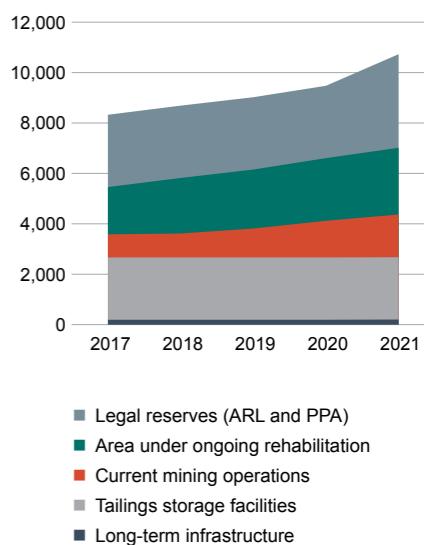
To mitigate the effects of hydropower-related impacts on fish populations, we release fish spawn in almost 40 lakes and rivers according to concession requirements. In relation to renewal of concessions, rehabilitation projects are carried out in rivers and lakes to improve fish habitats and aesthetic

Two-year rolling land rehabilitation progress

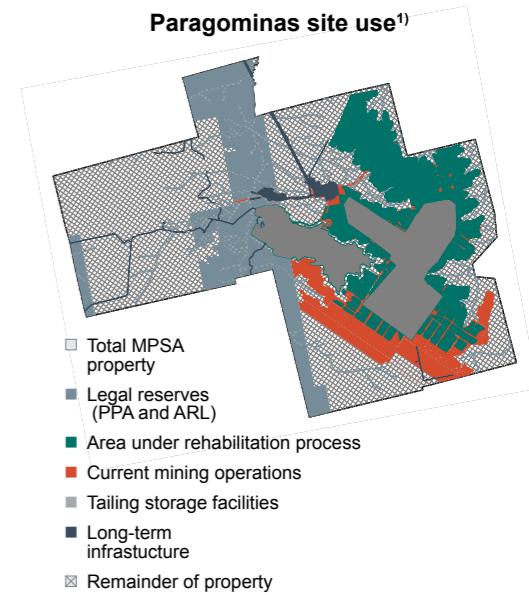
Year	Area	Percentage of land rehabilitated ¹⁾
2017	151	100%
2018	113	100%
2019	91	100%
2020	150	77%
2021	150	4%

¹⁾ Percentage of land cleared that has been rehabilitated within two years hydrological cycles for a given year. The two last years in the table have still not reached the end of their two-years cycles.

Paragominas land use and rehabilitation



Paragominas site use¹⁾



¹⁾ Area reserved for new tailings ponds is expected to be reduced as a consequence of the new Tailings Dry Backfill technology.

qualities. We also monitor the impact of our operations on aquatic life in rivers connected to catchment areas.

Water

Our main impact on water bodies is caused by discharges to the external environment, primarily in Brazil (to rivers) and Norway (to rivers, lakes and fjords). Where the authorities deem it appropriate, these discharges are regulated by relevant permits. Withdrawal of surface water, groundwater and water through public water works may, in addition, have an effect on water availability at a catchment level or impact the ecological status of the water source.

Water stewardship

The use of water that is socially and culturally equitable, environmentally sustainable and economically beneficial, achieved through a stakeholder-inclusive process that involves site- and catchment-based actions.

Alliance for Water Stewardship, 2019

Hydro uses the WRI Aqueduct water tool to perform an annual review of water withdrawal from water-stressed areas. The mapping of Hydro's sites in 2021 showed that less than 1 percent of our overall fresh-water input came from water-stressed areas, with regard to annual renewable water supply (according to the definition used by WRI).

Operating in water-stressed areas is not considered a material risk for Hydro's key operations. Instead, the more material risks are linked to the management of excess water, and the quality of the external bodies into which Hydro discharges process water. Hydro is fully aligned with the International Council on Mining and Metals' (ICMM) current minimum water disclosure standard and we have started implementation of their new requirements, to be adopted by 2023.

Qatalum in Qatar relies on public water supply produced by desalination. Seawater is used for wet cooling towers at the power plant as well as for wet scrubbers at the potline fume treatment plants.

Our hydropower operations, all in Norway, are covered by and categorized in the regional Water Management Plans (WMP). The water regulation in Norway is based on the EU

Water Frame Directive, which aims for "good ecological status or -potential" for all water resources within 2027.

Hydro has two ongoing concession processes for the hydropower stations in Fortun and in Røldal-Suldal. As part of the two concession processes, we are assessing the environmental impacts on the regulated water resources according to input from local interests, relevant authorities and municipalities, in addition to our experiences. We are also carrying out environmental impact assessments and studies of mitigating actions for our hydropower operations in Årdal, based on a decision of the Norwegian Environment Agency (Miljødirektoratet) for the period 2019-2024.

New WMPs are expected to be approved by the Norwegian Government in 2022. We will launch necessary initiatives to comply with the WMPs to reach good ecological status, based on locally adapted solutions, cost benefit and dialogue with stakeholders.

Waste and efficient resource use

Our goal is to first minimize the amount of waste produced in our operations, and then reuse or recycle it. When this is not possible, we shall deposit it in a secure way to minimize adverse effects to people and the environment.

Tailings and bauxite residue

Tailings from bauxite extraction consist of mineral rejects from the extraction process mixed with water and flocculants. The tailings at Paragominas are stored in dedicated tailings facilities, where the particles settle. Run-off water is collected in a separate water pond and reused. The water pond also prevents overflow to the river during heavy precipitation. The run-off water is monitored, and the water quality meets the requirements set by the authorities.

Hydro's Tailings Dry Backfill technology at the Paragominas mine allows tailings to dry in shallow areas before being excavated and returned to the mined strip from where they originated. The mined strip is then reshaped and rehabilitated with the ambition of returning it to original conditions. By continuously removing the tailings, the methodology eliminates the need for new permanent tailings storage facilities, including the need to raise existing facilities further. The operating license for this technology was received in December 2020, and it has now been fully adopted into operations at the mine.

Bauxite residue is a waste product of the alumina refining process. Its disposal is challenging due to large volumes and its alkaline nature. The residue is washed with water to lower the alkalinity and to recover caustic soda for reuse. Hydro uses an enhanced dry stacking technology for disposing of bauxite residue which allows for storage at steeper slopes, thus reducing the relative environmental footprint. The residue moisture content has been reduced to 22 percent.

Hydro participates in international collaboration projects investigating possibilities to use bauxite residue as a resource, for more information see the [Innovation](#) chapter. We aim to utilize 10 percent of bauxite residue generated from 2030.

The bauxite tailings facilities and bauxite residue deposits are regularly inspected by Hydro and the Brazilian authorities. They have also been reviewed against international standards by external international geotechnical consultants, NGI and Geomecanica, in 2016 and 2019. Based on the output of the 2016 audit, an action plan was created for tailings facilities at Paragominas, of which all 56 identified actions have now been completed. In addition, independent third-party audits are performed twice a year, to comply with Brazilian regulations and maintain the stability certifications for each tailings facility.

Hydro's bauxite tailings facilities and bauxite residue tailings facilities are operated in line with relevant regulations. For active facilities, we follow voluntary best practice and audits are conducted by international third parties. Hydro is committed to implement the Global Industry Standard on Tailings Management (GISTM), implying that tailings facilities operated by Hydro with "Extreme" or "Very high" potential consequences will conform to the standard by August 5, 2023, while other tailings facilities operated by Hydro not in a state of safe closure will conform to the standard by August 5, 2025.

In addition to the tailings facilities at Paragominas and the bauxite residue storage facilities at Alunorte, Hydro has closed tailings facilities in Schwandorf and Stulln in Germany that fall under the GISTM commitment. Hydro is a member of ICMM, which is one of the three co-conveners of GISTM alongside UN Environment Programme (UNEP) and PRI, an investor initiative in partnership with UNEP Finance Initiative and UN Global Compact.

Hydro is also a 5 percent shareholder in Mineração Rio do Norte (MRN)¹⁾. MRN is the operator of the mine and is responsible for the management of its tailings system. Hydro works with MRN and the other shareholders through the board of directors and relevant technical committees to require the safe operation of MRN's tailings facilities in accordance with applicable laws and standards.

Other waste and by-products

Waste is generated at all stages of the value chain. Our waste management approach is based on the mitigation hierarchy: finding ways to avoid, minimize and recycle waste rather than sending it to landfill.

Hydro has set a target to eliminate landfilling of all recoverable waste by 2040, and to landfill less than 35 percent of generated spent pot lining (SPL) by 2030.

Qatalum has a temporary solution for handling SPL in cooperation with local cement plants and they are working to find a permanent solution. The Albras aluminium plant in Brazil had a significant stock of SPL. This is being continually reduced according to an annual plan and target, and is delivered to the cement industry in Brazil.

A large portion of the anode waste from our smelting activities in Norway is being used by Norcem cement plant in Brevik. The carbon material from Hydro is being used as an alternative fuel in the production process, which ensures safe treatment of any hazardous components. Hydro also has an agreement with a refractory supplier to recycle part of the bricks coming from relining the anode baking furnace.

We have initiated a research project in collaboration with Alcoa with the aim to material recycle first-cut SPL. SPL, or cathode waste, is generated from the electrolysis cells used in primary aluminium production.

Dross is a mixture of metallic aluminium, alloy components and metal oxides that is formed on the surface of liquid aluminium. Hydro's casthouses have treatment facilities to recover as much aluminium as possible from hot dross. Residual dross can then be sent to third parties for further treatment.

Hydro is also involved in a Norwegian research project, that is evaluating the recovery of valuable surplus bath components from aluminium electrolysis.

Several projects are in development to further reduce waste-to-landfill in the medium to long term.

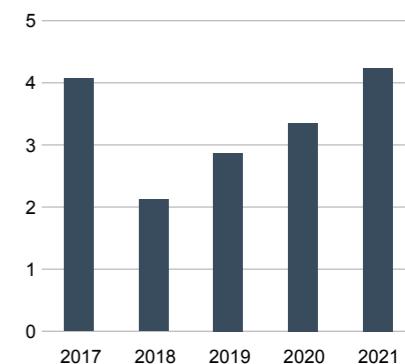
Emissions to air

Emissions to air are inherent in the aluminium production process and are generated at all stages of the value chain. Key air emissions from our operations include sulfur dioxide, nitrogen oxides, fluorides, polycyclic aromatic hydrocarbons, and particulates. Emissions to the external environment are minimized through treatment of the effluent gases prior to their release into the environment.

In addition to reducing our greenhouse gas (GHG) emissions, Hydro's ambition is to halve non-GHG emissions from fossil fuels (i.e. NOx, SOx, and particulates) by 2030.

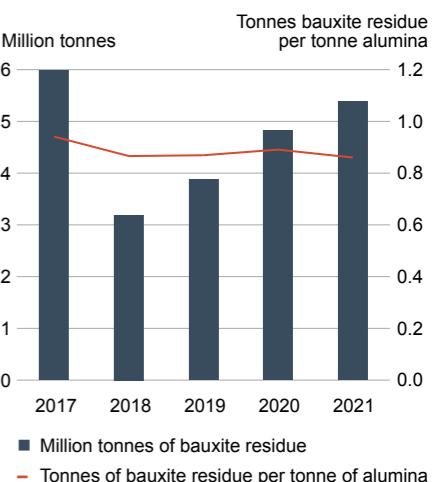
Following a mass balance of mercury at Alunorte in Brazil, Hydro decided to install four mercury condensers on the digestor lines. The first condenser was installed in 2018, as a pilot, and its technical performance is being monitored prior to the installation of the remaining units. The initial timeline was to install the remaining units in 2020, but this has been rescheduled to allow for further performance optimization of the technology. Installation of the remaining three condensers is planned to start in 2023.

Tailings from bauxite production
 Million tonnes



Tailings production decreased significantly in 2018 due to the Paragominas curtailment, with a partial reversal in 2019 and 2020 due to the lifting of the embargo. 2021 production was back at 2017 levels.

Bauxite residue from alumina production



Bauxite residue production decreased significantly in 2018 due to the Alunorte embargo. This was partly reversed in 2019 and 2020 due to the lifting of the embargo and ramp-up of production. Production in 2021 returned to normal levels.

¹⁾ Hydro has a 5 percent ownership interest and off-take agreements with Vale for a further 40 percent of the volume produced by MRN.

Closure planning and legacy impact

Our 116 years of industrial activity has left us with some legacy assets and legacy sites. Managing these to protect the environment and human health is an important task for us. The ambition is to achieve viable remediation and restoration solutions and subsequently to return each site back to beneficial use. In the earlier days of our company history, rivers and fjords near our industrial sites became contaminated due to the release of waste products into the near waters. Some of these fjords remain contaminated and require our attention today, many decades after the pollution occurred.

Even though environmental practices have been significantly improved throughout the years, today's operations have the potential to create new environmental or social legacies which we will have to manage beyond the lifespan of the industrial activity that created them. Examples are bauxite residue tailings facilities and rehabilitation of mining areas.

Through our closure and legacy management program, we aim to avoid or minimize the creation of new legacies and to minimize the impacts of legacies from the past. Our approach is to manage risks and opportunities throughout all phases of an asset's lifetime, including the investment phase (design/construction or acquisition), the operational phase, and the end-of-life phase.

In 2021, we implemented a new policy on the treatment of closure and legacy costs in our investment analyses. Its aim is to reduce the risk of underestimating long-term closure and legacy costs, and subsequently reduce the risk of creating legacies which will have to be dealt with in the future at a disproportionate cost. We also initiated an internal project across our major operational sites to improve the way we work with proactive closure planning, legacy risks and legacy risk-reducing measures. The project will continue in 2022.

The Kurri Kurri aluminium metal plants in Australia was formally closed in 2014 and during the subsequent years, buildings and infrastructure were demolished. The proposal to remediate the site was approved in December 2020 after a rigorous assessment by the New South Wales' Department of Planning, Industry and Environment (DPIE). The project is primarily for construction of an onsite, engineered containment cell, to deposit the contents of an existing approved stockpile of mixed waste generated during the

1970s and 1980s, the first decades that the plants was in use. Several pockets of contaminated soil, along with other waste that cannot be reused or recycled, will also be placed in the cell. The construction of the containment cell is ongoing and progressing as scheduled. The reuse of historic SPL as feedstock for cement production is also progressing according to the plan. Hydro has agreed to sell the site to a joint venture of local property and residential land developers Stevens Group and McCloy Group.

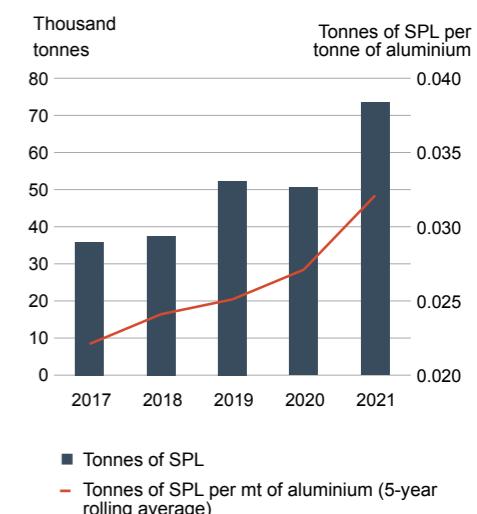
The Norwegian Environment Agency (NEA) has required Hydro to remediate historical contamination in the Gunneklev fjord through capping of the contaminated sediments with clean geologic materials. In May 2021, NEA accepted our application to extend the deadline from December 2022 to December 2023, to align it with the upcoming E18 road and tunnel construction project in the local area. Surplus geological materials from the road project can thus be used as capping material in the remediation project.

At former fluorspar mines in Stulln in Germany, security measures and rehabilitation have progressed as scheduled and according to the orders by the mining authorities. The management of tailings facilities at Schwandorf and Stulln is described in the Tailings and bauxite residue section.

At the Ashtabula legacy site in the US, demolition, environmental mapping, and assessment of alternative remediation solutions were key activities in 2021.

Spent potlining (SPL) from aluminium production

Thousand tonnes



■ Tonnes of SPL
 — Tonnes of SPL per mt of aluminium (5-year rolling average)

The volumes of spent potlining (SPL) varies with the relining of smelter cells which is normally done every 4-7 years for established smelters. Furthermore, opening new production lines and closing down production lines will give fluctuations in the aluminium production, production, and due to the cyclical nature of SPL, a 4.7-year time lag in the SPL volumes. Hence SPL is normalized with aluminium production with a 5-year rolling average as the best estimate of a trend line. Increased production of SPL in recent years relates to higher relining frequency and restart of line B at the Husnes aluminium plant.

Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices



Innovation

Material topics covered in this chapter:

- Innovation
- Climate change



Why it matters

Innovation is what allows us to improve our aluminium products and processes, develop cutting-edge technology to use less energy, cut climate emissions, and help our customers meet their commercial and sustainability goals. Our technology roadmap is our pathway to zero emissions and a more fair and circular economy. We aim to produce better and greener aluminium, and work closely with our customers early in the product cycle, to help them meet their goals for their market and the climate.

Our approach

In the mature aluminium industry, the development cycles are long, with a need for highly skilled technology competence. This includes smelter technology, new aluminium alloys with special properties, lighter transportation, better packaging to reduce cooling needs and food spoilage, and aluminium facades that lead to lower operating costs and enable buildings to generate as much energy as they use during operation. At the same time, our downstream activities are

continuously developing new solutions with customers. More and more, this collaboration reflects design thinking, bridging the gap from idea to solution.

To promote innovation, Hydro has a technology board consisting of members from Hydro's Corporate Management Board. The technology board meets twice per year to set direction and priorities in the technology area. Business areas are responsible for their own technology development and for the execution of their respective technology strategies. A corporate technology office ensure a holistic and long-term approach to Hydro's technology strategy and agenda. The Chief Technology Officer leads an internal R&D network with representatives from the business areas and supports Hydro's technology board in developing overall research and technology priorities and strategies.

Ambitions

Net zero

Emissions by 2050 or sooner

660

Thousand tonnes of recycled post-consumer scrap by 2025

10%

Utilization of bauxite residue generation by 2030

Performance

38,000

Tonnes produced of Hydro CIRCAL

5,384

Thousand tonnes of bauxite residue

Research and development (R&D) efforts

Our R&D efforts are centered around the following:

- Reducing energy consumption, waste, emissions and carbon footprint in line with Hydro's sustainability agenda
- Making products and solutions that promote the use of aluminium and sustainable development
- Improve productivity, energy consumption and emissions in our metal plants, e.g. by implementing technology elements from the Karmøy Technology Pilot in Norway
- Using R&D and technology to ensure optimal operations in existing assets, including cost and HSE
- Improving environmental impact in Hydro Bauxite & Alumina, such as biodiversity, rehabilitation and utilization of bauxite residue
- Developing recycling technology and low-carbon products based on post-consumer scrap, e.g. Hydro CIRCAL. Increasing the share of value-added products and tailored solutions in collaboration with the customer
- Utilizing the opportunities of Industry 4.0 to improve process stability, productivity, cost and safety.
- Building competence in batteries and hydrogen

The greater part of our R&D expenses goes to our in-house research and application development organization, while the remainder supports work carried out at external institutions. Our main R&D centers are in Årdal (smelter technology) and Sunndal (alloys and casting) in Norway, Barcarena in Brazil

(bauxite and alumina), and Finspång in Sweden and Troy, Michigan, in the US (both Extrusions). The R&D unit in Bonn in Germany was part of the [Hydro Rolling transaction](#).

We have three pathways to decarbonize our aluminium products:

1. Carbon capture and storage (CCS) – decarbonizing existing smelters

Through capturing off-gases at smelters and relatively small amounts of direct air capture, we aim to reduce electrolysis emissions by 100 percent for existing smelters. We have evaluated more than 50 CCS technologies and developed a roadmap for testing and piloting the most promising up to industrial scale. The most likely outcome will be a combination of off-gas capture and direct air capture to eliminate 100 percent of emissions. Upstream emissions at the Alunorte alumina refinery in Brazil will be reduced via fuel switch and electrification, and we will pilot hydrogen for calcination of alumina.

2. HalZero chloride process – decarbonizing greenfield smelters

Through utilizing our proprietary HalZero chloride process, we can convert alumina to aluminium chloride prior to electrolysis in a process where chlorine and carbon are kept in closed loops, resulting in a fully decarbonized process. We have been working on lab-scale for five years on this

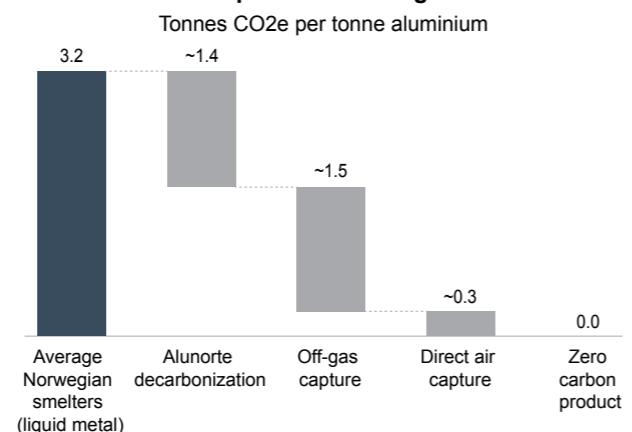
technology and have developed a roadmap for translating this to industrial scale before 2030. This way we can fully decarbonize the smelting process by eliminating emissions for both electrolysis and anode baking. Hydro's HalZero technology will be relevant for greenfield developments post-2030.

3. Zero aluminium through scaling up volumes of post-consumer scrap (PCS)

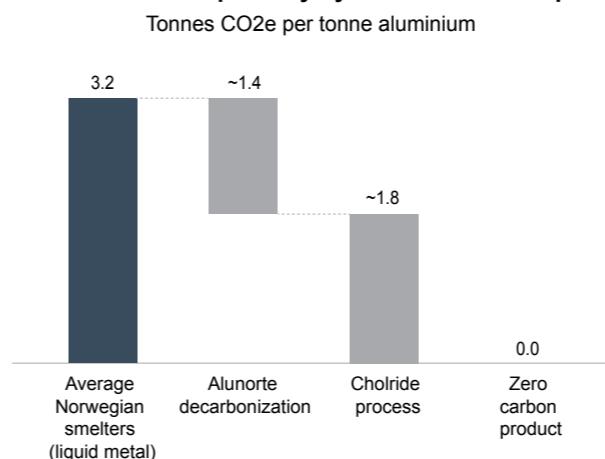
We plan to improve our recycling capacity to sort and utilize more difficult PCS aluminium. We already produce Hydro CIRCAL, a certified recycled and low-carbon product of more than 75 percent post-consumer scrap. To produce this with 100 percent post-consumer scrap in a profitable way requires utilizing greater amounts of difficult, unsorted and contaminated scrap, as well as electrifying or using hydrogen in our recyclers. Through utilizing screw extruders and laser-based sorting (LIBS), we will be able to process more scrap. You can read more about our recycling in the [Climate Change](#) chapter.

From an innovation perspective, Hydro benefits from our broad knowledge and oversight of the entire value chain from bauxite mining, alumina refining, electrolysis of primary aluminium and alloy technology to finished products and recycling.

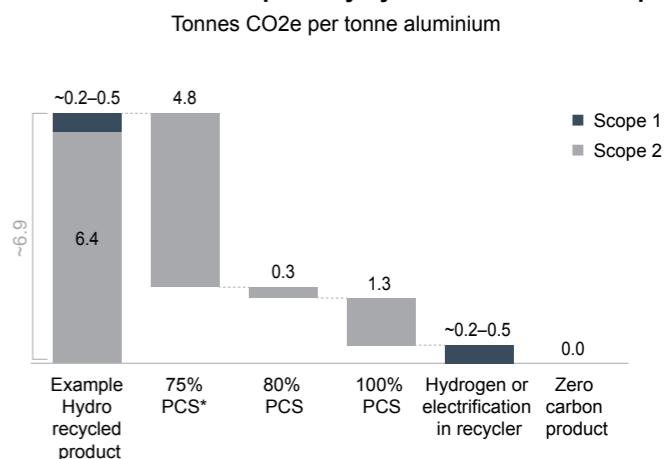
Emissions reduction pathway by Carbon Capture and Storage



Emissions reduction pathway by HalZero Chloride process

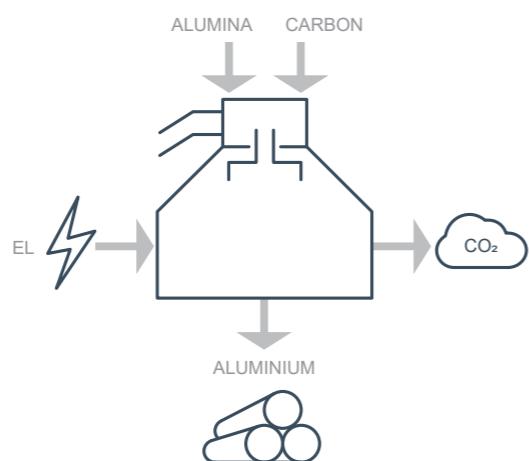


Emissions reduction pathway by Post-Consumer Scrap



* (Hydro CIRCAL) 2.3 kg CO2/kg aluminium

Current technology

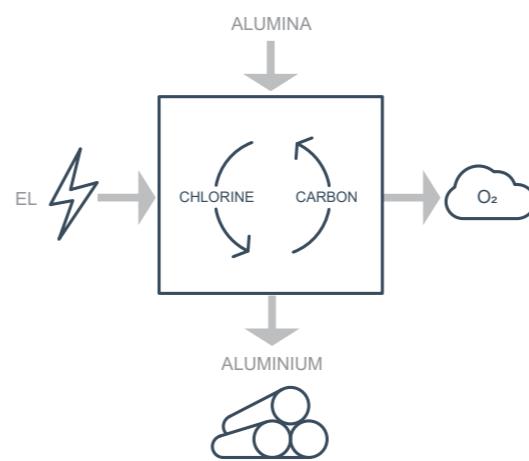


Innovation and development initiatives are carried out in close collaboration between our production units, R&D organization and customers. We emphasize three main areas: the quality of our products, the efficiency of our production system and the development of new alloys. Our casthouse production process is based on our advanced proprietary casting technology, developed by the fully owned equipment producer Hycast and our R&D organization.

Quality improvements are closely linked to our customer technical service, which addresses customer needs while improving our own casthouse process. We develop new alloys with distinct properties to support the development of new or enhanced applications within industries such as automotive, building and construction, and electronics. This work begins with developing an understanding of metallurgical processes that forms the basis for sample compositions and production methodologies carried out in laboratory or test production facilities. Full-scale testing is often completed with customers and/or end-users.

Our 75,000-tonne-per-year technology pilot at Karmøy in Norway shows stable and excellent performance and produces the world's most climate- and energy-efficient primary aluminium. We are now in the process of implementing technology elements from the Karmøy

HalZero



Technology Pilot in our existing primary aluminium producers, improving performance and financial robustness. This includes the Husnes line B in Norway, which started production in 2020, and as a part of the regular maintenance and relining of our electrolysis cells in all smelters, presently at Sunndal. Hydro has also started working on several initiatives to reduce direct CO₂ emissions in primary aluminium production.

In the area of digital innovation we have developed digital twins; a digital simulation model of physical processes. In Hydro's digital twins we combine our physics-based models with sensor data from production and advanced analytics algorithms. Digital twins have successfully been implemented in the control systems of our smelters, providing more stable production at a higher performance, and we pursue this approach across other Hydro business areas. Exploring and piloting data science and robotization is done in Hydro Energy and Extrusions as well. Furthermore, throughout the development process of HalZero, we focus on automation and digitalization of significant processes to enable a viable commercial technology.

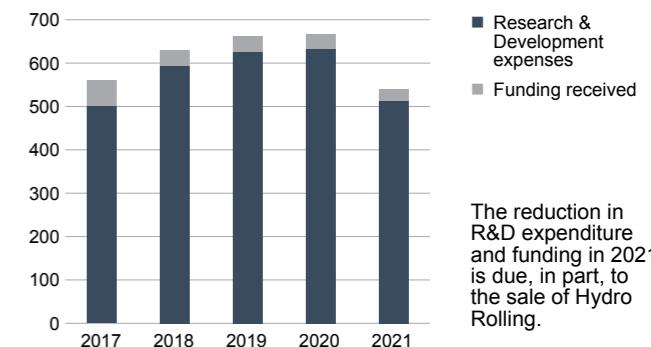
Toward 2050, we are exploring different paths for zero carbon technology in aluminium production. We are partnering with several start-ups and academic environments to explore

and develop technology for low carbon concentrations, like direct air capture and the emissions from our own primary production facilities. We are looking into projects to replace fossil carbon in our anodes with bio carbon, and while it appears challenging, we are part of two R&D programs supported by the Norwegian Research Council looking into this. In addition, we are on track with our chloride feasibility project, supported by Gassnova, where we explore a new process based on aluminium chloride with zero CO₂ emissions.

Tailings management and bauxite residue is a challenge in our industry. One example of our progress relates to the tailings dry backfill project which is described under [Tailings and bauxite residue](#). Bauxite residue is a challenge in our industry due to its alkalinity and large volumes. Alunorte uses an enhanced dry-stacking residue disposal technology, which includes an improved residue filtration step and the in-situ mechanical compaction of the disposed residue. Alunorte is now using press filtration technology before transporting the residue to the disposal area. This technology produces a filtered cake with lower moisture content, which allows for the cake's further mechanical compaction and storage on steeper slopes, thus reducing disposal area requirements and environmental footprint.

Research and development expenses

NOK million



Aluminium in automotive

The growing use of aluminium in the automotive industry is being driven by emissions regulations, electrification and passenger safety requirements. Aluminium is well suited for automotive due to low weight, good strength and formability, corrosion resistance, recyclability and its energy-absorption properties that can increase safety. Lightweighting is particularly important for electric vehicles with heavy battery packages.

This is creating new opportunities for Hydro as an established supplier to the automotive industry in Europe, North America and Asia. Applications include extruded aluminium frames and sub-frames, body-in-white (BIW) components and battery casings.

In the Extrusion Europe and Extrusion North America business units, innovation, R&D and application development is predominantly targeted toward the growth in automotive and especially the e-mobility BIW structural markets. The commercial transportation market is another key area. For our Precision Tubing unit, innovation targets new aluminium applications, such as fuel and brake lines, with aluminium replacing copper and steel, resulting in lighter products with comparable performance. Moreover, Hydro develops aluminium-based material concepts for battery components and integrated solutions for thermal management and battery modules.

High level of expertise

An important part of Hydro's technology strategy is to utilize our researchers, operators and other experts in optimizing the operations at our plants. The competence base in Hydro's technology environments is on a high level in general and world-class in several core areas. As a result, we emphasize using this competence in operational improvements. Examples include reduced energy consumption in casting furnaces, new cathode solutions for relining of electrolysis cells, improved blending tools for utilization of recycled materials, reduced emissions, and improvement projects related to quality and productivity.

Upstream, we prioritize our R&D and innovation efforts toward technology development and operational efficiency, while downstream, we concentrate on application and product development. Part of our work downstream is conducted together with customers, reflecting design thinking from idea to solution. In 2021, we prioritized more resources

toward technology development that supports our ambitious sustainability targets on emissions, waste and circularity.

To promote idea generation and innovation, Hydro's business areas have specific programs in place.

Collaborating with other parties

In Norway, we receive support from several public institutions to further develop our smelter and casthouse technology as well as our downstream activities. These include The Research Council of Norway, Enova, Innovation Norway and Prosessindustriens Miljøfond. The majority of the support from The Research Council of Norway is paid directly to projects administered or partnered by Hydro at the Norwegian University of Science and Technology (NTNU), SINTEF or Institute for Energy Technology (IFE). We are a partner in four centers for research-based innovation, supported by The Research Council of Norway: SFI Metal Production, SFI Center for Advanced Structural Analysis, SFI Manufacturing and SFI Physical Metallurgy. These are cross-disciplinary R&D programs with a frame of up to eight years. We are also a partner in similar centers for environment-friendly energy (FME). For more information, see [Note S8 Financial assistance from governments](#) to the Environment and Social statements about public funding.

We also participate in other national and EU-funded R&D projects on post-consumer scrap recycling technology, following market demand for products with a low carbon footprint. Our R&D program includes joint projects with external research institutes such as SINTEF, NTNU, IFE and the University of Oslo in Norway and the University of Auckland in New Zealand.

Since 2016, Hydro has been a partner in NAPIC, the NTNU Aluminium Product Innovation Center. Its purpose is to develop new aluminium applications. A consortium that comprises several downstream industries has been established and five different faculties at NTNU are participating. To support and speed up the activity, Hydro has been sponsoring an NTNU professor in this area.

Hydro participates in international collaboration projects investigating the possibilities of using bauxite residue as a resource. An important example is with NTNU, SINTEF, Norcem/Heidelberg and Veidekke to develop a new type of concrete using bauxite residue as a resource to improve quality. We are also working with other aluminium companies

through the International Aluminium Institute to solve this industry challenge. In Brazil, Hydro cooperates with the national Brazilian entity SENAI (National Service of Industrial Apprenticeship) mineral research area, UFPA (Federal University of Pará) and USP (University of São Paulo) on R&D projects connected to bauxite residue management.

In 2021, a consortium led by Hydro was awarded a grant for product development in green products connected to the product segments electric applications, automotive and large constructions. The Alugreen project will receive a grant of NOK 77 million over three years under the Green Platform program initiated by the government and managed by the Research Council, SIVA and ENOVA. The consortium counts more than 20 partners from industry and academia.

Product stewardship

Hydro engages in dialogue with customers and other stakeholders regarding the environmental impact of our processes and products. We perform life-cycle assessments (LCAs) for all major product groups to identify improvement potential. With other aluminium producers, we have developed a pan-European network of national initiatives to promote and recycle aluminium packaging. Many of these national activities emphasize education and have developed projects with primary and secondary schools and universities to stimulate the next generation to make their contribution to a better environment.

In 2021, we ran a blockchain pilot with the Hydro REDUXA and Hydro CIRCAL low-carbon brands. The pilot aimed at providing certificates and product passports with a unique digital identity that allows our customers and end-consumers to easily trace the origin of the product to check data, validity and authenticity. The digital product passport contains product characteristics and selected sustainability claims. Traceability and transparency are key enablers to build more-responsible supply and value chains. We know that more customers and stakeholders expect this to make informed decisions, and we aim to provide key sustainability data by 2025 at the latest.

Hydro is an active member of the Aluminium Stewardship Initiative. As of publication of this report, 61 of our production sites have been certified, covering [Hydro's value chain](#) from bauxite to finished products.



Human rights

[Material topics](#) covered in this chapter:

Human and workers' rights

Impact on local communities



Why it matters

As a global energy and aluminium company with mining interests, ensuring responsible conduct in relation to society at large is important throughout Hydro's value chain. We have to consider our impact on society and on people's rights, spanning from construction to closure, in our own operations, the local communities we are part of, and in the supply chain. Hydro recognizes that businesses have a responsibility to respect, support and promote human rights.

Our approach

We respect the human rights of all individuals and groups that may be affected by our operations. As an employer, owner and purchaser, an important way to respect human rights is to secure decent working conditions in our organization, in minority-owned companies and with our suppliers.

We do not tolerate any form of harassment or discrimination, including but not limited to gender, race, color, religion, political views, union affiliation, ethnic background, disability, sexual orientation or marital status. And we do not tolerate any form of forced or compulsory labor, human trafficking or child labor abuse. We support the principles of freedom of association and collective bargaining.

Hydro supports the principles underlying the Universal Declaration of Human Rights, the UN Global Compact and ILO's eight core conventions, and we expect our suppliers to do the same. We are a member of the International Council on Mining and Metals (ICMM) and are committed to following their principles and position statements. Hydro's approach to human rights is based on key frameworks that define

human rights principles for businesses, including the UN Guiding Principles on Business and Human Rights. For a full overview, see GRI Standards general disclosure 102-12 and 102-13 at hydro.com/gri.

Hydro's social ambition for 2050 is to improve lives and livelihoods wherever we operate. We will do this in at least three ways:

- Invest in education: Equip people with essential skills for future economy. By 2030, our target is to empower 500,000 people with education and skills development. Read more about this in [Local community value creation](#).
- Support a just transition: Contribute to economic and social development in communities where we operate. Read more about [Local community value creation](#).
- Responsible supply chain: Ensure transparency and responsible business practices in our supply chain. Read more about this on in [Responsible supply chain](#).

Respecting, supporting and promoting human rights is the fundament of our social ambition.

Modern slavery transparency statement and Norwegian transparency act

The sections [Human rights](#) and [Responsible supply chain](#) have been developed to comply with the legal requirements as stated in the Norwegian Transparency Act 2021 (valid from 2022), the UK Modern Slavery Act 2015, and the Australia Modern Slavery Bill 2018. The reporting requirements apply to Hydro as a supplier of goods with a total turnover of £36 million or more in the UK, more than AUD 100 million in Australia, and total assets of more than NOK 35 million combined with, on average, more than 50 full-time employees employees, in Norway.

Ambition



Support a just transition by contributing to social and economic development



Implemented global grievance mechanisms

Performance



750 local community stakeholder dialogue meetings in Brazil



7,990 employees trained in Hydro's Code of Conduct

The information in the sections [Human rights](#) and [Responsible supply chain](#) is valid for:

- Norsk Hydro ASA and its consolidated subsidiaries. These include, but are not limited to, the fully owned production units
 - Hydro Aluminium Deeside Ltd. UK
 - Hydro Building Systems UK Ltd.
 - Hydro Aluminium UK Ltd.
 - The fully owned holding company Hydro Aluminium Australia Pty Limited, the owner of Hydro's 12.4 percent stake in the joint venture Tomago Aluminium Smelter and the Tomago Aluminium Smelter management company Tomago Aluminium Company Pty.

The sections are prepared based on information collected from all consolidated entities in Hydro. In addition, the above-mentioned legal entities have been consulted on the sections themselves.

Entities that are not fully owned by, but are controlled by Hydro, can have different policies. We believe that their relevant policies are aligned with the ones of Hydro.

The Modern Slavery transparency statement is approved by the Board of Directors of the parent company Norsk Hydro ASA and is included in their signatures to the responsibility statements.

For a full overview of Hydro's operations, business activities, organization structure and supply chain, see the [Our business](#) chapter.

Hydro's prioritized human rights areas

We have identified and prioritized the human rights relevant to our operations and which we are most at risk of potentially impacting. These have been identified based on information from impact assessments, internal and external experts, and other relevant sources. They have been prioritized based on the highest severity and likelihood of a potential adverse impact on people. References to the information pertaining to each of these issues in relation to the stakeholder groups can be found in the table.

Hydro's prioritized areas	Employees working for our suppliers*	Hydro employees	People in our local communities
Modern slavery, forced labor and child labor abuse			
Principles of freedom of association and collective bargaining			
Freedom from discrimination and harassment			
Decent working conditions			
Right to privacy			
Right to health			
Right to safety			
Rights of vulnerable individuals and groups			
Provide information, dialogue and participation			
Rightful, respectful and lawful resettlement, relocation and repossession			

* Including contracted and agency workers



Climate change



Environmental impact management



Human rights



Local community value creation



Responsible supply chain



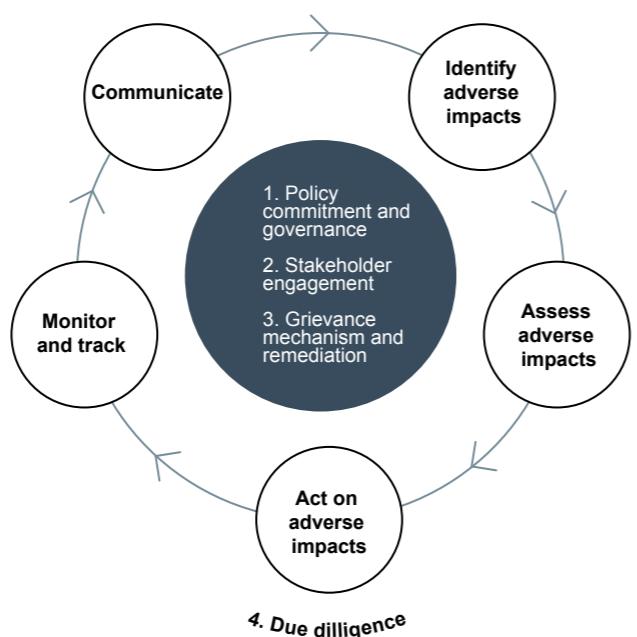
Organization and work environment



Integrity and compliance

Hydro's human rights management

Hydro's human rights management is based on the OECD Due Diligence Guidance for Responsible Business Conduct. The figure below summarizes how we manage human rights, and in particular the prioritized human rights areas, through four steps. An explanation for each of the steps is provided. Read more about our [risk-based approach](#).



1. Policy commitment and governance

Hydro's Human Rights Policy was last updated in 2020 and outlines the company's commitment to respecting, supporting and promoting human rights. The commitment is integrated in key procedures, including supply chain management, new projects, portfolio management, and risk management. The policy is approved by the Corporate Management Board and is available at www.hydro.com/principles. Information pertaining to Hydro's human rights policies and compliance is regularly discussed with the Board of Directors, the Corporate Management Board, business area management teams, and relevant parties such as union representatives.

For more information on policy and governance across our business and with our suppliers, see [Hydro's human rights policy](#).

2. Rightsholder and stakeholder engagement

When relevant, we consult parties that might be significantly impacted by our activities.

We engage and collaborate with stakeholders internally and externally to help inform us about and evaluate the effectiveness of our human rights management. This includes NGOs, unions, local associations, authorities, etc. as applicable. For more information, see the section on our [partnerships](#)

We are committed to the principles of non-discrimination and to respecting the rights of vulnerable individuals and groups. We aim to include vulnerable individuals and groups in our dialogues and to pay particular attention to these groups in terms of impact and remediation.

Hydro does not own any mining and/or exploration concessions in indigenous lands. Hydro respects the rights of indigenous people and traditional communities and acts in alignment with ILO 169 in engagement with indigenous people and traditional communities.

Dialogue with employee representatives includes involvement at an early stage in all major processes affecting employees, and we have a tradition for open and successful collaboration between management and unions.

Where relevant, and in line with our risk-based approach, we have regular dialogue with communities, and more frequent and structured dialogue in communities with higher risk of facing adverse human rights impacts. We develop and plan community dialogues in collaboration with affected communities, based on their needs and expectations. Community members close to our sites in Brazil and at several other major sites are invited to plant visits on a regular basis. See our section on [Managing human rights risks](#) for more information

For more information about our broad approach to stakeholder dialogue please see [Integrity and compliance](#) chapter.

Indigenous peoples and traditional communities

We support the principles underlying the UN Declaration on the Rights of Indigenous Peoples as well as the Indigenous and Tribal Peoples Convention (ILO Convention 169). We recognize their rights to self-determination, to lands which they traditionally occupy, to their customs, traditions and institutions, and to free, prior and informed consent (FPIC). Below is an overview of indigenous peoples and traditional communities in the area of influence of our own operations and joint ventures. Please see our section on [Managing human rights risks](#) [human rights chapter] for more information about actions and initiatives related to indigenous peoples and traditional communities. Please see [Responsible supply chain](#) for cases related to our supply chain.

Brazil

In Pará state, in Brazil, several traditional Quilombola communities reside in the local communities next to our operations. There is no indigenous peoples' land in proximity of our operations.

Canada

In Canada, Hydro's part-owned primary aluminium producer Alouette is in the vicinity of the Innu First Nation community.

Sweden

The wind farm project Stor-Skjälsjön is located near Sundvall in the northern part of Sweden where there is a Sami community.

3. Grievance mechanisms and remediation

Grievance, or complaint, mechanisms are important to better understand the impact of Hydro's operations on the rights of individuals and groups affected by our operations. Grievances may be of any kind, including social and environmental issues. In situations where we identify adverse human rights impact that we have caused or contributed to, we work to cooperate in, promote access to and/or provide fair remediation. See [Managing human rights risks](#) for more information concerning remediation cases.

To help facilitate informed and effective participation with people who are potentially affected by our operations, we establish or facilitate access to grievance mechanisms where relevant. We encourage, and will not retaliate against, individuals who in good faith ask a question, raise a concern, report a suspected violation or participate in an internal company investigation. Hydro is committed to not interfere, retaliate or hinder access to external or internal, judicial or non-judicial grievance mechanisms.

We have several grievance mechanisms depending on stakeholder groups. The whistle-blower channel AlertLine can be publicly accessed through www.hydro.com to report concerns involving illegal, unethical or unwanted behavior. See Integrity and compliance for more information. Grievance

mechanisms for community members can have different approaches depending on local needs. At many of our sites, we collect information and complaints through community dialogue. In Brazil, we use several channels, including Canal Direto (toll-free phone number and email) and dedicated, specially trained field workers. Please see [Note S10.1 Reported and confirmed cases of non-compliance](#) for more information.

4. Due diligence: Identifying, assessing, acting, monitoring and communicating risks and impacts

Human rights due diligence is integrated in relevant business processes including the enterprise risk management process. Mitigating actions or activity plans are developed and included in business plans in the business areas where relevant. Business plans are monitored, followed up and evaluated through the year in regular internal board meetings. Human rights and other sustainability-related issues are discussed when relevant.

In line with our risk-based approach, we aim to conduct more thorough stand-alone human rights impact assessments with mitigating action plans where there is a higher risk for adverse impacts.

Before new projects, major developments or large expansions

are undertaken, we aim to conduct risk-based environmental and social impact assessments, when relevant, which include evaluating risks for adverse human rights impacts. We are guided by The IFC Performance Standards on Environmental and Social Sustainability in doing so.

Training and capacity building

Human rights responsibilities are part of Hydro's Code of Conduct, which is translated into 19 languages.

Training on the Code of Conduct is provided to employees. The Code of Conduct includes our opposition to all forms of modern slavery. In addition, more specific training on relevant human rights topics is provided to relevant functions and locations. E-learning on Hydro's Social responsibility, including human rights, is available to all employees. For more information, see [Note S10.4 Compliance training](#). For more information about capacity building for external stakeholders, please see our chapters on [local community value creation](#) and [responsible supply chain](#).

Improving human rights management

We seek to continuously learn and improve the management of human rights. The corporate coordination group,

Risk-based approach

In line with UN Guiding Principles on Business and Human Rights and with OECD Due Diligence Guidance for Responsible Business Conduct, we prioritize due diligence according to the following framework:

Factors for prioritization	For own operations and joint ventures this translates to	For suppliers and contractors translates to¹⁾
Size of business	Number of employees and/or cornerstone employer	Expenditure
Nature of operations	Footprint on environment, including water resources, emissions, etc.	Suppliers industry. See graph on supplier due diligence
Context of operations	Risks of human rights violations in country of operation (see Country human rights risk level)	Risks of human rights violations in country of supplier (see Country human rights risk level)
Severity and probability of impact	Hydro's prioritized human rights areas	Supplier risk levels

¹⁾ Read more about responsible supply chain and supplier risk levels in [Responsible supply chain](#) chapter.

Country human rights risk levels

We use country human rights risk levels in the countries where Hydro is present to help guide our human rights management. The risk levels are based on a range of independent human rights sources, such as Global Slavery Index, Heidelberg Conflict Barometer and Human Development Index. The following countries where Hydro has operations or joint ventures were in 2021 considered high risk: Brazil, China, Bahrain, India, Mexico, Qatar and Turkey. We use a more extensive list of country human rights risk levels for our suppliers and for other relevant procedures, including investment decisions. See more in our [Human rights country risk score](#) illustration.

established in 2020, continued to collaborate on human rights topics across the organization. In 2021, over 896 employees received training in human rights due diligence. AlertLine, a global grievance mechanism and whistleblower channel was made available publicly on the Hydro website. See [Integrity and compliance](#) for more information about AlertLine.

We are in the process of establishing living wage gap analyses and aim to finalize this for our operations in 2022. We will also seek to develop targets on living wage in 2022. Improvements in 2021 to responsible supply chain and our procurement processes can be found in the section on Hydro's [supply chain](#).

In 2021, we continued to build capacity on human rights due diligence and engage on business and human rights with external stakeholders. For instance, we participated and shared our learnings in a large number of seminars and webinars in 2021, such as the Global Child Forum and the Global Business Initiative on Human Rights. We also supported Amnesty International Norway in the development of a new e-learning course for businesses on human rights.

Managing human rights risks

We monitor Hydro's prioritized human rights areas and recognize that there are potential risks of adverse impacts concerning our operations. According to our human rights [risk-based approach](#) looking at the size, nature, context, severity and probability of impact, the main risks are:

- Adverse impact on local communities in northern Brazil
- Adverse impact to migrant workers at our joint venture in Qatar
- Adverse impact in our supply chains for raw materials, hazardous waste services and agents and intermediaries for intervention with public officials. See [Responsible supply chain](#) for more information about Hydro's supply chain.

We have included below the most significant risks and actual adverse impacts that we are aware of through our due diligence processes, including grievance mechanisms. We have also described how we are working to mitigate or remediate these potential or actual adverse impacts. Hydro did not detect severe human rights impacts in our own operations in 2021.

Brazil

The Brazilian human rights consultancy Proactiva conducted a thorough human rights due diligence of our operations in the state of Pará, Brazil in 2019/2020. This covered the alumina refinery Alunorte, primary aluminium plant Albras and the Paragominas bauxite mine, including the bauxite slurry pipeline from Paragominas to Alunorte.

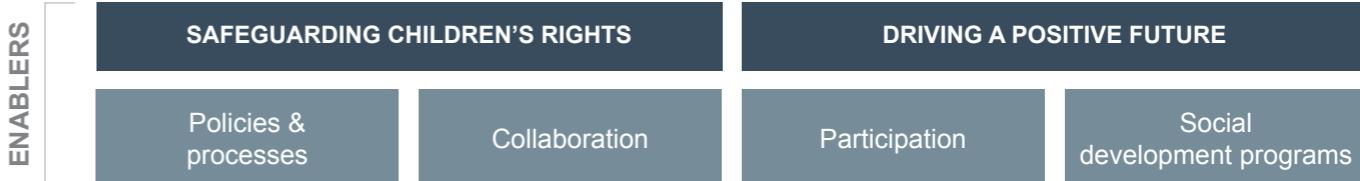
An action plan is under implementation, prioritized by severity, for implementation by 2023. During 2021, we made significant progress in several important areas. Examples include:

- Conducting human rights training for management, other employees and suppliers, including our grievance mechanism partner
- Developing policies on anti-discrimination and harassment, and on traditional communities
- Detailed mapping of traditional communities along the 244-km-long bauxite pipeline as well as advancements on the Quilombola study
- Implementation of social initiatives and strengthening social dialogue with traditional communities
- Better incorporate the Voluntary Principles for Security and

Hydro's program for children's rights

In 2021, we conducted an internal mapping of our exposure to child rights risks. The work culminated in a child rights program with actions to mitigate risks and promote positive social development for children and young people over the next years.

Children's rights and business principles



- Human Rights in security providers' contracts
- Strengthening effectiveness criteria for grievance mechanisms

In January 2022, our external auditor KPMG was engaged to make an assessment of the maturity and implementation level of the action plan. The assessment is expected to be completed within the first half of 2022.

Regarding the lawsuit made in the Netherlands by Cainquiama and nine individuals linked to Alunorte and Albras, please see [Note S10.2 Legal claims](#) to the Social statements.

In an area surrounding Hydro's operations in Barcarena and which is regulated for industrial purposes, illegal logging and irregular settlements have accelerated since 2016. We realize that we need to better understand the situation in collaboration with the relevant stakeholders, the municipality and civil organizations. In addition, allegations have been made by local groups about potential environmental impacts. see [Note S10.2 Legal claims](#) for more information.

We recognize the importance of respecting community health rights and promoting community health initiatives. In Barcarena, we are engaged with governmental organizations and civil society, in a comprehensive environmental and social assessment to better understand any links between potential historical emissions to air, water and soil, accumulated over time, and community health. Alunorte will also perform an updated socioeconomic study to assess if there were any significant impacts of the installation of the new



bauxite residue storage area (DRS2). The scope of this study is being finalized and agreed with the relevant authorities in Brazil.

At the same time, we're working with local authorities to understand how best to influence and support improvements to basic public services such as education, waste management and sanitation that will benefit the local communities.

More than 750 dialogue meetings were conducted in 2021 with communities next to our operations in Pará state, in person or digitally. Plant visits for community members are organized regularly with the goal of better understanding the operations and environmental management.

We conduct regular perception surveys with the communities. The baseline was conducted in early 2020 and in the last survey from the end of 2021, we see a positive trend in the perception of Hydro's social actions across all communities surveyed. Two communities reported a decline in perception between end of 2020 and end of 2021, highlighting the growing expectation for more strategic, long-term social actions to help mitigate economic impacts from Covid-19.

We have made progress in legacy issues related to identifying individuals directly impacted by the construction of a 244-km-long bauxite pipeline that crosses areas inhabited by traditional Quilombola groups in the Jambuaçu Territory in Pará. The former owner of the pipeline is still the legal party.

As part of an integrated plan to remedy impacts along the pipeline, several agreements with families directly impacted by the construction, but not covered under the legal agreement with the former owner, have been reached. In order to reach further agreements with additional community associations, Hydro is conducting a mapping and consultation process with Quilombola communities to better understand the local cultures, traditions and heritages. This is being carried out in close alignment with the relevant communities and related stakeholders, including Fundação Cultural Palmares, State of Pará and INCRA. INCRA is the Brazilian agency in charge of land certifications, including Quilombola matters, as part of the environmental licenses.

Hydro is also seeking to establish and contribute to a fund for social investments for the Jambuaçu Territory. The program supports local associations along the pipeline to strengthen their legal, administrative and governance structure. We also

have social programs and other income generation initiatives, including traditional farming.

Since 2020, a major project to replace the pipeline has been underway, taking place in stages along the pipeline. Efforts have been made to ensure good dialogue, information and participation, respecting local customs and norms, with those living close to the pipeline, including with Quilombolas communities. In 2021, impacts from the project related mainly to dust, increased traffic and clouded water. Continuous measurements of the water and air in collaboration with the local communities showed no material environmental impact.

In the municipality of Oriximiná in Pará, where the MRN¹⁾ bauxite mine is located, there is an ongoing dispute between Quilombola communities and Brazilian authorities regarding title to land owned by the federal government. The territory claimed by these communities encompasses certain areas that are planned to be mined by MRN in the future, but MRN is not a legal party in this conflict. Hydro has requested through MRN's board of directors and committees that the scope of the planned environmental and social impact assessment (ESIA) complies with local, national and international standards.

MRN is part of the Sustainable Territories Program, a social program to promote long-term development of traditional communities in Oriximiná.

In Itu, in São Paulo, where one of our Extrusions plants is located, there are irregular settlements next to the plant's perimeter. A safety assessment has been conducted, and no further necessary mitigating actions were identified. Nevertheless, we have been engaging with local authorities to find resettlement solutions for families that live in houses closest to the plant wall. The process has been delayed due to Covid-19.

Hydro Rein is considering minority investments in a number of wind and solar projects in Brazil, some of which would require relocation of a few households impacted by the projects. Investment decisions have not been made at this time. Studies to identify and assess potentially impacted households continue. We work with our business partners to ensure the implementation of IFC Performance Standards on

¹⁾ Hydro has a 5 percent ownership interest and off-take agreements with Vale for a further 40 percent of the volume produced by MRN.

relocation of people as well as other relevant standards that Hydro follows. These are described in [our approach](#) earlier in this chapter.

Qatar

At the primary aluminium producer Qatalum, a joint venture where Hydro holds 50 percent, close to 75 percent of the workers are employed directly by Qatalum. The remaining 25 percent are contracted workers that, for the most part, have a Qatalum-employed manager. Qatalum strives to secure good working conditions for all employees, and especially the conditions of the contracted workers. GIEK (Norwegian Export Credit Guarantee Agency) has conducted reviews of the social responsibility performance, most recently in 2019. Qatalum has followed up on the recommendations identified. While some recommendations were delayed due to travel and movement restrictions during Covid-19, several of the processes resumed in 2021.

Qatalum became a member of the Aluminium Stewardship Initiative (ASI) in 2021. In December, DNV audited Qatalum against both the Performance and Chain of Custody standards with the conclusion to recommend the metal plant for certification. In 2022, we aim to work with Qatalum in addressing findings and recommendations made by DNV.

Workers' rights in Qatar

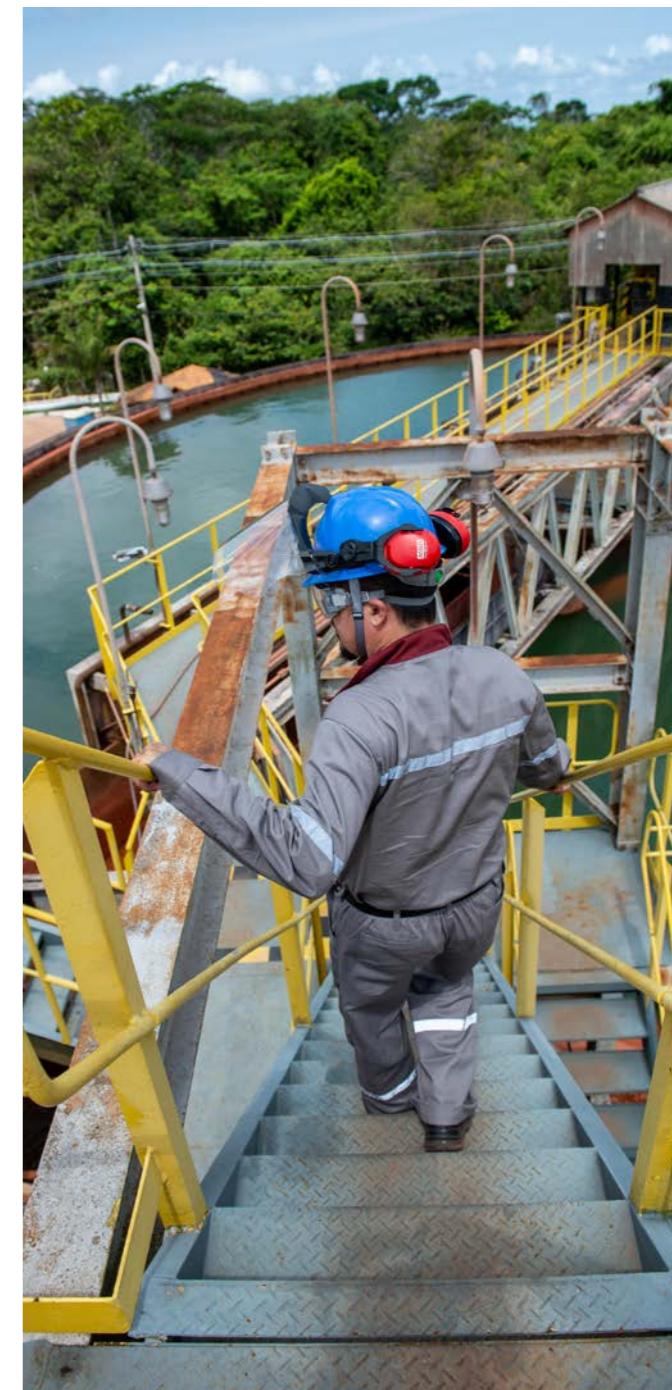
The FIFA 2022 World Cup has led to increased international scrutiny of the migrant worker situation in Qatar. The increased attention has led to a range of new government initiatives aimed at improving worker rights for migrant workers in Qatar. For example, the introduction of a legal minimum wage for all employees across all sectors in Qatar in early 2021 continues to help improve the worker conditions in the country. Improvements are still needed, and Hydro will continue to work to strengthen frameworks for working conditions in Qatar.

Other countries

The wind farm project Stor-Skjäljsjön is located near Sundsvall in Sweden. Hydro Rein owns 49 percent of the project. A review of environmental and social risks has been conducted. No known non-compliances with regulatory requirements

or Hydro's policies have been identified. An adjacent Sami community will be impacted by the wind farm, as the areas are in some periods used for reindeer herding. Legal agreements on cooperation between the Sami community and the wind farm during construction and operation have been signed. The impacts of the wind farm will be minimized through mitigative actions proposed by the community.

We also have more limited operations in other countries where there is an increased human rights risk, including China, Hungary and Mexico. We track the human rights developments in these countries and seek ways to mitigate our impact when and where relevant.





Responsible supply chain

[Material topics](#) covered in this chapter:

Supply chain
Human and workers' rights
Local workforce and wage



Why it matters

Our more than 25,000 suppliers are important contributors to the success of our business, and transparent dialogue with customers is vital to succeed. We also believe businesses have an important role in supporting and promoting responsible social and environmental behavior. We engage, influence and work with our suppliers for continuous improvement and to mitigate potential negative impacts to people and the environment in our supply chain.

Our approach

A responsible supply chain is part of our sustainability ambitions. We will ensure transparency and traceability of key sustainability data for our products by 2025 or earlier. In 2022, we will establish a methodology, plan and time frame for implementation of this. Read about Hydro's social ambitions for 2050 in our chapter on [Human rights](#). Our approach to responsible sourcing is based on the OECD Due Diligence Guidance for Responsible Business Conduct, and can be summarized in three steps:

1. Mapping of risks

All suppliers are subject to a qualification process, including mapping of risks related to business practice, human rights, working conditions and environment. If we identify any concerns related to such issues, we conduct a more comprehensive review or audit of the potential suppliers to clarify if the supplier meets our requirements before any agreements are signed. The mandatory due diligence process for all suppliers is described in the company-wide procedure, Sustainability in the supply chain, and is based on three levels of inherent sustainability risk levels. See illustration on our [supplier due diligence process](#).

Ambitions



Transparency and traceability of key sustainability data for our products by 2025 or earlier



Establish methodology for key sustainability data in 2022

2. Clear expectations

Hydro's Supplier Code of Conduct sets out the minimum sustainability requirements for all our suppliers. The code is based on international recognized standards such as the Universal Declaration of Human Rights, UN Global Compact and the ILO Core Conventions, among others, to our suppliers.

3. Support and development

We build our relationship with our suppliers on mutual trust and development. We actively discuss and promote ethical business practice, safe working conditions, human rights and environment issues.

Hydro's social ambition for 2050 is to improve lives and livelihoods in the communities where we operate. For more information, see [Human rights](#) chapter.

Hydro's supply chain

Hydro has more than 25,000 active suppliers globally. Most are located in the same countries as our production facilities.

The Hydro Supplier Code of Conduct was last updated in 2020 to be more specific on several requirements, especially on human rights, conflict minerals, working conditions, environmental and climate impact. The changes are based on international standards to which Hydro is committed, including the International Council on Mining and Metals (ICMM) and Aluminium Stewardship Initiative (ASI).

The principles set out in Hydro's Supplier Code of Conduct are made binding through contractual clauses to ensure suppliers and business partners reflect the values and

Performance

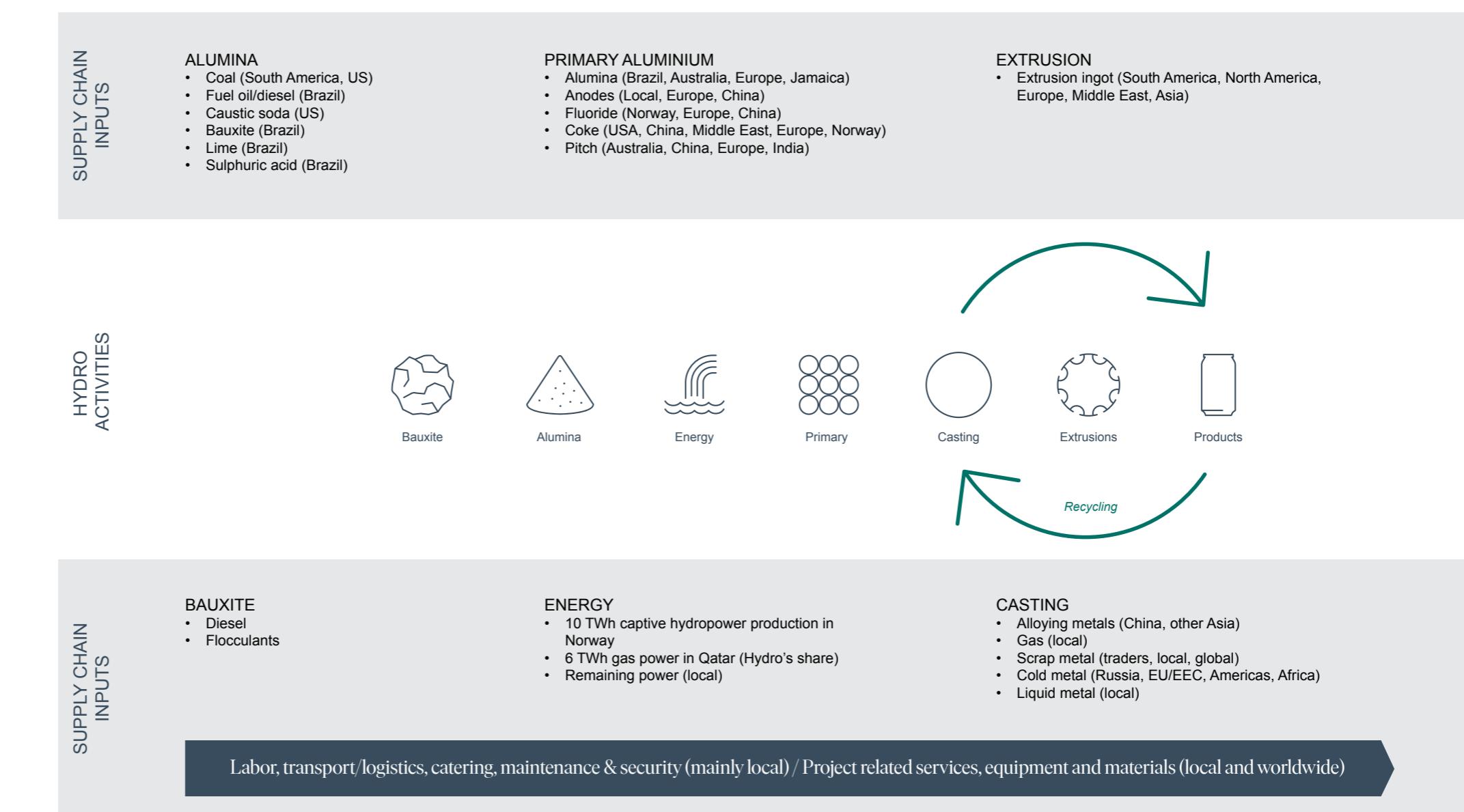


851 due diligence processes carried out



40% of existing counterparties screened

Hydro's supply chain



The figure shows Hydro's supply chain related to its value chain, and does not reflect the current organizational structure.

principles that Hydro promotes. Standard contracts also include clauses on auditing rights and the supplier's responsibility to actively promote the principles with its own suppliers/contractors and sub-suppliers/sub-contractors of any tier that have a material contribution to the supply of goods and services to Hydro under the contract. Failure to comply with the principles may result in a termination of the contract.

In 2021, we finalized a new procedure on sustainability in the supply chain to ensure a company-wide implementation and follow-up on the sustainability principles set out in the new Supplier Code of Conduct. The documents are available on www.hydro.com/principles.

Suppliers, customers and other business partners registered in our main accounting systems are screened weekly against recognized international sanction lists. We have also developed a spend cube to measure the impact of procurement initiatives and manage supply chain risk.

Furthermore, supplier audits and site visits are performed by Hydro personnel and external auditors based on risk analyses. See [Note S10.5 Screening of business partners and supplier audits](#) for more information.

Through regular reviews, audits and other tools, we contribute to continuous development among our suppliers. Due to Covid-19 restrictions, we were not able to visit our suppliers as frequently as planned. We conducted 49 supplier audits in 2021, all including topics related to HSE, human rights and working conditions. We are an active member of the ASI and promote ASI's certification program to our aluminium suppliers for the sustainable development of their operations. We also cooperate with other external stakeholders, such as unions and industry associations, to develop and implement supplier development programs.

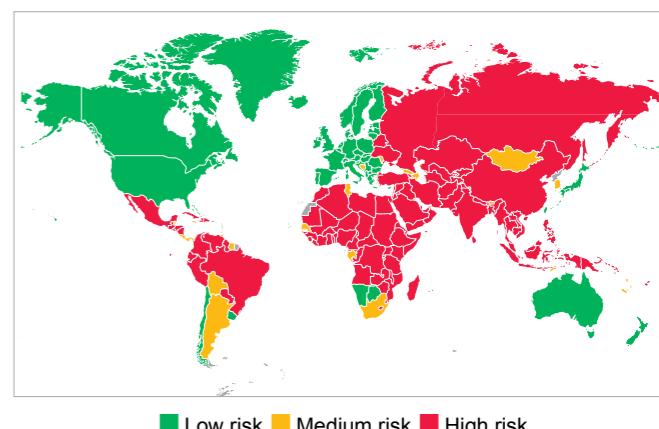
We engage and collaborate with stakeholders internally and externally when relevant, to help inform and evaluate the effectiveness of our approach to responsible sourcing. See our section on [Partnerships](#) for more information.

Hydro's key sourcing countries*

Country	Percent
USA	29%
Brazil	16%
Norway	8%
China	7%
Germany	7%
Great Britain	5%
Austria	3%
Canada	3%
Singapore	3%
Others	20%

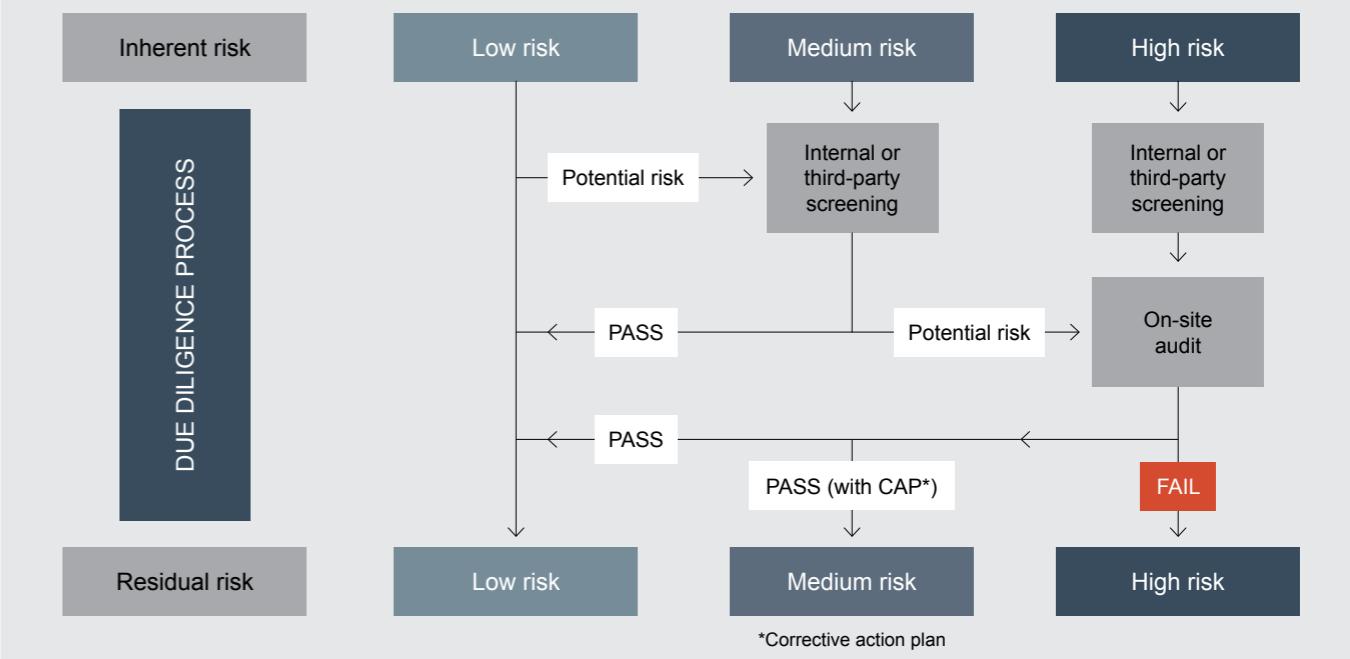
* Materials sourced from other Hydro entities are not included.

Human Rights Country Risk Score



Supplier due diligence process

The due diligence process for the supply chain is updated and based on new inherent sustainability risk criteria, as shown in the flowchart below. The inherent sustainability risk criteria is based on the supplier's industry, country of origin and expenditure. More details on these criteria can be found in the Hydro global procedure Sustainability in the supply chain.



Managing risks

The prioritized human rights areas monitored in the supply chain are related to safe and decent working conditions, health, discrimination, freedom of association and collective bargaining. The risk of incidents of child labor abuse, compulsory or forced labor is also monitored. There have been very few findings of these severe risks in our supply chain in recent years. We do, however, recognize a risk of forced or compulsory labor among suppliers in the Middle East, South America and Asia. This is addressed in our supplier screenings, supplier audits and regular dialogue with the suppliers.

China

In early 2021, several countries introduced sanctions on officials in China over alleged human right violations against the mostly Muslim Uighur minority group, mainly in the Xinjiang region. Hydro has confirmed that we do not source material and alloys from the Xinjiang region. We continue to monitor the situation.

Guinea

In 2021, we closely monitored potential human rights and environmental violations related to bauxite mining in Guinea. Hydro does not source bauxite directly from Guinea, but some of the alumina Hydro sources in Europe and a part of the primary metal sourced externally have their bauxite origin in Guinea. We followed closely the complaints process related to the expansion of the CBG mine raised to the Compliance Officer in CAO (the Compliance Advisor Ombudsman for the International Finance Corporation). We have requested more information from both parties in the complaints case, the mine operator and the NGOs representing the impacted villagers.

Norway

In Norway, Hydro has an offtake agreement with Statkraft on power from the new Fosen wind power installation. The projects on the Fosen peninsula are located within Sami reindeer grazing land. Agreements on mitigating measures and compensation for extra costs during the construction phase were previously entered into with the two affected reindeer herding groups. In August 2021, the Norwegian supreme court determined that the construction of the wind park had not sufficiently taken into account the rights of the Sami population. The consequences of the verdict are being assessed by the responsible ministry. Hydro is monitoring the situation and following up with Statkraft.

Streamlining supplier risk management

As part of creating a common and consistent approach to supply chain management, we have entered into agreement with the sustainability ratings company EcoVadis (www.ecovadis.com). Hydro has a complex and diverse supply chain. By utilizing the intelligence and performance improvement tools provided by EcoVadis, we believe we will be in a good position to streamline sustainability risk management, and to help us promote and monitor positive development of our supply chain.

Supplier development

Hydro works to strengthen and improve our suppliers' sustainability performance through dialogue, sharing of knowledge, innovation processes, incentives or supplier development programs.

In Brazil, suppliers can apply to participate in a comprehensive, year-long supplier development program. In 2021, 21 supplier companies participated in the third edition of the program totaling 127 participants. Since the program started in 2018, 69 local companies have participated in the program.





Local community value creation

Material topics covered in this chapter:

- Impact on local communities
- Human and workers' rights
- Local workforce and wages
- Indirect economic impact
- Pandemics



Why it matters

We aim to contribute to the development of local communities because it is right, and because we can only succeed as a company if the communities around us also succeed. Through offering jobs, buying services, paying taxes and fees, and by trying to be good neighbors, we contribute to the society to which we belong. We constantly strive to make a positive difference in these communities. This is integrated into our purpose, values and business strategy.

Our approach

A key element in Hydro's approach to local community value creation is to strengthen the societies and communities where we operate. The way we do this differs from country to country and from community to community. The main contribution is generated from our operations through production and purchase of goods and services, direct and indirect job creation, and tax payments. We engage in capacity building through targeted programs, to develop the competence of groups as well as individuals, and we have partnerships aiming to further enhance the public's knowledge about Hydro and its operations. Hydro has corporate requirements on management of community investments, charitable donations and sponsorships. Read about Hydro's social ambitions for 2050 in our chapter on [Human rights](#).

Education and skills development target

In this area, we have developed a methodology to measure the target to ensure consistency across the company. [The methodology can be accessed here](#). The insight from measuring the people reached and the impact of our

Ambition

500,000

People equipped with essential skills for the future economy through education and skills development by 2030

initiatives make us better equipped to select and execute future initiatives with a positive impact.

In 2021, we reached more than 20,000 people, which implies that we have reached close to 130,000 in total since 2018. In 2020, we saw an exceptional result with close to 59,000 people reached. Roughly 50 percent were reached through a project with UNICEF in India. Furthermore, with the divestment last year of our business area Rolling, the 2021 result was expected to be lower than in previous years. We are still on track to reach 500,000 by year-end 2030. Continuous improvement of current initiatives and the development of new high-impact initiatives are important going forward.

Community investments and social programs

We have a magnitude of social programs based on local needs and customs. Some of our community investments and programs are linked to mining license requirements, while others are voluntary commitments. The programs target education, economic growth, decent work, capacity building and strengthening of institutions.

Many social programs have been transferred to digital platforms due to Covid-19 and will continue with digital offering also after the pandemic to reach more people. Several programs are linked to our partnerships. See more about our [partnerships](#). Below are some examples of current programs.

Performance

21,000

People educated or trained in 2021 as part of target

55 MNO^K

Spent on community investments, charitable donations and sponsorships

To support local communities, we organize volunteer programs at many of our production sites. The volunteer activities are based on local customs and needs. Many sites also support local communities through a range of sponsorships and charitable donations. Hydro Extrusions has a broad range of sponsorships and support programs. Another important contribution is the transfer of competence that takes place through our cooperation with universities and research institutions. This includes the cooperation with three academic institutions in Pará, Brazil, and the University of Oslo through the Biodiversity Research Consortium Brazil-Norway. See [partnerships](#) for more information. In addition, we provide scholarships to selected PhD candidates doing research relevant for our business areas. Hydro is also the sponsor of a professorship in Norway and has several adjunct professors among its own employees. See also [collaborating with other parties](#) for more information.

Brazil

The Barcarena region, where Hydro's Alunorte alumina refinery and the Albras metal plants are located, ranks low on the Human Development Index (measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and with a decent standard of living), and has one of the highest levels of violence in the world. There are high levels of unemployment and general poverty with a lack of access to basic services, with the share of people with access to sanitation at less than 30 percent.

In Pará state, Hydro has several social programs across the seven municipalities where we have operations. The programs support quality education, income generation, access to and the strengthening of public services, and they place emphasis on enabling stakeholders to drive change and development. For each program we have an external implementation partner. By establishing contact between the partners, synergies have been identified. In 2021, the partners introduced several joint initiatives to contribute toward the common goal of local development. We also continued training for community leaders in leadership and administration in the communities where we operate, and technical training for community members along the bauxite pipeline from Paragominas to Alunorte (see [managing human rights risks](#) in Human rigths chapter) to strengthen their job opportunities. We also work to establish social programs and income generation initiatives, including traditional farming and livelihoods, along the pipeline.

We initiated the Sustainable Barcarena Initiative (SBI) in 2018. This is an independent platform for sustainable development in Barcarena in Pará state. The overall aim is to bring local stakeholders together to discuss challenges and opportunities, strengthen capabilities and ultimately invest in the social initiatives they plan and develop together. In 2021, about 120 people participated in meetings, dialogues or programs organized by the initiative. In 2019, we established the Hydro Sustainability Fund, which serves as a financing

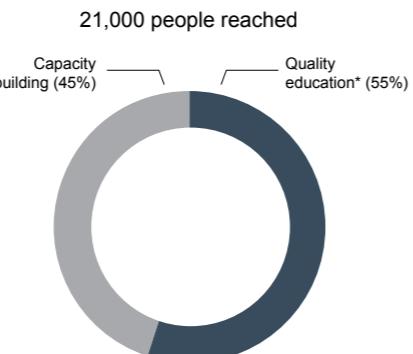
mechanism for SBI. Hydro is contributing BRL 100 million to the fund over a 10-year period.

The fund launched its first round of financing in 2019 for projects supporting local associations to increase community businesses' knowledge and to promote cultural events. Due to Covid-19, the implementation of the projects was delayed until 2021, but the projects are now underway. A second round of financing of more than BRL 7.1 million is under development together with USAID. SBI coordinates the financing rounds.

