



# SUPPORTING UKRAINE

Ferrexpco plc  
Responsible Business Report  
2021

 FERREXPO

## Introduction

# RESPONSIBLE BUSINESS PROGRESS IN 2021

At Ferrexpo, Responsible Business represents the Group's activities to promote a safe and sustainable business, for the benefit of all stakeholders. This report represents the Group's seventh year of standalone reporting of its sustainability activities, and is published in accordance with the Global Reporting Initiative ("GRI") framework of reporting. The Group is a constituent of the FTSE4Good Index and has a MSCI ESG Rating of BBB<sup>1</sup>.

<sup>1</sup> For further information on MSCI ESG Ratings please see [www.ferrexpo.com/disclaimer](http://www.ferrexpo.com/disclaimer).



## 01 SUPPORTING UKRAINE

01



## 02 WORKFORCE



## 03 ENVIRONMENT



## 05 COMMUNITIES

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# ABOUT THIS REPORT

**Marking seven years of standalone sustainability reporting.**

The purpose of this report is to provide a comprehensive, standalone document summarising all of the Group's work in the diverse field of sustainability, covering a broad range of topics from safety, to greenhouse gas emissions, biodiversity and governance. The audience for this Responsible Business Report is Ferrexpo's stakeholders, which is a group that includes employees, local community members, investors and governments in the countries where Ferrexpo operates, amongst others.

This report has been reviewed and approved for release by Ferrexpo's Executive Committee, which includes the Group's Chief Executive Officer, Jim North, in addition to the Health and Safety, Environment and Community Committee, which is a sub-committee of Ferrexpo's Board of Directors.

Through the publication of this report, Ferrexpo plc has reported in accordance with the GRI Standards for the period 1 January 2021 to 31 December 2021. The table outlining the relevant disclosures under this framework is provided in the appendices of this report (pages 69 to 76).

Other frameworks that this report aims to provide information under include: Sustainability Accounting Standards Board ("SASB") and the Task Force on Climate-Related Financial Disclosures ("TCFD"), with information for these frameworks provided in the Appendices from page 68 onwards.



► Scan me



*Image: CAT 793D haul truck descending the ramp into the Yeristovo open pit.*

## About this report continued

### Scope of this report

This report covers the Ferrexpo business, which includes pellet production facilities in central Ukraine, logistics operations in the Ukrainian port of Pivdennyi (southwest Ukraine), inland waterway business for shipping products along the River Danube, in addition to the Group's corporate and marketing offices around the world. Entities within the Ferrexpo business, as outlined on page 206 of the 2021 Annual Report and Accounts, are all included in this report if Ferrexpo holds a majority interest. Data is consolidated on a 100% basis for all entities operated and controlled by Ferrexpo, rather than equity accounting.

References in this report to Ferrexpo, Group, Company, "we", "us" and "our" are all references to Ferrexpo plc and its subsidiaries.

### External assurance

The Group has worked with its independent auditors MHA MacIntyre Hudson ("MHA") to complete an external assurance process (ISAE 3000) on its reporting of greenhouse gas emissions and key safety metrics for 2021, with more details of this project available on page 46 of this report and on the Group's website ([www.ferrexpo.com](http://www.ferrexpo.com)).

### Nature of this report

With Russia's invasion in 2022, Ukraine is fighting to protect its sovereignty and defend itself. In light of this, the front section of this report is primarily focused on the human stories behind Ferrexpo's operations, its people and local communities, which are provided in the form of case studies. This report is still, however, presented in accordance with the same reporting frameworks for sustainability in line with previous reports, with the reporting requirements for information predominantly provided in the Appendix to this report (page 68 onwards).

The majority of case studies presented in this report were written by Ferrexpo's team in Ukraine, helping to provide a first-hand account of life in Ukraine.



Image: Volodymyr Romenskiy, Stanislav Pechorkin and Evgeniy Evtropov, all excavator drivers at FYM, competing at Ferrexpo's annual "Best in profession competition".

## About this report continued

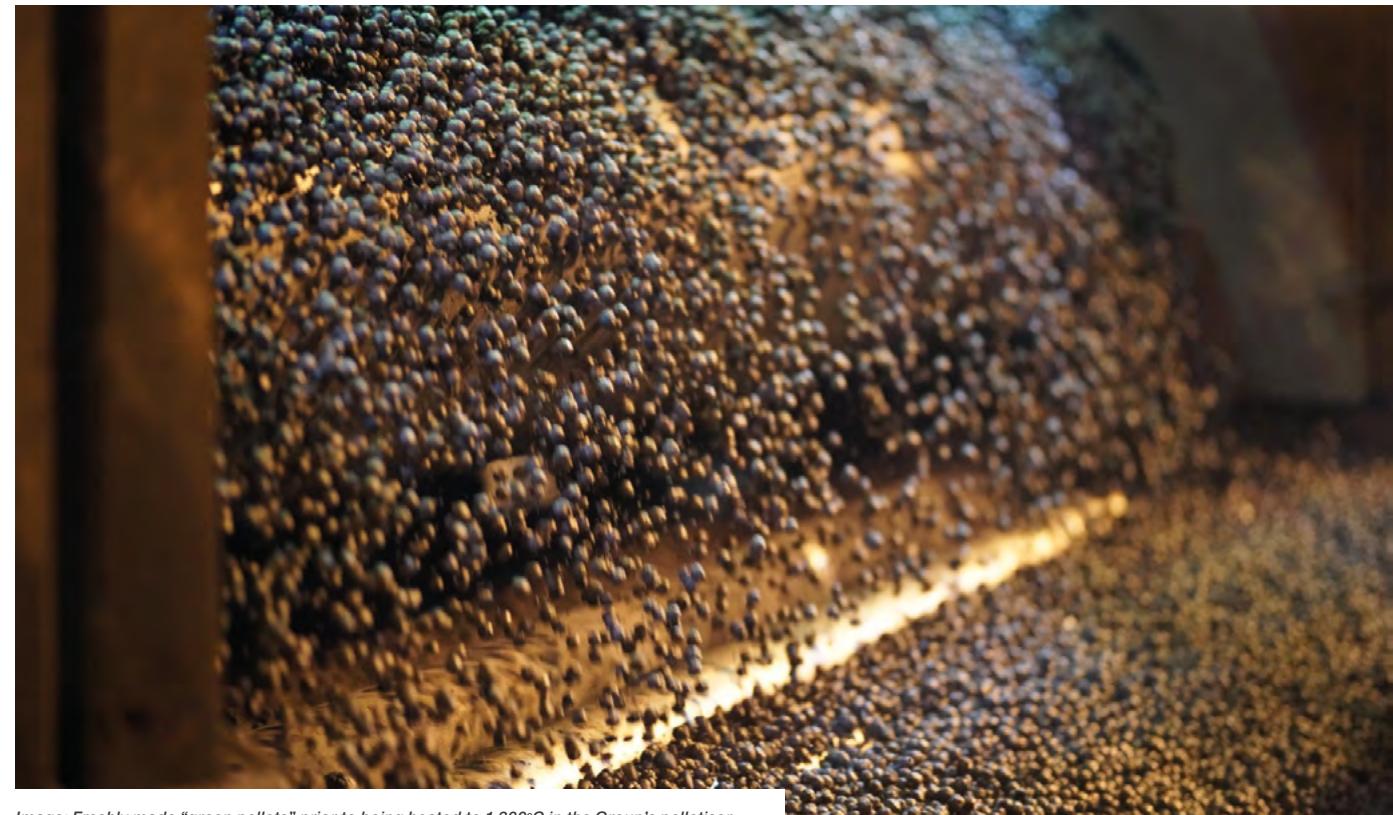
# LOOKING TO THE FUTURE AND GREEN STEEL

For more than 50 years, Ferrexpo has supplied the global steel industry with a form of iron ore (being iron ore pellets) that reduces emissions for steelmakers. With an increasing focus on emissions reduction in every aspect of modern day living, a shift is underway in global steel production and steelmakers are specifically seeking to reduce their emissions, and the Group is well positioned to take advantage of this shift through the product it produces.

Ferrexpo is the world's third largest exporter of iron ore pellets, with operations in central Ukraine and customers across the globe that are served via a diverse logistics network. The Group has a workforce of more than 10,000 people in Ukraine, making it one of the largest employers in the Poltava region, and it is a significant contributor to the Ukrainian economy via a total of US\$281 million of taxes and royalties in 2021 (2020: US\$100 million). As a result of this presence, and more than US\$3 billion of investment since listing in 2007 in producing high grade, high quality forms of iron ore, the Group has grown to be responsible for 4% of Ukraine's exports in 2021 (2020: 3%).

The Group is listed on the London Stock Exchange and headquartered in Switzerland. Ferrexpo is a constituent of the FTSE 250 and FTSE4Good Indices.

<sup>1</sup> Source: Government of Western Australia.  
Latest available period: 12 months to June 2021.  
[Link](#) here (accessed July 2022).



*Image: Freshly made "green pellets" prior to being heated to 1,300°C in the Group's pelletiser.*

### INVESTING IN PEOPLE

**10,000**

Ferrexpo has a workforce of more than 10,000 people in central Ukraine.

### INVESTING IN UKRAINE

**+US\$3BN**

Ferrexpo has invested more than US\$3 billion since listing in 2007.

### INVESTING IN QUALITY

**100%**

Ferrexpo's products are entirely comprised of high quality forms of iron ore in 2021.

### INVESTING IN SAFETY

**0.41**

Lost time injury rate of 0.41 represents third consecutive year of safety performance ahead of peers in Australia<sup>1</sup>.

## Conflict in Ukraine

# PROVIDING HUMANITARIAN AND ECONOMIC SUPPORT

Following Russia's invasion of Ukraine in February 2022, the people of Ukraine have sought to defend themselves and their country against continual attack.

From the very start of this invasion, Ferrexpo's priority has been the safety and wellbeing of its workforce, their families and support for communities both in the local area and wider Ukraine. With this in mind, the Group has a dedicated Humanitarian Fund with approved funding of US\$15 million, which was created in order to enable the Group to respond effectively to requests for support.

Ferrexpo will continue to support the people of Ukraine through delivering value for its stakeholders through its continued economic activity and initiatives to provide humanitarian support.



*Image: Trucks at Ferrexpo's Yeristovo Mine; the Group celebrated Ukraine's 30<sup>th</sup> anniversary of independence in August 2021.*

## Conflict in Ukraine continued

# SUPPORTING LOCAL COMMUNITIES

More than

# 85 evacuees employed

By Ferrexpo's operations in Ukraine.



# Over 4,000 free meals

Prepared per day by the Company's canteen for refugees and locals.

(Information shown as of June 2022.)



Accommodated over  
**2,000**  
Refugees escaping conflict.



About  
**120**  
children

Stay in Ferrexpo's childcare facility per day.

Modular housing

# 120

Units of modular housing provided for refugees in local communities.

More than

# 200

Relatives of residents in local communities who were evacuated home from active fighting zones.

**109**  
Light vehicles donated to Ukrainian authorities.

**527**  
Tonnes of food for communities.

**6**  
Armoured ambulances provided.



# Humanitarian Fund US\$15<sup>M</sup>

To support Ukrainian communities.



# Over US\$35<sup>M</sup>

In taxes paid to the Ukrainian government since the start of the Russian invasion.

## 2021 performance

### KEY PERFORMANCE HIGHLIGHTS

- **11.2MT** pellet production (2020: 11.2MT).
- **0.41** key safety indicator (lost time injury rate, 2020: 0.79).
- **Humanitarian Fund established in 2022** with US\$15M of approved funding.
- **6,000** Covid-19 vaccinations administered at FXPO health centre in 2021.
- **16%** reduction in carbon emissions per tonne in 2021.
- **4%** production of direct reduction pellets (2020: 3%).
- **98%** water recycling in processing plant (2020: 98%).
- **External assurance** of safety and emissions data completed.
- **95%** of supplier contracts contain governance clauses.



Image: Dmitriy Kovalenko, haul truck driver at FYM.

# Ferrexpo overview

## What we do

### 1 Extraction:

Ferrexpo's iron ore mines in central Ukraine have over 50 years of mine life remaining at present mining rates.

### 2 Processing:

Through significant investment the Group is able to produce some of the highest quality iron ore products commercially available.

### 3 Export:

Ferrexpo's products are sold to a network of premium steel mills around the world.

## SAFETY

**Safety remains the first priority, implementing a culture of safety.**

► p28-31

Injury frequency rate of 0.41, the third year of performance materially below Ferrexpo's iron ore producing peers and historic average.

**0.41 LTIFR**

## EMISSIONS

**Reducing emissions and setting inaugural carbon targets in 2021.**

► p43-49

Sunflower husks are used as a biofuel, helping to cut Scope 1 carbon emissions, representing 18% of pelletiser energy in 2021.

**18% biofuel consumption**

## ENERGY

**Implementing clean energy usage through solar power and biofuel usage.**

► p50

Construction and initiation in 2021 of the Group's first on-site renewables power plant, alongside clean power purchasing strategy.

**5MW trial solar farm**

## COMMUNITIES (2022)

**Committed to supporting the people of Ukraine in 2022.**

► p19-25

Establishment of the Ferrexpo Humanitarian Fund in early 2022 to respond to the ongoing humanitarian crisis in Ukraine.

**US\$15M funding**

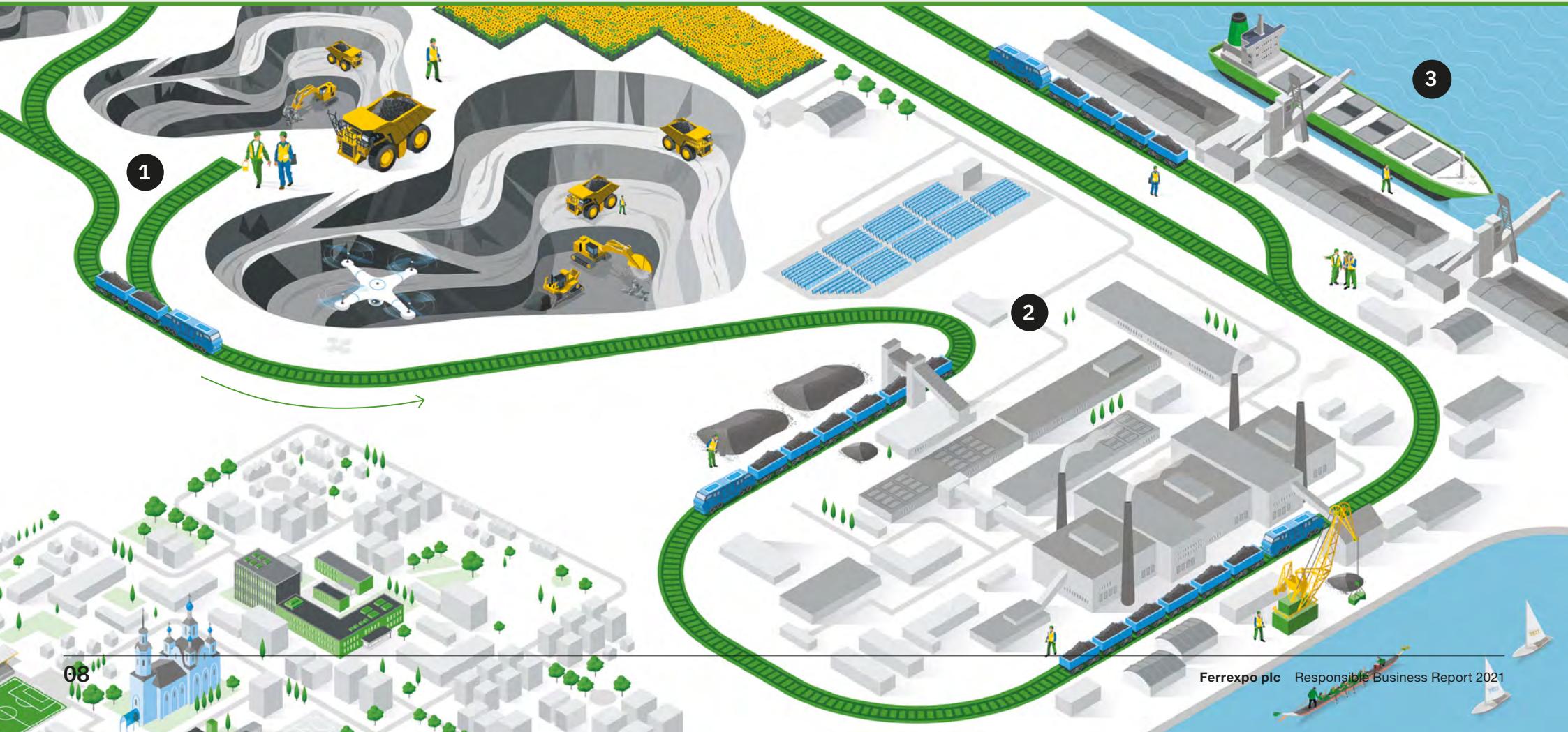
## COMMUNITIES (2021)

**Continuing long-established engagement work via Charity Fund.**

► p63-67

The Ferrexpo Charity Fund increased funding by 63% in 2021, helping to support medical institutions during the pandemic.

**+63% funding**



## Our history

**The following timeline demonstrates Ferrexpo's journey for reporting sustainability topics in the 15 years since listing on the London Stock Exchange in 2007.**

**2009**

CSR Committee formed (now HSEC Committee).

**2015**

Updated Code of Conduct, covering a range of compliance and governance topics.

**2017**

Ferrexpo included in FTSE4Good Index. Second Responsible Business Report published in July.

**2007**

Ferrexpo's IPO and listing on the London Stock Exchange.

**2011**

Publication of CSR strategy goals. Formation of the Ferrexpo Charity Fund.

**2016**

First standalone Responsible Business Report published.

**2018**

Ferrexpo upgraded to BB rating by MSCI. Publication of activities in line with UN Sustainable Development Goals.

**2020**

Publication of fifth annual Responsible Business Report, with additional reporting on TCFD and SASB frameworks. Introduction of Scope 3 reporting and reporting using the Greenhouse Gas Protocol. Group's MSCI rating upgraded to BBB.

**2021**

Expansion of Scope 3 CO<sub>2</sub> reporting to include wider range of downstream and upstream categories. Group joins ResponsibleSteel™ initiative.

**2022**

External assurance of 2021 data completed and engagement with environmental consultants Ricardo plc to develop reporting of climate change topics.

*Image: Aerial view across the River Dnieper towards the Group's operations.*

## Our performance

# PERFORMANCE REVIEW TABLE

### Delivering growth through sustainability

The table below shows the performance of the Group across all key areas of Responsible Business, as presented in detail throughout this document.

Key performance area in 2021	Status	Performance in 2021 (Brackets denote performance versus comparator)	Comparator period (2020 unless stated)	Further information
<b>Covid-19</b>	Workforce protection	✓	65% vaccination rate in Ferrexpo's employee workforce, double the national rate in Ukraine <sup>1</sup> .	Page 32
	Community protection	✓	US\$3.5m total approved funding for Covid-19 Response Fund	Pages 63-67
<b>Health and safety</b>	<b>Lagging indicators</b>			
Fatalities <sup>2</sup>	↔	None	One fatality	Pages 28-31
Lost time injury ("LTI") frequency rate <sup>2</sup>	↓	0.41 (-48%)	0.98 (five-year trailing full-year average)	Pages 28-31
Significant incidents (incidents without LTI) <sup>3</sup>	↓	17 (-43%)	30	Pages 28-31
<b>Leading indicators</b>				
Training hours in safety <sup>3</sup>	↓	11,786 (-20%)	14,755	Pages 38-40
Health, safety and environmental ("HSE") inspections <sup>3</sup>	↔	3,293 (-0.4%)	3,305	Pages 28-31
<b>Environment</b>				
Scope 1 emissions (CO <sub>2</sub> e per tonne)	↗	57kg/t (+11%)	51kg/t <sup>4</sup>	Pages 43-49
Scope 2 emissions (CO <sub>2</sub> e per tonne)	↓	35kg/t (-40%)	59kg/t <sup>4</sup>	Pages 43-49
Water extraction from local water network (megalitres)	↗	810,446ML (+5%)	775,462ML	Page 51
<b>Social (Workforce)</b>				
Female representation in management roles	↗	20.1%	18.2%	Pages 35-37
Female representation at Board level	↗	37.5%	16.7%	Pages 35-37
<b>Social (Communities)</b>				
Direct community support <sup>5</sup>	↗	UAH 177 million (+16%)	UAH 158 million	Pages 63-67
<b>Governance</b>				
Independent Non-executive Directors	↗	5 (+2 people)	3 (as at 31.12.20)	Pages 63-67

1 As at January 2022.

2 Group-level safety indicator.

3 Safety indicator for Ukrainian operations only.

4 Restated data following external assurance (IASE 3000) process completed in 2022; see page 94 for more information.

5 Including additional Covid-19 support approved in 2020 and 2021.

## Review of 2021

# CEO'S STATEMENT

As a business that understands that positive relationships are required for successful results, we have always maintained a strong link with our people and local communities, through our focus on local employment, career development and local procurement. During 2022, the importance of this bond has never been more evident than now, with communities across Ukraine under strain as a result of Russia's invasion. The war in Ukraine has displaced people, destroyed homes and lead to the deaths of many Ukrainians as they seek to defend themselves, their history and their culture. As a business in Ukraine, we have moved to support our people, their families, local communities and communities across Ukraine, as well as the government of Ukraine; this support has been provided in many forms – please see pages 19 to 25 for more details of this work. Few outside Ukraine would have predicted the resilience and collective spirit of the Ukrainian people, and we remain proud of our ability to support Ukraine at this difficult time. Despite the war in Ukraine, sustainability remains a key focus for our management teams, and in this report, we are able to reflect on progress in broadening diversity, emissions reduction and other key areas in 2021, all of which are detailed throughout this report. We are continuing to develop our understanding of sustainability, through working with independent specialists in fields such as Diversity, Equity and Inclusion ("DEI") and the environment. We are constantly looking to broaden our reporting for the benefit of our stakeholders.

### Environment

At Ferrexpo, we understand that societies around the world are demanding change to environmental practices, and rightly so. From climate change, to deforestation and ecosystem collapse, the business sector needs to play its part in improving. This is particularly important for companies in the steel value chain, with steel production responsible for 7% of global emissions of greenhouse gases<sup>1</sup> and is therefore one of the largest single sectors contributing emissions. Our focus on emissions is twofold – to reduce our own emissions through near-term projects that deliver

material results, and to ramp up production of our direct reduction pellets, which have a 49% lower Scope 3 emissions footprint than the Group's main form of pellet<sup>2</sup>. Other areas of focus in the environment include biodiversity and water consumption, with progress made in both of these fields in 2021.

### Social

Social activities always start with us looking after the safety of our people, and in 2021, Ferrexpo recorded its lowest ever incidence rate for injuries. In addition, we continue to support local communities through our Charity Fund, which celebrated ten years of partnering with local communities in March 2021. Furthermore, Ferrexpo has also recently provided dedicated funding in response to individual situations, such as the Humanitarian Fund (with US\$15 million of approved funding<sup>3</sup>) and Covid-19 Response Fund.

### Governance

Maintaining a strong approach to corporate governance has long been a key focus at Ferrexpo, from our local management teams in Ukraine, to our executive management team. A key development in governance in 2021 was to increase the number of Independent Non-executive Directors from three to five; for an overview of governance actions taken during 2021, please see pages 55 to 62.

In closing, I would like to thank all of our stakeholders that have helped to contribute to our development in sustainability, from our workforce making a direct impact on our safety performance and environmental footprint, to our customers that have helped us to develop products that are fit for a low-emissions, greener future, and our suppliers that are enabling us to continually modernise our business. In 2022, we continue to focus on supporting our people and Ukraine, and our focus remains on delivering a more sustainable future for Ferrexpo.

**Jim North**  
Chief Executive Officer and Executive Director

1 Source: IEA ([link](#)).

3 As of June 2022.

2 Source: CRU.

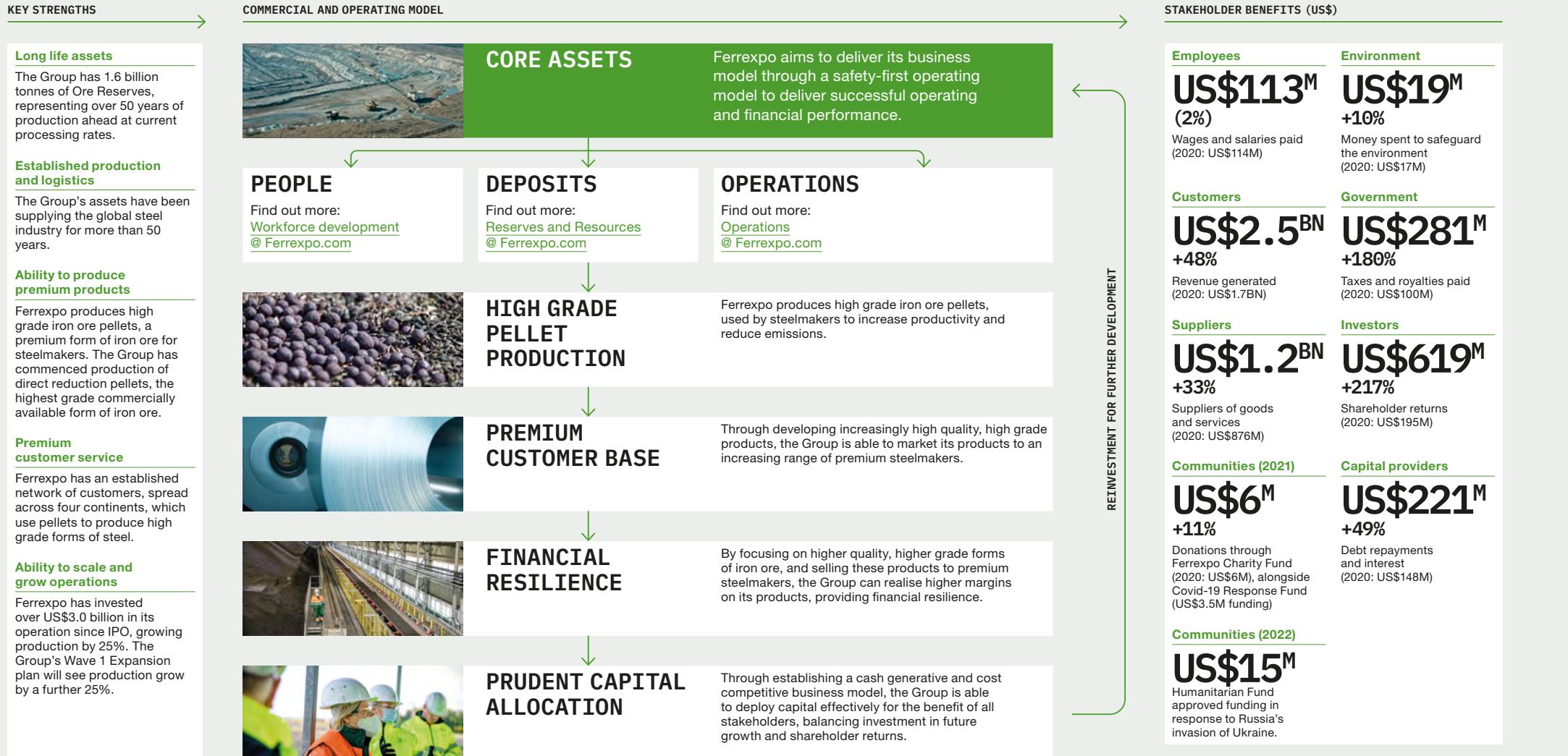


It is with pride that we present this year's Responsible Business Report, reflecting on the significant progress made in sustainability topics in 2021, as well as the resilience that our people and our business have shown during Russia's invasion of Ukraine in 2022."



## Business model

# GENERATING SUSTAINABLE VALUE



### UNDERPINNED BY OUR VALUES

#### Responsibility

► See p28-31

#### Make it happen

► See p38-40

#### Integrity

► See p55-62

#### Diversity within one team

► See p35-37

#### Continuous innovation

► See p43-49

## Purpose and values

# DELIVERING VALUE FOR ALL STAKEHOLDERS

Ferrexpo's purpose is to deliver lasting, sustainable value to its stakeholders, ranging from the Group's employees, local communities, customers and governments in jurisdictions where it operates, including a focus on developing positive relationships for the future through its investments. By conducting its activities in an ethical and responsible manner, the Group aims to have a positive impact on the individuals, companies, charities and governments with which it interacts.

Underpinning the Group's purpose are five core values to help create and maintain a positive and collaborative culture at Ferrexpo:

**Responsibility.** With a safety-first mindset, employees are encouraged to embrace this value in many different forms, such as environmental responsibility, social responsibility and being accountable to communities.

**Make it happen.** Through an engaged and dedicated workforce, Ferrexpo aims to achieve superior business results.

**Integrity.** A result is nothing if it is delivered without high ethical standards. Through integrity, the Group builds trust with its stakeholders, for lasting long-term value.

**Diversity within one team.** Ferrexpo values different opinions, which come from those with different backgrounds and different perspectives, to build a collective strength.

**Continuous innovation.** Embracing change, and understanding that modern society is constantly shifting in its expectations of companies like Ferrexpo. By accepting new thinking, the Group can evolve and adapt.



Image: Kulish Snezhana, controller of product quality at Ferrexpo's beneficiation plant.

## Sustainability at Ferrexpo

# APPROACH TO SUSTAINABILITY

Ferrexpo's approach to sustainability is to embrace sustainable values throughout its business, to ensure positive relationships and to foster lasting and meaningful positive impact on communities and the environment. The term "communities" can cover a wide range of stakeholders, from individual employees and local residents, to entire towns and villages, through to the national government of Ukraine. The environment covers nature in the form of air quality, water quality in local rivers and aquifers, through to biodiversity and clear reporting on climate change.

By understanding the importance of a balanced and sustainable approach to its business, the Group aims to utilise its sustainable business practices for the benefit of all stakeholders. Through building a positive corporate identity, stakeholders will be able to understand and relate to Ferrexpo's business model, and will want to associate themselves with Ferrexpo. Prioritising sustainability is not just about a sustainable business model today, but also understanding that continuous change is needed to adapt and remain relevant. Through the Group's Health, Safety, Environment and Community ("HSEC") Committee, the Group aims to review its progress and priorities in sustainability topics, and understand how these topics impact the Group's other activities such as production volumes and profitability.

Sustainability is about individuals understanding their role in a much larger ecosystem, whereby one individual's actions can have a significant impact on the business, both positive or negative. Through empowering individuals, and the correct sustainability-linked incentives, the Group hopes to drive engagement in sustainability topics, to create lasting improvements for both the Ferrexpo business, communities, the environment and other stakeholders.



*Image: Dmitriy Martynenko, locomotive driver at FPM.*

### COMMUNITY SUPPORT

**US\$15M**

Ferrexpo Humanitarian Fund established in early 2022 to help assist with humanitarian projects across Ukraine during Russia's invasion.

### PRIORITISING SAFETY

**0.41**

The Group recorded its lowest full-year lost time injury frequency rate in 2021, registering just 0.41 incidents per million hours worked.

### ENVIRONMENTAL TARGETS

**-30%**

The Group has reduced its greenhouse gas emissions footprint by 30% since 2019, in line with the Group's medium-term emissions reduction target.

### COMMUNITY PARTNERSHIP

**+63%**

Ferrexpo's community support programme saw 63% higher expenditures in 2021 to UAH 153 million (equivalent of approximately US\$6 million).

## Strategic priority: Green Steel

# PATHWAY TO A GREENER FUTURE

A historic shift in global steelmaking is underway, with steelmakers across the planet looking to reduce emissions of greenhouse gases, as society looks to shift to a greener future.

Steel production is understood to be responsible for approximately 7% of global greenhouse gas emissions<sup>1</sup>, making it one of the most carbon intensive industries, and governments and societies around the world are focusing on steel as an area to significantly reduce emissions. The world's first Green Steel, which is the production of crude steel without greenhouse gas emissions, was achieved in the summer of 2021, and this was a process that involved direct reduction pellets as the source of iron<sup>2</sup>. Furthermore, targets are being set to reduce emissions by steelmakers worldwide – typically starting with a 30% reduction by 2030.

High grade forms of iron ore represent one such method of reducing emissions for steelmakers today, such as Ferrexpo's pellets, which are assessed by independent consultants CRU to have a 40% lower CO<sub>2</sub> footprint than the main form of iron ore (sinter fines).

As shown over the page, steelmaking using direct reduction iron and an electric arc furnace (DRI-EAF steelmaking) has a significantly lower carbon footprint today, compared to the main form of steelmaking worldwide (blast furnace, or BF-BOF, steelmaking), which predominantly utilises coal. Both methods of steelmaking are expected to see improvements in their respective emissions footprints, with faster progress expected in DRI-EAF steelmaking due to increasing use of green hydrogen and clean electricity. Through increasing output of direct reduction pellets, Ferrexpo can reduce its Scope 3 emissions, providing a benefit to both the Group and the environment.

As discussed on pages 45 and 48, the Group expects the pace of change to be greatest within the EU's steel sector, which is a key market for Ferrexpo, and presents a significant opportunity for the Group given that its products enable steelmakers to reduce their emissions.

1 Source: IEA ([link](#)).

2 Source: Forbes ([link](#)). Accessed July 2022.

3 Source: CRU.



*Image: Ferrexpo has utilised sunflower husks as a biofuel in its pelletiser since 2015.*

## REDUCING EMISSIONS IN STEELMAKING TODAY

**40%**

Reduction for steelmakers using Ferrexpo's high grade blast furnace pellets instead of medium grade sinter fines<sup>3</sup>.

## LOWERING FERREXPO'S SCOPE 3 EMISSIONS

**49%**

Direct reduction pellets have a 49% lower emissions footprint than the conversion of blast furnace pellets to steel<sup>3</sup>.

## GREEN STEEL

**7%**

The global steel industry is currently responsible for 7% of global carbon emissions<sup>1</sup>, with Green Steel representing the future through zero-emissions steelmaking.