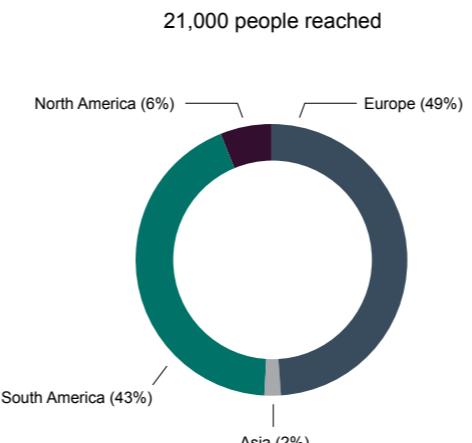
In response to Covid-19, the fund and these partners are financing income generation projects for local production of face masks, as well as strengthening of existing social projects for local farmers through the pandemic. In addition, a partnership between the fund, the Mitsui Fund and Instituto Peabiru invested BRL 1.3 million to microfinance local family-based manioc processing in 2021. A further BRL 1.8 million investment is planned for the next two years to upgrade and expand the microfinance initiative.

To support the preservation of the Amazon region, we run several programs that emphasize entrepreneurship and strengthening of traditional livelihoods. This includes environmental efforts and collaborations such as the Biodiversity Research Consortium Brazil-Norway. See our section on [Partnerships](#) for more information.

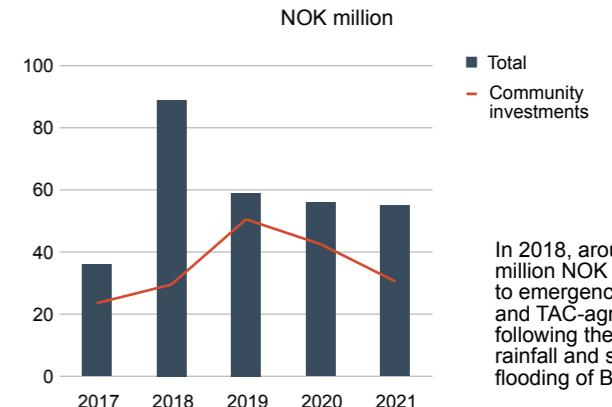
Breakdown of 2021 results by type of support provided



Breakdown of 2021 results by region



Community investments, charitable donations and sponsorships



A volunteering program for employees has helped increase internal engagement and address community needs. In 2021, over 400 employees participated in the volunteer programs organized at several of our locations in Brazil. The volunteers organized over 70 different activities, including organizing food baskets, fundraising, seed planting and training for community leaders.

India

In Kuppam, India, we finance two local learning labs using tablets and physical games that give children at two schools in the community access to enhanced learning opportunities. Due to Covid-19, students have been given access to the learning apps for use on private tablets and phones so that the training and development can continue despite closed schools. Although our extrusion plant in India has been sold, the project is still funded for another one and a half years.

Italy

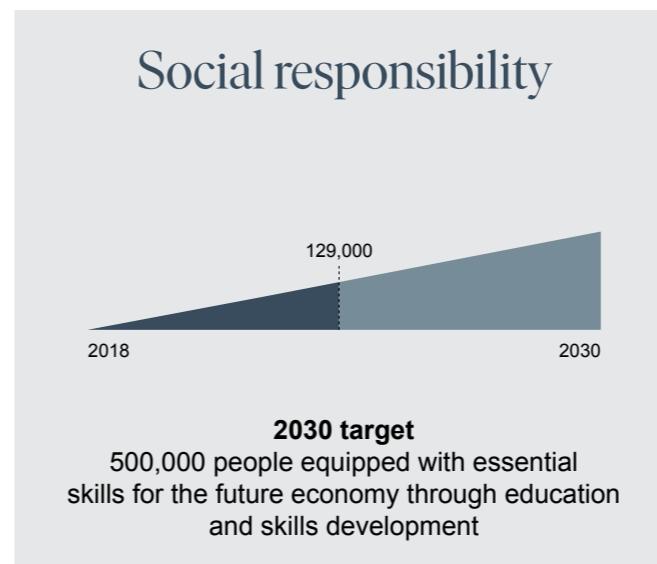
We continued supporting UNICEF's "Upshift" program, a youth social innovation and social entrepreneurship program designed primarily for marginalized or at-risk young people. In 2021, Hydro supported "Upshift" for migrant and refugee youth in Italy.

Covid-19 and social responsibility

While the health and safety of our employees are crucial in these times, Hydro also plays a role in the local communities where we operate and in the global effort to stop the pandemic and its effects.

In 2021, Hydro continued to support local authorities and communities with initiatives such as, donations to hospitals, food baskets and sanitary kits across our global operations. Prevention protocols continue to be followed in social programs and in social dialogues. We continued supporting Covax, the global vaccine sharing effort, through UNICEF Norway.

Hydro's identified risks and response to the pandemic is covered in the [Risk review](#) chapter.



Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices



Organization and work environment

Material topics covered in this chapter:

- Organizational capabilities and culture
- Diversity, inclusion and belonging
- Health, safety and security
- Emergency preparedness



Why it matters

We value human life above all other considerations and will not compromise the health and safety of those working for us or affected by our activities. We want every employee, contractor and visitor to return home healthy and safe every day. Hydro is committed to the principles of non-discrimination and does not tolerate any form of harassment or bullying in the workplace. We believe that diverse and inclusive teams lead to higher levels of innovation, a learning culture, better customer understanding and cultural awareness, as well as greater financial results. This is crucial for our business and directly linked to our profitability and sustainability agenda.

Our approach

We have a responsibility to provide a safe work environment and believe that this also promotes efficiency and lower operating costs. We drive safety improvements by systematically reducing risks, training personnel and regularly following up by line management and safety delegates. All injuries and high-risk incidents are investigated to find root

causes and to share lessons learned between our sites.

Through Hydro's global people processes, we ensure the right competence, capabilities and organizational culture to be able to deliver on our overall strategic agenda.

Hydro's current people strategy was launched in 2020, setting global strategic priorities and activities, in addition to a defined process for annual updates and revisions. The global priorities cover learning and competence development, leadership and succession, as well as diversity and inclusion. These priorities are supported by the business areas with targets and activities based on their specific needs, addressing challenges in regions where they operate.

Hydro's common process for people performance and development includes an appraisal dialogue, individual development plan and follow-up, as well as talent planning and succession management.

In Hydro, our goal is to have a culture of continuous learning and competence development to ensure current

Ambitions

Zero

Fatal accidents and life changing injuries

25%

Women employees in permanent and temporary positions by 2025

25%

Women leaders in permanent and temporary positions by 2025

Foster

An inclusive work environment

Performance

3.3

Total recordable injury rate (per million hours worked)

20%

Women employees in permanent and temporary positions

18%

Women leaders in permanent and temporary positions

76%

Inclusion index baseline

and future workforce readiness. We believe that learning and competence development is best achieved through a combination of on-the-job training, social learning (i.e. networking, mentoring and peer-to-peer), and formal learning initiatives (both digital and in the classroom). A new people platform supports these learning and competence development processes.

Learning is thus more visible, accessible, and easier to follow up for leaders and employees. We offer new employees introductory training related to the organization and to their individual work tasks. This includes required knowledge in health, security, safety and environment. The most important development takes place locally, primarily with on-the-job training. We also offer a more in-depth course, Hydro Fundamentals, to leaders and specialists. A digital version has been developed to significantly extend the reach of the program.

Succession planning for critical positions in the company is one of the strategic people priorities towards 2025. The continuous development of candidates to the succession pipelines aim to ensure a continuous supply of high-quality leaders. We firmly believe that this is key to secure our future strategic returns. The strong emphasis on gender and nationality diversity has resulted in an increased number of women and non-Norwegian candidates.

In order to have a healthy pipeline of leaders with the required breadth of experience, we strive to rotate leaders so that they gain knowledge from different parts of the organization. Through the succession and talent processes, we work with the leadership and specialist pipeline and identify required development. We have a portfolio of learning programs that supports development for leaders as well as specialists.

Occupational health and safety

Hydro shall be a leading company in our industry in the area of occupational health and safety. This will be achieved through consistent implementation of the management system, with committed and visible leadership, and full engagement of all employees and others who work with us.

Our ambition is to prevent all injuries and ill health to avoid human suffering.

We will work continuously to avoid damage to property and loss of production. Hydro has developed a comprehensive health and safety management system and our manufacturing sites are certified to internationally recognized health and safety standards. We embrace digital tools where possible and have developed an advanced incident management system, self-assessment tools, risk management processes, e-learning training modules, etc., all easily accessible to employees. In addition, we have strengthened our behavioral

tools using human performance techniques and the consistent use of peer-to-peer job observations.

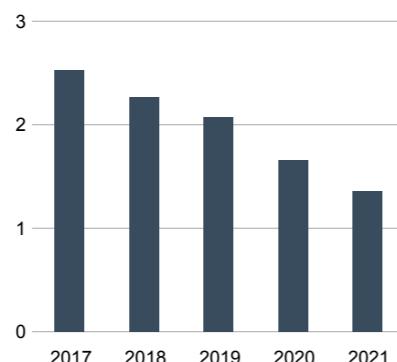
The number of total recordable injuries and associated rates deteriorated over 2020 levels, from 2.7 to a total recordable injury rate of 3.3 per million hours worked in 2021. The majority of injuries were relatively minor, with no life-threatening or life-changing injuries reported during the year.

The deployment of fatality-prevention procedures and associated life-saving rules and behaviors continued in 2021 which contributed to a continued reduction in the number and rates of high-risk incidents with the potential to be fatal or life changing. A few of our initiatives include:

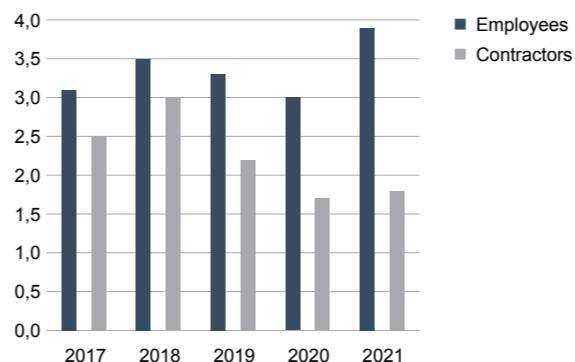
- Understanding the root causes of high-risk incidents within 30 days and having more than 85 percent of the incidents closed. In 2021, we reached 90 percent.
- Monthly deep-dive incident data analyses to support continuous improvement through root cause identification, and defining actions to prevent incidents from recurring.
- Quarterly health, safety, security and environment network meetings to connect specialists from all business areas to discuss findings and actions taken from high-risk incidents, and sharing best practice and innovative solutions.

Our approach to continual improvement of physical and chemical occupational health is based on work environment risk assessments (WERA) and implementation of risk-

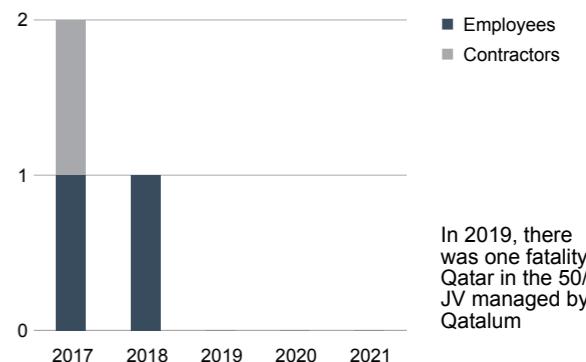
High-risk incidents
 Per million hours worked
 (employees and contractors combined)



Total recordable injuries
 Per million hours worked



Fatal accidents
 Number



reduction measures followed up through an associated key performance indicator. WERA is a tool to facilitate a more unified way of performing risk assessment, easier identification of improvement areas and sharing between similar processes.

The importance of mental health and wellbeing continued with numerous initiatives completed during the year to raise awareness, ranging from mental health webinars, stress management and sleep hygiene, to healthy eating and exercise. To ensure a similar systematic approach to the psychosocial work environment, we have established a new psychosocial risk indicator (PRI) as part of our employee engagement survey Hydro Monitor.

Hydro continues to closely monitor the development of Covid-19 and has implemented control measures to help prevent the risk of infection and spread and its impact on employees and operations.

The Covid-19 pandemic continued to evolve throughout 2021 with the successful rollout of major vaccination programs being partially mitigated by more contagious variants of the virus. Tragically, we lost 33 employees since the start of the pandemic.

Hydro operated throughout this challenging period without any major disruptions through the strict adoption of rules set by relevant local authorities together with Hydro-specific measures. In addition, specific emphasis has been given to the mental health state of our staff impacted by long standing social distancing rules, and we continue to encourage vaccination according to the guidelines set by authorities in countries where we operate.

Our strategy to minimize the operational impact of Covid-19 and prepare for future pandemics continues to be based on full compliance with rules complemented by a flexible range of Hydro-specific responses and robust emergency preparedness.

Where applicable, guidelines and regulations from national authorities such as those pertaining to travel restrictions, social distancing, home office or complete societal lockdowns have been reflected in our internal policies and procedures. We evaluate our key pandemic-related risks and vulnerabilities through annual security and business resilience assessments, which support the preparation and review of business continuity plans.

Additional measures that have been used and could be reinstated include stock level increases for raw materials to reduce our exposure to supply chain disruptions, as well as cash-preservation measures to reduce cost, capital expenditures and ensure adequate liquidity to face the financial impact of potential shutdowns.

More information is available in the [Risk review](#) chapter.

The CEO HSE Committee is the strategic decision-making committee for all main HSE-related matters for the Hydro group. The committee is led by President & CEO Hilde Merete Aasheim and consists of the members of the Corporate Management Board and the head of HSE.

Security and emergency preparedness

Hydro is committed to the protection of people, environment, physical assets, data and information. We anticipate and prepare for potentially adverse incidents with crisis potential in order to maintain business and operational continuity.

To prepare for and respond to intentional, unintentional and/or naturally occurring disasters, and to protect people and critical assets, we adapt and initiate security measures depending on the evolving risk picture. Our emergency preparedness plans enable effective response to high-risk incidents and crises, ensuring an effective, cohesive, integrated and timely response to any business disruption, regardless of origin, scale or complexity.

Security in Hydro includes a proactive security risk management process, based on analysis, to enable appropriate mitigating actions and accurate and timely decision-making. Security guards are employed on a regular basis to protect our personnel and assets. No armed personnel are used in our operations.

There were several serious security incidents, with firearms involved in 2021. No personnel were injured in these events and resulting security-mitigation measures were employed to protect personnel and prevent further incidents.

During 2021, the progression to achieve certification for ISO 18788, a management system for private security operations, requirements and guidance, continued. It is founded upon the Voluntary Principles on Security and Human Rights, helping to demonstrate an ethical approach to the delivery

of security services, and it will benchmark Hydro's security management system against the international standards. The process of certification is progressing, with Hydro employed security teams achieving conformity in the US. Hydro has also supported our third-party security providers to achieve the same level of conformity in Brazil, one of which achieved accreditation and was certified to ISO 18788 in June 2021.

Hydro is responsible for infrastructure and functions on local and regional levels that might be critical to society's operability, and we operate large-scale production sites where a crisis could influence community interests and safety in general. Hence, we are subject to control and follow-up by relevant national authorities. We have emergency plans in place by site, business area and at group level, and we test these regularly.

Eight emergency and crisis management workshops, with risk mapping at their core, were held in 2021. These workshops were conducted at plant, business area and Corporate Emergency Team (CET) levels. They help to link the process of emergency response, crisis management and recovery from the plant through to business area level and above.

Cyber-risk assessment is an integrated part of Hydro's enterprise risk management system. This is to facilitate the business areas' awareness of how cyber risks relate to their critical assets and operations.

Secure information handling is important to ensure Hydro's business continuity and reputation. Crucial computer systems are subject to surveillance and regulations. All personnel with access to sensitive information are bound to secrecy and required to handle information according to corporate guidelines and requirements.

Our enterprise IT platform¹⁾ is a critical element in all parts of our operations, covering areas such as digital collaboration, enterprise resource planning, central personnel databases and systems for external reporting. Cybercrime is increasing globally, and Hydro is exposed to threats to the integrity, availability and confidentiality of our information and systems. Threats may include attempts to access information, computer viruses, denial of service and other digital security breaches.

¹⁾ Hydro's enterprise IT platform refers to our IT infrastructure and software solutions across the Hydro group, but excludes our process control systems at operational sites.

Hydro has launched several initiatives to increase the robustness of the enterprise IT platform against malicious attacks by improving system infrastructure and by educating employees to develop and improve secure work processes and routines, and to understand how these threats can be prevented. Additional protection is also implemented for the process control systems at Hydro's plants.

Corporate Emergency Team crisis management training has been developed and crisis management workshops, with varying crisis scenarios, are programmed and have been held throughout 2021. Combined emergency and crisis management workshops incorporating business area management have been programmed for early 2022, which will involve training and exercising with the Cyber Crisis Team (CCT).

Diversity, inclusion & belonging

In order to advance in diversity, inclusion and belonging (DIB), Hydro continuously works to improve the approach, associated processes and governance. Our ambition is to have a high-performing and sustainable work environment, based on inclusion of our differences. We want employees to feel a sense of belonging where their voices are heard.

The following sections provide information on the current status of diversity and inclusion in Hydro, and the activities being undertaken to identify risks, and improve these, in accordance with the requirements on public disclosure in the Norwegian Equality and Anti-Discrimination Act (*Likestillings- og diskrimineringsloven*). This diversity and inclusion report, including its references to the notes to the social statement, is approved by the Board of Directors and included in their responsibility statement.

Our diversity, inclusion and belonging approach

The starting point in our approach to diversity, inclusion and belonging is to ensure compliance with laws and regulations. However, we value diverse perspectives as important when delivering on our long-term strategic agenda. Our diversity allows us to think differently, approach challenges differently and solve problems differently. Hence, building diversity leadership skills and fostering an inclusive culture is key in our approach.

Hydro is committed to providing equal employment opportunities and treating all employees fairly and with

respect regardless of primary or secondary characteristics. Hydro's employees and business areas shall only use merit, qualifications and other professional criteria as a basis for employee-related decisions, such as recruitment, training, compensation and promotion. We strive to develop programs and actions to encourage a diverse organization based on the principle of equal opportunities. Hydro is committed to the principles of non-discrimination and does not tolerate any form of harassment or bullying in the workplace.

We have different backgrounds, and we bring more collectively to the table than if we were all the same as each other.

– Hilde Merete Aasheim, CEO

Identifying and managing risks

We use our employee engagement survey, Hydro Monitor, to understand the current state of inclusion in Hydro. Based on this, we form hypotheses on how to improve diversity, inclusion and belonging, and pilot projects to create sustainable change. We measure progress through annual surveys and establish actions for further improvements, using the results from Hydro Monitor 2020 as a baseline.

We use Hydro Monitor and the internal grievance mechanism AlertLine as tools to assess the risk level of discrimination in the organization. We also track relevant employee data from our core employee system. Cases of alleged and/or confirmed discrimination and harassment are relevant indicators from AlertLine, while in Hydro Monitor we use combinations of gender, role and age differences in the employee engagement index and the psychosocial risk indicator as important indicators. From 2021, we will measure and track our inclusion index, consisting of eight questions related to diversity, inclusion and belonging.

To identify risks toward underrepresented groups and ensure that actions are implemented to lift these groups, different tools are provided. These include digital, anonymous focus groups to understand root causes and actions, unconscious bias testing and training, and group guidelines for employee

Diversity characteristics

We have a broad definition of diversity in Hydro. We believe it encompasses both primary characteristics (what you cannot influence) such as gender, race, color, age, ethnicity, sexual orientation, affectual orientation, personality; and secondary factors (what you can influence) including education, work experience, skills, language, geography, communication style, and beliefs.

Work background	Marital status	Parental status	Communication style
Talents	Sexual orientation	Age	Culture
Skills	Gender	Physical abilities	Religious beliefs
Experiences	Ethnicity	Personality	
	Geographical background	Education	Language

- Secondary characteristics - can be influenced
- Primary characteristics - cannot be influenced

resource groups. Tools and guidelines for all pillars in our strategy are available for the organization to use. These will be further developed, and we also aim to enable employees to engage in fostering an inclusive society.

We have collected several hypotheses and conducted a range of analyses, research and benchmarking. These include:

- Who joins Hydro and who leaves Hydro and when
- What is the current demography and cultural context
- How happy are the employees and what drives intent to stay
- What parental-leave benefits do we offer in different countries we operate in
- How is diversity and inclusion embedded in our people processes
- How minorities perceive engagement and inclusion at Hydro

The analyses have provided us with insight and identified areas for improvement. These are being followed up by the different business areas and corporate staff functions. And these have fed into the setting of our strategy and ambitions. Topics related to diversity and inclusion have not been identified among Hydro's main risks, see the [Risk review](#) chapter for more information.

Our strategy and ambitions

Through Hydro's global people processes, we aim for the right competence, capabilities and organizational culture to

deliver on our strategic agenda – lifting profitability, driving sustainability. Our strategic approach to diversity, inclusion and belonging, is founded on our overall business strategy and our three core values: care, courage and collaboration. The ambition is to have a high-performing, inclusive and sustainable work environment based on inclusion of our differences.

With the overall opportunity of utilizing our diverse workforce for increased value creation, we aim to mature in diversity, inclusion and belonging across three pillars:

- **Inclusion:** Fostering inclusive leadership and an inclusive culture for all employees to contribute with their full potential
- **Equity:** Promoting opportunities for everyone to contribute and succeed, adjusting for the fact that different individuals have different starting points
- **Diversity:** Seeking multiple perspectives and competencies when solving tasks and meeting customer needs. This includes increasing diversity across seniority levels

Our aim is to foster an inclusive culture, strengthen inclusive leadership, lift underrepresented groups, improve team diversity, increase gender balance, and ensure a diverse talent pool.

Business areas and corporate staff functions have developed roadmaps to ensure targeted actions are implemented across all three areas. Progress is reported at our internal board meetings in the first quarter of each year.

Diversity, inclusion and belonging

Inclusion Index developed and baseline set – eight anonymous questions about inclusive culture and leadership, against demographic characteristics, including categories where people can self-identify as a minority. This baseline will help track future performance in diversity, inclusion and belonging.

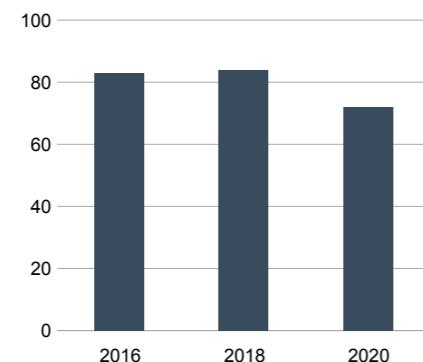
Results show that 76 percent employees have a positive perception of inclusion in Hydro, and employees identifying themselves as minorities feel less included and score less than the majority on all main indicators in the survey. In 2022, we will work to further understand the results, root causes and identify mitigating actions.

- Diversity, inclusion and belonging overall strategy approved by the Corporate Management Board
- Mandatory online diversity, inclusion and belonging training implemented for all white-collar workers
- Roadmaps developed in each business area and corporate staff function to deliver on the overall strategy
- Integration of compensation data in our people master data system



Hydro Monitor – Employee Engagement Index

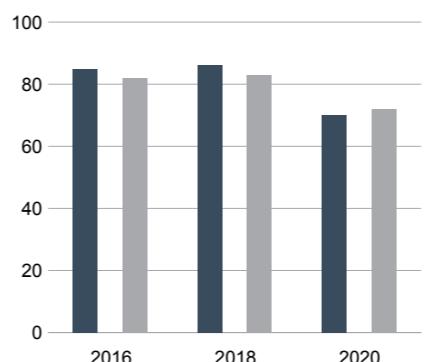
Percent engaged



Change in methodology makes the 2020 results not directly comparable to previous years. Hydro Monitor did not include employees from Hydro Extrusions in 2018.

Hydro Monitor – Employee Engagement

Percent engaged



Hydro changed survey provider in 2020, and the index may therefore not be comparable to previous years.

Our 2021 actions and results

To mature in diversity, inclusion and belonging, we are implementing actions at all levels in the organization across our strategic pillars. The learning process has started with the Corporate Management Board, on diversity competence and diversity management. Mandatory introduction training to diversity, inclusion and belonging was implemented in 2021 for all white-collar workers, in 17 languages, and recommended follow-up training provided. It is embedded in all people processes (e.g. recruitment, onboarding, succession) and part of our global leadership framework and included in all our global employee and leadership development programs. We are also developing diversity management competence among leaders.

There are several ongoing initiatives and programs in our major countries of operation. In Brazil, we have been running a comprehensive diversity, inclusion and belonging program since 2019 aiming to create an inclusive environment. In the US, we have initiated an inclusion project focused on improving relations with minority employees and providing diversity training for staff and managers. We have also started projects in the US focused on sponsorship and development programs for women and underrepresented groups. In Norway, example initiatives include identifying key drivers of gender diversity at our plants. We participate in the AFF 50-50 program dedicated to increasing recruitment of women into leadership positions and sponsor "Kraftkvinnene" – a network

dedicated to supporting women in the sustainability sector in Norway. We also host workshops and certification training with Seema (Norway's Centre for Diversity Management), and provide support to employees when coming back after a leave of absence. Employees at our headquarters can also during working hours act as mentors through the nonprofit organization "Sammen om en jobb" (Together for a job) to support educated immigrants enter the Norwegian labor market.

More information on Hydro's goals and approach to diversity, inclusion and equal opportunity, can be found in the [social and environmental statements](#).

Gender diversity

We have worked systematically to increase gender diversity in Hydro's operations for more than 20 years, and our first action plan to promote women employees and leaders was adopted in 1997. While we have seen successes in improving diversity at staff positions, challenges remain for operator positions.

Our goal for the share of women in Hydro is 25 percent by 2025, including permanent and temporary employees. In 2021, we achieved 20 percent. This was reached in part due to the sale of the Hydro Rolling business area, which had a higher proportion of men than the Hydro average. In reaching our target, retention is as important as recruitment. For more

information about temporary employees see [Note S1.2. Employees by employment type and part-time employees](#).

The share of women in Hydro's Board of Directors was 40 percent in 2021. With three women among the seven shareholder-elected members and one woman among the three employee representatives on the Board of Directors, Hydro complies with the Norwegian legal requirements on women representation. The proportion of women on Hydro's Corporate Management Board was 44 percent in 2021.

While gender equality is a challenge among operators at most of Hydro's operational sites, women constitute 51 percent of the workforce in Hydro's corporate staffs and 43 percent in Global Business Services. Globally, about one-third of employees in staff positions are women.

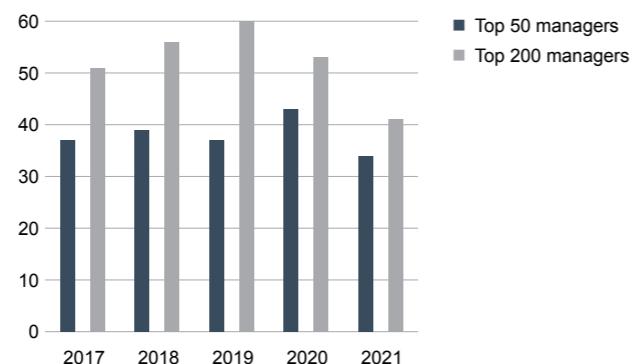
Hydro recognizes the importance of a good balance between work and other aspects of life. For example, Aluminium Metal, which is Hydro's largest business area in Norway, has implemented procedures to ensure a predictable work schedule for operators, and opportunities for flexible working hours for white-collar employees.

Pay equality and compensation

All employees shall receive total compensation that is competitive and aligned with the local industry standard (not market-leading). The compensation should be holistic,

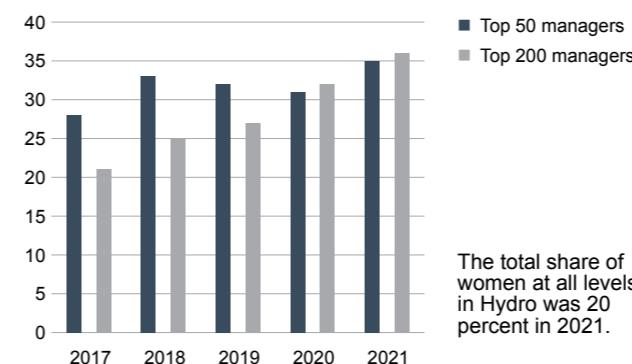
Share of non-Norwegian leaders

Percent



Share of women leaders

Percent



The total share of women at all levels in Hydro was 20 percent in 2021.

Gender balance performance and targets

Gender balance targets 2021 reached*:

	Target 2021	Target 2025
Women overall	20%	20%
Women leaders	18%	17%
Women across white-collar staff positions	28%	27%
		35%

* In permanent and temporary positions.

performance-oriented, transparent, fair and objective. Relevant qualifications, such as performance, education, experience and professional criteria, shall be considered when providing training, settling compensation and awarding promotions.

In 2020, we started the integration of compensation data in our people master data system, and a global job architecture framework was developed enabling us to map all employees in Hydro in a consistent way. An initial mapping of all employees using this structure was completed in 2021. A calibration and governance process will be established during 2022. Hydro's global job architecture framework is built on Mercer's International position evaluation system IPE. Hence, Hydro's architecture consists of two main elements: a job family structure and a job level structure.

The activities and competency requirements determine which family a job belongs to and it is the job that an individual holds that is mapped, not the individual person. The jobs are mapped in the family structure. We map employee positions in a level structure based on the complexity of each job. The job level structure consists of nine levels from operators, specialists to managers. Levels 1 to 3 typically cover operators in our plants, levels 5 and 6 jobs require higher education, e.g. bachelor or master with typically 1-5 years of experience. Levels 6 and 7 are jobs that require extensive experience in their area of expertise and levels 8 and 9 cover our most senior specialist and management positions.

Gender-related compensation differences in Hydro's Norwegian activities in 2021

In order to look at gender-related compensation differences in Hydro's Norwegian activities, the global job architecture has been used to ensure that men and women in jobs with equal complexity have been compared. This includes all permanent and temporary employees in full-time and part-time positions. To ensure consistency and relevant comparison, "on call" and summer substitutes are excluded from the analysis. "On call" and summer substitutes are all operator positions and are paid tariff-regulated salaries. There are no differences in the compensation structure between men and women in this group.

The compensation comparison is split into annual salary (contractual fixed base salary) and total compensation (includes bonus, overtime, shift allowances and other cash based allowances).

The results of this mapping have demonstrated that in Norway, Hydro's females employees are paid more than men on average when it comes to annual salary and total compensation. However, at the very highest specialist and management levels, men have higher compensation on average than women. Across all compensation categories and positions in Hydro's activities in Norway, women still earn on average 4 percent more than men as they have a higher representation at the higher position levels than at the lower levels.

For further information on Hydro's results in gender-related compensation, part-time work and parental leave, refer to [Note S1.2 Employees by employment type and part-time employees](#) and [Note S1.5 Sick- and parental leave](#).

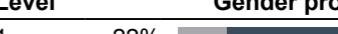
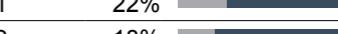
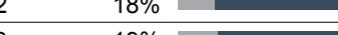
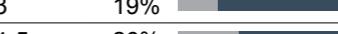
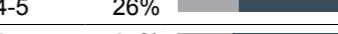
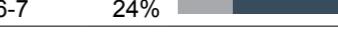
Opportunities for people with disabilities

We are continuously adjusting working conditions so that all employees have the same opportunities in their workplace. In Brazil, we are required to employ at least 5 percent employees with disabilities. At the end of 2021, 4.9 percent of the employees in Paragominas were disabled, at Alunorte 4.6 percent, and at Albras 4.6 percent. The absolute number for employees with disabilities increased in 2021, compared to 2020, and we are working to increase the share of disabled employees further. Just as important as achieving the legal requirements, Alunorte, Paragominas and Norsk Hydro Brasil are working on the career development of employees with disabilities. The Hydro Extrusions sites in southern Brazil fulfilled their legal requirements.

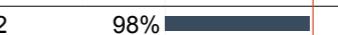
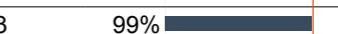
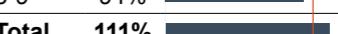
Drawing from these experiences, part of our strategy work will cover the ways we can generate opportunities and become an attractive employer for employees with disabilities, across our global operations.

Further data on our diversity, inclusion and belonging work can be found in the [social notes](#).

Gender and compensation reporting in Norway

Level	Gender proportion	Total
1	22% 	195
2	18% 	1,677
3	19% 	119
4-5	26% 	1,042
6-7	24% 	518
8-9	34% 	116
Total	22% 	3,667

■ Men
 ■ Women

Level	Compensation – women compared to men
1	105% 
2	98% 
3	99% 
4-5	109% 
6-7	102% 
8-9	94% 
Total	111% 

¹⁾ As women at Hydro in Norway tend to hold more senior positions than men, their total compensation is higher on average.

■ Annual salary (women vs men)
 ■ Total compensation (women vs men)
 - 100 percent

Collaborating with unions and other employee representatives

Through the Global Framework Agreement, Hydro is committed to providing equality of opportunity and treatment as required by ILO Conventions 100 and 111, respectively. This includes equal remuneration for men and women for work of equal value. The diversity and inclusion strategy was approved in June 2021 and communicated through the business area communication bodies for dialogue between management and union representatives.

For further data on diversity, inclusion and belonging, including gender-related differences in sick leave, part-time, work and parental leave, please see [Social statements](#).



Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices

Financial statements

112

Consolidated financial statements

117

Notes to the consolidated financial statements

158

Financial statements Norsk Hydro ASA

162

Notes to the financial statements Norsk Hydro ASA

170

Statement from the Board and the CEO

172

Responsibility statement

173

Independent auditor's report

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Consolidated financial statements

Consolidated income statements

	Amounts in NOK million (except per share amounts). Years ended December 31	Notes	2021	2020
Revenue		1.4, 5.1	149,654	114,291
Share of the profit (loss) in equity accounted investments		1.4, 3.1	1,340	223
Other income, net		5.2	2,219	7,414
Total revenue and income			153,212	121,928
Raw material and energy expense		5.3	88,843	68,953
Employee benefit expense		9.2	20,287	19,123
Depreciation and amortization expense		2.4	7,844	7,175
Impairment of non-current assets		2.5	437	1,979
Other expenses			17,914	15,343
Total expenses			135,325	112,572
Earnings before financial items and tax			17,887	9,356
Finance income		7.5	263	290
Finance expense		7.5	248	(4,842)
Finance income (expense), net			510	(4,552)
Income (loss) before tax			18,397	4,804
Income taxes		10.1	(4,467)	(918)
Income (loss) from continuing operations			13,930	3,886
Income (loss) from discontinued operations		1.5	12	(2,226)
Net income (loss)			13,942	1,660
Net income (loss) attributable to non-controlling interests			1,782	(185)
Net income (loss) attributable to Hydro shareholders			12,160	1,845
Basic and diluted earnings per share from continuing operations		7.6	5.92	1.99
Basic and diluted earnings per share from discontinued operations		7.6	0.01	(1.09)
Basic and diluted earnings per share attributable to Hydro shareholders		7.6	5.93	0.90

The accompanying notes are an integral part of the consolidated financial statements.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Consolidated statements of comprehensive income

Amounts in NOK million. Years ended December 31	Notes	2021	2020
Net income (loss)		13,942	1,660
Other comprehensive income			
Items that will not be reclassified to income statement			
Remeasurement postemployment benefits, net of tax	<u>7.6</u>	2,376	(926)
Unrealized gain (loss) on securities, net of tax	<u>7.6, 8.2</u>	(115)	(156)
Total		2,262	(1,081)
Items that will be reclassified to income statement			
Currency translation differences, net of tax	<u>7.6</u>	(1,377)	(4,689)
Currency translation differences, net of tax, subsidiaries sold		(578)	-
Cash flow hedges, net of tax	<u>7.6, 8.3</u>	(375)	120
Share of other comprehensive income that will be reclassified to income statement of equity accounted investments, net of tax	<u>7.6</u>	(137)	-
Total		(2,466)	(4,568)
Other comprehensive income		(204)	(5,650)
Total comprehensive income		13,738	(3,990)
Total comprehensive income attributable to non-controlling interests		1,564	(867)
Total comprehensive income attributable to Hydro shareholders		12,174	(3,123)

The accompanying notes are an integral part of the consolidated financial statements.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Consolidated balance sheets

	Amounts in NOK million, December 31	Notes	2021	2020	Amounts in NOK million, December 31	Notes	2021	2020
Assets					Liabilities and equity			
Cash and cash equivalents		7.2	22,923	17,638	Bank loans and other interest-bearing short-term debt		7.4	6,428
Short-term investments		7.3	6,763	4,091	Trade and other payables		6.3	22,710
Trade and other receivables		6.2	20,579	18,364	Provisions		4.1	3,128
Inventories		6.1	21,791	19,492	Taxes payable			2,935
Other current financial assets		8.2	3,656	470	Other current financial liabilities		8.2	3,237
Total current assets			75,713	60,055	Total current liabilities			1,434
Property, plant and equipment		2.1	54,605	64,245	Long-term debt		7.4	4,065
Intangible assets		2.2, 2.3	8,725	9,357	Provisions		4.1	21,989
Investments accounted for using the equity method		3.1	17,942	17,288	Pension liabilities		9.4	4,772
Other non-current assets		2.7, 8.2	6,045	4,191	Other non-current financial liabilities		8.2	9,621
Prepaid pension		9.4	8,894	7,064	Other liabilities			19,167
Deferred tax assets		10.1	2,588	2,207	Deferred tax liabilities		10.1	4,637
Total non-current assets			98,799	104,352	Total non-current liabilities			3,293
Total assets			174,512	164,408	Total liabilities			1,980
					Long-term debt		7.4	3,665
					Provisions		4.1	24,811
					Pension liabilities		9.4	5,605
					Other non-current financial liabilities		8.2	1,879
					Other liabilities			1,980
					Deferred tax liabilities		10.1	3,059
					Total non-current liabilities			57,916
					Total liabilities			86,132
					Share capital		7.6	86,964
					Additional paid-in capital		7.6	2,272
					Treasury shares		7.6	2,272
					Retained earnings			29,156
					Other components of equity		7.6	29,106
					Equity attributable to Hydro shareholders			(584)
								(662)
								60,112
								52,028
								Other components of equity
								7.6
								(6,892)
								(8,464)
								Equity attributable to Hydro shareholders
								84,064
								74,279
					Non-controlling interests			
								4,316
					Total equity			3,165
								88,380
					Total liabilities and equity			77,444
								174,512
								164,408

The accompanying notes are an integral part of the consolidated financial statements.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Consolidated statements of cash flows

	Amounts in NOK million. Years ended December 31	Notes	2021	2020	Amounts in NOK million. Years ended December 31	Notes	2021	2020
Operating activities					Investing activities			
Net income (loss)			13,942	1,660	Purchases of property, plant and equipment		(6,020)	(5,527)
Loss (income) from discontinued operations		1.5	(12)	2,226	Purchases of other long-term investments		(911)	(222)
Depreciation, amortization and impairment		2.4, 2.5	8,281	9,153	Purchases of short-term investments		(3,000)	(6,480)
Share of profit in equity accounted investments			(1,340)	(223)	Proceeds from sales of property, plant and equipment		371	260
Dividends received from equity accounted investments		3.1	1,559	979	Investment grants received		49	66
Deferred taxes			(97)	(1,101)	Proceeds from sales of other long-term investments		327	311
Loss (gain) on sale of non-current assets			382	(5,204)	Proceeds from sales of short-term investments		4,500	3,985
Net foreign exchange (gain) loss		7.5	(1,404)	3,800	Net cash used in continuing investing activities		(4,684)	(7,607)
Net purchases of trading securities			(1,441)	(38)	Financing activities			
Changes in assets and liabilities that provided (used) cash:					Loan proceeds		4,293	12,060
Trade and other receivables			(6,675)	1,204	Loan repayments		(5,781)	(8,130)
Inventories			(7,527)	293	Net decrease in other short-term debt		(107)	(221)
Trade and other payables			5,566	125	Proceeds from shares issued		51	25
Derivatives			1,672	629	Dividends paid		(2,822)	(2,628)
Collateral for derivatives			(4,582)	(617)	Net cash provided by (used in) continuing financing activities		(4,366)	1,106
Other items			2,356	(716)	Foreign currency effects on cash		5	(907)
Net cash provided by continuing operating activities	10.3		10,680	12,170	Net cash provided by discontinued operations	1.5	3,650	590
					Net increase in cash and cash equivalents		5,285	5,352
					Cash and cash equivalents at beginning of year		17,638	12,286
					Cash and cash equivalents at end of year		22,923	17,638

The accompanying notes are an integral part of the consolidated statements.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Consolidated statements of changes in equity

	Amounts in NOK million	Notes	Share capital	Additional paid-in capital	Treasury shares	Retained earnings	Other components of equity	Equity attributable to Hydro share-holders	Non-controlling interests	Total equity
Governance	January 1, 2020		2,272	29,123	(711)	52,745	(3,496)	79,932	4,148	84,081
Environment and social responsibility	Treasury shares issued to employees	7.6		(18)	49			32		32
	Non-controlling interest in subsidiaries sold					(2,561)		(2,561)	(54)	(54)
	Dividends	7.7						(2,561)	(65)	(2,626)
	Capital contribution in subsidiaries							2		2
Financial statements	Total comprehensive income for the year					1,845	(4,968)	(3,123)	(867)	(3,990)
Appendices	December 31, 2020		2,272	29,106	(662)	52,028	(8,464)	74,279	3,165	77,444
	Treasury shares issued to employees	7.6		50	78			129		129
	Items not reclassified to income statement in subsidiaries sold					(1,635)	1,635	-		-
	Dividends	7.7				(2,564)		(2,564)	(368)	(2,932)
	Acquisition of Non-controlling interest					123	(76)	47	(47)	-
	Capital contribution in subsidiaries							2		2
	Total comprehensive income for the year					12,160	14	12,174	1,564	13,738
	December 31, 2021		2,272	29,156	(584)	60,112	(6,892)	84,064	4,316	88,380

The accompanying notes are an integral part of the consolidated statements.

Oslo, February 21, 2022

Dag Meldell
Chair

Irene Rummelhoff
Deputy chair

Arve Baade
Board member

Rune Bjerke
Board member

Liselott Kilaas
Board member

Peter Kukielski
Board member

Sten Roar Martinsen
Board member

Ellen Merete Olsstad
Board member

Thomas Schulz
Board member

Marianne Wiinholt
Board member

Hilde Merete Aasheim
President and CEO

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Notes to the consolidated financial statements

Section 1 – General information	8	Section 8 – Financial risk and financial instruments	31
Note 1.1 Reporting entity, basis of presentation and significant accounting policies	8	Note 8.1 Financial and commercial risk management	31
Note 1.2 Measurement of fair value	9	Note 8.2 Financial instruments	33
Note 1.3 Significant events	9	Note 8.3 Derivative instruments and hedge accounting	39
Note 1.4 Operating and geographic segment information	10		
Note 1.5 Significant subsidiaries and changes to the group	11		
Section 2 – Long-lived assets	13	Section 9 – Related parties and remuneration	40
Note 2.1 Property, plant and equipment	13	Note 9.1 Management remuneration	40
Note 2.2 Intangible assets	14	Note 9.2 Employee remuneration	41
Note 2.3 Goodwill	15	Note 9.3 Board of Directors and Corporate Assembly	41
Note 2.4 Depreciation and amortization expense	15	Note 9.4 Employee retirement plans	42
Note 2.5 Impairment of non-current assets	16	Note 9.5 Other related party information	45
Note 2.6 Leases	19		
Note 2.7 Other non-current assets	19		
Section 3 – Investments in other companies	20	Section 10 – Other information	45
Note 3.1 Investments in joint arrangements and associates	20	Note 10.1 Income taxes	45
Section 4 – Uncertain assets and liabilities	22	Note 10.2 Research and development	47
Note 4.1 Uncertain assets and liabilities	22	Note 10.3 Cash flow information	47
Section 5 – Income and expenses	24	Note 10.4 Auditor's remuneration	47
Note 5.1 Revenue from contracts with customers	24	Note 10.5 Changes in accounting principles and new pronouncements	47
Note 5.2 Other income	25		
Note 5.3 Raw material and energy expense	25		
Section 6 – Specification of operating capital elements	26		
Note 6.1 Inventories	26		
Note 6.2 Trade and other receivables	26		
Note 6.3 Trade and other payables	26		
Section 7 – Capital management and cash management	27		
Note 7.1 Capital management	27		
Note 7.2 Cash and cash equivalents	29		
Note 7.3 Short-term investments	29		
Note 7.4 Short and long-term debt	29		
Note 7.5 Finance income and expense	30		
Note 7.6 Shareholders' equity	30		
Note 7.7 Dividends	31		

Section 1 – General information

Note 1.1 Reporting entity, basis of presentation and significant accounting policies

The reporting entity reflected in these financial statements comprises Norsk Hydro ASA and consolidated subsidiaries (Hydro). Hydro is headquartered in Oslo, Norway, and the group employs around 31,000 people in about 40 countries. Hydro is a global supplier of aluminium with operations throughout the industry value chain. Operations include power production, bauxite extraction, alumina refining, aluminium smelting, remelting and recycling, and extruded solutions. The Board of Directors and the President and CEO authorized these financial statements for issue on March 9, 2021. February 21, 2022. Hydro is listed on the Oslo stock exchange, Oslo Børs.

Basis of presentation

The financial statements have been prepared on a historical cost basis except for certain assets, liabilities and financial instruments, which are measured at fair value. Preparation of financial statements including note disclosures requires management to make estimates and assumptions that affect amounts reported. Actual results may differ.

The functional currency of Norsk Hydro ASA is the Norwegian krone (NOK). The Hydro group financial statements are presented in NOK.

As a result of rounding adjustments, the figures in one or more columns included in the financial statements may not add up to the total of that column.

Interest rates used for calculating net present values are rounded to the nearest 10 basis points for post-employment benefits, to the nearest 25 basis points for other non-financial assets and liabilities.

Significant estimates and judgment

The application of accounting policies requires that management makes estimates and judgments in determining certain revenues, expenses, assets and liabilities. The following areas involve a significant degree of judgment and complexity, and may result in significant variation in amounts.

- Impairment of non-current assets, discussed in [Note 2.5 Impairment of non-current assets](#)
- Uncertain assets and liabilities, discussed in [Section 4 Uncertain assets and liabilities](#)
- Uncertain tax positions, discussed in [Note 10.1 Income taxes](#)
- Business combinations, impacting such items as long-lived assets and uncertain assets and liabilities, discussed in [Note 1.5 Significant subsidiaries and changes](#) to the consolidated group
- Financial instruments, discussed in [Section 8 Financial risk and financial instruments](#)

Significant accounting policies

The following description of accounting principles applies to Hydro's 2021 financial reporting, including all comparative figures. The relevant accounting policies for relevant items are described in the specific notes in this set of financial statements.

Income statements and statements of comprehensive income

Hydro has elected to present a separate income statement and a separate statement of comprehensive income, rather than a combined statement. Further, Hydro presents an analysis of expenses based on their nature as a common analysis of expenses through Hydro's value chain. Hydro has elected to present a sub-total Earnings before financial items and tax (EBIT). This measure is also used as a segment profit measure. The share of the profit (loss) in equity accounted investments is included in this sub-total because the majority of such investments are operationally integrated with Hydro's businesses. Results from such investments are managed as part of Hydro's operating activities with significant transactions between the majority of these investments and Hydro. Return on other equity investments is not as closely related to the business activities in Hydro, and hence classification as finance income better reflects the way such investments are managed.

Gains and losses on disposal of non-current assets are presented net, as well as expenditures related to provisions that are reimbursed by a third party. However, insurance compensation and government grants are reported on a gross basis.

Statements of cash flows

Hydro uses the indirect method to present cash flows from operating activities. Interest and dividends received as well as interest paid are included in cash flows from operating activities. Dividends paid are included in cash flows from financing activities.

Basis of consolidation

The consolidated financial statements include Norsk Hydro ASA and subsidiaries, which are entities in which Hydro has the power to govern the financial and operating policies of the entity (control). Control is normally achieved through ownership, directly or indirectly, of more than 50 percent of the voting power. Currently, Hydro has more than 50 percent of the voting power in close to all subsidiaries. Subsidiaries are included from the date control commences until the date control ceases.

Intercompany transactions and balances have been eliminated. Profit and loss resulting from intercompany transactions have been eliminated.

Non-controlling interests

Non-controlling interests represent equity interests in subsidiaries held by other owners than Hydro. Non-controlling interests are reported as a separate section of the Group's equity in accordance with IFRS 10 Consolidated Financial Statements. Results attributed to non-controlling interests are based on ownership interest, or other method of allocation if required by contract.

Transactions between non-controlling shareholders and the group

Sales and purchases of equity interests and equity contributions not resulting in Hydro gaining or losing control of a subsidiary are reported as equity transactions in accordance with IFRS 10. No gain, loss or remeasurement of values of recognized assets, liabilities or goodwill are recognized as a result of such transactions.

Assets held for sale and Income from discontinued operations

Assets held for sale are reported separately in accordance with IFRS 5 Non-current Assets Held for Sale and Discontinued Operations, provided that the sale is highly probable, which includes the criteria that management is committed to the sale, and that the sale will be completed within one year. Assets held for sale are not depreciated but are measured at the lower of carrying value and the fair value less costs to sell for the asset group. Assets are not reclassified in prior period balance sheets. Immaterial disposal groups are not reclassified.

A discontinued operation is a component of Hydro that is held for sale or has been disposed of. A discontinued operation is a separate major line of business or geographical area of operations. Related cash flows, results of operations and gain or loss from disposal are reported separately as Income (loss) from discontinued operations.

Assets held for sale, liabilities in disposal groups and income and expense from discontinued operations are excluded from specifications presented in the notes unless otherwise stated.

Foreign currency transactions

Transactions in foreign currencies are initially recorded in the functional currency of the transacting entity by applying the rate of exchange as of the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated into the functional currency at the rate of exchange at the balance sheet date. Currency gains or losses are included in Finance expense.

Foreign currency translation

For consolidation purposes, the financial statements of subsidiaries with a functional currency other than Norwegian krone (NOK) are translated into NOK. Assets and liabilities, including investment in associates, joint ventures and goodwill, are translated using the rate of exchange as of the balance sheet date. Income, expenses and cash flows are translated using the average exchange rate for the reported period. Goodwill is recognized in the predominant functional currencies in the acquired businesses. Translation adjustments are recognized in Other comprehensive income and accumulated in Currency translation differences in Other components of equity. On disposal of such subsidiary, joint venture or associate, the cumulative translation adjustment of the disposed entity is recognized in the income statement as part of the gain or loss on disposal.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Note 1.2 Measurement of fair value

Hydro measures certain assets and liabilities at fair value for the purpose of recognition or disclosure. Recurring fair value measurement is used primarily for financial instruments, see [Section 8 Financial risk and financial instruments](#). Non-recurring fair value measurement is used for transactions, such as business combinations, divestments with non-cash consideration and certain other non-routine transactions. Fair value is estimated using inputs which are to varying degree objectively observable. Certain items are valued on the basis of quoted prices in active markets for identical assets or liabilities (level 1 valuations), others are valued on the basis of inputs that are derived from observable prices (level 2 valuations), while certain positions are valued on the basis of judgmental assumptions that are to a limited degree or not at all based on observable market data (level 3 valuations).ns).

Financial instruments

The estimated fair value of Hydro's financial instruments is based on market prices and valuation techniques. Valuations are made with the objective to include relevant factors that market participants would consider in setting a price, and to apply accepted economic and financial methodologies for the pricing of financial instruments. References for less active markets are carefully reviewed to establish relevant and comparable data. Extrapolations and other accepted valuation techniques are employed in periods with few or no transactions, such as for long-term commodity contracts in markets with few observations beyond the short or mid-term period.

Hydro's estimated credit spread for similar liabilities is used when determining the fair value of financial instruments where Hydro is net liable. Hydro determines the appropriate discount factor and credit spread for financial assets based on both an individual and on a portfolio assessment.

Equity securities

Fair value for unlisted shares is based on commonly accepted valuation techniques utilizing significant unobservable data, primarily cash flow-based models. To the extent there are transactions in such shares, the transaction price is assessed and, to the extent comparable to rights embodied in the investment held by Hydro, used for reference. For investments where share holdings are associated with offtake rights and/or obligations or other specific clauses, those rights and obligations are included in the valuation of the equity securities. Fair value for listed shares or regularly traded shares is based on quoted market prices as of the balance sheet date.

Debt instruments

Fair value for unlisted debt instruments is estimated primarily through cash flow models using contractual cash flow where relevant, and discount rates reflecting the perceived credit risk and other relevant risks associated with the instrument. Fair value for listed instruments is based on quoted market prices as of the balance sheet date.

Derivatives

Fair value of financial derivatives with a currency or interest rate as underlying is estimated as the present value of future cash flows, calculated by reference to quoted swap price curves and exchange rates as of the balance sheet date. For derivatives covering a period beyond the liquid period of price curves, the curves are extrapolated using unobservable data.

Fair value of commodity derivatives is measured as the present value of future cash flows, calculated using forward curves and exchange rates as of the balance sheet date. Estimates from brokers and extrapolation techniques are applied for non-quoted products and periods to achieve the most relevant forward curve. In addition, when deemed appropriate, correlation techniques between commodities are applied. Options are revalued using option pricing models, and credit spreads are applied where deemed to be significant. Markets are assessed to determine whether they are active for the relevant instruments. Currency and interest markets are considered liquid for the periods used for price references, and thus applied unadjusted. For aluminium contracts priced to observations at the London Metal Exchange (LME), liquidity is considered good for the first few years, with fewer transactions for longer durations. For electricity contracts priced to the electricity exchange Nasdaq OMX, liquidity is considered good for the first two years. For longer durations there are fewer transactions and higher uncertainty. Similar assessment is made for other markets used for price references. For less liquid periods, adjustments to remove outliers and extrapolation techniques are applied.

Embedded derivatives

Hydro measures embedded forward contracts that are separated from the host contract by comparing the forward curve at contract inception to the forward curve as of the balance sheet date. Changes in the present value of the cash flows related to the embedded derivative are recognized in the balance sheet with changes in the fair value recognized in the income statement. Forward curves are established as described above under Derivatives.

Note 1.3 Significant events

The following significant events have impacted Hydro in 2021, or are expected to impact Hydro in 2022:

The Covid-19 situation and its side effects continued to present a significant challenge to the global economy during 2021. While global economic activity rebounded relatively quickly in the first half of the year, supported by strong policy responses and low interest rates, significant uncertainty remains. Supply disruptions led to shortages and inflationary pressures on a range of key inputs, exerting downward pressure on growth rates in the second half of 2021. There is significant uncertainty surrounding the market outlook impacting estimates.

After a strategic review of Hydro Rolling business initiated in May 2019, Hydro announced an agreement to sell the Rolling business to KPS Capital Partners in March 2021. On June 1, 2021, the transaction was completed. The criteria for reporting the business as Held for sale and Discontinued operations, as described in [Note 1.1 Reporting entity, basis of presentation and significant accounting policies](#) were reached short time before the transaction was agreed. The sold business comprises the Hydro Rolling segment, and related pension liabilities and certain support functions reported as part of Other activities. The transaction is further described in [Note 1.5 Significant subsidiaries and changes to the group](#).

At the end of December 2021, the Board of Directors in the part-owned subsidiary Slovalco in Slovakia decided to further curtail production from 80 percent to 60 percent of capacity in the smelter in response to the high energy prices. The decision resulted in the existing power purchase contracts for delivery during 2022, which are at a fixed price, were recognized at their fair value of about NOK 2.8 billion. The fair value represents a gain on derivative purchase contracts included in the line item Raw material and energy prices. The value will be expensed during 2022 as the contract portfolio is realized through a combination of consumption and sale of power. Results will represent a combination of price variation in the power market and consumption of power recognized at the significantly higher current market price. The higher production cost represents an expected production loss as the majority of the power is planned to be used for smelter production, although planned volumes are not contracted as of year-end. The Slovalco smelter assets were written down as impaired at the end of 2021 as a result of the high production costs not supporting profitable production, even at the current aluminium prices.

Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices

Note 1.4 Operating and geographic segment information

Hydro identifies its reportable segments and discloses segment information under IFRS 8 Operating Segments, which requires Hydro to identify its segments according to the organization and reporting structure used by management. Operating segments are components of a business that are evaluated regularly by the chief operating decision maker for the purpose of assessing performance and allocating resources. Hydro's chief operating decision maker is the President and CEO. Generally, financial information is required to be disclosed on the same basis that is used by the CEO.

Hydro's operating segments represent separately managed business areas with products serving different markets, or distinct elements of the business separately followed up and reported to the chief operating decision maker. Hydro's reportable segments are the business areas Hydro Bauxite & Alumina, Hydro Aluminium Metal, Hydro Extrusions, and Hydro Energy, as well as the Hydro Metal Markets activities which are managed combined with Hydro Aluminium Metal.

Hydro Bauxite & Alumina activities includes bauxite mining activities, production of alumina and related commercial activities, primarily the sale of alumina.

Hydro Aluminium Metal includes primary aluminium production and casting activities. The main products are comprised of extrusion ingots, foundry alloys, sheet ingot and standard ingot.

Hydro Metal Markets includes all sales activities relating to products from our primary metal plants and operational responsibility for stand-alone recyclers as well as physical and financial metal trading activities.

Hydro Extrusions delivers products within extrusion profiles, building systems and precision tubing, and is operating several recycling facilities, both integrated with its extrusion plants and separate plants. Hydro Extrusions is present in about 40 countries. The products are delivered to such sectors as construction, automotive and heating, ventilation and air conditioning.

Hydro Energy includes operating and commercial responsibility for Hydro's power stations in Norway, a trading and wholesale business in Brazil, and energy sourcing for Hydro's world-wide operations. Energy is also responsible for Hydro's initiatives within other renewable energy production such as wind and solar, battery and hydrogen.

Other consist of Hydro's captive insurance company Industriforsikring, internal service providers, and certain other activities. Unallocated corporate activities are reported as part of Other.

Operating segment information

Hydro uses two measures of segment results, Earnings before financial items and tax - EBIT and EBITDA. EBIT is consistent with the same measure for the group, considering the principles for measuring certain intersegment transactions and contracts described below. Hydro defines EBITDA as Income (loss) before tax, financial income and expense, depreciation, amortization and write-downs, less investment grants. Hydro's definition of EBITDA may be different from other companies. The two measures represent results with and without the charge for historic investments in production capacity and other fixed assets and are considered complementary.

Because Hydro manages long-term debt and taxes on a group basis, Income before tax and Net income is presented only for the group as a whole.

Intersegment sales and transfers reflect arm's length prices as if sold or transferred to third parties at the time of inception of the internal contract, which may cover several years. Transfers of businesses or fixed assets within or between Hydro's segments are reported without recognizing gains or losses. Results of activities not considered part of Hydro's main operations as well as unallocated revenues, expenses, liabilities and assets are reported together with Other under the caption Other and eliminations.

The accounting policies used for segment reporting reflect those used for the group. The following exceptions apply for intersegment transactions:

- Internal commodity contracts may meet the definition of a financial instrument in IFRS 9 or contain embedded derivatives that are required to be reported separately and valued at fair value under IFRS 9. However, Hydro considers these contracts as sourcing of raw materials or sale of own production, and accounts for such contracts as executory contracts.

- Certain other internal contracts may contain a lease arrangement. However, the segment reporting reflects the responsibility allocated by Hydro's management for those assets, and no internal lease arrangement is identified.
- Costs related to certain pension schemes covering more than one segment are allocated to the operating segments based either on the premium charged or the estimated service cost. Any difference between these charges and pension expenses measured in accordance with IFRS, as well as pension assets and liabilities are included in Other and eliminations.

The following tables include information about Hydro's operating segments.

Amounts in NOK million	External revenue		Internal revenue		Share of the profit (loss) in equity accounted investments	
	2021	2020	2021	2020	2021	2020
Hydro Bauxite & Alumina	17,088	13,381	10,610	9,658	-	-
Hydro Aluminium Metal	5,373	7,039	37,175	27,365	1,509	256
Hydro Metal Markets	54,165	37,893	10,896	8,972	-	-
Hydro Extrusions	69,883	54,542	413	(47)	-	-
Hydro Energy	3,257	1,261	6,891	5,706	(104)	(39)
Other and eliminations	(113)	175	(65,986)	(51,654)	(65)	7
Total	149,654	114,291	-	-	1,340	223

Amounts in NOK million	Depreciation, amortization and impairment ¹⁾		Earnings before financial items and tax (EBIT) ²⁾		EBITDA	
	2021	2020	2021	2020	2021	2020
Hydro Bauxite & Alumina	2,018	2,011	3,288	1,672	5,306	3,683
Hydro Aluminium Metal	3,158	2,992	8,376	794	11,440	3,667
Hydro Metal Markets	149	149	725	766	872	913
Hydro Extrusions	2,649	3,785	2,929	449	5,558	4,225
Hydro Energy	194	260	3,727	6,258	3,921	6,529
Other and eliminations	113	(43)	(1,158)	(582)	(1,046)	(625)
Total	8,281	9,153	17,887	9,356	26,050	18,390

Amounts in NOK million	Non-current assets		Total assets ³⁾		Investments ⁴⁾	
	2021	2020	2021	2020	2021	2020
Hydro Bauxite & Alumina	22,026	23,478	31,729	29,416	2,338	1,685
Hydro Aluminium Metal	31,606	30,249	52,327	42,578	3,479	2,887
Hydro Metal Markets	3,514	1,597	16,184	8,286	214	148
Hydro Rolling	-	7,606	-	17,138		
Hydro Extrusions	23,633	26,585	42,368	40,558	1,763	1,549
Hydro Energy	12,317	11,815	14,253	12,825	692	6,961
Other and eliminations	5,704	3,023	17,651	13,607	104	92
Total	98,799	104,352	174,512	164,408	8,589	13,324

¹⁾ Amounts include impairment, see Note 2.5 Impairment of non-current assets.

²⁾ Total segment Earnings before financial item and tax is the same as Hydro group's total Earnings before financial income and tax. Financial income and financial expenses are not allocated to the segments. There are no reconciling items between segment Earnings before financial items and tax to Hydro Earnings before financial items and tax. Therefore, a separate reconciling table is not presented.

³⁾ Total assets exclude internal cash pool accounts and accounts receivable related to group relief.

⁴⁾ Additions to property, plant and equipment (capital expenditures) plus long-term securities, intangible assets, long-term advances and investments in equity accounted investments, including amounts recognized in business combinations. The table includes investments in continuing operations only. Investments in Hydro Energy in 2020 includes the non-cash contribution of businesses to the newly formed associate Lyse Kraft DA by NOK 6,805 million.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices



The identification of assets, non-current assets and investments is based on location of operation. Included in non-current assets are investments in equity accounted investments; property, plant and equipment (net of accumulated depreciation) and non-current financial assets.

Operating revenues are identified by customer location.

Amounts in NOK million	Revenue		Non-current assets		Investments ¹⁾	
	2021	2020	2021	2020	2021	2020
Norway	273	1,886	36,334	32,658	2,859	8,873
Germany	13,926	9,211	2,605	9,514	214	155
Spain	7,675	4,948	803	835	47	64
France	7,635	6,060	2,336	2,571	112	78
Italy	5,588	3,932	527	580	47	35
Poland	5,513	4,082	762	850	61	24
Austria	3,416	2,489	318	357	49	22
Sweden	3,143	2,102	742	882	66	68
Belgium	2,177	1,857	764	983	43	36
The Netherlands	1,991	1,612	669	1,318	27	157
Czech Republic	1,951	1,367	-	1	-	-
Portugal	1,653	1,080	103	140	10	-
Denmark	1,500	1,135	841	978	95	96
Finland	760	555	2	2	2	1
Hungary	746	482	979	1,161	132	107
Slovakia	331	600	433	484	175	101
Other EU	1,954	1,731	215	196	38	25
Total EU	59,958	43,244	12,098	20,853	1,118	969
United Kingdom	4,845	4,015	1,383	1,346	43	64
Switzerland	5,508	4,679	176	199	7	1
Turkey	2,918	2,176	2	4	1	-
Other Europe	758	788	-	-	-	-
Total Europe	74,260	56,788	49,994	55,059	4,028	9,906
USA	34,173	25,867	8,709	8,689	824	768
Canada	2,820	2,292	1,965	1,940	214	163
Brazil	8,784	5,891	25,314	26,044	3,360	2,302
Mexico	1,674	873	215	205	26	8
Other America	399	250	36	34	7	5
China	5,629	4,391	665	696	49	96
Japan	5,168	3,513	8	10	1	-
Singapore	3,739	4,741	8	6	4	4
South Korea	2,110	1,135	-	-	-	-
Qatar	1,809	1,833	10,704	10,457	-	-
Bahrain	1,439	1,249	426	458	-	3
Taiwan	1,417	935	-	-	-	-
India	1,329	951	146	151	4	4
Thailand	1,211	632	-	-	-	-
Other Asia	1,597	1,889	-	-	-	-
Australia and New Zealand	1,766	695	607	604	73	63
Africa	328	367	1	-	-	-
Total outside Europe	75,393	57,503	48,804	49,293	4,561	3,417
Total	149,654	114,291	98,799	104,352	8,589	13,324

¹⁾ Additions to property, plant and equipment (capital expenditures) plus long-term securities, intangible assets, long-term advances and investments in equity accounted investments, including amounts recognized in business combinations. The table includes investments in continuing operations only.

Note 1.5 Significant subsidiaries and changes to the group

Accounting policies for business combinations

Business combinations are accounted for using the acquisition method in accordance with IFRS 3 Business Combinations. Consideration is the sum of the fair values, as of the date of exchange, of the assets transferred, liabilities incurred or assumed, and equity instruments issued in exchange for control of the acquiree. The fair value of Hydro's pre-existing ownership interest in an acquiree is included in the consideration, with any gain or loss recognized in Other income, net.

The acquiree's identifiable assets, liabilities and contingent liabilities are recognized separately at the acquisition date at their fair value irrespective of any non-controlling interest, and goodwill recognized to the extent the consideration exceeds identified net assets.

The interest of non-controlling shareholders in the acquiree is initially measured as the non-controlling interests' proportion of the fair value of the net assets recognized (partial goodwill method, see [Note 2.3 Goodwill](#)), or as the non-controlling interests' proportion of the fair value of the acquiree (full goodwill method, see [Note 2.3 Goodwill](#)). Non-controlling interests are subsequently adjusted for changes in equity of the subsidiary after the acquisition date.

Significant judgment in accounting for business combinations

In a business combination, consideration, assets and liabilities are recognized at estimated fair value, and any excess purchase price included in goodwill. Where Hydro had an existing ownership interest in the acquiree, that interest is also reassessed to determine its acquisition date estimated fair value, resulting in an acquisition date gain or loss. In the businesses Hydro operates, fair values of individual assets and liabilities are normally not readily observable in active markets. Estimation of fair values requires the use of valuation models for acquired assets and liabilities as well as ownership interests. Such valuations are subject to numerous assumptions and are thus uncertain. The quality of fair value estimates may impact periodic depreciation and amortization of fixed assets, and assessment of possible impairment of assets and/or goodwill in future periods.

Subsidiaries with significant non-controlling interests

The Hydro group consists of about 160 companies in about 40 countries. Most subsidiaries, including the large operating units in Norway, are 100 percent owned, directly or indirectly, by Norsk Hydro ASA. A list of significant subsidiaries is included in [Note 7 Shares in subsidiaries](#) to the separate accounts of Norsk Hydro ASA later in this report. Restrictions in the ability to transfer dividend based on reported results and/or equity in the relevant subsidiaries exist in most countries where we operate. In some countries, including Brazil, there are also legal restrictions in our ability to integrate cash holdings in subsidiaries in the group's cash pool. There are non-controlling interests in some subsidiaries. The more significant ones are described below.

Albras

Hydro holds 51 percent of the shares in the Brazilian aluminium smelter Alumínio Brasileiro S.A. (Albras), which is part of Hydro Aluminium Metal. The non-controlling owner has significant influence on certain decisions in the entity, including operational and investment budgets. The non-controlling interests in Albras amounted to NOK 1,933 million as of December 31, 2021 and NOK 1,687 million as of December 31, 2020. Funds held by the entity are not available to the group through cash pool arrangements. Dividends need to be approved by the shareholders jointly. The shareholder agreement supports transfer of dividend to the extent possible under statutory regulations. The smelter produces standard ingots, which are sold to its shareholders, or the entities appointed by the shareholders, in proportion to ownership interest at a price based on prevailing aluminium prices at the London Metal Exchange and product premiums. In response to the regime for sales taxes in Brazil, an increasing share of the production is sold to domestic customers rather than exported.

Slovalco

Hydro holds 55 percent of the total shares and 60 percent of the voting interest in the Slovac smelter Slovalco a.s., which is part of Hydro Aluminium Metal. The non-controlling owner has significant influence on certain decisions in the entity, including operational and investment budgets. The plant is partly written down as impaired, see [Note 2.5 Impairment of non-current assets](#), and holds derivative contracts recognized at fair value, see [Note 1.3 Significant events](#). The non-controlling interests in Slovalco amounted to NOK 1,810 million as of December 31, 2021 and NOK 811 million as of December 31, 2020. Funds held by the entity are not available to the group through cash pool arrangements. Dividends need to be approved by the shareholders jointly. The shareholder agreement supports transfer of dividend to the extent possible under statutory regulations. The smelter produces metal products, of which the majority is sold to Hydro at a price based on prevailing aluminium prices at the London Metal Exchange and product premiums.

Introduction
 Our business
 Performance review
 Governance
 Environment and social responsibility
 Financial statements

Alunorte

Hydro holds about 92 percent of the shares in the Brazilian alumina refinery Alumina do Norte do Brasil S.A. (Alunorte), which is part of Hydro Bauxite & Alumina. The non-controlling owners have limited influence on the operational decisions. The non-controlling interests in Alunorte amounted to NOK 554 million as of December 31, 2021 and NOK 597 million as of December 31, 2020. Funds held by the entity are not available to the group through cash pool arrangements. Dividends need to be approved by the shareholders jointly. The shareholder agreement supports transfer of dividend to the extent possible under statutory regulations. The refinery produces alumina, which is sold to its shareholders in proportion to ownership interest at a price based on prevailing alumina prices.

The table below summarizes key figures for Albras, the only subsidiary with non-controlling interests considered material, as included in the group financial statements. Fair value adjustments from Hydro's acquisition of the subsidiary are included. Intercompany transactions and balances are included, and any internal profit and loss in inventory and fixed assets purchased from group companies are not eliminated in the numbers below.

Amounts in NOK million	Albras	
	2021	2020
Internal revenue	5,003	3,381
External revenue	4,503	3,135
Earnings before financial items and tax	2,544	326
Net income	1,592	81
Other comprehensive income	(153)	87
Total comprehensive income	1,439	168
Net cash flows from operating activities	1,534	601
Net cash flows from investing activities	(986)	(579)
Net cash flows from financing activities	(610)	151
Cash and cash equivalents	319	382
Other current assets	2,449	1,916
Non-current assets	3,940	3,500
Current liabilities	(2,033)	(1,639)
Non-current liabilities	(732)	(717)
Equity attributable to Hydro	(2,010)	(1,754)
Equity attributable to non-controlling interests	(1,933)	(1,687)
Share of net income attributable to non-controlling interest	779	57
Dividends paid to non-controlling interests	260	49

Discontinued operations and assets held for sale

Hydro entered into an agreement to sell Hydro Rolling to KPS Capital Partners on March 5, 2021. The transaction was completed on June 1. The sold business comprises the Hydro Rolling segment, and related pension liabilities and certain support functions reported as part of Other activities. The transaction was subject to approval in the EU and certain other jurisdictions. The assets and liabilities in the divested business were reported as Assets held for sale and Liabilities in disposal groups as of the beginning of March 2021 until completion of the transaction. The results of operations in the divested businesses are reported separately under the caption Discontinued operations for the current and prior year. The gain on sale of the business is also reported in this line item. No interest expense related to loans has been allocated to discontinued operations. Cash flows from discontinued operations are presented separately.

Sales from Hydro to the discontinued operations mainly represent aluminium sheet ingot and liquid aluminium as well as alumina and power delivered from Hydro's continued business to the rolling operations, priced with reference to observable market prices. These elements of cost are included in the result from discontinued operations as such costs are required to achieve the sales reported for the discontinued operations. Most of the supply arrangements continue under the same or similar terms. Further, Hydro has charged the discontinued business for certain shared services and other expenses incurred jointly, which remains charged to the discontinued operations, while shared administration costs and other corporate charges are not included in the discontinued operations. Depreciations stopped at reclassification to held for sale, i.e. early March, as required by IFRS 5 Non-current Assets Held for Sale and Discontinued Operations.

Depreciation expenses in the business held for sale has amounted to about NOK 90 million each month.

An impairment loss of NOK 1.9 billion for the asset group held for sale was recognized at the end of 2020. The asset group was assessed for possible further impairment at the end of the first quarter. The asset group was written down by an additional NOK 850 million to its estimated fair value less cost of disposal, primarily as a result of positive results in the interim period and positive remeasure effects for pension liabilities following the increased discount rates. As the transaction price was determined when the contract was entered into in March, results and value changes were for the risk of the acquirer. Direct costs related to the sales effort, completion of the transaction and separation of the business have been charged to discontinued operations. The gain on the sale was NOK 79 million including recycling of an accumulated currency gain of NOK 554 million. The final consideration is subject to certain potential adjustments, mainly related to transfer taxes for which Hydro has assumed the responsibility.

Summary of financial data for discontinued operations

NOK million	2021	2020
Revenue	11,637	24,026
Depreciation, amortization and impairment	178	3,099
Other expenses	10,330	23,187
Earnings before financial items and tax	1,149	(2,024)
Financial income (expense), net	40	(171)
Income (loss) before tax	1,189	(2,195)
Income tax expense	407	31
Income (loss) from discontinued operations	783	(2,226)
Impairment of discontinued operations	850	-
Gain on disposal (net of tax)	79	-
Gain (loss) from discontinued operations	12	(2,226)
Net cash provided by (used in) operating activities	(902)	1,345
Net cash provided by (used in) investing activities	4,563	(718)
Net cash used in financing activities	(13)	(37)
Foreign currency effects on cash	2	-
Net cash provided by discontinued operations	3,650	590

Section 2 – Long-lived assets

Note 2.1 Property, plant and equipment

Accounting policies for property, plant and equipment

Property, plant and equipment (PP&E) is recognized at acquisition cost. The carrying value of PP&E is comprised of the historical cost less accumulated depreciation and any accumulated impairment losses. The carrying value also includes the estimated value of the asset retirement obligation upon initial recognition of the liability. Hydro uses the cost model for PP&E and investment properties.

Capitalized maintenance

Expenditures for maintenance and repairs applicable to production facilities are capitalized in accordance with IAS 16 Property, Plant and Equipment when such costs are incurred on a scheduled basis with a time interval of greater than one year. Expenditures that regularly occur at shorter intervals are expensed as incurred. Major replacements and renewals are capitalized and any assets replaced are retired.

Stripping cost

Stripping costs incurred during the mining production phase are allocated between cost of inventory produced and the existing mine asset. Stripping costs are allocated as a component of the mine asset in the event they represent significantly improved access to ore. Stripping costs include such activities as removal of vegetation as well as digging the actual pit for mining the ore.

Capitalized interest

Hydro capitalizes borrowing costs on qualifying assets in accordance with IAS 23 Borrowing Costs. Currency gains or losses related to Hydro's foreign currency denominated borrowings are not capitalized.

The main components of Hydro's property, plant and equipment is production related machinery and buildings in Hydro's more than 100 operating plants. PP&E includes leased assets, see [Note 2.6 Leases](#).

Amounts in NOK million	Land and buildings	Machinery and equipment	Plant under construction	Total
Cost				
December 31, 2019	36,619	102,522	6,859	146,001
Additions	457	3,181	3,491	7,129
Disposals	(486)	(2,975)	(3)	(3,463)
Companies sold	(1,065)	(1,084)	(27)	(2,177)
Transfers	1,428	4,146	(5,575)	-
Foreign currency translation effect	(1,993)	(5,726)	(343)	(8,062)
December 31, 2020	34,961	100,064	4,402	139,427
 Additions				
	221	4,099	3,458	7,778
Disposals				
	(425)	(2,469)	(5)	(2,900)
Companies sold				
	(54)	(233)	(1)	(288)
Transfers				
	658	2,665	(3,323)	-
Reclassified to Assets held for sale				
	(4,604)	(23,572)	(434)	(28,610)
Foreign currency translation effect				
	(749)	(2,230)	(123)	(3,102)
December 31, 2021	30,006	78,324	3,975	112,305
 Accumulated depreciation and impairment				
December 31, 2019	(14,928)	(56,558)	(273)	(71,758)
Depreciation for the year	(1,438)	(6,460)	-	(7,898)
Impairment losses	(280)	(2,593)	(34)	(2,907)
Reversal of impairment losses	160	2	-	161
Disposals	195	2,655	-	2,851
Companies sold	572	592	1	1,165
Transfers	(14)	(8)	23	-
Foreign currency translation effect	721	2,422	60	3,203
December 31, 2020	(15,011)	(59,949)	(222)	(75,182)
 Depreciation for the year				
	(1,362)	(6,221)	-	(7,583)
Impairment losses				
	(172)	(251)	(12)	(435)
Disposals				
	183	1,843	-	2,026
Companies sold				
	55	213	-	268
Reclassified to Assets held for sale				
	2,224	19,545	-	21,769
Foreign currency translation effect				
	254	1,171	12	1,437
December 31, 2021	(13,830)	(43,649)	(222)	(57,701)
 Carrying value				
December 31, 2020	19,949	40,116	4,180	64,245
December 31, 2021	16,176	34,676	3,753	54,605

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Note 2.2 Intangible assets

Accounting policies for intangible assets

Intangible assets acquired individually or as a group are recognized at cost when acquired. Intangible assets acquired in a business combination are recognized at fair value separately from goodwill when they arise from contractual or legal rights or can be separated from the acquired entity and sold or transferred.

Emission rights

Government granted and purchased CO₂ emission allowances expected to be used towards Hydro's own emissions are recognized as intangible assets at nominal value (cost). The amounts are not amortized but are tested for impairment. Actual CO₂ emissions which exceed the level covered by emission rights are recognized as a liability. Any sale of excess emission rights is recognized at the time of sale at the transaction price. CO₂ emission allowances purchased for trading are measured and classified as inventory.

Research and development

Research expenditures are expensed as incurred. Development costs are capitalized as intangible assets at cost in accordance with IAS 38 *Intangible Assets* when the recognition criteria are met, including probable future economic benefit and that the cost can be measured reliably.

Exploration cost

Exploration cost for mineral resources are expensed as incurred. Costs related to acquired exploration rights are allocated to the relevant areas and capitalized. An area represents a unit that may be utilized based on shared infrastructure and may include several licenses. Exploration rights are transferred to mine development cost when development starts. Amortization of transferred mineral rights starts when extraction of the resources starts. Exploration rights related to undeveloped areas remain on the balance sheet as intangible assets (mineral rights) until a development is decided or a decision not to develop the area is made.

Hydro's intangible assets

Hydro holds intangible assets mainly as complementary resources to its physical assets. Waterfall rights are fundamental for production of hydroelectrical power, however, a significant share of such rights was granted to Hydro rather than purchased. A significant share of acquired waterfall rights have indefinite life and are thus not amortized. Mineral rights are undeveloped rights related to Hydro's mining operations in Brazil. Other intangible assets include customer relations, technology and other intangible assets identified in acquisitions, in addition to proprietary technology developed internally, and certain other types of intangible assets.