## Strategic priority: Green Steel continued

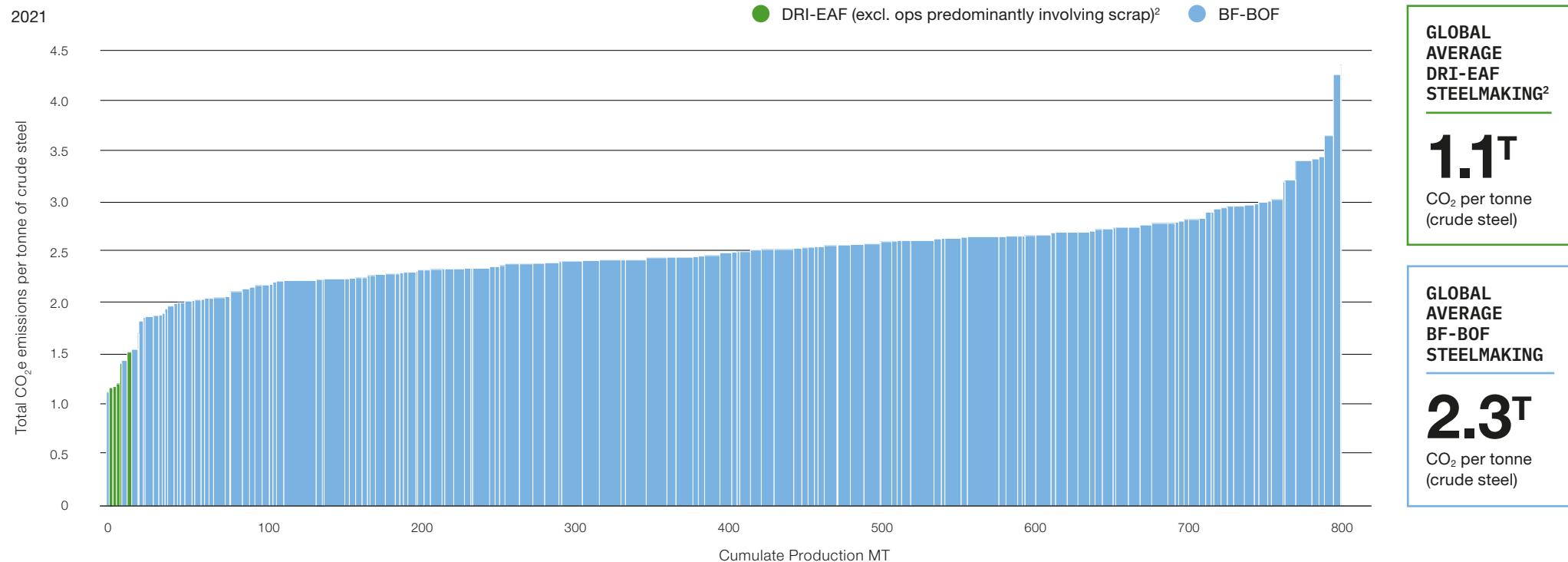
The chart below shows the carbon emissions curve for global steelmaking that utilises iron ore (excluding operations using scrap steel), as assessed by CRU, which covers over 700 million tonnes of global steel production and provides an estimate of carbon emissions per tonne of crude steel production for over 135 steel production facilities worldwide. Emissions from global steelmaking is separated by the production process employed, with DRI-EAF steelmaking having, on average, a carbon emissions footprint approximately half that of the BF-BOF method of steelmaking, which represents the majority of steelmaking worldwide. The reason

for this is simple – BF-BOF steelmaking typically uses coal to produce steel, whereas DRI-EAF steelmaking<sup>2</sup> typically utilises natural gas and then electricity to produce steel, and therefore has an inherently lower carbon footprint.

In 2021, the Group's customers, which are predominantly BF-BOF producers of steel, had an average emissions footprint of 2.07 tonnes of CO<sub>2</sub> per tonne of crude steel production<sup>3</sup>, placing the average for Ferrexpo's customer mix in the lowest quartile for BF-BOF producers worldwide.

Over time, as steelmakers seek to decarbonise their production, this curve will reduce to a lower level. It will also flatten as end users increasingly look to do business with steelmakers able to produce lower-emissions steel, enabling these producers to grow their market share. Over time, Ferrexpo believes its customer base, which produces premium types of steel, will continue to remain competitive and relevant, with the Group transitioning its production to direct reduction pellets to increasingly serve the DRI-EAF market.

**GLOBAL STEEL EMISSIONS CURVE – SCOPE 1 & 2 SITE (CRUDE STEEL BASIS)<sup>1</sup>**



<sup>1</sup> CRU Emissions Analysis Tool. Site emissions cover all onsite emissions including downstream processing into finished steel, normalised to the common basis of crude steel production.

<sup>2</sup> DRI-EAF operations exclusively using the reduction of ore, and therefore excluding predominantly scrap-based operations, which are not directly comparable to the use of direct reduction pellets.

<sup>3</sup> Management estimate. CRU's Emissions Tool names individual steelmaking facilities, with analysis completed on either a blended average for each customer (covering 84% of sales in 2021), with a regional average used for steelmaking facilities not covered (16% of sales).

## Materiality assessment

# APPROACH TO RESPONSIBLE BUSINESS

### RESPONSIBLE BUSINESS MATERIALITY MATRIX



The following materiality assessment of sustainability has been conducted through consultation between local CSR Committees and local stakeholders in Ukraine, where the Group's main operating base is located, determining key sustainability topics for the Group to focus its efforts on in each year. Contributors to this process include both internal and external stakeholders of the Group. The matrix presented here is reviewed annually by local management teams in Ukraine and the HSEC sub-committee of the Board of Directors.

#### Key to materiality matrix:

- Workforce Development related topics (for more information, see pages 26 to 41)
- Sustainable Environments related topics (for more information, see pages 42 to 54)
- Ethical Business related topics (for more information, see pages 55 to 62)
- Supporting Communities related topics (for more information, see pages 63 to 67)



# UN Sustainable Development Goals

The United Nations' Sustainable Development Goals ("UN SDGs") are a set of 17 interconnected ambitions that relate to improving the quality of life through tackling problems that blight the modern world today and pose a risk to our collective futures. These global challenges are: poverty, inequality, climate change, environmental degradation, peace and justice.

Through its approach to Responsible Business, Ferrexpo acknowledges it has a part to play in helping combat the issues addressed by the UN SDGs. Below are examples of how Ferrexpo's efforts in Responsible Business interact with the UN SDGs.

UN Sustainable Development Goal	Topic	Performance in 2021	For further information (brackets denote page numbers in this report)
	<p>Safety and employee health has always been of paramount importance to Ferrexpo, and the global Covid-19 pandemic brought this into sharp focus in 2020 and continued into 2021.</p> <p>Protecting the Group's workforce from the immediate effects of Covid-19 has not only been key to sustaining the Ferrexpo business throughout the pandemic, but the Group has also made efforts to sustain employees' mental health and wellbeing as Covid-19 has erected social barriers through social distancing that has been necessary to curb the spread of the virus.</p>	<ul style="list-style-type: none"> <li>- No fatalities in 2021 (2020: one).</li> <li>- Safety performance continues at a level materially below Ferrexpo's five-year trailing average, and lower than iron ore producing peers in Western Australia<sup>1</sup>.</li> <li>- Ferrexpo Humanitarian Fund launched with US\$15 million of approved funding<sup>2</sup> in response to Russia's invasion of Ukraine.</li> <li>- US\$3.5 million of funding approved for Covid-19 Response Fund.</li> <li>- 65% vaccination rate in employee workforce as of January 2022, representing a level twice that of the population of Ukraine.</li> </ul>	<ul style="list-style-type: none"> <li>- Workforce safety and wellbeing (28 to 31)</li> <li>- Workforce wellbeing (31)</li> <li>- Covid-19 response (32 and 33)</li> <li>- Appendix, Workforce Development (83 to 90)</li> </ul>
	<p>Ferrexpo prides itself on the level of training and development provided to its employees, both through its own training centre and through external providers.</p>	<ul style="list-style-type: none"> <li>- 99% of employees provided with annual training review in 2021 (2020: 86%).</li> <li>- 6,442 employees undertook training in 2021, equivalent to 78% of the Group's employee workforce (2019: 6,863 employees).</li> <li>- Equivalent of 18 hours of training provided per employee in 2021 (2020: 24 hours per employee).</li> <li>- 98 sponsored learners in 2021 (2020: 135).</li> </ul>	<ul style="list-style-type: none"> <li>- Training and development (38 to 40)</li> <li>- Workforce profile (27)</li> <li>- Appendix, Workforce Development (83 to 90)</li> </ul>
	<p>Equality is a fundamental human right and the advancement of equal rights is a benchmark on which to judge a company's corporate culture. Ferrexpo operates in an industry that is male dominated and is working hard to increase female representation throughout its business.</p>	<ul style="list-style-type: none"> <li>- Female representation in management positions increased to 20.1% (2020: 18.2%).</li> <li>- Female representation at Board level increased to 37.5% (31-12-2020: 16.7%).</li> <li>- External recognition for diversity and inclusion programme at HR Pro Awards ceremony in Kyiv in November 2021.</li> </ul>	<ul style="list-style-type: none"> <li>- Diversity, Equity and Inclusion (35 to 37)</li> <li>- Workforce profile (27)</li> <li>- Appendix, Workforce Development (83 to 90)</li> </ul>
	<p>In 2019, regulatory change in Ukraine made purchasing of electricity possible from individual suppliers of electricity, with the Group commencing purchasing of clean forms of electricity, such as hydroelectric and nuclear power, from 2020.</p>	<ul style="list-style-type: none"> <li>- 57% of the Group's electricity consumption sourced from low carbon sources in 2021 (2020: 22%).</li> <li>- Completion of the Group's 5MW solar power plant in July 2021. Plan to significantly ramp up renewables generation following successful trial.</li> </ul>	<ul style="list-style-type: none"> <li>- Climate change results (43 to 44)</li> <li>- Climate change strategy (45 to 46)</li> <li>- Pathway to low carbon production (47)</li> <li>- Appendix, Protecting Environments (91 to 98)</li> </ul>
	<p>Global warming is a critical concern for Ferrexpo, as well as the Group's stakeholders – for employees, communities, investors and governments alike. The Group is committed to achieving low emissions iron ore production through its activities that directly generate emissions (Scope 1), indirectly generate emissions (Scope 2) and emissions upstream and downstream of Ferrexpo's operations (Scope 3), which principally relates to emissions from steelmaking.</p>	<ul style="list-style-type: none"> <li>- 16% reduction in combined Scope 1 and Scope 2 CO<sub>2</sub>e emissions on a per tonne basis in 2021 (2020: 16% reduction), combining to provide a 30% reduction against the Group's baseline year of 2019.</li> <li>- Increase in Scope 1 emissions in 2021 (+11% on a per tonne basis) directly related to ramp up in mining activities ahead of Wave 1 expansion.</li> <li>- Developed first commercial contract for direct reduction pellets, which carry 49% saving for Ferrexpo in terms of Scope 3 emissions.</li> </ul>	<ul style="list-style-type: none"> <li>- Climate change results (43 to 44)</li> <li>- Climate change strategy (45 to 46)</li> <li>- Pathway to low carbon production (47)</li> <li>- Appendix, Protecting Environments (91 to 98)</li> </ul>
	<p>Ferrexpo operates in close proximity with the water cycle, through dewatering activities at its mines, use of water in processing iron ore and location adjacent to the River Dnieper.</p>	<ul style="list-style-type: none"> <li>- Water extraction from local water supply network remains at historically low level (below 1,000 megalitres) for third successive year, reducing water strain on the local community water supply.</li> <li>- Multi-year biodiversity project in River Dnieper – fish restocking project to improve river ecosystem (please see Case Study on page 53 for more details).</li> </ul>	<ul style="list-style-type: none"> <li>- Water section: page 51</li> <li>- Appendix, Protecting Environments (91 to 98)</li> </ul>

<sup>1</sup> Source: Government of Western Australia. Latest available period: 12 months to June 2021. [Link here](#) (accessed July 2022).

<sup>2</sup> Approved funding as of July 2022.

# SUPPORTING UKRAINE

**Supporting communities across Ukraine at this difficult time through the Ferrexpo Humanitarian Fund.**

On 24 February 2022, Russia began a military invasion of Ukraine, in a major escalation of the Russia-Ukraine conflict that began in 2014.

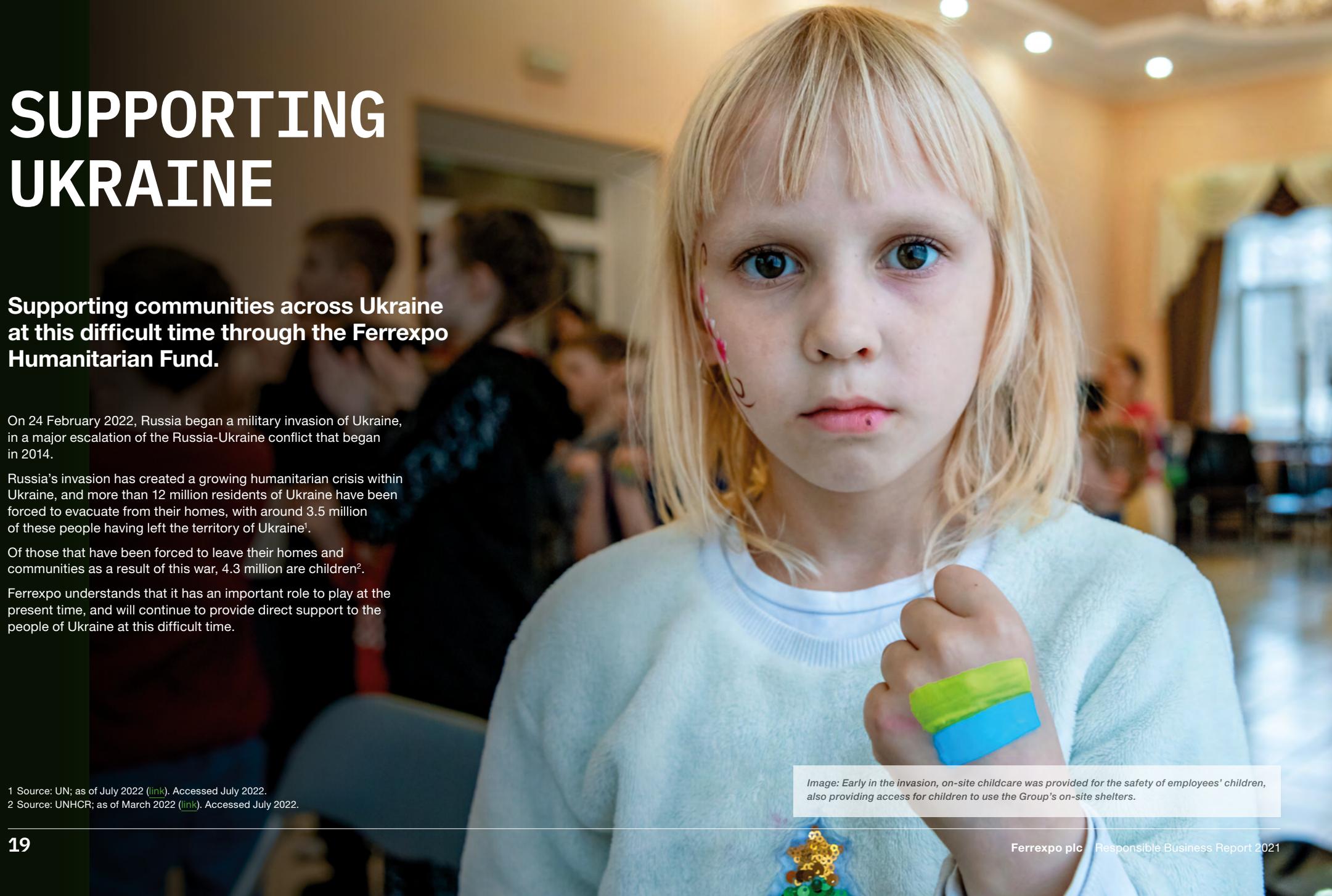
Russia's invasion has created a growing humanitarian crisis within Ukraine, and more than 12 million residents of Ukraine have been forced to evacuate from their homes, with around 3.5 million of these people having left the territory of Ukraine<sup>1</sup>.

Of those that have been forced to leave their homes and communities as a result of this war, 4.3 million are children<sup>2</sup>.

Ferrexpo understands that it has an important role to play at the present time, and will continue to provide direct support to the people of Ukraine at this difficult time.

1 Source: UN; as of July 2022 ([link](#)). Accessed July 2022.

2 Source: UNHCR; as of March 2022 ([link](#)). Accessed July 2022.



*Image: Early in the invasion, on-site childcare was provided for the safety of employees' children, also providing access for children to use the Group's on-site shelters.*

## Supporting our workforce

# PROVIDING STABILITY AND SUPPORT

Since the beginning of Russia's large-scale offensive into Ukraine in February 2022, the Group has been making every effort to support its workforce and their families.

Given the challenges presented by the war in Ukraine to the health and wellbeing of the Group's workforce, Ferrexpo's management team has conducted thorough risk assessments relating to the continued operation of the Group's assets, as well as adapting to operating as an organisation under martial law. As of the date of this report, the conflict in Ukraine has remained in areas remote to the Group's operations. The Group has seen approximately 6% of its workforce enter military service, with additional numbers departing on an extended leave of absence to remove themselves and/or loved ones to more remote locations.

Where possible, individuals have been transferred to remote working conditions, which was a step made easier through previous experience of the Group having up to 40% of its site-based workforce working remotely during the Covid-19 pandemic in 2020. Any employee working remotely for the Group has been provided with IT assistance to arrange a suitable working environment, with this applying predominantly to roles not directly related to pellet production. For those that cannot work remotely, the Group has moved to ensure the safe transportation to and from people's places of work. For the duration of the conflict, the Group has implemented a system to grant special permissions for individuals to take a leave of absence to help evacuate family members, if required, and then return to work.

*Image: Anna Voloshina, crane operator at FPM with her daughter Polina going to Ferrexpo's Childcare Centre.*



"At Ferrexpo, we understand our role at the present time, and we will have a role to play once the conflict subsides and Ukrainians are able to look forward to the future."

**Lucio Genovese**

Chair of Ferrexpo (Address at Annual General Meeting, June 2022)

## Supporting our workforce continued

For those remaining at Ferrexpo's production sites, the Group has implemented an electronic alert system for notifying individuals of air raids, which informs employees in the event of danger and directs individuals to relocate themselves to a bomb shelter. Those responsible for the safety of individuals in specific areas of the production process have collectively organised procedures to ensure continued production where it is possible to do so. As a result of Soviet-era legislation, the Group has existing bomb shelters at its operations, which have been recently refurbished and resupplied to provide for the wellbeing of workers forced to take shelter during an air raid, which can result in these facilities being occupied for several hours at a time. Training has also been provided to employees on how to behave during these emergency situations.

Support is also provided for the emotional wellbeing of the Group's workforce, with the provision of an on-site childcare facility (see Case Study opposite), a support hotline staffed by psychologists and the provision of yoga and meditation classes.



*Image: Sending messages of support to Ferrexpo-sponsored athletes attending the Tokyo Olympics in 2021.*



### CASE STUDY:

#### ON-SITE CHILDCARE CENTRE ESTABLISHED

Since the beginning of Russia's invasion, the Company opened a centre for employees' children aged from 2 to 17 years, with childcare available 24 hours a day, 7 days a week to ensure that children can continue to learn and play together, in a safe environment, despite the restrictions of the conflict. All childcare costs of this facility are fully covered by Ferrexpo, which includes three meals a day, and to date has been attended by 120 children. This facility is an example of the community that exists at Ferrexpo, with those providing childcare a mix of local teachers from kindergartens and schools, alongside employees of Ferrexpo that have volunteered to help. As part of their experience at this facility, children attend classes in Ukrainian, English, art and cookery, alongside sports activities, and training in emotional intelligence and other soft skills.



*Image: Classes for employees' children at Ferrexpo's on-site childcare facility.*

**CASE STUDY:****HELP FOR INTERNALLY DISPLACED PERSONS**

Throughout the war, it has become clear that one of the most basic needs for those fleeing the war is to have shelter and food as they either resettle in the communities surrounding Ferrexpo's operations in central Ukraine, or as they pass through, heading for a location further from the fighting. To date, Ferrexpo has sheltered over 2,000 internally displaced persons ("IDPs") from other regions of Ukraine and provided housing for those that have suffered from Russian aggression<sup>1</sup>. People are being accommodated in local hotels, recreation centres and dormitories, which the Group either manages directly or has close links with. IDPs are provided with all the things needed for a normal life, such as toiletries and basic clothing. Those passing through local communities as a result of Russia's aggression are provided with three free meals a day, medical care in the Group's medical unit, and psychological support.

For those wishing to remain in the local area, the Group is offering employment to those able to fulfil roles at the Group's operations, and to date, over 80 people have been employed by Ferrexpo in a variety of roles<sup>1</sup>, including drivers of light vehicles and truck drivers. Role-specific training is provided, under an abridged training programme where possible, to provide a clear understanding of Ferrexpo's systems and practices, enabling people to resume their careers quickly with Ferrexpo. Training is provided through the Group's Technical Expertise Centre, which offers training for roles, including: beneficiation product controllers, lab technicians, crane operators and firefighters.

<sup>1</sup> As of July 2022.



*Image: Hosting of internally displaced people at one of Ferrexpo's local guest houses.*

## Supporting our workforce continued



“From the very start of this invasion, our priority has been the safety and wellbeing of our workforce, their families and our wider communities.”

**Lucio Genovese**

Chair of Ferrexpo (Full Year Results announcement, April 2022)

In terms of the Group’s response to any emergency situation, the Group has a long-established “emergency rescue department”, as well as an on-site medical facility, which recently has been focused on the provision of Covid-19 vaccinations by local authorities. Thankfully, the Group has not experienced any such emergency scenarios as yet during the conflict, with fighting occurring in locations remote to Ferrexpo’s operations.

With significant disruption throughout Ukraine with people being displaced, jobs on hold and loved ones being called up to fight in the military, the Group has continued to pay salaries throughout the war, recognising the stability that this provides in these uncertain times.

The Group’s assets have operated in Ukraine for more than 50 years and therefore have a deep connection with its workforce and local communities, which Ferrexpo is looking to support through its dedicated Humanitarian Fund. For more details on the humanitarian work carried out in response to the war in Ukraine, see page 65.



*Image: Local residents visit the viewing platform above the Group's Poltava Mine.*

### CASE STUDY:

#### HELPING INDIVIDUALS' WELLBEING

The Group has established a series of online courses to help Ukrainians affected by the war to manage its impact on their mental health and wellbeing. Through online, open-access webinars, soft skills are taught to help to manage stress and the effect it can have on people’s emotions. Through helping people to communicate effectively at this difficult time, the Group aims to indirectly provide support to family members and other colleagues. Webinars offered to date have focused on the following topics: (1) emotional intelligence; (2) communication skills; and (3) stress management.

In addition, the Group has also provided free access to its Learning Management System, which provides training in the following areas:

- stress management;
- vertical leader development;
- leadership, engagement and impact tool kit;
- the art of feedback;
- the mastery of creating presentations; and
- emotional intelligence.



*Image: Alina Prestinska and Tatyana Kuznetsova, specialists in Human Resources, visiting Ferrexpo's Wellbeing programme.*

## Supporting communities

# A POSITIVE ROLE IN LOCAL SOCIETY

### Marking ten years of the Ferrexpo Charity Fund in 2021

Ferrexpo's operations in Ukraine have long held a close bond with local communities, ever since the establishment of the local community in 1960, which was built to help with the original construction of the Group's mine and processing plant. Since 2011, the Group has managed its role in supporting local communities through a combination of support via the Ferrexpo Charity Fund, or direct support provided by local subsidiaries. In ten years, the Group has provided over US\$30 million of direct financial assistance to local communities, including support for over 30 healthcare facilities and over 90 education projects, principally to help modernise local community infrastructure. Funding of the Group's charitable activities increased by 63% to UAH 153 million in 2021, reflecting increased support in light of the global Covid-19 pandemic and the continued success of investments in the Ferrexpo business. For more information on the Group's support for local communities, please see pages 63 to 67.

#### CASE STUDY:

### EVACUATION OF RELATIVES FROM CONFLICT ZONES

Early in Russia's invasion of Ukraine in 2022, as it became clear that certain areas were facing increased danger as a result of the war, the Group arranged for the evacuation of employees' children and other relatives from regions where it was deemed unsafe for people to remain. This evacuation effort lasted two weeks, and during this period, more than 200 children were transported to communities close to Ferrexpo's operations by rail and road. As part of coordinating this evacuation, the Group also established an electronic information and online ticket booking system.

#### CASE STUDY:

### PROVIDING EMERGENCY POWER TO LOCAL COMMUNITIES

Before the war in Ukraine, in May 2021, the Group stepped in to support communities affected by disruption to the local power supply network in villages close to the Group's operations. Ferrexpo was able to quickly respond to resolve this issue and to help recover power supply to a number of communities, which included the villages of Nova Galeschina and Yeristovka. In addition, the disruption to power supply had also affected the water supply since local pumps were no longer able to operate, and the Group also helped to restore water supply to affected communities. Furthermore, for those located in remote locations, individual power generators were purchased to cover the needs of these individuals and their families.

Finally, despite the Group not being responsible for this disruption, the Group stepped in to assist with the provision of replacement food items where possible, as well as financial assistance for individuals to source replacement items.

*Image: Community members at Nova Galeschina celebrating a village day festival, an event supported by Ferrexpo.*



#### CASE STUDY:

### CORPORATE VOLUNTEERING

Across Ukraine in 2022, people are looking to support their country however they can, with people volunteering for a range of activities. At Ferrexpo, a number of employees have joined the volunteer movement since the first day of the war, offering support such as helping those who seek shelter, and creating a safe environment for children and supporting all those in need. Ferrexpo volunteers are helping organisations handle the many challenges faced every day in getting food, clothing, counselling and accommodation to those that need it. Support has been provided through the collection of home textiles (mattresses, blankets, pillows, bed linen sets and towels) for IDPs living in the Group's hotels, recreation centres and dormitories, as well as food for the duration of each individual's visit.

Ferrexpo also has employees that have mobilised to fight Russia's invasion on the front lines. It is with regret that there have been fatalities amongst those mobilised to fight, and the Group is supporting the families of these individuals at this difficult time, as well as support for the families of those injured during the conflict.

Volunteers have also been critical to the running of Ferrexpo's on-site childcare centre, which aims to provide a safe and secure environment for children to come together to learn and play, with approximately 120 children attending this facility after it opened in early 2022. At Ferrexpo's accommodation that is housing IDPs, or in facilities supported by Ferrexpo, volunteers are helping to supply clothes, shoes, linens, beds and food to those that need it.

The collective spirit and remarkable resilience of the people of Ukraine is evident throughout the communities in which Ferrexpo operates.

*Ferrexpo employees volunteer to help at the Group's on-site childcare facility, which was opened in early 2022.*

## Supporting Ukraine (National level)

# THE IMPORTANT ROLE OF BUSINESS

### Company contributions to Ukraine's economy

As part of Ferrexpo's measures to support the Ukrainian economy, the Group contributed more than US\$35 million in corporate profit tax, including a prepayment of US\$15 million, to the government of Ukraine shortly after the war commenced<sup>1</sup>. The Group is also continuing to support the economy through other taxes and royalties, which rose by 180% in 2021 to US\$281 million, and was once again included in the Ukrainian Government's annual list of Top 100 Taxpayers for 2021.

In parallel, the Group has established a dedicated Humanitarian Fund in 2022, with US\$15 million of approved funding, which is aimed at providing comprehensive humanitarian support to communities in both Poltava and other regions of Ukraine. To date<sup>2</sup>, seven regions in Ukraine have been supported through this initiative, with efforts focused on supporting local medical facilities with medicines and personal protective equipment, as well as supporting local communities with fuel, food, vehicles and protective equipment such as helmets and body armour; please see page 65 for more details of this fund's activities.

On a local level, Ferrexpo provides support to the local authorities in the region where the Group operates. Funding for the Ferrexpo Charity Fund increased by 63% in 2021 to UAH 153 million, with the principal recipients of funding in 2021 including:

- Budgetary support for the local municipal council for social projects in schools, hospitals, sports facilities and local infrastructure.
- Additional support programmes for smaller settlements located close to the Group's operations at FYM and FBM.
- Material aid for individuals requiring social support, such as direct funding for regular food and care packages, typically being elderly residents of local communities.
- US\$3.5 million of approved funding for the Covid-19 Response Fund.

<sup>1</sup> As of April 2022.

<sup>2</sup> As of July 2022.



# OUR WORKFORCE

Protecting and developing each individual within Ferrexpo's workforce, through a safe and sustainable business model, whilst also promoting wellbeing.

The following section should be reviewed in conjunction with the supplementary information and data provided in the Appendices to this report (page 68 onwards).

## SAFETY FIRST

**0.41**

Achieved a lost time injury rate of 0.41 in 2021, representing the lowest full-year result for the Group since listing in 2007.

## SKILLED WORKFORCE

**2,065**

Total of 2,065 employees provided with skills training in 2021 (2020: 1,717).

## DIVERSITY (OVERALL)

**29.2%**

Overall proportion of women across the global Ferrexpo business (2020: 29.1%).

## DIVERSITY (MANAGERS)

**20.1%**

Increased the proportion of women in management roles to 20.1% in 2021, up from 18.2% in 2020.



Image: Vitaliy Kornienko, technical consultant at FBM, with decades of experience working across all three of Ferrexpo's operating entities (FPM, FYM and FBM).

## Workforce profile

# TARGETING ENGAGEMENT AND DIVERSITY

Through training programmes and developing the careers of its workforce, including both employees and contractors alike, the Group aims to create a positive culture in which individuals are proud to work at Ferrexpo. This is achieved through skills training, wellbeing support and a clear corporate identity.

At Ferrexpo, the Group's workforce in 2021 comprised of an average of 8,267 employees (2020: 8,664) and 2,149 contractors (2020: 2,256), with 95% of this workforce being based in Ukraine.

The Group prides itself on the diversity of its workforce, with more than 2,400 women employed across the Group, representing 29.2% of the global workforce. For more details on Diversity, Equity and Inclusion ("DEI") programmes within Ferrexpo, please see pages 35 to 37.

### Workforce overview

Ferrexpo's operations in central Ukraine are intrinsically linked to the communities situated in the local vicinity, with this relationship born in 1960 when the local city was constructed to help build the original mining and processing facilities. With close to 100% of Ferrexpo's employees in Ukraine being from Ukraine, and 96% of recruitment from local communities in 2021, the Group continues to work closely to develop and maintain this bond. Beyond Ukraine, the Group has logistics operations on the River Danube, as well as corporate and marketing offices in seven major cities around the world.

Training is important at Ferrexpo, and key to helping maintain an engaged and proactive workforce, with a significant proportion of

### TOTAL WORKFORCE

# 10,000

Ferrexpo's workforce comprises of more than 8,000 employees and more than 2,000 contractors.

### GLOBAL WORKFORCE

# Seven

Offices in seven major cities across the globe, helping serve Ferrexpo's global footprint of stakeholders.

### ENGAGEMENT SURVEY

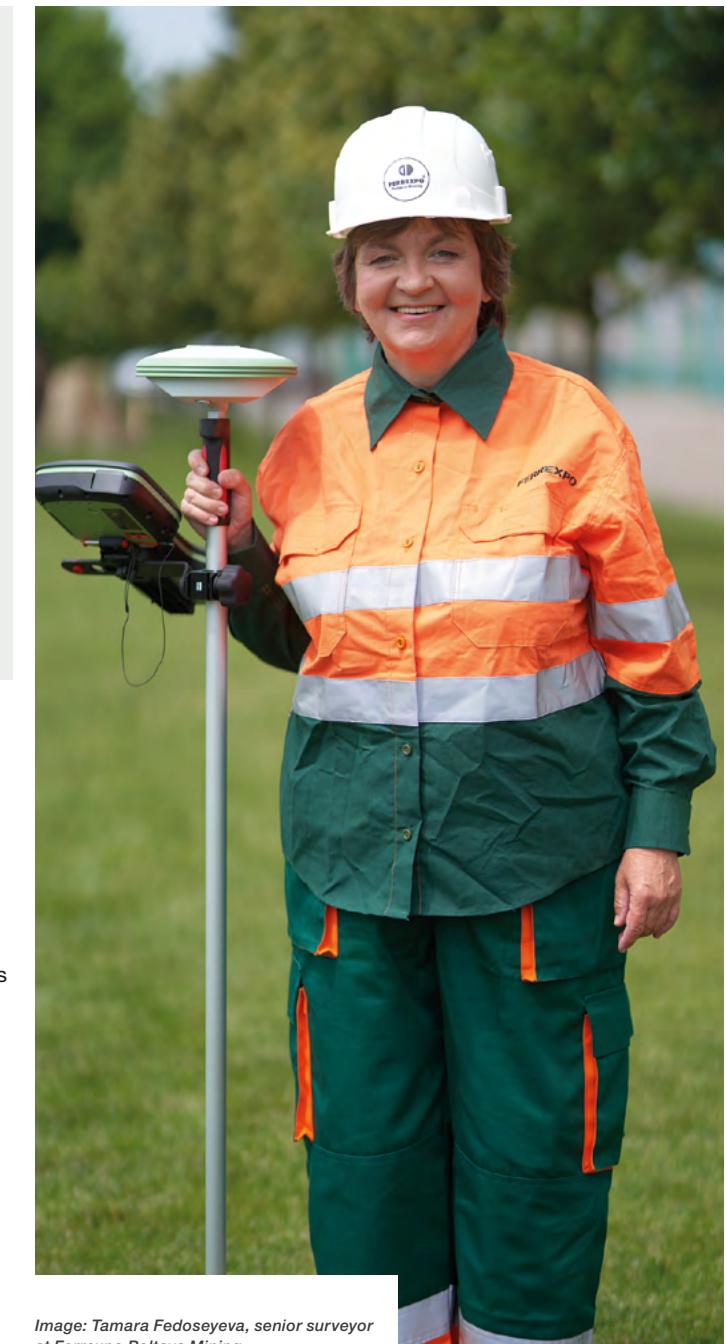
# 1,600

Results of latest employee engagement survey, with over 1,600 respondents, communicated to employees in 1H 2021.

### INAUGURAL DEI SURVEY

# 600

Following the appointment of the Group's first DEI Officer in 2021, inaugural DEI survey carried out with more than 600 participants.



*Image: Tamara Fedoseyeva, senior surveyor at Ferrexpo Poltava Mining.*

# Workforce safety and wellbeing

Ferrexpo places great importance on health and safety in and around its places of work, and the Group aims to promote industry best practice at the workplace, since the health and safety of workers should always be the first consideration in creating a place of work.