Amounts in NOK million	Intangible assets under development	Mineral and waterfall rights	Software	Technology	Acquired sourcing contracts	Other intangibles assets	Total
Cost							
December 31, 2019	215	1,137	1,621	1,993	1,001	1,940	7,906
Additions	97	14	30	-	-	95	236
Disposals	-	-	(88)	-	-	(99)	(187)
Companies sold	-	(44)	(7)	-	-	(25)	(77)
Transfers	(185)	-	123	74	-	(12)	-
Foreign currency translation effect	-	(201)	(4)	17	(240)	31	(397)
December 31, 2020	127	905	1,675	2,084	761	1,930	7,482
Additions	56	6	49	-	-	109	220
Disposals	-	-	(16)	(1)	-	(80)	(97)
Transfers	(104)	-	63	42	-	-	-
Reclassified to Assets held for sale	(10)	-	(602)	(37)	-	-	(650)
Foreign currency translation effect	(2)	(36)	(47)	(66)	(43)	(22)	(216)
December 31, 2021	66	875	1,121	2,022	718	1,937	6,740
Accumulated amortization and impairment							
December 31, 2019	-	(186)	(1,285)	(498)	(585)	(401)	(2,956)
Amortization for the year ¹⁾	-	(8)	(116)	(199)	(52)	(153)	(527)
Impairment losses	-	-	(5)	-	-	-	(5)
Disposals	-	-	80	-	-	16	96
Companies sold	-	31	7	-	-	22	59
Transfers	-	-	-	(11)	-	11	-
Foreign currency translation effect	-	35	3	(2)	146	(2)	179
December 31, 2020	-	(129)	(1,316)	(710)	(491)	(507)	(3,154)
Amortization for the year ¹⁾	-	(3)	(102)	(190)	(45)	(143)	(483)
Impairment losses	-	-	(2)	-	-	-	(2)
Disposals	-	-	16	1	-	-	17
Reclassified to Assets held for sale	-	-	576	31	-	-	607
Foreign currency translation effect	-	6	39	21	28	10	105
December 31, 2021	-	(126)	(789)	(847)	(508)	(640)	(2,910)
Carrying value							
December 31, 2020	127	776	359	1,374	269	1,423	4,328
December 31, 2021	66	749	332	1,175	210	1,297	3,830

¹⁾ Amortization of a sourcing contract is reported as Raw material and energy expense in the income statement.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Note 2.3 Goodwill

Accounting policies for goodwill

Goodwill is recognized as a part of business combinations. Goodwill is initially measured either as the excess of the consideration over Hydro's interest in the fair value of the acquiree's identifiable net assets (partial goodwill), or as the fair value of 100 percent of the acquiree in excess of the acquiree's identifiable net assets (full goodwill). The method is elected on a transaction-by-transaction basis. Hydro has applied the partial goodwill method for all business combinations completed prior to December 31, 2021. Goodwill is not amortized, but is tested for impairment annually, and more frequently if indicators of possible impairment are observed, in accordance with IAS 36 Impairment of Assets. Goodwill is allocated to the cash generating units or groups of cash generating units expected to benefit from the synergies of the combination and that are monitored for internal management purposes.

Hydro's goodwill

Goodwill allocated to Hydro Extrusions was recognized in the acquisition of Sapa AS in 2017. Goodwill allocated to Hydro Bauxite & Alumina was recognized in the acquisition of certain aluminium businesses, mainly in Brazil, in 2011. Goodwill allocated to Hydro Metal Markets was recognized in acquisitions undertaken more than 20 years ago.

Amounts in NOK million	Hydro Extrusions	Hydro Bauxite & Alumina	Hydro Metal Markets	Total
Cost				
December 31, 2019	3,897	2,247	407	6,551
Foreign currency translation effect	35	(538)	(2)	(505)
December 31, 2020	3,932	1,708	405	6,045
Foreign currency translation effect	(16)	(96)	4	(108)
December 31, 2021	3,916	1,612	409	5,937
Accumulated impairment				
December 31, 2020	(1,017)	-	-	(1,017)
Foreign currency translation effect	(25)	-	-	(25)
December 31, 2021	(1,042)	-	-	(1,042)
Carrying value				
December 31, 2020	2,915	1,708	405	5,029
December 31, 2021	2,874	1,612	409	4,895

Note 2.4 Depreciation and amortization expense

Accounting policies for depreciation and amortization

Depreciation and amortization expenses are measured on a straight-line basis over the estimated useful life of the asset, commencing when the asset is ready for its intended use. Mine property and development costs in extractive activities are depreciated using the unit-of-production method, using proved and probable reserves. Tangible and intangible assets with an indefinite useful life are not depreciated. Estimated useful life by category is as follows:

- Machinery and equipment, initial investment 4-30 years, for power plants up to 75 years
- Machinery and equipment, capitalized maintenance 1-15 years
- Buildings 20-50 years
- Intangible assets with finite lives 3-10 years, for rights related to hydroelectric power production up to 50 years

A component of an item of property, plant and equipment with a significantly differing useful life and a cost that is significant in relation to the item is depreciated separately. At each financial year-end Hydro reviews the residual value and useful life of its assets, with any estimate changes accounted for prospectively over the remaining useful life of the asset.

Specification of depreciation and amortization by asset category

Amounts in NOK million	2021	2020
Buildings	1,362	1,438
Machinery and equipment	6,221	6,460
Intangible assets	439	476
Depreciation and amortization from discontinued operations	(178)	(1,199)
Depreciation and amortization expense in continuing operations	7,844	7,175

Note 2.5 Impairment of non-current assets

Accounting policies for impairment of property, plant and equipment and intangible assets

Property, plant and equipment and intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable, in accordance with IAS 36 Impairment of Assets. Goodwill and intangible assets with indefinite life are required to be tested for impairment annually, in addition to any tests required when impairment indicators are determined to be present. Hydro has elected to do the annual impairment test of goodwill in the fourth quarter. Exploration cost for undeveloped mining areas are assessed for impairment under IFRS 6 Exploration for and Evaluation of Mineral Resources.

When a Cash Generating Unit (CGU) or an asset is tested for impairment, the recoverable amount is estimated as the higher of the CGU's fair value less cost of disposal, or its value in use. The carrying amount is not recoverable if it exceeds the recoverable amount. An impairment loss is recognized in the amount that the carrying value exceeds its recoverable amount. Losses are reversed in the event of a subsequent increase in the recoverable amount of an impaired asset, however, impairment of goodwill is not reversed.

Significant judgment in accounting for impairment of non-current assets

IAS 36 requires that Hydro assess conditions that could cause an asset or a CGU to become impaired. The identification of CGUs involves judgment, including assessment of where active markets exist, and the level of interdependency of cash inflows. For Hydro, the CGU is either the individual plant, a group of plants that forms an integrated value chain where no independent prices for the intermediate products exist, a group of plants that are combined and managed to serve a common market, or a group of assets where circumstances otherwise indicate significant interdependencies. Assessing which indicators that may cause a CGU to be impaired includes such conditions as Hydro's market capitalization, significant changes in Hydro's planned use of the assets or a significant adverse change in the expected sales volumes or margins, i.e. the combination of product prices, raw material cost and energy cost. Expected or reasonably possible climate and environmental changes, whether physical or regulatory, impacts the assessment of financial viability and remaining useful life. Such factors are assessed in the same way as uncertain market prices for input factors and products, impacting cash flow estimates used for the tests.

Directly observable market prices rarely exist for our assets. However, fair value may be estimated based on recent transactions on comparable assets, internal models used by Hydro for transactions involving the same type of assets or other relevant information. Calculation of value in use is a discounted cash flow calculation based on continued use of the assets in its present condition, excluding potential exploitation of improvement or expansion potential, and including certain entity specific synergies or other positions.

Determination of the recoverable amount involves management estimates on highly uncertain matters, such as commodity prices and their impact on markets and prices for upgraded products, development in demand, inflation, operating expenses and tax and legal systems. We use internal business plans, quoted market prices, external market and industry analysis and our best estimate of long-term development in commodity prices and production margins, currency rates, discount rates and other relevant information. A detailed forecast is developed for a period of three to five years with projections thereafter, reflecting our view of the business cycle. Hydro does not include a general growth factor to volumes for the purpose of impairment tests, however, cash flows are generally increased by expected inflation and, where market conditions are depressed, we consider whether full or partial market recovery towards previously observed volumes is justified. Estimated cash flows are discounted with a nominal risk adjusted discount rate specific for the business activity and country.

Uncertainty related to world economic development and its impact on demand and prices for Hydro's key products and input factors has been significant during the period, driven by the Covid-19 pandemic, financial rebound, supply chain disruptions as well as strive to reduce climate impact.

Tests performed in 2021 and 2020

Tests for impairment have been performed for all CGUs with mandatory annual tests and the CGUs where impairment indicators have been identified. The recoverable amounts for these units have been determined estimating the Value in Use (VIU) of the asset and/or, if appropriate, its fair value less cost of disposal (FV), and comparing the highest of the two against the carrying value of the CGUs. The calculation of VIU has been based on management's best estimate, reflecting Hydro's business planning process. The discount rates are derived as the weighted average cost of capital (WACC) for a similar business in the same business environment, on an over-the-business-cycle view, using 10 years government bond rates, a US equity risk premium, credit spreads and country risk premiums. Beta estimates are reviewed from time to time, considering actual Hydro share observations versus different market indices, analysis of selected peers and external

views. Credit spreads are based on Hydro's credit spreads, while country risk is based on the premiums published by the Swedish Export Credit Agency EKN. The post-tax rates are converted to pre-tax rates using the nominal tax rates in the relevant countries. For Hydro's businesses the pre-tax nominal discount rate is estimated at between 5.5 percent and 15.0 percent (2020: 4.75-14.25 percent). The higher rates are applicable for assets within the Bauxite & Alumina and Aluminium Metal activities in Brazil, while the lower rates are applicable for assets within Extrusions in Europe.

Hydro has incurred the following impairment losses during 2021 and 2020:

Amounts in NOK million	2021	2020
Classification by asset category		
Impairment losses		
Property, plant and equipment	435	1,007
Goodwill	-	1,129
Other intangible assets	2	5
Total impairment of non-current assets in continuing operations	437	2,140
Reversal of impairment non-current assets	-	(161)
Total impairment of non-current assets in continuing operations, net	437	1,979
Impairment loss from discontinued operations	850	1,900

Classification by segment

Impairment losses	2021	2020
Hydro Aluminium Metal	286	513
Hydro Extrusions	150	1,627
Other activities	-	(161)
Total impairment of non-current assets in continuing operations, net	437	1,979

Goodwill is allocated to CGUs or groups of CGUs as shown in the following table:

Amounts in NOK million	2021	2020
Extrusion North America (Hydro Extrusions)		
Extrusion Europe (Hydro Extrusions)	1,427	1,393
Building Systems (Hydro Extrusions)	779	824
Precision Tubing (Hydro Extrusions)	521	549
Bauxite & Alumina Operations	147	149
Recycling (Hydro Metal Markets)	1,612	1,708
Total goodwill	4,895	5,029

Annual mandatory impairment tests

Hydro Extrusions

Goodwill in Hydro Extrusions is allocated to four groups of CGUs reflecting the way the business is managed to serve the relevant markets. The groups of CGUs are as follows:

Extrusion North America covers production plants, marketing and product development in the US and Canada. The operation consists of 22 production plants, recognized intangible assets and goodwill from Hydro's acquisition.

Extrusion Europe covers production plants, marketing and product development in Europe, mainly within the EU. The operation consists of 34 production plants, recognized intangible assets and goodwill from Hydro's acquisition.

Building Systems covers production plants, product warehouses, marketing and product development facilities, mainly in Europe, and sales and marketing offices covering a wider presence. The operation is present at 58 locations in 26 countries. The asset base consists of a limited number of production plants, several warehouses of differing size and complexity, three brands, other intangible assets and goodwill from Hydro's acquisition.

Precision Tubing covers production plants, marketing and product development on four continents. The operation consists of 10 production plants in South America, Asia, Europe and North America, recognized intangible assets and goodwill from Hydro's acquisition.

The impairment tests for all of the groups of CGUs described above are cash flow models expressed in nominal terms using forecasts for the first five years based on internal business plans approved by management. Margins, volumes and investments are considered highly correlated, as high margin above the metal value is achieved through production of more complex products, requiring higher cost and/or more expensive equipment. We have thus not considered development in margins, cost and volume separately. Cash flows have been projected as terminal values beyond the five-year forecast period with a zero nominal growth assumed. Key assumptions are development in annual net cash flows, comprising volume and cost development in relevant market segments, as well as the discount rate.

The main assumptions and sensitivities are shown in the tables below. The sensitivities represent a stress test, identifying changes in each parameter which would result in a recoverable amount equal to the carrying amount of the CGU, while keeping all other parameters unchanged. The changed parameter is applied for the entire period, including the terminal value. The decrease in annual cash flows does not represent a reasonably possible scenario developed by Hydro, as changes in the market resulting in significantly reduced cash flows for individual plants or the whole business unit is likely to be mitigated with measures to reduce costs, including sale or closure of production lines or plants similar to what is currently ongoing.

Amounts in NOK million	Extrusion North America	Extrusion Europe	Building Systems	Precision Tubing
Carrying value of goodwill	1,427	779	521	147
Carrying value of other assets	6,491	6,452	2,727	2,331
Carrying value of CGU	7,918	7,231	3,248	2,478
Recoverable amount	9,274	15,217	12,135	9,275
Recoverable amount in excess of carrying value	1,356	7,986	8,887	6,797
Key assumptions				
Terminal value growth	0.0%	0.0%	0.0%	0.0%
Discount rate	7.25%	6.00%	6.00%	8.50%
Stress test				
Discount rate - % change	19%	127%	286%	257%
Discount rate - % point	8.60%	13.60%	23.10%	30.40%
Annual reduction in net cash flow all years	16%	55%	72%	68%

Hydro Bauxite & Alumina

Goodwill in Hydro Bauxite & Alumina is allocated to a CGU consisting of the Alunorte alumina refinery, the main bauxite source Paragominas and certain related activities.

The recoverable amount has been determined based on a VIU calculation. Recoverable amount amounted to about NOK 20 billion. The value exceeds the carrying value of NOK 16 billion. The calculation used cash flow forecasts in BRL based on internal plans approved by management covering a five-year period. Production volumes have been assumed at a lower level than nameplate capacity reflecting a scenario incorporating the downside risk of production shortfalls. All significant price assumptions are internally derived based on external references, reflecting both price assumption used for planning purposes and updated market observations at year-end. Cash flows have been projected for the following 35 years based on the five-year detailed forecast period using Hydro's long-term assumptions for alumina prices and key raw material prices. The CGU is expected to remain in operation for at least the 40-year period. Improvements expected from certain planned equipment replacements are included, however, the approved investment facilitating the change in energy supply replacing coal with natural gas is not reflected. Further improvements are not included in the cash flow forecasts. Cash flows beyond the five-year period are inflated by the expected long-term inflation levels in Brazil and the main western economies.

The main assumptions to which the test is sensitive are shown in the table below:

	Assumptions	2022	Long-term
Exchange rate BRL/USD	5.30		
Alumina price, long-term price represent real terms 2021 (USD/mt)	350	345	
Production volume alumina (million mt)	6.1	6.1	
Discount rate nominal, pre-tax	15.00%	15.00%	

Significant cash flows are denominated in US dollars. These are translated to BRL at a rate of 5.30 for 2022 with a stronger BRL in the period 2023 to 2029, reaching a nominal rate of 5.24 in 2029. For future periods the exchange rate is projected with a rate development reflecting the inflation difference of 1.1 to 1.3 percentage points between international inflation and the higher expected Brazil specific inflation.

The parameters presented below represent a stress test, identifying changes in each parameter which would result in a recoverable amount equal to the carrying amount of the CGU, while keeping all other parameters unchanged. The changed parameter is applied for the entire period, including the terminal value. The decrease in annual cash flows does not represent a reasonably possible scenario developed by Hydro. As the key parameters are interdependent, a change in the range indicated would not be expected to continue for the entire period of operation. If one of the key parameters were changed with no changes to the other assumptions, the estimated recoverable amount for the CGU would equal the carrying amount with the following long-term real 2021 assumptions over the entire 40-year period:

	% change	Value
Exchange rate BRL/USD	5%	
Alumina price, real term 2021(USD/mt)	(2%)	337
Discount rate (% point)	14%	17.25%

Other mandatory tests

For Hydro Metal Markets the impairment test on goodwill has been based on approved business plan for the next year, managements best estimate of cash flows for the following four years and extrapolated to a 15 years cash flow estimate, providing a VIU exceeding the carrying value.

Hydro also has indefinite life intangible assets of NOK 138 million related to the Vigeland power plant in Norway. This CGU is tested for impairment using a FV approach based on observed transaction values for power production assets in the Nordic region. The recoverable amount, estimated as a post-tax fair value, exceeds the carrying amount significantly.

Impairment tests based on indications of loss in value

Hydro Aluminium Metal

The primary aluminium plant Slovalco was tested for impairment as of the end of 2021 following the decision to curtail the production further, resulting in recognizing the contracts for fixed price power purchases in 2022 at their market value. The test, reflecting power cost at current high market prices, resulted in an estimated negative VIU for the primary production, resulting in an impairment loss of NOK 286 million.

Slovalco was also tested for possible impairment in the second quarter of 2020. The recoverable amount was determined as VIU based on Hydro's internal assumptions for production volumes, aluminium prices, raw material prices including energy, currency exchange rates and timing of cash flows. Contract prices were used for raw materials and energy for periods covered by specific contracts with external suppliers. For periods where such consumption was not yet contracted, or where internal supply of such items as alumina was expected, estimated market prices were used. The value in use was calculated as an expected value including a full restart of curtailed capacity, or a partial or full curtailment of the plant for an extended period. The cost position, including energy cost beyond the contract which expired at the end of 2021, was considered unfavorable. The estimated value in use amounted to NOK 292 million using a discount rate of 9.5 percent. The resulting impairment loss amounted to NOK 504 million.

All other aluminium plants were tested for impairment at the end of June 2020 with the conclusion that the recoverable amount exceeded the carrying amount.

Hydro's investment in the joint venture Qatalum was tested for impairment in 2020. The assumptions and method used were similar to what was used for Hydro's aluminium plants, as the underlying business risks are similar. Additional risks relevant for the joint venture includes the regulatory and business climate in Qatar and the Middle East, including trade relations to the rest of the world, and the uncertain tax situation for the company described in [Note 3.1 Investments in joint arrangements and associates](#).

Hydro Extrusion

Some assets related to plants and activities which are sold or closed have been written down to estimated selling price during 2021, in total NOK 150 million, mainly in Europe.

The uncertainty in the world economic development led us to conclude that impairment indicators existed for several of our Cash Generating Units (CGUs) as of the end of June 2020. As of July 2020, it was highly uncertain when and to what level economic activity would return. About 75 percent of the carrying values in the Hydro Extrusions segment were tested for impairment. A conclusion that a write-down was required was reached for Extrusion North America, where goodwill was partly impaired. The recoverable amount was estimated at NOK 9.1 billion. Assumed sales volumes and the discount rate were less favorable at the end of June compared to the market conditions in later periods, reflecting the recovery in the market. The recoverable amount was estimated as a value in use discounted with a pretax discount rate of 7.25 percent. The test is sensitive to volumes and margins, which are interdependent, and also to the cost level, which is adjusted in response to market conditions and thus fixed over limited periods, however, no restructuring measures beyond what were committed at the time of testing were included in the estimated cash flows.

In addition, three CGUs in Extrusions Europe, and one CGU in Precision Tubing were determined to be impaired. Further, some assets related to one plant in India which was closed in June 2020 and some operations where closure or downsizing was ongoing were written down by a combined amount of about NOK 500 million.

Additional CGUs in Hydro Extrusions with a total carrying amount of about NOK 9 billion were tested for impairment with the conclusion that the recoverable amount exceeded the carrying amount and thus no impairment was present.

Hydro Bauxite & Alumina

The CGU consisting of the Alunorte alumina refinery, the main bauxite source Paragominas and certain related activities, including goodwill, was tested for impairment at the end of the second quarter 2020. The test resulted in a marginal coverage over the carrying amount.

Reversal of impairment

A previous impairment write-down of NOK 161 million related to an industrial park in Germany was reversed during 2020. The property, which was classified as investment property, was sold in July 2020.

Note 2.6 Leases

Accounting policies for leases

At inception of a contract, Hydro assesses whether a contract is, or contains, a lease. Leased assets with a remaining lease period of less than 12 months at inception are excluded from lease accounting. Further, leases of assets of a low value (small asset leases), mainly such items as PCs, office equipment and similar, are excluded from lease accounting. When measuring leases, Hydro include fixed lease payments for extension periods reasonably certain to be used. As a practical expedient, non-lease components are not separated from lease contracts for most asset classes. For production facilities and transportation assets, such as vessels used for transportation of material, the operating cost is a significant non-lease component, and is excluded from lease accounting. Variable lease payments, including service elements related to leases which are fully variable amounts, are recognized as operating expenses in the periods incurred.

Right-of-use assets are included in property, plant and equipment, see [Note 2.1 Property, plant and equipment](#). Lease liabilities are included in debt, see [Note 7.4 Short and long-term debt](#).

Significant judgment in accounting for leasing

Significant judgment is required to determine whether some service contracts conveys the right to control an asset to Hydro, and thus is, or contains, a lease. Hydro has a limited number of such contracts; however, they do exist in some arrangements with service providers for maintenance services, transportation services, and some operational subcontractors. In assessing whether such contracts are leases, Hydro assesses both the share of the supplier's capacity for relevant assets that is available for Hydro as well as how decisions are made.

Judgment is also applied in assessing whether renewal options are reasonably certain to be utilized. In assessing such issues, Hydro considers such factors as the level of operational integration and dependency as well as historic practices for renewals.

For some contracts where all, or close to all, produced products are purchased by Hydro with no or very limited fixed payments, the contract may be deemed a lease with fully variable payments. Currently, Hydro has no significant such contracts.

Hydro's leases

Hydro uses lease contracts primarily where lease or rental contracts provide operational benefits or flexibility compared to owning assets. Leased land and buildings are used for warehouses, office space and certain other arrangements where the need for such space is of a temporary nature or where land and/or buildings are not available for purchase. This is the case in some countries, and also in co-locations with certain other businesses such as in port areas. Further, Hydro has a lease arrangement for its head office in Oslo, Norway, and certain other office locations where the location is independent of production facilities. Production equipment is leased or rented where the access to the specific assets is combined with significant services, for instance seaborn transport operated by the supplier/lessor. Operational services in combination with leasing of assets is also used for such services as maintenance activities, earth-moving operations, and certain other non-core services. Leasing or rental is in some instances also used for equipment operated by Hydro, often under contracts significantly shorter than the assets' useful life.

Hydro determines its incremental borrowing rate by obtaining interest rates from various external financing sources, and makes adjustments for currency and duration to reflect the terms of the lease.

Right-of-use assets

Amount in NOK million	Machinery and equipment	Buildings and land	Total
December 31, 2019	1,810	1,410	3,220
Depreciations and impairment loss	(633)	(297)	(931)
Additions	387	160	547
Disposals	(26)	(32)	(58)
Currency translation	(211)	39	(172)
December 31, 2020	1,326	1,281	2,607
Depreciations and impairment loss	(720)	(295)	(1,015)
Additions	1,016	98	1,115
Disposals	(7)	(15)	(22)
Currency translation	(71)	(28)	(99)
Reclassified to Assets held for sale	(71)	(95)	(166)
December 31, 2021	1,473	946	2,419

Total cash outflows for leases in Hydro's continuing operations in 2021 was NOK 997 million (2020: NOK 903 million).

Interest expense relating to lease in continuing operations recognized in the income statement for 2021 was NOK 153 million (2020: NOK 170 million).

Leases expensed in continuing operations in the period amounts to NOK 246 million (2020: NOK 245 million) and refers to leases of short term, low value or leases with variable payments.

Hydro has a limited amount of lease contracts not accounted for as right-of-use assets and lease liabilities at the balance sheet because they are exempted as small asset leases or short-term leases. Future minimum lease payments due under non-cancellable leases are NOK 67 million (2020: NOK 64 million).

Note 2.7 Other non-current assets

Amounts in NOK million	2021	2020
Equity securities at fair value through other comprehensive income	989	901
Securities at fair value through profit or loss	14	540
Employee loans	13	10
Derivative instruments	490	120
Income taxes, VAT and other sales taxes	2,033	1,938
Long-term collateral for liabilities	1,945	35
Other receivables	559	647
Other non-current assets	6,045	4,191

Section 3 – Investments in other companies

Note 3.1 Investments in joint arrangements and associates

Accounting policies for investments in joint arrangements and associates

Investments in associates and joint ventures

A joint arrangement is an entity, asset or operation that is subject to contractually established joint control. Special voting rights may extend control beyond what is conveyed through the owners' proportional ownership interest. Such rights may take the form of a specified number of board representatives, the right of refusal for important decisions, or the requirement of a qualified majority for important decisions which effectively results in joint control with the specific ownership situation. Joint ventures are joint arrangement which represents a residual interest in the arrangement rather than an interest in assets and responsibility for liabilities.

An associate is an equity investment in which Hydro has the ability to exercise significant influence, which is the power to participate in the financial and operating policy decisions of the entity. Significant influence is assumed to exist when Hydro owns between 20 and 50 percent of the voting rights unless other terms and conditions affect Hydro's influence.

Hydro accounts for investments in associates and participation in joint ventures using the equity method. This involves recognizing Hydro's interest based on its proportional share of the entity's equity, including any excess values and goodwill. Hydro recognizes its share of net income, including depreciation and amortization of excess values and any impairment losses, in Share of the profit (loss) in equity accounted investments. Other comprehensive income derived from associates and joint ventures is included in Hydro's Other comprehensive income. Hydro's proportional share of unrealized profits resulting from transactions with associates and joint ventures, including transfer of businesses, is eliminated. Accounting policies used by associates and joint ventures may differ from the accounting policies adopted by Hydro. Differences in recognition or measurement are adjusted for prior to equity accounting.

Investments in associates and joint ventures are tested for impairment when there are indications of a possible loss in value. An impairment loss is recognized if the recoverable amount, estimated as the higher of fair value less cost of disposal or value in use, is below Hydro's carrying value. Impairment losses are reversed if circumstances change and the impairment situation is no longer deemed to exist.

Hydro is involved in one associate for which the results of operations is taxable profit or loss for the owners rather than the associate, a tax transparent company. Hydro provides for deferred tax on temporary differences in the associate to the extent such temporary differences are expected to reverse within the foreseeable future, or such reversal is not controlled by Hydro. Deferred tax on other temporary differences is not recognized.

Loans to associates and joint ventures are measured under IFRS 9 Financial instruments. Loans where contractual cash flows are only payments of principal and interest on specific dates are measured at amortized cost with expected credit losses provided for. Other loan arrangements are measured at fair value. Loans and receivables to associates and joint ventures are presented as part of other similar loans to unrelated parties. Income and expenses related to loans are included in finance income and expense.

Investments in joint operations and jointly owned assets

Joint operations are arrangements under contractually joint control where the joint operators have an interest in the assets; or benefits from the service potential of the assets; as well as have a direct obligation for the liabilities of the joint arrangement. Joint operations can result from the legal form of the arrangement or other facts and circumstances resulting in an interest in the service potential of the asset and obligation for liabilities. Jointly owned assets are arrangements where Hydro and the other partners have a direct ownership in specifically identified assets, but where joint control is not established. Hydro recognizes its share of assets, liabilities, revenues, if any, and expenses of joint operations and jointly owned assets on a line-by-line basis in the group financial statements.

Significant judgment in accounting for joint arrangements and associates

Hydro is engaged in various arrangements on a joint basis with other companies. In assessing whether joint control exists for these arrangements we evaluate the legal framework and contracts governing the arrangement combined with an assessment of which decisions that significantly influence the return from the arrangement. Arrangements owned on a 50/50 basis and/or governed by unanimous decisions constitute the majority of our joint arrangements.

Most of our joint arrangements are joint production facilities supplying metal and other products for Hydro's value chain. Hydro assesses whether joint arrangements are joint operations where Hydro has a direct interest in the assets and direct liability to settle obligations, directly or indirectly, or a joint venture where we have an interest in the net assets of the joint arrangement. In this assessment we evaluate the contracts governing the arrangement and the legal framework for the type of entity in which the arrangement is operated. Hydro is engaged in both joint arrangements that are considered joint ventures, and arrangements that are concluded to be joint operations.

Hydro's joint operations

Of our joint operations, two are classified as joint operations based on the legal form of the operations. These are Tomago, an aluminium smelter in Australia, and Skafsa ANS, a power producer in Norway. Another arrangement is classified as joint operations based on the contractual arrangement whereby all output is sold to the shareholders in proportion to their ownership interest at a cost based price formula. The major or sole sources of cash inflows for the joint arrangement is the owners, who are legally obliged to cover production costs. This is Aluminium & Chemie Rotterdam B.V., Aluchemie, an anode producer in the Netherlands which was closed at the end of 2021.

Hydro's joint ventures

The following joint venture is considered material for Hydro:

Qatar Aluminium Ltd. (Qatalum) is a primary aluminium smelter with a dedicated power plant located in Qatar. Qatalum has an annual production capacity of about 600,000 mt of liquid metal. Qatalum is owned by Hydro and Qatar Aluminium Manufacturing Company Q.P.S.C. (50 percent each). Qatar Energy, previously Qatar Petroleum, controls Qatar Aluminium Manufacturing Company, which is listed on the Qatar Stock Exchange. Qatalum was at the outset granted a ten-year income tax holiday, expiring in 2020. There has been a long period of uncertainty with regards to the applicable tax rate for Qatalum after the expiry of the tax holiday in 2020. It has been Hydro's consistent position that the generally applicable tax rate, currently at 10 percent, should apply to Qatalum after the expiry of the tax holiday. However, the joint venture partners have not been able to agree on a common interpretation of the applicable tax law, and Qatalum filed its 2020 tax return applying a 35 percent tax rate on 30 June 2021. Hydro is pursuing alternative measures to protect its financial interest in this matter.

Hydro is committed to sell fixed quantities of alumina and purchase all products from Qatalum at market prices. Purchases of metal from Qatalum amounted to NOK 14,172 million in 2021 and NOK 11,055 million in 2020. Related payables amounted to NOK 1,360 million in 2021 and NOK 921 million at the end of 2020. Sales from Hydro to Qatalum amounted to NOK 2,031 million in 2021 and NOK 1,944 million in 2020, primarily alumina. Related receivables amounted to NOK 0 million and NOK 73 million at the end of the periods. Qatalum is part of Hydro Aluminium Metal

Hydro's associates

The following associate is considered material for Hydro:

Lyse Kraft DA is a power producer with head office in Stavanger, Norway operating several power plants in the southwest of Norway, and having ownership interests in two other part-owned arrangements in nearby areas. In total Lyse Kraft DA has an annual production of about 9.5 TWh, which is contributed in kind to the owners. The owners are responsible for paying all costs in the partnership, both for operating costs and future investments. The company was established on December 31, 2020 by contribution of power production assets. Hydro owns 25.6 percent of the company, while Lyse AS owns a controlling 74.4 percent.

Hydro contributed the Røldal Suldal assets as a contribution in kind to Lyse Kraft DA on December 31, 2020 and received a 25.6 percent ownership interest in the company as consideration. The gross value of the ownership interest was valued at NOK 7.8 billion, resulting in a gross gain of NOK 7.1 billion. The valuation includes significant unobservable inputs, i.e. a level 3 valuation. According to Hydro's accounting policy, the relative share of ownership in the acquiring company, Lyse Kraft DA, is eliminated as an unrealized gain. The recognized gain was thus NOK 5,308 million in 2020. The carrying value of Hydro's ownership in Lyse Kraft DA was NOK 6,768 million as of December 31, 2021 and NOK 6,805 million as of December 31, 2020. Related recognized deferred tax liability was NOK 915 million as of December 31, 2021 and NOK 831 million as of December 31, 2020, related to temporary differences for which reversal of the differences are not controlled by Hydro. These temporary differences are mainly related to depreciable assets recognized at estimated fair value.



Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Hydro receives a share of Lyse Kraft DA's power production corresponding to Hydro's 25.6% ownership. In exchange Hydro covered its relative share of expenses in Lyse Kraft DA with in total NOK 375 million. Related payables amounted to NOK 40 million. Hydro sells or consumes the received power in accordance with its operating needs for power. Hydro is also the operator of the power plants and is compensated for all costs incurred in this respect. Sales of services from Hydro amounted to NOK 283 million and related receivables amounted to NOK 41 million.

Lyse Kraft DA is part of Hydro Energy.

Key information about significant investments

The table below summarizes key figures for the joint venture Qatalum for 2021 and 2020. The figures are on the same basis as used for inclusion in the group financial statements, reflecting Hydro's accounting policies. Fair value adjustments from Hydro's contribution of assets to the joint venture are included. Intercompany transactions and balances are included, and internal profit and loss in inventory and fixed assets purchased from group companies are not eliminated in the numbers below. All amounts are for the joint venture on 100 percent basis. Balance sheet amounts are at the end of the years 2021 and 2020.

	Qatalum Year/year ended	
	2021	2020
Amounts in NOK million		
Revenue	14,737	11,369
Depreciation, amortization and impairment	2,046	2,282
Earnings before financial items and tax	4,286	1,106
Financial income (expense), net ¹⁾	(336)	(537)
Income tax expense	(936)	(59)
Net income (loss)	3,014	510
Total comprehensive income	3,014	510
Cash and cash equivalents	1,723	1,564
Other current assets	6,643	3,948
Non-current assets	28,680	28,630
Current financial liabilities	302	-
Non-current financial liabilities	12,414	11,923
Other liabilities	2,972	1,307
Net assets	21,359	20,912
Hydro's share of net assets	10,679	10,456
Accumulated elimination of internal gain in inventory	24	1
Carrying value of Hydro's equity investment	10,704	10,457

¹⁾ Financial income (expense), net includes interest expense for Qatalum with NOK 211 million and NOK 290 million for 2021 and 2020, respectively.

Hydro also holds interests in certain associates accounted for using the equity method, of which the most significant are Corvus Energy Holding AS, a company producing battery solutions for ships in Canada and Norway, and Eolus Vindpark 46 AB, a company which is developing and will build Stor-Skälsjön Vindpark, a wind farm in Sweden. The following table provides a summary of changes in carrying value for Hydro's joint ventures and associates.

Amounts in NOK million	Qatalum	Other JVs	Lyse Kraft DA	Other associates	Total
December 31, 2019	11,440	1	60	11,501	
Hydro's share of net income (loss)	255		(27)	228	
Dividends and other payments received by Hydro	(979)			(979)	
Companies acquired/(sold), net			6,805	4	6,808
Amortization				(11)	(11)
Changes elimination of internal gain in inventory	(24)				(24)
Foreign currency translation and other	(234)	(1)	1	(234)	
December 31, 2020	10,457	-	6,805	27	17,288
Hydro's share of net income (loss)	1,507	(8)	(64)	(13)	1,422
Dividends and other payments received by Hydro	(1,559)				(1,559)
Companies acquired/(sold), net		12	45	454	510
Amortization				(17)	(17)
Changes elimination of internal gain in inventory	24				24
Foreign currency translation and other	276			(2)	274
December 31, 2021	10,704	4	6,768	467	17,942

Section 4 – Uncertain assets and liabilities

Note 4.1 Uncertain assets and liabilities

Accounting policies for uncertain liabilities resulting in provisions, contingent liabilities

Accounting policies for uncertain liabilities resulting in provisions, contingent liabilities
 Provisions are recognized when Hydro has a present obligation (legal or constructive) as a result of a past event and it is probable (more likely than not) that Hydro will be required to settle the obligation. Uncertain outcomes are measured as the expected value of reasonably possible outcomes. Provisions are based on the current legal framework and remediation standards. The provision is measured as the present value of the cash flows estimated to settle the obligation. Expected cash flows are discounted with a risk-free interest rate, usually a government bond rate for the duration to expected settlement.

A contingent liability is a possible obligation that arises from a past event, with the resolution of the contingency dependent on uncertain future events, or a present obligation where no outflow is probable. Contingent liabilities are not recognized on the balance sheet, the existence of such contingent liabilities and, if estimable the approximate size, are disclosed unless the possibility of an outflow of economic resources is remote.

Asset retirement obligations

Hydro recognizes liabilities for the estimated fair value of asset retirement obligations (ARO) relating to assets where such obligations exists, in the period incurred in accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets. The provision is estimated as the present value of costs relating to the restoration or rehabilitation of industrial or mining sites and/or dismantlement or removal of buildings or other assets. The liability is recognized when an asset is constructed and ready for use or when the obligation is incurred if imposed at a later date. Related asset retirement costs are capitalized and depreciated over the useful life of the asset. Accretion expense is recognized for the change in the present value of the liability and classified as part of Financial expense. Other changes to estimated fair value of ARO are recognized when identified. The increase or reduction to the liability is recognized as an increase or reduction of the value of the asset unless the asset is no longer in use, in which case the change is recognized in operating expenses. Liabilities that are conditional on a future event (e.g. the timing or method of settlement) are recognized when the value of the liability can be reasonably estimated.

Exit and disposal costs

Hydro recognizes a provision in the amount of the direct costs associated with an exit and/or disposal activity when a formal commitment to a detailed exit plan is made and communicated to those affected. A provision for termination benefits to employees is recognized as of the date of notification to individual employees or their representatives.

Accounting policies for uncertain assets

Assets where the existence of an asset or Hydro's control with the resources is less than virtually certain are contingent assets. Contingent assets are not recognized.

Significant judgment in accounting for contingent assets and liabilities, uncertain assets and liabilities
 Evaluation of uncertain liabilities and contingent liabilities and assets requires judgment and assumptions regarding the probability of realization and the timing and amount, or range of amounts, that may ultimately be incurred. Such estimates may vary from the ultimate outcome as a result of differing interpretations of laws and facts.

The main judgmental assessments falls into two categories; whether a liability exists, and the amount of a possible liability. The existence or non-existence of a liability is a legal and/or factual assessment. The measurement of a possible liability is more challenging for requirements to remediate or rectify alleged wrong-doing than for monetary claims of compensation. In relation to perceived non-compliance with laws and regulations, authorities, non-governmental organizations, or others may claim that Hydro is responsible for mitigating actions and compensation. The legal basis for such claims as well as cost calculation and other aspects can be difficult to assess.

Hydro's industrial and mining activities are subject to a wide range of environmental laws and regulations, including end-of-life remediation regulations. The extent of site and off-site contamination, the remediation methods, and requirements that relevant environmental authorities may impose, are uncertain. The long-term use of sites, with increasing awareness of effects of contamination in society, and generally lower acceptance of contamination in communities over time impacts the content of legal standards and the responsibility of companies involved in such activities. Further, changes in remediation methods and requirements and the uncertainty of cost levels for actions to be performed years and decades into the future contribute to the uncertainty in assessing and measuring such obligations. Remediation and closure activities expected to be conducted far into the future are less accurately measured than near-term planned activities. Consequently, there is significant uncertainty inherent in the estimates.

Indirect tax regimes are complex in many jurisdictions and cross-border. Basis for such taxes may differ from actual transaction prices. Tax authorities may challenge Hydro's calculation of taxes and credits from prior periods. Such processes may lead to changes to prior periods' operating or financial expenses to be recognized in the period of change.

Provisions

Amounts in NOK million	2021			2020		
	Short-term	Long-term	Total	Short-term	Long-term	Total
Environmental clean-up and asset retirement obligations (ARO)	535	3,670	4,205	695	3,767	4,461
Employee benefits	1,417	387	1,804	1,056	685	1,741
Indirect taxes	5	209	215	8	249	257
Rationalization and closure cost	167	45	212	511	329	840
Other	1,003	460	1,464	665	576	1,242
Total provisions	3,128	4,772	7,899	2,935	5,605	8,541

The following table includes a specification of changes to provisions for the year ending December 31, 2021.

Amounts in NOK million	Environmental clean-up and ARO	Employee benefits	Indirect taxes	Rationalization and closure cost	Other	Total
Specification of change in provisions						
December 31, 2020	4,461	1,741	257	840	1,242	8,541
Additions	1,018	1,672	15	132	772	3,608
Used during the year	(531)	(1,011)	(12)	(445)	(391)	(2,390)
Reversal of unused provisions	(14)	(90)	(31)	(7)	(97)	(240)
Accretion expense and effect of change in discount rate	(35)	7	-	-	50	22
Reclassified to assets held for sale	(554)	(462)	-	(283)	(58)	(1,357)
Foreign currency translation	(141)	(54)	(13)	(24)	(55)	(286)
December 31, 2021	4,205	1,804	215	212	1,464	7,899

Provisions for environmental clean-up and asset retirement obligations relate to production facilities currently in operation and facilities that are closed. The obligations relate to such actions as restoration or rehabilitation of industrial or mining sites, disposal of contaminated material and related activities. Hydro has provided for demolition of buildings and



installations only where there is a legal or contractual obligation, or a specific decision to demolish, which is the case for few sites. The provision represents the present value of expected outflows at the times of expected payments. There is significant uncertainty both in the timing and amount of these remediation actions, as they are linked to future business decisions as well as decisions and approval by authorities in the jurisdictions we operate. Provisions are based on the current legal framework and remediation standards. Hydro is in the process of assessing whether the Global Industry Standard on Tailings Management (GISTM), issued by ICMM¹⁾, PRI²⁾ and UNEP³⁾, will require additional effort and costs. Currently, no significant additional liabilities have been identified. The GISTM framework may not be fully reflected in the remediation standards used for estimating actions and cost. No significant changes in cost estimates have been identified.

The most significant provisions relate to the following sites and issues. For Hydro Bauxite & Alumina's mine in Brazil we have obligations to remediate the tailing areas and mining sites, including reforestation of the area and monitoring and maintenance of the site after initial remediation. The process for depositing of mining tailings were changed during 2020. Such tailings are now brought back to the mine and permanently deposited rather than remaining in dedicated tailing areas. The new method is intended to reduce the cost and risks associated with care and maintenance after the mining activity. For Hydro Bauxite & Alumina's alumina refinery in Brazil we have obligations to remediate bauxite residue deposits, including monitoring the contamination levels and other aspects after initial remediation. Some activities related to these obligations are currently performed as integrated processes with ongoing deposit of residues produced in the alumina production. For Hydro Aluminium Metal's closed Kurri Kurri smelter site in Australia we have obligations to remediate certain contaminated areas at the site and have now secured approval for the appropriate long-term containment of historical spent pot lining and certain other waste material. The work is progressing and is expected to be completed during 2023. Once completed, and following a monitoring period of five years, the containment cell will transfer to state ownership. Further, Hydro has provided for various remediation obligations in Hydro Extrusions related to both closed sites, whether previously operated or not, and for some currently active sites. Hydro also has obligations for remediation of contamination on site and in areas related to historic industrial activities, mainly in Germany and Norway, reported in Other and eliminations. The more significant of these sites are the sites in Schwandorf in Germany and the Grenland area in Norway. The GISTM may impact remediation requirements for some of these sites. For many of these provisions, there are no standard remediation methods available and cost is therefore uncertain. The provision also includes remediation of spent pot lining and certain other process related waste in all active smelters, remediation of certain known landfills and removal of limited contaminated material as well as site clearance for certain leased land. Provisions also exist for certain liabilities related to Norwegian power plant concessions to be reverted to the Norwegian Government.

Provisions for employee benefits relate to expected short-term performance bonus payments and short and long-term provisions for expected bonus payments that are based on the number of years of service, primarily for our European operations. Such bonuses are expected to be paid in periods between 10 to 50 years of service, or upon termination of employment.

Indirect taxes include taxes not related to taxable income, such as value added taxes, duties and property taxes. Provision for indirect taxes is mainly related to operations in Brazil.

Rationalization and closure cost included provisions for the improvement program in the Hydro Rolling business, which was divested in 2021. Further, Hydro Extrusions has provided for costs related to plant closures and employee reductions to reduce their footprint in response to challenging market conditions. The provision also includes costs related to the closure of Hydro's joint operation Aluchemie.

Other includes insurance provisions related to insurance contracts issued by Hydro's captive insurance company, Industriforsikring AS, to external parties including associates and joint arrangements, provisions for legal and other disputes, community donations and other contributions committed, certain liabilities related to representation and warranty provisions related to sale of businesses.

Hydro has entered into several agreements with authorities at local and state levels in Pará, Brazil, requiring Hydro to improve operational security and to make additional efforts and investments related to local societies close to the plants and to the social development of communities in Barcarena. The most significant agreements were entered into in 2018 related to the alumina refinery, Alunorte. Total remaining provisions related to these obligations are about NOK 590 million as of December 31, 2021.

Contingent liabilities and contingent assets

Hydro is involved in or threatened with various legal and tax matters arising in the ordinary course of business. Where Hydro considers an obligation to be possible, i.e. not probable yet not remote, it is disclosed as a contingent liability.

Hydro is involved in a significant number of tax cases related to various types of taxes. Hydro's businesses in Brazil have a large portfolio of cases disputed by tax authorities, of which the majority relates to indirect taxes. Disputes include cases in the administrative and legal dispute systems with various background and risk of loss. In total known cases amount to about NOK 3 billion, of which losses are considered possible in cases amounting to about NOK 2.5 billion. A significant share of those amounts is covered by tax indemnifications from acquisition. The final outcome of these cases is not expected until several years into the future, and is highly uncertain. Additional cases may be raised by tax authorities based on tax declarations for periods not yet assessed, or when interpretation of tax regulations change. Hydro has provided for individual tax cases where the risk of loss is considered above 50 percent. Provisions for indirect taxes are included in provisions disclosed above, while provisions for income tax expenses are included in Taxes payable.

Hydro has environmental liabilities related to several sites and issues. Where remediation is acknowledged as Hydro's responsibility or a legal obligation is deemed to exist, a provision for the best estimate of costs to be incurred is established. For many of our industrial sites, in particular sites where operation is expected to continue indefinitely, remediation costs are difficult to assess. The precise need for remediation actions, their method, timing and cost has not yet been planned, and hence the cost is uncertain. For some impacted areas it is not yet known whether remediation will be required. This may depend on the pace of any natural attenuation, and development in what the environmental authorities judge to be reasonable remediation requirements. For some areas, the exact extent of pollution may be uncertain. If an environmental risk assessment has concluded that the current risk is acceptable, a detailed sampling program may not have been carried out. Obligations for historic contamination of sites and surrounding areas in addition to areas provided for may be identified and deemed Hydro's responsibility in the future, whether related to currently owned or used sites, or sites we previously have owned and/or used. The cost of remediation of any additional contamination deemed Hydro's responsibility is uncertain.

Authorities and non-governmental organizations have filed several lawsuits related to the Alunorte incident, claiming a combination of mitigating actions and financial compensation. The argumentation, cost calculation and legal basis for these claims is still highly uncertain. Further claims may still be received. Given the limited information about claimed physical and moral damages to be compensated, and the extent and cost of mitigating actions claimed, or the extent or content of other potential claims and lawsuits, it is not possible at this time to provide a range of possible outcomes or a reliable estimate of potential future exposure for Hydro. It is further not possible to estimate the timing of when such claims may be determined or when any payments may arise.

Hydro is also exposed to increased product warranty and product liability responsibilities, both as result of contractual commitments and caused by liability under background law. Product warranty and product liability may impose significant costs depending amongst other things on the application of the product sold. Similarly, disputes over whether failure to deliver products under contract are related to force majeure or not occur from time to time, both for Hydro's delivery obligations and rights. Such disputes may involve significant amounts and outcomes may be difficult to assess.

Hydro is exposed to legal cases based on contractual or other basis, including related to contract delivery or purchase obligations or warranties and representations given in relation to sale of businesses. Where a payment is probable, a provision for the likely amount is recognized.

Section 5 – Income and expenses

Note 5.1 Revenue from contracts with customers

Accounting policies for revenue recognition

Hydro accounts for revenue in accordance with IFRS 15 Revenue from Contracts with Customers.

IFRS 15 requires us to, for each contract with a customer, identify the performance obligations, determine the transaction price, allocate the transaction price to performance obligations to the extent the contract covers more than one performance obligation, determine whether revenue should be recognized over time or at a point in time, and, finally, recognize revenue when or as performance obligations are satisfied.

A performance obligation is satisfied when or as the customer obtains control with the goods or services delivered.

Revenue from sale of physical products are recognized when control is transferred to the customer, which usually occurs at delivery.

A contract for sale of electricity is considered one performance obligation and recognized as electricity is delivered to customers through the relevant grid.

Margins related to the trading of derivative commodity instruments, including instruments used for risk management purposes, purchase or delivery of physical commodities on a commodity exchange, and physical commodity purchases and sales agreed in combination with a single counterpart, are presented on a net basis in the income statement with trading margins included in revenues.

Significant judgment in accounting for revenue

The significant judgment in applying IFRS 15 for Hydro is related to which contracts that qualify for recognition over time, versus recognition at a point in time; at delivery to customer.

Hydro's main performance obligations can be described as follows:

- sale of products, produced independent of customer orders
- sale of products, produced to customer order
- sale of products made to customer specifications and order
- sale of electricity

For products which are not made to the customer's specification, performance obligations are either the individual product, the delivery in total, or an agreed volume of products delivered in more than one delivery. Contracts covering a fixed, committed volume at fixed or determinable prices are relevant for this assessment. Delivery period for such contracts can cover a period of a few weeks, and up to one year. Some few contracts cover more than one year. Prices are usually a combination of fixed elements and market references such as the aluminium price at the London Metal Exchange or other market references, at, or prior to, delivery. Revenue related to products that are not made to the customers' specification is recognized at delivery of products to customers. Such contracts account for the majority of sales in the segments Hydro Bauxite & Alumina, Hydro Aluminium Metal and Hydro Metal Markets, and a significant share of sales in Hydro Extrusions. Some of these contracts include an element of freight services, which is considered a separate performance obligation under IFRS 15, and related revenue is recognized over the time of journey.

For products made to customer specifications and orders, we have assessed whether the finished product has an alternative use to Hydro, and whether Hydro at all times has an enforceable right to payment for performance completed to date. For contracts where both of these conditions are fulfilled, revenue shall be recognized over time from commencement of production of the specialized product until completion of delivery to the customer. For Hydro's products, the alternative use of customer designed products would, in most cases, be as an input to the production of other products rather than for sale of the product unchanged. We have assessed whether Hydro has an enforceable right to payment for performance completed to date, including a reasonable margin, throughout the production period. The assessment is primarily related to the segment Hydro Extrusions. The main assessment is related to which compensation Hydro would be entitled to in a situation where firm orders are canceled or amended by the customer. Our conclusion is that for close to all contracts we do not have an enforceable right to payment as described in IFRS 15, and revenue is thus recognized at a point in time. However, as our conclusions depends both on legal assessment of a large number of contracts in many countries, and on the understanding of what constitutes an enforceable right to payment under IFRS 15, we might reach a different conclusion in the future for some contracts, or for new contracts covering similar products and customer segments entered into in the future. Also for these contracts, prices are fixed at the time of delivery.

Payment and warranty terms

Payment terms for products vary between customer segments and regions. The predominant terms vary between 30 to 90 days, and up to 180 days in some markets.

Hydro's warranty terms vary by product and business segment. Generally, Hydro provides warranty that product complies with specification, and offer repair, replacement or refund of consideration paid for breaches. Such warranties are limited in time, for most products not exceeding 12 months. Individual contracts may include more extensive warranty clauses where Hydro takes responsibility also for some consequential damages, mainly related to more complex products such as certain automotive parts. Warranty liability is to some degree influenced by legal requirements, which may extend the time period for Hydro's liability.

Other information

Sale of electricity, primarily from the Hydro Energy segment, is recognized as revenue as electricity is delivered to customers through the relevant grid. Sale of energy from other segments represent excess energy purchased under contracts exceeding the operational needs, and relate to periodic maintenance stops or curtailment. Revenue from sale of energy includes the revenue from sale of concession power, a legal requirement to deliver a certain part of volume produced in Norway to local authorities at a reduced price. Revenue from concession power amounted to NOK 70 million and NOK 75 million in 2021 and 2020, respectively.

Realized and unrealized changes in fair value of commodity derivatives are also presented as part of revenue. These amounts are measured at fair value as required by IFRS 9 Financial Instruments. The instruments are mainly aluminium and power contracts used for risk management purposes, and are included in Other revenue in the table below.

Hydro's revenue divided by segment and geographic location of the customer is shown in [Note 1.4 Operating and geographic segment information](#). Revenue divided by product type for the main product groups sold are as follows

Amounts in NOK million	2021	2020
Standard ingots	14,207	11,808
Extrusion ingots	28,837	18,398
Foundry alloys	12,496	9,047
Sheet ingots	5,694	2,815
Other casthouse products	5,676	3,165
Extruded profiles	53,665	40,576
Building system products	9,039	8,094
Precision tubing products	3,927	3,178
Alumina	15,372	11,968
Power	2,731	1,230
Other goods and services ¹⁾	4,679	3,916
Total revenue from contracts with customers	156,322	114,197
Other revenue ²⁾	(6,668)	94
Total revenue	149,654	114,291

¹⁾ Includes sale of bauxite, revenue from allocated freight and conversion services for customers' scrap

²⁾ Other revenue includes realized and unrealized changes in the fair value of derivative instruments, mainly used for risk management purposes with a loss of NOK 6,808 million in 2021 and a gain of NOK 924 million in 2020, mainly related to aluminium contracts.

Note 5.2 Other income**Accounting policies for Other income, net**

Transactions resulting in income from activities other than normal production and sales operations are classified as Other income, net. This includes gains and losses resulting from the disposal of PP&E and intangible assets, investments in subsidiaries, associates or joint ventures as well as government grants, insurance compensation, and rental revenue. Other income, net also includes revenue from utilities, which is revenue from contracts with customers accounted for in accordance with IFRS 15.

Government grants

Government grants are recognized in accordance with IAS 20 Accounting for Government Grants and Disclosure of Government Assistance. Grants are recognized when there is a reasonable assurance that Hydro will comply with relevant conditions and that the grants will be received. Government grants are deferred in Other non-current liabilities until the associated activity is performed or expenses recognized. Investment grants are recognized over the period the associated asset is depreciated. All government grants are recognized in Other income, net. Investment grants are included in Investing activities in the statement of cash flows.

Amounts in NOK million	2021	2020
Gain on sale of property, plant and equipment and intangible assets	278	138
Net gain (loss) on sale of subsidiaries, associates and joint ventures ¹⁾	78	5,360
Government grants ²⁾	934	670
Other ³⁾	928	1,247
Other income, net	2,219	7,414

¹⁾ Recognized gain of NOK 5,308 million in 2020 relates to the establishment of Lyse Kraft DA, the transaction is described in [Note 3.1 Investments](#) in joint arrangements and associates.

²⁾ Government grants includes CO2 compensation, investment grants related to Hydro's pilot facility on Karmøy and export grants in Brazil. In 2020, about NOK 240 million of government grants was related to Covid 19, mainly in Europe and North America.

³⁾ Other includes insurance compensations.

Note 5.3 Raw material and energy expense

Amounts in NOK million	2021	2020
Raw material expense and production related cost	92,073	69,471
Change in inventories own production	(3,230)	(518)
Raw material and energy expense	88,843	68,953

Raw material expense and production related cost include effect of commodity derivative instruments. See [Note 8.3 Derivative instruments and hedge accounting](#).

Section 6 – Specification of operating capital elements

Note 6.1 Inventories

Accounting policies for inventories

Inventories are valued at the lower of cost, using the first-in, first-out method (FIFO), or net realizable value. Net realizable value is the estimated selling price in the ordinary course of business less estimated costs of completion and selling costs. Inventory cost includes direct materials, direct labor and a portion of production overhead (manufactured goods) or the purchase price of the inventory. Abnormal amounts of idle facility expense, freight, handling costs, and wasted materials are recognized as expense in the current period. Inventory write-downs to net realizable value occurs when the cost of the inventory is not recoverable, and is reversed in later periods if there is clear evidence of an increase in the net realizable value.

Amounts in NOK million	2021	2020
Spare parts and raw materials	6,896	5,995
Work in progress	2,624	4,062
Alumina	1,883	1,349
Aluminium casthouse products	7,250	4,771
Fabricated products	3,139	3,315
Inventories	21,791	19,492

Raw materials include purchased raw materials such as bauxite, caustic soda, oil, coal and other input factors used in the production; however, excluding alumina and aluminium intended for use in Hydro's production of other products. All amounts are net of any write-downs.

Note 6.2 Trade and other receivables

Accounting policies for trade receivables

Trade receivables are initially recognized at transaction price, subsequently accounted for at amortized cost and are reviewed for impairment on an ongoing basis. Individual accounts are assessed for impairment taking into consideration indicators of financial difficulty and management assessment. Portfolios of trade receivables where expected losses are more than insignificant are reduced for those expected losses. Discounting generally does not have a material effect on trade receivables, however, in special cases discounting may be applied. Hydro's business model for most trade receivable is to hold the receivables to collect the contractual cash flows. For some portfolios of trade receivables, factoring is applied.

Significant judgment in accounting for receivables

In some jurisdictions, including Brazil, significant tax credit amounts are generated for use against future indirect and/or income tax payments. Repayment in cash is made subject to a set of conditions, including availability of funds at the tax authorities, and cannot be expected on a regular basis. The value of such credits depends on future generation of taxes. Economic conditions and tax regulations may change and lead to a different conclusion regarding recoverability.

Amounts in NOK million	2021	2020
Trade receivables	17,350	15,753
VAT and other sales taxes	726	723
Other current receivables	2,891	2,367
Allowance for credit losses	(388)	(478)
Trade and other receivables	20,579	18,364

Of total trade receivables at year end 2021, about 9 percent were past due, with the majority within 30 days. The Hydro Extrusions segment have the majority of overdue receivables.

Note 6.3 Trade and other payables

Amounts in NOK million	2021	2020
Accounts payable	18,359	14,456
Payroll and value added taxes	3,048	3,499
Accrued liabilities and other payables	1,303	992
Trade and other payables	22,710	18,948

Section 7 – Capital management and cash management

Note 7.1 Capital management

Hydro's capital management policy is to maximize value creation over time, while maintaining a strong financial position, an investment grade credit rating, and strong liquidity. During 2021 net cash provided by continuing operating activities exceeded net cash used in continuing investing activities plus dividends paid.

Credit rating

To secure access to capital markets at attractive terms and remain financially solid, Hydro aims to maintain an investment grade credit rating from the leading agencies, S&P Global (current rating BBB, stable outlook) and Moody's (current rating Baa3, stable outlook). Hydro's key targets for financial solidity are described below.

Funding and liquidity

Hydro manages its funding requirements centrally to cover group operating requirements and long-term capital needs. Hydro has an ambition to access national and international capital markets as primary sources for external long-term funding.

As of December 31, 2021, Hydro held NOK 22.9 billion in cash and cash equivalents. In addition, NOK 2.4 billion were held as time deposits and money market funds, classified as short-term investments. These instruments are managed as part of Hydro's liquidity management, aiming to optimize the return on cash positions. Hydro's policy is that the maturity of such positions shall be shorter than 12 months. Time deposits are normally available at shorter notice, subject to bank approval and potential break costs. Hydro has a syndicated USD 1,600 million revolving credit facility maturing in December 2026, including a USD 1,500 million swingline as a sub-facility to cover short-term liquidity needs. The facility was undrawn per year-end 2021. In addition, Hydro has access to overdraft facilities and liquidity lines which provide additional short-term liquidity.

Funding of subsidiaries, associates and jointly controlled entities

Normally the parent company, Norsk Hydro ASA, extends loans or equity to wholly-owned subsidiaries to fund capital requirements. All financing is executed on an arm's length basis. To the extent Hydro offers loans to part-owned subsidiaries and investments in associates and joint arrangements, the policy is to participate according to Hydro's ownership share, on equal terms with the other owners. Project financing is used for certain funding requirements mainly to mitigate risk while also considering partnership and other relevant factors.

Trade finance products such as factoring and reverse factoring are used to some extent by subsidiaries, mainly to facilitate risk mitigation in specific trade relations or markets. Hydro has internal guidelines limiting the use of such instruments to where it adds commercial value, as these instruments should not be used as a source for funding. Hydro has set a total limit for such arrangements including any type of sales of receivables. The limit is currently NOK 3.6 billion but was not fully utilized at year-end.

Shareholder return

Long-term return to shareholders should reflect the value created by Hydro, and consists of dividends and share price development. Hydro aims to provide its shareholders with a competitive return compared with alternative investments in similar companies. Hydro's ambition is, in the long term, to pay out, on average, minimum 50 percent of adjusted net income as ordinary dividend over the cycle, with a dividend floor of NOK 1.25 per share. Dividends for a particular year are based on expected future earnings and cash flow, future investment opportunities, the outlook for world markets and Hydro's current financial position. Share buybacks or extraordinary dividends may be used to supplement ordinary dividends during periods of strong financial results after considering the status of the business cycle and capital requirements for future growth.

Hydro's capital management measures

Hydro's management uses the Adjusted net cash (debt) to adjusted EBITDA ratio to assess the group's financial solidity and ability to absorb volatility in the markets. Hydro targets, over the business cycle, a ratio of average Adjusted net cash (debt) to adjusted EBITDA below 2. Historically, weak cash generation has been the main challenge for Hydro and the aluminium industry in general. Given historical industry cyclicity, this means that the ratio will be well below 2x in the stronger parts of the cycle, to be able to absorb the impact from industry cycle downturns and maintain financial flexibility in periods of adverse market conditions. As a result, capital structure has not represented a credit constraint. Hydro continuously evaluates the efficiency of the capital structure and takes this into account when proposing shareholder distribution.

Hydro amended some financial metrics during 2021. Adjusted EBITDA, which includes realized currency gains and losses from risk management contracts and embedded currency derivatives in sourcing contracts for power and raw materials, replaced underlying EBITDA. Hydro considers this to be a better performance measure as it includes all effects related to risk management contracts.

Following the significant increase in Hydro's use of long-term derivatives in risk management activities, the impact of collateral for such contracts on relevant metrics was reassessed. Net cash (debt) is defined as Hydro's cash and cash equivalents plus short-term investments and cash collateral for long-term liabilities, less short- and long-term interest-bearing debt. The previous definition of Net cash (debt) did not include cash collateral for long-term liabilities, which over a long period had been insignificant. Adjusted net cash (debt) excludes net cash (debt) positions regarded as unavailable for servicing debt, collateral for short- and long-term liabilities, pension liabilities and other obligations which are considered debt-like in nature. The previous definition of Adjusted net cash (debt) did not adjust for cash collateral, as these amounts have previously been limited. With the amended definition, increases or decreases in cash collateral will not impact Hydro's Net cash (debt) but will be reflected in Adjusted net cash (debt). Information for previous periods have been restated accordingly.

Hydro considers the amended definition of Net cash (debt) to be a better metric for valuation purposes, while the amended Adjusted net cash (debt) definition is a better indicator of Hydro's financial position at the balance sheet date.

The tables below present the calculation of Net cash (debt), Adjusted net cash (debt) and the Adjusted net cash (debt) to adjusted EBITDA ratio. For 2020, the latter ratio is presented as reported in the 2020 annual report to ensure consistency in the calculation, as the divestment of the Rolling business area leads to a re-presentation of adjusted EBITDA but not the balance sheets items included in Adjusted net cash (debt).

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

	Adjusted net cash (debt)	Dec 31 2021	Sep 30 2021	Jun 30 2021	Mar 31 2021	Dec 31 2020	Sep 30 2020	Jun 30 2020	Mar 31 2020
	Amounts in NOK million ¹⁾								
	Cash and cash equivalents	22,923	18,792	20,147	15,011	17,638	17,495	15,385	12,160
	Short-term investments	6,763	7,020	3,607	4,348	4,091	5,399	5,110	1,641
	Bank loans and other interest-bearing short-term debt	(6,428)	(4,186)	(4,183)	(4,701)	(4,748)	(6,915)	(7,094)	(7,728)
	Long-term debt	(21,989)	(25,495)	(24,562)	(23,658)	(24,811)	(25,873)	(26,595)	(21,290)
	Collateral for long-term liabilities	1,945	2,647	1,417	722	35	28	29	22
	Net cash (debt)	3,213	(1,221)	(3,574)	(8,278)	(7,795)	(9,866)	(13,165)	(15,195)
	Collateral for short-term and long-term liabilities ²⁾	(5,304)	(6,305)	(3,156)	(1,167)	(712)	(402)	(123)	(84)
	Cash and cash equivalents and short-term investments in captive insurance company ³⁾	(1,059)	(1,072)	(1,059)	(1,014)	(956)	(915)	(898)	(897)
	Net pension obligation at fair value, net of expected income tax benefit ⁴⁾	(774)	648	373	405	(9,868)	(11,569)	(11,127)	(12,384)
	Short- and long-term provisions net of expected income tax benefit, and other liabilities ⁵⁾	(3,096)	(2,570)	(2,815)	(2,669)	(3,966)	(3,711)	(3,865)	(4,328)
	Adjusted net cash (debt)	(7,019)	(10,520)	(10,231)	(12,723)	(23,297)	(26,463)	(29,178)	(32,889)

¹⁾ Previous periods have been restated following a change to the net debt definition implemented during 2021.

²⁾ Collateral provided as cash, mainly related to derivatives used for risk management.

³⁾ Cash and cash equivalents and short-term investments in Hydro's captive insurance company Industriforsikring AS are assumed to not be available to service or repay future Hydro debt, and are therefore excluded from the measure Adjusted net cash (debt).

⁴⁾ The expected income tax benefit related to the net pension liability is NOK (47) million and NOK 2,236 million, respectively, for 2021 and 2020.

⁵⁾ Consists of Hydro's short and long-term provisions related to asset retirement obligations, net of an expected tax benefit estimated at 30 percent, and other non-current financial liabilities.

Average Adjusted net cash (debt) / adjusted EBITDA

Amounts in NOK million, except ratio	2021	2020
		Restated
Average Adjusted net cash (debt) ¹⁾	(10,123)	(27,957)
Adjusted EBITDA ²⁾	28,010	14,316
Average Adjusted net cash (debt) / adjusted EBITDA	0.36	1.95

¹⁾ 2020 has been restated following a change to the adjusted net cash (debt) definition implemented in 2021.

²⁾ 2020 value as reported.

Note 7.2 Cash and cash equivalents

Accounting policies for cash and cash equivalents

Cash and cash equivalents in the balance sheet includes cash, bank deposits and all other monetary instruments with a maturity of less than three months from the date of acquisition and are measured at nominal value.

Liquidity management

Hydro manages its liquidity requirements centrally to cover group operating requirements. Hydro operates cash pools in several currencies where wholly owned subsidiaries participate, to the extent permitted by country legislation. Such cash pool arrangements facilitate netting of cash positions within the group, thereby reducing the requirement for external financing, and centralizing management of aggregated positions. At the end of 2021, NOK 4.7 billion of Hydro's cash position of NOK 22.9 billion was outside such group arrangements, mainly in Brazil.

Note 7.3 Short-term investments

Amounts in NOK million	2021	2020
Equity securities	1,749	324
Debt securities	655	589
Time deposits ¹⁾	1,000	2,500
Collateral accounts and other	3,359	677
Total short-term investments	6,763	4,091

¹⁾ Time deposits in banks with a maturity of three months or more at inception. Short-term bank deposits are normally available at short notice.

Note 7.4 Short and long-term debt

Amounts in NOK million	2021	2020
Bank loans and overdraft facilities	574	1,589
Current portion of long-term debt	5,854	3,159
Bank loans and other interest-bearing short-term debt	6,428	4,748

Amounts in NOK million	2021	2020
EUR	7,932	8,380
USD	5,863	5,308
NOK	9,986	9,983
SEK	972	1,047
Other	12	13
Total unsecured loans	24,765	24,730
Lease liabilities	3,079	3,240
Outstanding debt	27,844	27,970
Less: Current portion	(5,854)	(3,159)
Total long-term debt	21,989	24,811

Long-term debt includes seven bonds in NOK and SEK listed on the Oslo Stock Exchange (Euronext Oslo) and two bonds in EUR listed on the Irish Stock Exchange (Euronext Dublin). As of December 31, 2021, the market value of these bonds is approximately NOK 1 billion higher than the carrying value which is the nominal value.

Reconciliation of liabilities arising from financing activities

Amounts in NOK million	Long-term debt	Bank loans and other interest-bearing short-term debt	Total liabilities from financing activities
December 31, 2019	18,858	6,157	25,015
Cash flows - continuing operations	7,943	(4,235)	3,709
Cash flows - discontinued operations	-	(37)	(37)
Non-cash changes:			
Net change in current balance	(3,431)	3,431	-
New leases	543	-	543
Lease debt cancellations	(53)	-	(53)
Divestments	(5)	(5)	(10)
Amortizations	18	-	18
Term extension	452	(452)	-
Foreign currency effects	485	(112)	373
December 31, 2020	24,811	4,748	29,559
Cash flows - continuing operations	2,964	(4,561)	(1,596)
Cash flows - discontinued operations	-	(13)	(13)
Non-cash changes:			
Net change in current balance	(6,426)	6,426	-
New leases	1,115	-	1,115
Lease debt cancellations	(14)	-	(14)
Divestments	(137)	(35)	(173)
Amortizations	21	-	21
Foreign currency effects	(345)	(136)	(481)
December 31, 2021	21,989	6,428	28,418

Note 7.5 Finance income and expense

Amounts in NOK million	2021	2020
Interest income (amortized cost)	194	191
Dividends received and net gain (loss) on securities	69	99
Finance income	263	290
Interest expense (amortized cost)	(956)	(994)
Net foreign exchange gain (loss)	1,404	(3,800)
Accretion	(153)	(117)
Other	(46)	68
Finance expense	248	(4,842)
Finance income (expense), net	510	(4,552)

Accretion represent the period's interest component for pension obligations, asset retirement obligations and other liabilities measured as present value of future expected payments.

Note 7.6 Shareholders' equity

Share capital	Number of shares	Ordinary shares issued	Treasury shares	Ordinary shares outstanding
December 31, 2019		2,068,998,276	(21,349,486)	2,047,648,790
Treasury shares issued to employees			1,475,928	1,475,928
December 31, 2020		2,068,998,276	(19,873,558)	2,049,124,718
Treasury shares issued to employees			2,350,944	2,350,944
December 31, 2021		2,068,998,276	(17,522,614)	2,051,475,662

The share capital of Norsk Hydro ASA as of December 31, 2021 and 2020 was NOK 2,271,760,107 consisting of 2,068,998,276 ordinary shares at par value of NOK 1.098 per share. All shares have equal rights and are freely transferable.

Treasury shares

The treasury shares may, pursuant to the decision of the General Meeting at the time these shares were acquired, be used as consideration in connection with commercial transactions or share schemes for the employees and representatives of the Corporate Assembly and the Board of Directors.

The treasury shares amount per December 31, 2021 of NOK 584 million was comprised of NOK 19 million share capital and NOK 565 million retained earnings.

Change in Other components of equity

The table below specifies the changes in Other components of equity for 2021 and 2020.

	2021	2020
Items that will not be reclassified to income statement:		
Remeasurement postemployment benefits		
January 1	(1,314)	(388)
Remeasurement postemployment benefits during the year	2,811	(1,015)
Deferred tax offset	(435)	89
Reclassified to retained earnings on divestment of subsidiaries	1,635	-
December 31	2,697	(1,314)
Unrealized gain (loss) on assets measured at FVOCI		
January 1	(665)	(509)
Period unrealized gain (loss) on FVOCI securities	(115)	(156)
December 31	(779)	(665)
Items that will be reclassified to income statement:		
Currency translation differences		
January 1	(9,160)	(4,471)
Currency translation differences during the year	(1,377)	(4,667)
Reclassified to Net income on sale of foreign operation	(578)	(22)
December 31	(11,114)	(9,160)
Cash flow hedges - See Note 8.3 Derivative instruments and hedge accounting		
January 1	90	(30)
Period gain (loss) recognized in Other comprehensive income	(348)	90
Reclassification of hedging gain (loss) to Net income	(40)	38
Tax expense	14	(8)
December 31	(284)	90
Other components of equity in equity accounted investments		
January 1	137	137
Reclassified to Net income on divestment of equity accounted investments	(137)	-
December 31	-	137
Total other components of equity attributable to Hydro shareholders as of December 31	(6,892)	(8,464)
Total other components of equity attributable to non-controlling interests as of December 31	(2,589)	(2,447)

Earnings per share

Basic and diluted earnings per share is computed using Net income attributable to Hydro shareholders and the weighted average number of outstanding shares in each year. There are no significant diluting elements. The weighted average number of outstanding shares used for calculating basic and diluted earnings per share was 2,050,818,686 for 2021 and 2,048,705,656 for 2020.

Hydro's outstanding founder certificates and subscription certificates entitle the holders to participate in any share capital increase, provided that the capital increase is not made in order to allot shares to third parties as compensation for their transfer of assets to Hydro. These certificates represent dilutive elements for the earnings per share computation.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Note 7.7 Dividends

Hydro's Board of Directors proposes a dividend per share in connection with the approval of the annual result in February. The Annual General Meeting considers this proposal, normally in May, and the approved dividend is then paid to the shareholders. Dividends are paid once each calendar year, generally occurring in May. For non-Norwegian shareholders, Norwegian withholding tax will be deducted at source in accordance with the applicable Norwegian tax regulations.

For fiscal year 2021 the Board of Directors has proposed a dividend of NOK 5.40 per share to be paid in May 2022. The Annual General Meeting, scheduled to be held May 10, 2022, will consider this dividend proposal. If approved, this would be a total dividend of approximately NOK 11,078 million. In accordance with IFRS, the fiscal year 2021 proposed dividend is not recognized as a liability in the 2021 financial statements.

Dividends declared and paid in 2021 and 2020 for the prior fiscal year, respectively, are as follows:

	Paid in 2021 for fiscal year 2020	Paid in 2020 for fiscal year 2019
Dividend per share paid, NOK	1.25	1.25
Total dividends paid, NOK million	2,564	2,561
Date proposed	February 11, 2021	February 6, 2020
Date approved	May 6, 2021	November 12, 2020
Dividend payment date	May 19, 2021	November 25, 2020

Dividends to non-controlling shareholders in Hydro's subsidiaries are reported as dividends in Consolidated statements of changes in equity.

Section 8 – Financial risk and financial instruments

Note 8.1 Financial and commercial risk management

Hydro is exposed to market risks related to the prices of products produced and sold, and the input factors purchased and used, as well as currency risk. The risks are managed based on the margin between sales prices and cost of raw materials and energy cost. Margin risks are managed partly at segment level and partly combined for the group.

Hydro's main strategy for managing volatility in the markets is to maintain strong liquidity, a strong balance sheet and an investment grade credit rating. In addition, a combination of financial and physical contracts, including derivatives, is used to manage margin risk.

Hydro's sales contracts mainly cover periods for up to one year, supplemented with frame arrangements that can cover several years. Prices are usually determined with reference to observed market prices or fixed, negotiated prices determined no more than one year prior to delivery. Raw materials are purchased at variable terms, with prices fixed for periods varying between a few months up to three years. Some key raw materials, including bauxite and alumina, is purchased under long-term contracts with prices linked to observable market prices. Energy, in particular electricity for use in aluminium smelters, is purchased at long-term contracts with duration up to 20 years, mainly at fixed prices. Energy for other production facilities, including natural gas, fuel oil and coal, is purchased under contracts where prices are fixed for shorter intervals. Hydro secure access to most key input factors through contracts covering at least four months, for many raw materials longer periods. Price risks for raw materials and energy are managed mainly through price clauses in the relevant contracts, supplemented with derivatives where considered beneficial. The main purpose is to manage risks related to market volatility in a period of up to four years.

Prices for products sold and raw material and energy are denominated in various currencies which exposes Hydro to currency risk. Where production margin is subject to significant currency risks, and such risks are not offset across the group, currency derivatives are to some extent used to mitigate unwanted risks.

Commodity price risk exposure

Aluminium

Regional market-places for aluminium sold as standard ingot exists several places. London Metal Exchange (LME) is the most important to Hydro, and is the point of reference in many contracts, both for sale and purchase of products and for derivatives. Hydro produces and recycles aluminium, which are partly sold as casthouse products and partly consumed in production of upgraded industrial products in Hydro Extrusions. Hydro also purchase aluminium for use in Extrusions and for recycling. Hydro engages in limited trading activities to optimize capacity utilization, reduce logistical costs and strengthen the market positions, in addition to some speculative trading activities within strict volume and risk limits.

Short-term price risk for aluminium relates to time difference in pricing of purchases of aluminium for use in production of upgraded product or for resale, compared to sale of aluminium. Hydro enters into aluminium future contracts on LME with a maturity of mainly one to three months to mitigate unwanted price risk short term. The main purpose is to achieve an average LME aluminium price on smelter production. In addition, Hydro seeks to mitigate timing risk in the pricing patterns for sale of upgraded products, purchase of aluminium for recycling, and purchase of third-party products (back-to-back hedging). Hydro manages these exposures on a portfolio basis, taking derivative positions based upon net exposures.

Long-term price risk for aluminium is managed with the aim to achieve a reasonable production margin measured as the difference between the aluminium price and the prices of key raw materials alumina, pitch, petroleum coke, anodes, and energy. Prices for raw materials and energy are to a limited extent linked to, or correlated with, the aluminium price. Hydro enters into derivative forward sale contracts both on the LME and with banks to secure prices on parts of the planned aluminium production as part of securing a margin level for periods up to about three years when considered beneficial, whether based on the market situation or to secure cash flow for specific projects.

Hydro's sales of primary aluminium and aluminium casthouse products include a premium above the quoted price on LME. The pricing of these premiums can be volatile, and is related to physical demand and supply, with regional and product-related differences. There are limited possibilities for hedging future premiums, except for standard ingot premiums, for which a forward market exists. Hydro has from time to time entered into contracts for standard ingot premiums to mitigate risk in sales contracts.

Bauxite and alumina

Hydro's production of alumina normally exceeds the alumina consumption in its primary aluminium production. In addition, Hydro has long-term agreements to purchase alumina from third parties. The majority of purchase and sale contracts are priced with reference to alumina spot price indexes, however, some long-term contracts with links to the aluminium price on LME exists. Prices for aluminium and alumina have historically been correlated over longer periods, however, price development may differ significantly short term. Alumina forward markets are considered to have limited liquidity.

Hydro is a producer and consumer of bauxite. Hydro's need for bauxite is secured through own production as well as by long-term contracts. The purchasing contracts have links to the LME aluminium price and to the alumina spot price development with a certain time-lag.

Energy

Hydro is a large consumer of energy in several countries. Energy is consumed as electrical power, natural gas, fuel oil and coal, with power as the main energy carrier. Hydro also has significant power production in Norway. Hydro's power consumption is mainly secured through long-term contracts with power suppliers and through Hydro's own production. Energy prices are to an increasing degree volatile, both from the increased volume of renewable energy from solar and wind for which available volume fluctuates with weather conditions, and from initiatives to reduce CO₂ emissions through market mechanisms such as cap-and-trade schemes and other regulatory initiatives.

Hydro's own electricity production is influenced by hydrological conditions which can vary significantly, and where production short-term is managed to match physical need and market prices. The net power position in Norway is balanced out in the Nordic power market through hourly sales and purchases.

In order to manage risks related to price and volume fluctuations, Hydro utilizes mainly physical contracts securing purchase of power at fixed prices or with relevant price links, for some contracts to the aluminium price. Physical sourcing contracts are supplemented with derivatives such as future contracts, forwards and options. For one smelter, Slovalco, a portfolio of energy contracts for physical deliveries during 2022 has been subject to partly net settlement at the end of 2021 and is therefore recognized at fair value with a significant valuation gain in 2021. Hydro also participates in trading activities within strict volume and risk limits.

Foreign currency risk exposure

The prices of Hydro's upstream products bauxite, alumina and primary aluminium, are mainly denominated in US dollars, while sale of mid- and downstream products are mainly priced in US dollars and Euro. Further, the prices of major raw materials used in Hydro's production processes are quoted in US dollars in the international commodity markets, while power is predominantly priced in Euro in Europe, including Norway. Hydro also incurs significant local costs related to the production, distribution and marketing of products in a number of different currencies, mainly Norwegian Krone, Brazilian Real, Euro and US dollar. Hydro's primary operational foreign currency risk is consequently linked to fluctuations in the value of the US dollar and Euro, and in these currencies versus the currencies in which significant costs are incurred. In addition, Hydro's results and equity are influenced by value changes for the functional currencies of the individual entities and the Norwegian Krone as the Group's presentation currency.