To encourage a culture of prioritising safety by every individual, the Group aims to also promote people's mental and physical health, whilst also pursuing the creation of modern workspaces that are free from accidents and occupational illness. Ferrexpo also aims to promote wellbeing of its workforce through practices that reduce the burden on workers and make it easier to carry out an individual's work, as well as ensuring that employees' health is a top priority; more information on worker wellbeing is provided on page 31.

The Group's health and safety training is designed to instil an awareness of potential hazards among workers, therefore reducing the risk and incidence rate of accidents in the workplace. Through repeated training, the Group aims to embed a safety-first culture that promotes reporting of incidents, regardless of whether anyone is hurt. In 2021, the Group's operations in Ukraine adopted a strategy to end injuries at all Ferrexpo entities under the "Vision Zero" programme. Despite the Group's focus on health and safety, nine LTIs took place during the reporting period of 2021 (2020: 17), and analysis of these incidents showed that they were primarily attributable to non-observance of health and safety requirements by employees.

## Creating safe workplaces

Ferrexpo is constantly looking to undertake initiatives to promote safer working conditions both for employees and contractors at its sites. In 2021, the Group implemented a risk-oriented approach in line with the requirements of the international standard ISO 45001. For that purpose, a safety committee was established to analyse individual safety incidents and to develop a corrective action plan to reduce future risks in the workplace.

Through this work, the Group has developed hazard maps and risk registers tailored for each department at its operations, with employees and contractors trained to utilise these materials to raise awareness and understanding of risks relating to safety, and to help ensure that new and emerging risks are quickly identified and reported.

In 2021, the Group also initiated its Work Safety Analysis Project, which is aimed at identifying, assessing and managing safety-related risks. Through this project, the Group has identified high-risk work activities, established relevant work permits for such activities, with these permits serving to outline the safest way to perform each activity. Behavioural safety audits are conducted by Ferrexpo's safety department on a regular basis to ensure compliance with safety standards, prevent incidents and mitigate risks relating to safety. In 2021, the Group completed 10,546 behavioural safety audits at its main operations in Ukraine. Each audit is carried out by members of the Group's senior management team and technical specialists, alongside Trade Union representatives (in accordance with local regulations). The process of conducting behavioural safety audits is designed to identify potential risks and eliminate them before safety incidents occur. This is achieved through helping individuals to understand the possible consequences of hazardous



*Image: Serhiy Fedorenko, crane operator at FYM, participant of Ferrexpo's annual "Best in profession 2021" contest.*



## Workforce safety and wellbeing continued

actions and conditions, thereby aiming to challenge an individual's attitude to labour safety standards and correcting working behaviours. A key element to this process is the personal conversation about safe methods of work that each audit facilitates with individual workers and teams.

Finally, in 2021, the Group's main operating subsidiary – Ferrexpo Poltava Mining ("FPM") – passed its certification audit for its health and safety management system, with this certificate valid until December 2023.

### Employee benefits

In 2021, the Group's medical insurance programme for employees was expanded, and now includes cover for life and critical illness insurance, as well as regular medical examinations and the provision of free medicines under the insurance programme.

For more information on health and safety performance in 2021, including detailed safety statistics, please see the Appendices section of this report (page 68) onwards.



*Image: Kira Abaza, separator in the Group's beneficiation plant (crushing department) at FPM.*



### CASE STUDY:

#### SAFETY INITIATIVES IN 2021

Numerous initiatives were implemented in 2021 to help reduce hazards in the work environment and prevent accidents:

- "Vision Zero" policy with target of eliminating accidents.
- In the Group's transport division, heavy trucks are now equipped with air conditioning to improve the working conditions and lower the number of road safety incidents.
- An overhaul of the crane in the railway shop in 2021 to create more comfortable conditions for operators.
- Upgraded ventilation in the pelletiser to reduce dust and improve the working environment.
- Reverse parking policy to reduce accidents.
- Clearer demarcation of storage areas in the beneficiation plant to reduce trip hazards.



*Image: Crane operators competing at Ferrexpo's "Best in Profession" annual competition.*



## CASE STUDY:

### MODERNISATION TO REMOVE INDIVIDUALS FROM HAZARDOUS ENVIRONMENTS

Through modernisation, the Group aims to remove individuals from hazardous environments, whilst also providing advanced training to help individuals to use new equipment and new production processes. Examples of such work carried out in 2021 include:

- In the pelletiser: a mobile power-driven high-capacity platform, capable of lifting 25 tonnes, was purchased in 2021, which is designed to assist in the transport of large electric motors.
- In the railway department: the purchase of modern rail-drilling equipment in 2021, to reduce the risk of injuries and increase the effectiveness of work carried out.
- In the maintenance workshop: a fully enclosed, automated lathe was purchased to remove operators entirely from this hazardous activity. The use of this type of equipment for the production of spare parts involves sharp, rotating elements, which has historically been an area of significant risk. Through the introduction of this equipment, the Group is also able to improve productivity and accuracy in producing spare parts.
- In the crushing department: the installation of a stationary jib at the primary crusher in 2021, which is an item of equipment that breaks down any oversized material before it enters the processing plant. Previously, the lack of such equipment required operators to stop the primary crusher, enter the feed zone for raw ore and manually break down any oversized material. The installation of this equipment therefore removes the necessity for individuals to enter this hazardous area. This equipment also removes the need for operators to temporarily halt the crusher when handling oversized material, and therefore helping to increase productivity of the crusher.

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## Workforce wellbeing

# PROMOTING A SUSTAINABLE WORKING BALANCE

Ferrexpo's Wellbeing Programme began in 2020 and the Group places great importance on health and wellbeing at its places of work, and aims to promote a positive working environment.

### Sustainable lifestyles

Through helping the Group's workforce to make healthy lifestyle choices, the Group aims to promote a work-life balance that is sustainable and leads to greater levels of job satisfaction. Initiatives within this approach include the provision of healthy nutritional options in the Group's canteens at its operations, as well as training initiatives with professional dietitians to help workers' families also benefit. Through sponsoring and supporting local sports facilities, such as modern, well-equipped gyms, community swimming pools, sports pitches and equipment for local rowing clubs, the Group hopes to create a lasting impact of people's overall health.

Additionally, the Group actively promotes commuting to work via bicycle, and has provided bike lanes and parking zones around the Group's production facilities to help facilitate those wishing to use this clean method of transport.

### Mental health and mindfulness

Ferrexpo is implementing initiatives to help employees to maintain high physical, psychological, mental health, to help engagement and focus, as well as reduce stress levels. This support is provided via a support hotline for employees staffed with qualified psychologists, and this service was expanded in 2021 to also cover family members.



### CASE STUDY:

#### INTEGRATING EMPLOYEE WELLBEING INTO EVERYDAY LIFE

Wellbeing initiatives have become a part of Ferrexpo's annual Family Day for employees and their families, with the Wellbeing station promoting the following activities in 2021:

1. Classes with professional dietologist on improving people's health and eating habits.
2. Providing access to a psychologist, enabling families to attend and discuss personal journeys and relationships.
3. Group classes on healthy eating, including fun interactive lessons on preparing smoothies.
4. Provision of a dedicated zone for relaxation, with 3D glasses for adults and children, to help participants release stress and tension.

## Covid-19: Managing health risks during a pandemic

# PROVIDING SUPPORT TO BOTH WORKERS AND LOCAL COMMUNITIES

In 2021, the focus of Ferrexpo's response to the global Covid-19 pandemic shifted from insulating workers and communities, towards achieving a high vaccination rate to lower transmission rates.

The negative impact of Covid-19 persisted into 2021, with communities around the world looking to improve vaccination rates in order to protect people from further waves of infection. In recognition of this shift, in 2021, Ferrexpo's on-site medical unit at FPM became a mass vaccination centre for both Ferrexpo's workforce and the citizens of local communities. The process, which is managed by the local government's medical department, achieved a high level of vaccination by January 2022, with 73% of Ferrexpo's employees at its operations in Ukraine having received a first dose of the Covid-19 vaccine, and 65% having received two doses<sup>1</sup>. By comparison, the average vaccination rate in Ukraine at the same time was 33%<sup>1</sup>, and therefore this action has helped the Group to continue operating despite the continuing transmission of Covid-19 and associated restrictions on society. In total, more than 12,500 vaccinations have been administered to Ferrexpo employees and contractors, with additional vaccinations for members of local communities (as of January 2022).

Ferrexpo continues to monitor the situation in relation to any instances of Covid-19 in the region where it operates, either in its workforce or local communities, and the Group aims to respond appropriately to the needs of medical institutions in both the Poltava region where it operates, as well as throughout Ukraine. At the outset of the global Covid-19 pandemic in 2020, the Group moved to allocate US\$2.5 million to protect people from the initial effects of Covid-19, and in 2021, the Group increased this level of funding by a further US\$1 million to continue to support medical institutions in their work to protect communities. Under this initiative, requests are made by local hospitals to the Group's Covid-19 Response Fund, which forms part of the Ferrexpo Charity Fund, with requests typically made for the purchase of equipment and medicines.



*Image: Ferrexpo provided its medical centre as a vaccination hub for local authorities in 2021.*

### VACCINATIONS ADMINISTERED

**12,500**

More than 12,500 vaccinations administered at Ferrexpo's on-site medical facility<sup>1</sup>.

### FIRST DOSE VACCINATION RATE

**73%**

First-dose vaccination rate in Ferrexpo's local workforce in Ukraine<sup>1</sup>.

### DOUBLE DOSE VACCINATION RATE

**65%**

Two-dose vaccination rate in Ferrexpo's local workforce in Ukraine<sup>1</sup>.

### WIDER UKRAINE VACCINATION RATE

**33%**

For comparison, double vaccination rates across Ukraine at the same time were approximately half those seen at Ferrexpo's operations.

<sup>1</sup> As at January 2022.

## Covid-19: Managing health risks during a pandemic continued

Specific Covid-19 related initiatives in 2021 included the continued support for medical institutions of the region through the provision of critical equipment, which has helped to significantly support patients during the pandemic. For hospitals in local cities, Ferrexpo has met the needs of these large facilities through the donation of key items such as cryogenic cylinders, ventilators, dual-channel infusion kits, masks for non-invasive ventilation and oxygen masks.

Aside from fighting the impact on those infected with Covid-19, Ferrexpo's goal is to also slow the spread of this virus in local communities, with help provided in the form of personal protective equipment, antiseptic materials and Covid-19 tests. For example, in 2021, the Group provided approximately 4,000 protective suits (overalls) to local hospital staff, the use of which has helped to ensure the safety of medical personnel and patients undergoing treatment.

Beyond the Group's efforts to combat Covid-19, the Group's medical facility provides medical support to employees and contractors, with 5,636 regular medical checks of personnel (2020: 2,883), with this increase related to high levels of remote working in 2020 due to the global Covid-19 pandemic.



*Image: Delivery of medical aid as part of Ferrexpo's Covid-19 Response Fund.*

For safety reasons, the Group also conducts regular testing for drug and alcohol use at its operations in Ukraine, with 160 such cases identified during the year (2020: 115), following more than 500,000 tests carried out in each year. Individuals returning a positive sample for either drugs or alcohol are considered for the Group's rehabilitation scheme, whereby participants in this programme are offered counselling and educated around the risks associated with substance abuse.

The Group can confirm that there were no recorded incidents of occupational disease at its operations in 2021 (2020: none).

As an example of a specific aspect of the Group's support for local medical institutions, at the request of the intensive care department at a hospital in Kremenchuk city, the Group supplied a modern Citroen Jumper ambulance, with this class of ambulance designed to provide a range of services to patients, as well as being able to access remote rural areas. The Group recognises the importance of prompt medical care, and therefore we will always seek to help medical institutions to provide this to local communities.

### CASE STUDY:

#### LEADING FERREXPO'S MEDICAL CENTRE

Dr. Iryna Rudometkina has been managing Ferrexpo's medical unit since 2013 and has recently been on the front line for the Group's response to Covid-19, as well as the Group's provision of support for employees and refugees during the Russian invasion of Ukraine in 2022. Reflecting on the efforts undertaken in 2021, and to date in 2022, she comments: "the last two years have been difficult for doctors, and it is not becoming easier. We need additional support to deal with the challenges we face today, and Ferrexpo is helping to provide this assistance".

Ferrexpo's medical facility is supported by the Group in the purchasing of modern equipment, with this facility being a key component in the Group's efforts to combat local Covid-19 infection rates. Vaccination rates in early 2021 were low, and through the provision of vaccines – whereby each individual can select from the vaccines that are available in Ukraine – nearly 6,000 workers at Ferrexpo's operations had received a double vaccine as of January 2022, representing a significantly higher vaccination rate than other parts of Ukraine.



*Image: Dr. Iryna Rudometkina, Head of Ferrexpo's Medical Centre.*

## Providing employment

# HELPING TO DEVELOP CAREERS

Ferrexpo is one of the largest employers in Poltava region of central Ukraine, with the Group employing approximately one in every 25 working people in the region (representing 4.2% of the number of full-time employees in Poltava region, taking into account both direct and indirect employment). Approximately 60% of the Group's employees at its operations in Ukraine either live in, or live close to, the main community located immediately adjacent to Ferrexpo's operations, and therefore the Group has a link to the wellbeing of almost every family in this city. As the largest employer in the area, Ferrexpo has helped to create work for more than 3,000 self-employed entrepreneurs in the city.

In terms of fair pay, the average salary at Ferrexpo is approximately twice the average salary in the Poltava region, reflecting the highly skilled and professional nature of the Group's workforce, which is designed to help Ferrexpo's employees enjoy a high standard of living and wellbeing.

In order to remain a leading employer in Ukraine, the Group constantly monitors the labour market and recognises the values and dignity of each individual. Through promoting tolerance, understanding and mutual respect among the Group's workforce, Ferrexpo aims to encourage each person to develop to their full potential. Through a diverse workforce, Ferrexpo's corporate culture is strengthened by fostering accountability, initiative, decency and continuous improvement. Furthermore, the Group has policies in place that prohibit any discrimination on the basis of race, religion, gender, marital and parental status, sexual orientation, gender self-determination and age.

In recruiting new team members, the selection of employees is based on the principle of equal opportunities and non-discrimination, with recruitment managed centrally by specialists at the Group's Recruitment Centre.

For more information on the training provided in 2021, please see the Appendices section of this report (page 68 onwards).



*Image: Artem Sintyuk, talent development manager at the "Welcome to Ferrexpo" Centre.*

## Diversity, Equity and Inclusion

The Group understands the importance of the principles of Diversity, Equity and Inclusion (“DEI”) and since 2020, Ferrexpo has been implementing a 360-degree DEI strategy, with a specific focus on the principles of inclusion and gender equality, during this initial implementation phase. Following on from this initial work, in 2021, the Group continued to invest in developing inclusivity, promoting gender equality, and reducing the prevalence of stereotypes in both the workplace and beyond.



The main goal of this position is to create a supportive and inclusive work environment for employees.”

**Lubov Kozyura**

Diversity & Inclusion Leader at Ferrexpo



As an international company, diversity and inclusiveness are essential parts of Ferrexpo's strategy to develop its workforce. In conducting this work, Ferrexpo has adopted an integrated approach, and has achieved significant results already, which have included the following:

- In 2021, Ferrexpo became the first company in Ukraine to participate in the DEI study of the level of inclusion within businesses, called “Riven”. This annual research is intended to help companies to self-diagnose DEI-related issues and to help establish a means to improve and develop as an organisation. In this study, Ferrexpo achieved a score of 66.8 out of 100, corresponding to a satisfactory result in the 2021 review. The intention is to repeat this survey annually going forward, to establish a clear understanding of DEI over time, with efforts in 2022 dependent on the war in Ukraine and the Group's available resources.
- Ferrexpo's progress in DEI was acknowledged by an award on Diversity and Inclusion Excellence at the “HR Pro” Awards in Kyiv in November 2021. The “HR Pro” Awards is an all-Ukrainian annual event for awarding HR professionals, and the main objective of this award is to celebrate the collective efforts of a team as well as an individual's achievements in raising the level of professional practices in Ukraine. Entries for this award were evaluated by more than 30 leading representatives of the Ukrainian HR community from 15 industries, and the independence of the assessment is confirmed by the international audit company KPMG.



PARTICIPANTS IN THE  
“FE\_MUNITY” WOMEN IN  
LEADERSHIP PROGRAMME

2020 PARTICIPANTS

**73 women**



2021 PARTICIPANTS

**86 women**



NET PROMOTER SCORE

**98%**

By the participants in  
the 2021 programme

## Diversity, Equity and Inclusion continued

► Scan me



## ACHIEVEMENTS IN 2021

Introduced

### Gender-balanced recruitment

And interviews prohibiting questions regarding personal plans, marital status, marital responsibilities, plans for pregnancy or child care.



**100 Leaders**

Finished the school of inclusiveness.



**3**

Female electric and gas welders.



**100**

Local teenagers advanced their knowledge of gender bias and approaches to its elimination by participating at the Stem Streamers Quest project.

Increased the number of women on the

### Board of Directors

Of the Company by two in 2021.



Implemented

### Diversity KPIs



**20.1%**

Proportion of women in management positions, up from 18.2% in 2020.

**159**

Women were trained in the educational platform "Fe\_Munity" Women in Leadership Programme to date.

**4**

Female truck drivers.



FPM's first female

### Chief Surveyor

## Diversity, Equity and Inclusion continued



### Implementing a policy on preventing domestic violence

Ferrexpo is constantly working on the improvement of the Company's internal policies and practices aimed at achieving sustainable development goals and improving the business environment. In 2021, Ferrexpo joined the United Nations' global campaign titled "16 Days Against Gender-Based Violence", which was held across November and December 2021, with the purpose of drawing attention to the issue of domestic violence, and helping to prevent this problem in society. The Group's anti-violence policy is designed to help lay the groundwork for systematic action in society, which will facilitate positive change for people in the local communities where Ferrexpo operates.

In order to support employees that may be subject to any form of domestic violence, Ferrexpo has a permanent telephone hotline for psychological support, which offers free consultancy from lawyers, as well as providing medical treatment for those that may need it.

### Equal opportunities for all

At Ferrexpo, one of the Group's DEI initiatives is to create a supportive culture for those with disabilities, through projects such as flexible working schedules, including remote operation, tailored training for any employees with disabilities, and a scholarship programme at the National Technical University "Dniprovska Polytechnic" in Dnipro, central Ukraine.

As of 2021, 4.4% of the Group's employee workforce in Ukraine has a registered disability (2020: 4.3%), meeting a requirement under local legislation. In 2021, 11% of employees with a registered disability passed training on health and safety, fire safety and software skills.

For more information on DEI and diversity statistics for the Group, please see the Appendices section of this report (page 68 onwards).

## Training and development

# INVESTING IN THE FUTURE

The Ferrexpo Group has a workforce of more than 10,000 people, with a significant proportion of those in Ukraine having worked with the Group for more than five years. Through offering training and development to its people, the Group aims to develop a strong connection with its workforce.

Through the Group's human resources department, the Group was able to train 6,442 employees in 2021 (2020: 6,863 employees), with a strong focus on safety and skills training, with these two topics representing a combined 78% of the training completed in 2021 (2020: 79%). The Group does not only focus on its employees, since the training of contractors, who conduct work in the same areas and often on the same tasks as employees, is of equal importance for maintaining high safety practices and labour standards. As such, in addition to the training outlined above, the Group trained 931 contractors in 2021 (2020: 490), representing 43% of the contractors present at Ferrexpo's operations in 2021 (2020: 22%).

Ferrexpo also believes in providing training throughout an individual's career, with examples of training initiatives for those beginning their development journeys provided over the page. In 2021, the Group had 98 sponsored learners at its operations (2020: 135), largely comprising of apprentices and supernumeraries, and offers a range of programmes to help new starters join Ferrexpo and develop their careers.

	2021	2020	% Change
<b>Training provided across Ferrexpo in 2021</b>			
Number of employees who have an annual training/development review	8,158	7,434	+10%
% of employees who have an annual training/development review	99%	86%	
<b>Number of employees that undertook training</b>			
Number of employees that undertook safety training	3,426	4,068	(16%)
Number of employees that undertook skills training	2,065	1,717	+20%
Number of employees that undertook other functional training	951	1,078	(12%)
Total number of employees that undertook training	6,442	6,863	(6%)
<b>Number of workers and administrators trained</b>			
Number of specialists trained	3,091	3,924	(21%)
Number of managers trained	2,396	2,252	+6%
<b>Number of contractors that undertook training</b>			
Number of contractors that undertook safety training	566	242	+134%
Number of contractors that undertook skills training	217	241	(10%)
Number of contractors that undertook other functional training	148	7	+2,014%
Total number of contractors that undertook training	931	490	+90%
<b>Total training expenditure related to health and safety training for employees (US\$)</b>	<b>249,654</b>	<b>180,211</b>	<b>+39%</b>



## Training and development continued

The Group aims to provide training at every stage in an individual's career at Ferrexpo, helping them to progress and develop as individuals, which helps the Group to develop a strong link with each individual. Below are examples of projects implemented to help those starting their careers, to projects specifically aimed at promoting topics such as diversity and leadership.

Presented here are a range of examples of training offered by the Group to existing and future employees starting their careers.

### CASE STUDY:

#### TRAINING FOR FUTURE SENIOR LEADERS

Further into an individual's career, the Group provides training in the form of the Business Leadership Programme, the Management Training Programme and the "Fe\_Munity" Women in Leadership Programme, which are all targeted at identifying talented individuals that represent the future leadership of the Ferrexpo business. These programmes include training modules on strategic leadership, project management, team leadership and public speaking, with over 30 individuals enrolled in the Management Training Programme in 2021 alone. More details on the "Fe\_Munity" Women in Leadership Programme, which is specifically aimed at future female leaders of the Ferrexpo business, and other DEI programmes, can be found on pages 35-37 of this report.

### CASE STUDY:

#### FOREMAN SCHOOL 2.0

The Foreman School programme is a one-year development course, which is designed to serve as a first stage for employees to gain experience in leadership for the first level of management roles at Ferrexpo. Following consultation with participants and specialists in training, the original "Foreman School" was updated in 2021 and re-launched as "Foreman School 2.0" with an increased focus on providing qualitative training in applied roles, training specific to management technique, as well as personal development training to promote the values that represent Ferrexpo's corporate culture.

Over 100 employees took part in the first intake for this training programme between April 2021 and February 2022, with a total of 154 individuals having now completed this programme. As part of the Group's modern approach to training, candidates undertake training in soft skills such as effective communication, emotional intelligence and time management, and are also provided with a professional coach to help career development opportunities, with over 50 individual coaching sessions held to date.

*Image: Maria Nikolaeva, surveyor at FYM.*



### CASE STUDY:

#### DIGITAL EDUCATION – LEARNING MANAGEMENT SOFTWARE ("LMS")

Continuing the theme of adopting a new approach to training employees in soft skills, and in order to embrace the needs of employees that are either working remotely, or looking to study outside of core business hours, in 2021 the Group launched a new digital software platform for online training. In partnership with external provider "LMS Moco", the Group now provides employees with online courses for both hard and soft skills training, enabling employees to learn in a variety of locations, with a mobile version available for use on smartphones. Training modules are provided in topics such as presentation skills, stress management and the art of feedback, with 304 employees utilising this platform in the first year of implementation.

Over time, the Group intends to increase the number of online courses that are provided for both professional and soft skills, given that this form of learning is not constrained by class sizes, with many hundreds of employees able to take courses in parallel. This programme is intended to aid personal development within the Group's workforce as well as helping to implement modern technologies for the future growth of the Ferrexpo business.

*Image: Local schoolchildren invited to tour Ferrexpo's processing plant.*



► Scan me



## CASE STUDY:

### HELPING STUDENTS TO START THEIR CAREERS

The Group understands that training of the next generation of Ferrexpo's workforce begins at school and therefore engages with local schools and universities, to help provide relevant and modern training to the future leaders of the Group. This is in the form of engaging with a local school (School Number Five) to provide a study programme specific to the Ferrexpo business, where students aged between 15 and 21 can visit Ferrexpo's operational sites, study topics relevant to a modern mining company and take cognitive tests to determine potential professional career paths for each student. The Group is proud to support students wishing to enter further education, providing a scholarship to a local university

in Dnipro in 2021, as well as welcoming 98 interns and other sponsored learning positions to the Group's operations (2020: 135 positions). The Group's main partners for these projects include the following educational centres in local communities: Polytechnic College of Kremenchuk National University, MV Ostrogradsky University, the Higher Vocational Mining and Construction School, and the Vocational School Number 26.

For those wanting to enter into careers in a specific trade, the Group operates the Dual Education programme whereby students can combine their studies with on-the-job learning. The Group works with its educational institutional partners for those wishing

to commence careers in fields such as welding, mechanical engineering, electrical engineering and operators of heavy equipment such as cranes, providing opportunities for students in these areas whilst they study the technical aspects of their chosen profession. In 2021, the Group accepted 62 students through this training programme, with over 45% going on to take up offers for professional contracts with Ferrexpo. As part of this project, a total of 40 of Ferrexpo's employees acted as mentors for students, helping to provide a practical understanding of their chosen career path.

## Employee engagement

# ENGAGING VIA EFFECTIVE COMMUNICATION

At Ferrexpo, employee engagement is achieved through effective strategies that are designed to create a positive work culture, which in turn helps to reduce staff turnover, increase productivity, and build stronger customer relationships. Examples of engagement platforms at Ferrexpo's operations in Ukraine include the following:

- social media channels (Telegram, Facebook and LinkedIn);
- email bulletins and “News Digest”;
- monthly printed corporate newspaper “Gornjak”;
- local Radio Stations;
- local TV video channels (“GOK TV”);
- face-to-face townhall meetings;
- training and development initiatives;
- corporate volunteering; and
- corporate engagement activities: Metallurgist Day, Family Day, Ideas Bank (see Case Study opposite for more details).

In order to ensure that the Group continues to engage effectively with its workforce, Ferrexpo conducts a biannual survey to monitor engagement levels, with the results communicated to workers following the conclusion of this process. The latest survey was completed in late 2020 and communicated to stakeholders at various events in 2021. This survey involved responses from over 1,600 employees of the Group's operations in Ukraine and international offices. Responses received were communicated to individual teams by line managers, as well as through a townhall meeting in Ukraine with Independent Non-executive Director Vitalii Lisovenko, who is the Board's appointed representative for employee engagement.



### THE GROUP'S IDEAS BANK

# 407

Ideas received from employees in 2021 (2020: 318).

### ENGAGEMENT SURVEY COMPLETED

# 1,600

Latest employee engagement survey, with over 1,600 respondents, communicated to employees in 1H 2021.

### IDEAS BANK ECONOMIC BENEFIT

# US\$10<sup>M</sup>

Estimated total economic benefit on implemented ideas since inception in 2016.

### EMPLOYEES PROVIDED WITH ANNUAL REVIEW

# 99%

Over 8,000 employees provided with an annual career development review in 2021, up from 86% in 2020.

### CASE STUDY:

#### IDEAS BANK – ENCOURAGING INNOVATION

Ferrexpo constantly seeks to modernise and improve its operations and management of its business, and encourages its workforce to use their expertise to promote initiatives to achieve this goal. Through the Group's ‘Ideas Bank’, the Group aims to improve its systems to improve safety and productivity, whilst also enhancing workforce engagement through listening to the Group's own in-house expertise. This process is managed by the Group's Project Management Office at its operations in Ukraine, with this programme providing a platform for over 400 proposals from more than 100 employees in 2021. The Ideas Bank benefits from being open to employees throughout Ferrexpo's operations and therefore receives proposals for a wide variety of business areas. Any ideas that are adopted become part of the Group's Business Improvement Programme. The authors of ideas assessed to be the best proposals each year are rewarded appropriately.

An example of one such idea is the one proposed by Oleksandr Listopad, Head of Repairs in Crushing and Beneficiation Plant (pictured below), who submitted a proposal in 2021 to reduce maintenance downtime for specific equipment within the Group's processing plant, with annual savings estimated to be in the region of US\$350,000.



# PROTECTING ENVIRONMENTS

Through a positive interaction with the natural environment, Ferrexpo believes it can develop lasting and sustainable relationships with all of its stakeholders.

The following section should be reviewed in conjunction with the supplementary information and data provided in the Appendices to this report (page 68 onwards).

## EMISSIONS REDUCTION

**16%**

Further 16% reduction in greenhouse gas emissions in 2021 (combined Scope 1 and 2, unit basis).

## CARBON TARGETS

**30%**

In October 2021 the Group announced its inaugural carbon targets to reduce emissions by 30% by 2030.

## SUSTAINABLE WATER USE

**98%**

Water recycling in the Group's processing plant results in 98% of process water being reused.

## BIODIVERSITY

**7,000**

Introduction of c.7,000 native species of carp into the River Dnieper in 2020 and 2021 to help combat algal blooms.



*Image: Local School Number 3, which the Group supports through the Ferrexpo Charity Fund.*

## Climate change footprint

# CLEAR THINKING ON DECARBONISATION

Climate change is a major focus in societies around the world today, with efforts underway to lower emissions of greenhouse gases throughout everyday life. In this section, Ferrexpo's greenhouse gas emissions footprint is explained, alongside a pathway to low carbon production for the four main sources of emissions, which collectively contribute 95% of Ferrexpo's total emissions (Scope 1, 2 and 3).

The following section outlines the Group's greenhouse gas emissions ("GHG") footprint, which principally relates to emissions for carbon dioxide, but also includes emissions of other greenhouse gases, such as methane ( $\text{CH}_4$ ) and nitrous oxide ( $\text{N}_2\text{O}$ ), with emissions presented on a carbon dioxide-equivalent ( $\text{CO}_2\text{e}$ ) basis.

### Inaugural carbon targets

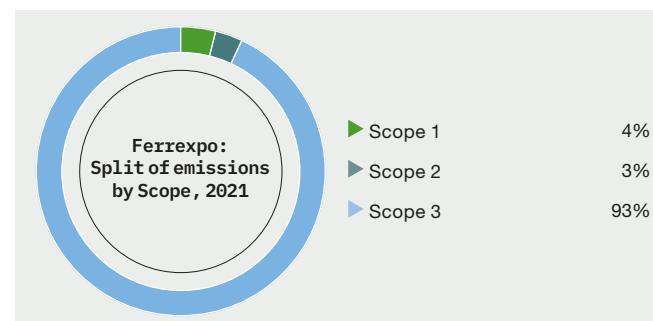
The Group understands the importance of companies moving to tackle climate change, and in October 2021, the Group announced its inaugural carbon targets of: (1) a 30% cut in greenhouse gas emissions by 2030 (Scope 1 and Scope 2 combined, unit of production basis), as well as (2) a goal of achieving net zero production by 2050. These targets bring Ferrexpo into line with its peer group, with the majority of peers setting targets in the region of a 30% reduction by 2030. The Group's net zero ambition is also believed to be in line with the majority of national government targets.

The Group's existing targets, as outlined above, are viewed as inaugural targets that the Group will be able to review over time as it completes its process with independent environmental consultants Ricardo plc, who are conducting a detailed review of Ferrexpo's climate change footprint and net zero pathway. The Group intends to publish a standalone climate change report later in 2022 outlining the results of this work.

<sup>1</sup> Scope 3 unit figures are restated to include concentrate in the denominator, making them comparable to Scope 1 and 2 figures. (Annual Report Scope 3 figures presented on basis of pellet production only.)

	2021	2020	YoY change
<b>► Emissions (<math>\text{CO}_2\text{e}</math>, kilotonnes)</b>			
- Scope 1	649	580	+12%
- Scope 2	404	675	(40%)
<b>Subtotal (FXPO operations)</b>	<b>1,053</b>	<b>1,255</b>	<b>(16%)</b>
- Scope 3	14,362	14,474	(1%)
<b>Total</b>	<b>15,415</b>	<b>15,730</b>	<b>(2%)</b>
Biofuels	10	13	(24%)
<b>► Footprint (<math>\text{CO}_2\text{e}</math> kg/t)</b>			
- Scope 1	57	51	+11%
- Scope 2	35	59	(40%)
<b>Subtotal (FXPO operations)</b>	<b>92</b>	<b>110</b>	<b>(16%)</b>
- Scope 3 <sup>1</sup>	1,254	1,270	(1%)
<b>Total</b>	<b>1,346</b>	<b>1,380</b>	<b>(2%)</b>

Note: information presented in the table above for 2020 has been amended from prior reporting as a result of the external assurance process completed in 2022, with a summary of this work provided on page 94, and in detail on the Group's website. Data in the above table is presented on the basis of total tonnes of production, including both pellet and commercial concentrate.



### Scope 1 (direct) emissions

Ferrexpo's Scope 1 emissions, which relate to activities directly controlled by the Group, are principally produced through the consumption of diesel (principally in mining), natural gas (principally in pelletising) and gasoil consumption in the Group's inland waterway operations on the River Danube. Collectively these three activities represent 98% of the Group's Scope 1 emissions, with the remaining 2% coming from 15 different consumables that are used throughout Ferrexpo's operations. An overview of the factors affecting Scope 1 and Scope 2 emissions is provided in the appendices on page 92.

In respect of lowering Scope 1 emissions, the Group has identified a pathway to low GHG emissions in its mining operations through the adoption of battery technology in the Group's haul trucks, alongside increasing the usage of electric-powered excavators, which the Group has had in operation for more than ten years. The Group is also evaluating the installation of a trolley-assist system at its mines to enable trucks to ascend haul ramps using electricity, and this is a project discussed in detail on page 29 of the Group's 2021 Annual Report and Accounts.

The Group's pelletising operations, which involve a process of heating green pellets to 1,300°C, are currently fuelled by a combination of natural gas and sunflower husks, with the latter representing an abundant biofuel due to the sizeable sunflower oil industry in Ukraine. In 2021, the Group was able to substitute the equivalent of 18% of the energy consumption in the pelletiser with sunflower husks (2020: 25% substitution), which reduces both the Group's reliance on natural gas as well as reduce the Group's Scope 1 emissions footprint (since biofuels are reported separately under the GRI framework). The level of sunflower husk substitution varied in 2021 as a result of the Group trialling production of its latest pellet type – direct reduction pellets – and it is the Group's intention that this higher level of substitution will resume as the operating teams increase their understanding of producing this particular pellet type.