To mitigate the impact of exchange rate fluctuations, long-term debt is mainly maintained in currencies reflecting underlying exposures, liquidity management and cash generation, while considering attractiveness in main financial markets. To reduce the effects of fluctuations in the US dollar and other exchange rates, Hydro also uses foreign currency swaps and forward currency contracts. Commodity derivatives are entered into in various currencies, mainly US dollar, Euro and Norwegian Krone, to reflect currency exposures in the relevant unit.

Foreign currency risk exposure in receivables, payables and loans

Short-term receivables and payables are often held in currencies other than the functional currency of the unit, predominantly in US dollars and Euro. Borrowings and deposits may be denominated in other currencies than the functional currency of the unit. The majority of exposure in financing arrangements exists in the parent company in Norway and in the part-owned subsidiaries, mainly in Brazil.

Embedded currency derivatives in non-financial contracts, including the Euro priced electricity contracts in Norway, contains a currency exposure which is separately recognized.

Interest rate exposure

Hydro is exposed to changes in interest rates, primarily as a result of financing its business operations and managing its liquidity in different currencies. Cash and other liquid resources, as well as debt, are currently mainly held in Norwegian Krone, Euro, US dollars and Brazilian real, and carries short-term interest rates.

Financial instruments and provisions are also exposed to changes in interest rates in connection with valuation and discounting of positions to present value.

Credit risk management

Hydro manages credit risk by setting counterparty risk limits and establishing procedures for monitoring exposures and timely settlement of customer accounts. Credit risk is further limited through use of credit insurance, and, in some markets, sale of receivables to banks. Prepayments or guarantees are required where credit risk is outside the limits set for the relevant counterpart. Hydro is also monitoring the financial performance of key suppliers in order to reduce the risk of default on operations and key projects. Our overall credit risk exposure is reduced due to a diversified customer base representing various industries and geographic areas. Enforceable netting agreements, guarantees, and credit insurance, also contribute to a lower credit risk.

Credit risk arising from derivatives is generally limited to net exposures. Exposure limits are established for financial institutions relating to current accounts, deposits and other obligations. Credit risk related to commodity derivatives is limited by settlement through commodity exchanges such as the London Metal Exchange, Nasdaq OMX, Intercontinental Exchange, and banks, and through margin arrangements. Current counterparty risk related to the use of derivative instruments and financial operations is considered moderate.

Liquidity risk

Volatile commodity prices and exchange rates as well as fluctuating business volumes and inventory levels can have a substantial effect on Hydro's cash positions and borrowing requirements.

Margin calls for derivative contracts increased during 2021 from the increased use of such instruments. The risk is managed at group level to balance the commodity price risk and liquidity risk, and secure that sufficient funding to meet contractual obligations are available.

To fund cash deficits of a more permanent nature Hydro will normally raise equity, long-term bond or bank debt in available markets. Some suppliers have access to supply chain finance facilities, which allows those suppliers to benefit from Hydro's credit profile. The use of such products is limited and does not extend Hydro's credit period beyond normal commercial terms. Further, all other financial liabilities, such as trade payables, with the exception of derivatives, have a final maturity date within one year.

A summary of Hydro's total contractual obligations and commercial commitments to make future payments is presented below:

Amounts in NOK million	Less than 1 year	1-3 years	3-5 years	Thereafter	Total
Long-term debt including interest (note 7.4)	6,792	8,806	8,786	6,229	30,613
Unconditional purchase obligations ¹⁾	56,316	70,323	58,276	227,169	412,084
Contractual commitments for PP&E	4,851	2,504	363	2	7,720
Total contractual and non-contractual obligations, undiscounted	67,958	81,633	67,426	233,401	450,418
Present value of short-term and long-term provisions (note 4.1)	3,128	1,615	669	2,487	7,899

¹⁾ Unconditional purchase obligations include long-term contracts with equity accounted investees.

Hydro has long-term contractual commitments for the purchase of aluminium, raw materials, electricity, and transportation. The future non-cancellable fixed and determinable obligations under purchase commitments as of December 31, 2021 are shown in the following table:

	Amounts in NOK million	Bauxite, alumina and aluminium	Energy related	Other
2022		34,804	16,508	5,003
2023		22,348	10,562	2,837
2024		22,025	10,737	1,815
2025		20,733	7,274	1,203
2026		20,950	7,293	822
Thereafter		145,378	75,463	6,328
Total		266,239	127,838	18,008

Amounts relating to contracts which are entirely or partly linked to market prices such as LME are based on the spot price at the balance sheet date.

The following table specifies Hydro's payment obligations related to investments:

Amounts in NOK million	Total
Contract commitments for investments in property, plant and equipment	3,475
Additional authorized future investments in property, plant and equipment	4,140
Contract commitments for other future investments	105
Total	7,720

Additional authorized future investments include projects formally approved for development by the Board of Directors or management. General investment frames are excluded from these amounts.

An overview of estimated gross cash flows from derivatives accounted for as liabilities and assets is presented below. Many of these assets and liabilities are offset by cash flows from contracts not accounted for as derivatives.

Risk of significant cash payments or margin calls related to derivative instruments is limited due to strict volume limits, value-at-risk and tenor limits for relevant trading activities.

Expected gross cash flows from derivatives accounted for as financial liabilities and financial assets, respectively, as of end of year:

Amounts in NOK million	December 31, 2021		December 31, 2020	
	Liabilities	Assets	Liabilities	Assets
2021			(538)	79
2022	(3,636)	3,084	(6)	6
2023	(2,438)	312		
2024	(101)	(30)		
Thereafter	(16)	81		
Total	(6,191)	3,447	(544)	85

The cash flows above are to a large extent subject to enforceable netting agreements reducing Hydro's exposure substantially.

For additional information on contracts accounted for at fair value, see [Note 8.3 Derivative instruments and hedge accounting](#).

Note 8.2 Financial instruments

Accounting policies for financial instruments

Financial assets

Financial assets represent a contractual right by Hydro to receive cash or another financial asset in the future. Financial assets include financial derivatives and commodity derivative contracts, receivables and equity interests, as well as financial instruments used for cash-flow hedges.

Financial assets are recognized in accordance with IFRS 9 Financial Instruments. On initial recognition, a financial asset is classified as measured at amortized cost, at fair value through other comprehensive income (FVOCI) or at fair value through profit or loss (FVTPL). Classification depends on the contractual terms, the business model and, for some instruments, the company's choice. Financial assets are derecognized when the rights to receive cash from the asset have expired or when Hydro has transferred the asset.

Trade receivables

Trade receivables are initially recognized at transaction price, subsequently accounted for at amortized cost and are reviewed for impairment on an ongoing basis. Individual accounts are assessed for impairment taking into consideration indicators of financial difficulty and management assessment. Portfolios of trade receivable where expected losses are more than insignificant are reduced for those expected losses. Discounting generally does not have a material effect on accounts receivable, however, in special cases discounting may be applied. Hydro's business model for most trade receivable is to hold the receivables to collect the contractual cash flows. For some portfolios of trade receivables, factoring is applied.

Debt instruments

Debt instruments other than trade receivables include bank deposits and all other monetary instruments with a maturity above three months at the date of purchase, investments in debt securities, and certain other receivables. These instruments are measured at amortized costs, with the exception of instruments where cash flows are not contractually fixed and/or consists of other elements in addition to interest and repayments; and thus required to be measured at FVTPL.

Short-term debt instruments are included in Short-term investments. Long-term debt instruments are included in Other non-current assets.

Equity instruments

Hydro's portfolio of trading securities is measured at FVTPL and included in Short-term investments. Other equity investments in companies that are not consolidated or accounted for using the equity method are classified as either FVTPL or FVOCI on an individual investment basis. Hydro classifies investments in other entities with strategic or operational purposes, such as getting access to raw materials or in other ways cooperating with those entities, primarily as FVOCI, as Hydro considers this classification to be more relevant. Any dividend received from such investment is recognized in Finance income. On disposal of these investments, no gain or loss will be recognized in the income statement, however, any related accumulated value change will be reclassified from Other components of equity to Retained earnings.

Financial liabilities

Financial liabilities represent a contractual obligation by Hydro to deliver cash in the future and are classified as either short- or long-term. Financial liabilities include financial derivatives, commodity derivative contracts and other financial liabilities as well as financial instruments used for cash-flow hedges. Financial liabilities, with the exception of derivatives, are initially recognized at fair value, including transaction costs directly attributable to the transaction, and are subsequently measured at amortized cost. Financial liabilities are derecognized when the obligation is discharged through payment or when Hydro is legally released from the primary responsibility for the liability.

Derivative instruments

Derivative instruments are marked-to-market with the resulting gain or loss reflected in the income statement, except when the instruments meet the criteria for cash flow hedge accounting and are designated as hedge instruments.

Derivatives, including hedging instruments and embedded derivatives with expected cash flows within twelve months from the balance sheet date, or held solely for trading, are classified as short-term. Instruments with expected cash flows more than 12 months after the balance sheet date are classified as short and long-term based on the timing of the estimated cash flows.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Derivative contracts are presented gross on the balance sheet unless contract terms include the possibility to settle the contracts on a net basis and Hydro has the intention and ability to do so. The ability to settle net is conditional on simultaneous offsetting cash-flows.

Physical contracts for commodities that are readily convertible to cash are evaluated on a portfolio basis. Portfolios are defined based on business purpose, internal mandates and internal responsibilities. If a portfolio of contracts contains contracts of a similar nature that are settled net in cash, or the underlying products are not intended for own use, the entire portfolio of contracts is recognized at fair value and classified as derivatives. Physical commodity contracts that are entered into and continue to be held for the purpose of the receipt or delivery of the commodity in accordance with Hydro's expected purchase, sale or usage requirements (own use) are not accounted for at fair value. Commodity purchase contracts are generally considered to be the primary source for usage requirements. Hydro's own production of such commodities, for instance electricity, alumina and primary aluminium, is considered to be available for use or sale at Hydro's discretion unless relevant concessions contains restrictions for use.

Derivative commodity instruments are marked-to-market with their fair value recorded in the balance sheet as either assets or liabilities. Adjustments for changes in the fair value of the instruments are reflected in revenue and/or raw material cost. Forward currency contracts and currency options are recognized in the balance sheet and measured at fair value at each balance sheet date with the resulting gain or loss recorded in Finance expense. Interest income and expense relating to swaps are netted and recognized as income or expense over the life of the contract.

Hedge accounting is applied when specific hedge criteria are met, including documentation of the hedge relationship. The changes in fair value of the hedging instruments are offset in part or in full by the corresponding changes in the fair value or cash flows of the underlying hedged exposures. Gains and losses on cash flow hedging instruments are recognized in Other comprehensive income and deferred in the Hedging reserve in Other components of equity until the underlying transaction is recognized in the income statement. Deferred gains and losses relating to forecasted hedged transactions that are no longer expected to occur are immediately recognized in the income statement. Any amounts resulting from hedge ineffectiveness are recognized in the current period's income statement.

An embedded derivative is accounted for as a separate financial instrument, provided that the economic characteristics and risks of the embedded derivative are not closely related to those of the host contract, a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative, and the host contract is not accounted for at fair value. Embedded derivatives are classified both in the income statement and on the balance sheet based on the risks in the derivatives' underlying.

Significant judgment in accounting for financial instruments

Determining whether contracts qualify as financial instruments at fair value involves evaluation of markets, Hydro's use of those instruments and historic or planned use of physically delivered products under such contracts. Determining whether embedded derivatives are required to be separated and accounted for at fair value involves assessing price correlations and normal market pricing mechanisms for relevant products and marketplaces. Where no directly observable market prices exist, fair value is estimated through valuation models which rely on internal assumptions as well as observable market information such as forward curves, yield curves and interest rates. Market stability impacts the reliability of observed prices and other market information, and consequently, the extent of judgment necessary to estimate appropriate market prices for valuation purposes. Volatility also impacts the magnitude of changes in estimated fair value, which can be substantial, in particular on long-term contracts. Historically, financial and commodity markets have been highly volatile.

Financial instruments, and contracts accounted for as such, are in the balance sheet included in several line items and classified in categories for accounting treatment.

Introduction

The below specification relates to financial statement line items containing financial instruments. Information is classified and measured in accordance with IFRS 9.

Our business

	Amounts in NOK million	Derivatives at FVTPL ¹⁾	Derivatives identified as hedging instruments	Debt instruments at amortized cost	Financial instruments at FVTPL ²⁾	Equity instruments at FVOCI	Financial liabilities at amortized cost	Non-financial assets and liabilities ³⁾	Total
2021									
Assets - current									
Cash and cash equivalents									
Short-term investments									
Trade and other receivables									
Other current financial assets									
3,408									
Assets - non-current									
Investments accounted for using the equity method									
Other non-current assets									
490									
Liabilities - current									
Bank loans and other interest-bearing short-term debt									
Trade and other payables									
Other current financial liabilities									
3,885									
Liabilities - non-current									
Long-term debt									
Other non-current financial liabilities									
4,382									
2020									
Assets - current									
Cash and cash equivalents									
Short-term investments									
Trade and other receivables									
Other current financial assets									
200									
Assets - non-current									
Investments accounted for using the equity method									
Other non-current assets									
60									
Liabilities - current									
Bank loans and other interest-bearing short-term debt									
Trade and other payables									
Other current financial liabilities									
727									
Liabilities - non-current									
Long-term debt									
Other non-current financial liabilities									
3,293									

¹⁾ FVTPL is financial instruments at fair value through profit or loss. FVOCI is financial instruments at fair value through other comprehensive income.

²⁾ Financial Instruments at Fair Value Through Profit or Loss (FVTPL) are instruments required by IFRS 9 to be at FVTPL.

³⁾ Includes items that are excluded from the scope of IFRS 7, such as investments accounted for using the equity method, except loans to such entities.

[Introduction](#)

Financial assets, classified as current and non-current, represent the maximum exposure Hydro has towards credit risk as at the reporting date.

[Our business](#)

Collateral or margin calls are required for some financial liabilities, primarily related to derivative transactions. Such collaterals for financial instruments are made in the form of cash deposits, and reported as part of Short-term investments and Other non-current assets. As of December 31, 2021, short-term collateral was NOK 3.4 billion while long-term collateral was NOK 1.9 billion. Corresponding amounts as of December 31, 2020 were NOK 677 million and NOK 35 million, respectively.

[Governance](#)

Impairment of receivables are disclosed in [Note 6.2 Trade and other receivables](#). No other financial assets are currently impaired based on credit losses.

[Environment and social responsibility](#)

Gains and losses
Realized and unrealized gains and losses from financial instruments and contracts accounted for as financial instruments are included in several line items in the income statement. Below is a reconciliation of the effects from Hydro's financial instruments in the income statements:

[Financial statements](#)[Appendices](#)

Amounts in NOK million	Derivatives at FVTPL	Derivatives identified as hedging instruments	Debt instruments at amortized cost	Financial instruments at FVTPL	Equity instruments at FVOCI	Financial liabilities at amortized cost	Non-financial assets and liabilities	Total ¹⁾
2021								
Income statement line item								
Revenue	6,581	(41)	-	-	-	-	-	6,540
Raw material and energy expense	(2,819)	-	-	-	-	-	-	(2,819)
Financial income	-	-	-	(69)	-	-	-	(69)
Financial expense	(1,231)	-	-	-	-	-	-	(1,231)
Gain/loss in Other comprehensive income								
Recognized in Other comprehensive income (before tax)					115			
Removed from Other components of equity and recognized in the income statement					-			
2020								
Income statement line item								
Revenue	141	-	-	-	-	-	-	141
Raw material and energy expense	158	(209)	-	-	-	-	-	(51)
Financial income	-	-	-	(74)	(25)	-	-	(99)
Financial expense	379	-	-	-	-	-	-	379
Gain/loss in Other comprehensive income								
Recognized in Other comprehensive income (before tax)					156			
Removed from Other components of equity and recognized in the income statement					-			

¹⁾ Amounts indicates the total gains and losses to financial instruments for each specific income statement line.

Currency effects, with the exception of currency derivatives, are not included above. Negative amounts indicate a gain.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Sensitivity analysis

In accordance with IFRS, Hydro has chosen to provide information about market risk and potential exposure to hypothetical loss from its use of derivative financial instruments and other financial instruments and derivative commodity instruments through sensitivity analysis disclosures. The sensitivity analysis depicted in the tables below reflects the hypothetical gain/loss in fair values that would occur assuming a 10 percent increase in rates or prices and no changes in the portfolio of instruments held in Hydro's continuing operations as of December 31, 2021 and December 31, 2020. Effects shown below are largely also representative of reductions in rates or prices by 10 percent, but with the opposite sign convention. Only effects that would ultimately be accounted for in the income statement, or equity, as a result of a change in rates or prices, are included. All changes are before tax.

	Amounts in NOK million	Fair value as of December 31 ¹⁾	Gain (loss) from 10 percent increase in					
			Foreign currency exchange rates		Commodity prices			
		USD	EUR	Other	Aluminium	Other	Interest-rates	Other
2021								
	Derivative financial instruments ²⁾	(2,062)	(379)	(2,606)	98	-	-	27
	Other financial instruments ³⁾	8,352	137	(341)	(1)	-	-	8
	Derivative commodity instruments ⁴⁾	(2,307)	(140)	195	(1)	(2,385)	475	13
	Financial instruments at FVOCI ⁵⁾	562	(814)	-	1	-	-	100
2020								
	Derivative financial instruments ²⁾	(3,337)	(202)	(2,839)	107	-	-	51
	Other financial instruments ³⁾	(3,998)	(447)	(567)	(20)	-	-	1
	Derivative commodity instruments ⁴⁾	(423)	49	(4)	-	(844)	43	(1)
	Financial instruments at FVOCI ⁵⁾	1,040	149	-	1	-	(86)	90

¹⁾ The change in fair value due to price changes is calculated based on pricing formulas for certain derivatives, the Black-Scholes/Turnbull-Wakeman models for options and the net present value of cash flows for certain financial instruments or derivatives. Discount rates vary as appropriate for the individual instruments.

²⁾ Includes forward currency contracts and embedded currency derivatives.

³⁾ Includes cash and cash equivalents, investments in securities, bank loans and other interest-bearing short-term debt and long-term debt. Trade payables and trade receivables are also included.

⁴⁾ Includes all contracts with commodities as underlying, both financial and physical contracts, such as LME contracts and NASDAQ Nordic Power contracts, which are accounted for at fair value.

⁵⁾ Includes hedging derivatives.

The above sensitivity analysis reflects sensitivities for the instruments held at the balance sheet dates only. Related offsetting physical positions, contracts, and anticipated transactions are not reflected. The calculations do not take into consideration any adjustments for potential correlations between the risk exposure categories, such as the effect of a change in a foreign exchange rate on a commodity price.

The above discussion about Hydro's risk management policies and the estimated amounts included in the sensitivity analysis relates to the balance sheet position as of December 31. Outcomes at other dates could differ materially based on actual developments in the global markets and Hydro's positions. The methods used by Hydro to analyze risks discussed above should not be considered as projections of future events, gains or losses.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

The following is an overview of fair value measurements categorized on the basis of observability of significant measurement inputs. Certain items are valued on the basis of quoted prices in active markets for identical assets or liabilities (level 1 inputs), others are valued on the basis of inputs that are derived from observable prices (level 2 inputs), while certain positions are valued on the basis of judgmental assumptions that are to a limited degree or not at all based on observable market data (level 3 inputs). Bilateral contracts with reference to observable prices are considered to be level 2 inputs. The level in this fair value hierarchy within which measurements are categorized is determined on the basis of the lowest level input that is significant to the fair value measurement.

	Amounts in NOK million	2021	Level 1	Level 2	Level 3	2020	Level 1	Level 2	Level 3
Assets									
Commodity derivatives		3,845	163	3,375	307	229	60	155	14
Currency derivatives		53	-	9	44	31	-	31	-
Cash flow hedges		-	-	-	-	135	-	135	-
Financial assets at FVTPL		2,419	348	2,060	11	1,453	328	589	535
Financial assets at FVOCI		989	-	13	976	901	-	-	901
Total		7,307	512	5,457	1,338	2,750	388	911	1,450
Liabilities									
Commodity derivatives		(6,152)	(604)	(5,130)	(419)	(652)	(503)	(42)	(107)
Currency derivatives		(2,115)	-	(2,115)	-	(3,368)	-	(3,368)	-
Cash flow hedges		(431)	-	(431)	-	-	-	-	-
Total		(8,698)	(604)	(7,676)	(419)	(4,020)	(503)	(3,410)	(107)

The following is an overview in which changes in level 3 measurements are specified:

	Commodity derivatives		Currency derivatives					
Amounts in NOK million	Assets	Liabilities	Liabilities	Cash flow hedges	Financial instruments at FVTPL	Equity instruments at FVOCI		
December 31, 2019		169	(111)	-	(38)	535	830	
Total gains (losses)								
<i>in Income statement</i>		(3)	(30)	-	-	-	-	-
<i>in Other comprehensive income</i>		-	-	-	38	-	(156)	
Purchases		-	-	-	-	-	1	
Settlements		(171)	62	-	-	-	-	
Currency translation difference		18	(27)	-	-	-	227	
December 31, 2020		14	(107)	-	-	535	901	
Total gains (losses)								
<i>in Income statement</i>		333	(413)	-	-	-	-	-
<i>in Other comprehensive income</i>		-	-	-	-	-	(81)	
Purchases		-	-	45	-	-	182	
Settlements		(27)	115	-	-	(525)	-	
Currency translation difference		(12)	(14)	(1)	-	-	(26)	
December 31, 2021		307	(419)	44	-	11	976	
Total gains (losses) for the period		333	(413)	-	-	-	(81)	
Total gains (losses) for the period included in the income statement for assets held at the end of the reporting period		333	(413)	-	-	-	-	

Gains or losses relating to level 3 commodity derivatives appearing in the table above are included in the income statement in Raw material and energy expense. Changes in fair value for embedded derivatives are reported as gains or losses for the period. Changes in fair value for hedge instruments are reported in Other comprehensive income. Dividends received for equity instruments at fair value through other comprehensive income are included in Financial income.

Exposure to level 3 commodity derivatives is decreasing and the sensitivities relating to commodity derivatives are insignificant as of December 31, 2021.

Note 8.3 Derivative instruments and hedge accounting

Significant judgment for embedded derivatives

Some non-financial contracts contain pricing links that affect cash flows in a manner different than the underlying commodity or other product in the contract. For accounting purposes, these embedded derivatives are separated from the host contract and recognized at fair value for links not closely related to the product in the host contract. Which price links that are closely related requires judgment, assessing common pricing patterns and market development over time. Hydro has separated and recognized at fair value embedded derivatives related to currency and aluminium links from the underlying contracts, mainly in energy contracts.

Commodity derivatives

The following types of commodity derivatives, including embedded derivatives, were recorded at fair value on the balance sheet as of December 31, 2021 and December 31, 2020. Contracts that are designated as hedge instruments in cash flow hedges are not included. Hydro's risk management, including use of derivative instruments, is discussed in [Note 8.1 Financial and commercial risk management](#).

Fair values for derivative instruments in the table below includes traditional derivative instruments such as futures, forwards and swaps, physical contracts accounted for at fair value, as well as embedded derivatives.

Amounts in NOK million	2021	2020
Assets		
Electricity contracts	3,221	25
Aluminium futures, forwards and options	479	203
Other	146	-
Total	3,845	229
Liabilities		
Electricity contracts	(403)	(34)
Aluminium futures, forwards and options	(5,739)	(613)
Other	(10)	(5)
Total	(6,152)	(652)

Embedded derivatives are classified based on the underlying in the contract feature constituting a separable embedded derivative in the table above. Where there is more than one embedded derivative in the same host contract, those embedded derivatives are offset in settlement and thus presented net on the balance sheet.

Changes in the fair value of commodity derivatives are included in operating revenues or cost of goods sold based on classification of underlying risk for embedded derivatives and on the purpose of the instrument for freestanding derivatives. Currency derivatives, whether embedded derivatives or separate instruments, are classified as Finance expense.

Cash flow hedges

Hydro has to a limited extent used cash flow hedge accounting for its risk management positions. Gains and losses on the hedge derivatives are recognized in Other comprehensive income, and accumulated in the hedging reserve in equity and reclassified into operating revenues or cost when the corresponding forecasted sale or consumption is recognized. In 2020 and 2021, Hydro entered into hedge arrangements for currency in the Alunorte plant and the Albras plant, both in Brazil, to secure the exchange rate between Brazilian Real and US dollar for the period 2021 to 2024. As of 31 December 2021, an amount of USD 840 million is sold forward for 2022-2024 at an average rate of 5.90 Brazilian Real to US dollar. In 2012 Hydro entered into a hedge arrangement for parts of the power consumption in the Rheinwerk smelter in Hydro Rolling, Germany. The price differential between the German and the Nordic power market was secured through derivative contracts for 150 MW for the period 2013 to 2020, managed by Hydro Energy as part of an internal supply arrangement.

No ineffectiveness was recognized in the income statement in 2021 or 2020.

The table below gives aggregated numbers related to the cash flow hedges for 2021 and 2020.

Amounts in NOK million	2022	2021	2020
Expected to be reclassified to the income statement during the year	(176)	75	(38)
Reclassified to the income statement from Other components of equity ¹⁾	41	(38)	

¹⁾ Deviates from expected reclassifications due to change in market prices throughout the year. Negative amounts indicate a loss.

A liability of NOK 431 million and an asset of NOK 135 million were recognized as the fair value of cash flow hedging instruments for December 31, 2021 and 2020, respectively.

Hydro performs trading operations to reduce currency exposures on commodity positions. The effect of such operations is recognized as a part of Financial expense in the income statement.

For the after tax movement in Hydro's equity relating to cash-flow hedges for 2021 and 2020, see [Note 7.6 Shareholders' equity](#).

Fair Value of Derivative Instruments

The fair value of derivative financial instruments such as currency forwards and swaps are based on quoted market prices. The fair market value of aluminium and electricity futures/forwards and option contracts is based on quoted market prices obtained from the London Metals Exchange and NASDAQ Nordic Power/EEX (European Energy Exchange) respectively. The fair value of other commodity over-the-counter contracts and swaps is based on quoted market prices, estimates obtained from brokers and other appropriate valuation techniques. Where long-term physical delivery commodity contracts are recognized at fair value in accordance with IFRS 9, such fair market values are based on quoted forward prices in the market, and assumptions of forward prices and margins where market prices are not available. Hydro takes credit-spread into consideration when valuating positions when necessary.

For further information on fair values, see [Note 1.2 Measurement of fair value](#). See [Note 8.2 Financial instruments](#) for a specification of the classification of derivative positions according to a fair value hierarchy.

Section 9 – Related parties and remuneration

Note 9.1 Management remuneration

Pursuant to the changes in the Public Limited Liability Companies Act, i.e. addition of a new section 6-16 (b), and associated new regulations, Hydro will publish a separate management remuneration report containing detailed information on remuneration to Corporate Management Board (CMB) for the reporting year 2021. The remuneration report will be published on April 8, 2022, and will include detailed information on CMB's remuneration complementing the numbers presented below. This includes an overview of the operational, financial, environmental, social and governance targets that form basis for the short-term incentives.

CMB members' salaries and other benefits, number of LTI-shares allocated, as well as Hydro share ownership as of December 31, 2021 and 2020 are presented in the table below. Amounts presented for individuals appointed to, or stepping down from, a position in the Corporate Management Board from or to another position in Hydro, includes fixed compensation for the whole year. Unless otherwise stated, Hydro did not have any loans to or guarantees made on behalf of any of the corporate management board members in 2021 and 2020.

The remuneration paid or awarded to the CEO and other members of the CMB was aligned with Hydro's remuneration policy. The policy is available in its full at hydro.com.

Name	Base salary ^{1) 2)}	Maximum bonus potential ^{1) 2)}	Other benefits paid ^{1) 3)}	Compen-sation pension paid ^{1) 4)}	Bonus earned ^{1) 6)}	Long-term incentive (LTI) earned ^{1) 7)}	Pension benefits ^{1) 8)}	LTI-shares allocated ⁹⁾	Hydro share ownership ¹⁰⁾
2021									
Hilde Merete Aasheim	6,911	3,456	6,980	179	-	3,145	815	1,182	- 120,594
Pål Kildemo	3,400	1,360	3,307	276	416	1,272	401	194	- 13,708
John Thuestad ¹¹⁾	7,386	2,419	8,563	155	595	2,237	682	360	- 58,691
Eivind Kallevik	3,796	1,518	3,847	279	52	1,382	448	1,981	- 73,497
Einar Glomnes ¹²⁾	3,887	591	3,611	146	215	490	-	(732)	- 3,462
Arvid Moss ¹³⁾	3,365	1,346	3,736	197	-	1,163	397	(126)	- 173,691
Anne-Lene Midseim	2,693	1,077	2,732	282	118	980	318	1,281	- 34,383
Hilde Vestheim Nordh	2,472	989	2,496	279	325	863	291	407	- 26,500
Paul Warton ¹⁴⁾	7,513	4,240	6,891	1,742	-	3,723	642	434	- -
Helena Nonka ¹⁵⁾	2,810	1,079	2,341	1,297	-	982	256	229	- -
Inger Sethov ¹⁶⁾	2,397	320	1,193	87	52	-	-	(447)	- 36,125
2020									
Hilde Merete Aasheim	6,710	3,355	6,696	211	-	-	-	2,236	7,363 119,946
Pål Kildemo	2,900	1,160	2,884	262	405	-	-	175	1,436 13,060
John Thuestad ¹¹⁾	6,810	2,231	8,253	517	564	-	-	306	7,419 58,043
Eivind Kallevik	3,685	1,474	3,750	264	51	-	-	1,622	4,783 72,849
Einar Glomnes ¹²⁾	4,011	1,418	4,125	406	510	868	-	667	2,814 17,692
Egil Hogna ¹⁷⁾	5,533	2,029	5,671	245	1,044	-	-	270	7,306 63,470
Arvid Moss ¹³⁾	3,267	1,307	4,127	193	-	-	-	(1,008)	4,313 173,043
Anne-Lene Midseim	2,614	1,046	2,652	268	115	-	-	984	3,451 33,735
Inger Sethov ¹⁶⁾	2,397	959	2,445	261	153	-	-	949	3,165 38,125
Hilde Vestheim Nordh	2,400	960	2,392	457	317	-	-	282	1,188 25,204

- ¹⁾ Amounts in NOK thousand. Amounts paid by subsidiaries outside Norway have been translated to NOK at average rates for each year.
- ²⁾ Annual base salary per December 31, or per the date of stepping down from the Corporate Management Board. Maximum bonus potential is for the year presented, and for the period as corporate management board member.
- ³⁾ Salary is the amount paid to the individual during the year presented, and includes vacation pay with the exception of vacation pay on bonus earned in 2019 and payed in 2020 (see footnote 6 for more information).
- ⁴⁾ Other benefits is the total of all other cash and non-cash related benefits received by the individual during the year presented and includes such items as the taxable portion of insurance premiums, car and mileage allowances and electronic communication items.
- ⁵⁾ For most individuals compensation pension is the amount paid to compensate for future pension shortfall estimated at the time of transition from Hydro's defined benefit pension plans to the defined contribution plan in line with an arrangement applicable to all affected employees in Norway. In addition, compensation pension is for Pål Kildemo and Hilde Vestheim Nordh the amount paid to compensate for the loss of 12G earnings (G is the base amount in the national insurance scheme) that were suspended while they are members of the Corporate Management Board. For John Thuestad, compensation pension is the amount paid to compensate for lower pension benefits in Hydro compared to those of former employer Sapa AS (now Hydro Extruded Solutions AS).
- ⁶⁾ Bonus is the amount earned in the year presented based on performance achieved as corporate management board member, excluding vacation pay. Vacation pay on bonus earned will be reported as salary paid in the following year of the bonus pay-out. For bonus earned in 2021, vacation pay on bonus earned will be reported as salary paid in 2023. Hydro's practice has so far been to reduce the bonus payment with calculated holiday pay and to include the net amount (bonus minus holiday pay) in the holiday pay basis for the following year. As of the earning year 2021, this will be changed in line with the practice for bonus payments to other employees with a Norwegian employment agreement in that calculated holiday pay will no longer be deducted from the bonus amount before payment.
- ⁷⁾ The LTI plan benefit reflects gross (pre-tax) amounts earned in the year presented, and results in LTI shares allocated in the following year. For corporate management board members on net salary employment contracts, LTI plan benefits have been converted to estimated gross (pre-tax) amounts.
- ⁸⁾ Pension benefits include the estimated change in the value of defined pension benefits, and reflects both the effect of earning an additional year's pension benefit and the adjustment to present value of previously earned pension rights (interest element). It is calculated as the increase in the Defined Benefit Obligations (DBO) calculated with stable assumptions. Pension benefits also include contributions to defined contribution plans.
- ⁹⁾ LTI-shares allocated are shares allocated in the reporting year based on LTI earned in the previous year (2020). In 2020, the CEO and CMB waived the right to LTI and no LTI shares were allocated in 2021.
- ¹⁰⁾ Hydro share ownership is the number of shares held directly by the corporate management board member and any shares held by close family members and controlled entities. Hydro share ownership is as of December 31, or per the date of stepping down from the Corporate Management Board.
- ¹¹⁾ Thuestad has a retention agreement that vests progressively over a 60-month period. Thuestad earned an estimated NOK 1,476 thousand and NOK 1,427 thousand under this agreement in 2021 and 2020, respectively. These amounts are included in column "Salary paid" in the table above.
- ¹²⁾ On November 20, 2020, Einar Glomnes entered into a retention agreement related to the restructuring of the Hydro Rolling business area, and that vests on the date falling 3 months after the closure of the restructuring. Glomnes earned NOK 1,570 thousand and NOK 114 thousand under this agreement in 2021 and 2020, respectively. This amount is included in column "Salary paid" in the table above. Glomnes left Hydro as of 31 May.
- ¹³⁾ From November 1, 2019 to March 31, 2021, Arvid Moss was appointed interim EVP and Head of Corporate Development, for which he received an extra remuneration of NOK 225 thousand and NOK 900 thousand in 2021 and 2020, respectively. These amounts are included in column "Salary paid" in the table above. Moss remains in his position as EVP and Head of Hydro Energy business area. Moss has not used his right to retire from age 62, contributing to a net negative change in pension benefits for 2021 and 2020.
- ¹⁴⁾ Paul Warton became a member of the Corporate Management Board as of February 1, 2021. He received a sign on bonus of 1 MNOK. The sign-on bonus is included in column "Other benefits paid" in the table. Maximum bonus potential, bonus earned and long-term incentive (LTI) earned is prorated for the period as corporate management board member.
- ¹⁵⁾ Helena Nonka became a member of the Corporate management Board as of April 1, 2021. She received a sign on bonus of 1 MNOK. The sign-on bonus is included in column "Other benefits paid" in the table. Maximum bonus potential, bonus earned and long-term incentive (LTI) earned is prorated for the period as corporate management board member.
- ¹⁶⁾ Inger Sethov left Hydro as of 30 april. Sethov was required to make payment to Hydro for non-vested LTI shares at termination of employment amounting to NOK 300 thousand. The amount is not included in the table.
- ¹⁷⁾ Egil Hogna left Hydro as of November 30, 2020. Hogna was required to make payment to Hydro for non-vested LTI shares at termination of employment amounting to NOK 618 thousand. This amount is not included in the table above.

In the period December 1, 2020 until January 31, 2021, Head of Precision Tubing Hydro Extrusions Erik Fossum was also assigned as acting Executive Vice President Hydro Extrusions for which he received an additional allowance of NOK 112 thousand per month.

Note 9.2 Employee remuneration

Accounting policies for employee remuneration

Share-based compensation

Hydro accounts for share-based compensation in accordance with IFRS 2 Share-based Payment. Share-based compensation expense is measured at fair value over the service period and includes social security taxes that will be paid by Hydro at the settlement date. All changes in fair value are recognized in the income statement.

Employee benefits

Payments to employees, such as wages, salaries, social security contributions, paid annual leave and bonus agreements are accrued in the period in which the associated services are rendered by the employee.

Employee share purchase plan

Hydro has established a share purchase plan for employees in Norway. The plan payout is based on whether the share price (adjusted for dividend paid) increases with at least 12 percent or not during the performance period. Employees are eligible to receive an offer to purchase shares under this plan if they were 1) employed by Norsk Hydro ASA or a more than 90 percent owned Norwegian subsidiary, and 2) employed as of December 31 through the final acceptance date of the share purchase offer. Employees are invited to purchase shares with a rebate of 50 percent for a value of NOK 15,000 or NOK 30,000, depending on shareholder return. The share purchase is financed through a non-interest bearing loan from the company with a repayment period of 12 months.

Compensation expense related to the 2020 performance measurement period was accrued and recognized over the service period of December 31, 2020 through March 31, 2021, the final acceptance date of the offer. Details related to the employee share purchase plan are provided in the table below.

Performance measurement period

	2021	2020	2019
Total shareholder return performance target achieved	≥12%	≥12%	<12%
Employee rebate offered, NOK	15,000	15,000	6,250

Share purchase plan compensation

	2021	2020
Award share price, NOK	54.70	21.10
Number of shares issued, per employee	648	422
Total number of shares issued to employees	2,350,944	1,432,690
Compensation expense related to the award, NOK thousand	74,208	9,012

Employee benefit expense

The average number of employees in Hydro's continuing operations for 2021 and 2020 was 30,982 and 31,007, respectively. As of year-end 2021 and 2020, Hydro's continuing operations employed 31,264 and 30,412 people, respectively. The average number of employees in Hydro's operations in 2020 was 34,896, with 34,240 people employed as of year-end 2020. Employees in joint operations are not included. The specification of employee benefit expenses, including employee benefits in joint operations, is given in the table below.

Amounts in NOK million	2021	2020
Salary	15,852	14,853
Social security costs	2,376	2,271
Other benefits	1,094	1,055
Pension expense (note 9.4)	965	944
Total	20,287	19,123

Note 9.3 Board of Directors and Corporate Assembly

Board of Directors' remuneration and share ownership

Total board fees and individual board member fees for 2021 and 2020, and board member share ownership as of December 31, 2021 and 2020, are presented in the tables below.

Amounts in NOK thousand	2021	2020
Fees and other remuneration - normal board activities	4,297	4,079
Fees - audit committee	635	591
Fees - compensation committee	310	302
Total fees for board services provided to Hydro during the year	5,242	4,971

Board member / observer	Board fees ¹⁾		Number of shares ²⁾	
	2021	2020	2021	2020
Dag Mejdell ³⁾	831	807	45,000	45,000
Irene Rummelhoff ⁴⁾	519	504	5,000	5,000
Marianne Wiinholt ⁵⁾	708	560	-	-
Thomas Schulz	433	385	-	-
Liselott Kilaas ⁶⁾	513	498	-	-
Peter Kukielski	373	385	3,000	-
Rune Bjerke ⁷⁾	513	267	20,500	15,000
Ellen Merete Olstad ^{8) 9)}	513	136	5,551	4,903
Arve Baade ⁹⁾	373	362	5,778	5,130
Sten Roar Martinsen ^{9) 10)}	466	453	7,517	6,869
Finn Jebsen ¹¹⁾	-	238	-	53,406
Roelof Ijsbrand Baan ¹²⁾	-	30	-	-
Svein Kåre Sund ^{9) 13)}	-	347	-	6,434
Tor Egil Skulstad ^{9) 14)}	-	-	-	1,226
Total	5,242	4,971	92,346	142,968

¹⁾ Amounts in NOK thousand.

²⁾ Number of shares owned as of December 31, 2021 and 2020 by board members; otherwise it is the number of shares owned as of the date the individual stepped down from the Board of Directors. Shareholdings disclosed include shares held by close members of family and controlled entities, in addition to shares held directly by the board member.

³⁾ Chairperson of the board and chairperson of the board compensation committee.

⁴⁾ Deputy chairperson of the board and member of the board compensation committee.

⁵⁾ Member of the board audit committee until June 17, 2020, and chairperson of the board audit committee as of June 17, 2020.

⁶⁾ Member of the board audit committee.

⁷⁾ Member of the board and the board audit committee as of June 17, 2020.

⁸⁾ Member of the board as of September 10, 2020 and member of the board audit committee as of October 22, 2020.

⁹⁾ Employee representative on the board elected by the employees in accordance with Norwegian Company Laws. As such, these individuals are also paid regular salary, remuneration in kind and pension benefits that are not included in the table above.

¹⁰⁾ Member of the board compensation committee.

¹¹⁾ Member of the board and chairperson of the board audit committee until May 20, 2020.

¹²⁾ Member of the board until February 5, 2020.

¹³⁾ Member of the board and the board audit committee until September 10, 2020.

¹⁴⁾ Observer on the board until April 30, 2020.

The remuneration to the Board of Directors consists of the payment of fees and travel compensation. Travel compensation is paid to members living outside Norway who attend meetings in person, with an amount of NOK 30,000 (2020: NOK 23,000) per meeting. Board members do not have any incentive or share-based compensation. Hydro has not provided any loans to, or made any guarantees on behalf of, any of the board members.

Fees are based on the position of the board members and board committee assignments. Annual fees for 2021 for the chairperson of the board, deputy chairperson and directors are NOK 707,000 (2020: NOK 686,000), NOK 426,000 (2020: NOK 413,000) and NOK 373,000 (2020: NOK 362,000), respectively. The chairperson of the audit committee and the chairperson of the compensation committee receive an additional NOK 215,000 (2020: NOK 209,000) and NOK 124,000 (2020: NOK 120,500) annually in fees, respectively, and audit and compensation committee members receive NOK 140,000 (2020: NOK 136,000) and NOK 93,000 (2020: NOK 90,500) annually, respectively, for their participation on these committees. No fees are paid to the board observer.

Corporate Assembly

Corporate Assembly members owned 48,841 shares as of December 31, 2021. Hydro has not provided any loans to members of the Corporate Assembly as of December 31, 2021.

Note 9.4 Employee retirement plans

Accounting policies for post-employment benefits

Post-employment benefits are recognized in accordance with IAS 19 Employee Benefits. The cost of providing pension benefits under a defined benefit plan is determined separately for each plan using the projected unit credit method. Past service costs are recognized immediately in the income statement. The interest component of the periodic cost is included in Finance expense. Remeasurement gains and losses are recognized in Other comprehensive income.

Contributions to defined contribution plans are recognized in the income statement in the period in which they accrue. Multiemployer defined benefit plans where available information is insufficient to use defined benefit accounting are accounted for as if the plan were a defined contribution plan.

Significant judgment in accounting for post-employment benefits

Measurement of pension expense and obligations under defined benefit plans requires numerous assumptions and estimates that can have a significant impact on the recognized pension cost and obligation, such as discount rates, mortality, and future pension increases and salary levels.

Employee retirement plans in Hydro

Hydro provides post-employment benefits covering a substantial portion of employees. Plans and benefit levels vary between companies and countries. In recent years, there has been a shift from traditional final salary defined benefit plans to defined contribution and contribution-oriented plans. Many defined benefit plans have been closed for new entrants, and in some defined benefit plans, large groups of employees have converted to defined contribution arrangements. Still, a declining number of employees continues to earn benefits under defined benefit plans.

Pension expense

Amounts in NOK million	2021				2020			
	Norway	Germany	Other	Total	Norway	Germany	Other	Total
Defined benefit plans	105	18	48	172	108	21	63	193
Defined contribution plans	198	-	318	516	175	-	329	504
Multiemployer plans	46	-	-	46	46	-	2	48
Termination benefits and other	121	12	22	155	50	14	55	119
Social security cost	54	-	22	76	47	-	35	82
Pension expense	525	30	410	965	426	35	484	944
Interest expense (income)	(23)	16	14	7	(29)	28	20	19
Remeasurement (gain) loss in other comprehensive income	(2,462)	(16)	(333)	(2,811)	71	747	198	1,015

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Recognized defined benefit asset and liability

	2021				2020				
	Amounts in NOK million	Norway	Germany	Other	Total	Norway	Germany	Other	Total
Defined benefit obligation									
major plans	(12,696)	(2,594)	(5,516)	(20,806)	(13,348)	(11,848)	(5,869)	(31,065)	
Plan assets	16,051	-	5,353	21,404	14,927	-	5,420	20,347	
Reimbursement rights	287	-	-	287	306	-	-	306	
Liability other plans	(88)	(186)	(618)	(893)	(56)	(143)	(748)	(947)	
Social security cost	(648)	-	(71)	(719)	(655)	-	(90)	(745)	
Net defined benefit asset (liability)	2,906	(2,780)	(853)	(727)	1,174	(11,991)	(1,287)	(12,104)	
Recognized prepaid pension	8,152	34	708	8,894	6,474	47	543	7,064	
Recognized pension liability	(5,246)	(2,814)	(1,561)	(9,621)	(5,300)	(12,038)	(1,830)	(19,167)	
Net amount recognized	2,906	(2,780)	(853)	(727)	1,174	(11,991)	(1,287)	(12,104)	

Other plans include some minor plans in various entities and countries. These plans may be funded or unfunded. None of these plans are considered material, neither individually nor combined.

Change in defined benefit obligation (DBO)

	2021				2020				
	Amounts in NOK million	Norway	Germany	Other	Total	Norway	Germany	Other	Total
Opening Balance	(13,348)	(11,848)	(5,869)	(31,065)	(12,689)	(10,401)	(5,176)	(28,265)	
Current service cost	(98)	(61)	(32)	(192)	(112)	(259)	(36)	(407)	
Past service cost and curtailment gain (loss)	-	-	18	18	-	96	(6)	90	
Interest expense	(217)	(25)	(80)	(322)	(285)	(127)	(111)	(523)	
Actuarial gain (loss) demographic assumptions	-	-	9	9	-	-	(13)	(13)	
Actuarial gain (loss) economic assumptions	249	91	246	586	(971)	(954)	(718)	(2,643)	
Experience gain (loss)	52	(19)	24	57	123	208	55	385	
Benefit payments	651	172	210	1,033	635	326	233	1,193	
Termination benefits	(77)	-	-	(77)	(48)	-	-	(48)	
Assets held for sale	92	8,669	-	8,761	-	-	-	-	
Foreign currency translation	-	426	(42)	385	-	(737)	(97)	(833)	
Closing Balance	(12,696)	(2,594)	(5,516)	(20,806)	(13,348)	(11,848)	(5,869)	(31,065)	

Change in pension plan assets

	2021				2020				
	Amounts in NOK million	Norway	Germany	Other	Total	Norway	Germany	Other	Total
Opening Balance	14,927	-	5,420	20,347	14,161	-	4,904	19,066	
Interest income	247	-	80	327	322	-	115	437	
Return on plan assets above (below) interest income	1,449	-	(102)	1,347	809	-	559	1,368	
Company contributions	17	-	39	56	70	-	3	73	
Benefit payments	(432)	-	(185)	(617)	(435)	-	(198)	(633)	
Assets held for sale	(157)	-	-	(157)	-	-	-	-	
Foreign currency translation	-	-	101	101	-	-	36	36	
Closing Balance	16,051	-	5,353	21,404	14,927	-	5,420	20,347	

Analysis of the defined benefit obligation (DBO)

	2021				2020				
	Amounts in NOK million	Norway	Germany	Other	Total	Norway	Germany	Other	Total
Active members	(2,523)	(435)	(619)	(3,576)	(3,131)	(5,569)	(776)	(9,476)	
Deferred members	(923)	(330)	(2,182)	(3,435)	(949)	(1,564)	(2,325)	(4,838)	
Pensioners	(9,251)	(1,829)	(2,715)	(13,795)	(9,268)	(4,714)	(2,768)	(16,751)	
Defined benefit obligation	(12,696)	(2,594)	(5,516)	(20,806)	(13,348)	(11,848)	(5,869)	(31,065)	
Weighted average duration (years)	12.3	13.1			12.8	20.0			

Contributions to pension plans, benefit payments from unfunded pension plans, and social security tax imposed on such contributions and payments amounted to a cash outflow of about NOK 1,150 million for 2021 and about NOK 1,200 million for 2020. Hydro's cash impact is expected to be at the same level in the coming year.

Hydro's main pension plans are offered in Norway and Germany. The plans are described below:

Norway

Hydro has closed the main defined benefit plans for new members, and the majority of employees are now covered by defined contribution plans. The defined benefit plans are both funded and unfunded. The main funded plan is managed by Norsk Hydros Pensjonskasse, a separate, regulated legal entity. Hydro's pension plans complement the public pension schemes in Norway.

Hydro participates in a tariff-based pension plan that entitles the majority of its Norwegian employees life-long supplementary benefits. The benefits are financed through a pooled arrangement by private sector employers (avtalefestet pensjon, AFP) where also the Norwegian state contributes. The plan is a defined benefit plan with limited funding and where plan assets are not segregated. The information required to calculate the share of the plan and account for the plan as a defined benefit plan is not available from the plan administrator. Hydro therefore accounts for the plan as if it were a defined contribution plan. The employer contributions are included in Multiemployer plans.

Significant actuarial assumptions for the main Norwegian defined benefit plans include:

Assumptions	Benefit obligation	Benefit expense	Benefit obligation	Benefit expense
	2021	2021	2020	2020
Discount rate	1.9%	1.7%	1.7%	2.3%
Expected salary increase	2.5%	2.0%	2.0%	2.0%
Expected pension increase	1.25%	1.25%	1.25%	1.25%
Mortality basis	K2013	K2013	K2013	K2013

The discount rate is based on the yield on covered bonds (debt securities backed by cash flows from mortgages) issued in Norway. The market for covered bonds has developed in size and liquidity, and we deem this market to be sufficiently deep to serve as reference for the discount rate for our post-employment benefit plans in Norway.

The sensitivities shown in the table below have been calculated for the main Norwegian plans illustrating the effects of changing one assumption while keeping the other assumptions unchanged. Possible correlation between assumptions is not reflected in the calculations.

Sensitivities decrease (increase) benefit obligation year end

Amounts in NOK million, except percent	2021	2021
Discount rate increase 0.5% point	5.8%	740
Salary increase 0.5% point	(0.5%)	(70)
Pension increase 0.5% point	(6.0%)	(764)
One year longer life all members	(4.6%)	(590)

The plan assets in the funded plans provided through Norsk Hydros Pensjonskasse were invested as follows at the end of 2021 and 2020:

Amounts in NOK million, except percent	2021	2021	2020	2020
Cash and cash equivalents	3.3%	526	4.8%	700
Equity instruments Norway	21.5%	3,406	20.8%	3,057
Equity instruments other countries	23.5%	3,728	22.3%	3,282
Debt instruments	25.3%	4,005	27.6%	4,051
Investment funds	10.5%	1,657	8.2%	1,198
Real estate	15.9%	2,509	16.4%	2,410
Total	100.0%	15,832	100.0%	14,698

Real estate consists of office buildings in the Oslo area. A share of the buildings are leased and occupied by Hydro. Investment funds are primarily private equity funds investing in unlisted companies across various industries in Europe, the US and Asia, and infrastructure funds investing in the UK, continental Europe and the US. Equity instruments are held through liquid funds invested in listed companies in Norway and globally. Debt instruments are mainly bond issues with maturities up to 10 years and investment grade rating.

Germany

In Germany, the majority of plan members are covered by defined benefit plans that offer benefits based on final salary level and the number of years in service. The main plans are unfunded. Hydro's main plans are closed for new entrants, and all new employees are now offered benefits under defined contribution-oriented plans. These plans are unfunded and treated as defined benefit plans for financial reporting purposes. Following Hydro's sale of its Rolling business in 2021, the impact of these benefit plans was reduced significantly.

Significant actuarial assumptions for the main German plans include:

	Benefit obligation	Benefit expense	Benefit obligation	Benefit expense
	2021	2021	2020	2020
Weighted-average assumptions				
Discount rate	1.1%	0.5%	0.6%	0.9%
Expected salary increase	2.5%	2.3%	2.5%	2.3%
Expected pension increase	1.5%	1.5%	1.5%	1.5%
Mortality basis	RT2018G	RT2018G	RT2018G	RT2018G

The sensitivities shown in the table below have been calculated for the main German plans illustrating the effects of changing one assumption while keeping the other assumptions unchanged. Possible correlation between assumptions is not reflected in the calculations.

Sensitivities decrease (increase) benefit obligation year end

Amounts in NOK million, except percent	2021	2021
Discount rate increase 0.5% point	6.1%	158
Salary increase 0.5% point	(0.7%)	(18)
Pension increase 0.5% point	(5.7%)	(149)
One year longer life all members	(8.2%)	(213)

Other

Other includes Hydro's post-employment benefits outside Norway and Germany. Most employees affected are covered by defined contribution plans. Defined benefit plans relate largely to the UK and the US, where the majority of the benefit obligation is financed and administered through independent pension trusts.

Note 9.5 Other related party information

As of December 31, 2021, The Norwegian state had ownership interests of 34.6 percent of total shares outstanding (2020: 34.6 percent) in Hydro through the Ministry of Trade, Industry and Fisheries. In addition, Folketrygfondet, which manages the Government Pension Fund – Norway held 7.0 percent (2020: 7.8 percent). There are no preferential voting rights associated with the shares held by the Norwegian State. Hydro has concluded that the Norwegian state's shareholding represents a significant interest in Hydro, and that the State thus is a related party.

The Norwegian state has ownership interests in a substantial number of companies. The ownership interests in 70 companies are managed by the ministries and covered by public information from the Ministry of Trade, Industry and Fisheries . We have not assessed which of these companies that are controlled by the State. Hydro has business transactions with a number of these companies, including purchase of power from Statkraft and bank services from DNB. Generally, transactions are agreed independently of the possible control exercised by the State.

A significant share of Hydro's defined benefit post-employment plans is managed by the independent pension trust, Norsk Hydros Pensjonskasse. Employees managing and operating the pension trust are employees of Norsk Hydro ASA. Their salaries and other benefits are reimbursed by the pension trust on a monthly basis, in total NOK 10 million for 2021 and 2020. Further, the pension trust is located in Hydro's head office. Office costs, including heating and administrative services, are charged with a total of NOK 1 million for 2021 and 2020.

The pension trust owns some of the office space rented by Hydro. The current rental arrangement was entered into in 2015 representing a partial continuation of a rental agreement from 2006, and priced based on market price benchmarks at the time of the agreement in 2006. Hydro has paid a rental of NOK 70 million and NOK 67 million for 2021 and 2020, respectively. The current term of the rental contract expires in February 2027. In addition, compensation related to cancellation of a previous contract was paid with NOK 87 million for 2020. The compensation arrangement expired in February 2021. Hydro also sold electricity to the pension trust for its operational needs at the same office site for a total amount of NOK 8 in 2021 and NOK 1 million 2020. As of the end of 2021, Hydro's outstanding payables to Norsk Hydros Pensjonskasse was NOK 4 million, receivables amounted to NOK 3 million, all settled during January 2022.

The members of Hydro's Corporate Management Board during 2021 and 2020 are stated in [Note 9.1 Management remuneration](#), and the members of Hydro's board of directors during 2021 and 2020 are stated in [Note 9.3 Board of Directors and Corporate Assembly](#). Their remuneration and share ownership is outlined in these notes. Some of the board members or their close members of family serve as board members or executive directors in other companies. In addition, some members of Hydro's corporate management board or their close members of family serve as board members in other companies. Hydro has transactions with some of those companies; however, have not identified any transactions where the relationship is known to have influenced the transaction. Some close family members of members of Hydro's management are employed in non-executive positions in Hydro.

Hydro's significant joint arrangements and associates; and transactions with those entities are described in [Note 3.1 Investments in joint arrangements and associates](#). Hydro's relationship with partners in joint arrangements are generally limited to a combined effort within a limited area. Hydro considers the joint venture partners as competitors in other business transactions, and do not see these relationships as related party relationships.

Transactions with related parties are at arm's length principles.

¹⁾ Shareholding is based on information from the Norwegian Central Securities Depository (VPS) as of December 31, 2021 and 2020. Due to lending of shares, an investor's holdings registered in its VPS account may vary.

²⁾ According to information on the Government web site www.regjeringen.no, state ownership.

Section 10 – Other information

Note 10.1 Income taxes

Accounting policies for income taxes, current and deferred

Taxes payable is based on taxable profit for the year, which excludes items of income or expense that are taxable or deductible in other years. Taxable profit also excludes items that are never taxable or deductible. Hydro's liability for current tax is calculated using tax rates that have been enacted or substantively enacted as of the balance sheet date.

Deferred income tax expense is calculated using the liability method in accordance with IAS 12 Income Taxes. Deferred tax assets and liabilities are classified as non-current in the balance sheet and are measured based on the difference between the carrying value of assets and liabilities for financial reporting and their tax basis when such differences are considered temporary in nature. For items recognized as an asset and a liability at inception, such as an asset retirement obligation or a lease, temporary differences related to the asset and liability are considered in combination, and deferred tax assets and liabilities are recognized on changes to the temporary differences through the life of the items. Temporary differences related to intercompany profits are deferred using the buyer's tax rate. Deferred tax assets are reviewed for recoverability every balance sheet date, and the amount probable of recovery is recognized.

Deferred income tax expense represents the change in deferred tax asset and liability balances during the year, except for the deferred tax related to items recognized in Other comprehensive income or resulting from a business combination or disposal. Changes resulting from amendments and revisions in tax laws and tax rates are recognized when the new tax laws or rates become effective or are substantively enacted. Uncertain tax positions are recognized in the financial statements based on management's expectations.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities, when they relate to income taxes levied by the same taxation authority, and when the Group intends to settle its current tax assets and liabilities on a net basis.

Deferred taxes are not provided on undistributed earnings of subsidiaries when the timing of the reversal of this temporary difference is controlled by Hydro and is not expected to happen in the foreseeable future. This is applicable for the majority of Hydro's subsidiaries.

Significant judgment in accounting for income taxes

Hydro is involved in a significant number of tax cases related to various types of taxes. Hydro's widespread business operations expose us to several tax regimes and their interaction. We see that tax authorities challenge transfer prices to an increasing degree. Although Hydro currently has no significant transfer price disputes with tax authorities, the long value chain with a large number of internal transactions and business operations covering multiple tax jurisdictions expose us to such disputes, both related to prior and future transactions.

Valuation of deferred tax assets is dependent on management's assessment of future recoverability of the deferred benefit. Expected recoverability may result from expected taxable income in the future, planned transactions or planned tax optimizing measures, all of which may be uncertain. Economic conditions may change and lead to a different conclusion regarding recoverability. Tax authorities in different jurisdictions may challenge Hydro's calculation of taxes payable from prior periods. Such processes may lead to changes to prior periods' taxable income, resulting in changes to income tax expense in the period of change, as well as interest and fines.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Amounts in NOK million	2021	2020
Income (loss) before tax		
Norway	4,389	4,746
Other countries	14,008	58
Total	18,397	4,804
Current taxes		
Norway	1,990	709
Other countries	2,574	1,310
Current income tax expense	4,565	2,019
Deferred taxes		
Norway	(408)	(113)
Other countries	311	(988)
Deferred tax expense (benefit)	(97)	(1,101)
Total income tax expense (benefit)	4,467	918

Components of deferred taxes	2021	2020
Amounts in NOK million		
Origination and reversal of temporary differences	108	(955)
Change in deferred tax asset from tax loss carryforwards	478	(388)
Effect of tax rate changes	32	(31)
Net change in unrecognized deferred tax assets	(477)	238
Tax (expense) benefit allocated to Other comprehensive income	(238)	34
Deferred tax expense (benefit)	(97)	(1,101)

Reconciliation of tax expense to Norwegian nominal statutory tax rate

Amounts in NOK million	2021	2020
Expected income taxes at statutory tax rate ¹⁾	4,047	1,057
Hydro-electric power surtax ²⁾	649	713
Equity accounted investments	(309)	(49)
Foreign tax rate differences	557	22
Tax free income ³⁾	(29)	(1,185)
Deferred tax asset not recognized and expired tax loss carryforwards	(431)	16
Other tax benefits and deductions with no tax benefits, net ⁴⁾	(17)	344
Income tax expense (benefit)	4,467	918

¹⁾ Norwegian nominal statutory tax rate is 22 percent.²⁾ A surtax of a certain percentage is applied to taxable income, with certain adjustments, for Norwegian hydro-electric power plants. Due to a reorganization of the surtax system in Norway, the surtax rate has technically increased from 37 percent in 2020 to 47.4 percent in 2021. However, as the surtax base has decreased accordingly, this has no effect on the effective marginal tax rate for the hydro-electric power plants. The surtax comes in addition to the normal corporate taxation.³⁾ Tax free income in 2020 includes tax effect on gain related to establishment of Lyse Kraft DA, amounting to NOK 1,168 million.⁴⁾ The tax effect of impairment of goodwill not deductible for tax purposes, amounts to NOK 0 million in 2021 and NOK 239 million in 2020. The amounts are included in Other tax benefits and deductions with no tax benefits, net.**Tax effects of temporary differences and tax loss carryforwards giving rise to deferred tax assets and liabilities**

Amounts in NOK million	Assets 2021	Liabilities 2021	Assets 2020	Liabilities 2020
Inventory valuation	495	(252)	389	(352)
Accrued expenses	1,782	(215)	1,649	(343)
Property, plant and equipment	7,136	(11,457)	10,237	(15,044)
Intangible assets	1,310	(2,067)	1,494	(2,184)
Pensions	1,840	(1,887)	3,757	(1,521)
Derivatives	1,981	(838)	843	(67)
Other	794	(1,680)	682	(1,528)
Tax loss carryforwards	4,711		5,439	
Subtotal	20,049	(18,397)	24,490	(21,040)
Of which not recognized as tax asset	(2,729)		(4,301)	
Gross deferred tax assets (liabilities)	17,320	(18,397)	20,188	(21,040)
Net deferred tax assets (liabilities)	(1,077)		(1,851)	

Reconciliation to balance sheets

	2021	2020
Deferred tax assets	2,588	2,207
Deferred tax liabilities	3,665	3,059
Net deferred tax assets (liabilities)	(1,077)	(851)

Recognition of net deferred tax asset is based on expected taxable income in the future.

At the end of 2021, Hydro had tax loss carryforwards of NOK 16,141 million, mainly in Brazil, Spain, Australia and Italy. Of the total, NOK 13,846 million is without expiration. The majority of the tax loss carryforwards with an expiry date expire after 2026. Tax assets are recognized for about 50 percent of the tax losses.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Note 10.2 Research and development

Accounting principles for research and development

Research expenditures are expensed as incurred. Development costs are capitalized as intangible assets at cost in accordance with IAS 38 Intangible Assets when the recognition criteria are met, including probable future economic benefit and that the cost can be measured reliably.

To the extent development costs are directly contributing to the construction of a fixed asset, the development costs are capitalized as part of the asset provided all criteria for capitalizing the cost are met. Costs incurred during the preliminary project stage, as well as maintenance costs, are expensed as incurred.

Research and development in 2021 and 2020

Total expensed research and development cost for Hydro's continuing operations was NOK 512 million in 2021 and NOK 510 million in 2020. The objective of research and development activities is to facilitate more efficient production of aluminium including further improvement of the operational and environmental performance of Hydro's electrolysis technology. A significant share of research and development funding is also used for further developing the production processes and products within casting and alloy technology as well as extruded products and alumina.

Note 10.3 Cash flow information

Cash disbursements and receipts included in cash from continuing operations

Amounts in NOK million	2021	2020
Income taxes paid	2,862	1,561
Interest paid	904	885
Interest received	194	208
Dividends received	1	25

In 2021 and 2020, non-cash investing activities for asset retirement costs amounted to NOK 616 million and NOK 393 million, respectively. In 2021 and 2020, non-cash investing activities for leased assets amounted to NOK 1,113 million and NOK 531 million, respectively.

Note 10.4 Auditor's remuneration

KPMG is the Group auditor of Norsk Hydro ASA. The following table shows fees to the appointed auditors for 2021 and 2020. For all categories the reported fee is the recognized expense for the year.

Amounts in NOK million	Audit ⁽¹⁾	Audit related services ⁽²⁾	Other services ⁽³⁾	Tax related services	Total
2021					
Norway	7	3	2	-	11
Outside Norway	34	-	2	3	40
Total	42	3	4	3	51
2020					
Norway	10	4	2	-	15
Outside Norway	36	1	2	4	43
Total	46	4	4	4	58

¹⁾ Audit fees of NOK 42 million (2020: NOK 46 million) reflect audit fees from KPMG in the amount of NOK 38 million (2020: NOK 43 million).

²⁾ Audit related fees of NOK 3 million in 2021 were fees to KPMG.

³⁾ Other services 2021 include KPMG's review of environmental and social performance.

Note 10.5 Changes in accounting principles and new pronouncements

Changes in accounting principles

Hydro has not implemented any new accounting standards or otherwise made any changes to accounting policies during 2021.

New pronouncements

None of the issued, not yet effective, accounting standards or amendments to such standards are expected to have significant effects for Hydro's financial reporting. Further, none of the recently issued IFRS Interpretations Committee agenda decisions are expected to significantly change Hydro's accounting policies or practices.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Financial statements Norsk Hydro ASA

Income statements

	Notes	2021	2020
Amounts in NOK million			
Gain (loss) on sale of subsidiaries, net		-	11
Other income	14	261	789
Total operating income		261	799
Employee benefit expense	2, 3	713	762
Depreciation	4	80	80
Other expenses	8	(41)	626
Total operating expenses		751	1,468
Operating loss		(490)	(669)
Financial income, net	5	2,409	118
Income before tax		1,919	(551)
Income taxes	6	(103)	83
Net income		1,816	(467)
<i>Appropriation of net income and equity transfers</i>			
Dividend proposed		11,078	2,561
Retained earnings		(9,262)	(3,029)
Total appropriation		1,816	(467)

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Statements of comprehensive income

Amounts in NOK million	Notes	2021	2020
Net income		1,816	(467)
<i>Other comprehensive income</i>			
<i>Items that will not be reclassified to income statement</i>			
Remeasurement postemployment benefits, net of tax	2	609	112
Other comprehensive income		609	112
Total comprehensive income	13	2,425	(356)

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Balance sheets

	Amounts in NOK million, December 31	Notes	2021	2020	Amounts in NOK million, December 31	Notes	2021	2020
Assets								
Property, plant and equipment and intangible assets		4	522	583	Paid-in capital			
Shares in subsidiaries		7	57,052	57,052	Share capital		13	2,272
Receivables from subsidiaries		8, 10	13,131	14,740	Treasury shares		13	(19)
Prepaid pension, investments and other non-current assets		2, 9	6,182	5,897	Paid-in premium		13	28,987
Total financial non-current assets			76,365	77,689	Other paid-in capital		13	118
Receivables from subsidiaries			7,771	6,800	Retained earnings			
Prepaid expenses and other current assets		8	102	72	Retained earnings		13	19,634
Short-term investments			2,404	2,500	Treasury shares		13	(565)
Cash and cash equivalents			18,264	13,779	Equity		13	59,005
Total current assets			28,542	23,151	Long-term provisions		2, 9	3,727
Total assets			105,429	101,422	Long-term debt		12	16,091
					Payables to subsidiaries		10	-
					Other long-term liabilities			6
					Bank loans and other interest-bearing short-term debt			19,630
					Dividends payable			3,020
					Payables to subsidiaries		8, 10	47
					Other current liabilities			11,078
					Total current liabilities			2,561
					Total equity and liabilities			20,350
								15,706
								684
								917
								35,132
								19,230
								105,429
								101,422

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Statements of cash flows

	2021	2020
Amounts in NOK million		
Net income	1,816	(467)
Depreciation	80	80
Net foreign exchange (gain) loss	(585)	542
Net purchases of trading securities	(1,407)	-
Changes in receivables and payables, and other items	112	(39)
Net cash provided by operating activities	16	116
Purchases of short-term investments	(3,000)	(6,480)
Proceeds from sales of short-term investments	4,500	3,985
Net sales (purchases) of other investments	522	(132)
Net cash provided by (used in) investing activities	2,022	(2,627)
Dividends paid	(2,564)	(2,561)
Proceeds from shares issued	48	23
Other financing activities, net	4,841	10,403
Net cash provided by financing activities	2,325	7,865
Foreign currency effects on cash	122	69
Net increase in cash and cash equivalents	4,485	5,424
Cash and cash equivalents at beginning of year	13,779	8,355
Cash and cash equivalents at end of year	18,264	13,779

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Notes to the financial statements Norsk Hydro ASA

Note 1	Summary of significant accounting policies	54
Note 2	Employee retirement plans	55
Note 3	Management remuneration, employee costs and auditor fees	56
Note 4	Property, plant and equipment and intangible asset	56
Note 5	Finance income and expense	56
Note 6	Income taxes	57
Note 7	Shares in subsidiaries	57
Note 8	Related party information	58
Note 9	Specification of balance sheet items	58
Note 10	Financial instruments	59
Note 11	Guarantees	59
Note 12	Long-term debt	59
Note 13	Number of shares outstanding, shareholders and equity reconciliation	60
Note 14	Other income	60

Note 1 Summary of significant accounting policies

The financial statements of Norsk Hydro ASA are prepared in accordance with the Norwegian accounting act and regulation on simplified application of international accounting standards (forskrift om forenklet anvendelse av internasjonale regnskapsstandarder – simplified IFRS).

Financial statement preparation requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses as well as disclosures of contingencies. Actual results may differ from estimates. Interest rates used for calculating net present values are rounded to the nearest 10 basis points for post employment benefits, to the nearest 25 basis points for other non-financial assets and liabilities. As a result of rounding adjustments, the figures in one or more columns included in the financial statements may not add up to the total of that column.

Shares in subsidiaries, associates and joint ventures

Shares in subsidiaries, associates and joint ventures are presented according to the cost method. Group relief received is included in dividends from subsidiaries. Dividend from subsidiaries is recognized in the year for which it is proposed by the subsidiary to the extent Norsk Hydro ASA can control the decision of the subsidiary through its share holdings. Shares in subsidiaries, associates and joint ventures are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may exceed the fair value of the investment. An impairment loss is reversed if the impairment situation is deemed to no longer exist.

Employee retirement plans

Norsk Hydro ASA accounts for employee retirement plans in accordance with IAS 19 Employee Benefits, see [Note 9.4 Employee retirement plans](#) to the consolidated financial statements for additional information.

Foreign currency

The functional currency of the company is the Norwegian krone, NOK. Realized and unrealized currency gains or losses on transactions denominated in other currencies than NOK, as well as currency gains or losses on assets and liabilities denominated in a currency other than NOK, are included in Financial income, net.

Cash and cash equivalents

Cash and cash equivalents include cash, bank deposits and all other monetary instruments with a maturity of less than three months at the date of purchase.

Short-term investments

Short-term investments include bank deposits and all other monetary instruments with a maturity between three and twelve months at the date of purchase and current listed equity and debt securities held for trading and valued at fair value. The resulting unrealized holding gains and losses are included in Financial income, net. Investment income is recognized when earned.

Property, plant and equipment

Property, plant and equipment is carried at historical cost less accumulated depreciation and impairment losses. According to IAS 36 Impairment of Assets, such assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. The impairment of long-lived assets is recognized when the recoverable amount determined as the higher of fair value less cost to sell or value in use of the asset or group of assets is less than the carrying value. The amount of the impairment is the difference between the carrying value and the recoverable amount. An impairment loss is reversed if the impairment situation is deemed to no longer exist.

Leased assets

Leased assets are recognized as right-of-use assets in accordance with IFRS 16 Leases, with contractually fixed future payments recognized as lease liabilities. When measuring leases, fixed lease payments for extension periods reasonably certain to be used are included. As a practical expedient, non-lease components are not separated from lease contracts. Leases of assets of a low value, mainly such items as PCs, office equipment and similar, are excluded from lease accounting. See [Note 2.6 Leases](#) to the consolidated financial statements for additional information.

Intangible assets

Intangible assets acquired individually or as a group are recognized at fair value when acquired, in accordance with IAS 38 Intangible Assets. Intangible assets are amortized on a straight-line basis over their useful life and tested for impairment whenever indications of impairment are present.

Norsk Hydro ASA accounts for CO₂ emission allowances at cost as an intangible asset. The emission rights are not amortized, impairment testing is done on an annual basis. Sale of CO₂ emission rights is recognized at the time of sale at the transaction price.

Derivative instruments

Forward contracts and options for purchase or sale of currency or commodities that are considered readily convertible to cash are recognized in the financial statements and measured at fair value at each balance sheet date with the resulting unrealized gain or loss recorded in Financial income, net.

Norsk Hydro ASA has decided to utilize the option in the regulation to exclude embedded derivatives and contracts deemed to be derivatives based on the underlying product being readily convertible to cash and not for own use when the contract is with a subsidiary.

Loans and other financial liabilities

Loans and other financial liabilities include issued bonds, bank loans and similar. Loans are measured at amortized cost.

Provisions

Provisions are recognized when Norsk Hydro ASA has a present obligation (legal or constructive) as a result of a past event, it is probable (more likely than not) that Norsk Hydro ASA will be required to settle the obligation, and a reliable estimate can be made of the amount, taking into account the risks and uncertainties. The provision is measured at the present value of the cash flows estimated to settle the obligation. Uncertain outcomes are measured as the expected value of reasonably possible outcomes.

Contingencies and guarantees

Norsk Hydro ASA recognizes a liability for the fair value of obligations it has undertaken in issuing guarantees. Contingencies are recognized in the financial statements when probable of occurrence and reliably estimable.

Share-based compensation

Norsk Hydro ASA accounts for share-based payment in accordance with IFRS 2 Share-Based Payment. See [Note 9.2 Employee remuneration](#) to the consolidated financial statements for additional information.

Risk management

For information about risk management in Norsk Hydro ASA see [Note 8.1 Financial and commercial risk management](#) to the consolidated financial statements.

Income taxes

Deferred income tax expense is calculated in accordance with IAS 12 Income Taxes. Under IAS 12, deferred tax assets and liabilities are measured based on the differences between the carrying values of assets and liabilities for financial reporting and their tax basis which are considered temporary in nature. Deferred income tax related to remeasurements of pension obligations are recognized through Other comprehensive income. The tax effect of equity transactions, excluded transfers to owners, is recognized as a part of the equity transaction and do not affect the income tax expense. Other changes in deferred income tax asset and liability balances during the year represent the deferred income tax expense. Changes resulting from amendments and revisions in tax laws and tax rates are recognized when the new tax laws or rates are enacted.

Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices

Note 2 Employee retirement plans

Norsk Hydro ASA has closed the main defined benefit plans for new members, and the majority of employees are now covered by a defined contribution plan that is based on salaries up to a maximum level subject to tax deduction. For additional salaries, employees earn retirement benefits in an unfunded contribution based plan. The remaining employees are covered by defined benefit plans that offer benefits based on final salary level and the number of years in service, and include benefits for dependents. The plan providing benefits based on salaries up to a maximum level is funded; all vested benefits are required by law to be funded for such plans. Benefits based on salaries above this level are covered by unfunded plans. The main funded plan is managed by Norsk Hydros Pensjonskasse, an independent pension trust. Hydro's pension plans supplement the public pension schemes in Norway. The plans comply with legal requirements for pension plans in Norway. Plans providing benefits for salary levels above the tax deductible level have been closed for new members from January 1, 2017.

Norsk Hydro ASA participates in a pension plan that entitles the majority of its employees life-long benefits in addition to other pension benefits. The benefits are financed through a pooled arrangement by private sector employers (avtalefestet pensjon, AFP) where also the Norwegian state contributes. The plan is a defined benefit plan with limited funding and where plan assets are not segregated. The information required to calculate the share of the plan and account for the plan as a defined benefit plan is not available from the plan administrator. Hydro therefore accounts for the plan as if it were a defined contribution plan. The employer contributions are included in Multiemployer plans.

Pension cost

Amounts in NOK million	2021	2020
Defined benefit plans	32	35
Defined contribution plans	35	34
Multiemployer plans	6	6
Termination benefits and other	1	-
Social security cost	8	11
Pension expense	82	86
Interest expense (income)	(43)	(51)
Remeasurement (gain) loss in other comprehensive income	(780)	(143)

Recognized defined benefit assets and liability

Amounts in NOK million	2021	2020
Defined benefit obligation major plans	(5,212)	(5,465)
Plan assets	8,587	7,919
Reimbursement rights	287	306
Liability other plans	(4)	(3)
Social security cost	(347)	(361)
Net defined benefit asset	3,310	2,396
Recognized prepaid pension	6,125	5,319
Recognized pension liability	(2,815)	(2,923)
Net amount recognized	3,310	2,396

Change in defined benefit obligation (DBO)

Amounts in NOK million	2021	2020
Opening Balance	(5,465)	(5,230)
Current service cost	(31)	(34)
Interest expense	(90)	(117)
Actuarial gain (loss) economic assumptions	99	(374)
Experience gain (loss)	(41)	(21)
Benefit payments	316	312
Closing Balance	(5,212)	(5,465)

Change in pension plan assets

Amounts in NOK million	2021	2020
Opening Balance	7,919	7,373
Interest income	134	168
Return on plan assets above (below) interest income	719	548
Contributions to plans	-	17
Benefit payments	(184)	(188)
Closing Balance	8,587	7,919

Analysis of the defined benefit obligation (DBO)

Amounts in NOK million	2021	2020
Active members	(862)	(1,033)
Deferred members	(520)	(543)
Pensioners	(3,830)	(3,889)
Defined benefit obligation	(5,212)	(5,465)

	2021	2020
	Benefit obligation	Benefit expense
Assumptions		
Discount rate	1.90%	1.70%
Expected salary increase	2.50%	2.00%
Expected pension increase	1.25%	1.25%
Mortality basis	K2013	K2013

See [Note 9.4 Employee retirement plans](#) in notes to the consolidated financial statements for information about sensitivities.

Note 3 Management remuneration, employee costs and auditor fees

See [Note 9.1 Management remuneration](#) in the notes to the consolidated financial statements for information and details related to the Corporate Management Board remuneration. Costs for some corporate management board members employed by subsidiaries are charged to Norsk Hydro ASA for services rendered as members of the Corporate Management Board.

See [Note 9.3 Board of Directors and Corporate Assembly](#) in the notes to the consolidated financial statements for information and details related to the Board of Directors' remuneration.

See [Note 9.2 Employee remuneration](#) in the notes to the consolidated financial statements for information on the employee share purchase plan.

Partners and employees of Hydro's appointed auditors, KPMG, own no shares in Norsk Hydro ASA or any of its subsidiaries. Audit fees were NOK 4 million and NOK 5 million in 2021 and 2020, respectively. Fees for audit related services were NOK 1 million and NOK 3 million in 2021 and 2020, respectively. Fees for other services were NOK 2 million in both 2021 and 2020.

The average number of employees in Norsk Hydro ASA was 385 in 2021 as compared to 394 in 2020. As of year-end 2021 and 2020, Norsk Hydro ASA employed 375 and 394 employees, respectively.

Total loans given by Norsk Hydro ASA to Norwegian employees as of December 31, 2021 were NOK 19 million, consisting of unsecured loans related to the employee share purchase plan.

Payroll related expenses are presented in the table below.

Amounts in NOK million	2021	2020
Employee benefit expense:		
Salaries	560	598
Social security costs	71	78
Other benefits	1	1
Pension expense (note 2)	82	86
Total	713	762

Note 4 Property, plant and equipment and intangible asset

Leases expensed in the period amounts to NOK 25 million and refers to leases of short term, low value or leases with variable payments.

Amounts in NOK million	Property, plant and equipment	Intangible assets	Total
Cost December 31, 2020	781	158	938
Additions at cost	16	6	22
Disposals at cost	(3)	-	(3)
Accumulated depreciation and impairment December 31, 2021	(357)	(78)	(435)
Carrying value December 31, 2021	437	85	522
Depreciation and impairment in 2021	(59)	(21)	(80)

Intangible assets mainly consist of software.