## Climate change footprint continued

In the long term, the Group intends to adopt the use of green hydrogen in its pelletiser, which has the potential to eliminate more than 40% of the Group's Scope 1 emissions (2021 breakdown). As part of this process, the Group is planning to construct a three megawatt ("MW") electrolysis plant at its operations to begin trials of hydrogen use.

In 2022, the Group is in the process of developing a bespoke net zero pathway with environmental consultants Ricardo plc, with more details of this project provided on pages 45 to 49 of this report.

### Scope 2 (indirect) emissions

The Group's Scope 2 emissions solely relate to the consumption of electricity<sup>1</sup>, which is predominantly utilised in the Group's processing operations, where the Group crushes and beneficiates iron ore from its mines into high grade concentrate.

Deregulation in Ukraine since 2018 has enabled the Group to commence its clean power purchasing strategy whereby it selectively buys electricity from producers of power from nuclear, hydroelectric and other forms of clean electricity. The Group's overall consumption of clean power increased to 57% of the total at its operations in Ukraine (2020: 22%), with this increase reflecting the maturing market for electricity sales in Ukraine. Over time, the Group intends to increase this proportion of clean power purchasing, and will look to secure long-term agreements with power producers, if regulations in Ukraine permit.

The Group is also investigating the ability to generate its own clean power at its operations in Ukraine. In 2021, the Group built and commissioned a 5MW pilot solar power plant to test the effectiveness of this form of power generation at its location in central Ukraine. Following a successful trial since implementation, the Group is planning to expand this project to 20MW, with the timing of construction to be dependent on the current conflict in Ukraine.

### Scope 3 (value chain) emissions

The Group's Scope 3 emissions relate to the upstream and downstream activities related to the production of iron ore products. Examples of upstream activities include employee commuting, well-to-tank deliveries of key consumables (such as diesel and natural gas), and emissions associated with the creation of tyres and bentonite used in the creation of Ferrexpo's iron ore pellets. Downstream activities include the transport of iron ore products to the Group's customers via rail and sea, and the subsequent conversion of iron ore into steel, with these downstream activities accounting for 98% of the Group's Scope 3 emissions estimate for 2021 (2020: 98%). A full breakdown of the Group's Scope 3 emissions calculation is provide in the Appendix (page 93).

Looking forward, there is a clear shift underway in the steel value chain towards low-emissions steelmaking, with zero-emissions steel referred to as Green Steel. Ferrexpo understands the importance of climate change and the need to reduce emissions for the benefit of

future generations, and to remain competitive in the global iron ore market. In order for Ferrexpo to remain relevant in tomorrow's world, constituents of the steel value chain will need to align themselves towards products that are relevant to low carbon forms of steelmaking. As of today, there are a limited number of pathways to producing Green Steel, and direct reduction iron ore pellets represent one such pathway, with a steel producer in Sweden creating the world's first Green Steel from direct reduction pellets in the summer of 2021<sup>2</sup>. The production of Green Steel is made possible through the conversion of iron ore to steel using green hydrogen and subsequently clean electricity in an electric arc furnace (rather than a blast furnace, which is typically coal-powered). As a result, direct reduction pellets carry a 49% lower carbon footprint than blast furnace pellets, thereby providing a significant saving to Ferrexpo's Scope 3 emissions footprint – see pages 15-16 for more details on this particular method of steelmaking.

The Group intends to establish a Scope 3 emissions reduction target, once the Group has greater clarity on the production of direct reduction pellets, as well as re-establishing access to the seaborne market following Russia's invasion of Ukraine in 2022, since the markets for direct reduction pellets are principally accessed via this method of transportation.

For more information on Green Steel, please see page 15, and also page 47 for more information on the Group's ongoing work to develop a bespoke net zero pathway.

For more information on the Group's greenhouse gas emissions footprint, and other climate change related topics, please see the Protecting environments section in the Appendix (pages 91-94).

<sup>1</sup> Prior to 2021, Ferrexpo previously reported the production of steam within its Scope 2 emissions. As a result of an external assurance programme conducted in 2021-2022, the Group has determined that this steam is generated by the Group through the consumption of natural gas, therefore representing a double-counting of natural gas consumption in previous calculations. Steam has therefore been removed from the Group's emissions calculation – see page 94 for more information on the external assurance process.

<sup>2</sup> Source: Forbes ([link](#)), accessed July 2022.

## Climate change strategy

# FURTHER PROGRESS IN CLIMATE REPORTING

Climate change is a key topic for Ferrexpo's management teams, and the Group understands its role in developing a business that is relevant for the future, whereby companies actively reduce their greenhouse gas emissions and aim to mitigate the effects of global warming through a low-carbon future. As a responsible business, the Group is committed to addressing climate change through the reduction of emissions its own activities (both direct and indirect), but to also produce a product that helps to reduce emissions further down the steel value chain. As shown in the table on page 43, over 90% of the Group's total greenhouse gas emissions footprint relates to Scope 3 (value chain) emissions, and therefore this is an area of specific attention for the Group in developing its understanding of climate change and decarbonisation.

In 2021, the Group entered into two key partnerships to bolster its climate change reporting. The first is with environmental consultants Ricardo plc ("Ricardo"), to conduct a thorough review of Ferrexpo's exposure to climate change risks and opportunities today, and a look forward at Ferrexpo's decarbonisation journey ahead. This engagement with Ricardo is structured around four central modules, which are summarised on this page and detailed on pages 47 to 49 of this report. Ferrexpo's second partnership in 2021 was the process undertaken to gain external assurance of key sustainability data, with this review undertaken by specialists at the Group's independent auditor, MHA MacIntyre Hudson ("MHA"). Summary details of this project are provided here, with further details provided on the Group's website ([www.ferrexpo.com](http://www.ferrexpo.com)).

### Ricardo Module 1: Market and regulatory risk assessment

Representing a review of the likely impacts on the Ferrexpo business of existing and impending regulations and policies, primarily looking at the jurisdictions where Ferrexpo's customers are based. This assessment also looks at the competitive positioning of each jurisdiction, alongside reputational risks and opportunities that may arise.

A key finding of this module is that policy drivers in the EU will be critical for shaping local steel markets. The increased ambition of the EU emissions trading system will strongly favour steel production with lower associated carbon emissions, and this will be amplified by domestic policies, particularly in countries such as Germany and Austria. An example of such legislation is the Carbon Border Adjustment Mechanism ("CBAM", starting in 2023), which will create a level playing field for supply to EU markets and therefore benefit EU steel producers (conversely disadvantaging steel importers into the region). In order to facilitate change, innovation support provided to EU steel producers is likely to be substantial.

### Ricardo Module 2: Climate scenarios

Through engaging with various internal and external stakeholders, this module has identified and quantified a number of risks and opportunities relating to climate change relevant to Ferrexpo, using three internationally recognised climate change scenarios.

An introduction to this module is provided on page 48 of this report.

### Ricardo Module 3: Net zero target setting

A clear indication of the ambition of any company's climate change strategy is the degree of thinking that has gone into decarbonisation targets. In setting the Group's inaugural carbon reduction targets in October 2021, the Group deliberately aligned itself to its peer group as a starting point. This module builds on existing reporting and is a detailed review of a potential net zero pathway that is bespoke for Ferrexpo's operations.

For more on the ongoing work to develop this pathway, please see page 47 of this report.

### Ricardo Module 4: Life cycle analysis ("LCA")

Using Ricardo's accredited LCA methodology, this module aims to compare Ferrexpo's iron ore pellets to iron ore sinter fines (which represent the most commonly traded form of iron ore). The LCA being undertaken incorporates the environmental footprint of both the products used in mining and process, through to the process of steelmaking. This module aims to fully capture the benefit of utilising iron ore pellets by comparing the full process of producing steel against a benchmark.

A detailed review of this module is provided on page 49 of this report.

## Climate change strategy continued

*Image: Waste stripping operations at Ferrexpo's Yeristovo Mine.*



### External assurance (IASE 3000)

Trust is key in any company's reporting, and at Ferrexpo, it is understood that sustainability data is relied upon for a number of key decisions by both internal and external stakeholders. As a result, in 2022, Ferrexpo completed an external assurance process with the Group's independent auditor MHA MacIntyre Hudson ("MHA") on the Group's reporting of greenhouse gas emissions and selected safety data for 2021, to help provide additional clarity and transparency. Further details of this project are available in the Appendix on page 94.

### Meaningful progress in emissions reduction to date

Reducing the Group's direct and indirect emissions at its operations in Ukraine, and logistics business in central Europe, is a key activity for developing a sustainable business and brand for stakeholders to associate with. As of the end of 2021, the Group had achieved a 30% reduction against its baseline year (2019) and has therefore reached a level in line with the Group's medium-term carbon emissions reduction target (please see page 43), with an external assurance process on the result for 2021 completed with the Group's independent auditor – see section above for more details.

Whilst the war in Ukraine in 2022 has shifted the Group's focus, the Group has, however, continued its clean power purchasing strategy and has managed to source 48% of the Group's electricity needs from either hydroelectric or nuclear sources in the first half of 2022 (FY 2021: 57%). The Group has also reduced diesel consumption during the war through curtailment of non-essential mining activities, which has had a positive impact on the Group's carbon footprint during the year.

### Net zero ambition

In October 2021, the Group announced its inaugural carbon targets, which included a target to reach net zero by 2050, which is a date in line with many of the world's governments. Through Module 3 of Ferrexpo's engagement with Ricardo, the Group has been presented with a pathway to achieve net zero production by 2050, and the Group is currently in the process of reviewing and approving the study and its concepts before publishing this pathway as part of the Group's first standalone climate change report later in 2022.

## Climate change – net zero pathway

# TACKLING SCOPE 1, 2 AND 3 EMISSIONS

Through the Group's collaboration with Ricardo, announced in October 2021, the Group is planning to present its stakeholders with a bespoke net zero emissions pathway to pellet production, which details reduction for emissions in Scopes 1, 2 and 3. Emissions from steelmaking are excluded from this pathway, since these are closely governed by the Group's output of direct reduction pellets, and this category has a disproportionately large influence on the overall emissions reduction pathway.

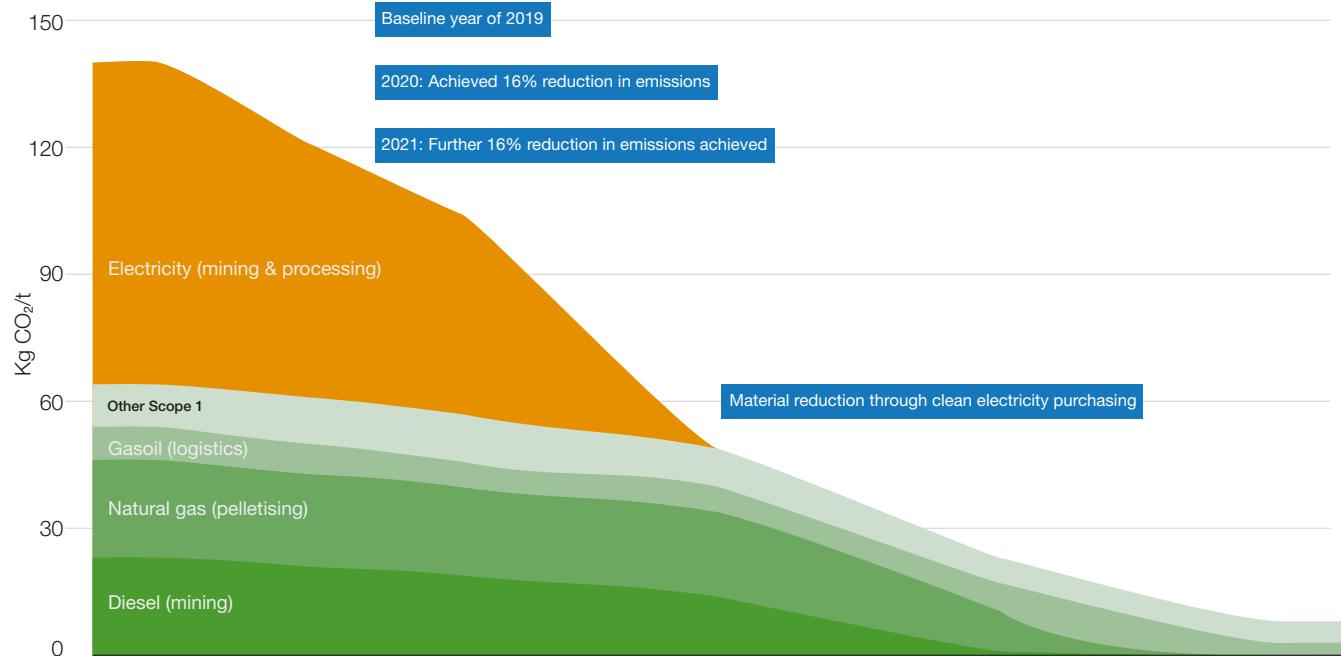
The chart to the right shows Ferrexpo's conceptual decarbonisation pathway, first published in August 2021, which shows the expected progression of the key contributors of emissions within the Group's business.

Through Ricardo's work in 2022, the Group is in the latter stages of reviewing and approving a bespoke pathway, which maps out the rate of decarbonisation between now and net zero production in 2050. Internal approval and adoption of this pathway will require input from operations, the executive management team and Board of Directors, which is a process that is currently underway.

The Group can, however, confirm that Ricardo's work has shown that a net zero pathway is attainable for Ferrexpo. Through investment, the Group has the potential to deliver a sufficient reduction in its absolute emissions by 2050, despite the Group's plans to significantly increase production over this timeframe. The work undertaken in establishing this pathway includes both Ferrexpo's own activities and value chain activities outside of steelmaking, with the latter dominated by Ferrexpo's ability to ramp up production of one particular product – direct reduction pellets (see pages 15 to 16 for more details of this topic).

The proposed net zero pathway identifies key technologies for the Group to focus on in the initial phase of decarbonisation, which represent known solutions with quantifiable benefits to the Group in terms of emissions reduction. A selection of these technologies are discussed on pages 43 and 44 of this report.

Ferrexpo's conceptual net zero pathway, highlighting key focus areas (first published 2021)



### EMISSIONS REDUCTION

**30%**

Inaugural emissions reduction target of 30% by 2030, announced in October 2021.

### SCOPE 1 & 2 EMISSIONS

**90%**

Of Ferrexpo's Scope 1 and 2 emissions in 2021 related to just three areas – electricity, diesel and natural gas.

### SCOPE 3 EMISSIONS

**95%**

Of Ferrexpo's Scope 3 emissions relate to steelmaking and transportation.



► Find out more – scan the QR code to visit our website.

## Climate change – risks and opportunities

# REALISING THE OPPORTUNITY AHEAD

### Task Force on Climate-Related Financial Disclosures

The Group's disclosures relating to the Task Force on Climate-Related Financial Disclosures ("TCFD") are principally provided in the Group's Annual Report and Accounts (pages 38 and 39), as well as pages 77 to 81 of this report.

### Ricardo Module 1: Market and regulatory risk assessment

The Group operates a global business, with customers situated in more than 12 countries, spread across three different continents, each with national and regional governments making policy decisions related to climate change. As referenced on page 45, the pace of policy change in the European Union ("EU") is expected to progress faster than the rest of the world, with legislation such as the Carbon Border Adjustment Mechanism ("CBAM") a clear example of this legislative change. As a result, regional differences in carbon pricing (and other climate change related policies) are likely to emerge, which will influence profitability of the steel sector.

The Group believes that any legislation in the EU that is designed to improve the resilience of the European sector, such as CBAM, is expected to improve the purchasing power of European steelmakers and is therefore viewed as a positive for suppliers of premium raw materials such as Ferrexpo. This particular module looks in detail at the existing legislation and likely future trends, with a particular focus on future carbon pricing, and how this may influence Ferrexpo's sales portfolio going forward.

### Ricardo Module 2: Climate scenarios

The Group has undertaken a detailed exercise to review its strategy in regard to the transition to a low carbon economy, with a particular focus on climate change policies and regulation that is being implemented around the world. In conducting this review, the Group has assessed both the risks and opportunities in relation to three climate change scenarios (SDS<sup>1</sup>, STEPS<sup>2</sup> and SSP4<sup>3</sup>), looking at impacts on the Ferrexpo business in terms of revenues, operating costs, supply chain management, business interruption and timing.

The climate change scenarios referenced above were selected as part of the Group's assessment of climate change risks and opportunities and are designed to cover a range of outcomes, from a climate pathway below 2°C that requires a surge in clean energy policies (IEA SDS scenario), to a scenario whereby existing and proposed policies are implemented but government climate targets are not necessarily achieved (IEA STEPS, 3°C scenario) and a scenario whereby increasing climate change drives greater fragmentation of society (IPCC SSP4, 4°C scenario).

Through stakeholder engagement, covering internal and external stakeholders, including executives of the Group, Non-executive Directors, shareholders and advisors, the Group's material issues relating to climate change are determined to include the following:

- **Market and technology shifts:** movements towards circular economy principles and increasing demand for lower energy-intensive steel;
- **Policy and legal:** carbon pricing, energy availability in Ukraine and future shipping regulations;
- **Reputational:** an increase in consumer and investor climate consciousness; and
- **Physical risks:** rising sea levels, increasing storm intensity and climate-induced conflict.

A more detailed overview of the Group's risks and opportunities relating to climate change is provided in the Appendices to this report.



*Image: The Group built a 5MW trial solar power project at its operations in 2021.*

<sup>1</sup> International Energy Agency's Sustainable Development Scenario ("SDS").