Note 5 Finance income and expense

Amounts in NOK million	2021	2020
Dividends from subsidiaries	1,850	551
Interest from group companies	359	433
Other interest income	59	84
Interest paid to group companies	(16)	(33)
Other interest expense	(498)	(441)
Net foreign exchange gain (loss)	585	(542)
Other, net	70	67
Financial income (expense), net	2,409	118

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Note 6 Income taxes

The tax effect of temporary differences resulting in deferred tax assets (liabilities) are:

Amounts in NOK million	Temporary differences Tax effect	
	2021	2020
Short-term items	40	22
Pensions ¹⁾	(728)	(527)
Long-term debt	44	57
Other long-term items	(27)	(45)
Tax loss carryforwards	-	52
Deferred tax assets (liabilities)	(671)	(441)

¹⁾ Includes NOK (172) million and NOK (31) million of tax benefit (expense) allocated to equity in 2021 and 2020 respectively.

Taxable temporary differences and deductible temporary differences, which reverse or may reverse in the same period, are netted.

Reconciliation of tax expense

Amounts in NOK million	2021	2020
Income (loss) before taxes	1,919	(551)
Expected income taxes at statutory tax rate	422	(121)
Dividend exclusion	(352)	-
Permanent differences and other, net	33	38
Income tax expense (benefit)	103	(83)
 <i>Components of income taxes</i>		
Current income taxes	45	36
Change in deferred taxes	58	(119)
Income tax expense (benefit)	103	(83)

See [Note 10.1 Income taxes](#) in the consolidated financial statements for further information.

Taxes payable were NOK 50 million per December 31, 2021 and NOK 55 million per December 31, 2020.

Note 7 Shares in subsidiaries

The following shares in subsidiaries are directly owned by Norsk Hydro ASA.

Company name	Country	Location	Percentage of shares owned by Norsk Hydro ASA	Book value (NOK million)
Hydro Aluminium AS	Norway	Oslo	100.00	51,293
Hydro Energi AS	Norway	Oslo	100.00	5,643
Hydro Aluminium Deutschland GmbH ¹⁾	Germany	Grevenbroich	25.04	92
Industriforsikring AS	Norway	Oslo	100.00	20
Hydro Kapitalforvaltning AS	Norway	Oslo	100.00	4
Total				57,052

¹⁾ The company is owned 74.96 percent by Hydro Aluminium AS, and 25.04 percent by Norsk Hydro ASA.

Percentage of shares owned equals percentage of voting shares owned. Several of the above-mentioned companies also own shares in other companies.

In addition to the directly owned subsidiaries listed above, Norsk Hydro ASA has the following subsidiaries with significant operational activities. Sales offices, companies mainly serving as holding companies, and dormant companies, as well as companies holding smaller operational activities are not included in the list below. A full list of subsidiaries is available in Hydro's country by country reporting and at [hydro.com](#). The companies are listed by the business area in which the majority of their activities are managed.

Company name	Country	Ownership
Hydro Bauxite & Alumina		
ALUNORTE - Alumina do Norte do Brasil S.A.	Brazil	92.13%
Mineração Paragominas SA	Brazil	100.00%
Hydro Aluminium Metal		
Hydro Aluminium Australia Pty Limited	Australia	100.00%
ALBRAS - Alumínio Brasileiro SA	Brazil	51.00%
Sør-Norge Aluminium AS	Norway	100.00%
Slovalco a.s.	Slovakia	55.30%

Hydro Metal Markets

Extrusion Services S.a.r.l	France	100.00%
Hydro Aluminium Gießerei Rackwitz GmbH	Germany	100.00%
Hydro Aluminium Clervaux S.A.	Luxembourg	100.00%
Hydro Aluminium Iberia S.A.U	Spain	100.00%
Hydro Aluminium Deeside Ltd.	United Kingdom	100.00%
Hydro Aluminium Metals USA, LLC	United States	100.00%

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Company name	Country	Ownership
Hydro Extrusions		
Hydro Extrusion Nenzing GmbH	Austria	100.00%
Hydro Building Systems Belgium NV	Belgium	100.00%
Hydro Extrusion Lichtervelde NV	Belgium	100.00%
Hydro Extrusion Raeren SA	Belgium	100.00%
Hydro Extrusion Brasil S.A.	Brazil	100.00%
Hydro Extrusion Canada Inc.	Canada	100.00%
Hydro Aluminium Fabrication (Taicang) Co. Ltd	China	100.00%
Hydro Precision Tubing (Suzhou) Co. Ltd.	China	100.00%
Hydro Extrusion Denmark A/S	Denmark	100.00%
Hydro Precision Tubing Tønder A/S	Denmark	100.00%
Hydro Building Systems France Sarl	France	100.00%
Hydro Extrusion Albi SAS	France	100.00%
Hydro Extrusion Luce/Chateauroux SAS	France	100.00%
Hydro Extrusion Puget SAS	France	100.00%
Hydro Building Systems Germany GmbH	Germany	100.00%
Hydro Extrusion Deutschland GmbH	Germany	100.00%
Hydro Extrusion Offenburg GmbH	Germany	100.00%
Hydro Building Systems Extrusion GmbH	Germany	100.00%
Hydro Extrusion Hungary Kft	Hungary	100.00%
Sapa Extrusion India Pvt. Ltd.	India	100.00%
Hydro Building Systems Italy S.P.A.	Italy	100.00%
Hydro Extrusion Italy S.r.l.	Italy	100.00%
Hydro Building Systems Atessa s.r.l.	Italy	100.00%
Hydro Extrusion Drunen B.V.	Netherlands	100.00%
Hydro Extrusion Hoogezaand B.V.	Netherlands	100.00%
Hydro Extrusion Norway AS	Norway	100.00%
Hydro Extrusion Poland Sp. z.o.o	Poland	100.00%
Hydro Aluminium Extrusion Portugal HAEP S.A.	Portugal	100.00%
Hydro Extrusion Slovakia a.s.	Slovakia	100.00%
Hydro Building Systems Spain S.L.U.	Spain	100.00%
Hydro Extrusion Spain S.A.U.	Spain	100.00%
Hydro Extrusion Sweden AB	Sweden	100.00%
Hydro Aluminium UK Ltd.	United Kingdom	100.00%
Hydro Extrusion Portland Inc	United States	100.00%
Hydro Extrusion USA LLC	United States	100.00%
Hydro Precision Tubing Monterrey LLC	United States	100.00%
Hydro Precision Tubing USA LLC	United States	100.00%

Note 8 Related party information

Norsk Hydro ASA operates the cash pooling arrangements in Hydro. Further, Norsk Hydro ASA extends loans to subsidiaries, associates and jointly controlled entities at terms and conditions reflecting prevailing market conditions for corresponding services, allowing for a margin to cover administration and risk. Short- and long-term receivables from subsidiaries and short-term payables to subsidiaries shown in the balance sheet relates to these activities, and also covers some derivative instruments shown in [Note 10 Financial instruments](#), as well as receivables related to internal charges, see below. See [Note 5 Financial income and expense](#) for information on interest paid to and received from group companies.

Norsk Hydro ASA allocates costs for corporate staff services and shared services to subsidiaries. The total amount allocated was NOK 1,478 million in 2021 and NOK 1,275 million in 2020. Internal shared service providers contributed NOK 690 million and NOK 750 million, respectively. Receivables related to such costs amounted to NOK 205 million and NOK 257 million per December 31, 2021 and 2020, respectively. Amounts invoiced during 2021 included certain charges related to the sale of Hydro Rolling, partly incurred during 2020. The agreement allowing Norsk Hydro ASA to charge subsidiaries holding the shares to be sold was established in 2021.

For information on transactions with employees and management, see [Note 3 Management remuneration, employee costs and auditor fees](#) and [Note 9.1 Management remuneration](#) in the notes to the consolidated financial statements. For information on transactions with Board of Directors and Corporate Assembly see [Note 9.3 Board of Directors and Corporate Assembly](#) in the notes to the consolidated financial statements. See [Note 9.5 Other related party information](#) in the notes to the consolidated financial statements for identification of related parties and primary relationships with those parties. See [Note 11 Guarantees](#) for information on guarantees provided on behalf of subsidiaries and jointly controlled entities.

Note 9 Specification of balance sheet items

Amounts in NOK million	2021	2020
Securities	10	535
Prepaid pension	6,125	5,319
Other non-current assets	47	43
Total prepaid pension, investments and other non-current assets	6,182	5,897
Pension liability	2,815	2,923
Deferred tax liabilities	671	441
Other long-term provisions	241	186
Total long-term provisions	3,727	3,550

Other long-term provisions for 2020 included an onerous contract of office space, see [Note 9.5 Other related party information](#) in the notes to the consolidated financial statements. The compensation arrangement expired in February 2021.

Note 10 Financial instruments

Norsk Hydro ASA offers currency derivatives to subsidiaries using such instruments for risk management. Contracts are recognized at estimated market value, determined by calculating the contractual cash flows using currency rates at the balance sheet date and discounting those cash flows to a present value. At the end of 2021 and 2020, the value of currency forward contracts outstanding with subsidiaries were as follows:

Amounts in NOK million	2021	2020
Currency forward contracts, short-term	(7)	(15)
Currency forward contracts, long-term	2	(2)
Financial income, net	(6)	(17)

The contracts represent exposure mainly in Euro and US dollars. In addition, there are some contracts with exposure to British pounds and Japanese yen, representing lower amounts. The contracts mature no later than 2023.

Note 11 Guarantees

Norsk Hydro ASA provides guarantees arising in the ordinary course of business including stand-by letters of credit, performance bonds and various payment or financial guarantees. All commercial guarantees are on behalf of subsidiaries.

Amounts in NOK million	2021	2020
Commercial guarantees	2,925	3,491
Total guarantees not recognized	2,925	3,491

Note 12 Long-term debt

Amounts in NOK million	2021	2020
EUR	7,924	8,369
NOK	9,986	9,983
SEK	972	1,047
Total unsecured loans	18,883	19,398
Lease liabilities	228	279
Outstanding debt	19,111	19,677
Less: Current portion	(3,020)	(47)
Total long-term debt	16,091	19,630

As of December 31, 2021, long-term debt that falls due after 2026 amounted to NOK 4,991 million. See [Note 7.4 Short and long-term debt](#) in notes to the consolidated financial statements for further information. For a description of Hydro's policies for funding and liquidity, see [Note 7.1 Capital management](#) in notes to the consolidated financial statements.

Introduction
 Our business
 Performance review
 Governance
 Environment and social responsibility
 Financial statements

Appendices

Note 13 Number of shares outstanding, shareholders and equity reconciliation

The share capital of Norsk Hydro ASA as of December 31, 2021 was NOK 2,271,760,107 consisting of 2,068,998,276 ordinary shares at NOK 1.098 per share. As of December 31, 2021, Norsk Hydro ASA had purchased 17,522,614 treasury shares at a cost of NOK 584 million. See [Consolidated statements of changes in equity](#) and [Note 7.6 Shareholders' equity](#) for additional information.

The table shows shareholders holding one percent or more of the total 2,051,475,662 shares outstanding as of December 31, 2021, according to information in the Norwegian securities' registry system (Verdipapirsentralen).

Name	Number of shares
The Ministry of Trade, Industry and Fisheries of Norway	708,865,253
Folketrygdfondet	142,937,429
State Street Bank and Trust Comp ¹⁾	67,751,640
State Street Bank and Trust Comp ¹⁾	26,876,535
JP Morgan Chase Bank, N.A., London ¹⁾	24,509,389
HSBC Bank PLC ¹⁾	24,480,370
Clearstream Banking S.A. ¹⁾	24,299,707
State Street Bank and Trust Comp ¹⁾	22,415,798
Caceis Bank ¹⁾	20,587,525

¹⁾ Nominee accounts.

Changes in equity

Amounts in NOK million	Paid-in capital	Retained earnings	Total equity
December 31, 2020	31,355	27,650	59,005
Total Comprehensive Income		2,425	2,425
Dividend paid in 2021 not accrued ¹⁾		(3)	(3)
Dividend proposed		(11,078)	(11,078)
Treasury shares	53	76	129
December 31, 2021	31,409	19,069	50,478

Note 14 Other income

Other income in Norsk Hydro ASA includes charges for goods and services to subsidiaries. Other income also includes significant insurance compensation in 2020, mainly related to the cyber-attack in 2019. As the majority of the losses were incurred by subsidiaries, a similar amount is paid to subsidiaries and included in Other expenses.

Statement from the Board and the CEO of Norsk Hydro ASA

Norsk Hydro ASA (the parent company) had a net income of NOK 1,816 million in 2021 compared with net loss of NOK 467 million in 2020. The result reflects increased dividends from subsidiaries in 2021 compared to 2020.

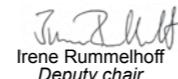
Hydro's Board of Directors proposes to pay a dividend of NOK 5.40 per share for 2021, for approval by the Annual General Meeting on May 10, 2022. The proposed payment demonstrates the company's commitment to provide a predictable dividend to shareholders. Hydro's dividend policy reflects our ambitions to lift performance and cash returns to shareholders over the cycle. The dividend policy is to pay out a minimum of 50 percent of adjusted net income over the cycle with a NOK 1.25 per share dividend floor.

According to section 3-3a of the Norwegian Accounting Act, the board of directors confirms that the financial statements have been prepared on the assumption of a going concern.

Oslo, February 21, 2022



Dag Mejdell
Chair



Irene Rummelhoff
Deputy chair



Arve Baade
Board member



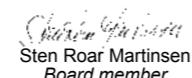
Rune Bjerke
Board member



Liselott Kilaas
Board member



Peter Kukieleski
Board member



Sten Roar Martinsen
Board member



Ellen Merete Olstad
Board member



Thomas Schulz
Board member



Marianne Wiinholt
Board member



Hilde Merete Aasheim
President and CEO

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

The below listed parts of the Hydro Annual Report 2021 constitute the Report of the Board of Directors

Regulation	Content	Annual Report Chapter Reference	Page reference
Norwegian accounting act			
Section 3-3a, 1st para	Information regarding the nature and location of the business, including information on any branch offices.	About Hydro Letter to stakeholder Our Business	5 6 16-28
Section 3-3a, 2nd para	Review of the development and results of the company's operations and position together with a description of the key risks and uncertainty factors facing the company, hereunder also information on research and development activities.	Performance review Governance - Risk section Innovation	29-35 37-48 85-88
Section 3-3a, 5th par	A description that provides a basis for assessing the company's further outlook, including whether the results for the year agree with previously stated target results and expected developments and give reason for any discrepancy	Letter to stakeholder Strategic direction and key developments Performance review	6 10-15 29-35
Section 3-3a, 6th para	Information regarding any financial risk that is significant to the evaluation of the company's assets, liabilities, financial position and results.	Hydro's key financial exposures Governance - Risk section	35 37-48
Section 3-3a, 7th para, cfr. Section 4-5	Information regarding the going concern assumption.	Statement from the Board and the CEO	170
Section 3-3a, 8th para	Proposal for the allocation of profit or settlement of loss.	Financial income statement Norsk Hydro ASA	158
Section 3-3a, 9th para	Information about the work environment, along with an overview of implemented measures relevant to the working environment and including information on injuries, accidents and sick leave rates.	Organization and work environment	103-110
Section 3-3a, 10th para	Information on matters relating to the business, hereunder its factor inputs and products, which may result in a not insignificant impact on the external environment. The environmental impact each aspect of the business has or may have, as well as measures implemented or planned implemented to prevent or reduce any negative environmental impacts, shall be stated	Our Business Environment and social responsibility	16-28 73-110
Section 3-3a, 11th para	Information on whether insurances covering the board members' and CEO's potential liabilities towards the company and third parties are maintained, including information on the relevant insurance coverage.	Norwegian Code of Practice for Corporate Governance - Chapter 2	65-69
Section 3-3a, 12th para, cfr. Securities Trading Act Section 5-8a (1)	Shareholders information: A description of any provisions of articles of association that restrict the right to trade in the shares of the company.	Not applicable	-
Section 3-3a, 12th para, cfr. Securities Trading Act Section 5-8a (2)	Shareholders information: A description of who exercises the rights attached to shares in any employee share schemes where authority is not exercised directly by the employees covered by the scheme.	Not applicable	-
Section 3-3a, 12th para, cfr. Securities Trading Act Section 5-8a (3)	Shareholders information: Any agreements between shareholders which are known to the company and which restrict the possibilities of trading in or exercising voting rights attached to shares.	Not applicable	-
Section 3-3a, 12th para, cfr. Securities Trading Act Section 5-8a (4)	Shareholders information: Any significant agreements to which the company is a party, the terms of which take effect, alter or terminate as a result of a takeover bid, and a description of those terms.	Not applicable	-
Section 3-3b	Report on corporate governance.	Corporate governance	36-72
Section 3-3c, first para	Report on social responsibility.	Environment and social responsibility	73-110
Section 3-3d	Report on payments to the authorities, etc. (Country-by-country reporting).	Country-by-country reporting	180
Equality and Anti-Discrimination Act			
Section 26a	Accounting for the factual status of gender equality, equal pay and diversity, and actions taken to fulfill requirements.	Environment and social responsibility - Diversity, inclusion & belonging	106-110
Norwegian Companies Act			
Paragraph 6-16 a and b	Management remuneration reporting will be disclosed as a separate report on Hydro's website on April 8th 2022.	-	-
UK Modern Slavery Act 2015 Australian Modern Slavery Act 2018	Information regarding steps taken to ensure that modern slavery is not taking place in Hydro's operations or its supply chain.	Environment and social responsibility Responsible supply chain Local community value creation Human rights	73-110 96-99 100-102 106-110



Hydro

Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices

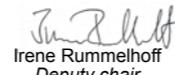
Responsibility statement from the Board and the CEO

We confirm to the best of our knowledge that the consolidated financial statements for 2021 have been prepared in accordance with IFRS as adopted by the European Union, as well as additional information requirements in accordance with the Norwegian Accounting Act, that the financial statements for the parent company for 2021 have been prepared in accordance with the Norwegian Accounting Act the regulation on simplified application of international accounting standards (FOR-2008-01-21-57), and that the information presented in the financial statements gives a true and fair view of the assets, liabilities, financial position and result of Norsk Hydro ASA and the Hydro Group for the period. We also confirm to the best of our knowledge that the Annual Report includes a true and fair review of the development, performance and financial position of Norsk Hydro ASA and the Hydro Group, together with a description of the principal risks and uncertainties that they face, and that the country by country report for 2021 has been prepared in accordance with the Norwegian Accounting Act §3-3d and the Norwegian Security Trading Act §5-5a.

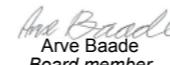
Oslo, February 21, 2022



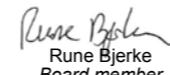
Dag Mæjdell
Chair



Irene Rummelhoff
Deputy chair



Arve Baade
Board member



Rune Bjerke
Board member



Liselott Kilaas
Board member



Peter Kukielski
Board member



Sten Roar Martinsen
Board member



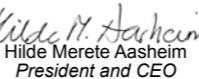
Ellen Merete Olstad
Board member



Thomas Schulz
Board member



Marianne Wiinholt
Board member



Hilde Merete Aasheim
President and CEO

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices



Independent Auditor's Report - Norsk Hydro ASA

Management exercise judgement related to expected timing of future cash flows and key assumptions.

The economic environment and volatility of long-term assumptions indicate that impairment could be a risk related to specific assets and cash generating units (CGUs) and can also impact the assessment of impairment of goodwill. Impairment indications could also arise from transactions in which the agreed consideration is below the carrying value of the asset or CGU.

Certain plants are also sensitive to the uncertainty related to renewal of power contracts expiring within 1 to 5 years.

Impairment charges of NOK 437 million were recognized in 2021, consisting of:

- NOK 286 million in relation to the business area Hydro Aluminium Metal
- NOK 150 million in relation to the business area Hydro Extrusions

As at 31 December 2021, the Group has goodwill of NOK 4,895 million. Property, plant and equipment of NOK 54,605 million and other intangible assets of NOK 3,830 million.

of impairment indicators

- Performing retrospective reviews of the accuracy of management's estimates in terms of timing of cash outflows and other assumptions such as long-term pricing where historical data is available
- Evaluating and challenging the forecasted cash flows including timing of future cash flows applied in the models with reference to historical accuracy and approved business plans
- When impairment is caused by a sales transaction, confirming the agreed consideration to the sales and purchase agreement, as well as re-calculating the impairment charge and relevant adjustments
- Testing the sensitivity of movements in key assumptions
- Evaluating, with assistance from our valuation specialists, key assumptions such as aluminium and alumina prices, inflation rates, energy and fuel prices, relevant foreign exchange rates and discount rates by reference to external sources and relevant benchmarks
- Testing the mathematical accuracy of the models used to calculate value in use
- Assessing the adequacy of the disclosures related to impairment

Other Information

The Board of Directors and the Managing Director (management) are responsible for the other information. The other information comprises information in the annual report, but does not include the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information.

In connection with our audit of the financial statements, our responsibility is to read the other information, and in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Based on our knowledge obtained in the audit of the financial statements, it is our opinion that the information presented in the annual report required by the Norwegian Accounting Act sections 3-3a, 3-3b, 3-3c and 3-3d (the Board of Director's report, the statements on Corporate Governance and Environment and Social Responsibility and the report on payments to governments), is consistent with the financial statements and contains the information required by applicable legal requirements.



Independent Auditor's Report - Norsk Hydro ASA

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation of financial statements that give a true and fair view in accordance with simplified application of international accounting standards according to the Norwegian Accounting Act section 3-9, and for the preparation and true and fair view of the consolidated financial statements of the Group in accordance with International Financial Reporting Standards as adopted by the EU, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's and the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error. We design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's or the Group's internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- conclude on the appropriateness of management's use of the going concern basis of accounting, and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company and the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company and the Group to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves a true and fair view.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

KPMG Independent Auditor's Report - Norsk Hydro ASA

We communicate with the Board of Directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Audit Committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Board of Directors, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Report on Other Legal and Regulatory Requirements

Report on compliance with Regulation on European Single Electronic Format (ESEF)

Opinion
We have performed an assurance engagement to obtain reasonable assurance that the financial statements with file name "549300N1SDN71ZZ8B045-2021-12-31-en" have been prepared in accordance with Section 5-5 of the Norwegian Securities Trading Act (Verdipapirhandelovaen) and the accompanying Regulation on European Single Electronic Format (ESEF).

In our opinion, the financial statements have been prepared, in all material respects, in accordance with the requirements of ESEF.

Management's Responsibilities
Management is responsible for preparing, tagging and publishing the financial statements in the single electronic reporting format required in ESEF. This responsibility comprises an adequate process and the internal control procedures which management determines is necessary for the preparation, tagging and publication of the financial statements.

Auditor's Responsibilities
Our responsibility is to express an opinion on whether the financial statements have been prepared in accordance with ESEF. We conducted our work in accordance with the International Standard for Assurance Engagements (ISAE) 3000 – "Assurance engagements other than audits or reviews of historical financial information". The standard requires us to plan and perform procedures to obtain reasonable assurance that the financial statements have been prepared in accordance with the European Single Electronic Format.

As part of our work, we performed procedures to obtain an understanding of the company's processes for preparing its financial statements in the European Single Electronic Format. We evaluated the completeness and accuracy of the XBRL tagging and assessed management's use of judgement. Our work comprised reconciliation of the financial statements tagged under the European Single Electronic Format with the audited financial statements in human-readable format. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Oslo, 21 February 2022
KPMG AS

Lars Inge Pettersen
State Authorised Public Accountant

Note: This translation from Norwegian has been prepared for information purposes only.

5

Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices

Appendices

177

Alternative Performance Measures (APM)

180

Country-by-country report

192

Production capacity and volumes

195

Environmental and social statements

231

EU taxonomy

236

Independent auditors report

238

Q4 report

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Alternative Performance Measures (APMs)

Alternative performance measures, i.e. financial performance measures not within the applicable financial reporting framework, are used by Hydro to provide supplemental information, by excluding items that, in Hydro's view, does not give an indication of the periodic operating results or cash flows of Hydro, or should be assessed in a different context than its classification according to its nature. Financial APMs are intended to enhance comparability of the results and cash flows from period to period, and it is Hydro's experience that these are frequently used by analysts, investors and other parties. Management also uses these measures internally to drive performance in terms of long-term target setting and as basis for performance related pay. These measures are adjusted IFRS measures defined, calculated and used in a consistent and transparent manner over the years and across the company where relevant. Operational measures such as, but not limited to, volumes, prices per mt, production costs and improvement programs are not defined as financial APMs. To provide a better understanding of the company's underlying financial performance for the relevant period, Hydro focuses on adjusted EBITDA in the discussions on periodic underlying financial and operating results and liquidity from the business areas and the group, while adjusting effects to adjusted EBITDA, EBIT and net income (loss) are discussed separately. Financial APMs should not be considered as a substitute for measures of performance in accordance with the IFRS. Disclosures of APMs are subject to established internal control procedures.

Hydro's financial APMs

- EBIT: Earnings before financial items and tax.
- Adjusted EBIT: EBIT +/- identified adjusting items to EBIT as described below.
- EBITDA: EBIT + depreciation, amortization and impairments, net of investment grants.
- Adjusted EBITDA: EBITDA +/- identified adjusting items to EBITDA as described below.
- Adjusted net income (loss) from continuing operations: Net income (loss) from continuing operations +/- adjusting items to net income (loss) as described below.
- Adjusted earnings per share from continuing operations: Adjusted net income (loss) from continuing operations attributable to Hydro shareholders divided by weighted average of outstanding shares (ref.: [Note 7.6 Shareholders' equity](#) to the consolidated financial statements).
- Investments: Additions to property, plant and equipment (capital expenditures) plus long-term securities, intangible assets, long-term advances and investments in equity accounted investments, including amounts recognized in business combinations for continuing operations.
- Net cash (debt): Short- and long-term interest-bearing debt adjusted for Hydro's liquidity positions.
- Adjusted net cash (debt): Net cash (debt) adjusted for liquidity positions regarded unavailable for servicing debt, pension obligation and other obligations which are considered debt-like in nature.
- Adjusted net cash (debt) to adjusted EBITDA ratio: Adjusted net cash (debt) / adjusted EBITDA
- (Adjusted) RoaCE: (Adjusted) RoACE is defined as (Adjusted) "Earnings after tax" divided by average "Capital employed". (Adjusted) "Earnings after tax" is defined as (adjusted) "Earnings before financial items and tax" less "Adjusted income tax expense". Since RoaCE represents the return to the capital providers before dividend and interest payments, adjusted income tax expense excludes the tax effects of items reported as "Finance income (expense), net" and in addition, for adjusted figures, the tax effect of adjusting items. "Capital employed" is defined as "Shareholders' Equity", including non-controlling interest plus long-term and short-term interest-bearing debt less "Cash and cash equivalents" and "Short-term investments".
- Capital expenditure (Capex): "Purchase of property, plant and equipment" plus "Purchase of other Long-term investments", adjusted for elements that are not considered cash effective.
- Cash effective change in net operating capital: Changes to "Trade and other receivables" plus/minus changes to "Inventories" plus/minus changes to "Trade and other payables" as reported in the statements of cash flows.
- Free cash flow: "Net cash provided by operating activities" less "Net cash used in investing activities", adjusted for "Purchases of short-term investments", "Sales of short-term investments" and net cash received or paid for short- and long-term collateral.

Adjusting items to EBITDA, EBIT, net income (loss) and earnings per share

Hydro has defined two categories of items which are adjusted to results in all business areas, equity accounted investments and at group level. One category is the timing effects, which are unrealized changes to the market value of certain derivatives. When realized, effects of changes in the market values since the inception of the instrument are included in adjusted EBITDA and adjusted EBIT. Changes in the market value of the trading portfolios are included in adjusted results. The other category includes material items which are not regarded as part of underlying business performance for the period, such as major rationalization charges and closure costs, effects of disposals of businesses and operating assets, major impairments of property, plant and equipment, as well as other major effects of a special nature, and realized effects of currency derivatives entered into for risk management purposes. Materiality is defined as items with a value above NOK 20 million. All adjusting items to results are reflecting a reversal of transactions recognized

in the financial statements for the current period, with the exception of realized foreign exchange gain (loss). Part-owned entities have implemented similar adjustments.

- Unrealized derivative effects on LME related contracts include unrealized gains and losses on contracts measured at market value, which are used for operational hedging purposes related to future expected sales and purchase transactions, both fixed-price customers and supplier contracts and transactions at not yet determined market prices. Also includes elimination of changes in fair value of certain internal physical aluminium contracts.
- Unrealized derivative effects on power and raw material contracts include unrealized gains and losses on embedded derivatives in raw material and power contracts for Hydro's own use and for physical and financial power contracts used for managing price risks and volume changes. Unrealized derivative effects on certain power contracts in a business model with the combined aim to manage hydrological risk in own production, differences in power needs in existing and new business activities in Hydro as well as supporting development of new renewable energy projects are also adjusted for. Adjustments also comprise elimination of changes in fair value of embedded derivatives within certain internal power contracts.
- Significant rationalization charges and closure costs include costs related to specifically defined major projects, and not considered to reflect periodic performance in the individual plants or operations. Such costs involve termination benefits, dismantling of installations and buildings, clean-up activities that exceed legal liabilities, etc. Costs related to regular and continuous improvement initiatives are included in underlying results.
- Significant community contributions Brazil refers to the provision recognized in relation to the TAC and TC agreements with the Government of Pará and Ministério Pùblico made in September 2018, including later cost adjustments and certain similar agreements.
- Other effects include insurance proceeds covering asset damage, legal settlements, etc. Insurance proceeds covering lost income in the same or a previous period are included in adjusted results.
- Pension includes recognition of pension plan amendments and related curtailments and settlements.
- Transaction related effects reflect the (gains) losses on divestment of businesses and individual assets, the net remeasurement (gains) losses related to previously owned shares in acquired businesses as well as inventory valuation expense related to acquisitions.
- Adjusted items in equity accounted investments reflects Hydro's share of adjusting items from adjusted net income in Qatalum and are based on Hydro's definitions, including both timing effects and material items not regarded as part of underlying business performance for the period.
- Impairment charges (PP&E and equity accounted investments) relate to significant write-downs of assets or groups of assets to estimated recoverable amounts in the event of an identified loss in value. Gains from reversal of impairment charges are also adjusted for.
- Depreciation relate to excess depreciation for assets with significantly reduced expected useful life related to a decision to close the plant or similar significant changes.
- Realized foreign exchange gain (loss) on risk management instruments represents such items as foreign currency derivatives entered into and managed to mitigate currency risk in the production margin, i.e. the difference between sales price for products such as aluminium or alumina versus the cost of raw materials and energy used in production. Realized embedded currency derivatives in certain power contracts in Norway denominated in Euro are also adjusted for. Such currency effects are included in currency gains and losses in finance expense in the income statement, and included in adjusted EBITDA and adjusted EBIT.
- Net foreign exchange (gain) loss: Realized and unrealized gains and losses on foreign currency denominated accounts receivable and payable, funding and deposits, embedded currency derivatives in certain power contracts and forward currency contracts purchasing and selling currencies that hedge net future cash flows from operations, sales contracts and operating capital, with the exception of the realized foreign currency exchange gain (loss) on risk management instruments mentioned above.
- Calculated income tax effect: In order to present adjusted net income on a basis comparable with our adjusted operating performance, the adjusted income taxes include adjustments for the expected taxable effects on adjusted items to income before tax.
- Other adjustments to net income from continuing operations include other major financial and tax related effects not regarded as part of the underlying business performance of the period.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Adjusting items to EBITDA and EBIT per operating segment and for Other and eliminations¹⁾

NOK million	Year 2021	Year 2020
Unrealized derivative effects on raw material contracts	(141)	5
Community contributions Brazil ²⁾	217	129
Other effects ³⁾	(46)	-
Hydro Bauxite & Alumina	30	134
Unrealized derivative effects on LME related contracts	4,912	(160)
Unrealized derivative effects on power contracts ⁴⁾	(2,763)	218
Significant rationalization charges and closure costs ⁵⁾	263	-
Net foreign exchange (gain)/loss ⁶⁾	(120)	-
Other effects ⁷⁾	(232)	(131)
Hydro Aluminium Metal	2,060	(74)
Unrealized derivative effects on LME related contracts	42	(38)
Other effects ⁸⁾	(46)	-
Hydro Metal Markets	(4)	(38)
Unrealized derivative effects on LME related contracts	122	(129)
Unrealized derivative effects on power contracts	(72)	-
Significant rationalization charges and closure costs ⁹⁾	114	187
(Gains)/losses on divestments ¹⁰⁾	(27)	(37)
Other effects ¹¹⁾	-	101
Hydro Extrusions	137	123
Unrealized derivative effects on power contracts	(107)	25
(Gains)/losses on divestments ¹²⁾	(45)	(5,308)
Net foreign exchange (gain)/loss ⁶⁾	21	-
Hydro Energy	(131)	(5,283)
Unrealized derivative effects on power contracts ¹³⁾	-	(76)
Unrealized derivative effects on LME related contracts ¹³⁾	13	(8)
(Gains)/losses on divestments ¹⁴⁾	(231)	(62)
Net foreign exchange(gain)/loss ⁶⁾	20	-
Other effects ¹⁵⁾	66	-
Other and eliminations	(132)	(146)
Adjusting items to EBITDA	1,959	(5,284)
Impairment charges		
<i>Hydro Aluminium Metal</i> ¹⁶⁾	276	504
<i>Hydro Extrusions</i> ¹⁷⁾	150	1,625
<i>Other and eliminations</i> ¹⁴⁾	-	(161)
Depreciation ¹⁸⁾	513	-
Adjusting items to EBIT	2,899	(3,316)

- ¹⁾ Negative figures indicate reversal of a gain and positive figures indicate reversal of a loss.
²⁾ Community agreements includes provisions for the TAC and TC agreements with the Government of Pará and Ministério Pùblico made in September 2018, including later adjustments for changes in cost estimates, and similar agreements.
³⁾ Other effects in Hydro Bauxite & Alumina include an insurance compensation for property damage at Alunorte.
⁴⁾ Unrealized derivative effects on power contracts includes the effect of settling some such contracts in Slovalco net through selling power and thereby meeting the requirement for recognizing contract in the same contract portfolio at fair value.
⁵⁾ Rationalization and closure costs related to Aluchemie.
⁶⁾ Realized currency gains and losses from risk management contracts and embedded currency derivatives in physical power and raw material prices.
⁷⁾ Other effects in Hydro Aluminium Metal in 2021 includes the recognized deferred tax asset in Qatalum after the end of the tax holiday period. Other effects in Hydro Aluminium Metal in 2020 relates to an insurance refunds for property damage at Albras.
⁸⁾ Other effects in Metal Markets includes a compensation received
⁹⁾ Significant rationalization and closure costs include provisions for costs related to reduction of overcapacity, closures and environmental clean-up activities in Hydro Extrusions.
¹⁰⁾ Divestments of Hydro Extrusions plants.
¹¹⁾ Other effects in Hydro Extrusions in 2020 include an environmental provision of NOK 101 million related to a closed site.
¹²⁾ Divestment gain in Hydro Energy in 2021 relates to the lower level of influence in Kyoto Group, which is now traded at the multilateral trading facility Euronext Growth Market, Oslo, for which equity accounting has ended. The gain in 2020 represent the gain on contributing the Røldal Suldal power assets to Lyse Kraft DA, which is partly owned by Hydro. The gain is net of the unrealized share equal to Hydro's retained ownership interest of 25.6 percent, which is eliminated.
¹³⁾ Unrealized derivative effects on power contracts and LME related contracts result from elimination of changes in the valuation of embedded derivatives within certain internal power contracts and in the valuation of certain internal aluminium contracts.
¹⁴⁾ Reversal of gain of sales of properties in Germany in 2020 and 2021. The property sold in 2020 was previously impaired, and the impairment was reversed when the property was sold.
¹⁵⁾ Other effects include an environmental provision of NOK 66 million related to closed sites in Germany.
¹⁶⁾ Impairment charges in Hydro Aluminium Metal reflect write downs related to the Slovalco smelter.
¹⁷⁾ Impairment charges include impairments of various assets, including goodwill, in Hydro Extrusions.
¹⁸⁾ Excess depreciation related to the anode producer Aluchemie which closed in 2021.

Adjusted earnings per share from continuing operations

NOK million	Year 2021	Year 2020
Net income (loss) from continuing operations	13,930	3,886
Adjusting items to net income (loss) from continuing operations ¹⁾ ²⁾	976	(1,038)
Adjusted net income (loss) from continuing operations	14,905	2,848
Adjusted net income from continuing operations attributable to non-controlling interests	1,017	150
Adjusted net income from continuing operations attributable to Hydro shareholders	13,888	2,698
Number of shares	2,051	2,049
Adjusted earnings per share from continuing operations	6.77	1.32

- ¹⁾ See Items excluded from adjusted net income (loss) in the section Financial results in Performance Review section
²⁾ Adjusting items to net income (loss) consist of the Adjusting items to EBIT specified on the previous page. In addition, a compensation received of NOK 128 million related to a financial claim for which there has been a legal dispute over several years was adjusted in the fourth quarter of 2020. These items are net of calculated tax effects, for most items based on a 30 percent standardized tax rate.

Adjusted net cash (debt) and adjusted net cash (debt) to adjusted EBITDA ratio

Hydro's capital management measures are described in [Note 7.1 Capital management](#) in the Financial statements, including reconciliations and comparable information

Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices

Adjusted Return on average Capital Employed (RoaCE)

Hydro uses adjusted RoaCE to measure the performance for the group as a whole and within its operating segments, both in absolute terms and comparatively from period to period. Management views this measure as providing additional understanding of the rate of return on investments over time in each of its capital intensive businesses and in the operating results of its business segments. RoaCE is calculated as (Adjusted) EBIT after tax divided by average Capital employed for the respective period. The definition of capital employed was amended during 2021 to be consistent with the amended definition of Net cash (debt), and excludes long-term collateral.

Capital employed for 2021 excludes Assets held for sale and Liabilities in disposal groups, as results from the divested Hydro Rolling business is separately reported as Income (loss) from discontinued operations. Capital employed and RoaCE for 2020 includes the divested Rolling business as reported in the 2020 annual report. This is consistent with the classification of the business in the years reported for.

Earnings after tax

NOK million	Reported		Underlying	
	2021	2020	2021	2020
EBIT	17,887	7,332	20,786	6,051
Adjusted Income tax expense ¹⁾	(4,314)	(2,366)	(5,255)	(2,640)
Earnings after tax	13,572	4,966	15,531	3,411

Capital employed

NOK million ²⁾	Dec 312021	Sep 302021	Jun 302021	Mar 312021	Dec 312020	Sep 302020	Jun 302020	Mar 312020
Current assets in continuing operations ³⁾	46,027	39,689	36,952	48,508	38,326	40,109	39,984	48,122
Property, plant and equipment	54,605	54,642	56,353	53,890	64,245	68,657	70,478	77,909
Other non-current assets ⁴⁾	42,250	42,144	41,951	39,749	40,072	34,176	35,159	39,377
Current liabilities (in continuing operations) ⁵⁾	(33,140)	(27,277)	(25,494)	(33,764)	(24,300)	(21,524)	(20,414)	(26,329)
Non-current liabilities ⁵⁾	(24,574)	(27,020)	(24,643)	(22,402)	(33,104)	(34,658)	(33,179)	(36,712)
Adjusted for Assets held for sale ⁶⁾					(17,069)			
Adjusted for Liabilities in disposal group ⁶⁾					12,266			
Capital Employed	85,167	82,177	85,119	81,178	85,239	86,760	92,027	102,367

Return on average Capital Employed (RoaCE)⁷⁾

	Reported		Adjusted	
	2021	2020	2021	2020
Hydro	16.3%	5.4%	18.6%	3.7%

¹⁾ Adjusted Income tax expense is based on reported and adjusted tax expense adjusted for tax on financial items.

²⁾ Previous periods have been restated following a change to the capital employed definition in 2021.

³⁾ Excluding cash and cash equivalents and short-term investments.

⁴⁾ Excluding long-term collateral related to strategic and operational hedging activities.

⁵⁾ Excluding interest-bearing debt.

⁶⁾ Excluding Hydro Rolling, reported as Income (loss) from discontinued operations.

⁷⁾ Average Capital Employed measured over the last 4 quarters to reflect the return for the full year.

Capital expenditure (Capex)

Capex is a measure for the cash amount spent on investment activities related to property, plant and equipment and other long-term investments as reported in the consolidated statements of cash flows for the period. Hydro uses this measure to drive optimization of capital allocation. The values include continuing operations only.

NOK million	2021	2020
Purchase of property, plant and equipment	(6,020)	(5,527)
Purchase of other long-term investments	(911)	(222)
Sum	(6,931)	(5,749)
Adjustments ¹⁾	49	66
Capital expenditure (continuing operations)	(6,882)	(5,683)

¹⁾ Adjusted for investment grants received

Cash effective change in net operating capital

This measure is used by Hydro to monitor and follow up on cash generation and to drive financial performance. Hydro primarily follows up net operating capital elements on a cash basis rather than a balance sheet value basis, as the latter are influenced by non-cash currency translation effects. The values include continuing operations only.

NOK million	2021	2020
Change in Trade and other receivables ¹⁾	(6,675)	1,204
Change in Inventories ¹⁾	(7,527)	293
Change in Trade and other payables ¹⁾	5,566	125
Cash effective change in net operating capital (continuing operations)	(8,636)	1,622

¹⁾ See [Consolidated statements of cash flows](#).

Free cash flow

Free cash flow is a measure of the net cash generation after investing activities. Hydro uses this measure to drive financial performance. Hydro has increased the use of financial derivatives for risk management purposes compared to previous periods. The definition of free cash flow was therefore amended in 2021 to exclude the impact from changes in collateral. In addition, an adjustment is made for the cash effect from net sales (purchases) of trading securities, as these are related to liquidity management activities and do not reflect the underlying cash generation from business activities. Hydro believes this is a better illustration of the underlying cash generation in the group. The values include continuing operations only.

NOK million	2021	2020
Net cash provided by operating activities ¹⁾	10,680	12,170
Adjusted for changes in collateral ²⁾	4,582	617
Adjusted for Net (sales) purchases of trading securities ³⁾	1,441	38
Net cash used in investing activities ¹⁾	(4,684)	(7,607)
Adjusted for Purchases of short-term investments ¹⁾	3,000	6,480
Adjusted for Sales of short-term investments ¹⁾	(4,500)	(3,985)
Free cash flow (continuing operations)	10,519	7,713

¹⁾ See [Consolidated statements of cash flows](#).

²⁾ Collateral provided as cash, mainly related to strategic and operational hedging activities (see Adjusted net debt APM).

³⁾ Securities used for liquidity management purposes, available at short notice. Changes to these funds do not reflect the underlying cash generation from business activities.

Country-by-country report

Hydro's country by country report has been developed to comply with legal requirements as stated in the Norwegian Accounting Act §3-3d and the Norwegian Security Trading Act §5-5a, valid from 2014, and updated in 2017, and replaces our former reporting on payments to host governments according to the Extractive Industries Transparency Initiative (EITI). Our reporting includes, and goes beyond, the EITI requirements. According to the Norwegian Accounting Act, the country-by-country reporting should be on a project level, and payments should be reported per public authority. Following a thorough evaluation, we have defined "project" as legal entity in the report, and "public authority" as the three levels federal; state(s); and municipality(-ies).

The reporting requirement applies to Hydro as a Norwegian listed company with exploration and extractive activities. Currently, this includes Hydro's consolidated operations in Brazil, through exploration and extractive activities in Paragominas, in the state of Pará. On a voluntary basis, and in line with our EITI reporting since 2005, we also include the alumina refinery Alunorte. Alumina is refined from bauxite and is the commercial product from Hydro's Bauxite & Alumina business area.

Hydro's primary aluminium production facility Albras is also closely linked to the extraction of raw materials in Pará. In order to better illustrate the tax contribution from Hydro's aluminium value chain in Pará, Albras is included on a voluntary basis in the country-by-country report. In addition, Hydro voluntarily report on indirect tax contributions not covered by the requirements in the country by country report.

To comply with the Norwegian country-by-country regulation, Hydro is required to report on certain information at corporate level related to legal entities, where they are registered, number of employees, and interest paid to other legal entities in Hydro within another jurisdiction. From 2017, it is also required to give a short description of each legal entity's activities, revenue, income before tax, tax accrued and paid in the reporting year, and accumulated earnings. For additional reporting in accordance with the GRI 207 Tax standard, please see Hydro's GRI index.

The Country-by-country report is approved by the board of directors and included in their responsibility statement.

Taxation

Global tax policy

Hydro is committed to sustainable value-creation for its stakeholders, and the communities where it operates. Hydro's global tax policy regulates the global framework for tax management and governance in the group and can be found at [hydro.com](#). Hydro is committed to transparency and accuracy in its tax management and to pay taxes where the economic value is generated.

In addition to this section, tax related disclosures are found under non-financial reporting (See [Note S7 Current income tax](#)), here and in the [Risk section](#).

Taxation of hydropower production in Norway

Profits from Hydro's hydropower production in Norway are subject to ordinary income tax at 22 percent for the income year 2021. Revenue for ordinary income tax purposes is based on realized prices. Dams, tunnels and power stations are, for tax purposes, depreciated on a linear basis over 67 years, and machinery and generators over 40 years. However, such fixed assets are depreciated over the concession period if that is shorter. Transmission and other electrical equipment are depreciated at a 5 percent declining balance.

A natural resource tax of NOK 13 per MWh is currently levied on water-generated electricity. The tax is fully deductible from the ordinary income tax.

In addition, a special resource rent tax, is imposed on hydropower production in Norway. For income year 2021 the tax rate is increased from 37 percent to 47,4 percent and all new investments and upgrade/maintenance cost can be expensed/excluded from the basis for the resource rent tax. The tax rate increase is offset by a corresponding deduction in the tax basis for the resource rent tax. Marginal tax rate remains unchanged at 59 percent.

Unlike the ordinary income tax, financial costs are not deductible against the basis for the resource rent tax. Instead, uplift is granted as a special deduction in the net income, computed as a percentage of the average tax basis of fixed assets for the income year. The percentage, is determined

annually by the Ministry of Finance, (0.3 percent for 2021), essentially provides for a certain resource rent tax free return on fixed assets.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Taxation in Brazil*Payments to authorities per project and authority (exploration and extractive activities, alumina refining and aluminium production) in 2021*

Extractive related activities (all in Brazil) ¹⁾	Taxes and fees ²⁾ NOK million	Royalties NOK million	License fees ³⁾ NOK million	Infrastructure, contractual ⁴⁾ NOK million	Infrastructure, voluntary ⁴⁾ NOK million	Investments NOK million	Revenue ⁵⁾ NOK million	Production volume 1 000 mt	Total expenses ^{5, 6)} NOK million
Mineracao Paragominas SA, total	270	102	1	10	3	802	3,306	10,926	2,338
Federal	234	10							
Pará State	36	31							
Paragominas municipality		61							
Norsk Hydro Brasil Ltda, total	12					49	2	-	20
Federal	12								
Rio de Janeiro State									
São Paulo Municipality									
Alunorte - Alumina do Norte do Brasil SA, total	501			1	13	1,486	17,704	6,305	16,279
Federal	500								
Pará State	1								
Barcarena Municipality									
Albras - Alumínio Brasileiro SA, total	475			1	3	986	9,507	427	7,086
Federal	475								
Pará State	-								
Barcarena Municipality									
Total⁷⁾	1,259	102	1	12	20	3,324	30,519	17,658	25,722

¹⁾ In 2021, Hydro's extractive activities did not have the following types of payments to host authorities:

- production entitlements
- dividends
- signature, findings and production bonuses
- stocks, shares or other ownership rights

²⁾ Taxes and fees (income, profit and production) except taxes on consumption such as VAT, withholding taxes on behalf of employees, sales tax. Figures are not directly comparable to the further country by country report.³⁾ License, lease or access fees or other payments for licenses or commissions.⁴⁾ Payments on improved infrastructure, either contractual based on exploration or operational licenses, or voluntary is based on Hydro's reporting on social investments, please see [Note S9 Social responsibility](#) to the social statements in Hydro's Annual Report.⁵⁾ Including power procurement and sales.⁶⁾ Costs at Alunorte include purchase of bauxite from Paragominas. Costs at Albras include purchase of alumina from Alunorte.⁷⁾ Only figures where a total is presented can be consolidated.

Other tax contributions to authorities in Brazil

The Brazilian tax system is complex and volatile. In addition to the direct taxes reported above on income, profit and production, Brazil has several indirect taxes levied at the federal and state levels, and other taxes levied at the municipal level.

For Hydro, there are three relevant indirect tax mechanisms not covered by the country-by-country requirements, i.e ICMS and PIS/COFINS.

ICMS is a Brazilian state tax on the sale of goods, freight and certain services, similar to VAT. ICMS is intended to be a non-cumulative tax, which means that sales are generating ICMS debits with the seller, and purchases are generating ICMS credits with the buyer. However, as export transactions are exempt from ICMS and not generating ICMS debits, exporters accumulate ICMS credits that cannot be offset with any other taxes. As ICMS is an indirect tax, the amounts are reported as expenses in Hydro's financial statements rather than as income tax.

In the state of Pará, Hydro is subject to a tax regime that aims at preventing the accumulation of ICMS recognized credits, and reduces net payable ICMS. From our operations, we generate ICMS tax revenue to Pará when purchasing diesel and fuel oil, when Albras acquires electricity, and also on sales of products to customers located outside the state.

In 2015, the state of Pará granted a renewal of the ICMS (value added tax) deferral regime for Hydro Paragominas, Hydro Alunorte and Albras for a 15-year period, meaning that the companies are not entitled to book ICMS credits and the deferred ICMS tax is not due on the exports of goods. This regime is subject to Hydro being compliant with multiple conditions all related to verticalization of the aluminium value chain in the state of Pará, contribution to development in the region and enabling sustainable growth in the state.

For more information about ICMS, see risk review [9. Material tax change](#).

PIS and COFINS are two social contribution taxes charged on gross income, in most cases at the rate of 9.25 percent. Hydro's group companies in Brazil are charged under a non-cumulative system that resembles VAT. Similar to ICMS, export transactions are not subject to this tax. As a result,

Brazilian exporters, like Alunorte and Albras, accumulate credits that can be either reimbursed or offset against debts of other federal taxes.

In addition to the indirect taxes described above, Brazilian municipalities levy a property tax. The property tax, IPTU, is a tax levied on the ownership or possession of urban land and property located in the urban area within the municipality. IPTU is due yearly based on the value of the property, according to rates and conditions foreseen in each municipality's legislation.

The following table includes Hydro entities involved in extractive activities as well as other Hydro entities in the state of Pará.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Other taxes paid to authorities in Brazil¹⁾

Extractive related activities	ICMS	PIS	COFINS	IPTU	Total contribution
	NOK million	NOK million	NOK million	NOK million	NOK million
Mineracao Paragominas SA, total	49	1	3	-	54
Federal	-	1	3	-	4
Pará State	49	-	-	-	49
Paragominas municipality	-	-	-	-	-
Norsk Hydro Brasil Ltda, total	-	2	9	-	11
Federal	-	2	9	-	11
Rio de Janeiro State	-	-	-	-	-
São Paulo Municipality	-	-	-	-	-
Alunorte - Alumina do Norte do Brasil SA, total	868	3	15	16	902
Federal	-	3	15	-	18
Pará State	868	-	-	16	884
Barcarena Municipality	-	-	-	-	-
Albras - Alumínio Brasileiro SA, total	391	18	86	13	509
Federal	-	18	86	-	104
Pará State	391	-	-	13	404
Barcarena Municipality	-	-	-	-	-
Total	1,309	24	113	29	1,475

¹⁾ Tax off-sets are not included.

Introduction
Our business
Performance review
Governance
Environment and social responsibility
Financial statements
Appendices

Further country by country information for all consolidated legal entities

The Norwegian country by country reporting requirement as stated in the Norwegian Accounting Act and the Country by Country Regulation also require reporting on certain information at corporate level related to legal entities, as included in the table below.

Hydro's subsidiaries have both external revenue derived from sale to Hydro's end customers, and internal revenue derived from sale to other Hydro entities. In the table below both revenue streams are included per legal entity, but in Hydro's consolidated financial statements all internal transactions have been eliminated to arrive at Hydro's revenue. The sum of the different items for Hydro's subsidiaries will therefore not add up to the respective consolidated figures.

In order to present a Grand Total in the country by country report that is comparable to Hydro's consolidated financial statements, we have included all group eliminations as a separate line. These include, but are not limited to, eliminations of internal revenue and cost, internal receivables and payables, distributed profit such as dividends within the group, goodwill and excess values not attributable to individual legal entities, accumulated profits allocated to non-controlling interests and all joint operations and joint ventures.

Assets and liabilities in subsidiaries that have been acquired have been remeasured to fair value in Hydro's financial statements. This value adjustment, often referred to as excess value, represents the difference between the fair value of the company as paid by Hydro, and the carrying value of assets and liabilities as recognized by the subsidiary at the time of purchase. This premium is not reflected in the subsidiaries local statutory reporting. Due to this, figures reported in Hydro's country by country report are not necessarily comparable to the entities' local statutory reporting. Acquired entities are included from the date of acquisition. As a result of rounding adjustments, the figures in one or more of the columns in the table below may not add up to the total of that column.

The information is included in the independent auditor's assurance report.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Further country by country information for all consolidated legal entities¹¹⁾

	Jurisdiction	Legal entity	Description of the entity's activity	Ownership 31. dec	Number of permanent employees ¹⁾	Number of temporary employees ¹⁾	Interest paid to Hydro legal entities in another jurisdiction, NOK million	Revenue, NOK million ²⁾	Income before tax, NOK million ³⁾	Income taxes, NOK million ⁴⁾	Income taxes paid, NOK million ⁵⁾	Retained earnings, NOK million ⁶⁾
Argentina	Hydro Extrusion Argentina SA	Precision tubing production	100%	98	-	1.1	283	44	17	9	55	
Total Argentina				98	-	1.1	283	44	17	9	55	
Australia	Hydro Aluminium Australia Pty. Limited ⁷⁾	Local holding company	100%	-	-	-	1,603	377	97	-	524	
	Hydro Aluminium Kurri Kurri Pty. Limited	Real estate	100%	6	-	-	10	5	(100)	-	(1,979)	
	Total Australia			6	-	-	1,614	382	(3)	-	(1,455)	
Austria	Hydro Building Systems Austria GmbH	Sales company	100%	31	-	-	248	13	3	-	41	
	Hydro Extrusion Nenzing GmbH	Extrusion production	100%	439	12	-	2,294	197	49	339		
	Hydro Holding Austria GmbH	Local holding company	100%	-	-	-	-	119	-1	43	244	
	Total Austria			470	12	-	2,542	329	51	43	624	
Bahrain	Hydro Building Systems Middle East WLL	Building systems production	100%	64	-	0.3	254	1	-	-	110	
	Total Bahrain			64	-	0.3	254	1	-	-	110	
Belgium	Hydro Allease NV	Support services	100%	-	-	-	3	3	1	1	45	
	Hydro Aluminium Belgium BVBA	Support services	100%	-	-	-	-	-	-	-	-	
	Hydro Building Systems Belgium NV	Building systems production	100%	212	12	-	536	5	-	-	(220)	
	Hydro Extrusion Lichtervelde NV	Extrusion production	100%	213	1	0.2	1,942	103	31	1	459	
	Hydro Extrusion Raeren S.A.	Extrusion production	100%	213	3	-	979	45	12	6	127	
	Norsk Hydro EU Sprl	Public affairs	100%	2	2	-	5	-	-	-	1	
	Hydro Extrusion Eupen SA	Dies production	100%	45	-	0.1	58	-	(1)	-	(33)	
	Hydro Precision Tubing Lichtervelde NV	Precision tubing production	100%	100	-	-	428	(13)	9	-	(2)	
	Sapa Precision Tubing Seneffe S.A.	Dissolved 2021	100%	-	-	-	-	-	-	-	-	
	Total Belgium			785	18	0.3	3,952	142	52	9	378	
Brazil	ALBRAS - Alumínio Brasileiro SA	Primary aluminium production	51%	1,262	56	-	9,507	2,407	815	524	2,330	
	ALUNORTE - Alumina do Norte do Brasil S.A.	Alumina refinery	92%	2,151	187	-	17,349	710	292	204	1,561	
	Ananke Alumina SA	Local holding company	100%	-	-	-	63	65	22	21	1,226	
	Atlas Alumínio SA	Local holding company	100%	-	-	-	1,220	675	137	126	512	
	Calypso Alumina SA	Local holding company	100%	-	-	-	-	-	-	-	(2)	
	CAP - Companhia de Alumina do Pará SA	Planned alumina refinery	100%	-	-	-	-	(18)	-	-	(326)	
	HARP Sales Office Brazil SA ⁸⁾	Extrusion and precision tubing	100%	-	-	8.8	-	-	-	-	-	
	Hydro Rein Brasil Soluções Renováveis Ltda	Power trading & Energy services	100%	5	-	-	-	(6)	-	-	-6	
		Extrusion and precision tubing										
		production	100%	857	35	-	1,658	(26)	23	37	-208	
	Hydro Extrusion Brasil S.A.	Bauxite mining	100%	1,493	147	-	3,306	1,015	149	209	856	
	Mineração Paragominas SA	Local holding company	100%	406	32	-	13	(12)	12	14	(338)	
	Norsk Hydro Brasil Ltda.	Power trading & Energy services	100%	8	4	-	811	15	5	2	19	
	Total Brazil			6,182	461	8.8	33,928	4,825	1,455	1,137	5,623	
Canada	Hydro Aluminium Canada & Co. Ltd ⁹⁾	Local holding company	100%	-	-	-	3,043	722	243	96	876	
	Hydro Aluminium Canada Inc.	Local holding company	100%	-	-	-	-	1	-	-	29	
	Hydro Extrusion Canada Inc.	Extrusion production	100%	573	3	-	2,868	130	35	54	871	
	Hydro Rein Energy Solutions Canada Ltd.	Local holding company	100%	-	-	0.1	-	-	-	-	-	
	Total Canada			573	3	0.1	5,911	853	279	150	1,776	

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

	Jurisdiction	Legal entity	Description of the entity's activity	Ownership 31. dec	Number of permanent employees ¹⁾	Number of temporary employees ¹⁾	Interest paid to Hydro legal entities in another jurisdiction, NOK million	Revenue, NOK million ²⁾	Income before tax, NOK million ³⁾	Income taxes, NOK million ⁴⁾	Income taxes paid, NOK million ⁵⁾	Retained earnings, NOK million ⁶⁾
China & Hong Kong	Hydro Aluminium Beijing Ltd.	Sales company	100%	7	-	-	-	2,741	46	12	10	91
	Hydro Building Systems (Beijing) Co. Ltd.	Sales company	100%	22	1	-	-	108	(9)	-	-	(107)
	Hydro Extrusion (Shanghai) Co. Ltd	Extrusion production	100%	-	-	-	-	370	66	26	21	30
	Hydro Aluminium Fabrication (Taicang) Ltd	Precision tubing production	100%	194	-	-	-	506	62	13	15	48
	Hydro Precision Tubing (Shanghai) Co. Ltd.	Extrusion production	100%	-	-	-	-	76	3	1	3	19
	Hydro Precision Tubing (Suzhou) Co. Ltd.	Precision tubing production	100%	378	-	-	-	1,128	68	7	25	84
	Hycast Technology Shanghai Co., Ltd	Development and design of casting technology and related sales	100%	1	-	-	-	-	-	-	-	-
	Sapa Extrusion (Jiangyin) Co. Ltd.	Dormant	100%	-	-	-	-	-	-	-	-	(30)
Total China & Hong Kong				602	1	-	-	4,929	234	59	75	135
Croatia	Hydro Building Systems Croatia d.o.o.	Building systems production	100%	14	-	-	-	-	-	-	-	1
Total Croatia				14	-	-	-	-	-	-	-	1
Czech Republic	Hydro Building Systems Czechia sro	Sales company	100%	7	-	-	-	-	-	-	-	2
Total Czech Republic				7	-	-	-	-	-	-	-	2
Denmark	Hydro Aluminium Rolled Products Denmark A/S8)	Sales company	100%	-	-	-	-	2	1	-	-	-
	Hydro Extrusion Denmark A/S	Extrusion production	100%	296	-	-	3.3	1,726	85	19	-	303
	Hydro Holding Denmark A/S	Local holding company	100%	-	-	-	0.1	-	(7)	-1	51	1,434
	Hydro Precision Tubing Tønder A/S	Precision tubing production	100%	415	23	-	-	1,331	(15)	-4	-	680
Total Denmark				711	23	-	3.4	3,059	63	14	51	2,417
Estonia	Hydro Extrusion Baltics AS	Extrusion production	100%	14	-	-	-	147	7	1	1	19
Total Estonia				14	-	-	-	147	7	1	1	19
Finland	Hydro Extrusion Finland Oy	Sales company	100%	10	1	-	-	112	5	1	1	28
Total Finland				10	1	-	-	112	5	1	1	28
France	Extrusion Services S.a.r.l	Recycling	100%	43	-	-	-	832	108	19	-	256
	Hydro Aluminium France S.A.S. ⁸⁾	Sales company	100%	-	-	-	-	5	2	1	1	-
	Hydro Aluminium Sales and Trading s.n.c.	Sales company	100%	3	-	-	-	5	-	-	-	3
	Hydro Building Systems France Sarl	Building systems production	100%	971	49	-	-	3,550	301	105	21	591
	Hydro Extrusion Albi SAS	Extrusion production	100%	258	1	-	-	1,136	54	25	-	81
	Hydro Extrusion Lucé/Châteauroux SAS	Extrusion production	100%	332	5	-	-	1,047	(13)	6	2	(65)
	Hydro Extrusion Puget SAS	Extrusion production	100%	172	2	0.8	-	786	15	5	1	104
	Hydro Holding France SAS	Local holding company	100%	2	1	-	-	-	7	(5)	105	(655)
	Hydro Tool Center SAS	Tool and spare parts services	100%	-	-	-	0.2	37	-	-	-	5
	Hydro Shared Services France	Shared services	100%	9	-	-	-	16	1	1	-	3
Total France				1,790	58	-	1.0	7,414	475	155	129	324

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

	Jurisdiction	Legal entity	Description of the entity's activity	Ownership 31. dec	Number of permanent employees ¹⁾	Number of temporary employees ¹⁾	Interest paid to Hydro legal entities in another jurisdiction, NOK million	Revenue, NOK million ²⁾	Income before tax, NOK million ³⁾	Income taxes, NOK million ⁴⁾	Income taxes paid, NOK million ⁵⁾	Retained earnings, NOK million ⁶⁾
Germany	Eugen Notter GmbH	Building systems production	100%	20	1	-	25	3	1	-	-	12
	Hydro Aluminium Deutschland GmbH ⁸⁾	Local holding company	100%	69	1	-	26	(2,224)	(466)	36	36	1,835
Governance	Hydro Aluminium Dormagen GmbH ⁸⁾	Value-adding services	100%	-	-	-	20	3	-	-	-	-
	Hydro Aluminium Gießerei Rackwitz GmbH	Recycling	100%	61	8	-	1,398	91	14	-	-	77
Environment and social responsibility	Hydro Aluminium High Purity GmbH	High-purity aluminium production	100%	67	6	0.8	360	12	15	-	-	84
	Hydro Aluminium Recycling Deutschland GmbH	Recycling	100%	25	6	-	49	(6)	(1)	-	-	83
	Hydro Aluminium Rolled Products GmbH	Rolling mills and primary aluminium production	100%	-	-	-	9,354	781	(12)	8	8	15
Financial statements	Hydro Building Systems Coating GmbH	Building systems production	100%	98	-	-	81	2	1	-	-	26
	Hydro Building Systems Germany GmbH	Building systems production	100%	360	29	0.9	1,600	10	(9)	-	-	116
Appendices	Hydro Building Systems Extrusion GmbH	Building systems production	100%	107	5	-	705	15	(6)	-	-	4
	Hydro Extrusion Deutschland GmbH	Extrusion production	100%	400	88	7.0	2,025	106	(15)	-	-	146
	Norsk Hydro Deutschland Verwaltungs GmbH	Local holding company	100%	-	-	0.1	-	-	-	-	-	-
	Hydro Extrusion Offenburg GmbH	Extrusion production	100%	217	26	-	874	41	(5)	-	-	103
	Hydro Holding Offenburg GmbH	Local holding company	100%	36	2	-	33	(11)	66	33	33	199
	SEGN Standort-Entwicklungs-Gesellschaft Nabwerk mbH	Dormant	100%	-	-	-	-	-	-	-	-	-
	VAW-Innwerk Unterstützungs-Gesellschaft GmbH	Pension fund	78%	-	-	-	-	-	-	-	-	217
	Total Germany			1460	172	8.8	16,550	(1,178)	-417	77	2,917	
Greece	Hydro Building Systems A.E.	Entity is in liquidation	100%	-	-	-	-	(1)	-	-	-	(39)
	Total Greece								(1)	-	-	(39)
Hungary	Hydro Extrusion Hungary Kft	Extrusion production and support services	100%	1,650	1	-	2,499	193	58	59	59	253
	Total Hungary			1,650	1		2,499	193	58	59	59	253
India	Sapa Extrusion India Pvt. Ltd.	Precision tubing production	100%	450	-	-	417	23	-	-	-	(448)
	Total India			450			417	23	1	-	-	(448)
Italy	Hydro Aluminium Metal Products S.r.l.	Sales company	100%	2	-	-	6	1	1	-	-	18
	Hydro Building Systems Atessa s.r.l.	Building systems production	100%	153	10	-	1,120	70	2	(1)	94	
	Hydro Building Systems Italy S.P.A.	Building systems production	100%	161	4	-	879	31	(1)	1	210	
	Hydro Extrusion Italy S.r.l.	Extrusion production	100%	292	24	-	1,731	65	4	1	389	
	Hydro Holding Italy S.P.A.	Dissolved 2021	100%	-	-	0.1	-	-	2	6	-	
	HARP Sales Office Italy s.r.l. ⁸⁾	Sales company	100%	-	-	-	-	-	-	-	-	
	Total Italy			608	38	0.2	3,737	166	9	8	710	
Japan	Hydro Aluminium Japan KK	Sales company	100%	8	-	-	260	11	4	1	1	66
	Total Japan			100%	8		260	11	4	1	1	66
Lithuania	Hydro Building Systems Lithuania UAB	Building systems production	100%	8	-	-	89	7	1	-	-	25
	Hydro Extrusion Lithuania UAB	Extrusion production	100%	193	1	-	140	40	5	1	1	79
	Total Lithuania			201	1		230	47	6	1	1	104
Luxembourg	Hydro Aluminium Clervaux S.A.	Recycling	100%	51	6	-	1,613	126	34	23	214	
	Total Luxembourg			51	6		1,613	126	34	23	214	

Jurisdiction	Legal entity	Description of the entity's activity	Ownership 31. dec	Number of permanent employees ¹⁾	Number of temporary employees ¹⁾	Interest paid to Hydro legal entities in another jurisdiction, NOK million	Revenue, NOK million ²⁾	Income before tax, NOK million ³⁾	Income taxes, NOK million ⁴⁾	Income taxes paid, NOK million ⁵⁾	Retained earnings, NOK million ⁶⁾
Mexico	Hydro Aluminium Metals Mexico S. de R.L.	Sales company	100%	-	-	-	-	-	-	-	(1)
	Hydro Precision Tubing Monterrey S. de R.L. de C.V.	Precision tubing production	100%	162	3	-	9	9	3	(1)	127
	Hydro Precision Tubing Reynosa S. de R.L. de C.V.	Extrusion and precision tubing production	100%	246	7	-	101	12	3	4	30
	Hydro Precision Tubing Services Monterrey S. de R.L. de C.V.	Precision tubing production	100%	-	-	-	22	1	(1)	(1)	1
				408	10	-	132	22	4	2	157
Total Mexico											
Netherlands	Hydro Albras B.V.	Local holding company	100%	-	-	-	-	437	-	-	438
	Hydro Aluminium Brasil Investment B.V.	Local holding company	100%	-	-	-	-	(4)	(1)	-	915
	Hydro Aluminium Investment B.V.	Local holding company	100%	-	-	-	-	-	-	-	-
	Hydro Aluminium Netherlands B.V.	Local holding company	100%	-	-	-	-	60	-	-	262
	Hydro Aluminium Pará B.V.	Local holding company	100%	-	-	-	-	-	-	-	(126)
	Hydro Aluminium Qatalum Holding B.V.	Local holding company	100%	-	-	-	-	1,551	-	-	1,309
	Hydro Aluminium Rolled Products Benelux B.V. ⁸⁾	Sales company	100%	-	-	-	3	1	-	-	-
	Hydro Alunorte B.V.	Local holding company	92%	-	-	-	-	-	-	-	-
	Hydro Building Systems Netherlands B.V.	Building systems production	100%	-	-	-	18	11	3	-	16
	Hydro CAP B.V.	Local holding company	100%	-	-	-	-	-	-	-	(406)
	Hydro Extrusion Drunen B.V.	Extrusion production	100%	385	27	-	1,802	55	(53)	-	841
	Hydro Extrusion Holding Netherlands B.V.	Real estate	100%	-	-	-	-	-	-	1	(2)
	Hydro Extrusion Hoogezaand B.V.	Extrusion production	100%	168	4	-	843	86	22	-	288
	Hydro Leaf B.V.	Local holding company	100%	-	-	-	-	-	-	-	-
	Hydro Paragominas B.V.	Local holding company	100%	-	-	-	-	612	-	-	377
	Hydro Rein Feijão Holding B.V.	Local holding company	100%	-	-	-	-	(2)	-	-	(1)
	Hydro Rein Netherlands B.V.	Local holding company	100%	-	-	-	-	(1)	-	-	(1)
	Hydro Rein Irapé Holding B.V.	Local holding company	100%	-	-	-	-	-	-	-	-
	Norsk Hydro Holland B.V.	Local holding company	100%	5	-	-	21	2,140	-	-	13,031
Total Netherlands				558	31	-	2,686	4,947	-30	1	16,942
Norway	Hycast AS	Development and design of casting technology and related sales	100%	58	-	-	297	7	1	1	134
	Hydro Aluminium AS	Primary aluminium production	100%	2,283	578	167.7	53,809	3,295	46	344	19,706
	Hydro Aluminium Rolled Products AS ⁹⁾	Rolling mill	100%	-	-	1.2	2,243	183	-	-	-
	Hydro Energi AS	Power production	100%	238	8	-	9,594	4,732	1,344	359	8,276
	Hydro Energi Invest AS	Local holding company	100%	-	-	0.6	16	(68)	(15)	-	-
	Hydro Extruded Solutions AS	Local holding company	100%	48	1	111.7	-	578	5	1	853
	Hydro Extrusion Norway AS	Extrusion production	100%	117	10	-	526	26	6	-	70
	Hydro HAVRAND AS	Green hydrogen	100%	-	-	-	-	(30)	(7)	-	-
	Hydro Kapitalforvaltning AS	Local holding company	100%	-	-	-	12	-	-	-	-
	Hydro Rein AS ¹⁰⁾	Renewable energy	100%	-	-	2.2	63	(20)	6	18	174
	Hydro Rein Energy Solutions AS	Own and develop renewable energy solutions	100%	-	-	-	-	(11)	(2)	-	-
	Hydro Rein Invest AS	Consultancy services	100%	-	-	-	-	(17)	(4)	-	-
	Hydro Vigeland Brug AS	High-purity aluminium production	100%	36	6	-	117	8	2	-	109
	Industriforsikring AS	Insurance	100%	-	-	-	148	143	17	(2)	638
	Norsk Hydro ASA	Parent company	100%	375	16	0.8	205	1,919	103	44	28,670
	Sveigfos AS	Power trading & energy services	100%	-	-	-	-	-	-	-	1
	Sør-Norge Aluminium AS	Primary aluminium production	100%	338	133	36.5	4,384	1,006	232	-	2,539
Total Norway				3,493	752	320.8	71,414	11,751	1,734	766	61,172

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

	Jurisdiction	Legal entity	Description of the entity's activity	Ownership 31. dec	Number of permanent employees ¹⁾	Number of temporary employees ¹⁾	Interest paid to Hydro legal entities in another jurisdiction, NOK million	Revenue, NOK million ²⁾	Income before tax, NOK million ³⁾	Income taxes, NOK million ⁴⁾	Income taxes paid, NOK million ⁵⁾	Retained earnings, NOK million ⁶⁾
Oman	Oman	Hydro Building Systems Middle East (FZC) LLC	Building systems production	99%	-	-	-	144	52	-	-	98
	Total Oman				-	-	-	144	52	-	-	98
Poland	Poland	Hydro Aluminium Rolled Products Polska Sp. z o.o. ⁸⁾	Sales company	100%	-	-	-	1	-	-	-	-
		Hydro Building Systems Poland Sp. z o.o.	Building systems production	100%	48	1	0.3	104	5	1	-	(6)
		Hydro Extrusion Poland Sp. z o.o.	Extrusion production	100%	1,463	3	0.8	2,706	171	37	47	862
	Total Poland				1,511	4	1.2	2,812	176	38	47	855
Portugal	Portugal	Hydro Aluminium Extrusion Portugal HAEP S.A.	Extrusion production	100%	111	24	-	674	9	(3)	-	75
		Hydro Building Systems Portugal (HBSPT) SA	Building systems production	100%	67	-	-	223	8	16	18	24
	Total Portugal				178	24	-	898	18	13	18	99
Serbia	Serbia	Hydro Building Systems Beograd d.o.o.	Building systems production	100%	-	-	-	-	-	-	-	-
	Total Serbia				-	-	-	-	-	-	-	-
Singapore	Singapore	Hydro Aluminium Asia Pte. Ltd.	Trading company	100%	18	-	-	9,825	93	9	10	357
		Hydro Holding Singapore Pte. Ltd.	Sales and local holding company	100%	25	-	0.1	41	(8)	-	-	(432)
	Total Singapore				43	-	0.1	9,867	84	9	10	(74)
Slovakia	Slovakia	Hydro Extrusion Slovakia a.s.	Extrusion production	100%	408	2	0.1	884	35	12	7	6
		Stervalco a.s.	Primary aluminium production	55%	450	-	-	3,613	2,778	532	21	2,165
		ZSNP DA, s.r.o.	Transportation	55%	-	-	-	9	2	-	-	2
	Total Slovakia				858	2	0.1	4,506	2,815	544	29	2,173
South Africa	South Africa	Technal Systems South Africa (Pty) Ltd.	Entity is in liquidation	100%	-	-	-	-	-	(1)	-	(11)
	Total South Africa				-	-	-	-	-	(1)	-	(11)
Spain	Spain	Hydro Aluminium Iberia S.A.U	Recycling	100%	56	9	-	1,803	84	2	46	409
		Hydro Aluminium Rolled Products Iberia S.L. ⁸⁾	Sales company	100%	-	-	-	4	2	-	-	-
		Hydro Building Systems Spain S.L.U.	Building systems production	100%	259	12	-	746	2	(15)	-	(10)
		Hydro Extruded Solutions Holding S.L.U.	Local holding company	100%	10	-	-	2	-	(2)	-	(660)
		Hydro Extrusion Spain S.A.U.	Extrusion production	100%	306	44	-	1,496	123	(1)	-3	636
	Total Spain				631	65	-	4,051	211	(15)	42	376
Sweden	Sweden	Hydro Building Systems Sweden AB	Building systems production	100%	116	2	-	752	81	(1)	1	8
		Hydro Extruded Solutions AB	Local holding company R&D	100%	52	1	1.5	61	507	51	41	2,893
		Hydro Extrusion Sweden AB	Extrusion production	100%	812	29	2.6	2,790	82	-6	-	672
		HARP Sales Office Sweden AB ⁸⁾	Sales company	100%	-	-	-	-	-	-	-	-
		Sapa China Holding AB	Local holding company	100%	-	-	-	-	183	-	-	234
	Total Sweden				980	32	4.2	3,603	852	45	41	3,807
Switzerland	Switzerland	Hydro Aluminium International SA	Sales company	100%	15	-	2.3	17,499	241	30	1	-209
		Hydro Aluminium Walzprodukte AG ⁸⁾	Sales company	100%	-	-	-	1	-	-	-	-
		Hydro Building Systems Switzerland AG	Sales company	100%	41	2	0.1	310	37	6	13	46
	Total Switzerland				56	2	2.4	17,810	278	36	14	-162
Turkey	Turkey	Hydro Yapi Sistem Sanayi VE Ticaret AS	Sales company	100%	23	-	-	86	(4)	1	-	5
	Total Turkey				23	-	-	86	(4)	1	-	5
Ukraine	Ukraine	Sapa Profiles UA	Entity is in liquidation	100%	-	-	-	-	-	-	-	-
	Total Ukraine				-	-	-	-	-	-	-	-
United Arab Emirates	United Arab Emirates	Hydro Building Systems Middle East FZE	Sales company	100%	11	1	-	87	4	-	-	67
	Total United Arab Emirates				11	1	-	87	4	-	-	67



Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

	Jurisdiction	Legal entity	Description of the entity's activity	Ownership 31. dec	Number of permanent employees ¹⁾	Number of temporary employees ¹⁾	Interest paid to Hydro legal entities in another jurisdiction, NOK million	Revenue, NOK million ²⁾	Income before tax, NOK million ³⁾	Income taxes, NOK million ⁴⁾	Income taxes paid, NOK million ⁵⁾	Retained earnings, NOK million ⁶⁾
United Kingdom	Hydro Aluminium Deeside Ltd.	Recycling	100%	50	-	-	-	1,131	79	14	-	191
	Hydro Aluminium Rolled Products Ltd. ⁸⁾	Sales company	100%	-	-	-	-	5	1	-	-	-
	Hydro Building Systems UK Ltd.	Building systems production	100%	125	2	-	-	460	(21)	(5)	-	284
	Hydro Components UK Ltd.	Entity is in liquidation	100%	-	-	-	-	-	-	-	-	-
	Hydro Aluminium UK Ltd.	Extrusion production	100%	729	3	6.6	2,175	54	(3)	-	100	
	Hydro Holdings UK Ltd.	Local holding company	100%	-	-	-	-	1	(1)	-	-	(369)
	Total United Kingdom			904	5	6.6	3,773	112	6	-	206	
USA	EMC Ashtabula Inc	Local holding company	100%	-	-	-	-	-	(4)	(4)	-	(2,476)
	EMC Metals Inc	Local holding company	100%	-	-	-	-	-	(12)	(2)	-	874
	HARP Sales Office USA, Inc ⁹⁾	Sales company	100%	-	-	-	-	-	(1)	-	-	-
	Hydro Aluminium Metals USA, LLC	Recycling and sales	100%	95	2	-	-	6,407	173	25	-	(1,265)
	Hydro Building Systems North America Inc	Dissolved 2021	100%	-	-	-	-	-	-	-	-	-
	Hydro Building Systems North America LLC	Sales company	100%	-	-	-	-	6	(9)	-	-	(42)
	Hydro Extrusion Portland Inc.	Extrusion production	100%	529	-	-	-	2,261	(82)	4	-	(237)
	Hydro Extrusion USA LLC	Extrusion production	100%	5,048	74	-	-	23,632	1,073	140	(8)	(276)
	Hydro Holding North America Inc.	Local holding company	100%	-	-	-	-	-	207	101	147	2,994
	Hydro Precision Tubing Adrian Inc.	Precision tubing production	100%	-	-	-	-	-	(1)	2	-	(222)
	Hydro Precision Tubing Louisville Inc.	Company is dormant	100%	-	-	-	-	-	-	-	-	8
	Hydro Precision Tubing Monterrey Central LLC	Precision tubing production	100%	-	-	-	-	-	-	-	-	-
	Hydro Precision Tubing Monterrey LLC	Precision tubing production	100%	-	-	-	-	434	49	-	-	386
	Hydro Precision Tubing USA LLC	Precision tubing production	100%	184	-	-	-	1,166	36	-	-	(11)
	Total USA			5,856	76	-	33,905	1,429	267	138	(265)	
	Total Eliminations, non-controlling interests, goodwill and excess values not attributable to specific legal entities			-	-	-	-	(85,547)	(9,807)	452	(7)	(34,462)
	Total joint operations and joint ventures			-	-	-	-	1,615	(104)	(3)	10	(4,759)
	Total Hydro including discontinued operations			N/A	N/A	359	161,291	19,586	4,874	2,888	60,036	
	Discontinued operations⁸⁾			N/A	N/A	-	11,637	1,189	407	-	-	-
	Total Hydro from continuing operations			31,264	1,799	359	149,654	18,397	4,467	2,888	60,036	

¹⁾ Number of employees is based on the legal entity each employee is employed by.

²⁾ Revenue consists of external and internal revenue from sales of products and services, and realized and unrealized results from derivatives related to sale of products. Elimination of sale to other Hydro companies is presented on a combined basis in "Eliminations". Revenue in this report equals revenue in Hydro's consolidated financial statements payments include settlement of tax liabilities with tax credits generated from other payments to federal authorities.

³⁾ For the composition of income before tax, please refer to consolidated income statements and related notes.

⁴⁾ For a description and the composition of income taxes, please refer to consolidated income statements and related notes.

⁵⁾ Income taxes paid represents the actual payments made during the year independent of which year the tax relates to. In some tax regimes including Brazil, tax payments include settlement of tax liabilities with tax credits generated from other payments to federal authorities.

⁶⁾ Retained earnings consists of accumulated gains and losses, net of distributed profits from the point of view of the legal entity. Retained earnings existing in the companies at the time of Hydro's acquisition is deducted in "Eliminations". In addition, "Eliminations" consists of unrealized gains in transactions between Hydro companies.

⁷⁾ Hydro Aluminium Australia Pty Ltd is used to report Hydro portion of operations for Tomago Aluminium Company Pty Limited, a joint operation.

⁸⁾ Hydro Aluminium Rolled Products AS and Hydro Aluminium Rolled Products GmbH is sold in 2021, subsidiaries in several countries is part of this transfer. The transaction was completed on June 1. The results of operations in the divested businesses are reported separately under the caption Discontinued operations, see [Note 1.5 Significant subsidiaries and changes to the group](#) in the Financial Statement.

⁹⁾ Hydro Aluminium Canada & Co. Ltd. is used to report Hydro portion of operations for Aluminerie Alouette Inc, a joint venture.

¹⁰⁾ Hydro Rein Invest AS was contributed as a capital increase to Hydro Vigelandfoss AS, the entity was renamed Hydro Rein AS.

¹¹⁾ Extended table covering GRI 207 tax reporting requirement is published on www.hydro.com.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Entity descriptions

In the table above, each company has been given a short description of its main activities. Some of the entities can also have other activities as listed below.

Short description	Main activities
Alumina refining	Refining of bauxite to alumina. Hydro operates the Alunorte alumina refinery
Bauxite mining	Mining of bauxite, the raw material for aluminium production. Hydro has only one consolidated bauxite mine
Building systems production	Production of building systems where aluminium is used
Company kindergarten	Kindergarten for children of employees or tenants
Dies production	Production of dies for extrusion of aluminium profiles
Energy sourcing	Sourcing of energy for Hydro operations
Fabrication of extruded products	Added value processing of extruded profiles
Extrusion production	Includes one or more extrusion production lines and is normally also responsible for sales and marketing of its products. May also have R&D activities
Recycling	Sorting of aluminium scrap for supply to remelters
High-purity aluminium production	Production of aluminium of minimum 99.99 percent purity
Insurance	In-house (captive) insurance
IT shared services	IT shared services for Hydro operations
Local holding company	Holding & Financing. Holding shares or other equity instruments. Administrative, management or support services
Pension fund	Employee pension fund
Power production	Production of hydro-power
Power trading	Trading of power and energy services
Precision tubing production	Production of extruded aluminium tubes, micro-port aluminium tubes, and welded aluminium tubes
Primary aluminium production	Includes one or more primary aluminium plant(s), and may also include casting, anode production and/or R&D activities
Public affairs	Hydro's Brussels office
Real estate	Property management and development. Owner of land and infrastructure
R&D	Research and development activities
Remelter	Facility remelting standard ingots, process scrap and/or post-consumer scrap
Rolling mill	Production of rolled products
Sales company	Sales, marketing and distribution offices
Support services	Administrative and other support services
Tool and spare parts services	Provides tool and spare parts services, in addition to administrative and management support
Trading company	Sales, marketing and distribution of casthouse aluminium products
Transportation	Transport of raw materials by railway train

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Production capacity and volumes

Production capacity Hydro Energy¹⁾

Power station area	Power plants	Hydro Equity Share (TWh)	Hydro Operated (TWh)	Ownership	Key characteristics	
Telemark	Tinn: Frøystul Vemork Såheim Moflåt Mæl Vennesla: Vigelandfoss	Notodden: Svelgfoss Vennesla: Vigelandfoss	3.7	3.9	100% ownership, except for Svelgfoss (70.2% ownership and 100% operator)	<ul style="list-style-type: none"> Reservoir-based Hydropower, except Vigelandfoss which is run-of-river No reversion except for Frøystul 50% 2044, Moflåt and Mæl 2049 Total catchment area 4,094 km²
Sogn	Fortun: Skagen Herva Fivlemyr	Ardal: Tyin Holsbru Mannsberg	3.2	3.2	100% ownership	<ul style="list-style-type: none"> Reservoir-based Hydropower Concession expiration Tyin 2051 and Fortun 2057 Total catchment area 803 km²
Røldal-Suldal	Suldal 1 Suldal 2 Røldal Novle Kvanndal Svandalsflona Vassstøl Middyr Midtlægger	0.8	3.3	Ownership through Lyse Kraft DA	<ul style="list-style-type: none"> Reservoir-based Hydropower No reversion following the Lyse Kraft DA transaction Total catchment area 793 km² Hydro owns 25.6% of Lyse Kraft DA 	
Stavanger	Lyse plants: Lysebotn 2 Tjodan Flørli Maudal Breiava Oltedal Oltesvik Hjelmeland Sviland Hetland Hauskje	Sira-Kvirna (7 plants) Ulla-Førre (4 plants)	1.6	2.6	25.6% ownership through Lyse Kraft DA	<ul style="list-style-type: none"> Reservoir-based Hydropower No reversion Hydro operator of Lyse plants and Jørpeland Kraft (0.1 TWh) from 2021, after completing the Lyse Kraft DA transaction in December 2020 Lyse Kraft DA holds part ownership in Ulla-Førre (18%)
Skafsdå	Åmdal Osen Skree Gausbu	0.1	-	33% ownership	<ul style="list-style-type: none"> Hydropower No reversion 	
Tonstad	Tonstad wind farm	-	0.7	No ownership	<ul style="list-style-type: none"> Wind power Operatorship, commercial handling and PPA-offtake from Hydro 	
Total		9.4	13.7			

¹⁾ Normal production from 2021. In 2020, prior to completion of the Lyse Kraft DA transaction, normal equity production was 10.2 TWh and operated production was 10.7 TWh.

Introduction

Production capacity Hydro Aluminium Metal

Our business

Plant	Country	Employees (per Dec.31)	Electrolysis capacity (000 mt) ¹⁾	Casthouse capacity (000 mt)	Main products	Key characteristics ²⁾
Karmøy	Norway	518	271	370	extrusion ingot, wire rod	<ul style="list-style-type: none"> Two prebake lines R&D center Technology Pilot fully ramped-up in 2018
Årdal	Norway	536	202	223	sheet ingot, foundry alloys	<ul style="list-style-type: none"> Two prebake lines Technology and competence center Substantial anode production
Sunddal	Norway	670	425	525	extrusion ingot, foundry alloys	<ul style="list-style-type: none"> Two prebake lines R&D center metallurgy and casting Largest plant in Western Europe
Høyanger	Norway	155	66	120	sheet ingot	<ul style="list-style-type: none"> One prebake line
Husnes	Norway	343	195 ³⁾	215	extrusion ingot	<ul style="list-style-type: none"> 100% Hydro owned from Nov 2014 Idle electrolysis capacity (99 kmt) ramped up in 1H of 2021 Two prebake lines
Slovalco (55.3%)	Slovakia	438 (100% basis)	175 (100% basis) ⁴⁾	250 (100% basis)	extrusion ingot, foundry alloys	<ul style="list-style-type: none"> Joint venture with Penta (Slovakia) Short-term power contract expires end of 2022 One prebake line Electrolysis production to be reduced to 63% from Feb 2022 Increased remelt capacity from Jan 2022
Tomago (12.4%)	Australia	983 (100% basis)	74	75	extrusion ingot, foundry alloys	<ul style="list-style-type: none"> Joint venture with RTA and GAF Long term power contract expiring in 2028 Largest producer in Australia Three prebake lines
Qatalum (50%)	Qatar	978 (100% basis)	320	334	standard ingot, extrusion ingot	<ul style="list-style-type: none"> Joint venture with Qatar Petroleum 40 year gas supply contract expiring in 2049 Among the world's lowest cost smelters Two prebake lines
Alouette (20%)	Canada	842 (100% basis)	125	150	extrusion ingot, foundry alloys	<ul style="list-style-type: none"> Joint venture with RTA, AMAG and IQ/Marubeni Long term power contract expiring end of 2029 Is a first quartile smelter on the global cost curve Largest producer in North America Two prebake lines
Albras (50%)	Brazil	1184 (100% basis)	460 (100% basis)	460 (100% basis)	standard ingot, foundry alloys	<ul style="list-style-type: none"> Joint venture with NAAC Long term power contract expiring end of 2024 Largest producer in South America Four prebake lines

¹⁾ Production and casthouse capacity for part-owned companies represents our proportional share. Slovalco and Albras are fully consolidated in terms of volumes and financial results. Karmøy includes the new Pilot reduction line.

²⁾ See business description regarding power supply for our wholly owned Norwegian smelters and additional information relating to power supply for certain other plants.

³⁾ Actual production impacted by curtailment of about 50 percent of capacity in 2009. Restarted in November 2020 and full production reached during first half of 2021.

⁴⁾ Curtailment of electrolysis production due to high power prices from fourth quarter 2021, and reaching 63% of capacity from February 2022.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Primary aluminium and casthouse production (kmt)

	Location	Primary aluminium		Casthouse production	
		2021	2020	2021	2020
Albras	Brazil	427	379	320	294
Karmøy	Norway	266	268	230	198
Årdal	Norway	201	202	218	217
Sunndal	Norway	423	409	459	437
Høyanger	Norway	66	65	95	79
Husnes	Norway	169	94	169	95
Slovalco	Slovakia	164	152	197	172
Tomago (12.4%)	Australia	73	73	73	73
Qatalum (50%)	Qatar	317	316	328	324
Alouette (20%)	Canada	126	125	126	124
Technology	Norway	12	10	-	-
Total production Primary Aluminium		2,244	2,091	2,214	2,013

Environmental and social statements

About the reporting

Principles for ESG reporting

The purpose of Hydro's reporting is to provide stakeholders with a fair and balanced picture of relevant aspects, engagements, practices and results for 2021 at a corporate level. We believe that the reporting in total satisfies this purpose. Our reporting on environmental, social and governance (ESG) matters is aligned with the main reporting principles of the GRI Standards, core option, and the requirements of the International Council on Mining and Metals (ICMM). The selection of elements reported is based on extensive dialogue with stakeholders. In addition, the reporting builds on processes that are part of our daily operations. Important stakeholders include authorities, investors and financial analysts, employees and their representatives, potential employees, customers, non-governmental organizations and local communities affected by major development projects or restructuring processes. Reporting is not necessarily the target of the dialogue process, but when relevant, we use the outcome to improve our reporting, see [Stakeholder dialogue](#).

We have endeavored to provide information that is in accordance with the principles of sound reporting practice. The absence of generally accepted reporting standards and practices in certain areas may nevertheless make it difficult to compare results with reports compiled by other companies, without the availability of further data, analyzes and interpretations.

The information in the Governance and Environment and social responsibility chapters in the annual report have been approved by the Board of Directors, while the Environmental and social statements have been approved by the Corporate Management Board.

Reporting scope and limitations

The scope of ESG reporting as included in [The Hydro Way, Integrity and compliance](#), [Environment and social responsibility](#) and [Environment and social statements](#) in Hydro's Annual Report 2021, is Hydro's global organization for the period January 1 to December 31, 2021. Operations sold or demerged during the year have in general not been included. Health and safety data for all previously consolidated operations are, however, included in the historical data for the period the unit was owned by Hydro. Regarding environmental data (emissions, energy consumption etc.), operations acquired during the reporting year are included for the complete year. Data from operations that have been closed down, are included for the part of the reporting period it was under operation unless otherwise stated. Minority-owned operations are not included in the reported data except from data based on ownership equity (certain greenhouse gas emissions data), certain qualitative information as well as additional data for 50/50-owned companies, see [Note E8 Environmental data for 50/50-owned companies](#) and [Note S14 Social data for 50/50-owned companies](#).

Environmental data relating to acquired operations are included in our statistics, and historical data have been recalculated to reflect current operations. Correspondingly, historical data of divested activities are taken out of our reported data. Employee, safety and work environment data are included from/to the closing date of acquisitions/divestments unless otherwise stated.

Data have been prepared from individual reports in accordance with corporate procedures. Data compiled at each operational unit according to local management systems applicable at the respective operational units are typically based on process data systems, measurements, calculations and/or purchasing data. The data are then aggregated at corporate level, and is not intended to include detailed information that is primarily of significance for individual sites, processes, activities and products.

The reporting is based on input from many units and sources of data. Emphasis has been placed on ensuring that the information is neither incomplete nor misleading. However, the scope of the reporting, and varying certainty of data may result in some inherent uncertainties. Please see "Reporting principles" for the specific note to the environmental or social statements for more details.

Main reporting changes

Hydro's Annual Report 2021 has been restructured compared to previous reports. This includes avoiding duplication of content and more use of graphs and illustrations. Information related to [Hydro's reporting approach](#) and [Integrity and compliance](#) are now included in the Governance section. Other information related to environmental and social topics are

included in the [Environment and social responsibility](#) section and the related Environment and social statements. These sections are to a large extent similar to the former sections Viability performance and Viability performance statements.

Other main changes to the ESG reporting in Hydro's Annual Report 2021 compared to 2020 relate to the removal of environmental data, including historic emissions related to Hydro Rolling, which was sold in 2021. We have updated indirect emissions for our operations in Norway, Canada and the primary aluminium producer Albras in Brazil. These have been updated to reflect the location specific emission intensities of the grid of the country or site they are located in, according to the location-based methodology of the GHG Protocol. In addition, we have adjusted our reporting on recycling to also include Hydro Extrusions from 2021 onwards. From 2020, reporting on equal opportunities and anti-discrimination has been collected in our Diversity, belonging and inclusion disclosures, to comply with new Norwegian legal requirements. This includes disclosing information on gender equality at Hydro, including a mapping of compensation differences between women and men in Norway. From 2021 we have also included further information to be in compliance with the Norwegian transparency act, valid from 2022. A statement on EU Taxonomy for sustainable economic activities has also been added.

Assurance principles and scope

We have requested our company auditor to review our ESP reporting 2021 in accordance with the international audit standard ISAE 3000 – Assurance Engagements other than Audits or Reviews of Historical Financial Information issued by the International Auditing and Assurance Standards Board (IAASB). For the underlying systems, the reader is referred to Hydro's steering documents as described in the [Corporate governance](#) section in Hydro's Annual Report 2021. The external auditor's [limited assurance report](#) is attached.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Environmental performance

The table below Hydro's main quantitative indicators related to its environmental performance. More detailed information is, when indicated, available in the notes to the environmental statements.

	Notes	% change 2020-21	2021	2020	2019	2018	2017	GRI Standards reference ⁹⁾
GHG emissions								
Direct GHG emissions from consolidated operations (Million tonnes CO ₂ e) (equal to scope 1)	E1.1	10%	7.61	6.93 ⁸⁾	6.51 ⁸⁾	6.05	7.73	305-1
Indirect GHG emissions from consolidated operations (Million tonnes CO ₂ e) (equal to scope 2) ¹⁾	E1.1	12%	1.29	1.16 ⁸⁾	1.44 ⁸⁾	1.51	1.58	305-2
Direct GHG emissions from Hydro's ownership equity (Million tonnes CO ₂ e) (equal to scope 1) ²⁾	E1.4	9%	7.74	7.13 ⁸⁾	6.76 ⁸⁾	6.36	7.79	305-1
Indirect GHG emissions from Hydro's ownership equity (Million tonnes CO ₂ e) (equal to scope 2) ^{2), 1)}	E1.4	3%	3.57	3.46 ⁸⁾	3.81 ⁸⁾	3.85	3.84	305-2
GHG intensity								
Alumina refining (mt CO ₂ e per mt alumina)	E1.6	(4%)	0.63	0.65 ⁸⁾	0.71 ⁸⁾	0.79	0.69	305-4
Electrolysis in Aluminium Metal (mt CO ₂ e per mt aluminium) ³⁾	E1.7	1%	1.61	1.59 ⁸⁾	1.60 ⁸⁾	1.60	1.59	305-4
Energy production and consumption								
Energy production (TWh)	E3.1	(1%)	9.06	11.52	10.69	10.83	11.30	
Energy consumption (TWh)	E3.1	6%	50.07	47.27 ⁸⁾	45.19 ⁸⁾	41.61	48.40	302-1/302-4
Energy intensity								
Alumina refining (GJ per mt alumina)	E3.2	(1%)	7.56	7.67 ⁸⁾	8.20 ⁸⁾	8.95	7.97	302-3
Electrolysis process (MWh per mt aluminum)	E3.2	0%	14.05	14.11	14.19 1 ⁰⁾	13.88	13.92	302-3
Other resource use								
Alumina (Thousand mt)	E4.1	0%	3,322.6	3,316	3,230	3,161	3,353	301-1
Total water withdrawal from water stressed areas (million m ³) ⁴⁾	E4.2	n/a	1.15	0.94	1.08	0.33	0.38	303-1/303-2
Recycling								
Recycled post-consumer scrap (Thousand mt) ⁵⁾	E4.3	224%	335	104	98	104	96	301-2
Total recycled metal (Thousand mt) ⁵⁾	E4.3	222%	1,353	421	438	474	491	301-2
Waste (Thousand mt)								
Bauxite tailings	E5.1	27%	4,239	3,345 ⁸⁾	2,871 ⁸⁾	2,116	4,067	MM3
Bauxite residue (red mud)	E5.1	12%	5,384	4,827 ⁸⁾	3,871 ⁸⁾	3,191	5,979	MM3
Hazardous waste ⁴⁾	E5.2	5%	262	250	245	243	281	306-4
Other waste ⁴⁾	E5.2	26%	468	370	271	283	357	306-2
Hazardous waste to landfill (percent) ⁴⁾	E5.3	(4 pp) ⁶⁾	25%	29%	0%	29%	29%	306-2
Biodiversity in mining								
Total affected area within property (hectares) ⁷⁾	E6.2	6%	7,017	6,607	6,153	5,819	5,457	MM1
Accumulated area under ongoing rehabilitation (hectares) ¹¹⁾	E6.2	6%	2,646	2,486	2,339	2,203	1,873	MM1
Accumulated endangered species observed ⁴⁾	E6.3	4%	88 ¹²⁾	93	89	75	65	102-11

¹⁾ Indirect emissions for our operations in Norway, Canada and primary aluminum producer Albras in Brazil have been updated to reflect the green power contracts entered into for these installations, and their indirect emissions are set to zero, including historical emissions

²⁾ Combined numbers based on ownership equity

³⁾ Includes fully-owned smelters

⁴⁾ 2019 and 2020 figures are not comparable to historical figures due to change in methodology

⁵⁾ Excluding Extrusions

⁶⁾ Values are given as percentage points

⁷⁾ Accumulated area disturbed since construction of the mining area started. The mine started its production in 2006

⁸⁾ Results impacted by the embargo on Alunorte, and curtailment of Albras and Paragominas

⁹⁾ All GRI references below refers to the GRI Standards except MM1 and MM3 which refer to the GRI G4 Mining and Metals Sector Supplement

¹⁰⁾ Result impacted by Albras ramp-up

¹¹⁾ In 2021, we have reviewed land use data reported by Paragominas, and during this review, we found that land use data previously reported in the annual report was incorrect due to double counting across land use categories

¹²⁾ There has been a downward revision of species observed, due to the erroneous inclusion of species observed beyond the operational areas of the mine in previous years, a misclassification of a species' conservation status and the erroneous inclusion of near-threatened species in the total

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Notes to the environmental statements

General reporting standards and principles	198
Note E1 - Grennhouse gas emissions	198
E1.1 Total greenhouse gas emissions in consolidated activities	198
E1.2 GHG emissions – Scope 3	199
E1.3 Total greenhouse gas emissions per country in consolidated activities	199
E1.4 Direct GHG emissions per GHG type in consolidated activities	200
E1.5 Total greenhouse gas emissions based on ownership equity	200
E1.6 Total greenhouse gas emissions per country based on ownership equity	201
E1.7 GHG intensity – Alumina refining (Alunorte alumina refinery)	201
E1.8 GHG intensity – Electrolysis	201
Note E2 – Other emission related indicators	202
E2.1 Other emissions	202
E2.2 Spillages and leakages	202
E2.3 Permit breaches	203
E2.4 Provisions for environmental clean-up and future asset retirement obligations	203
Note E3 – Energy	203
E3.1 Energy consumption and energy production	203
E3.2 Energy intensity of alumina refining	204
Note E4 – Other resource use	204
E4.1 Materials	204
E4.2 Water	205
E4.3 Recycling	206
Note E5 – Waste	207
E5.1 Tailings and bauxite residue	207
E5.2 Hazardous waste and other waste	207
E5.3 Waste treatment	208
Note E6 – Biodiversity	208
E6.1 Overburden moved	208
E6.2 Land use and rehabilitation	209
E6.3 Endangered species	210
Note E7 – Production volumes	210
Note E8 – Environmental data for 50/50-owned companies	210

General reporting standards and principles

Environment, energy and resource data are reported through the corporate data reporting tool HERE on an annual basis covering all consolidated operational units (defined as Hydro's ownership share exceeding 50 percent). Data reported to HERE should be based on specific environmental, energy and resource data reporting processes that have been established for management purposes at site, business unit, business area, and corporate level within Hydro. Data are reported on a 100 percent basis for all consolidated operational units if not otherwise stated. All environmental emissions include historical emissions from current operations and are recalculated annually to reflect Hydro's current portfolio, and secure comparability.

Data reported in HERE are in accordance with Hydro's corporate procedure "GP-03-05-01 Environment Management". Data are compiled at each operational unit according to local environmental management systems and typically based on process data, measurements, calculations and/or purchasing data.

Where applicable, we have indicated to which GRI Standards disclosure the different notes or parts of the notes are relevant.

Note E1 - Grennhouse gas emissions

Reporting principles

GHG emissions have been calculated based on the principles of the WRI/WBCSD GHG Protocol. Direct emissions from production in Bauxite & Alumina, metal production and downstream operations as well as from the remelters, are comparable to Scope 1 emissions as defined by the WRI/WBCSD GHG Protocol.

Indirect emissions, emissions from electricity generation, are calculated based on electricity consumption and emissions factors from the IEA CO₂ Emissions from Fuel Combustion (2020) and are comparable to scope 2 emissions from purchased electricity.

We report indirect emissions according to the location-based method in the revised GHG Protocol Scope 2 Guidance. For our operations in Canada and the primary aluminum producer Albras in Brazil, indirect emissions reflect the regional grid mix. For Hydro's Annual Report 2021 we have updated the factors back to 2017, and historical figures have been updated accordingly. However, we have chosen not to report indirect emissions according to the market-based approach, as this method does not give the correct picture of physical realities.

As Hydro is an integrated company, with ownership along the whole aluminium value chain. Although a substantial part of Hydro's emissions is covered within scope 1 and 2 emissions, Scope 3 emissions are also considerable.

Scope 3 emissions cover other greenhouse gas emissions from e.g. external transport, purchasing of cold metal and other input materials. As part of Hydro's new climate strategy we are establishing reduction targets for scope 3 emissions.

E1.1 Total greenhouse gas emissions in consolidated activities

Reporting principles

Greenhouse gas emissions are reported per process step. For information purposes we have indicated in which business area (financial segment) the emissions mainly take place.

Greenhouse gas emissions - consolidated activities

Million tonnes CO ₂ e	2021	2020	2019	2018	2017
Direct GHG emissions	7.61	6.93	6.51	6.05	7.73
Bauxite & Alumina	3.77	3.43	2.99	2.64	4.14
Primary aluminium production	3.19	2.89	2.85	2.72	2.91
Remelters (in Metal Markets)	0.13	0.11	0.12	0.12	0.13
Extrusions ¹⁾	0.52	0.49	0.55	0.57	0.55
Indirect GHG emissions	1.29	1.16	1.44	1.51	1.58
From electricity generation (mainly primary aluminium production)	1.29	1.16	1.44	1.51	1.58
Total GHG emissions	8.90	8.08	7.95	7.56	9.31

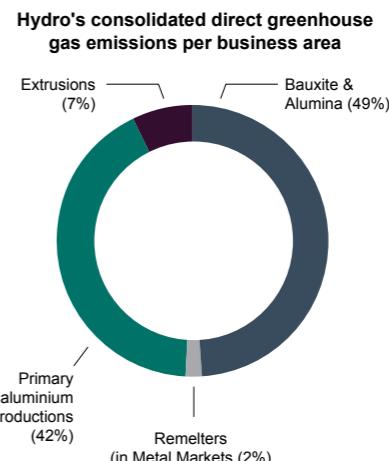
¹⁾ Extrusions has some remelters

GRI reference: GRI Standards 305-1 (2016) and GRI Standards 305-2 (2016)

Hydro's direct greenhouse gas emissions increased in 2021 due to increased production volumes and restart of Line B at Hydro Husnes. Emissions per ton alumina and aluminium produced remained stable. Production at Alunorte was impacted by the embargo in 2018 and 2019, and returned to normal levels during 2020.

To learn more about the embargo imposed on Alunorte in 2018, see Hydro's Annual Report 2018 and the section "The Alunorte situation".

We report indirect emissions according to the location-based method in the revised GHG Protocol Scope 2 Guidance. For our operations in Canada and the primary aluminum producer Albras in Brazil, Indirect emissions reflect the regional grid mix. For Hydro's Annual Report 2021 we have updated the factors back to 2017, and historical figures have been updated accordingly.



E1.2 GHG emissions – Scope 3

Scope 3 emissions refer to indirect emissions from purchased raw materials and services. Scope 3 emissions constitute a minor part of total emissions from Hydro's own metal production. In 2021, we mapped scope 3 emissions from cold metal and aluminium scrap provided from external suppliers. As Hydro regards the carbon footprint of process scrap as [equal to its metal origin](#), Hydro's scope 3 emissions are significant when including externally sourced metal. In total, Hydro's scope 3 emissions were 17 million tonnes of CO₂e in 2021, a reduction of 18 percent since 2018. The reduction was due to conscious sourcing of metal with lower carbon footprint.

Industry players who do not take the inherent carbon footprint of process scrap into account will report significantly lower scope 3 emissions. Hydro believes that this method of accounting is inaccurate, as it accounts for process scrap being carbon neutral, when in reality the process scrap has the same inherent carbon footprint as its metal origin. Hydro believes that we need to focus on what drives real change towards the green transition and we need to exercise our role as a responsible supplier and customer to influence the right development. If Hydro were to regard process scrap as carbon neutral, Hydro's scope 3 emissions would be 10 million tonnes CO₂e in 2021 or more than 40 percent lower than with our accounting methodology.

We will continue to report on our scope 3 emissions and will work towards setting reduction targets by the end of 2022.

E1.3 Total greenhouse gas emissions per country in consolidated activities

Reporting principles

Total greenhouse gas emissions per country in Hydro's consolidated activities (based on 100 percent).

Greenhouse gas emissions per country - consolidated activities

Million tonnes CO ₂ e	2021	2020	2019	2018	2017
Brazil	4.81	4.38	3.86	3.41	5.21
<i>Direct</i>	4.64	4.23	3.73	3.29	5.03
<i>Indirect</i>	0.17	0.15	0.14	0.12	0.18
Norway	2.27	2.03	2.10	1.99	1.94
<i>Direct</i>	2.04	1.84	1.82	1.77	1.71
<i>Indirect</i>	0.24	0.20	0.28	0.22	0.22
Slovakia	0.86	0.80	0.99	1.08	1.09
<i>Direct</i>	0.30	0.28	0.31	0.32	0.32
<i>Indirect</i>	0.56	0.52	0.68	0.76	0.77
Other	0.96	0.87	1.00	1.08	1.08
<i>Direct</i>	0.64	0.58	0.65	0.67	0.67
<i>Indirect</i>	0.32	0.29	0.35	0.41	0.41
Total GHG emissions	8.90	8.08	7.95	7.56	9.31

Hydro's direct greenhouse gas emissions increased in 2021 due to increased production volumes and restart of Line B at Hydro Husnes. Emissions per ton alumina and aluminium produced remained stable. Production at Alunorte was impacted by the embargo in 2018 and 2019, and returned to normal levels during 2020.

To learn more about the embargo imposed on Alunorte in 2018, see Hydro's Annual Report 2018 and the section "The Alunorte situation".

We report indirect emissions according to the location-based method in the revised GHG Protocol Scope 2 Guidance. For our operations in Canada and the primary aluminum producer Albras in Brazil, indirect emissions reflect the regional grid mix. For Hydro's Annual Report 2021 we have updated the factors back to 2017, and historical figures have been updated accordingly.

E1.4 Direct GHG emissions per GHG type in consolidated activities

Reporting principles

CO₂ emissions are calculated based on anode consumption during the electrolysis process and use of fossil fuels. PFC (perfluorocarbon) emissions consist of the two greenhouse gases CF4 and C2F6 which are formed during anode effect situations in the aluminium electrolytic cells. Anode effect is mainly a result of production instability, e.g. in connection to power outages. Emissions are calculated based on automatic process measurements.

Direct GHG emissions per GHG type - consolidated activities

Million tonnes CO ₂ e	2021	2020	2019	2018	2017
CO ₂	7.33	6.72	6.27	5.85	7.53
PFC	0.27	0.20	0.24	0.20	0.19
Other	-	-	-	-	-
Total GHG emissions	7.61	6.93	6.51	6.05	7.73

Hydro's direct greenhouse gas emissions increased in 2021 due to increased production volumes and restart of Line B at Hydro Husnes. Emissions per ton alumina and aluminium produced remained stable. Production at Alunorte was impacted by the embargo in 2018 and 2019, and returned to normal levels during 2020.

To learn more about the embargo imposed on Alunorte in 2018, see Hydro's Annual Report 2018 and the section "The Alunorte situation".

E1.5 Total greenhouse gas emissions based on ownership equity

Reporting principles

In addition to the GHG emissions referred to in previous notes, we also report GHG emissions based on our ownership equity as per year end. This data includes Hydro's share of emissions from all operations including non-consolidated operations where Hydro has a minority interest. This figure is comparable to scope 1 according to the GHG protocol. Electricity generation covers indirect GHG emissions from purchased electricity and emissions from Hydro's ownership share in the gas-fired power plant at Qatalum. This figure is comparable to scope 2 according to the GHG protocol. Emissions from electricity generation are based on electricity consumption and IEA CO₂ emissions from Fuel Combustion 2020 factors for indirect emissions.

Hydro's 50/50 joint venture Qatalum has previously double accounted GHG emissions from anode effects from electrolysis process into Hydro's environmental management system. This has been corrected for the years 2012 to 2020, and the emissions from Qatalum has been reduced accordingly.

Greenhouse gas emissions - ownership equity

Million tonnes CO ₂ e	2021	2020	2019	2018	2017
Direct GHG emissions	7.74	7.13	6.76	6.36	7.79
Bauxite & Alumina	3.45	3.15	2.74	2.42	3.79
Primary aluminium production	3.64	3.38	3.36	3.25	3.32
Remelters (mostly Metal Markets)	0.13	0.11	0.12	0.12	0.13
Extrusions ¹⁾	0.52	0.49	0.55	0.57	0.55
Indirect GHG emissions	3.57	3.46	3.81	3.85	3.84
Electricity generation (mainly primary aluminium production)	3.57	3.46	3.81	3.85	3.84
Total GHG emissions	11.31	10.59	10.57	10.21	11.63

¹⁾ Extrusions has some remelters

GRI reference: GRI Standards 305-1 (2016) and GRI Standards 305-2 (2016)

Hydro's production based on ownership equity can be found in Hydro's performance section in this report.

Hydro's direct greenhouse gas emissions increased in 2021 due to increased production volumes and restart of line B at Hydro Husnes. Emissions per ton alumina and aluminium produced remained stable. Production at Alunorte was impacted by the embargo in 2018 and 2019, and returned to normal levels during 2020. To learn more about the embargo imposed on Alunorte in 2018, see Hydro's Annual Report 2018 and the section "The Alunorte situation".

From 2020, we have updated indirect emissions for our operations in Norway, Canada and the primary aluminum producer Albras in Brazil to reflect the green power contracts entered for these installations, and set their emissions to zero, including historical emissions.

In 2021, 45 percent of Hydro's Scope 1 emissions were covered by emission-limiting regulations, specifically the EU emission trading schemes and comparable schemes covering Alouette and Aluchemie.

E1.6 Total greenhouse gas emissions per country based on ownership equity

Reporting principles

Total greenhouse gas emissions per country based on Hydro's ownership equity (see [Note E1.4 Direct GHG emissions per GHG type in consolidated activities](#) for more information on reporting principles).

Greenhouse gas emissions per country - ownership equity

Million tonnes CO2e	2021	2020	2019	2018	2017
Australia	0.82	0.83	0.86	0.89	0.90
<i>Direct</i>	0.15	0.15	0.15	0.15	0.14
<i>From electricity generation</i>	0.68	0.68	0.71	0.74	0.76
Brazil	4.06	3.70	3.25	2.88	4.42
<i>Direct</i>	3.90	3.56	3.13	2.76	4.25
<i>From electricity generation</i>	0.16	0.14	0.13	0.11	0.17
Canada	0.26	0.26	0.26	0.26	0.26
<i>Direct</i>	0.26	0.25	0.25	0.25	0.26
<i>From electricity generation</i>	-	-	-	-	0.01
Norway	2.27	2.03	2.10	1.99	1.94
<i>Direct</i>	2.04	1.84	1.82	1.77	1.71
<i>From electricity generation</i>	0.24	0.20	0.28	0.22	0.22
Qatar¹⁾	2.45	2.43	2.51	2.49	2.40
<i>Direct</i>	0.59	0.58	0.55	0.55	0.55
<i>From electricity generation</i>	1.86	1.86	1.96	1.94	1.85
Slovakia	0.48	0.44	0.55	0.60	0.60
<i>Direct</i>	0.17	0.15	0.17	0.18	0.18
<i>From electricity generation</i>	0.31	0.29	0.38	0.42	0.42
Other	0.96	0.89	1.04	1.12	1.12
<i>Direct</i>	0.64	0.60	0.69	0.70	0.70
<i>From electricity generation</i>	0.32	0.29	0.35	0.41	0.42
Total GHG emissions	11.31	10.59	10.57	10.21	11.63

¹⁾ Most electricity at Qatalum is generated by Qatalum's fully-owned gas power plant. 6.500 tonnes CO2e came from net purchased electricity from the national grid in 2020

GRI reference: GRI Standards 305-1 (2016) and GRI Standards 305-2 (2016)

Hydro's direct greenhouse gas emissions increased in 2021 due to increased production volumes and restart of Hydro Husnes. Emissions per ton alumina and aluminium produced remained stable. Production at Alunorte was impacted by the embargo in 2018 and 2019, and returned to normal levels during 2020.

To learn more about the embargo imposed on Alunorte in 2018, see Hydro's Annual Report 2018 and the section "The Alunorte situation".

From 2020, we have updated indirect emissions for our operations in Norway, Canada and the primary aluminum producer Albras in Brazil to reflect the green power contracts entered for these installations, and set their emissions to zero, including historical emissions.

E1.7 GHG intensity – Alumina refining (Alunorte alumina refinery)

Reporting principles

The GHG intensity of Hydro's alumina refining is calculated based on total greenhouse gas emissions from Alunorte divided by total alumina production. All alumina refining in Hydro is included.

E1.8 GHG intensity – Electrolysis

Reporting principles

The GHG intensity is calculated based on greenhouse gas emissions from the electrolysis process from Hydro's smelters in the business area Hydro Aluminum Metal. This is an operational target that excludes extraordinary emissions, e.g. during start-up of curtailed capacity. The methodology for calculation is site specific, and historical figures may be subject to change.

Note E2 – Other emission related indicators

E2.1 Other emissions

Reporting principles

Dust and particles include measured and estimated stack emissions and roof emissions from electrolysis. Other diffuse emissions are not included.

Fluorides cover emissions to air of gaseous and particulate fluorides from production of primary aluminium.

NM VOC (non-methane volatile organic compounds) emissions to air stem primarily from Extrusions.

PAH (poly-aromatic hydrocarbons) to air is primarily from anode production. Emissions to air are monitored according to PAH-16 US EPA and emissions to water are monitored according to PAH-16 US EPA and Borneff 6 PAH.

Sulfur dioxide to air is primarily from the use of coal as an energy source in Alunorte, Brazil, and from the aluminium electrolysis process where the majority of the total emissions come from Albras in Brazil and Slovalco in Slovakia. SO₂ emissions from the Norwegian smelters are considerably lower due to different waste gas treatment techniques used at these plants.

Other emissions

Metric tonnes	2021	2020	2019	2018	2017
Dust and particles	3,800	3,009	3,110	2,720	4,662
Fluorides to air	687	772	790	637	680
NM VOC	225	159	193	203	227
Nitrogen oxide	8,522	7,885	7,551	7,132	9,313
PAH to air ¹⁾	10	16	16	14	9
PAH to water ¹⁾	1	3	2	3	-
Sulphur dioxide (SO ₂)	25,175	22,332	22,871	16,275	31,303

¹⁾ Excluding PAH emissions from Albras

GRI reference: GRI Standards 305-7 (2016)

In 2021, production capacity is back on full level following the Alunorte situation, and the results in the table above is more comparable with 2017 than the recent years.

Hydro's emissions of dust and particles, nitrogen oxides and sulphur dioxide decreased significantly in 2018 due to the embargo at Alunorte, and curtailment at Albras and Paragominas. This is partly reversed in 2019 and 2020 due to lifting of the embargo and ramp-up of production.

Hydro uses ozone depleting substances in certain applications in its Brazilian operations, and to some extent also in Extrusions. In 2021, Hydro used in total 7.5 metric tonnes of such substances in its operations. The reported value corresponds to the purchased amount of such substances and can vary significantly according to the need of refilling existing cooling devices. In Brazil, such substances are registered and reported according to Brazilian legal requirements (GRI 305-6). In Hydro Extrusions, hydrochlorofluorocarbon (HCFC) accounts for around one third of ozone depleting substances.

Methane (CH₄) and N₂O emissions from Hydro's operations are negligible compared to the other GHG emissions. The emissions of mercury to air has been calculated to be around 3 metric tonnes at full production.

E2.2 Spillages and leakages

Reporting principles

Spillages and leakages to the external environment (ground, water or air) are registered in Synergi and in IMS, the reporting tools for incidents regarding health, safety, security and environment. According to Hydro's definition, any incident resulting in a spill or leak shall be reported, including significant spillages with short-term reversible damage. Leaks categorized as high severity, i.e. uncontaminated but reversible impact or uncontaminated and irreversible impact, and emissions to external environment categorized as high severity, i.e. unintended and sustained, are reported in the table below. A spillage or leakage can be reclassified according to changes in the actual consequence of the spillage or leakage, and historical figures are updated. Several reported incidents can be closely related and therefore classified as the same spillage.

Spillages and leakages to the external environment

	2021	2020	2019	2018	2017
Spillages, leakages	-	5	1	7 ¹⁾	1

¹⁾ The reported incidents mainly relate to leakages to air in Norway

Ibama (Brazilian Institute of the Environment and Renewable Natural Resources) and Semas (the Secretary of State for Environment and Sustainability in Pará) concluded there were no overflow or leaks from Alunorte's bauxite residue deposits following the heavy rainfall in February 2018. For more information see the section "The Alunorte situation" in Hydro's Annual Report 2018.

E2.3 Permit breaches

Reporting principles

Permit breaches are based on monthly monitoring and reported in Syngeri and IMS. Hydro's definition of permit breaches, any incident that in any way relates to an environmental permit, is in certain cases stricter than the legal definition. Permit breaches categorized as high severity, requiring regulator contact or permit breaches with possible fine or suspension, are included in the table below. The reported permit breaches may be related to spillages and leakages covered in the table above. Several reported incidents can be related to the same permit and will be reported as one breach. Historical figures may be subject to change due to time lag in administrative procedures.

Following a harmonization of reporting on environmental incidents and permit breaches between Extrusions and other business areas in Hydro, we identified a difference in the severity of cases being included in the report. This has been adjusted for in the reporting for 2019 and onwards.

Permit breaches

	2021	2020	2019	2018	2017
Permit breaches	2	11	1 ¹⁾	23	25 ²⁾

¹⁾ Figures for 2019 are not comparable to previous years due to harmonization of definitions between Extrusions and the other business areas in Hydro.

²⁾ Figures from Extrusions, acquired 2 October 2017, are included for the full year.

In 2021, Hydro Extrusion USA, LLC reached resolution with the Oregon Department of Environmental Quality of certain air and water environmental compliance issues, as well as other self-disclosed issues, involving Hydro's cast house in The Dalles, Oregon. Hydro remitted the required dollar amounts (a total of 695,600 USD for air issues and 69,583 USD for water issues, either directly or through commitments to approved Supplemental Environmental Projects) and is timely fulfilling other required corrective actions. In addition to resolving the civil matters, Hydro is also cooperating with the Environmental Protection Agency and the Oregon U.S. Attorney's Office in their criminal investigation of alleged Clean Air Act violations at The Dalles.

The 2018 figure also includes in total four permit breaches in Bauxite & Alumina of which three at Alunorte: the use of Canal Velho; rainwater from the roof of a coal shed; and the leakage through a disused pipe. For more information see the section "The Alunorte situation" in Hydro's Annual Report 2018.

E2.4 Provisions for environmental clean-up and future asset retirement obligations

Reporting principles

When Hydro, at acquisition of an asset or start of a business activity, has an obligation to remove, dismantle or remediate the asset or site used, that obligation is included in the cost of the asset with the present value of estimated remediation costs. The same treatment is applied if an obligation to remove, dismantle or remediate the asset is introduced at a later date, through new legislation or other means. For Hydro's accounting policy for provisions and asset retirement obligations, see [Note 4.1 Uncertain assets and liabilities](#) to the consolidated financial statements.

Note E3 – Energy

E3.1 Energy consumption and energy production

Reporting principles

Energy consumption includes Hydro produced as well as purchased energy in Hydro's consolidated activities. Hydro has a normal nominal production of 12 TWh hydroelectric power (as operator). Hydro's business areas, except from Extrusions, do not purchase heating, cooling or steam, which is produced internally and is reported as "other" energy consumptions. Extrusions purchases steam and heat, but the volumes are minimal. Energy consumption includes energy losses in hydroelectric plants.

With the sale of Hydro Rolling in 2021, we have excluded historical figures on energy consumption associated with the business area.

Energy consumption per energy carrier - consolidated activities

Petajoule (PJ)	2021	2020	2019	2018	2017
Coal	13.1	14.0	13.4	13.2	15.2
Coke	16.1	15.9	15.4	14.8	16.2
Electricity	103.0	97.8	95.7	88.0	93.3
Gasoline	-	-	-	0.1	0.1
Natural gas	12.2	11.7	13.1	13.6	13.4
Natural gas liquids	1.0	2.0	1.4	1.5	1.3
Oil	28.9	23.7	19.1	15.0	30.7
Other	5.9	5.0	4.6	3.5	3.9
Total energy consumption in PJ	180.2	170.2	162.7	149.8	174.3
Total energy consumption in TWh	50.1	47.3	45.2	41.6	48.4

Energy consumption per sector - consolidated activities

Petajoule (PJ)	2021	2020	2019	2018	2017
Bauxite & Alumina	47.1	41.6	35.7	30.2	48.4
Electrolysis/Carbon/Casting	116.1	112.9	109.6	101.4	108.0
Remelters	2.7	2.4	2.4	2.6	2.7
Extruded Solutions	14.1	13.0	14.8	15.4	14.9
Other	0.3	0.3	0.2	0.2	0.2
Grand Total	180.2	170.2	162.7	149.8	174.3

Energy consumption per country - consolidated activities

Petajoule (PJ)	2021	2020	2019	2018	2017
Brazil	79.7	71.7	61.7	54.0	81.5
Norway	72.1	72.5	71.5	66.0	63.0
Slovakia	12.0	11.1	12.8	12.5	12.5
Other	16.3	15.0	16.6	17.3	17.3
Total energy consumption	180.2	170.2	162.7	149.8	174.3

GRI Reference: GRI Standards 302-1 (2016)

Hydro's energy consumption decreased significantly in 2018 due to the embargo at Alunorte, and curtailment at Albras and Paragominas. This was partly reversed in 2019 and 2020 due to lifting of the embargo and ramp-up of production.

Renewable energy consumption

We have considered our total energy consumption by energy carrier, and used IEA's data on country energy mix to calculate the renewable energy share in our electricity consumption. Electricity derived from biofuels, waste, hydro, geothermal, solar, wind and tide are considered renewable. According to our estimates, the share of renewable energy out of total energy consumption is about 39 percent in Hydro.

E3.2 Energy intensity of alumina refining

Reporting principles

Energy intensity of the alumina refining at Alunorte is calculated based on total energy consumption at Alunorte divided by total alumina production.

Energy intensity in Hydro's consolidated smelters is direct current consumption in the electrolysis process per metric ton aluminium.

Note E4 – Other resource use

E4.1 Materials

Reporting principles

This covers major raw materials used in the alumina refining process and electrolysis process beyond what is included in the energy consumption data.

Alumina and aluminium fluoride are primarily used in the electrolysis process, whilst lime, caustic soda (NaOH), sulfuric acid and flocculants are primarily used in the alumina refining process. Flocculants are also used at Paragominas.

The use of lime, caustic soda and sulfuric acid varies with the production of alumina, see [Note E7 Production volumes](#). The use of sulfuric acid depends also on the amount of rainfall and management of caustic soda at Alunorte.

Materials

1,000 metric tonnes	2021	2020	2019	2018	2017
Alumina	3,323	3,032	2,954	2,858	3,045
Aluminium fluoride	32	32	31	28	29
Lime	45	45	39	35	62
Caustic soda	590	513	435	353	661
Sulphuric acid	22	23	21	29	27
Flocculants	6	4	4	3	7

GRI Reference: GRI Standards 301-1 (2016)

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

E4.2 Water

Reporting principles

Some water loss to the external environment will occur as evaporation and/or steam. This water loss is included in the figures under water discharge as other (not specified). The quality of fresh-water discharge generally complies with local or site-specific permits before discharge to local water recipients and is of a high quality, as per ICMM's definition.

The majority of Extrusions sites have a closed loop water management system, and the water use is marginal compared to the rest of Hydro. The majority of water use in Extrusions takes place in Oregon in USA, and in Sweden.

From 2021 we have updated the definition of surface water to include rainwater and have updated previous years' data to reflect this.

Total water withdrawal by country

million m ³	2021	2020	2019	2018	2017
Norway	216.1	224.8	218.4	218.1	191.7
Brazil	69.5 ¹⁾	54.5	58.7	57.8	47.6
United States	4.8	4.2	5.0	5.1	5.4
Rest of the world	4.7	3.9	5.1	5.7	5.3
Total	295.1	287.5	287.3	286.7	250.0

¹⁾ Includes 20.7 million m³ of rainwater not used in the process, but it is treated and discharged. Alunorte has improved the monitoring of rainwater, and the figure may not be comparable to historical figures. The figure varies with precipitation.

Total water withdrawal by source

Million m ³	High quality	Low quality	2021	Norway	Brazil	USA	Other	2020
Surface water ¹⁾	81.0	19.8	100.7	52.2	43.5 ²⁾	3.4	1.6	89.3
Ground water	1.1	11.2	12.3	-	11.6	-	0.7	13.6
Seawater	-	163.2	163.2	163.2	-	-	-	175.3
Third-party supply	4.2	11.7	15.9	0.7	11.5	1.5	2.3	15.7
Total water discharge by destination	86.2	205.9	292.1	216.1	66.5	4.8	4.7	294.0

¹⁾ From 2021 we have updated the definition of surface water to include rainwater and have updated previous years' data to reflect this.

²⁾ Includes 20.7 million m³ of rainwater not used in the process, but it is treated and discharged. Alunorte has improved the monitoring of rainwater, and the figure may not be comparable to historical figures. The figure varies with precipitation.

In 2021, 28 percent of Hydro's surface water withdrawals was rainwater, primarily captured at Alunorte and Paragominas.

Almost 75 percent of Hydro's total water withdrawal occurs in Norway from fjords (sea water) and rivers (fresh water) that supply these fjords. These water sources are vast and are not significantly affected by Hydro's operations. All sea water withdrawal in Norway is used in fume treatment plants enabling the primary production smelters to clean dust, SO₂ and fluoride emissions to air. Sea water absorbs the pollutants and mitigates the environmental impact from the production process.

Alunorte receives a large volume of water, entrained in the bauxite product that it receives from Paragominas, through the pipeline. In 2021, Alunorte received 11.4 million m³ of freshwater from Paragominas. Alunorte is reusing more than 70 percent of this water in the refining process.

Paragominas' water use was close to their current regulatory limits. However, based on new hydrological studies of the Parariquara river, Paragominas' water extraction permits were revised in 2018. Water collection can still be an issue if a new third-party user requests water extraction from the same watershed. To address this, Paragominas has implemented actions to increase water recycling within the operation and improve water storage capacity. Based on these actions,

disruptions to mining operations due to limited water availability is no longer considered to be a significant risk.

In 2021, approximately 75 percent of Paragominas' water demand was met by recovery of water from the beneficiation process, and 8 percent from water captured in the reservoirs. There was also a significant improvement in water efficiency within the operation in 2020. These actions have all contributed to reducing operational dependency on new water withdrawals from the Parariquara river.

There has been a water tax within the state of Pará since 2015.

Withdrawal from water-stressed areas

Million m ³	2021	2020	2019	2018	2017
Total water withdrawal from water-stressed areas ¹⁾	1.15	0.94	1.08	0.33	0.38
Number of locations	39	40	43		

¹⁾ 2018-2016 figures are not comparable to 2019-2021 due to change in methodology

GRI reference: GRI Standards 303-3 (2018)

From 2019, Hydro uses the WRI Aqueduct tool to analyze water withdrawal from water stressed areas, and historical data may not be comparable. Baseline water stress measures the ratio of total water withdrawals to available renewable surface and groundwater supplies. Areas categorized as high and extremely high with regard to water stress is included in the figure above. WRI Aqueduct is also used for evaluating Hydro's operational exposure to overall water risk, an aggregation of physical (quantity and quality), reputational and regulatory water risk. Overall water risk was evaluated using WRI Aqueduct's weighting score for mining operations, as this weighting best reflects the risk for our type of operations (0.61 : 0.02 : 0.37 for "quantity", "quality" and "regulatory and reputational" risk categories, respectively).

Overall water risk

	Number of locations	Share of total water withdrawal
Extremely High	2	0.1%
High	5	52.6%
Medium - High	8	0.6%
Low – Medium	54	2.3%
Low	41	44.4%
Grand total	110	100%

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)**Total water discharge by destination**

Million m3	High quality	Low quality	2021	Norway	Brazil	USA	Other	2020
Surface water ¹⁾	40,1	28,8	68,9	19,0	45,2	3,2	1,6	60,9
Ground water	-	-	-	-	-	-	-	-
Seawater	8,5	187,9	196,4	196,4	-	-	-	205,9
To third-party	1,3	15,3	16,6	0,7	12,5	1,0	2,4	14,5
Total water discharge by destination	49,9	232,1	282,0	216,1	57,7	4,1	4,0	281,3

¹⁾ In 2021 the definition of discharge to surface water was changed to include "cooling water to river" and historical data has been updated accordingly.

GRI Reference: GRI Standards 303-4 (2018)

Discharged destination "other (not specified)" includes evaporative losses that are deemed not material and therefore not specified in the table above.

Total consumption by type

Million m3	High	Low	2021	Norway	Brazil	USA	Other	2020
Evaporation	0.77	0.28	1.06	-	0.01	0.69	0.36	0.85
Entrainment in product	-	-	-	-	-	-	-	-
Entrainment in waste	-	0.01	0.01	-	-	-	0.01	-
Process loss	-	0.01	0.01	-	-	-	0.01	0.03
Other ¹⁾	8.96	0.12	9.08	-	8.82	-	0.26	5.29
Total	9.74	0.42	10.16	-	8.84	0.69	0.63	6.17

¹⁾ Ca. 98% of the water volume reported under this category is related to Alunorte. Currently, the site does not differentiate between specific types of water consumption and a bulk value.

GRI reference: GRI Standards 303-3 (2018)

E4.3 Recycling**Reporting principles**

Hydro uses a definition for recycling agreed on by the European Aluminium Association. The definition was implemented in Hydro in 2013. The definition divides recycled scrap in two: Process scrap, including pre-consumer scrap from downstream casthouses, and post-consumer scrap. Reporting of recycling data is drawn from the company's production software and ERP system.

The numbers below include our pre-consumer and post-consumer scrap recycling from Hydro Aluminium Metal and Hydro Extrusions, and have been adjusted historically to reflect the sale of Hydro Rolling. 2021 was the first year we have been able to integrate Hydro Extrusions recycling, and so historical figures from 2017-2020 are not directly comparable.

Recycling

1,000 metric tonnes	2021 ¹⁾	2020	2019	2018	2017
Recycled post-consumer scrap	335	104	98	104	96
Recycled pre-consumer scrap	1,018	317	340	371	395
Total recycled metal	1,353	421	438	474	491

¹⁾ 2021 is the first year we have consolidated recycling data from Hydro Extrusions, making the 2021 results not directly comparable to previous years' data

We have adjusted historical data on recycling to exclude volumes processed by Rolling which was sold in 2021, which accounted for approximately 840,000 metric tonnes of pre-consumer and post-consumer scrap in 2020.

Note E5 – Waste

E5.1 Tailings and bauxite residue

Reporting principles

Tailings from bauxite extraction consist of mineral rejects from the extraction process mixed with water. In the Plateau tailings storage facility, the tailings undergo a drying cycle that can take approximately 30 or 60 days, during the dry and rainy season, respectively. After the drying process, the material has a minimum of 60 percent solid content and is then excavated and deposited back into the mined areas. This method is what Hydro refers to as "Tailings Dry Backfill". In 2021, 1.4 million metric tonnes of dried material was reclaimed and returned to the mined areas.

Paragominas is Hydro's only consolidated mine. The tailings generated in the bauxite's beneficiation process have no hazardous chemical properties.

As a control measure, static water pressures within the walls of our tailings facilities at Paragominas are monitored through the use of dedicated instrumentation (piezometers).

Bauxite residue, also known as red mud, is a by-product of the alumina refining process. The residue is washed with water to lower the alkalinity, and recovered caustic soda is recycled for use in the production process. Residue is dry-stacked as a claylike substance with a low moisture content.

Tailings and bauxite residue

1,000 metric tonnes ¹⁾	2021	2020	2019	2018	2017
Tailings	4,239 ²⁾	3,345	2,871	2,116	4,067
Bauxite residue	5,384	4,827	3,871	3,191	5,979

¹⁾ On a dry basis.

²⁾ Includes 1.4 million mt returned through tailings dry backfill.

GRI Reference: G4-MM3

The significant decrease in 2018 is due to the Alunorte embargo (bauxite residue) and the corresponding Paragominas curtailment (tailings). This is partly reversed in 2019 and onwards due to lifting of the embargo and ramp-up of production.

E5.2 Hazardous waste and other waste

Reporting principles

From 2020, waste is no longer reported according to the European Waste Codes (as defined in the EU Waste Framework Directive). Instead, waste has been reported according to a harmonized categorization within Hydro, based on the common names of key waste streams relevant to our operations (e.g. bauxite residue, SPL, waste caustic soda etc.). This change in reporting was implemented to facilitate aggregation of data at a group level and avoid the use of multiple waste codes for the same waste category. Operations continue maintaining more detailed waste registries that align with local requirements and legislation. Aggregated figures presented in the tables below are comparable to previous years, as this change in categorization does not affect the total volumes of waste reported.

Spent potlining (SPL) from the electrolysis cells used in primary aluminium production is defined as hazardous waste. The production of SPL varies with the relining of smelter cells which is normally done every 4-7 years for established smelters. New plants will get a relining peak at the same interval after start-up. See also SPL figures on a five year rolling average in the [Environment and social responsibility](#) chapter.

A significant amount of Extrusions hazardous waste is in the form of spent caustic resulting from the die cleaning process with a large proportion of this being recycled.

Hazardous and other waste

1,000 metric tonnes	2021	2020	2019	2018	2017
Spent potlining	73,4	50,5	52,3	37,5	35,9
Other hazardous waste	188,6	199,5	192,6	205,9	245,1
Total hazardous waste	262,0	250,0	244,9	243,4	281,0
Other waste	468,0	370,0	270,8	283,3	356,6
Total waste	730,0	620,0	515,6	526,7	637,6

GRI Reference: GRI Standards 306-3 (2020)

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

E5.3 Waste treatment

Reporting principles

Waste sorted by treatment includes both external and internal treatment. In many cases waste is managed by a third party, which all are required to adhere to the Hydro Supplier Code of Conduct. A non-compliance with or breach of the principles in Hydro's Supplier Code of Conduct, that is not corrected within a reasonable period, may lead to termination of the supplier contract. All Hydro locations are also required to ensure safe transport of hazardous waste in accordance with global and local regulations and evaluate critical waste receivers and include these in a supplier development system.

Tailings and bauxite residue are deposited in appropriately engineered and managed on-site landfills and are not included in the table below. Combustion without energy recovery is included under Other treatment.

Treatment of hazardous waste

	2021	2020	2019	2018	2017
Energy recovery	6%	5%	7%	7%	6%
Landfill	25%	29%	29%	29%	35%
Other	15%	20% ¹⁾	24%	24%	20%
Reuse/recycling	54%	46%	39%	39%	39%

¹⁾ The 2020 numbers have been revised to include the on-site storage which wasn't captured under the category of "Other" in 2020

Treatment of other waste

	2021	2020	2019	2018	2017
Energy recovery	9%	10%	6%	5%	4%
Landfill	15%	15%	29%	31%	50%
Other	24%	23%	15%	17%	12%
Reuse/recycling	53%	52%	50%	48%	34%

GRI reference: GRI Standards 306-4 and 306-5 (2020)

Note E6 – Biodiversity

E6.1 Overburden moved

Reporting principles

Total volume (in metric tonnes) of overburden moved in Hydro's mine in Brazil, Paragominas. This is the only mine within Hydro's consolidated operations.

Overburden moved

Million metric tonnes	2021	2020	2019	2018	2017
Overburden moved	79	67	45	48	83

GRI Reference: G4-MM3

The overburden volume increase in 2021 is considered within normal annual variation. The increase from 2019 to 2020 is due to increased production following the lifting of the embargo and ram-up of the production levels.

Hydro uses strip mining in Paragominas, a technique that avoids the formation of an overburden stockpile. Thus, all overburden moved for mining purpose is used to reconstruct the topography of the strip previously mined, prior to rehabilitation of the mined areas. Part of the overburden (laterite) is also used for paving roads and for raising the heights of existing tailing dams and constructing new ones.

The sterile soil is untreated and has no dangerous properties. Leaching potential due to overburden removal is negligible. There is a water resource management program in place to mitigate silting from the plateau areas

E6.2 Land use and rehabilitation

Reporting principles

Hydro's only consolidated mining operation is in Paragominas in Brazil. Areas are measured using the ArcGIS Platform. The rehabilitation data are reported to ANM (the Brazilian National Mining Agency) and Semas (the Secretary of State for Environment and Sustainability in Pará), as part of the clearing permit renewal process.

In our mining operation we strive for a year-on-year balance between the area that we mine and make available for rehabilitation every year and the area that we succeed in rehabilitating every year. From 2018, this target is a rolling average across two hydrological seasons, and the categories for land-use have been redefined.

The mining cycle is made up of several steps. When a given area of land is to be developed, the first step is clearing, when vegetation and soil are removed. The area is then classified as area cleared for future mining. After an area is mined, it is either classified as tailings dams and other mining infrastructure or area available for rehabilitation. All areas available for rehabilitation will be rehabilitated as soon as possible and subsequently classified as an ongoing rehabilitation area.

When tailings facilities are closed, they will become available for rehabilitation after settling for minimum five years. We will then get a significant increase in the tailings dam infrastructure available for rehabilitation. There may be additional movements between different statuses from year to year due to reclassification.

During 2021, we cleared 427 hectares (ha) of land and mined 389 ha. A total area of 167 ha underwent rehabilitation in 2021, and an area of 150 ha was released from the mining operations, to be rehabilitated within two hydrological cycle as part of Hydro's 1:1 rehabilitation target. This area must be completely rehabilitated by the end of 2023 in order to meet the 1:1 rehabilitation target.

Of the 91 ha made available for rehabilitation in 2019, 63 percent was rehabilitated by end of 2020. The remaining 37 percent was completed in 2021, and we met the [1:1 rehabilitation target](#). Of the 150 ha that were made available for rehabilitation in 2020, 77 percent was rehabilitated by the end of 2021 and the remaining 23 percent will be completed in 2022.

The clearing, mining and rehabilitation cycles are constantly ongoing and are not synchronized. Clearing and mining are at their peak in the dry season, whilst rehabilitation happens primarily in the wet season. The three cycles are also influenced by different drivers such as permits for the clearing cycle, land available for rehabilitation, and rainfall for the rehabilitation cycle. As a result, there is no direct link between the area cleared each year and the area mined or rehabilitated that same year (e.g. an area cleared in 2017 may be mined late 2018 and then rehabilitated in the 2019 wet season). Due in large part to this complexity, the figures presented above cannot be directly deducted from the figures in the land use and rehabilitation table below.

All areas stated in the table below give a snapshot of Paragominas' land use at year end.

In 2021, we reviewed land use data reported by Paragominas, and during this review, we found that land use data previously reported in the annual report included some double counting across land use categories. The table presented in this annual report is an accurate representation of land use at the site, and historical data has been updated accordingly.

Land use and rehabilitation - Paragominas

Hectares given per point in time	2021	2020	2019	2018	2017
Total property area	18,764	18,764	18,764	18,764	18,764
<i>Long-term infrastructure</i>	202	193	193	193	193
<i>Tailings storage facilities</i>	2,472	2,472	2,472	2,472	2,472
<i>Current mining operations</i>	1,697	1,455	1,149	951	919
<i>Area under ongoing rehabilitation</i>	2,646	2,486	2,339	2,203	1,873
Total affected area within property¹⁾	7,017	6,607	6,153	5,819	5,457
Legal reserves (ARL and PPA)	3,714	2,870	2,870	2,870	2,870
Remainder of property	8,033	9,287	9,741	10,075	10,437
 Total pipeline easement track ²⁾	489	489	489	489	489
Total transmission line track ²⁾	1,893	1,893	1,893	1,893	1,893
Area cleared, in reporting year	427	459	348	397	328
Area mined, in reporting year	389	306	215	243	410
Area starting rehabilitation, in reporting year	167	152	136	331	183

¹⁾ Total impacted area within property = Long-term infrastructure + TSFs + Current mining operations + Area under ongoing rehabilitation

¹⁾ There is a spatial overlap between the easement tracks of the pipeline and transmission line of ca. 102 ha

GRI Reference: G4-MM3

The rehabilitation gap is a result of ongoing operations, i.e. areas set aside for infrastructure being reclassified, or missed/failed/poor previous rehabilitation. By end of 2021, the total rehabilitation gap was 201 ha.

The Hydro Paragominas property measures in total 18,764 hectares (ha), while the total land use at the end of 2021 was 7,017 ha, including 2,646 ha under ongoing rehabilitation.

There are specific closure plan requirements for the Paragominas mine (rehabilitation of mine and tailings ponds). In addition, there is a similar requirement for the bauxite residue disposal areas at Alunorte. Hydro has a dedicated corporate function which oversees legacy issues and addresses closure issues. For the time being such plans are further developed on an ad hoc basis when relevant, and a strategy is under development.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

E6.3 Endangered species

Reporting principles

Hydro uses a federal database updated by ICMBio researchers to classify species. The conservation status of species registered in the reference databases can change. As a result, the species list is updated and species added, removed and/or moved from one status to another. Reported species are cumulative and represent all species observed within the premises of Hydro's mining activities in Paragominas, Brazil, since monitoring and registration started in 2003. Some species included in the overview are covered by more than one database and the numbers can therefore not be summed across the columns. In addition, each database is stand alone and they are therefore not comparable.

Endangered species registered within the influence area of Hydro's mining activities (Paragominas)

	MMA ¹⁾		Semas ²⁾		IUCN ³⁾	
	Fauna	Flora	Fauna	Flora	Fauna	Flora
Conservation status						
Critically endangered	3	2	2	1	2	1
Endangered	8	1	10	-	3	1
Vulnerable	27	3	12	9	17	16
Near threatened	1	1	-	-	14	2
Data deficient	1	-	-	-	3	1
Total according to each red list classification	40	7	24	10	39	21

¹⁾ Federal Brazilian red list.

²⁾ Pará state red list.

³⁾ International Union for Conservation of Nature red list.

GRI reference: GRI Standards 304-4 (2016)

After a revision of the accumulated list of threatened species held by Paragominas, in 2021, the total number of threatened species observed at the site has been reduced by nine. The original error was due to the erroneous inclusion of species observed beyond the operational areas of the mine, a misclassification of a species' conservation status and the erroneous inclusion of near-threatened species in the total. As of yearend 2021, the revised accumulated number of threatened species observed within the premises of Hydro's mining activities in Paragominas, since 2003, is 88, of which 64 are fauna and 24 are flora. The total number of different species observed increased by six in 2021 compared to 2020. The new observations include two new threatened species of fauna and four new threatened species of flora. We are expecting the number of new, unique species to increase going forward as we move into new territory.

Note E7 – Production volumes

Reporting principles

The figures reported below are total production volumes (100 percent) from consolidated activities only (Hydro's ownership share exceeding 50 percent). Alumina production includes Alunorte while primary aluminium production includes 100 percent of production at all Hydro's primary aluminium plants in Norway, Slovalco in Slovakia and Albras in Brazil. These volumes are not directly comparable to the volumes reported in the financial statements, as this table uses the Greenhouse Gas Protocol's guidance of reporting production at entities of at least 50 percent ownership.

Alumina and primary aluminium production are by far the most energy and GHG intensive processes in Hydro.

Production volumes

1,000 metric tonnes	2021	2020	2019	2018	2017
Alumina production	6,305	5,457	4,487	3,712	6,397
Primary aluminium production	1,915	1,726	1,675	1,653	1,752

Production volumes decreased significantly in 2018 due to the embargo at Alunorte (alumina), and curtailment at Albras (primary aluminium). This is partly reversed in 2019 and 2020 due to lifting of the embargo and ramp-up of production. This trend continued into 2021, with the increased demand and price of aluminium driving further increases in production.

Note E8 – Environmental data for 50/50-owned companies

Hydro has an ownership share of 50 percent in Qatalum. As only operations owned more than 50 percent are included in most of the information in Hydro's environmental and social statements, we have chosen to disclose certain environmental information about this company and its performance. The reporting principles of each indicator might differ from the ones used by Hydro. For information about social data, see [Note S14 Social data for 50/50-owned companies](#) to the social statements.

Qatalum produces most of the electricity needed for its operations based on gas. Emissions from the electricity generation is included as scope 1 emissions below.

Environmental data for 50/50-owned companies

Main product	Production, 1,000 metric tonnes	GHG emissions, scope 1, Million mt CO ₂ e	GHG emissions, scope 2, Million mt CO ₂ e	Total energy consumption, TWh	Fresh water used, Million m ³	Total waste disposed, metric tonnes	Total waste recycled, 1,000 metric tonnes
Qatalum	Aluminium Metal	634	4.86	0.02	9.38	0.68	17,236

¹⁾ Recycling degree of total waste

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Social statements

The table below shows Hydro's main indicators related to social performance. For geographical distribution of total assets, investments and revenues, see [Note 1.4 Operating and geographic segment information](#) to the consolidated financial statements.

	Notes	% change 2020-21	2021	2020	2019	2018	2017	GRI Standards reference
Employees								
Number of permanent employees	S1.1	(9%)	31,264	34,240	36,310	36,236	34,625	102-7 (2016)
Share of women	S1.1	-	20%	18%	18%	18%	17%	
Number of temporary employees ²⁾	S1.2	(7%)	1,799	1,929	1,647	1,680	1,646	102-8 (2016)
Women in top 50 management	S3.1	4 pp ¹⁾	35%	31%	32%	33%	28%	405-1 (2016)
Non-Norwegians in top 50 management	S3.1	(9 pp) ¹⁾	34%	43%	37%	39%	37%	405-1 (2016)
Full-time equivalents for contractor employees	S1	18%	13,900	11,800	10,500	9,000	9,500	102-8 (2016)
New employees	S1.3	22%	3,738	3,071	4,466	5141 ⁴⁾	760	401-1 (2016)
Turnover	S1.3	1 pp ¹⁾	15%	14%	13%	12%	4%	401-1 (2016)
Hydro Monitor Employee Engagement Index	S4		N/A	72%	N/A	84%	N/A	
Payroll (NOK million)	S1.1	(13%)	15,312	17,509	19,005	17318 ⁴⁾	7,258	201-1 (2016)
Health and safety								
Sick leave	S5.1	(10%)	3.8%	4.2%	3.7%	3.6%	3.4%	403-2 (2018)
Total recordable injuries (TRI) rate ³⁾	S5.1	23%	3.3	2.7	3.4	2.9	2.6	403-2 (2018)
Employees		29%	3.9	3.0	3.0	2.5	2.6	
Contractors		6%	1.8	1.7				
Number of fatal accidents	S5.1	-	-	-	-	2	-	403-2 (2018)
Employees		-	-	-	1	1	-	
Contractors		-	-	0 ⁵⁾	-	1	-	
High risk incidents	S5.2	(13%)	122	140	190	202	127	403-2 (2018)
Occupational illness rate ⁴⁾	S5.3	0%	0.3	0.3	0.2	0.5	0.3	403-3 (2018)
Current income tax (NOK million)	S7	126%	4,565	2,019	1,512	2,724	2,575	
Research and Development (NOK million)								
R&D funds received	S8	(19%)	512	633	625	594	500	
R&D expenses	S8	(100%)	-	633	625	594	500	
Social investments								
Community investments, charitable donations and sponsorships (NOK million) ⁴⁾	S9	(2%)	55	56	59	89	36	
Compliance								
Cases reported through AlertLine	S10.1		273	224	347	342	-	102-3 (2016)
Substantiated instances of corruption	S10.1		-	1	2	1	-	205-3 (2016)
								406-1/407-408-1/409-1 (2016)
Significant human rights breaches	S10.3	0 ⁷⁾	-	-	-	-	-	
Relocation of people	S10.3	-	-	-	-	-	-	G4-MM9
Training in business ethics Hydro	S10.4	n/a	25,709	34,330 ⁶⁾	24,481	3,490 ⁴⁾	3,331 ⁴⁾	412-2/205-2 (2016)
Supplier audits	S10.5	0%	49	49	98	83	109	HDD-01
Potential and existing counter parties screened	S10.5	(13%)	7,000	8,000	18,172	13,000	6,200	414-1 (2016)

¹⁾ Values are given as percentage points compared to previous year.

²⁾ There may be uncertainties related to data from Extrusions, please see section on Uncertainties related to data from Extrusions in About the reporting.

³⁾ Per million working hours. The numbers include discontinued operations.

⁴⁾ Excluding Extrusions.

⁵⁾ Contractor fatality in 50/50 JV managed by Qatalum.

⁶⁾ Includes class room and e-learning training on anti-corruption, code of conduct, data privacy, and sanctions and trade compliance, Diversity inclusion belonging , Human rights management , Anti-Harassment, Non-Discrimination training.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Notes to the social statements

General reporting standards and principles	213	Note S10 – Compliance	224
Note S1 – Employees	213	S10.1 Reported and confirmed cases of non-compliance	224
S1.1 Permanent employees by region, gender and age as well as payroll	213	S10.2 Non-compliances with laws and regulations	225
S1.2 Employees by employment type and part-time employees	214	S10.3 Confirmed significant human rights breaches	226
S1.3 New employees and turnover	215	S10.4 Compliance training	226
S1.4 Total employees by Business Area	215	S10.5 Screening of business partners and supplier audits	227
S1.5 Sick- and parental leave	216	S10.6 Cyber security training	227
Note S2 – Remuneration	216	Note S11 - Spending on local suppliers	227
S2.1 Gender related salary differences	216	Note S12 – Public affairs and lobbying	227
S2.2 Highest paid employee	216	Note S13 – Certifications	228
S2.3 Standard entry level wage	216	Note S14 – Social data for 50/50-owned companies	228
Note S3 – Diversity in management	217	Partnerships and commitments	229
S3.1 Women and non-Norwegians in management	217		
S3.2 Local representation in senior management	218		
Note S4 – Employee engagement	218		
Note S5 – Health and Safety	219		
S5.1 Total recordable injuries (TRI), Lost time injury (LTI) and sick leave	219		
S5.2 High risk incidents (HRI)	220		
S5.3 Occupational illness rate	220		
S5.4 Wellness	220		
S5.5 Covid-19 pandemic	220		
Note S6 – Labor rights	221		
Note S7 – Current income tax	221		
Note S8 – Financial assistance from governments	222		
S8.1 Research & Development (R&D)	222		
S8.2 Financial assistance related to Covid-19	222		
Note S9 – Social responsibility	223		
S9.1 Community investments, charitable donations and sponsorships	223		
S9.2 Social responsibility target	223		

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

General reporting standards and principles

Data relating to occupational health and safety have been prepared by individual reporting units in accordance with corporate procedures. This applies to all Hydro's operations, including consolidated subsidiaries, if not otherwise stated. Such data are based on the corporate reporting system for incident reporting, IMS and Synergi. The units report incidents to the systems on a regular basis in accordance with a corporate procedure on HSE incidents and sick leave data. Employee data are reported based on Hydro's SAP system.

The reporting methodology will follow Hydro's principles, unless otherwise stated.

Where applicable, we have indicated to which GRI Standards disclosure the different notes or parts of the notes are applicable. Please also see the social statements on the previous page for more such information.

Note S1 – Employees

Reporting principles

Data for Hydro's permanent and temporary employees are based on Hydro's human resources SAP system. Data presented represent status at year end, December 31. Payroll is based on Hydro's consolidated financial statements. Payroll, as provided in the table below, does not include pension costs.

Temporary employees include among others apprentices, but exclude contractor employees. Legal requirements and customs may vary from country to country, making direct comparison difficult.

Number of full-time equivalents of contractor employees as included in the social statements is estimated based on the total hours worked by contractor employees (reported in Hydro's incident reporting system Synergi and IMS as basis for calculation of injury frequency) divided by 1,850 working hours per year. Contractor employees represented in total about 13,900 full-time equivalents during 2021. The majority relates to Hydro's Bauxite & Alumina activities.

Extrusion has a greater extent of seasonal variations than the other business areas in Hydro. This is solved in different ways in different parts of the organization and may include the use of agency workers. We still do not have the full overview of the extent of such use.

S1.1 Permanent employees by region, gender and age as well as payroll

Permanent employees by region, gender and payroll

	Number of employees ¹⁾					Payroll (NOK million) ^{2) 3)}				
	2021	2020	2019	2018	2017	2021	2020	2019	2018	2017
Norway	3,493	4,048	4,103	4,050	3,962	3,654	3,632	3,684	3,591	3,001
Women	22%	21%	21%	21%	20%					
Men	78%	79%	79%	79%	80%					
Germany⁴⁾	1,460	4,615	4,967	4,909	4,861	805	3,577	4,307	3,265	2,201
Women	21%	13%	13%	12%	12%					
Men	79%	87%	87%	88%	88%					
France	1,790	1,818	1,894	1,883	1,829	951	917	939	954	
Women	16%	16%	16%	16%	16%					
Men	84%	84%	84%	84%	84%					
Hungary	1,650	1,554	1,612	1,675	1,540	436	384	408	541	
Women	31%	30%	29%	26%	24%					
Men	69%	70%	71%	74%	76%					
Other Europe	8,570	8,407	9,071	9,338	8,864	3,813	3,746	3,850	3,678	223
Women	23%	22%	22%	22%	21%					
Men	77%	78%	78%	78%	79%					
Total Europe	16,963	20,442	21,647	21,855	21,056	9,658	12,256	13,188	12,029	5,425
Brazil	6,182	6,070	6,108	5,658	5,227	1,140	1,059	1,273	1,158	986
Women	14%	13%	13%	13%	12%					
Men	86%	87%	87%	87%	88%					
USA	5,856	5,510	6,013	6,291	5,954	3,803	3,517	3,656	3,348	
Women	18%	17%	16%	15%	14%					
Men	82%	83%	84%	85%	86%					
Rest of the world	2,263	2,218	2,542	2,432	2,388	711	677	889	783	
Women	18%	19%	18%	18%	18%					
Men	82%	81%	82%	82%	82%					
Total	31,264	34,240	36,310	36,236	34,625	15,312	17,509	19,005	17,318	6,681
Women	20%	18%	18%	18%	17%					
Men	80%	82%	82%	82%	83%					

¹⁾ Number of employees is based on where the employee actually is stationed, and will in some cases differ from the Country-by-country report, which shows in which legal company she or he is employed.

²⁾ Joint operations (Alunorf and Aluchemie from 2016 to 2019) are excluded from the payroll figures in the table above. Those entities are included in Hydro's financial statements on a line-by-line basis. Please see note 3.1 to the consolidated financial statements for more information about joint operations.

³⁾ Payroll figures for Extrusions is only available from 2018.

⁴⁾ The sale of Rolling in 2021 impacted the number of permanent employees by approximately 4,000, with the majority of these being in Germany.

Following the demerger of Hydro Rolling in June 2021, the number of employees decreased by approximately 4,000.

Age distribution permanent employees

	2021	2020	2019	2018	2017
Under 30		12%	14%	15%	15%
30-49		53%	52%	52%	52%
50 +		35%	34%	33%	32%

GRI Reference: GRI Standards 405-1 (2016) and G4-EU15

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

S1.2 Employees by employment type and part-time employees

Total employees by employment type

	2021	2020	2019	2018	2017
Permanent - total	31,264	34,240	36,310	36,236	34,625
Temporary - total	1,799	1,929	1,647	1,680	1,646
Women	34%	32%	27%	27%	23%
Men	66%	68%	73%	73%	77%
Proportion of women among temporary employees ¹⁾					
Brazil	44%	35%	-	-	-
Norway	34%	30%	-	-	-
USA	14%	26%	-	-	-

¹⁾ 2020 was the first year we reported on the proportion of women among temporary employees, and is the first data point.

GRI Reference: GRI Standards 405-1 (2016) and G4-EU15
Equality and Anti-Discrimination Act

In Norway, Hydro had 353 temporary employees, excluding "on call" and summer substitutes in 2021. The majority of temporary employees are apprentices with a typical employment duration of two years.

Temporary employees in Norway	(%) proportion of women
Total temporary employees	(%) proportion of women
353	21%

For gender of permanent employees see [Note S1.1 Permanent employees by region, gender and age as well as payroll](#).

Part-time employees include all persons being employed in positions that are not full-time (less than 100 percent).

In 2021, we investigated the use of agency workers. Our findings suggest that the largest share is being used in Hydro Building Systems, part of Hydro Extrusions, in France, Spain and Italy, constituting a total of 16 percent of their workforce in 2021. The use of agency workers is well regulated in these countries. This includes that they are paid above minimum wage requirements. The agency workers are mostly employed to handle production peaks. While a large proportion of these workers prefer not being permanent employees, Hydro Building Systems is still working to reduce their share in the organization to build competence and improve stability in the workforce.

Part-time employees¹⁾

	2021	2020	2019	2018	2017
Norway	0.9%	0.7%	1.2%	1.5%	1.9%
Women	1.9%	1.8%	3.7%	4.2%	5.6%
Men	0.7%	0.4%	0.5%	0.8%	1.0%
Total employees	1.7%	2.0%	1.3%	1.3%	1.6%
Women	4.4%	5.9%	4.9%	4.9%	6.2%
Men	1.1%	1.1%	0.5%	0.5%	0.6%

¹⁾ Data for 2020 includes 98 percent of Hydro's permanent employees globally.

GRI Reference: GRI Standards 102-8 (2016)

Hydro employees normally work full time. The opportunity to work part time is considered a benefit for which a special application must be made. In 2021, we reviewed if there were any cases of involuntary part-time work in our Norwegian activities. The review confirmed that all employees working part time had applied for reduced working hours.

In 2021, 58 employees worked part-time in Hydro in Norway, this includes both permanent and temporary employees.

Part-time in Norway

	Total employees (men and women)	(%) proportion of Women
Total	58	55%
Permanent	51	57%
Temporary	7	43%

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

S1.3 New employees and turnover

New employee hires by age group, gender and country

	2021				2020				2019
	Total	Under 30	30-49	50+	Total	Under 30	30-49	50+	Total
Brazil	539	175	336	28	428	140	264	24	861
Women	22%	25%	22%	11%	18%	24%	16%	0%	8%
Men	78%	75%	78%	89%	82%	76%	84%	100%	92%
Germany	115	41	59	15	110	43	51	16	194
Women	25%	29%	22%	27%	19%	16%	12%	50%	28%
Men	75%	71%	78%	73%	81%	84%	88%	50%	72%
Norway	131	38	73	20	83	22	52	9	143
Women	23%	24%	23%	20%	23%	14%	21%	56%	28%
Men	77%	76%	77%	80%	77%	86%	79%	44%	72%
USA	1,393	433	644	316	1,292	548	551	193	1,581
Women	20%	20%	20%	21%	19%	17%	22%	20%	18%
Men	80%	80%	80%	79%	81%	83%	78%	80%	82%
Other	1,560	475	858	227	1,158	479	544	135	1,687
Women	29%	30%	29%	22%	26%	24%	26%	29%	23%
Men	71%	70%	71%	78%	74%	76%	74%	71%	77%
Grandtotal	3,738	1,162	1,970	606	3,071	1,232	1,462	377	4,466
Women	24%	25%	25%	21%	22%	20%	22%	24%	19%
Men	76%	75%	75%	79%	78%	80%	78%	76%	81%

GRI references: GRI Standards 401-1 (2016), G4-EU15

Employee turnover by age group, gender and country

	2021				2020				2019 ¹⁾
	Total	Under 30	30-49	50+	Total	Under 30	30-49	50+	Total
Brazil	9%	10%	9%	11%	8%	8%	7%	13%	9%
Women	10%	9%	10%	10%	7%	12%	6%	0%	11%
Men	9%	10%	8%	11%	8%	8%	8%	14%	8%
Germany	7%	8%	8%	5%	10%	9%	4%	16%	5%
Women	8%	6%	10%	7%	7%	5%	3%	14%	8%
Men	6%	9%	7%	5%	11%	9%	4%	17%	5%
Norway	3%	6%	5%	1%	5%	4%	4%	7%	5%
Women	4%	7%	6%	1%	6%	4%	6%	7%	5%
Men	3%	6%	5%	1%	5%	3%	3%	7%	5%
USA	37%	87%	43%	16%	31%	54%	32%	21%	28%
Women	42%	105%	47%	18%	33%	64%	32%	23%	31%
Men	36%	84%	42%	15%	31%	53%	32%	20%	29%
Other	12%	31%	13%	6%	13%	23%	11%	11%	13%
Women	13%	27%	14%	6%	13%	18%	13%	12%	13%
Men	12%	33%	49%	6%	13%	24%	11%	11%	13%
Grandtotal	15%	35%	15%	8%	14%	23%	12%	13%	13%
Women	16%	31%	16%	8%	14%	21%	12%	13%	14%
Men	15%	36%	15%	8%	14%	23%	12%	13%	13%

GRI references: GRI Standards 401-1 (2016), G4-EU15

The employee turnover rate includes resignations, retirements and manning reductions of all permanent employees, but excludes closures and divestments.

In the US we have implemented a variety of improvement actions to reduce total employee turnover and yield better workplace stability, including pilot initiatives at certain plants. These actions include increased hourly wages, enhanced new hire follow-up/onboarding and leadership/supervisor training.

S1.4 Total employees by Business Area

Total employees by Business Area

Total permanent and temporary employees	2021	Proportion (in percent)
Hydro Bauxite & Alumina	4,262	12.9%
Hydro Aluminium Metal	5,651	17.1%
Hydro Metal Markets	169	0.5%
Hydro Extrusions	21,133	63.9%
Hydro Energy	310	0.9%
Group	293	0.9%
Global Business Services	1,247	3.8%
Total	33,065	100.0%

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

S1.5 Sick- and parental leave

Sick leave

Sick leave in Hydro's global organization was 3.8 percent in 2021, compared to 4.2 percent in 2020. In Norway, sick leave was 4.9 percent in 2021 compared to 4.5 percent in 2020. Women in Norway had a sick leave rate of 5.7 percent, while men had 4.7 percent.

Parental leave

In 2021, men and women in Hydro Norway typically used the allocated numbers of parental leave in line with the national guidelines.

Parental leave in Norway

	2021	2020	
	Number taking leave	Average duration of leave (weeks)	Number taking leave
Women	36	32	55
Men	90	12	107

In Brazil, the legal requirement is 120 days of maternity leave and five days of paternity leave. Since 2019, Hydro has offered 180 days of maternity leave and 10 days of paternity leave to all employees. In the U.S., there are no general legal rights for paid maternity and paternity leave. Hydro Extrusions North America offers four weeks of paid parental leave, in addition to six-eight weeks of maternity leave provided under its employee insurance. Hydro Precision Tubing in the U.S. offers six-eight weeks of paid maternity leave under its employee insurance program.

We are currently mapping our leave benefits in terms of maternity, paternity, adoption and sick leave in the 18 countries with the highest number of employees to identify any need for updated policies. In our employee engagement survey, we track perceptions of healthy balance between work and spare time, and found stress level as important indicators for a sustainable work environment.

Note S2 – Remuneration

Reporting principles

Data on gender related salary differences is based on local salary systems. Data on "highest paid employee" is based on [Note 9 Related parties and remuneration](#) in Hydro's consolidated financial statements for Norway, and from local salary systems in Brazil.

S2.1 Gender related salary differences

All employees shall receive a total compensation that is competitive and aligned with local industry standard (but not market leading). The compensation should also be holistic, performance oriented, transparent, fair and objective. Salaries in the organization are reviewed on a regular basis. There are no significant gender-pay differentials for employees earning collective negotiated wages in Norway and Brazil. We have evaluated salary differences for all Hydro employees in Hungary and based on our overall figures we find no significant gender related salary differences.

We have investigated the salary conditions for all Hydro employees in the U.S., including at the remelters, extrusion plants and precision tubing facilities. Based on our initial analysis, on average there are no significant gender-related salary differences in Extrusion North America. Also, in Brazil we do not see any gender-pay differentials for employees earning collectively negotiated wages. Furthermore, based on the comprehensive equal pay analysis conducted for Norway in 2021, Hydro will include gender-related compensation analysis starting in 2022 in countries where we have large presence.

S2.2 Highest paid employee

"Highest paid employee" includes fixed salary, pension, health insurance (Brazil only) and other benefits, but excludes bonuses. Any severance pay is excluded from the highest paid employee calculation to ensure consistency.

Highest paid employee per country

NOK thousand	% change 2020-21	2021	2020	2019	2018
Brazil		1,783	-	2,387	5,058
Norway	6%	9,673	9,143	7,680	12,910

¹⁾ Figures reported above excludes expatriates

GRI reference: GRI Standards 102-38 (2016) and GRI Standards 102-39 (2016)

Please see [Note 9.1 Management remuneration](#) and [Note 9.2 Employee remuneration](#) to the Consolidated financial statements for more information.

S2.3 Standard entry level wage

Entry level wages have been checked for some significant locations of operation. In Brazil, entry level wages are controlled by the labor agreement. We looked into salary differences in 2021, and the ratio compared to national minimum wage in Barcarena was 1.89 for women and 2.03 for men and 1.72 in Paragominas for both genders.

In Norway, the entry level wages are defined by tariff agreements. In the Norwegian operations, minimum entry wage for staff with certificates of apprenticeship is about 9 percent higher than the tariff minimum.

For Hydro Extrusions' significant location of operation, Hungary, we have reviewed entry level wage. The standard entry level wage ratio is 1.57 compared to the national minimum wage. In the USA, Hydro's most significant country of operations based on number of employees, the ratio of entry level wages across all sites to the federal minimum wage was 1.77 , and are higher than applicable state level minimum wages at all sites.

GRI reference: GRI Standards 202-1 (2016)

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Note S3 – Diversity in management

S3.1 Women and non-Norwegians in management

Reporting principles

Diversity data for the board of directors and Corporate Management Board (CMB) for Norsk Hydro ASA are counted per year end. Diversity data for "Top 50 managers" include level 0, 1 and 2 managers, i.e. the members of CMB and the members of the management teams at the level below CMB. For "Top 200 managers", the data include level 0, 1, 2 and 3 managers. For both groups, the actual number of managers can vary from year to year.

Diversity in management

	Women					Non-Norwegians				
	2021	2020	2019	2018	2017	2021	2020	2019	2018	2017
Board of directors (10 members) ¹⁾	40%	40%	27%	33%	33%	30%	30%	27%	11%	22%
Corporate assembly	33%	35%	33%	33%	33%	-	-	-	-	-
Corporate Management Board	44%	40%	40%	40%	40%	20%	10%	-	10%	20%
Top 50 managers	35%	31%	32%	33%	28%	34%	43%	37%	39%	37%
Top 200 managers	36%	32%	27%	25%	21%	41%	53%	60%	56%	51%

¹⁾ With three women among the seven shareholder-elected members and one woman among the three employee representatives on the Board of Directors and one woman among the three employee representatives, Hydro complies with the Norwegian legal requirements on female representation.

GRI reference: GRI Standards 405-1 (2016)

In addition to the groups above, we also monitor the gender distribution across additional staffing categories. In women leadership positions, where we monitor positions that have at least one line report, we have a target of 25 percent by 2025. In 2021 we achieved 18% of women in leadership positions, a 2 percentage point increase on 2020.

We also monitor women in white-collar, or staff positions. For this group the data include level 0, 1, 2, 3, 4 and 5 managers. We have set a target of 35% by 2025 in this category. In 2021, 28% of staff were women, a 3 percentage point increase on 2020.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

S3.2 Local representation in senior management

Reporting principles

Senior management is defined as the management group at each site (site managers and those reporting to them) in addition to business area management teams. Local is defined at country level for Norway and at state level for Brazil. Only significant sites of operation are included.

Local representation in senior management

Share of senior management hired from local community	2021	2020	2019	2018	2017
Norway					
Production sites in Norway	88%	98%	97%	97%	100%
Aluminium Metal management team	80%	80%	77%	91%	90%
Extrusions management team	14%	29%	38%		
Brazil					
Paragominas, Pará	15%	9%	9%	8%	9%
Barcarena, Pará	17%	22%	17%	13%	15%
Bauxite & Alumina management team	0%	0%	0%	0%	

GRI reference: GRI Standards 202-2 (2016)

Of the thirteen members of the Bauxite & Alumina management team in Brazil, seven are Brazilian citizens.

Hydro employs locals when necessary competence and capacity are available and normally uses expatriates only to secure employee development and the transfer of values and competence. Open positions in Hydro are normally posted at hydro.com and in local media. To secure competence transfer, it is important that there are also senior employees with experience from other units. This may also be the case at the blue-collar level, especially during start-up of new plants or equipment.

Note S4 – Employee engagement

Reporting principles

Hydro's employee engagement survey is normally carried out for all employees every second year.

The survey provides an Employee Engagement Index (EEI), a Psychosocial Risk Indicator (PRI) and an Integrity Culture Index (ICI).

EEI measures the extent to which employees are motivated to contribute to organizational success and are willing to apply discretionary effort to accomplishing tasks important to the achievement of organizational goals.

PRI measures work-related stress which affects employee mental health and wellbeing.

ICI measures the employee perception of Hydro's integrity culture.

Hydro changed survey provider in 2020, and the EEI may therefore not be comparable to previous years. The Hydro specific Performance Excellence Index is discontinued.

The long-term ambition is to be among the top 25 percent companies worldwide on EEI. In 2021, we launched the Hydro Inclusion Index in order to track perceived inclusion, consisting of eight questions related to diversity, inclusion and belonging with comparisons to external benchmarks.

Hydro Monitor

	2021	2020	2019	2018	2017
Employee Engagement Index (EEI)	N/A	72%	N/A	84%	N/A
Women		70%		86%	
Men		72%		83%	
Psychosocial Risk Index (PRI)	N/A	75%			
Women		73%			
Men		75%			
Integrity Culture Index (ICI)	N/A	76%			
Women		75%			
Men		76%			
Performance Excellence Index (PEI) (discontinued)	N/A	N/A	N/A	82%	N/A
Response rate	N/A	89%	N/A	88%	N/A

The engagement survey is a tool to work with organizational development, therefore the most important part is follow-up of agreed actions.

Note S5 – Health and Safety

Reporting principles

Standardized statistics are prepared and reported to management on a monthly basis based on data registered in Synergi and IMS, the reporting tools for incidents regarding health, safety, security and environment. Data covers all organizational units within Hydro, including sales offices and administrative functions.

Workers (own employees and contractor employees as defined in [Note S5.1 Total recordable injuries \(TRI\), Lost time injury \(LTI\) and sick leave](#)) are included during the period they are employed by or otherwise in service for Hydro.

S5.1 Total recordable injuries (TRI), Lost time injury (LTI) and sick leave

Reporting principles

Total recordable injuries (TRI) is calculated as the sum of LTI + RWC + MTC. TRI rate is calculated per one million hours worked.

Lost time injury (LTI) is a personal injury at work leading to unfitness for work and absence beyond the day of the accident.

Restricted work case (RWC) is a personal injury at work that does not lead to absence beyond the day of the accident, because of alternative job assignment.

Medical treatment case (MTC) is treatment, other than first aid, administered by a physician or registered professional personnel under the standing orders of a physician.

Employees are workers under direct supervision of Hydro.

Contractors are workers who are under contract to execute work for Hydro, and who are under the direct supervision of the contractor, but at Hydro premises under Hydro's indirect supervision.

Absenteeism for Hydro globally includes all absence due to injuries, work related and other illness, measured as number of hours lost due to sick leave as percent of number of hours worked plus number of hours lost due to sick leave.

Sick leave, Norway includes all absence due to illness, measured as number of days lost due to sick leave as percent of number of possible working days excluding holidays.

There are challenges in ensuring consistent reporting practice on sick leave across the company due to legislative and cultural differences between countries.

Total recordable injuries, lost-time injuries, fatal accidents and sick leave¹⁾

	2021	2020	2019	2018 ²⁾	2017
Total recordable injuries (TRI)	296	224	278	301	
Employees	251	188	229	243	
Contractors	45	36	49	58	
Total recordable injuries rate (TRI)³⁾	3.3	2.7	3.0	3.4	2.9
Employees	3.9	3.0	3.3	3.5	3.1
Contractors	1.8	1.7	2.2	3.0	2.5
Lost-time injuries (LTI)	155	119.0	119.0	147.0	-
Employees	125	102	101	118	
Contractors	30	17	18	29	
Lost-time injuries rate (LTI)⁴⁾	1.7	1.4	1.3	1.7	2.1
Employees	1.9	1.6	1.5	1.7	1.4
Contractors	1.2	0.8	0.8	1.5	0.6
Total number of fatal accidents	-	-	-	1	2
Employees	-	-	-	1	1
Contractors	-	-	-	-	1
Sick leave, percent	3.8%	4.2%	3.7%	3.6%	3.4%
Sick leave, Norway	4.9%	4.5%	4.5%	4.0%	4.0%
Women	5.7%	5.3%	5.7%	4.3%	4.7%
Men	4.7%	4.5%	4.2%	3.5%	3.8%

¹⁾ The numbers include discontinued operations

²⁾ Extrusions are included from 2 October 2017

³⁾ Number of recordable injuries per million working hours

⁴⁾ Excluding Extrusions. Working hours for Extrusions in 2017 can not be split between employees and contractor workers

⁵⁾ Number of lost-time injuries per million working hours

⁶⁾ Contractor fatality in 50/50 JV managed by Qatalum

GRI reference: GRI Standards 403-9 (2018)

We have deployed fatality prevention protocols and associated lifesaving rules and behaviours across all business areas. We also identify and share best practices more effectively through our HSE auditing process and use of digital tools.

The fatality prevention protocols, also known as the "critical seven", are:

- Energy Isolation (Lockout, Tagout and Verify, LOTO etc.)
- Fall Prevention (working at height, below floor level, falling objects etc.)
- Mobile Equipment (free moving vehicles such as forklift trucks, traffic management)
- Overhead Crane Safety (overhead travelling crane, mobile crane, tower crane etc.)
- Confined Space Entry (entering tanks, pits etc.)
- Molten Metal Safety (preventing explosion)
- Contractor Management (preventing injury during projects and other work to contractors and those providing contracted services)

Total recordable injuries (TRI) per region¹⁾

	2021	2020	2019	2018	2017 ²⁾
Total recordable injuries (TRI) employees	3.3	2.7	3.0	3.4	2.9
Employees	3.9	3.0	3.3	3.5	3.1
Contractors	1.8	1.6	2.2	3.0	2.5
TRI Norway	4.7	3.0	3.8	2.9	3.9
Employees	3.6	2.7	3.1	2.3	3.1
Contractors	15.0	7.5	10.2	8.7	7.3
TRI Germany	6.0	5.4	4.5	5.1	4.4
Employees	5.8	5.5	4.3	5.3	4.6
Contractors	8.5	4.3	5.5	3.8	3.2
TRI Brazil	1.7	1.5	1.3	1.8	2.0
Employees	2.6	2.0	1.5	1.5	2.3
Contractors	1.2	1.2	1.2	2.0	1.8
TRI US	5.8	4.0	5.8	5.8	0.0
Employees	5.9	4.0	5.9	5.9	
Contractors	1.9	2.6	7.2	7.0	

¹⁾ Number of recordable injuries per million working hours. The numbers include discontinued operations.

²⁾ Excluding Extrusions for full year 2017

GRI reference: GRI Standards 403-9 (2018)

The most dominant types of recordable injuries in 2021 were associated with ergonomics and falls. Injuries to fingers, hands and arms, representing 58% of all injuries with legs, knees, ankles and feet 21 percent, the upper body 7 percent and the head 14 percent. Hydro is not reporting these figures per gender as this can be in conflict with privacy protection considerations.

S5.2 High risk incidents (HRI)

High risk incidents include major accidents and incidents with major potential.

High risk incidents (HRI) rate is calculated as the number of high risk incidents per million hours worked, employees and contractors combined.

High risk incidents (HRI)

	2021	2020	2019	2018	2017
High risk incidents	122	140	190	202	127
HRI rate	1.36	1.66	2.08	2.27	2.53

GRI reference: GRI Standards 403-9 (2018)

Read more about the fatality prevention protocols under [Note S5.1 Total recordable injuries \(TRI\), Lost time injury \(LTI\) and sick leave](#).

S5.3 Occupational illness rate

Occupational illness rate measures occupational ill health. It is required as a minimum that all potential cases shall be reported. The majority of the reports are from our Norwegian sites, showing that there is room for further improvement in our global reporting. Development is tracked through a corporate reporting tool. Actual occupational illnesses are defined by Hydro as illnesses that

- have been confirmed by relevant authorities/insurance companies or doctors (depending on the national system)
- have led to any kind of permanent disability, disablement pension, loss of function and/or are a listed occupational disease

	2021 ¹⁾	2020	2019	2018	2017
Occupational illness rate ²⁾	0.3	0.3	0.2	0.5	0.3

¹⁾ 2021 includes all Hydro sites, earlier years did not include Extrusions

²⁾ Cases per million working hours. The numbers include discontinued operations.

GRI reference: GRI Standards 403-10 (2018)

Reported cases included one historical cancer, two case of occupational asthma and some cases of hearing threshold shifts and musculoskeletal disorders. We use our proactive tool for work environment risk assessment (WERA) to identify health risk and implement risk reducing measures e.g. substitution of hazardous chemicals, noise reduction, personal protective equipment to avoid development of new occupational illness cases. Through the work we have reduced the frequency of occupational illness cases related to noise and pot room asthma.

S5.4 Wellness

Hydro cares about the health and wellbeing of our employees, and offers a variety of initiatives to promote physical and mental health.

The majority of Hydro's sites offer wellness initiatives, ranging from healthy eating, exercise opportunities, weight management, stop smoking campaigns and work-life balance management. Several sites have access to a social worker or counselor to address psychological health and safety, and health and wellness is also addressed at site Health and safety-day events.

Health and wellbeing topics emphasized in 2021 included mental health and a celebration of the World mental health day, mental health podcasts, mental health and stress management webinars and revision of existing psychosocial risk assessments.

S5.5 Covid-19 pandemic

In order to avoid spread of the virus at Hydro controlled sites a number of actions have been put in place and their use updated and revised based on local conditions and the emergence of Covid-19 variants. A corporate risk assessment process was developed to support all sites and business travel to allow business to continue safely and in fully aligned, or more stringent, than applicable national rules and guidelines.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Note S6 – Labor rights

Reporting principles

The vast majority of operational sites within Hydro Aluminum Metal and Energy have established formal joint management-worker health and safety committees covering all employees. At certain sites, also contractor employees are included.

Hydro's major sites in Europe and Brazil are unionized. Extrusions has a major presence in the USA, and about 60 percent of our US employees are working at a unionized site. In total, we estimate that more than 85 percent of all employees work at a unionized site. Learn more about dialogue with the employee representatives under [Stakeholder dialogue](#).

In regions where unions are not allowed we are striving to establish alternative worker-management relations.

No strikes exceeding one week and no lock-outs took place in 2021.

Note S7 – Current income tax

Reporting principles

Current income tax is based on Hydro's financial statements.

Current income tax

NOK Million	2021	2020	2019	2018	2017 ¹⁾
Norway	1,990	758	665	1,770	1,715
Germany	81	49	38	81	(9)
France	161	112	36	56	10
Spain	44	21	-	26	8
The Netherlands	30	19	30	10	2
Slovakia	114	17	6	46	55
Sweden	57	89	23	48	46
Poland	57	48	40	32	22
Luxembourg	34	14	28	24	10
Denmark	30	36	11	22	28
Austria	55	33	39	39	30
Hungary	72	41	41	38	(2)
Other	48	22	16	26	17
Total EU	782	503	307	449	218
Switzerland	6	9	8	22	1
Other Europe	8	-	-	-	-
Total Europe	2,786	1,270	980	2,241	1,934
USA	53	154	167	39	23
Canada	384	92	21	73	150
Brazil	1,238	540	291	312	424
Asia	80	36	37	52	39
Other	23	13	16	7	4
Total outside Europe	1,779	835	532	483	641
Total	4,565	2,105	1,512	2,724	2,575

¹⁾ The joint operations Alunorf, Skafså Kraftverk, Tomago and Aluchemie are included in the figures above, but are not included in the other parts of the social or environmental statements, except for certain information in [Note E8 Environmental data for 50/50-owned companies](#) and [S14 Social data for 50/50-owned companies](#). Those entities are included in Hydro's financial statements on a line-by-line basis. Please see [Note 3.1 Investments in joint arrangements and associates](#) to the consolidated financial statements for more information about joint operations.

GRI reference: GRI Standards 201-4 (2016)

Hydro is subject to income taxes in the countries where we operate. The nominal tax rates typically vary between around 20 and 35 percent. The effective tax rates may differ from the nominal tax rates, among other things as a result of differences in depreciation rates and other tax deductions.

- The marginal tax rate for our power production in Norway is 59 percent.
- The general corporate income tax rate in Brazil is 34 percent. Hydro's bauxite, alumina and aluminium operations in Brazil have been granted income tax incentives encouraging investments in the northern provinces of Brazil, reducing the tax rate on operating income to between 20 and 34 percent up to 2017. No tax incentives have been valid or applicable for the years 2018, 2019 and 2020. In 2021, Hydro Paragominas has been granted renewal of a SUDAM income tax incentive for a 10-year period, reducing the tax rate on operating income to between 20 and 34 percent from 2020 to 2029. In addition, Hydro's operations in Brazil are subject to a number of significant indirect taxes.
- Hydro is present in some countries with a tax rate below 10 percent. In Switzerland, we have bauxite, alumina and aluminium sales activities, and aluminium sales activities in Singapore, both are taxed at rates of around 10 percent. In addition, Hungary has a tax rate of 9 percent.

Qatalum, a 50/50 joint venture with Qatar Petroleum, had a 10 year exemption from income taxes in Qatar, which expired in 2020. It has been Hydro's consistent position that the generally applicable tax rate, currently at 10 percent, should apply to Qatalum after the expiry of the tax holiday. However, the joint venture partners have not been able to agree on a common interpretation of the applicable tax law, and Qatalum filed its 2020 tax return applying a 35 percent tax rate on 30 June 2021. Hydro is pursuing alternative measures to protect its financial interest in this matter.

Hydro reports according to the Extractive Industries Transparency Initiative and Norwegian legal requirements, see [Hydro's Country by country report](#). We also report on financial assistance from public organization related to R&D activities, see [Note S8 Financial assistance from governments](#).

Note S8 – Financial assistance from governments

S8.1 Research & Development (R&D)

Reporting principles

R&D expenses are collected through Hydro's financial reporting, see Hydro's financial statements [Note 10.2 Research and Development](#) to the consolidated financial statement. R&D funding is gathered from Hydro's corporate technology office and our main R&D centers, located in Årdal (smelter technology) and Sunndal (alloys and casting) in Norway and Brazil (Bauxite & Alumina). The R&D centers in Hydro Extrusions are in Finspång, Sweden, and Detroit, USA. Funding received are actual income received from public research funds, e.g. The Research Council of Norway (Forskningsrådet) and Enova, through the year. See our section on [collaborating with other parties](#) for more information.

Research & Development

NOK million	2021	2020	2019	2018	2017
Research & Development expenses	512	633	625	594	500
Funding received ¹⁾	28	34	36	35	62

¹⁾ In addition comes funding to the Karmøy Technology Pilot of NOK 1.6 billion from 2015-2018. Hydro participates in collaborative projects carried out by other research organizations which receive public funding directly. Such funding is not included in the figures above.

GRI reference: GRI Standards 201-4 (2016)

We have been granted funding amounting to approximately NOK 190 million - to be received in the years to come - provided that certain research projects are carried out. Some funds might already have been received, see section on [collaborating with other parties](#) for more information.

S8.2 Financial assistance related to Covid-19

In 2020 Hydro received about NOK 240 million in government grants related to Covid-19. While some of these grants came with no further obligations, some have been or are still subject to audit processes. No major issues have been identified so far.

In 2021, grants related to Covid-19 has only been given to Slovalco in Slovakia, in total about NOK 2 million.

Note S9 – Social responsibility

S9.1 Community investments, charitable donations and sponsorships

Reporting principles

All sites report annually on all community investments, charitable donations, sponsorship and other related initiatives. The reporting includes monetary amounts and time spent and benefits to the company as well as to the communities. Outcomes for Hydro and the society are also included in the reporting requirements.

Community investments

NOK million	2021	2020	2019	2018	2017
Community investments ¹⁾	30	42	50	29	23
Total community investments, charitable donations and sponsorships¹⁾	55	56	59	89	36

¹⁾ In 2021 we included Hydro Extrusions in the reported numbers for the first time.

Figures reported for 2021 include Extrusions while they exclude the divested businesses area, Rolling. Hence, historical figures are not comparable with the current year.

The increase in 2018 included NOK 35 million related to emergency relief following the extreme rainfall and subsequent flooding in Barcarena in 2018. It also includes around NOK 10 million to foodcards as part of the TAC agreement. See the section "The Alunorte situation" in Hydro's Annual Report 2018.

S9.2 Social responsibility target

Reporting principles

Hydro has committed to contribute to quality education, and capacity and competence building for 500,000 people in our communities and for business partners from 2018 until end of 2030.

We have established a framework and methodology for counting the people impacted by our programs and initiatives to ensure consistency across the company.

Education refers to initiatives within the formal educational system, from elementary school to university. Examples of initiatives include training of teachers and external scholarships.

Capacity, or competence, building refer to all training and competence building outside formal educational systems. Examples include trainees and Hydro's supplier development program established in Brazil.

Social responsibility

1,000 people reached	Accumulated	2021	2020	2019	2018
Education and capacity building		129	21	59	26

The steep decline in numbers reached from 2020 to 2021 is primarily explained through the following:

- Many of the normal processes were halted due to the pandemic.
- Through our collaboration with UNICEF, 2020 was a year with increased numbers due to one particular initiative in India, reaching close to 30,000 people. In 2021, the project was replaced by a more in-depth project in Italy with significantly fewer people reached.

Although the total number for 2021 is the lowest reported since the target was established, we still see a positive influence throughout the pandemic, and we expect that the numbers will increase as operations return to normal.

Note S10 – Compliance

Reporting principles

Compliance data have mainly been collected from Group Internal Audit and Investigations' overview of alerts reported to line management, to supporting staff functions, and Hydro's AlertLine. In addition, compliance data has been obtained from quarterly compliance reporting by business areas, and a self-assessment filled in by each business area at year-end. Some information has also been collected through other sources including Hydro's Legal department and Procurement Network.

S10.1 Reported and confirmed cases of non-compliance

Non-compliance cases are normally reported to line management and/or supporting staff functions including Group Compliance, Group Internal Audit and Investigations, Human Resources, Legal, HSE, Finance and Accounting. Non-compliances can also be reported through Hydro's AlertLine, which offers the possibility of anonymous reporting, unless otherwise prohibited by local law. Although separate reporting statistics have been kept for Extrusions (acquired 2017) and the rest of Hydro, the figures from 2018 are consolidated.

The number of dismissals due to breach of Hydro policy is limited to cases reported to Hydro's Internal Audit.

In 2021, Hydro received 896 notices in Canal Direto, the grievance channel designed for external stakeholders in Brazil. The majority of the entries, 53%, relate to information request ranging from supplier registration, contracts, invoicing, payment, human resources up to overall commercial issues. Around 38% refer to the food card distribution process as part of the Term of Adjusted Conduct (TAC) agreement with the Government of Pará and the Ministério Pùblico in relation to the Alunorte situation in 2018. Most files, 57%, were registered through our toll-free number (0800), while 38% came from email and 5% through Hydro website.

A set of improvements were performed in Canal Direto along 2021: internal leaders were trained on the importance of grievance mechanisms for companies as well as their role in responding to grievances appropriately; a complete Canal Direto website revamp was made, along with a comprehensive communication plan; technical improvements were performed to bring more stability, confidentiality to the data base; the third-party service supplier team was trained on ways to improve service quality as well as on human rights related aspects

Cases reported regarding breaches of Hydro policy

	2021	2020	2019	2018	2017 ²⁾
Number of cases reported through AlertLine (or similar)	273	224	347	342	302
Dismissals due to breaches of Hydro policy ¹⁾	5	4	20	14	6
Alleged cases of harassment	51	57	90	116	
Alleged cases of discrimination	13	14	25	11	
Alleged cases of discrimination and/or harassment	64	71	115	127	84
Confirmed cases of harassment	12	18	34	50	
Confirmed cases of discrimination	4	5	7	1	
Confirmed cases of discrimination and/or harassment	16	23	-	-	27
Alleged cases of corruption, fraud, corruption and/or conflict of interest	26	24	48	25	42
Substantiated cases of corruption	-	1	2	1	
Confirmed cases of fraud	2	4	4	-	
Confirmed cases of conflict of interest	1	-	3	3	14

¹⁾ Total number of dismissals due to breaches of Hydro policy of which Hydro's Internal Audit is informed

²⁾ Figures for 2017 include Extrusions numbers for all of 2017, not only the months after acquisition. Work has also been conducted following the acquisition to harmonize indicator definitions. 2017 figure also include cases of non-compliance.

GRI reference: GRI Standards GRI 406-1 (2016) and 205-3 (2016)

S10.2 Non-compliances with laws and regulations

In 2021 Hydro registered two non-compliances with laws and regulations that resulted in fines exceeding NOK 1 million.

For allegedly harming competition in the market for port operation services in the ports of Belém and Vila do Conde in Brazil, Albras was fined BRL 3,75 million by CADE in 2021, as a fee for new members of OGMO-BVC, a port operator association that was established in 2011. Albras was fined at a rate of 0.1% of gross turnover while the other port association members were fined at 0.5%.

For information about a civil fine related to certain air and water environmental compliance issues in Hydro's casthouse The Dalles, Oregon, US, please see [Note E2.3 Permit breaches](#).

Hydro Extrusion Portland, Inc. (HEP) and its U.S. parent company, Hydro Extrusion USA, LLC (Hydro ENA), entered into agreements in April 2019 to resolve certain investigations by the U.S. Department of Justice (DOJ). HEP pled guilty to one charge of mail fraud, received three years of probation, and paid approximately NOK 400 million. Hydro ENA entered into a deferred prosecution agreement (DPA) in which it admitted to mail fraud, but the prosecution of the charge is deferred for three years, subject to its fulfilment of certain obligations.

For more information about legal proceedings in Hydro please see the section [Legal proceedings](#).

Legal claims related to the Alunorte

The legal claims stated below are primarily cases related to Brazil and goes beyond what is covered under non-compliances with laws and regulations above.

For information related to the Alunorte situation, please see Hydro's Annual Report 2018.

March 16, 2018: CAINQUIAMA – Associação dos Cabilcos, Indigenas e Quilombolas da Amazônia (an association with an office in Barcarena) filed a lawsuit in the State Court in Belém against Norsk Hydro Brasil, Alunorte and the State of Pará, claiming that chemical waste was intentionally discharged and that the bauxite residue deposits in operation were subject to a fraudulent license granted by the State of Pará. Furthermore, the plaintiff alleged that the bauxite residue deposits (DRS 1 and 2) are located on an ecological reserve. With reference to these allegations the plaintiff requested the defendants to carry out medical examinations of allegedly impacted communities. The lawsuit is ongoing and awaiting a final decision in the lower Court.

March 27, 2018: A collective lawsuit was filed by IBS (Barcarena's Social and Environmental Institute) against Norsk Hydro Brasil, Albras, Alunorte, Imerys, Alubar, the Municipality of Barcarena and the State of Pará to seek remediation of the environment and compensation for material and moral damages. The lawsuit is ongoing and awaiting a final decision in the lower Court.

April 3, 2018: The State of Pará filed a civil class action seeking to recover environmental damages allegedly caused by Alunorte, as well as indemnification for alleged material and moral damages. On December 12, 2018, Alunorte and the State of Pará entered into a settlement agreement to end the lawsuit with reference to the Term of Adjusted Conduct (TAC) and Term of Commitment (TC) signed on September 5, 2018. On October 14, 2019 the court issued a decision homologating the agreement and extinguishing the lawsuit. The decision was subject of appeal filed by ADECAM association and is pending a decision from the Court of Appeal.

April 5, 2018: The State and Federal Public Prosecutor's Offices (Ministerio Público) filed a lawsuit against Alunorte, Norsk Hydro Brasil and the State of Pará. As a preliminary injunction, the plaintiffs requested partial suspension of Alunorte's production activities (50 percent reduction) and prohibition of using the bauxite residue deposit DRS2 until the license to operate was obtained, and the company could demonstrate operational stability and efficiency. On April 30, 2018, the Federal Court partially granted the injunction, determining a similar embargo previously granted by a State Criminal Court. The State of Pará and the State Public Prosecutor's Office were excluded from the lawsuit. On May 15, 2019 the Federal Court lifted the production embargo on Alunorte. On September 20, 2019 the Federal Court issued a decision homologating the agreement between Federal Public Prosecutors, Alunorte and Norsk Hydro Brasil to resume DRS2 installation and commissioning activities. The decision was subject of appeal filed by individuals and is pending a decision.

May 15, 2018: Another lawsuit was filed by CAINQUIAMA against Mineração Paragominas (MPSA), Albras, Norsk Hydro Brasil, Alunorte, INMETRO (National Institute of Metrology), BVQI -CERTIFICADORA LTDA; Federal Union of Brasil, National Department of Mineral Production ("DNPM"), in the Federal Court in Paragominas, alleging that MPSA's

tailings contain hazardous substances. CAINQUIAMA also claimed that the bauxite residue have been illegally dumped in Alunorte's bauxite residue deposits (DRS1 and DRS2) and that these deposits are located in an ecological reserve requesting an injunction to stop the operation of MPSA. On July 18, 2018 the Federal Court denied the request for injunction. The lawsuit is ongoing and awaiting a final decision in the lower Court.

September 12, 2018: ADECAM (Association of Education, Culture, Protection and Defense of Consumers, Taxpayers and Environment of Brazil) filed a lawsuit in the Federal Court in Belém against Alunorte, Norsk Hydro Brasil, the Federal Union and Ibama (the Federal Environmental Agency) seeking compensation for alleged collective moral damages to the people of Pará, having the rainfall in February 2018 as the main ground for the claim. The association accuses the companies of pollution, including overflow and leakage of the bauxite residue deposits, discharge of contaminated effluents through clandestine/hidden pipes, in addition to what has already been claimed in other lawsuits involving the February incident. The lawsuit is ongoing and awaiting a final decision in the lower Court.

October 31, 2018: CAINQUIAMA filed a similar lawsuit as the one filed in March 16, 2018 against Mineração Paragominas (MPSA), Albras, Norsk Hydro Brasil, Alunorte, State of Pará, BVQI - Certificadora Ltda in the State Court of Belem, requesting the suspension of the operation of the companies. On June 17, 2019, the court issued a decision that denied the injunction request. The lawsuit is ongoing and awaiting a final decision in the lower Court.

On May 3rd, 2019: CAINQUIAMA filed a new lawsuit, with an injunction request, before the 5th Public Treasury Court of Belem against (i) the State of Pará; (ii) Norsk Hydro Brasil.; (iii) Mineração Paragominas; (iv) Alunorte. and (v) Albras. In short, the complaint states that the products used in Brazil in order to refine bauxite are more toxic than the ones used in Norway. Further, it argues that the amount of coal and heavy fuel oil consumed per year by Alunorte released into the atmosphere is harmful to the environment (as it can cause, e.g., acid rain and contamination of soil and water) and to humans (as it can cause respiratory illness and premature death). Lastly, it mentions that the ICMS tax benefit given to defendants must be lifted, because Alunorte has not changed the energy source from fuel oil to natural gas as agreed with the government through one of the commitments in the ICMS agreement. On June 10, 2019 the Court issued a decision that denied the injunction request. The lawsuit is ongoing and awaiting a final decision in the lower Court.

On August 1, 2019: About 100 Individuals from Abaetetuba and Barcarena (State of Pará) filed a lawsuit against Alunorte. The case relates to the 2018 rainfall incident and claims that Alunorte contaminated the environment, and due to this, the plaintiffs are not able to sustain their livelihoods as farmers and fishermen and are requesting material and moral compensation. The lawsuit is ongoing and awaiting a final decision in the lower Court.

On August 20, 2019, the Agrarian State Public Prosecutor Office issued a "recommendation" alleging that: (i) DRS1 and DRS2 were built in an area designated as an "ecological reserve" as defined in the purchase agreement from 1982 and according to environmental legislation; (ii) restoration of agricultural area as defined in the 1982 agreement was not implemented and; (iii) Taia community was wrongfully evicted in the 1980s and later eviction cases, and should be granted land rights. The main requests from the Agrarian State Public Prosecutor Office are: (i) the demolition of parts of DRS1 and DRS2; (ii) the agricultural area should be re-established; and (iii) Taia community should be recognized as a traditional community and granted their community and land rights. Alunorte and Hydro disagree with the allegations made by Agrarian State Public Prosecutor Office but remain in dialogue in order to seek a solution to the case.

Bauxite & Alumina Labor cases

February 2017: The union at Paragominas filed in February 2017 a claim representing all employees, asking to be compensated for hours spent commuting back and forth from work. Following the labor law reform in November 2017, the obligation to compensate for commuting if the place of work is not served by regular public transportation or if the public transportation is not satisfactory to meet the demand, is not valid. Due to this change, the period in question is February to November 2017. The case was partially granted by the initial ruling and is currently being re-evaluated by the Court of Appeals. The case is now suspended, as the Labor Court of Appeals and Superior Labour Court of Appeals have different interpretations on the subject.

April 2019: Mineração Paragominas ("MPSA") Employees Union filed a Collective Labor Lawsuit on behalf of all employees asking for additional salary differences related to night shift work for employees working on rotating shifts, as well as weekly rest payments for those working for seven consecutive days. The case was dismissed in the initial ruling. When re-ruling the case, the Labor Court of Appeals changed the decision and granted additional pay for night shift workers and dismissed the claim on weekly rest payment without analysis of its merits. Both parties appealed to the Superior Labor Court, where judgment is pending.

Other cases

From 2008 there is a legal dispute between five of the 120 relocated families and the alumina refinery project CAP in Barcarena in Brazil. Their requests have been denied by the Court. The case is still awaiting a decision from the Court of Appeals.

Following an overflow of storm water from the bauxite residue deposits at Alunorte in 2009, there are still legal issues pending. In 2012, more than 5,400 claims related to the overflow were filed in the local court. By the end of October 2021, a total of 5035 cases were closed with favorable decision to Alunorte, and 419 cases are pending decision from the lower Court and/or Court of Appeals.

In respect of the alleged inappropriate disposal of waste in Ulianópolis Municipality, in September 2011, a civil class action was filed by the Municipality of Ulianópolis against Albras and Alunorte and several other companies. The case seeks remediation of environmental damage and condemnation by the companies and collective moral damages, considering their alleged contribution to environmental damages related to previous disposal of waste through Companhia Brasileira de Bauxita (CBB). Albras and Alunorte are parties in the class action, as both delivered waste to CBB prior to 2003. The class action was filed after an attempt from the Municipality of Ulianópolis together with the State Environmental Agency - Semas, to negotiate a settlement with all the companies involved. Albras and Alunorte did not agree to the terms of the proposed settlement as they had already removed their waste from the site. The lawsuit is ongoing and awaiting a final decision in the lower Court. Besides the civil class action, in March 13, 2014 and December 7, 2015 , six similar labour claims were filed before the Labour Court of Paragominas, Pará, against Companhia Brasileira de Bauxita ("CBB"), Alunorte, Albras and 81 other companies by former CBB employees alleging that they have worked under unhealthy and hazardous conditions, without receiving appropriate personal protective equipment and, as consequence, they developed serious illnesses that prevented them from working. They claim payment for moral and material damages. A medical expert examination was carried out by the Labor Court but the report was not conclusive as to whether any of the alleged diseases derived from activities performed while employed by CBB. Therefore, all the six cases were dismissed. Claimants filed appeals challenging the decision and the cases are now being processed to be sent to the Regional Labor Court of Appeals.

The Federal and State Public Prosecutors filed in 2016 a Public Class Action against Albras, Alunorte, Imerys, Votorantim, Oxbow, Yara (companies located in the industrial district of Barcarena) and the Municipality of Barcarena, the State of Pará and the Federal Union (Brazilian Government). The purpose of the lawsuit is to protect the rights of the local people of Barcarena that allegedly consume contaminated water due to the industrial activities in the municipality. The lawsuit is ongoing and awaiting a final decision in the lower Court.

In 2017, CAINQUIAMA – Associação dos Caboclos, Indígenas e Quilombolas da Amazônia (an association with office in Barcarena), filed a lawsuit against Norsk Hydro Brasil, Alunorte and Albras, the State of Pará, Bureau Veritas Brasil and Inmetro. They claim part of the bauxite residue deposits for Alunorte (DRS1 and DRS2) was established on an area designated as an ecological reserve, and that they have suffered social and environmental damages. The lawsuit is ongoing and awaiting a final decision in the lower Court.

On February 5, 2021, CAINQUIAMA and nine Brazilian individuals filed a lawsuit with the Rotterdam District Court, in the Netherlands, against Hydro's Dutch entities and Norsk Hydro ASA (Hydro) seeking compensation for alleged financial damages and personal injuries suffered as a result of Alunorte and Albras activities in the municipality of Barcarena. According to the plaintiffs, Hydro's Dutch entities and Hydro are part of Alunorte and Albras' corporate group and, therefore should be liable for the alleged environmental violations caused in the municipality of Barcarena throughout the years. The lawsuit is ongoing and awaiting a final decision by the lower Court.

S10.3 Confirmed significant human rights breaches

Reporting principles

We define significant human rights breaches as either one or more confirmed cases of forced labor, child labor abuse, or confirmed breach of ILO 169 caused, contributed or linked to Hydro. We also include cases where a municipality/region/area of more than 100 people has been irreversibly impacted by confirmed cause, contribution or link to Hydro (e.g. spill, systematic pollution over time, involuntary relocation). The confirmed impact to people in the municipality/region/area is life-long and/or life-shortening.

Relocation of people may at times be necessary in connection with our operations. No voluntary or involuntary relocation of people with legal or prescriptive rights to their dwellings, took place in Hydro's operations in 2021. In Barcarena in Pará, Brazil, in an area surrounding Hydro's operations and regulated for industrial purposes, illegal logging and settlements have accelerated since 2016. We realize that we need to better understand the situation in collaboration with the relevant stakeholders, the municipality and civil organizations.

Hydro did not detect severe human rights impacts in our own operations in 2021.

Incidents of harassment and discrimination are reported separately from (other) human rights breaches in [Note S10.1 Reported and confirmed cases of non-compliance](#). Occupational health and safety incidents, including fatalities, can be found in [Note S5 Health and Safety](#).

S10.4 Compliance training

In Hydro, compliance awareness training is provided on a range of topics and consists of classroom-training, workshops, town hall meetings and various e-learning modules. In 2021, training was provided e.g. on the topics of anti-corruption, Hydro's code of Conduct, competition law, data privacy, trade sanctions and market regulations. Compliance training is mainly prepared and executed by Group Compliance and Group Legal, but other group functions also contribute. In 2021 a suite of new compliance e-learning courses was procured.

The various compliance awareness and training modules were in total completed 25,709 times, of which the various compliance e-learning training modules were completed 18,148 times and classroom training was provided to 7,561 employees.

S10.5 Screening of business partners and supplier audits

As part of the integrity risk management process, approximately 7,000 of Hydro's potential or existing counter-parties were screened for human rights violations, corruption, money-laundering, politically exposed persons and violations relating to sanctions using the RDC integrity risk tool during 2021. This mostly relates to suppliers, but also some customers, agents and other business partners were included. New business partners related to most operations are screened before registered in our ERP system. Furthermore operations in North America screened approximately 13,000 customers and suppliers in the denied parties risk tool MK Denial.

All suppliers, customers and other business partners registered in our main accounting systems are screened on a weekly basis against recognized international sanction lists.

The number of audits in 2021 is still on the same low level as 2020 due to the Covid-19 pandemic. In total 49 supplier audits were conducted in 2021 in Hydro. All the supplier audits included topics related to health, safety, environment and social responsibility. Around 80 percent of the audits led to action plans, and by the end 2021, more than 70 percent of the corrective actions proposed by Hydro resulted in improved performance. All audits are risk based emphasizing topics relevant for the suppliers operations, e.g., quality, safety, environmental, human rights and governance.

Key social responsibility and HSE findings from the audits relate to lack of management systems, environmental awareness, compliance controls and emergency preparedness. A non-compliance with or breach of the principles in Hydro's Supplier Code of Conduct that is not able to be corrected within a reasonable period, may lead to termination of the supplier contract.

S10.6 Cyber security training

Hydro continue to emphasize security awareness for end-users, and provide e-learnings for all users with access to Hydro Academy. Guidelines are published in relevant channels for all users.

In 2021, a new mandatory cyber security training was established for all IT users in all business areas. A total number of 14 000 employees participated in the training, which covered essential topics of cyber security.

Note S11 - Spending on local suppliers

Reporting principles

Selection of local partners and suppliers/contractors shall be based on competitive bidding to the extent feasible, and in compliance with competition laws and regulations as well as Hydro's requirements. A local supplier is here defined as a supplier situated in the same country as the operational site.

Data on local purchasing is gathered by for all the business areas. For the business areas Bauxite & Alumina, Aluminum Metaland and Hydro's project organization, Brazil, Norway and USA are considered the most significant locations of operation based on economic importance.

Spending on local suppliers vary from site to site depending on which goods and services are available. Local spend in our Brazilian Bauxite & Alumina operations was estimated to be 70 percent in 2021. Most of the raw materials used at the aluminum plants in Norway are imported, while electricity and services are sourced locally. In the Norwegian smelters local procurement mainly relates to maintenance services etc. and is about 20 percent in 2021. This year we also report on Hydro Extrusions which has a local spend of about 62 percent in 2021, whereas Hydro Energy has 88 percent local spend.

Note S12 – Public affairs and lobbying

Reporting principles

Data on public affairs and lobbying is gathered from Hydro's Communication & Public Affairs department in Norway, Germany and Brazil, in addition to our office in Brussels that follows up EU affairs. These units cover all consolidated activities.

In total nine full-time equivalents (FTE) are dedicated to public affairs and lobbying. This includes four FTEs in Brazil and four in the EU (Brussels office). In Norway one FTE are dedicated to public affairs and lobbying. Within the EU, lobbying activities are publicly reported through the EU Transparency Register. To get a full overview of all Hydro's memberships in different industry associations see Hydro.com.

According to our global directives, Hydro may not make financial contributions to political parties. We have no indications that such contributions took place in 2021.

Note S13 – Certifications

Reporting principles

According to Hydro's policy, all operational sites shall comply with, but not necessarily be certified according to, ISO 9001 and ISO 14001 and ISO 45001. Certification according to these standards is a decentralized responsibility based on identified business needs.

Hydro's power plants in Norway have chosen not to be certified. However, they are fulfilling the requirements given in the mentioned standards. In addition, the power plants need to comply with the requirements given by the Norwegian Water Resource and Energy Directorate (NVE), i.e. concessions for operations as well as environmental, third person safety, security and emergency preparedness regulations. The table below shows the distribution of certification of the other operational sites in Hydro.

In addition to the mentioned ISO and OSHAS standards below, a number of sites are also certified according to different sector and customer specific standards. Examples of such certifications are the IATF 16949 for the automotive industry, and the Aluminium Stewardship Initiative.

Share of relevant operational sites certified

	ISO 9001	ISO 14001	ISO 45001 ¹⁾	ASI
Hydro	98%	99%	79%	42%

¹⁾ OHSAS 18001 is discontinued and has been replaced by ISO 45001

Of our sites delivering to the automotive industry, 88 percent are certified according to the IATF 16949. Hydro's most energy intensive sites and operations comply with the ISO 50001 Energy Management systems.

Note S14 – Social data for 50/50-owned companies

Reporting principles

Hydro has an ownership share of 50 percent in Qatalum. As only operations owned more than 50 percent are included in most of the information in Hydro's Environmental and social statements, we have chosen to disclose certain social information about this partly-owned company and its total performance. The reporting principles of each indicator might differ from the ones used by Hydro and in-between the companies. For information about environmental data, see Note E8 to the environmental statements.

Social data for 50/50-owned companies

Main product	Number of employees	Share of women	TRI, contractors	LTI, employees	LTI, contractors	Fatal accidents
Qatalum	Aluminium Metal	1,060	3.3%	0.3	1.4	-

Partnerships and commitments

GRI Standards

Hydro uses the GRI Standards for voluntary reporting of sustainable development. The guidelines comprise economic, environmental and social dimensions relating to an enterprise's activities, products and services. GRI collaborates with the United Nations Environment Program and UN Global Compact. Hydro has reported according to GRI since 2003.

We believe that our reporting practice is consistent with GRI's reporting principles in all material respects. We report in adherence to "Core" as defined by the GRI Standard 101: Foundation 2016, and include the GRI G4 Mining & Metals sector supplement and certain relevant aspects of the G4 Electric Utilities sector supplement in our reporting.

The report is externally assured by KPMG. The external assurance, as outlined in the Independent Auditor's Assurance report, concludes that the report is presented, in all material respects, in accordance with the GRI Standards.

The GRI index, including the full definition of each indicator and references to specific sections in this report as well as additional information, can be found on hydro.com/gri.

UN Global Compact Communication of progress

We support the principles of the UN Global Compact. Human rights, international labor standards, working against corruption and environmental considerations are fundamental to our approach to corporate responsibility.

Hydro has played an active role in the Global Compact since its formation. Our commitment is expressed by the Chair of the Board of directors and the CEO in their [letter to stakeholders](#). Our Communication on progress (COP) in relation to the Compact's 10 principles is at the Advanced level and thus also reflects the Global Compact's 21 advanced criteria. The consistency of the information in Hydro's annual report 2021 with the information in the Hydro Communication on Progress 2021 has been [reconciled by our auditors](#). A complete report can be found at hydro.com/globalcompact.

UN Sustainable Development Goals

The UN Sustainable Development Goals (SDGs) embrace a universal approach to the sustainable development agenda. They explicitly call on business to use creativity and innovation to address development challenges and recognize the need for governments to encourage sustainability reporting. Hydro has an impact on all of the 17 development goals, but some more than others. Of the 17, Hydro has chosen eight goals that are the most important to us, that are highlighted throughout the report.



Hydro uses the SDG Compass, a tool built in a partnership between GRI, UN Global Compact and the World Business Council on Sustainable Development, to make a high-level review on how we relate to the UN Sustainability Development Goals. This review is included in the GRI index 2021 and is also included in external auditor's consistency check of Hydro's GRI index 2021.

A more complete overview of Hydro's positive and negative impacts on each of the 17 SDGs, can be found at hydro.com.

United Nations (UN) Guiding Principles on Business and Human Rights

The United Nations (UN) Guiding Principles on Business and Human Rights (hereafter UNGPs) were endorsed by the UN Human Rights Council in June 2011. They have provided a clear, global understanding of governmental duties and corporate responsibilities for human rights. The UNGPs articulate that wherever and however a company operates, it must refrain from violating human rights. Companies are expected to be fully aware of their human rights impacts, take concrete steps to address them and implement measures to mitigate negative impacts in the future. Companies are also expected to communicate any impacts or risks of impacts, and mitigating actions. Hydro is committed to transparency, including through this annual report.

Hydro uses the GRI document "Linking G4 and the UN Guiding Principles" document as basis for how we report on our adherence with the UNGPs, and report on this in the GRI index 2021. This is also included in external auditor's consistency check of Hydro's GRI index 2021. We also report according to relevant laws that are based on the UNGPs, including the Norwegian Transparency Act 2021 (valid from 2022), the UK Modern Slavery Act 2015, and the Australia Modern Slavery Bill 2018. The most salient and [prioritized human rights issues](#) are reported in the Human rights chapter.

Through Hydro's human rights [due diligence processes](#), we did not detect severe human rights impacts in 2021 and therefore have nothing to report for 2021 on the GRI B4 "Additional severe impacts".

ICMM

Hydro is a member of the International Council on Mining and Metals and reports according to the ICMM requirements. That includes Hydro's reporting in accordance with the GRI Standards, see the section about GRI above. The Environment and social responsibility 2021 reporting is prepared in line with the requirements found in the ICMM 10 principles and position statements. The complete Environment and social reporting is – according to the ICMM requirements – [assured by our external auditor](#).

As part of our ICMM commitments, we disclose mineral development contracts granted or entered into from 1 January 2021 that we have signed with host governments, see hydro.com

ASI

The Aluminium Stewardship Initiative (ASI) is a global, multi-stakeholder, non-profit standards setting and certification organization. The ASI works toward responsible production, sourcing and stewardship of aluminium following an entire value chain approach.

Hydro is an active member of the Aluminium Stewardship Initiative. ASI's mission is to recognize and collaboratively foster the responsible production, sourcing and stewardship of aluminium. We have been involved at all stages in the multi-stakeholder development of ASI standards to date. We have participated in developing ASI's certification program. The third-party certification platform was launched in December 2017. Until publication of this report, 65 production sites have been certified according to the ASI Performance Standard, covering Hydro's value chain from bauxite mining to finished products. Hydro has also certified several sites according to the Chain of Custody standard, and delivered the first ASI certified metal to a customer in July 2019.

Hydro reports in the GRI index 2021 on how we relate to ASI's 11 principles and underlying criteria. This is also included in external auditor's consistency check of Hydro's GRI index 2021. For the full GRI index, see hydro.com/gri.

TCFD - Task Force on Climate-related Financial Disclosures

Hydro is a signatory to the TCFD recommendations. TCFD was formed by the Financial Stability Board in 2015. The recommendations were made public in June 2017. Hydro launched a new climate strategy in 2019 that takes into account scenario analysis. These include:

- New policies: similar to a 2°C scenario in line with the Paris agreement
- Current policies: similar to a 4°C scenario and in line with already adopted measures
- Physical risks: stress testing of physical risks under a 6°C scenario

The table below shows an overview of Hydro's initial approach to the recommendations. All page references relate to Hydro's Annual Report 2021.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Task Force on Climate-Related Financial Disclosures (TCFD) recommendations

Recommendation	Disclosure
Governance: Disclose the organization's governance around climate-related risks and opportunities	
a) Describe the board's oversight of climate-related risks and opportunities	<ul style="list-style-type: none"> • Board developments • Risk review • Strategic direction and key developments • Performance review
Strategy: Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material	
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term	<ul style="list-style-type: none"> • Risk review • Climate change
b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning	<ul style="list-style-type: none"> • Risk review • Climate change
c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario	In 2018, Hydro concluded a review of its climate-related risks, including physical, technological, commercial, legal and reputational risk. The review forms the basis for scenario analyses and an update of the climate strategy. See Climate change chapter.
Risk management: Disclose how the organization identifies, assesses, and manages climate-related risks	
a) Describe the organization's processes for identifying and assessing climate-related risks	<ul style="list-style-type: none"> • Climate change
b) Describe the organization's processes for managing climate-related risks	<ul style="list-style-type: none"> • Environmental impact management • Climate change
c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organizations' overall risk management	<ul style="list-style-type: none"> • Business planning and risk management
Metric and targets: Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material	
a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	<ul style="list-style-type: none"> • Environmental impact management • Hydro's materiality analysis 2021 • Environmental statements • Note E1 to the environmental statements: Greenhouse gas emissions • Note E3 to the environmental statements: Energy • Note E4.2 to the environmental statements: Water • Note E4.3 to the environmental statements: Recycling • Note E6.2 to the environmental statements: Land use and rehabilitation
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	<ul style="list-style-type: none"> • Note E1 to the environmental statements
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	<ul style="list-style-type: none"> • Climate change • Strategic direction and key developments • Environmental impact management

Statement on EU taxonomy for sustainable economic activities

The purpose of the EU taxonomy for sustainable economic activities is to create a common definition of environmentally sustainable activities across countries and to create a shift in private investments towards these activities. To fulfill this purpose, mandatory reporting requirements for both financial and non-financial companies have been developed. As a non-financial company Hydro reports on revenue (turnover), capital expenditure and operating expenses.

Read more about Hydro's sustainability ambitions, targets and performance in the [Environmental and social responsibility](#) chapter.

The EU taxonomy climate and reporting delegated acts were published in June and July 2021, respectively, with the first stage of reporting requirements for non-financial companies applying from January 1, 2022, for 2021. This is a very short implementation phase, especially given the lack of guidelines available. We have sought to report with the best available quality given the limitations on time, possibility to capture

additional transaction data, and guidance available at the time of the preparation of this report.

About the taxonomy regulation

The taxonomy regulation (Taxonomy) states that an activity must make a substantial contribution to at least one of the six environmental objectives set out by the EU, while it does not cause significant harm towards the other five objectives and meets minimum social safeguards. The relevant activities and associated thresholds for what constitutes both substantial contribution and significant harm are detailed in the annexes to the delegated acts on the environmental objectives of the taxonomy. The thresholds vary from activity to activity.

At the time of issuing this report, technical screening criteria for two of the six environmental objectives, climate change mitigation and adaptation, for about 100 activities have been finalized and published. The Environmental Delegated Act, to be published in the first half of 2022, will cover the remaining

four objectives on water, circular economy, pollution prevention and biodiversity. More activities are planned for inclusion in the framework as it is further developed.

For 2021, all companies within the scope of the regulation have to report performance indicators on turnover (revenue), capital expenditure (Capex) and operational expenditure (Opex) related to taxonomy eligible activities, i.e. activities covered by the taxonomy. For 2022, companies also have to report on the indicators for aligned activities, i.e. eligible activities meeting the technical screening criteria. The performance indicators are described in the section [Measuring performance](#).

ENVIRONMENTAL OBJECTIVES

Climate change mitigation

Climate change adaptation

Water and marine resources

Circular economy

Pollution

Biodiversity and ecosystems

OVERARCHING CONDITIONS

Substantially contribute to at least one of the objectives

Hydropower based primary aluminium production, secondary aluminium and renewable energy generation substantially contribute to climate change mitigation

Do no significant harm to any of the five others

We believe it is reasonable to assume that our operations in Europe meet the criteria as long as they are within normal, lawful operations. Uncertainties relate to operations outside Europe as the criteria reference EU law.

Comply with minimum social safeguards

We undertake extensive work to ensure workers and other stakeholders' human and labor rights are respected throughout our activities, in adherence with best practice methodology

Identifying eligible activities

Of the activities currently eligible in the EU taxonomy, three apply to Hydro:

Manufacture of primary aluminium

The manufacture of primary aluminium in Hydro is an eligible and transitional activity according to the EU taxonomy. The technical screening criteria refer to the production of liquid aluminium through electrolysis of alumina. However, liquid aluminium is rarely sold to third parties due to logistical challenges.

Hydro's primary aluminium plants have reduction facilities with potlines and casthouses, where liquid and remelted aluminium is cast to form value-added products such as extrusion ingot, primary foundry alloys, sheet ingot and wire rod, in addition to standard ingot. When cast into these products, alloying metals and externally purchased cold metal is added. The amount of cold metal added varies with market circumstances and available casthouse capacity.

Hydro has five fully-owned primary aluminum production facilities in Norway, aluminium production facilities operated

by part-owned subsidiaries in Slovakia and Brazil, and part-ownership in facilities in Australia and Canada, all included in the scope of taxonomy. Hydro also has a part-ownership in a primary aluminium producer in Qatar, reported as a joint venture and thus outside the scope of the taxonomy.

To make a substantial contribution to climate change mitigation, primary aluminium production facilities must meet the technical screening criteria set out in the taxonomy.

Manufacture of secondary aluminium

The manufacture of secondary aluminium is an eligible activity according to the taxonomy. Process scrap and post-consumer scrap are purchased from third parties for recycling into extrusion ingot. Standard ingot and alloying metal are added to meet customer specifications. Hydro has a portfolio of stand-alone recyclers, in addition to wall-to-wall recyclers alongside our extrusion plants.

All manufacturing of secondary aluminium is defined by the taxonomy as making a substantial contribution to climate change mitigation.

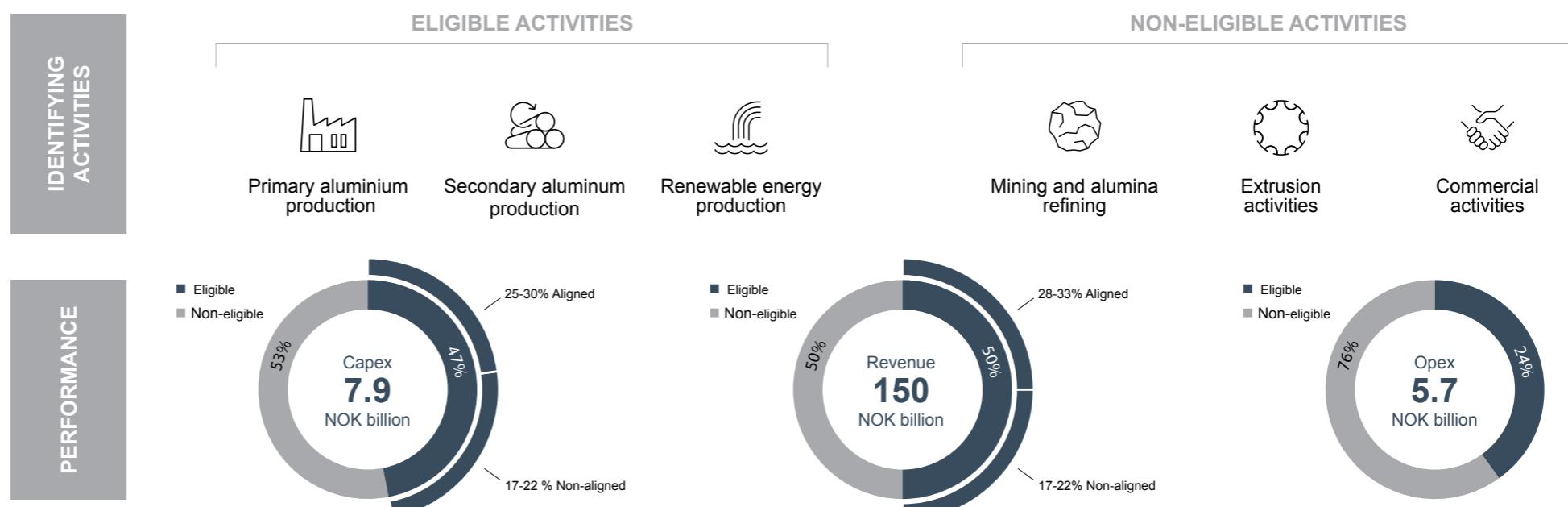
Hydropower production

Hydropower production is an eligible activity under the taxonomy. Hydro owns and operates 39 hydropower plants in Norway, with a combined installed capacity of 2.7 GWh.

The purpose of Hydro's hydropower assets is to secure a stable power supply to our primary aluminium plants located in Norway, and is therefore mainly used for internal consumption.

End-use contribution from Hydro's activities

A range of the products we manufacture contribute to climate change mitigation as constituent parts of technologies, infrastructure and complex products needed in a low-carbon society. Examples are battery casings used in the manufacture of electric vehicles, window frames contributing to energy-efficient buildings, and aluminium frames for solar panels. The taxonomy does not provide clear guidance on how to define eligibility in the supply chain of taxonomy-eligible activities. Consequently, we have chosen to report for 2021 based on the taxonomy-eligible activities of primary and secondary aluminium production, rather than on end-use of the aluminium we produce.



Analyze requirements

The reporting requirements for the financial year 2021 are limited to eligible activities. From 2022 onwards, Hydro is also required to report on the aligned share of revenue, CapEx and OpEx. In Hydro's Annual Report 2021 we are disclosing voluntary information on Hydro's preliminary analysis for the climate change mitigation objective how we are positioned to meet the criteria for substantial contribution and do no significant harm (DNSH), i.e the aligned share.

Primary aluminium based on renewable electricity will meet the substantial contribution criteria for manufacture of aluminium based on the smelters energy efficiency and GHG content in the electricity. All aluminium remelting activity qualifies for substantial contribution under the taxonomy's manufacture of secondary aluminium activity. We believe it is reasonable to assume that our operations in Europe meet the DNSH criteria for all environmental objectives as long as they are within normal, lawful operations, comply with emission permits to air and water, have performed environmental impact assessments and taken necessary action required. Hydro's major production sites have performed a climate risk and vulnerability assessment. Uncertainties relate to aluminium assets outside of Europe as the criteria reference EU law. Documentation requirements for hydropower production are substantial, and we are working together with other Norwegian hydropower producers to come to a common understanding for shared waterways.

Hydro's activities are carried out in compliance with the minimum safeguards set out in the Regulation related to international minimum human and labor rights and standards. The taxonomy regulation defines the minimum rights and standards as being defined by the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights, including the declaration on Fundamental Principles and Rights at Work of the International Labour Organisation (ILO), the eight fundamental conventions of the ILO and the International Bill of Human Rights.

Hydro undertakes extensive work to ensure workers and other stakeholders' human and labor rights are respected throughout our activities, in adherence with best practice methodology as described in the international standards and conventions listed in the taxonomy regulation. More information on our work on this can be found in the [Human rights chapter](#).

Based on this analysis, the share of Hydro's revenues that will meet the criteria are estimated to be 28-33 percent, and Capex 25-30 percent.

Measuring performance

The definition of the indicators in the taxonomy may deviate from the same or similar expression used in Hydro's Financial statement and Alternative Performance Measures. The Reporting delegated act gives some clear guidance and definitions, while other aspects of how the indicators are to be determined are left open to practice or for future regulation to fill in. The indicators are:

- Turnover (revenue)
- Capital expenditure
- Operating expenditure

The three indicators are expressed as ratios, representing the relative share of Hydro's total amounts for these metrics that meets certain criteria.

Hydro's activities are linked to the boundaries of the *reporting entity* as defined by IFRS and described in the group financial statements. See Hydro's consolidation principles in [Note 1.1 Reporting entity, basis of presentation and significant accounting policies](#) to the Financial statements.

In combination, these indicators are intended by the taxonomy to express the company's activities that qualify as environmentally sustainable.

Revenue (turnover)

The revenue indicator is defined as follows:

Revenue associated with eligible activities

Hydro's total revenue from the sale of products and services

Revenue from the sale of products and services represents Hydro's total revenue from contracts with customers as specified in [Note 5.1 Revenue from contracts with customers](#) to the Financial statements. This amount excludes income (loss) from realized and unrealized changes in fair value of derivative instruments which is considered not eligible activities under the taxonomy.

Revenue associated with eligible activities comprises the following elements from external revenues:

- Revenue from sale of liquid metal
- Revenue from sale of casthouse products to customers
- The metal value of revenue from sale of extruded products
- Revenue from sale of electricity

Hydro's eligible activities are primary aluminium production, secondary aluminium production and production of electricity. The output from these activities is partly sold directly to customers, partly upgraded to more advanced products for sale to customers through further processes not described in the taxonomy, and partly consumed in the production process.

Revenue from sale of liquid metal is the direct output from the production of primary metal. No adjustments are made to the prices agreed with customers. The amount is limited as liquid metal cannot be stored or transported over longer distances.

Revenue from the sale of casthouse products to customers is the most directly associated commercial product resulting from aluminium production, whether primary or secondary. The majority of the value of a casthouse product results from its aluminium content, while most products also contain alloying material to achieve the intended properties for use.

Alloying material varies from less than 1% up to around 11%. The value of alloying materials is considered an integral part of the product and its value thus included in revenue from eligible activities. In production of casthouse products, in particular for recycling of post-consumer scrap, cold metal with a known purity is added to achieve the intended properties of the casthouse product. Purchased standard ingot is the primary source for this purpose. As this element is neither manufacture of primary nor secondary aluminium, the revenue is adjusted for the share of aluminium added on a tonnage basis. The eligible share of revenue from sale of casthouse products only covers the sale of aluminium produced by Hydro.

Metal purchased for resale, including metal produced by the joint venture Qatalum, is excluded.

The metal value of revenue from sale of extruded products is included to reflect the similar value as for casthouse products. The metal value is calculated the same way as for casthouse products, also excluding the value of added cold metal whether in recyclers set up close by the extrusion plants, or

in the primary smelters and separate recycling facilities also supplying the extrusion plants.

The value of upgrading the products through such processes as extruding profiles for customers' application, further fabrication of those profiles, surface treatment and other processes that might apply is also excluded.

Revenue from sale of electricity consists of revenue from spot sales of daily excess production from Hydro's power plants in Norway above what is consumed in Hydro's own activities. To the extent Hydro sells power purchased from other producers, that revenue is excluded from the eligible share together with any revenue from power trading.

Capital expenditure

The CapEx indicator is defined as follows:

Additions to property, plant and equipment and to intangible assets for eligible activities

Hydro's total additions to property, plant and equipment and to intangible assets

Additions to property, plant and equipment represent the gross amount of purchase, development or lease as specified in [Note 2.1 Property, plant and equipment](#) to the Financial statements. It also includes the gross amount of purchase or development of intangible assets as specified in [Note 2.2 Intangible assets](#).

Any amount of gross additions to property, plant and equipment or intangibles resulting from business combinations is included in CapEx under this metric. Further, any lease capitalized is included with the addition (or reduction) required by IFRS.

Short-term leases and small asset leases as well as variable lease payments are not recognized as fixed assets and are thus not included in this indicator. Any goodwill recognized in a business combination is not included in the indicator. Further, financial investments, including capital injections in associated companies and joint ventures, are excluded from the metric.

Additions to property, plant and equipment and to intangible assets for eligible activities include both sustaining investments in existing plants engaged in eligible activities

and expansions or new facilities within such activities. As a starting point, entire plants including associated and supporting functions are included. However, several of our aluminium smelters have on-site production of anodes, an activity that is not described in the taxonomy. Where a smelter has an associated anode production facility, these are excluded from investments in a smelter. For extrusion plants, the eligible share of CapEx covers the recycling facilities as such including furnaces and casthouse equipment. Extrusion presses, other facilities and support facilities mainly serving the extrusion activities are fully excluded from eligible CapEx.

For future reporting of the aligned share of CapEx, the aligned share is intended to include sustaining and expansion investments in activities meeting the criteria for aligned activities, as well as investments in activities that are not aligned which form part of a plan to meet the criteria within a period of a maximum of ten years.

Investments in activities that are not aligned at the time of investment, and where the activity as such will not become aligned, is not included as an aligned investment. *That includes investments with the purpose of reducing the environmental footprint of activities, but not covered by the taxonomy. Such investments may cover significant reductions of CO₂ or other emissions.*

Operating expenditure

The OpEx indicator is defined as follows:

Specified operating expenses associated with eligible activities

Hydro's total estimated expenses from the specified functions

Hydro's total estimated expenses from the specified functions represent a sub-set of expenses presented, primarily in the line items Employee benefit expense and Other expenses in Hydro's income statements. Operating expenditure is described as a share of the expenses included in the subtotal EBIT in the income statement. The regulation requires us to report on expenses that represent direct non-capitalized costs that relate to the following functions:

- research and development
- building renovation measures
- short-term lease
- maintenance and repair, and any other direct expenditures

relating to the day-to-day servicing of assets of property, plant and equipment that are necessary to ensure the continued and effective functioning of such assets.

Research and development costs cover projects that do not meet the specific criteria for capitalization as intangible assets. Expenses include such items as employee benefits, use of research facilities including operating expenses and depreciation of property, plant and equipment, and external services both for specific services to projects managed internally, for outsourced projects managed by external parties as well as financing of initiatives conducted jointly with other companies or industry associations.

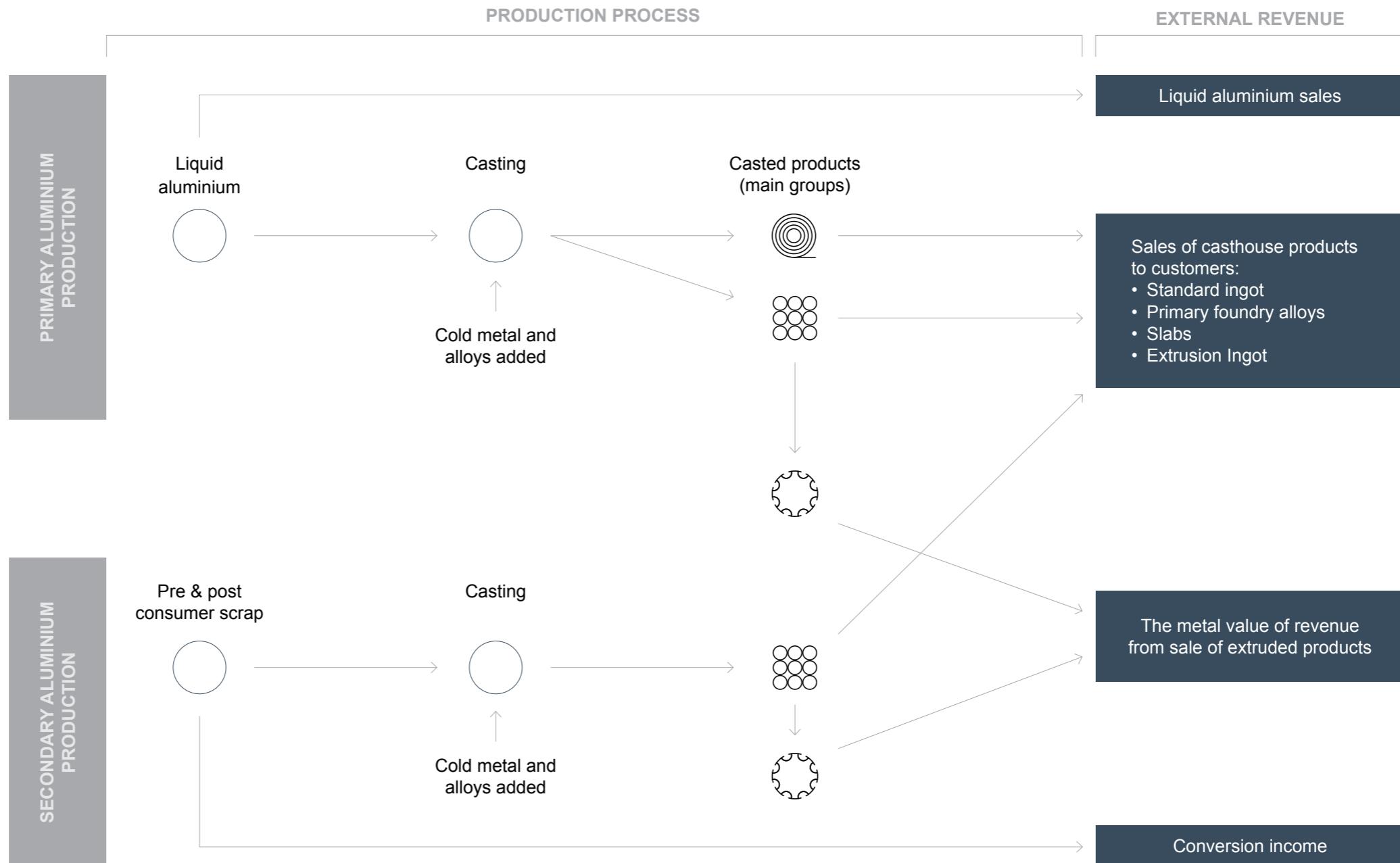
Building renovation measures are currently of limited relevance to Hydro, as there are no significant such projects ongoing.

Short-term leases and leases for low value assets are described in [Note 2.6 Leases](#) to the consolidated financial statements.

Maintenance and repair expenses include Hydro's maintenance and repair cost not qualifying for capitalization as part of the relevant asset. The maintenance expenses are only partly captured in Hydro's financial reporting, as Hydro presents its operating expenses by nature of expenses and not by function. Repair and maintenance activities consist of employee expenses, consumables and spare parts, and various services. The total expenses related to these activities have been estimated based on management reporting in units and business areas, which is not necessarily fully consistent. Management considers the amounts to be a reasonable expression of such expenses in Hydro.

Hydro's total estimated expenses from the specified functions represent primarily the maintenance and day-to-day servicing costs for assets used in the eligible activities. In addition, research and development projects with the aim of improving production methods for primary and secondary aluminium are included as eligible activities.

Research and development activities aiming at improving mining methods, production methods for alumina and improved application of aluminium products, and which may have significant impact on reducing direct and indirect negative environmental impacts, is excluded from the metric as these processes are not currently covered in the taxonomy.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Independent auditors report



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Independent Auditor's Assurance Report to Norsk Hydro ASA

We have been engaged by the Corporate Management Board of Norsk Hydro ASA ('Hydro') to provide limited assurance in respect of the Environment, Social & Governance reporting (pages 51 to 52 Environment, Social & Governance reporting – The Hydro Way, 70 – 72 Integrity and Compliance, 73 – 110 Environment and social responsibility) and Environment and social statements (pages 195 to 235) sections in the Annual Report 2021 (hereafter Environment, Social & Governance report 2021) of Hydro. The scope excludes future events or the achievability of the objectives, targets and expectations of Hydro and information contained in webpages referred to in the Environment, Social & Governance report 2021 unless specified in this report.

Our Conclusion

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusions.

Based on the limited assurance procedures performed and the evidence obtained, as described below, nothing has come to our attention, to indicate that the Environment, Social & Governance report 2021 is not presented, in all material respects, in accordance with the GRI Standards: Core option and the applied reporting criteria as disclosed in the About the reporting section on page 195.

The Corporate Management Board's Responsibility

The Corporate Management Board is responsible for the preparation and presentation of the Environment, Social & Governance report 2021 in accordance with the GRI Standards: Core option and the reporting criteria as described in the About the reporting section on page 195 in the Environment, Social & Governance report statements. It is important to view the information in the Environment, Social & Governance report 2021 in the context of these criteria.

These responsibilities include establishing such internal controls as management determines are necessary to enable the preparation of the information in the Environment, Social & Governance report 2021 that are free from material misstatement, whether due to fraud or error.

Our Responsibility

Our responsibility is to provide a limited assurance conclusion on Hydro's preparation and presentation of the Environment, Social & Governance report 2021. We conducted our engagement in accordance with the International Standard for Assurance Engagements

Offices in:
 Oslo Elverum Molde Straume
 Ålesund Fredrikstad Tønsberg Ulsteinvik
 Arendal Hamar Trondheim Sandnes
 Bergen Hønefoss Stavanger Sandefjord
 Bodø Kravik Sandnessjøen Arendal
 Bryne Kristiansand Stavanger Stord
 Drammen Mo i Rana



(ISAE 3000 revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information", issued by the International Auditing and Assurance Standards Board.

ISAE 3000 revised requires that we plan and perform the engagement to obtain limited assurance about whether the information in the 'Environment, Social & Governance report 2021' is free from material misstatement.

The firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

Limited Assurance of the Environment, Social & Governance report 2021

The procedures selected depend on our understanding of the Environment, Social & Governance report and other engagement circumstances, and our consideration of areas where material misstatements are likely to arise. Our procedures for limited assurance on the Environment, Social & Governance report 2021 included:

- A risk analysis, including a media search, to identify relevant sustainability issues for Hydro in the reporting period;
- Interviews with senior management and relevant staff at corporate, business area and selected sites concerning sustainability strategy and policies for material issues, and the implementation of these across the business;
- Enquiries to management to gain an understanding of Hydro's processes for determining material issues for Hydro's key stakeholder groups;
- Interviews with relevant staff at corporate level responsible for providing the information, carrying out internal control procedures and consolidating the data in the Environment, Social & Governance report 2021;
- Site visits to two production sites to review the source data and the design and implementation of controls and validation procedures at local level;
- Reviewing relevant internal and external documentation, on a limited test basis, in order to determine the reliability of the Environment, Social & Governance report 2021;
- Reading the Environment, Social & Governance report 2021 to determine whether there are any material misstatements of fact or material inconsistencies based on our understanding obtained through our assurance engagement.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

- Assessment of Hydro's reporting in relation to Subject Matters 1 to 4 as set out in ICMM Sustainable Development Framework: Assurance Procedure;
- Assessment of Hydro's self-declared commitment to the Aluminium Stewardship Initiative's 11 principles and underlying criteria;
- Assessment of the GRI index as provided on Hydro's webpages.
- Determination of the consistency of the sustainability information in the Hydro Communication on Progress 2021 with the information in the Environment, Social & Governance report 2021.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for a reasonable assurance engagement, and consequently the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Purpose of Our Report

In accordance with the terms of our engagement, this assurance report has been prepared for Norsk Hydro ASA for the purpose of assisting the Corporate Management Board in determining whether Hydro's Environment, Social & Governance report 2021 information is prepared and presented in accordance with the GRI Standards; Core option and the applied reporting criteria as disclosed in the About the reporting section on page 195, and for no other purpose or in any other context.

Oslo, 21 February 2022
KPMG AS

Monica Hansen
State Authorized Public Accountant

Torbjørn Westman
Sustainability Specialist

- [Introduction](#)
- [Our business](#)
- [Performance review](#)
- [Governance](#)
- [Environment and social responsibility](#)
- [Financial statements](#)
- [Appendices](#)



Quarterly report Q4 2021

Introduction
 Our business
 Performance review
 Governance
 Environment and social responsibility
 Financial statements
 Appendices

Quarterly report Q4 2021

Key financial information	3
Key developments and performance	4
Reported EBIT and net income	5
Market developments and outlook	8
Additional factors impacting Hydro	10
Business areas performance	11
Finance	17
Tax	17
Segment information	18
Alternative performance measures (APMs)	19
Cautionary note	23

About our reporting

Key financial metrics

Hydro reviewed the key financial metrics used for performance follow-up and managing capital during 2020. The goals of the review were to achieve clear communication aligned with industry and peer practice and simplify where possible. This process resulted in Hydro deciding to focus on EBITDA and adjusted EBITDA as the main performance measures going forward.

Discontinued operations

On March 5, 2021, Hydro announced an agreement to sell its Hydro Rolling business to KPS Capital Partners. On June 1, 2021, the transaction was completed. See Note 1.5 in the 2021 Financial statements. Operating results for the Rolling business and the gain on disposal are presented net of financial items and tax as "income (loss) from discontinued operations" and separated from Hydro's reported EBITDA and adjusted EBITDA. All prior periods income statements in the report have been reclassified accordingly. In addition, depreciation of property, plant and equipment for Hydro Rolling has been excluded from operating results in periods subsequent to the date of the agreement.

Assets and liabilities related to the Rolling business are presented as assets held for sale in Hydro's consolidated balance sheet as of March 31, 2021. Assets and liabilities in prior periods will not be reclassified.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Key financial information

	NOK million, except per share data	Fourth quarter 2021	Fourth quarter 2020	Change prior year quarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
Revenue	46,433	29,823	56%	36,710	26%	149,654	114,291	
Earnings before financial items, tax, depreciation and amortization (EBITDA)	12,462	8,601	45%	4,610	>100%	26,050	18,390	
Adjustments to EBITDA ¹⁾	(3,451)	(5,198)	34%	2,608	>(100)%	1,959	(5,284)	
Adjusted EBITDA¹⁾	9,011	3,403	>100%	7,219	25%	28,010	13,106	
Adjusted EBITDA								
Hydro Bauxite & Alumina	2,426	587	>100%	1,055	>100%	5,336	3,817	
Hydro Aluminium Metal	4,676	1,432	>100%	4,263	10%	13,500	3,593	
Hydro Metal Markets	284	287	(1)%	170	67%	867	875	
Hydro Extrusions	665	1,044	(36)%	1,457	(54)%	5,695	4,348	
Hydro Energy	1,723	419	>100%	465	>100%	3,790	1,245	
Other and eliminations	(762)	(366)	>(100)%	(192)	>(100)%	(1,178)	(771)	
Adjusted EBITDA¹⁾	9,011	3,403	>100%	7,219	25%	28,010	13,106	
Earnings before financial items and tax (EBIT) ²⁾	10,086	6,824	48%	2,533	>100%	17,887	9,356	
Adjusted EBIT ¹⁾	7,026	1,678	>100%	5,309	32%	20,786	6,040	
Net income (loss) from continuing operations	8,525	7,226	18%	1,127	>100%	13,930	3,886	
Adjusted net income (loss) from continuing operations ¹⁾	5,810	1,089	>100%	3,498	66%	14,905	2,848	
Net income (loss) from discontinued operations ³⁾	4	(1,849)	>100%	(19)	>100%	12	(2,226)	
Earnings per share from continuing operations	3.47	3.40	2%	0.50	>100%	5.92	1.99	
Adjusted earnings per share from continuing operations¹⁾	2.57	0.47	>100%	1.60	61%	6.77	1.32	
Financial data								
Investments ^{1) 2)}	3,674	9,152	(60)%	1,957	88%	8,589	13,324	
Net cash (debt) ¹⁾	3,213	(7,795)	>100%	(1,221)	>100%	3,213	(7,795)	
Adjusted net cash (debt) ¹⁾	(7,019)	(23,297)	70%	(10,520)	33%	(7,019)	(23,297)	
Adjusted Return on average Capital Employed (RoaCE) ¹⁾						18.6%	3.7%	

¹⁾ [Alternative performance measures \(APMs\)](#) are described in the corresponding section in the back of the report.

²⁾ EBITDA and investments per segment are specified in the back of the report.

³⁾ Net income (loss) from discontinued operations includes results from Hydro's Rolling business up to divestment on June 1 and all prior periods.

Key developments and performance fourth quarter 2021

Hydro's adjusted EBITDA for the fourth quarter of 2021 was NOK 9,011 million, compared with NOK 3,403 million for the same quarter last year. Higher all-in metal and alumina prices, improved volumes upstream, and record high quarterly results from Hydro Energy, contributed positively to adjusted EBITDA. These positive elements were partly offset by higher fixed and raw material costs upstream and negative currency effects.

In 2021, Hydro achieved an adjusted return on average capital employed of 18.6 percent, significantly higher than the 3.7 percent achieved in 2020, and above the ambition to deliver 10 percent over the cycle.

The global economy has rebounded to pre-crisis levels, however the pace of growth slowed in the fourth quarter amid the emergence of the Omicron variant, continued global supply-chain shortages, high energy prices, and concerns around inflation. There is increasing uncertainty around the outlook as post-recovery demand and policy supports continue to impact, driving supply chain shortages and inflationary pressures on key inputs, including energy, raw materials, and transportation costs. Hydro's top priority remains the health and safety of our people and the communities where we operate. Hydro continues to implement guidelines in accordance with national regulations in handling of the pandemic.

The three-month aluminium price increased during the fourth quarter, starting the quarter at USD 2,690 per mt and ending at USD 2,808 per mt. However, the LME price was very volatile trading between USD 2,555 per mt and USD 3,172 per mt as coal prices reached all-time high levels before declining prices caused aluminium prices to decrease at the end of the quarter. In early 2022, the LME was trading around USD 3,000 per mt.

Rising gas and power prices have led to an increase in production costs in Europe, followed by the curtailment of several European smelters, including Hydro's majority owned primary aluminium plant Slovalco in Slovakia. The capacity at Slovalco was reduced from 80 to 60 percent by mid-February, which constitutes an annual reduction of 35,000 tonnes of production.

Nordic power prices were significantly higher in the fourth quarter compared to the previous quarter. The high prices were due to colder than normal weather conditions and high and increasing continental power prices. Higher production and increased gain from price area differences significantly increased adjusted EBITDA for Hydro Energy for the quarter. The higher production resulted in net spot sales in the fourth quarter compared to a net spot purchase in the third quarter. Significant price area differences in the Nordic region have continued during the fourth quarter and have prevailed into early 2022.

Hydro's Capital Markets Day was held in December and new improvement targets as well as new sustainability ambitions were announced to strengthen Hydro in terms of both profitability and sustainability. Hydro continues to deliver on its 2025 strategy, including further strengthening its low-carbon aluminium position as well as maturing business opportunities within new energy solutions. The company increased its Improvement program target from NOK 7.4 billion to NOK 8.5 billion and Commercial ambition from NOK 1.5 billion to NOK 2.5 billion. For 2021, the Improvement program reached NOK 6.3 billion in improvements, exceeding the original annual target of NOK 5.1 billion. On the back of the strong markets, NOK 1.5 billion of commercial improvements were delivered by end 2021.

Hydro has long been recognized as a leader in sustainability, and the new sustainability ambitions launched at the Capital Markets Day will be a key driver for Hydro's competitive positioning going forward. Hydro has the ambition of achieving net zero carbon emissions by 2050 or earlier and is pursuing three decarbonization paths to reduce the carbon footprint of aluminium to net zero. Hydro will have the first commercial volumes of near zero carbon product (defined as less than 0.5kg CO₂ per kg aluminium) available in 2022 based on using 100 percent complex post-consumer scrap.

The decarbonization path for existing primary smelters is based on carbon capture and storage technology. In the fourth quarter, Hydro invested in the carbon capture and storage company, Verdox, which will deliver cost-efficient aluminum carbon capture technology and direct air capture technology for piloting from 2025, and with the aim of achieving industrial scale production by 2030. Hydro invested



USD 20 million, and will have a minority ownership position.

Hydro also made a final build decision to invest BRL 1.3 billion at the Alunorte alumina refinery, Brazil, to carry out a fuel-switch project, to replace heavy fuel oil with natural gas. The project will start in first quarter of 2022 and is expected to be in operation in 2023. The fuel switch will reduce the refinery's annual CO₂ emissions by 700,000 tonnes and is a key enabler for Hydro's climate ambitions and global commitment to reduce greenhouse gas emissions.

In addition to the climate targets, Hydro has strengthened the ambitions to protect biodiversity and reduce environmental footprint. Additionally, Hydro's seeks to improve the lives and livelihoods where the company operates. In the fourth quarter, The Global Child Forum ranked Hydro at the top of global metals & mining companies on child rights.

Recycling is one of Hydro's main growth areas. and in the fourth quarter a number of investment decision were announced supporting the strategic ambition to grow the current recycling business substantially across the recycling value chain, and to double post-consumer scrap usage.

In Michigan, US, Hydro will invest in the construction of a new aluminium recycling plant producing 120,000 tonnes of aluminium extrusion ingot per year. In Norway, Hydro will invest NOK 105 million to establish Høyanger Recycling, a dedicated aluminium recycling facility located by the Hydro Høyanger primary aluminium smelter. In Hungary, Hydro will build a new aluminium remelt facility, and the new facility will be built at Hydro's aluminium extrusion plant in Szekesfehervar with an annual capacity of 90,000 tonnes. Also, Hydro made the decision to further invest in the Deeside recycling plant in the UK to increase the plant's aluminium recycling capacity to 70,000 tonnes per year, providing UK customers with low-carbon aluminium such as Hydro CIRCAL.

Over the next 5 years, Hydro expects another doubling of sales volumes for greener products as the company is positioning the recycling portfolio to meet increasing demand for Hydro CIRCAL. In 2022, volumes for Hydro CIRCAL is expected to increase 25 percent compared to 2021. Additionally, Hydro is positioning its smelter portfolio to meet expected demand for Hydro REDUXA. In 2022, Hydro REDUXA volumes are expected to increase 30 percent compared to 2021. In Norway, Hydro will invest NOK 750

million in Hydro Sunndal to strengthen its robustness and position as Europe's largest aluminium plant and supplier of low-carbon aluminium. Hydro Sunndal will continue to be a leading producer of Hydro REDUXA low-carbon aluminium to the automotive and building & construction segments.

Hydro Extrusions continues its efforts to restructure, optimize and commercially position its portfolio. In the fourth quarter, Hydro announced the divestment of its general extrusion operations in Kuppam, India to Hindalco Industries Limited for USD 33 million on a cash free and debt free basis. The sale was completed in early February 2022. Hydro Extrusions is also investing NOK 390 million in a new extrusion press at its aluminium manufacturing plant in Suzhou, China which will serve China's growing automotive and electric vehicle market.

In the new energy area, Hydro continued to mature business opportunities. In the fourth quarter, Hydro Rein and Eolus entered partnership to jointly develop up to 672 MW of Swedish wind power. As part of the transaction, Hydro Rein will acquire 50 percent of the portfolio from Eolus, who will retain the remaining 50 percent.

Furthermore, Hydro Havrand, Hydro's green hydrogen company, and Shell New Energies Holding Europe B.V. agreed to explore potential for joint projects producing hydrogen from renewable electricity. The ambition is to use the hydrogen to help decarbonize Hydro's and Shell's own operations, and to supply customers in heavy industries, the maritime sector and road transport.

In Batteries, Hydro became the largest owner in the maritime battery company, Corvus Energy, through a private placement, increasing their ownership share to 22.7 percent.

Compared to the third quarter 2021, Hydro's adjusted EBITDA increased from NOK 7,219 million to NOK 9,011 million in the fourth quarter 2021. Higher all-in metal and alumina prices and better results from Hydro Energy contributed positively to adjusted EBITDA. This improvement was partly offset by higher raw material costs and fixed costs.

Adjusted EBITDA for the full year 2021 increased compared to 2020. Higher all-in metal and alumina prices, improved volumes upstream, improved margins and volumes in Hydro Extrusions, and better results from Hydro Energy, contributed positively to adjusted EBITDA. These positive elements were partly offset by higher raw material and fixed costs upstream

and negative currency effects.

Net income from continuing operations amounted to NOK 8,525 million in the fourth quarter. In addition to the factors described above, Net income from continuing operations included a net foreign exchange gain of NOK 823 million, a NOK 2,744 million unrealized gain on power and raw material contracts and a NOK 744 million unrealized gain on LME related contracts.

Hydro's net debt¹⁾ position decreased from NOK 1.2 billion to a net cash position of NOK 3.2 billion at the end of the quarter. Net cash provided by operating activities excluding changes in short-term and long-term collateral²⁾ and excluding purchases of money market funds³⁾ amounted to NOK 7.5 billion. Net cash used in investment activities, excluding short term investments, amounted to NOK 2.8 billion.

Adjusted net debt decreased from NOK 10.5 billion to NOK 7.0 billion, largely driven by an improvement in the net cash position and a decrease in collateral requirements. The collateral requirements amounted to NOK 5.3 billion at the end of the quarter, mainly relating to strategic and operational hedging positions.

Hydro held NOK 22.9 billion in cash and cash equivalents, NOK 1.0 billion in time deposits and NOK 1.4 billion in money market funds, included in short-term investments, at the end of the fourth quarter. Time deposits and money market funds are normally available at short notice. The revolving credit facility of USD 1.6 billion was fully available at the end of the quarter.

Hydro's ambition is to pay attractive dividends to shareholders. In light of the strong financial performance in 2021, and reflecting our robust balance sheet, the Board of Directors has proposed a dividend of NOK 5.40 per share, equal to 80 percent of adjusted net income for 2021. The proposed dividend represents a combination of 50 percent ordinary dividends and 30 percent extraordinary dividends. Final distribution for 2021 is subject to approval by the Annual General meeting on May 10, 2022.

¹⁾ Alternative performance measures (APMs) are described in the corresponding section in the back of the report.

²⁾ Adjusted net cash excludes the amount paid as collateral for short- and long term liabilities, mainly derivative positions, see the APM section.

³⁾ Hydro's purchase of money market funds and other trading securities are included in cash from operating activities.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Reported EBIT and net income

In addition to the factors discussed above, reported earnings before financial items and tax (EBIT) and net income include effects that are disclosed in the below table. Adjusting items to EBIT and adjusted net income (loss) are defined and described as part of the APM section in the back of this report.

Items excluded from adjusted EBIT and net income¹⁾

NOK million	Fourth quarter 2021	Fourth quarter 2020	Third quarter 2021	Year 2021	Year 2020
Unrealized derivative effects on LME related contracts	(744)	(126)	3,005	5,088	(336)
Unrealized derivative effects on power and raw material contracts	(2,744)	133	(338)	(3,083)	171
Significant rationalization charges and closure costs	68	70	30	377	187
Community contributions Brazil	15	-	202	217	129
Transaction related effects	(4)	(5,291)	(254)	(304)	(5,407)
Net foreign exchange (gain) loss	(17)	-	(35)	(79)	-
Other effects	(26)	16	-	(257)	(30)
Adjusting items to EBITDA²⁾	(3,451)	(5,198)	2,608	1,959	(5,284)
Impairment charges	283	52	14	426	1,968
Depreciation	108	-	154	513	-
Adjusting items to EBIT	(3,060)	(5,146)	2,776	2,899	(3,316)
Net foreign exchange (gain)/loss	(823)	(1,349)	622	(1,404)	3,800
Other finance (income) expense	-	(128)	-	-	(128)
Calculated income tax effect	1,168	486	(1,027)	(520)	(1,393)
Adjusting items to net income from continuing operations	(2,715)	(6,138)	2,371	976	(1,038)
Income (loss) tax rate	21%	10%	30%	24%	19%
Adjusted income (loss) tax rate	15%	25%	30%	25%	45%

¹⁾ Negative figures indicate reversal of a gain and positive figures indicate reversal of a loss.

²⁾ The various effects are described in the APM section in the back of the report.

Introduction

Key operational information

Our business

	NOK million, except per share data	Fourth quarter 2021	Fourth quarter 2020	Change prior year quarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
Performance review	Bauxite production (kmt) ¹⁾	2,696	2,556	5%	2,756	(2)%	10,926	8,640
Governance	Alumina production (kmt)	1,600	1,410	13%	1,579	1%	6,305	5,457
Environment and social responsibility	Realized alumina price (USD/mt) ²⁾	393	272	44%	284	38%	313	268
Financial statements	Primary aluminium production (kmt)	571	532	7%	573	-	2,244	2,091
Appendices	Realized aluminium price LME (USD/mt) ³⁾	2,675	1,792	49%	2,419	11%	2,317	1,685
	Realized aluminium price LME (NOK/mt) ³⁾	23,087	16,364	41%	20,914	10%	19,819	15,870
	Realized premium above LME (USD/mt) ⁴⁾	565	224	>100%	449	26%	400	220
	Realized premium above LME (NOK/mt) ⁴⁾	4,873	2,042	>100%	3,878	26%	3,420	2,077
	Realized USD/NOK exchange rate	8.63	9.13	(6)%	8.64	-	8.55	9.42
	Hydro Extrusions sales volumes to external market (kmt)	301	291	3%	315	(4)%	1,296	1,099
	Power production (GWh)	2,136	3,396	(37)%	1,688	27%	9,055	11,522

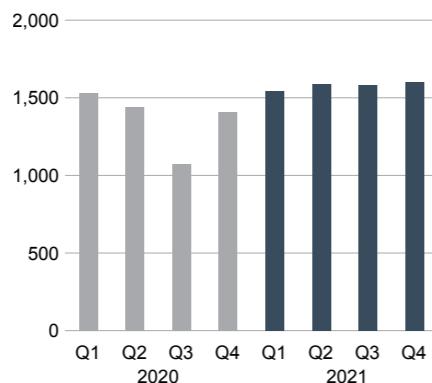
¹⁾ Paragominas on wet basis.²⁾ Weighted average of own production and third party contracts. The majority of the alumina is sold linked to the alumina index with a one month delay.³⁾ Realized aluminium prices lag the LME price developments by approximately 1.5 - 2 months. Includes pricing effects from LME strategic hedging program⁴⁾ Average realized premium above LME for casthouse sales from Aluminium Metal

Currency rates

	Fourth quarter 2021	Fourth quarter 2020	Change prior yearquarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
USD/NOK Average exchange rate	8.72	9.03	(3)%	8.76	-	8.60	9.40
USD/NOK Period end exchange rate	8.82	8.53	3%	8.78	-	8.82	8.53
BRL/NOK Average exchange rate	1.56	1.67	(7)%	1.68	(7)%	1.60	1.84
BRL/NOK Period end exchange rate	1.58	1.64	(4)%	1.62	(2)%	1.58	1.64
USD/BRL Average exchange rate	5.58	5.40	3%	5.23	7%	5.39	5.15
USD/BRL Period end exchange rate	5.57	5.19	7%	5.41	3%	5.57	5.19
EUR/NOK Average exchange rate	9.97	10.76	(7)%	10.33	(3)%	10.16	10.72
EUR/NOK Period end exchange rate	9.99	10.47	(5)%	10.17	(2)%	9.99	10.47

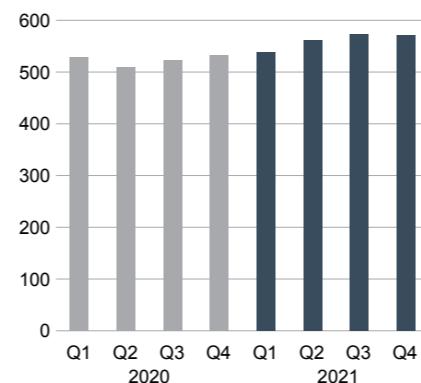
Alumina production

Kmt



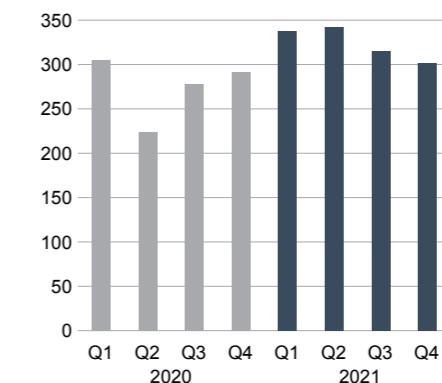
Primary aluminium production

Kmt



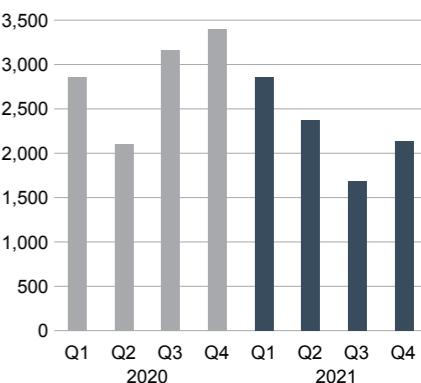
Hydro Extrusions sales

Kmt



Power production

GWh



Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

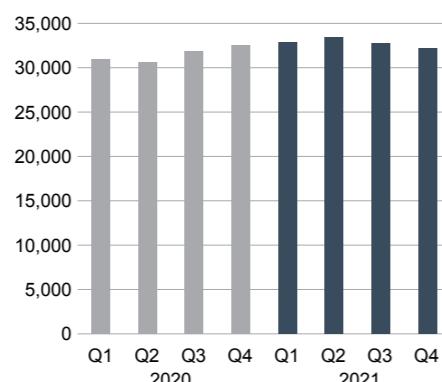
Appendices

Market statistics¹⁾

NOK million	Fourth quarter 2021	Fourth quarter 2020	Change prior yearquarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
Bauxite and alumina							
Average alumina price - Platts PAX FOB Australia (USD/t)	412	282	46%	327	26%	329	271
China bauxite import price (USD/mt CIF China)	51	44	15%	48	6%	47	45
Global production of alumina (kmt)	32,141	32,535	(1)%	32,302	(0)%	130,397	126,836
Global production of alumina (ex. China) (kmt)	14,881	14,821	-	14,708	1%	59,502	58,289
Primary aluminium							
LME cash average (USD/mt)	2,756	1,920	44%	2,646	4%	2,476	1,705
LME three month average (USD/mt)	2,762	1,934	43%	2,652	4%	2,391	1,731
Standard ingot premium (EU DP Cash)	326	136	>100%	358	(9)%	272	126
Extrusion ingot premium (EU DP)	1,428	287	>100%	1,192	20%	988	247
Chinese production of primary aluminium (kmt)	9,381	9,662	(3)%	9,674	(3)%	38,465	36,746
Chinese consumption of primary aluminium (kmt)	9,366	10,006	(6)%	10,341	(9)%	39,515	37,825
Global production of primary aluminium (ex. China) (kmt)	7,241	7,088	2%	7,324	(1)%	28,828	28,007
Global consumption of primary aluminium (ex. China) (kmt)	7,196	6,867	5%	6,950	4%	28,588	25,089
Global production of primary aluminium (kmt)	16,622	16,750	(1)%	16,997	(2)%	67,293	64,753
Global consumption of primary aluminium (kmt)	16,563	16,874	(2)%	17,290	(4)%	68,103	62,913
Reported primary aluminium inventories (ex. China) (kmt)	2,624	3,003	(13)%	2,864	(8)%	2,624	3,003
Reported primary aluminium inventories (China) (kmt)	1,391	1,419	(2)%	1,465	(5)%	1,391	1,419
Extruded products							
Consumption extruded products - Europe (kmt)	773	757	2%	797	(3)%	3,408	3,053
Consumption extruded products - USA & Canada (kmt)	610	572	7%	629	(3)%	2,505	2,144
Energy							
Average southern Norway spot price (NO2) (NOK/MWh)	1,271	137	>100%	807	57%	762	98
Average mid Norway spot price (NO3) (NOK/MWh)	424	113	>100%	536	(21)%	420	100
Average nordic system spot price (NOK/MWh)	969	148	>100%	704	38%	634	116

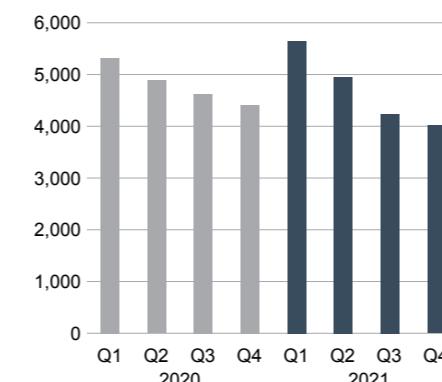
Production of alumina

Global kmt



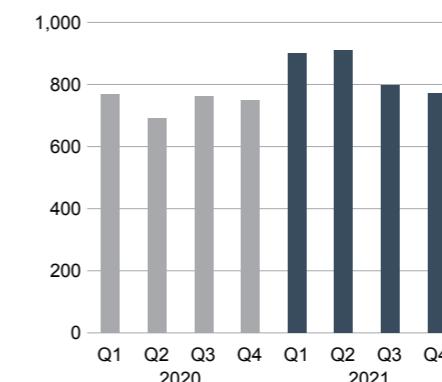
Aluminium inventories

Global kmt



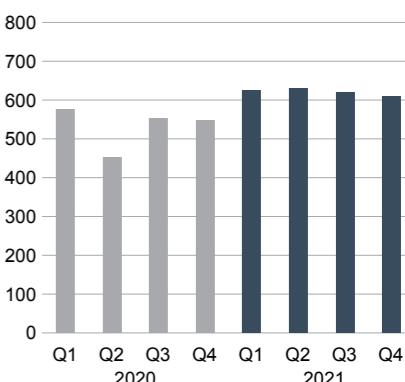
Extruded products Europe

Consumption kmt



Extruded products North America

Consumption kmt



¹⁾ Industry statistics have been derived from analyst reports, trade associations and other public sources unless otherwise indicated. These statistics do not have any direct relationship to the reported figures of Norsk Hydro. Amounts presented in prior reports may have been restated based on updated information.

Market developments and outlook

Covid-19 pandemic and macroeconomic effects

Global GDP growth was around 5 percent in 2021. The global economy has rebounded to pre-crisis levels during the second quarter, however the pace of growth slowed in the fourth quarter amid the emergence of the Omicron variant, continued global supply-chain shortages, high energy prices, and concerns around inflation. The rate of growth hides regional discrepancies, with the Eurozone experiencing the most pronounced reduction whereas the US recovery is more mature and less volatile. External sources estimate global economic growth in 2022 will be 4-5 percent.

There is increasing uncertainty around the outlook as post-recovery demand and policy supports continue to impact, driving supply chain shortages and inflationary pressures on a range of key inputs, including energy, raw materials, and transportation costs. This has led to increased focus on inflation with many central banks, including the US Federal Reserve, now indicating policy tightening. Covid-19 developments and Russia-Ukraine tensions adds to the uncertainty.

Bauxite & alumina

The average Platts alumina index increased in the fourth quarter of 2021 to USD 412 per mt, compared to USD 327 per mt in the third quarter 2021. The Platts alumina index reached its annual high in mid-October at USD 484 per mt driven by a potential alumina deficit as certain Chinese provinces requested refineries curtail production to reduce energy consumption. The Platts alumina index declined to USD 345 at the end of December, driven by decreasing Chinese alumina prices after Chinese authorities intervened to control coal prices. In addition, primary smelter curtailments in Europe, due to record high energy prices, contributed to reclining demand in the Atlantic basin. Compared to the fourth quarter of 2020, the average Platts alumina index was 46 percent higher.

China's net alumina imports reached 622 kmt in the fourth quarter 2021 compared to 814 kmt in the same period in 2020. Australia accounted for 60 percent of Chinese alumina imports in the period with Vietnam, Kazakhstan and Indonesia accounting for most of the rest.

China imported 26 million mt of bauxite in the fourth quarter

of 2021, 10 percent higher than the same period a year ago. Guinea, Australia and Indonesia accounted for most of China's bauxite imports in the period. In Guinea, bauxite mining and shipping operations have so far not been impacted by the military coup in September.

The average Chinese bauxite import price was USD 52 per mt CIF in the fourth quarter 2021, up from USD 44 per mt CIF in the fourth quarter 2020.

Primary aluminium

The three-month aluminium price increased during the fourth quarter of 2021, starting the quarter at USD 2,690 per mt and ending at USD 2,808 per mt. The average price for the quarter was USD 2,784 per mt. The LME price was volatile during the quarter, trading between USD 2,555 per mt and USD 3,172 per mt driven by significant energy price fluctuations. In addition, rising gas and power prices have led to an increase in production costs in Europe, resulting in the curtailment of several European smelters. During January the LME was trading around USD 3,000 per mt.

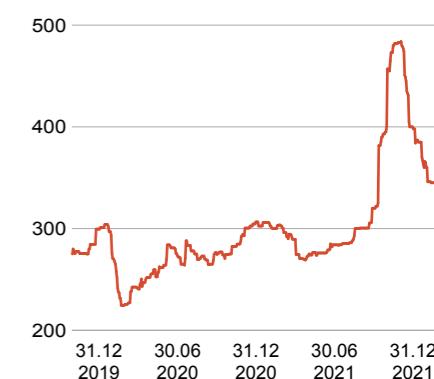
European duty paid standard ingot premiums ended the fourth quarter at USD 405 per mt, up from USD 375 per mt at the end of the third quarter, supported by smelter curtailments in Europe. The US Midwest premium was down USD 96 per mt during the quarter, reaching an all-time high on growing market tightness, but subsequently decreased in line with LME prices, ending at USD 665 per mt.

Shanghai Futures Exchange (SHFE) prices decreased by USD 51 per mt ex. VAT during the fourth quarter, ending at USD 2,833 per mt ex VAT. Average price for the quarter was up USD 210 per mt ex. VAT compared to the third quarter.

Global primary aluminium consumption was up 2 percent compared to the fourth quarter of 2020, limited by a decrease of 1 percent in China. Overall global demand for primary aluminium recovered in 2021, leading to a significant tighter market than 2020. External sources¹⁾ estimate a deficit between 0.4 million mt and 1.2 million mt for 2021, in large parts due to very strong demand globally and widespread supply cuts in China. For 2022, global primary aluminium

Platts PAX development

USD/mt



LME price (3 month aluminium)

USD/mt



demand is expected to increase by 2-3 percent and aluminium production is expected to increase by 1-2 percent, resulting in a continued global deficit in 2022.

The European consumption of extrusion ingot and sheet ingot increased in the fourth quarter of 2021 compared to the same period 2020. Consumption of PFA decreased in the fourth quarter 2021 mainly due to the negative impact of the semiconductor shortage on automotive production.

Total global stocks at the end of the fourth quarter of 2021 were estimated to be 9.7 million mt, down from 10.0 million tonnes in the third quarter and down 1.1 million mt compared to the fourth quarter 2020.

Extruded products

European demand for extrusions is estimated to have increased 2 percent during the fourth quarter of 2021 compared to the same quarter last year, and decreased 3 percent compared to the third quarter of 2021 mainly driven by seasonality. Underlying demand has continued to perform well across key segments, especially for the industrial and the building & construction segments. Commercial building & construction, although supported by public sector spending, is impacted by weaker orders, while the residential sector is experiencing strong demand supported by refurbishing. Demand in the industrial segment continues to advance in line with improving industrial production. Automotive demand continues to be negatively impacted by shortage of semiconductors and overall supply-chain issues, constraining automotive production for large OEMs. However, premium cars and electric vehicles which are typically more aluminium intensive are relatively less impacted.

CRU estimates that the European demand for extruded products will decline 4 percent in the first quarter of 2022 compared to the same quarter last year. Overall, extrusion demand is estimated to increase by 3 percent in 2022 compared to 2021, but dependent on improved automotive demand in the second half of 2022.

North American extrusion demand is estimated to have increased 7 percent during the fourth quarter of 2021 compared to the same quarter last year, but decreasing 3 percent compared to the third quarter of 2021, partly due to increased labor shortages. Demand has continued to remain strong across key segments, particularly building & construction and transportation. Residential construction

spending was up 17 percent in October and November compared to same period last year, while non-residential spending was up only 3 percent over the same period. The transport segment continues to be supported by strong orders, with trailer industry build rates expected to increase 29 percent in the fourth quarter compared to the same quarter last year. However, automotive build rates have decreased 14 percent in the fourth quarter compared to the same quarter last year, as light vehicle and heavy truck production continue to be impacted by labour and semiconductor shortages.

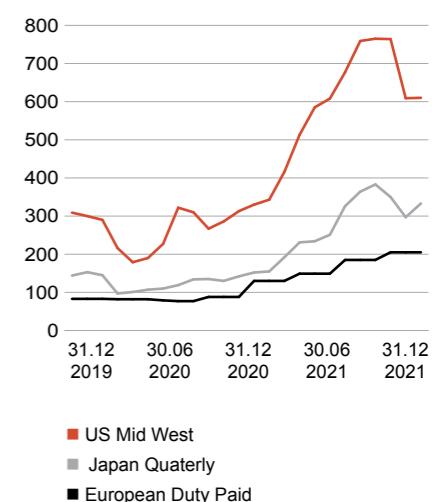
CRU estimates that the North American demand for extruded products will increase by around 10 percent for the first quarter of 2022 compared to the same quarter last year. Overall, extrusion demand is estimated to increase by 6 percent in 2022 compared to 2021.

Energy

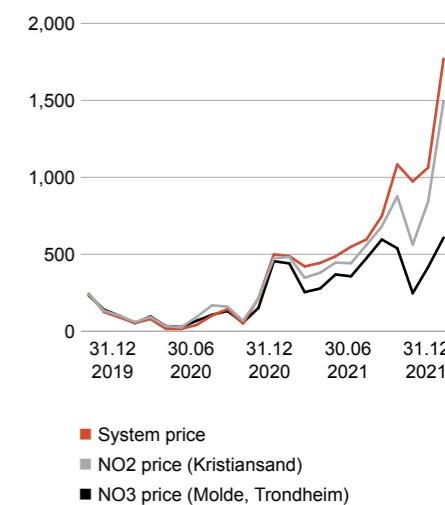
Nordic power prices were significantly higher compared to same quarter last year and the previous quarter. The high prices were due to colder than normal weather conditions and high and increasing continental power prices. The increase in continental power prices were influenced by rising carbon, gas and coal prices. Drier conditions and export capacity to UK and the continent continues to support higher prices in southern Norway compared to the rest of the Nordic area. Significant price area differences in the Nordic region have continued during the fourth quarter and have prevailed into early 2022.

The Nordic hydrological balance ended the quarter around 17 TWh below normal, compared to around 18 TWh below normal at the end of the previous quarter and 19 TWh above normal at the end of last year. Hydropower reservoirs in Norway were at 55.9 percent of full capacity at the end of the quarter, which is 12.1 percentage points below the normal level.

Premiums
USD/mt



Energy spot price
NOK/MWh



Additional factors impacting Hydro

The accumulated LME hedge in Hydro as of December 31, 2021 amounted to 430 thousand tonnes for the remainder of 2022, 460 thousand tonnes for 2023 and 20 thousand tonnes for 2024. This has been achieved using both commodity derivatives and currency derivatives. Parts of the raw material exposure is also hedged, using both fixed price physical contracts and financial derivatives. Further hedges of 30 thousand tonnes for 2022 and 80 thousand tonnes for 2024 were executed during January and February.

The total USD/BRL hedge in place at Alunorte and Albras amounts to approximately USD 350 million per year for 2022 and 2023 and USD 170 million for 2024.

Aluminium Metal has sold forward around 60 percent of its expected primary aluminium production for the first quarter of 2022 at a price level of around USD 2,625 per mt¹⁾.

Hydro has assessed the changes made to the CO₂ compensation scheme in Norway for the period 2021 to 2030. Not all elements of the updated regulations are approved by

the relevant authorities as of the end of December. Based on the elements approved, Hydro has concluded that an estimated compensation for aluminium produced and sold in 2021 can be recognized. An amount of compensation reflecting the uncertainty has been recognized in the interim result.

Negotiations are ongoing in the European Parliament and among the EU member states on Carbon Border Adjustment Mechanism (CBAM) and the EU Emission Trading System (ETS). CBAM is prioritized by the French EU presidency and they are moving towards a conclusion in the Council before summer. Next phase will be trilogue negotiations between representatives of the Parliament, the Council, and the Commission, additional rules will have to be detailed out after an agreement has been reached. The revision of the ETS is in a similar process as CBAM, and also closely linked as it represents the carbon pricing system that CBAM is to be built on. The high energy price situation, with also record high CO₂ prices, is underlining the need for efficient carbon leakage protection as well as framework conditions that enable green growth in Europe.

The Aluminium industry is still experiencing price volatilities and availability uncertainties of alloying materials like silicon

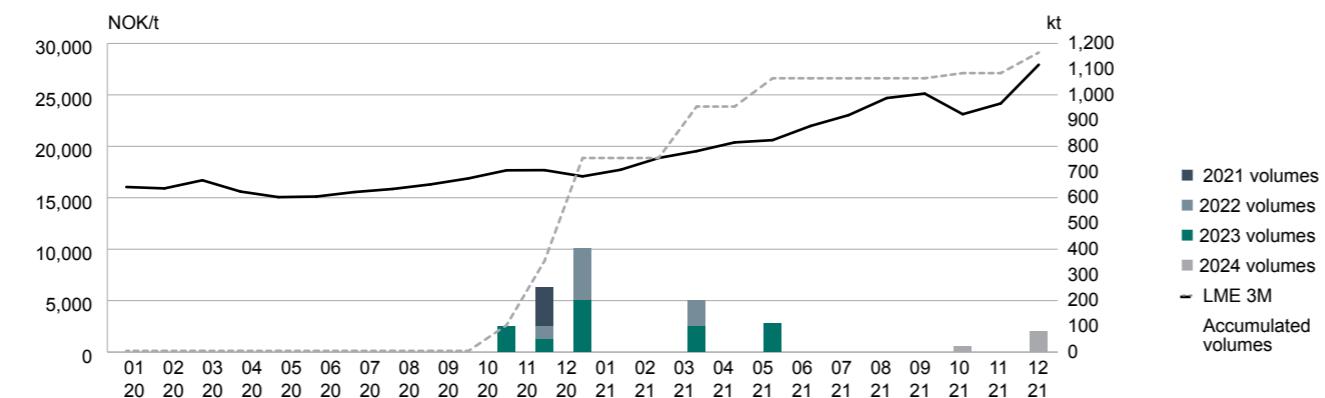
and magnesium (alloying content in value added casthouse products ranges from below 1 to up to 10 percent). Hydro is monitoring the situation and working closely with its suppliers to ensure continued supply to its operations. Hydro has secured alloy supply for first half of 2022.

One of the four production lines at Hydro's part-owned aluminium plant Albras in Brazil was shut down on February 19, 2022, due to an internal power distribution failure. The affected potline produces 110,000 tonnes of liquid aluminium annually. The other three lines at Albras were not affected and are running as normal.

¹⁾ Prices are fixed mainly one month prior to production. As a result, and due to the hedging of product inventories, Hydro's realized aluminium prices lag LME spot prices by around 1.5 to 2 months before taking into account the effects of the strategic hedges, which are included in the realized price

Hedging programme executed in multiple tranches

Rising aluminium prices have supported continued hedging



[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Business areas performance

Hydro Bauxite & Alumina financial and operational information

NOK million	Fourth quarter 2021	Fourth quarter 2020	Change prior year quarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
Earnings before financial items, tax, depreciation and amortization (EBITDA)	2,344	582	>100%	996	>100%	5,306	3,683
Adjusted EBITDA	2,426	587	>100%	1,055	>100%	5,336	3,817
Adjusted EBIT	1,913	116	>100%	466	>100%	3,318	1,806
Alumina production ¹⁾	1,600	1,410	13%	1,579	1%	6,305	5,457
Sourced alumina ¹⁾	765	783	(2)%	806	(5)%	3,006	3,053
Total alumina sales ¹⁾	2,655	2,122	25%	2,355	13%	9,628	8,495
Realized alumina price ²⁾	393	272	44%	284	38%	313	268
Bauxite production ¹⁾	2,696	2,556	5%	2,756	(2)%	10,926	8,640
Sourced bauxite ¹⁾	1,427	1,351	6%	1,472	(3)%	5,677	6,231

¹⁾ Weighted average of own production and third party contracts. The majority of the alumina is sold linked to the alumina index with a one month delay.

²⁾ Paragominas on wet basis.

³⁾ 40 percent MRN off take from Vale and 5 percent Hydro share on wet basis.

Adjusted EBITDA for Bauxite & Alumina increased compared to the fourth quarter of last year. Higher alumina sales prices and insurance compensation of NOK 498 million related to the decommissioned crane were partly offset by increased raw material prices.

Compared to the third quarter of 2021 the adjusted EBITDA increased. Higher alumina sales prices and insurance received for the decommissioned crane were partly offset by higher raw material prices.

Adjusted EBITDA for the full year of 2021 increased compared to 2020. Higher alumina sales prices, increased volumes and positive currency effects were partly offset by higher raw material prices. In addition, increased operational costs associated with the decommissioning of a crane used for unloading bauxite from ships, were partly offset by insurance compensation of NOK 498 million.

Hydro Bauxite & Alumina



Adjusted EBITDA
Q4 2021

2,426 MNOK

Q4 2020
587 MNOK ↑>100%

Q3 2021
1,055 MNOK ↑>100%

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Hydro Aluminium Metal financial and operational information

NOK million	Fourth quarter 2021	Fourth quarter 2020	Change prior year quarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
Earnings before financial items, tax, depreciation and amortization (EBITDA)	8,260	1,468	>100%	1,642	>100%	11,440	3,667
Adjusted EBITDA	4,676	1,432	>100%	4,263	10%	13,500	3,593
Adjusted EBITDA including Qatalum 50% pro rata ²⁾	5,264	1,794	>100%	4,797	10%	15,508	5,087
Adjusted EBIT	4,111	844	>100%	3,684	12%	11,225	1,225
Realized aluminium price LME (USD/mt) ³⁾	2,675	1,792	49%	2,419	11%	2,317	1,685
Realized aluminium price LME (NOK/mt) ³⁾	23,087	16,364	41%	20,914	10%	19,819	15,870
Realized premium above LME (USD/mt) ⁴⁾	565	224	>100%	449	26%	400	220
Realized premium above LME (NOK/mt) ⁴⁾	4,873	2,042	>100%	3,878	26%	3,420	2,077
Realized USD/NOK exchange rate	8.63	9.13	(6)%	8.64	-	8.55	9.42
Primary aluminium production (kmt)	571	532	7%	573	-	2,244	2,091
Casthouse production (kmt)	568	523	8%	560	1%	2,214	2,013
Total sales (kmt)	572	547	5%	583	(2)%	2,347	2,182

¹⁾ Operating and financial information includes Hydro's proportionate share of adjusted income (loss), production and sales volumes in equity accounted investments. Realized prices, premiums and exchange rates include equity accounted investments.

²⁾ Adjustment to illustrate Aluminium Metal adjusted EBITDA as if Qatalum were proportionally consolidated, in which Share of the profit (loss) in equity accounted investments is substituted with share of the company's EBITDA.

³⁾ Realized aluminium prices lag the LME price developments by approximately 1.5 - 2 months. Includes pricing effects from LME strategic hedging program, which are included in the realized price.

⁴⁾ Average realized premium above LME for casthouse sales from Aluminium Metal.

Hydro Aluminium Metal



Adjusted EBITDA
Q4 2021

4,676 MNOK

Q4 2020
1,432 MNOK ↑ >100%

Q3 2021
4,263 MNOK ↑ 10%

Operational and financial information Qatalum (50%)

NOK million	Fourth quarter 2021	Fourth quarter 2020	Change prior year quarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
Revenue	2,390	1,480	61 %	1,873	28 %	7,407	5,733
Adjusted EBITDA	1,099	545	>100 %	870	26 %	3,283	1,748
Adjusted EBIT	825	258	>100 %	582	42 %	2,191	551
Net income (loss)	511	183	>100 %	336	52 %	1,507	254
Adjusted Net income (loss)	511	183	>100 %	336	52 %	1,275	254
Primary aluminium production (kmt)	80	79	2 %	80	-	317	316
Casthouse sales (kmt)	88	81	9 %	76	16 %	325	326

Aluminium Metal reported a record high quarterly result in the fourth quarter of 2021 and the adjusted EBITDA was significantly higher than the same quarter last year. The increase was mainly due to higher all-in metal prices and higher volumes, partly offset by negative currency effects, and higher raw material and fixed costs.

Compared to the third quarter of 2021, adjusted EBITDA for Aluminium Metal increased due to higher all-in metal prices, partly offset by higher raw material and fixed costs.

Adjusted EBITDA for the full year of 2021 increased compared to the full year of 2020, mainly due to higher all-in metal prices, higher volumes, partly offset by higher raw material cost, higher fixed cost and negative currency effects.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Hydro Metal Markets financial and operational information

NOK million	Fourth quarter 2021	Fourth quarter 2020	Change prior year quarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
Earnings before financial items, tax, depreciation and amortization (EBITDA)	540	254	>100%	(56)	>100%	872	913
Adjusted EBITDA Metal Markets	284	287	(1)%	170	67%	867	875
<i>Adjusted EBITDA Recycling</i>	290	137	>100%	132	>100%	643	411
<i>Adjusted EBITDA Commercial</i>	(6)	149	>(100)%	38	>(100)%	225	464
Currency effects	(78)	(1)	>(100)%	30	>(100)%	(85)	13
Inventory valuation effects	47	(8)	>100%	(72)	>100%	(62)	(23)
Adjusted EBITDA excl. currency and inventory valuation effects	315	295	7%	212	48%	1,014	884
Adjusted EBIT	245	248	(1)%	133	84%	721	728
Recycling production ¹⁾	144	140	3%	132	9%	572	488
Metal products sales excluding ingot trading ^{1) 2)}	681	672	1%	675	1%	2,833	2,621
<i>Hereof external sales¹⁾</i>	574	549	5%	573	-	2,342	2,088

¹⁾ Kmt.²⁾ Includes external and internal sales from primary casthouse operations, recyclers and third party metal sources.

Adjusted EBITDA for Metal Markets was stable in the fourth quarter compared to the same quarter last year due to improved results from the recyclers and positive inventory valuation effects, offset by reduced results from the sourcing and trading activities, and negative currency effects.

Compared to the third quarter of 2021, adjusted EBITDA for Metal Markets increased due to improved results from the recyclers and positive inventory valuation effects, partly offset by reduced results from the sourcing and trading activities, and negative currency effects.

Adjusted EBITDA for the full year of 2021 was stable compared to full year of 2020. Improved results from the recyclers were offset by reduced results from the sourcing and trading activities, in addition to negative inventory valuation and currency effects.

Hydro Metal Markets



Adjusted EBITDA
Q4 2021

284 MNOK

Q4 2020
287 MNOK ↓(1)%

Q3 2021
170 MNOK ↑67%

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Hydro Extrusions financial and operational information

NOK million	Fourth quarter 2021	Fourth quarter 2020	Change prior year quarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
Earnings before financial items, tax, depreciation and amortization (EBITDA)	381	915	(58)%	1,495	(75)%	5,558	4,225
Adjusted EBITDA	665	1,044	(36)%	1,457	(54)%	5,695	4,348
Adjusted EBIT	(122)	511	>(100)%	828	>(100)%	3,217	2,196
Sales volumes to external markets ¹⁾	301	291	3%	315	(4)%	1,296	1,099
Sales volumes to external markets¹⁾ - Business units							
Extrusion Europe	130	118	10%	129	1%	550	451
Extrusion North America	120	121	-	136	(12)%	534	465
Building Systems	22	20	8%	20	8%	85	74
Precision Tubing	29	33	(11)%	30	(3)%	127	108
Hydro Extrusions	301	291	3%	315	(4)%	1,296	1,099

¹⁾ Kmt.

Adjusted EBITDA for the fourth quarter decreased compared to the same quarter last year mainly due to increased variable and fixed costs partly offset by higher sales volumes and increased margins. In addition, results were negatively impacted by costs related to the scrapping of assets totaling NOK 332 million in non-recurring costs, following a review of the fixed asset register.

Compared to third quarter 2021 the adjusted EBITDA was lower mainly due to seasonally lower sales volumes and higher fixed, variable costs and costs related to the scrapping of assets, partly offset by higher margins.

Adjusted EBITDA for the full year of 2021 increased compared to last year due to increased sales volumes and higher margins partly offset by higher variable and fixed cost costs as operations returned to normal levels and non-recurring costs of NOK 517 million related to the scrapping of assets. In addition, results for the full year 2020 were positively impacted by insurance compensation of NOK 496 million related to the cyber-attack in 2019.



Hydro
Extrusions

Adjusted EBITDA
Q4 2021

665 MNOK

Q4 2020
1,044 MNOK ↓ 36%

Q3 2021
1,457 MNOK ↓ 54%

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Hydro Energy financial and operational information

NOK million	Fourth quarter 2021	Fourth quarter 2020	Change prior year quarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
Earnings before financial items, tax, depreciation and amortization (EBITDA)	1,774	5,732	(69)%	483	>100%	3,921	6,529
Adjusted EBITDA	1,723	419	>100%	465	>100%	3,790	1,245
Adjusted EBIT	1,674	352	>100%	417	>100%	3,596	974
Power production ¹⁾	2,136	3,396	(37)%	1,688	27%	9,055	11,522
External power sourcing ¹⁾	2,841	2,700	5%	2,516	13%	10,356	10,014
Internal contract sales ¹⁾	4,454	4,262	4%	4,452	-	17,216	16,135
External contract sales ¹⁾	219	239	(8)%	153	43%	831	792
Net spot sales/(purchase) ¹⁾	305	1,595	(81)%	(401)	>100%	1,364	4,609

¹⁾ GWh.

Adjusted EBITDA for Energy increased significantly compared to the same quarter last year. The increase was mainly due to higher prices, increased gain from price area differences, and a change in the power contract portfolio including positive effects from the expiration of a legacy purchase contract. This is partly offset by a negative impact from significantly lower production. The gain from price area differences is mainly due to the sale of power at spot prices from our Hydro power plants in Southwest Norway (NO2, NO5) at higher prices than the purchase of power at spot prices required to cover Energy's delivery commitments to our primary aluminium plants located in Mid-Norway (NO3).

Compared to the last quarter the Adjusted EBITDA increased significantly mainly due to higher production and increased gain from price area differences. The higher production resulted in net spot sales in the fourth quarter compared to a net spot purchase in the third quarter.

Adjusted EBITDA for the full year 2021 increased significantly compared to 2020. The increase was mainly due to higher prices, increased gain from price area differences, and a significant change in the power contract portfolio including positive effects from the expiration of a legacy purchase contract. This was partly offset mainly by lower production, and lower commercial results.

Hydro
Energy



Adjusted EBITDA
Q4 2021

1,723 MNOK

Q4 2020
419 MNOK ↑>100%

Q3 2021
465 MNOK ↑>100%

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

Other and eliminations

Financial information

NOK million	Fourth quarter 2021	Fourth quarter 2020	Change prior year quarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
Earnings before financial items, tax, depreciation and amortization (EBITDA)	(837)	(351)	>(100)%	50	>(100)%	(1,046)	(625)
Other	(226)	(231)	3%	(68)	>(100)%	(520)	(655)
Eliminations	(537)	(135)	>(100)%	(124)	>(100)%	(659)	(116)
Adjusted EBITDA	(762)	(366)	>(100)%	(192)	>(100)%	(1,178)	(771)

Other is mainly comprised of head office costs, and costs related to holding companies as well as earnings from Hydro's industrial insurance company.

Eliminations are comprised mainly of unrealized gains and losses on inventories purchased from group companies which fluctuate with product flows, volumes and margin developments throughout Hydro's value chain.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Finance

Finance income (expense)

	NOK million	Fourth quarter 2021	Fourth quarter 2020	Change prior year quarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
Interest income		92	45	>100%	44	>100%	194	191
Dividends received and net gain (loss) on securities		12	56	(78)%	14	(15)%	69	99
Finance income		104	101	3%	59	77%	263	290
Interest expense		(246)	(270)	9%	(254)	3%	(956)	(994)
Net foreign exchange gain (loss)		823	1,349	(39)%	(622)	>100%	1,404	(3,800)
Net interest on pension liability		4	(11)	>100%	(4)	>100%	(7)	(19)
Other		(41)	80	>(100)%	(91)	55%	(193)	(30)
Finance expense		541	1,148	(53)%	(971)	>100%	248	(4,842)
Finance income (expense), net		644	1,248	(48)%	(913)	>100%	510	(4,552)

For the fourth quarter, the net foreign exchange gain of NOK 823 million primarily reflects a gain from a stronger NOK versus EUR affecting the embedded derivatives in Norwegian power contracts and other liabilities denominated in EUR.

For the year 2021, the net foreign exchange gain of NOK 1,404 million reflects a gain from a stronger NOK versus EUR, affecting the embedded derivatives in Norwegian power contracts and other liabilities denominated in EUR, partly offset by a loss from a weaker BRL versus USD affecting the USD denominated debt in Brazil.

Tax

Income tax expense amounted to NOK 2,205 million for the fourth quarter of 2021, or about 21 percent of income before tax. The tax rate mainly reflects a high proportion of income in Norway and Slovakia in addition to income in countries with unrecognized deferred tax assets.

Income tax expense amounted to NOK 4,467 million for the full year 2021, or about 24 percent of income before tax. The tax rate mainly reflects a high proportion of income in Norway and Slovakia in addition to income in countries with unrecognized deferred tax assets, partly offset by power surtax.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Segment information

NOK million	EBIT	Depreciation, amortization and impairment	Investment grants	EBITDA
EBIT - EBITDA Fourth quarter 2021				
Hydro Bauxite & Alumina	1,830	514	-	2,344
Hydro Aluminium Metal	7,311	972	(23)	8,260
Hydro Metal Markets	500	41	(1)	540
Hydro Extrusions	(412)	804	(10)	381
Hydro Energy	1,724	49	-	1,774
Other and eliminations	(868)	31	-	(837)
Total	10,086	2,411	(35)	12,462

NOK million	EBIT	Depreciation, amortization and impairment	Investment grants	EBITDA
EBIT - EBITDA 2021				
Hydro Bauxite & Alumina	3,288	2,018	-	5,306
Hydro Aluminium Metal	8,376	3,158	(95)	11,440
Hydro Metal Markets	725	149	(3)	872
Hydro Extrusions	2,929	2,649	(20)	5,558
Hydro Energy	3,727	194	-	3,921
Other and eliminations	(1,158)	113	-	(1,046)
Total	17,887	8,281	(117)	26,050

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Alternative performance measures (APMs)

Alternative performance measures, i.e. financial performance measures not within the applicable financial reporting framework, are used by Hydro to provide supplemental information, by adjusting for items that, in Hydro's view, does not give an indication of the periodic operating results or cash flows of Hydro, or should be assessed in a different context than its classification according to its nature. Financial APMs are intended to enhance comparability of the results and cash flows from period to period, and it is Hydro's experience that these are frequently used by analysts, investors and other parties. Management also uses these measures internally to drive performance in terms of long-term target setting and as basis for performance related pay. These measures are adjusted IFRS measures defined, calculated and used in a consistent and transparent manner over the years and across the company where relevant. Operational measures such as, but not limited to, volumes, prices per mt, production costs and improvement programs are not defined as financial APMs. To provide a better understanding of the company's underlying financial performance for the relevant period, Hydro focuses on adjusted EBITDA in the discussions on periodic adjusted financial and operating results and liquidity from the business areas and the group, while adjusting effects excluded to EBITDA, EBIT and net income (loss) are discussed separately. Financial APMs should not be considered as a substitute for measures of performance in accordance with IFRS. Disclosures of APMs are subject to established internal control procedures.

Hydro's financial APMs

- EBIT: Income (loss) before tax, financial income and expense.
- Adjusted EBIT: EBIT +/- identified adjusting items to EBIT as described below.
- EBITDA: EBIT + depreciation, amortization and impairments, net of investment grants.
- Adjusted EBITDA: EBITDA +/- identified adjusting items to EBITDA as described below.
- Adjusted net income (loss) from continuing operations: Net income (loss) from continuing operations +/- adjusting items to net income (loss) as described below.
- Adjusted earnings per share from continuing operations: Adjusted net income (loss) from continuing operations attributable to Hydro shareholders divided by weighted average number of outstanding shares (ref.: the interim financial statements).
- Investments: Additions to property, plant and equipment (capital expenditures) plus long-term securities, intangible assets, long-term advances and investments in equity accounted investments, including amounts recognized in business combinations for continuing operations.
- Net cash (debt): Short- and long-term interest-bearing debt and Hydro's liquidity positions
- Adjusted net cash (debt): Net cash (debt) adjusted for liquidity positions regarded unavailable for servicing debt, pension Aluminium Metal specific adjustment to EBITDA:
 - Qatalum 50% pro rata represent an adjustment to illustrate Hydro's share of EBITDA in Qatalum rather than Hydro's share of net income in Qatalum. The adjustment reflects the relevant elements of Qatalum's results as included in Hydro's income statement.
- Metal Markets specific adjustments to EBITDA:
 - Currency effects include the effects of changes in currency rates on sales and purchase contracts denominated in foreign currencies (mainly US dollar and Euro for our European operations) and the effects of changes in currency rates on the fair valuation of derivative contracts (including LME futures) and inventories mainly translated into Norwegian kroner. Hydro manages its external currency exposure on a consolidated basis in order to take advantage of offsetting positions
 - Inventory valuation effects comprise hedging gains and losses relating to inventories. Increasing LME prices result in unrealized hedging losses, while the offsetting gains on physical inventories are not recognized until realized. In period of declining prices, unrealized hedging gains are offset by write-downs of physical inventories.

Adjusting items to EBITDA, EBIT, net income (loss) and earnings per share

Hydro has defined two categories of items which are adjusted to results in all business areas, equity accounted investments and at group level. One category is the timing effects, which are unrealized changes to the market value of certain derivatives. When realized, effects of changes in the market values since the inception are included in adjusted EBITDA and adjusted EBIT. Changes in the market value of trading portfolios are included in adjusted results. The other category includes material items which are not regarded as part of underlying business performance for the period, such as major rationalization charges and closure costs, effects of disposals of businesses and operating assets, major impairments of property, plant and equipment, as well as other major effects of a special nature, and realized effects of currency derivatives entered into for risk management purposes. Materiality is defined as items with a value above NOK 20 million. All adjusting items to results are reflecting a reversal of transactions or other effects recognized in the financial statements for the current period. Part-owned entities have implemented similar adjustments.

- Unrealized derivative effects on LME related contracts include unrealized gains and losses on contracts measured at market value, which are used for operational hedging purposes related to future expected sales and purchase transactions, both fixed-price customer and supplier contracts and transactions at not yet determined market prices. Also includes elimination of changes in fair value of certain internal physical aluminium contracts.
- Unrealized derivative effects on power and raw material contracts include unrealized gains and losses on embedded derivatives in raw material and power contracts for Hydro's own use and for financial power contracts used for risk management purposes, as well as elimination of changes in fair value of embedded derivatives within certain internal power contracts.
- Significant rationalization charges and closure costs include costs related to specifically defined major projects, and not considered to reflect periodic performance in the individual plants or operations. Such costs involve termination benefits, dismantling of installations and buildings, clean-up activities that exceed legal liabilities, etc. Costs related to regular and continuous improvement initiatives are included in adjusted results.
- Significant community contributions Brazil refers to the provision recognized in relation to Alunorte's TAC and TC agreements with the Government of Pará and Ministério Pùblico made on September 5, 2018, including later cost adjustments and certain similar agreements.
- Other effects include insurance proceeds covering asset damage, legal settlements, etc. Insurance proceeds covering lost income or expenses incurred in the same or a prior period are included in adjusted results.
- Pension includes recognition of pension plan amendments and related curtailments and settlements.
- Transaction related effects reflect the (gains) losses on divested of businesses and individual assets, the net remeasurement (gains) losses relating to previously owned shares in acquired business as well as inventory valuation expense related to acquisitions.
- Adjusting items in equity accounted investments reflects Hydro's share of items excluded from adjusted net income Qatalum and are based on Hydro's definitions, including both timing effects and material items not regarded as part of underlying business performance for the period.
- Impairment charges (PP&E, intangible assets and equity accounted investments) relate to significant write-downs of assets or groups of assets to estimated recoverable amounts in the event of an identified loss in value. Gains from reversal of impairment charges are also adjusted for.
- Realized foreign exchange gain (loss) on risk management instruments represents such items as foreign currency derivatives entered into and managed to mitigate currency risk in the production margin, i.e. the difference between sales price for products such as aluminium or alumina versus the cost of raw materials and energy used in production. Realized embedded currency derivatives in certain power contracts in Norway denominated in Euro are also adjusted for. Such currency effects are included in currency gains and losses in finance expense in the income statement, and included in adjusted EBITDA and adjusted EBIT.
- Net foreign exchange (gain) loss: Realized and unrealized gains and losses on foreign currency denominated accounts receivable and payable, funding and deposits, embedded currency derivatives and forward currency contracts purchasing and selling currencies that hedge net future cash flows from operations, sales contracts and operating capital, with the exceptions of the realized foreign currency exchange gain (loss) on risk management instruments mentioned above.
- Calculated income tax effect: In order to present adjusted net income from continuing operations on a basis comparable with our adjusted operating performance, the adjusted income taxes include adjustments for the expected taxable effects on adjusting items to income before tax.
- Other adjustments to net income from continuing operations include other major financial and tax related effects not regarded as part of the business performance of the period.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Adjusting items to EBITDA and EBIT per operating segment and for other and eliminations¹⁾

NOK million	Fourth quarter 2021	Fourth quarter 2020	Third quarter 2021	Year 2021	Year 2020
Unrealized derivative effects on raw material contracts	113	5	(143)	(141)	5
Community contributions Brazil ²⁾	15	-	202	217	129
Other effects ³⁾	(46)	-	-	(46)	-
Hydro Bauxite & Alumina	82	5	59	30	134
Unrealized derivative effects on LME related contracts	(849)	(99)	2,764	4,912	(160)
Unrealized derivative effects on power contracts ⁴⁾	(2,779)	153	(122)	(2,763)	218
Significant rationalization charges and closure costs ⁵⁾	66	-	13	263	-
Net foreign exchange (gain)/loss ⁶⁾	(23)	-	(35)	(120)	-
Other effects ⁷⁾	-	(90)	-	(232)	(131)
Hydro Aluminium Metal	(3,585)	(36)	2,621	2,060	(74)
Unrealized derivative effects on LME related contracts	(210)	32	226	42	(38)
Other effects ⁸⁾	(46)	-	-	(46)	-
Hydro Metal Markets	(256)	32	226	(4)	(38)
Unrealized derivative effects on LME related contracts	306	(57)	20	122	(129)
Unrealized derivative effects on power contracts	(20)	-	(52)	(72)	-
Significant rationalization charges and closure costs ⁹⁾	2	70	17	114	187
Net foreign exchange (gain)/loss ¹⁰⁾	(4)	14	(23)	(27)	(37)
Other effects ¹¹⁾	-	101	-	-	101
Hydro Extrusions	283	129	(38)	137	123
Unrealized derivative effects on power contracts	(57)	(5)	(22)	(107)	25
(Gains)/losses on divestments ¹²⁾	-	(5,308)	-	(45)	(5,308)
Net foreign exchange (gain)/loss ⁶⁾	6	-	5	21	-
Other effects	-	-	-	-	-
Hydro Energy	(51)	(5,313)	(18)	(131)	(5,283)
Unrealized derivative effects on power contracts ¹³⁾		(2)	(6)	13	(8)
Unrealized derivative effects on LME related contracts ¹³⁾		3	(231)	(231)	(62)
Significant rationalization charges and closure costs		-	(5)	20	-
(Gains)/losses on divestments ¹⁴⁾		4	-	66	0
Net foreign exchange (gain)/loss ⁶⁾		(15)	(242)	(132)	(146)
Other effects ¹⁵⁾		(5,198)	2,608	1,959	(5,284)
Other and eliminations	74	(15)	(242)	(132)	(146)
Adjusting items to EBITDA	(3,451)	(5,198)	2,608	1,959	(5,284)

NOK million	Fourth quarter 2021	Fourth quarter 2020	Third quarter 2021	Year 2021	Year 2020
Hydro Aluminium Metal ¹⁶⁾	276	-	-	276	504
Hydro Extrusions ¹⁷⁾	7	52	14	150	1,625
Other and eliminations ¹⁴⁾	-	-	-	-	(161)
Depreciation ¹⁸⁾	108	-	154	513	-
Adjusting items to EBIT	(3,060)	(5,146)	2,776	2,899	(3,316)

¹⁾ Negative figures indicate reversal of a gain and positive figures indicate reversal of a loss.²⁾ Community agreements includes provisions for the TAC and TC agreements with the Government of Pará and Ministério Pùblico made on September 5, 2018, including later adjustments for changes in cost estimates, and similar agreements.³⁾ Other effects in Hydro Bauxite & Alumina in the fourth quarter include an insurance compensation for property damage at Alunorte.⁴⁾ Unrealized derivative effects on power contracts includes the effect of settling some such contracts in Slovalco net through selling power and thereby meeting the requirement for recognizing contract in the same contract portfolio at fair value.⁵⁾ Rationalization and closure costs related to Aluchemie.⁶⁾ Realized currency gains and losses from risk management contracts and embedded currency derivatives in physical power and raw material prices.⁷⁾ Other effects in Hydro Aluminium Metal in the second quarter 2021 excludes the recognized deferred tax asset in Qatalum after the end of the tax holiday period. Other effects in Hydro Aluminium Metal in 2020 relates to an insurance refunds for property damage at Albras.⁸⁾ Other effects in Metal Markets includes a compensation received⁹⁾ Significant rationalization and closure costs include provisions for costs related to reduction of overcapacity, closures and environmental clean-up activities in Hydro Extrusions.¹⁰⁾ Transaction related effects relate to divestments of Hydro Extrusions plants.¹¹⁾ Other effects in Hydro Extrusions in 2020 include an environmental provision of NOK 101 million related to a closed site.¹²⁾ Divestment gain in Hydro Energy in 2021 relates to the lower level of influence in Kyoto Group, which is now traded at the multilateral trading facility Euronext Growth Market, Oslo, for which equity accounting has ended. The gain in 2020 represent the gain on contributing the Røldal Suldal power assets to Lyse Kraft DA, which is partly owned by Hydro. The gain is net of the unrealized share equal to Hydro's retained ownership interest of 25.6 percent, which is eliminated.¹³⁾ Unrealized derivative effects on power contracts and LME related contracts result from elimination of changes in the valuation of embedded derivatives within certain internal power contracts and in the valuation of certain internal aluminium contracts.¹⁴⁾ Reversal of gain of sales of properties in Germany in 2020 and 2021. The property sold in 2020 was previously impaired, and the impairment was reversed when the property was sold.¹⁵⁾ Other effects include an environmental provision of NOK 66 million related to closed sites in Germany.¹⁶⁾ Impairment charges in Hydro Aluminium Metal reflect write downs related to the Slovalco smelter.¹⁷⁾ Impairment charges include impairments of various assets, including goodwill, in Hydro Extrusions.¹⁸⁾ Excess depreciation related to the anode producer Aluchemie which is closed in 2021.

Introduction

Adjusted earnings per share from continuing operations

Our business

	NOK million	Fourth quarter 2021	Fourth quarter 2020	Change prior year quarter	Third quarter 2021	Change prior quarter	Year 2021	Year 2020
Performance review	Net income (loss) from continuing operations	8,525	7,226	18%	1,127	>100%	13,930	3,886
	Adjusting items to net income (loss) from continuing operations	(2,715)	(6,138)	56%	2,371	>(100)%	976	(1,038)
Governance	Adjusted net income (loss) from continuing operations	5,810	1,089	>100%	3,498	66%	14,905	2,848
Environment and social responsibility	Adjusted net income attributable to non-controlling interests from continuing operations	535	117	>100%	212	>100%	1,017	150
	Adjusted net income from continuing operations attributable to Hydro shareholders	5,276	972	>100%	3,285	61%	13,888	2,698
	Number of shares	2,051	2,049	-	2,051	-	2,051	2,049
	Adjusted earnings per share from continuing operations	2.57	0.47	>100%	1.60	61%	6.77	1.32

¹⁾ Adjusting items to net income (loss) consist of the Adjusting items to EBIT specified on the previous page. In addition, a compensation received of NOK 128 million related to a financial claim for which there has been a legal dispute over several years was adjusted in the fourth quarter of 2020. These items are net of calculated tax effects, for most items based on a 30 percent standardized tax rate.

Appendices

Adjusted net cash (debt)¹⁾

NOK million	December 31 2021	September 30 2021	Change prior quarter	December 31 2020 Restated	September 30 2020 Restated	Change prior year quarter Restated
Cash and cash equivalents	22,923	18,792	4,131	17,638	17,495	143
Short-term investments ²⁾	6,763	7,020	(257)	4,091	5,399	(1,309)
Short-term debt	(6,428)	(4,186)	(2,242)	(4,748)	(6,915)	2,167
Long-term debt	(21,989)	(25,495)	3,506	(24,811)	(25,873)	1,062
Collateral for long-term liabilities	1,945	2,647	(703)	35	28	7
Net cash (debt)	3,213	(1,221)	4,435	(7,795)	(9,866)	2,071
Reversal of collateral for short-term and long-term liabilities ³⁾	(5,304)	(6,305)	1,001	(712)	(402)	(311)
Cash and cash equiv. and short-term investm. in captive insurance company ⁴⁾	(1,059)	(1,072)	13	(956)	(915)	(40)
Net pension obligation at fair value, net of expected income tax benefit ⁵⁾	(774)	648	(1,422)	(9,868)	(11,569)	1,701
Short- and long-term provisions net of expected income tax benefit, and other liabilities ⁶⁾	(3,096)	(2,570)	(526)	(3,966)	(3,711)	(255)
Adjusted net cash (debt)	(7,019)	(10,520)	3,501	(23,297)	(26,463)	3,166

¹⁾ Previous periods have been restated following a change to the net debt definition implemented in 2021.

²⁾ Hydro's policy is that the maximum maturity for cash deposits is 12 months. Cash flows relating to bank time deposits with original maturities beyond three months are classified as investing activities and included in short-term investments on the balance sheet.

³⁾ Collateral provided as cash, mainly related to strategic and operational hedging activities

⁴⁾ Cash and cash equivalents and short-term investments in Hydro's captive insurance company Industriforsikring AS are assumed to not be available to service or repay future Hydro debt, and are therefore excluded from the measure Adjusted net debt.

⁵⁾ The expected income tax benefit related to the pension liability is NOK -47 million and NOK 1869 million for December 2021 and September 2021, respectively.

⁶⁾ Consists of Hydro's short and long-term provisions related to asset retirement obligations, net of an expected tax benefit estimated at 30 percent, and other non-current financial liabilities.

Introduction

Our business

Performance review

Governance

Environment and social responsibility

Financial statements

Appendices

Adjusted Return on average Capital Employed (RoaCE)

Hydro uses adjusted RoaCE to measure the performance for the group as a whole and within its operating segments, both in absolute terms and comparatively from period to period. Management views this measure as providing additional understanding of the rate of return on investments over time in each of its capital intensive businesses and in the operating results of its business segments. RoaCE is calculated as adjusted EBIT after tax divided by average Capital employed for the respective period. The definition of capital employed was amended during 2021 to be consistent with the amended definition of Net cash (debt), and excludes long-term collateral.

Capital employed for 2021 excludes Assets held for sale and Liabilities in disposal groups, as results from the divested Hydro Rolling business is separately reported as Income (loss) from discontinued operations. Capital employed and RoaCE for 2020 includes the divested Rolling business as reported in the 2020 annual report. This is consistent with the classification of the business in the years reported for.

RoaCE

NOK million	Reported				Adjusted			
	2021	2020	2021	2020	2021	2020	2021	2020
EBIT	17,887	7,332	20,786	6,051				
Adjusted Income tax expense ¹⁾	(4,314)	(2,366)	(5,255)	(2,640)				
EBIT after tax	13,572	4,966	15,531	3,411				

Capital Employed

NOK million ²⁾	December 31 2021	September 30 2021	June 30 2021	March 31 2021	December 31 2020 Restated	September 30 2020 Restated	June 30 2020 Restated	March 31 2020 Restated
Current assets in continuing operations ³⁾	46,027	39,689	36,952	48,508	38,326	40,109	39,984	48,122
Property, plant and equipment	54,605	54,642	56,353	53,890	64,245	68,657	70,478	77,909
Other non-current assets ⁴⁾	42,250	42,144	41,951	39,749	40,072	34,176	35,159	39,377
Current liabilities (in continuing operations) ⁵⁾	(33,140)	(27,277)	(25,494)	(33,764)	(24,300)	(21,524)	(20,414)	(26,329)
Non-current liabilities ⁵⁾	(24,574)	(27,020)	(24,643)	(22,402)	(33,104)	(34,658)	(33,179)	(36,712)
Adjusted for Assets held for sale ⁶⁾				(17,069)				
Adjusted for Liabilities in disposal group ⁶⁾				12,266				
Capital employed	85,167	82,177	85,119	81,178	85,239	86,760	92,027	102,367

Return on average Capital Employed (RoaCE)⁷⁾

	Reported				Adjusted			
	2021	2020	2021	2020	2021	2020	2021	2020
Hydro			16.3%	5.4%	18.6%	3.7%		

¹⁾ Adjusted Income tax expense is based on reported and adjusted tax expense adjusted for tax on financial items.

²⁾ Previous periods have been restated following a change to the capital employed definition in 2021.

³⁾ Excluding cash and cash equivalents and short-term investments.

⁴⁾ Excluding long-term collateral related to strategic and operational hedging activities.

⁵⁾ Excluding interest-bearing debt.

⁶⁾ Adjustment to exclude Hydro Rolling, since Rolling is separately reported as Income (loss) from discontinued operations and is not included in EBIT.

⁷⁾ Average Capital Employed measured over the last 4 quarters to reflect the return for the full year.

Introduction
 Our business
 Performance review
 Governance
 Environment and social responsibility
 Financial statements
 Appendices

Cautionary note

Certain statements included in this announcement contain forward-looking information, including, without limitation, information relating to (a) forecasts, projections and estimates, (b) statements of Hydro management concerning plans, objectives and strategies, such as planned expansions, investments, divestments, curtailments or other projects, (c) targeted production volumes and costs, capacities or rates, start-up costs, cost reductions and profit objectives, (d) various expectations about future developments in Hydro's markets, particularly prices, supply and demand and competition, (e) results of operations, (f) margins, (g) growth rates, (h) risk management, and (i) qualified statements such as "expected", "scheduled", "targeted", "planned", "proposed", "intended" or similar.

Although we believe that the expectations reflected in such forward-looking statements are reasonable, these forward-looking statements are based on a number of assumptions and forecasts that, by their nature, involve risk and uncertainty. Various factors could cause our actual results to differ materially from those projected in a forward-looking statement or affect the extent to which a particular projection is realized. Factors that could cause these differences include, but are not limited to: our continued ability to reposition and restructure our upstream and downstream businesses; changes in availability and cost of energy and raw materials; global supply and demand for aluminium and aluminium products; world economic growth, including rates of inflation and industrial production; changes in the relative value of currencies and the value of commodity contracts; trends in Hydro's key markets and competition; and legislative, regulatory and political factors.

No assurance can be given that such expectations will prove to have been correct. Hydro disclaims any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

Financial calendar 2022¹⁾

May 3	First quarter results
May 10	Annual General Meeting
July 22	Second quarter results
October 25	Third quarter results

¹⁾ Hydro reserves the right to revise these dates.

See [updated calendar](#) on Hydro website.

[Introduction](#)[Our business](#)[Performance review](#)[Governance](#)[Environment and social responsibility](#)[Financial statements](#)[Appendices](#)

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Hydro is a leading industrial company committed to a sustainable future. Our purpose is to create more viable societies by developing natural resources into products and solutions in innovative and efficient ways.

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