<sup>2</sup> International Energy Agency's Stated Policies Scenario ("STEPS").

<sup>3</sup> Intergovernmental Panel on Climate Change's Shared Socioeconomic Pathway 4 ("SSP4").

## Climate change – life cycle assessment

# BENCHMARKING THE ENVIRONMENTAL IMPACT OF PELLETS

This module aims to fully quantify the environmental benefit of high grade iron ore pellets against the more commonly used sinter fines products.

Representing the fourth and final module of Ferrexpo's collaboration with Ricardo, the Group is undertaking a life cycle assessment ("LCA") of the environmental impact of its pellets, and benchmarking this against the environmental impact of iron ore sinter fines, which represents the most commonly traded form of iron ore. Through this work, the Group is reviewing the environmental impact of its own activities, such as (a) the sourcing of key consumables for the production of pellets, (b) distribution and (c) end use during the conversion of iron ore to steel, against a sinter fines product from the Pilbara – which is the main iron ore producing region of Western Australia, with Australia producing approximately 60% of global exports of iron ore fines in 2021 (source: CRU). The scope of this module extends through to steelmaking, since more than 90% of Ferrexpo's total emissions results from the combination of transporting products to customers and subsequent conversion by customers of Ferrexpo's iron ore pellets to steel. Due to the broad scope and technical nature of this project, it is the module with the longest lead time under Ferrexpo's engagement with Ricardo.

Through this peer-reviewed study, the Group aims to highlight the lower emissions impact of its products through their high grade nature, form (iron ore pellets), and the geographic location of Ferrexpo's operations being positioned close to key infrastructure and end-user markets, in addition to other factors. Using an accredited methodology of completing an LCA, through Ricardo's work, the Group intends to show a clear environmental benefit of

pellets against more commonly traded forms of iron ore, which are typically lower grade and require additional processing by steelmakers in the conversion of this material to steel.

A life cycle assessment reviews the energy and materials that are required across the entire value chain of a particular product (in the instance of Ferrexpo's pellets), and estimates the overall emissions generation for that product. As referenced in this section, to provide context, Ricardo's work will also benchmark the emissions associated with Ferrexpo's products against a comparator, with the assessment including a review of the following:

- the raw material acquisition process for the generation of a product (in the instance of Ferrexpo, this would include the sourcing of materials such as diesel for haul trucks and bentonite clay for pelletisation);
- the usage of the above raw materials in creating the Group's products;
- the end-user usage of the Group's products (steelmaking in the case of Ferrexpo's products); and
- the disposal of products (for high quality steels made from Ferrexpo products, this would be the potential for scrap reuse in an electric arc furnace).



*Image: The Group's pilot project is designed to trial the potential of solar power at Ferrexpo's location in Ukraine.*

## Energy

# RESPONSIBLE ENERGY USE

Ferrexpo uses energy throughout its business to mine and process iron ore into its products, with further energy consumed in the delivery of products to the Group's customers. The Group aims to minimise its energy consumption through the responsible use of key materials, such as diesel and natural gas, to reduce the Group's environmental impact and cost of production. Through investing and modernising its operations, the Group aims to progressively reduce energy consumption, whilst simultaneously improving overall productivity.

More than 99% of energy consumption relates to consumption in four key areas of the Group operations:

- diesel, predominantly used in mining (19% of energy in 2021);
- electricity, primarily relating to processing (38%);
- natural gas and biofuels in the Group's pelletiser (36%); and
- gasoil used in transporting iron ore products via the Group's inland waterway subsidiary, First-DDSG, on the River Danube (6%).



As the Group modernises its operations and adds more complex technology, it is expected that the proportion of energy consumption relating to electricity will increase over time. It is therefore important that this energy is sourced responsibly, and produced using clean technologies. As part of the Group's long-term strategy, Ferrexpo intends to adopt modern technologies such as battery-powered trucks and green hydrogen fuelling the pelletiser, with diesel and natural gas collectively representing 49% of energy consumed by the Group in 2021 (2020: 45%).

Overall energy consumption increased by 7% in 2021, as a result of the Group's commencement of pre-stripping activities for the Wave 1 expansion, reflected in a 12% increase in diesel consumption. The Group also completed a series of trial shipments of direct reduction pellets in 2021, with pelletiser energy (comprising sunflower husks and natural gas) increasing by 6%. Electricity consumption also increased by 5% in 2021, reflecting a similar increase in the tonnage of material processed.

### CASE STUDY:

#### SUNFLOWER HUSKS AS A RESPONSIBLE ENERGY SOURCE

As Ukraine is one of the world's largest producers of sunflowers for the generation of sunflower oil, there is an abundant supply of sunflower husks as a by-product of this industry. Through working with local partners, Ferrexpo has devised a method in which the Group can partially substitute the natural gas in its pelletiser with sunflower husks.

This project commenced in 2015, and the Group's consumption of sunflower husks, as a proportion of the total energy consumption in the pelletiser, has gradually increased over this six-year period to a full-year peak of 25% of energy consumption in 2020.

Consumption rates in 2021 fell to 18% of total pelletiser energy, coinciding with Ferrexpo securing its first long-term contract for the Group's latest product – higher grade direct reduction pellets – which resulted in operations teams utilising greater proportions of natural gas as the Group gains a better understanding of producing this particular pellet type.

Over time, the Group intends to maximise its use of sunflower husks whilst simultaneously maintaining the quality of its pellets for customers. Being a solid material, sunflower husks behave differently in the Group's pelletiser to natural gas, and therefore the Group is conducting trial work to optimise the level of sunflower husks used, and ensure an even heating process throughout the pelletisation process to maintain pellet quality.

#### SUNFLOWER HUSK CONSUMPTION

**18%**

Of total pelletiser energy sourced from biofuels (sunflower husks) in 2021.

<sup>1</sup> Source: UN Food and Agriculture Organisation ([link](#)). Accessed July 2022.

#### SUNFLOWER OIL PRODUCTION

**Top 2**

Ukraine is one of the world's largest producers of sunflowers<sup>1</sup>.

## Water

# RESPONSIBLE WATER USE AND REDUCING IMPACT

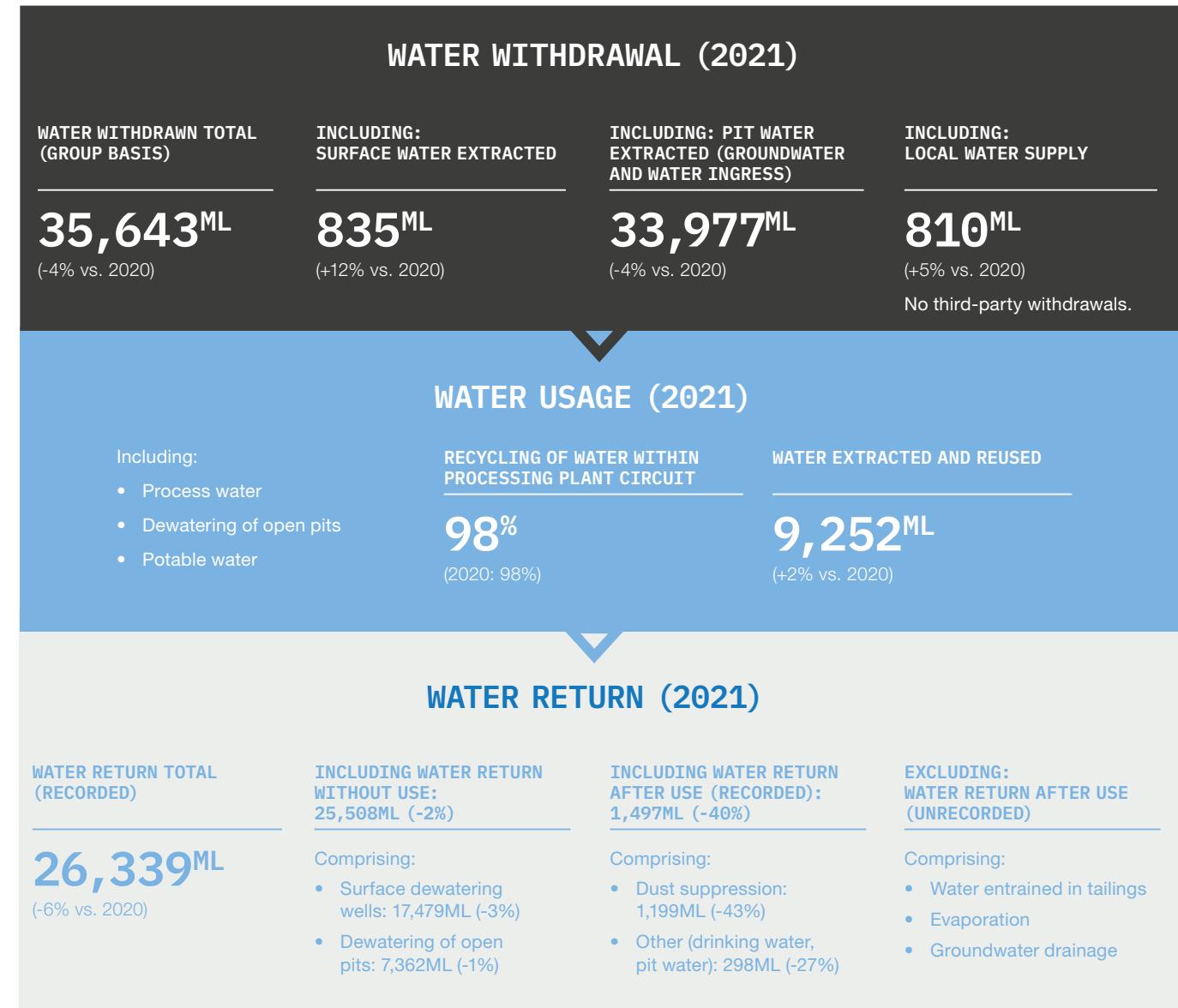
Through responsible water use, the Group aims to manage its environmental footprint, maximising recycling where water use is required and minimising extraction in areas where this is possible.

Ferrexpo principally interacts with the water cycle in two areas of its operations in Ukraine – through removing water that has entered the Group's open pit mining operations ("dewatering"), which is a natural process of water entering Ferrexpo's operations in the form of either precipitation (principally rainwater) entering the pits from the surface, or groundwater entering at depth. This water represents 95% of the Group's water extraction (2020: 96%) and is tested and returned to the natural environment via an engineered facility designed to maintain a high level of water quality. Water use in the Group's processing plant, which is required for the efficient transport and processing of the Group's iron ores through the plant, is continually recycled, with 98% of water recycled in 2021 (2020: 98%). The remaining balance of water loss is typically via evaporation either at the pelletiser (when iron ore concentrates are heated to 1,300°C) or at the tailings dam. Replacement water for this process is drawn from dewatering activities, since this is readily available for the Group to utilise.

Withdrawal from the local water supply network, which is in a location classified as having a low to medium risk of water stress<sup>1</sup>, remained below 1,000ML in 2021 – representing the third successive year of reduced withdrawal from the Group's operations.

For more on the Group's interaction with water, please see the Appendices section of this report (page 97).

<sup>1</sup> [www.wri.org/applications/aqueduct/water-risk-atlas](http://www.wri.org/applications/aqueduct/water-risk-atlas), accessed July 2022.



## Biodiversity and the natural environment

# SUSTAINABLE RELATIONSHIPS WITH NATURE

Ferrexpo's operations cover over 5,000 hectares of land, and are situated close to the Dnieper River. The Group has made significant progress in recent years to develop a baseline understanding of biodiversity around its operations, to make future projects to sustain the natural environment relevant and effective.

### Biodiversity assessments continue

Following on from the progress made in 2020, Ferrexpo's local teams in Ukraine have begun a second phase of work gathering information of local biodiversity, building an inventory of the species and an understanding of the ecosystems where the Group operates. As part of this phase of work, the Photoatlas and Biodiversity Inventory Matrix was updated and now includes details of 676 additional species of plants, fungi and animals, with 93 species having varying levels of protection under Ukraine's Red Book. Overall, this work has logged more than 1,400 species, with two categories having more than 20 species appearing in both of Ukraine's Red Books for (a) insects and (b) higher plants (24 and 23 species respectively). The Group's efforts to compile its first monograph continued in 2021, with work to outline the study concept, characteristics of the region and a review of relevant legislation for biodiversity legislation. The Group intends to progress its work towards publication of its monograph in the near future, with timing dependent on the conflict in Ukraine and constraints relating to the completion of field surveys, desktop studies and any external approvals that may be required.

### Protected wildlife

As reported in previous Responsible Business Reports, Ferrexpo's operations in Ukraine are situated within an Important Bird Area ("IBA", Psel river valley near Komsomol's'k) as defined by Birdlife International ("Birdlife"), which is neither protected on a national nor international basis. Species as listed by Birdlife that carry a

conservation concern for this IBA are the Ferruginous Duck (Birdlife classification: "Near Threatened"), White-tailed Sea-eagle (Birdlife classification: "Least Concern") and the Lesser Kestrel (Birdlife classification: "Least Concern"). Ferrexpo does not operate within any areas that are classified as protected on a national or international basis.

### Maintaining water quality

Ferrexpo understands the importance of water quality and the impact that low quality water can have on the Group's surrounding environments, on both nature and communities alike. As such, the Group monitors the health of the water passing through its bioengineering facilities, which is the final staging point before water is transferred away from Ferrexpo's operations. The Group studies the physiological groups of bacteria present in water in its bioengineering facilities, monitoring for any negative effects on aquatic vegetation and overall stability of the water column. Details of the tests carried out on discharged water are provide in the Appendices (page 91).

### Educational activities

Through engaging with local communities and implementing measures to improve local communities' understanding of the natural environment, the Group hopes to help improve environmental stewardship beyond its directly controlled activities. In 2021, the Group held a training session with 35 local schoolchildren to promote awareness around waste and recycling.

### Ecological contributions

As part of operating in Ukraine, Ferrexpo makes a number of contributions to central and local authorities for various environmental taxes, which include payments for emissions, waste disposal, dust management and environmental monitoring. The Group's local contribution to ecological-related taxes in 2021 amounted to the equivalent of approximately US\$14 million, representing a US\$3 million decrease on 2020.

*Image: Serhiy Valkoviy, FPM employee who proposed the Group's river restocking project (see Case Study over the page for more).*



<sup>1</sup> BirdLife International (2021) Important Bird Areas factsheet: Psel river valley near Komsomol's'k ([www.birdlife.org](http://www.birdlife.org)). Accessed in July 2022.

## CASE STUDY:

**DNIPRO FISH STOCKING PROJECT**

In 2021, Ferrexpo received an award for a project to aid the ecosystem of the Dnieper River at the All-Ukrainian Corporate Social Responsibility ("CSR") Project Competition. This competition, which is held annually by an independent panel at "CSR Ukraine", looked at 80 projects from 45 companies from all over Ukraine. The theme of the competition in 2021 was the contribution of business to United Nations' Sustainable Development Goal 14: Life Below Water.

Ferrexpo's mines and processing facilities are located in central Ukraine, which is home to the Dnieper River (now known locally as the "Dnipro" in Ukraine) – one of the largest rivers in Europe. As is the case with many waterways around the world, the condition of the water in the Dnipro is deteriorating as a result of harmful algae that grows in the summer months, which destabilises the natural balance of this river's ecosystem.

This particular problem stems from the formation of blue-green algae in the Dnieper River, which causes the level of oxygen saturation to decrease as this is absorbed by the algae. With lower oxygen levels, fish numbers decrease as the river's ecosystem is not able to support abundant life. This problem has been exacerbated in recent years – two to three years ago, such

algae would appear in July, whereas they now appear in May, therefore indicating that this problem is occurring earlier in the year and giving the algae a longer period to multiply and impact the river's ecosystem to a greater extent.

During this algal bloom, an unpleasant odour is created that can cause allergies in individuals, which also discourages the recreational use of the river, since the water becomes unsuitable for swimming and local beaches are no longer suitable places to visit. Local communities also rely on water from the river that is treated, and algal blooms result in the requirement for additional processing by local authorities for it to become potable.

In response to this issue, the Group initiated a project in November 2020 to provide assistance to the ecosystem in the River Dnieper, which runs adjacent to the Group's operating base. Through replenishing the river with native species of fish, the Group aims to halt the spread of harmful blue-green algae. This project was initiated by one of Ferrexpo's employees – Serhiy Valkoviy (pictured on page 52), who has a passion for fishing and spending time on the river. This project has been carried out jointly with the Poltava Fish Conservation Patrol, and to date, has seen the reintroduction of approximately 7,000

silver carp and grass carp, which are considered to be effective native species for combating algae.

Looking ahead, the Group's river restocking project will continue on an annual basis, with a goal of gradually improving the Dnieper's water quality over time, with positive results expected in approximately three or four years' time.

Finally, in conducting this project, consideration has been made for using local knowledge, through consulting with local authorities – the Poltava Fish Conservation Patrol, as well as sourcing fish from local suppliers in Lysyanki village and Irkliev Hatchery of Herbivorous Fish (Cherkasy region).

In tandem with restocking the river, the Group is also working to promote the concept of catch and release amongst local fishermen, in order to retain fish of all ages in the river's ecosystem. The Group aims to continue this work to preserve the ecosystem of the Dnieper River for future generations in local communities to enjoy the beauty of this great river.



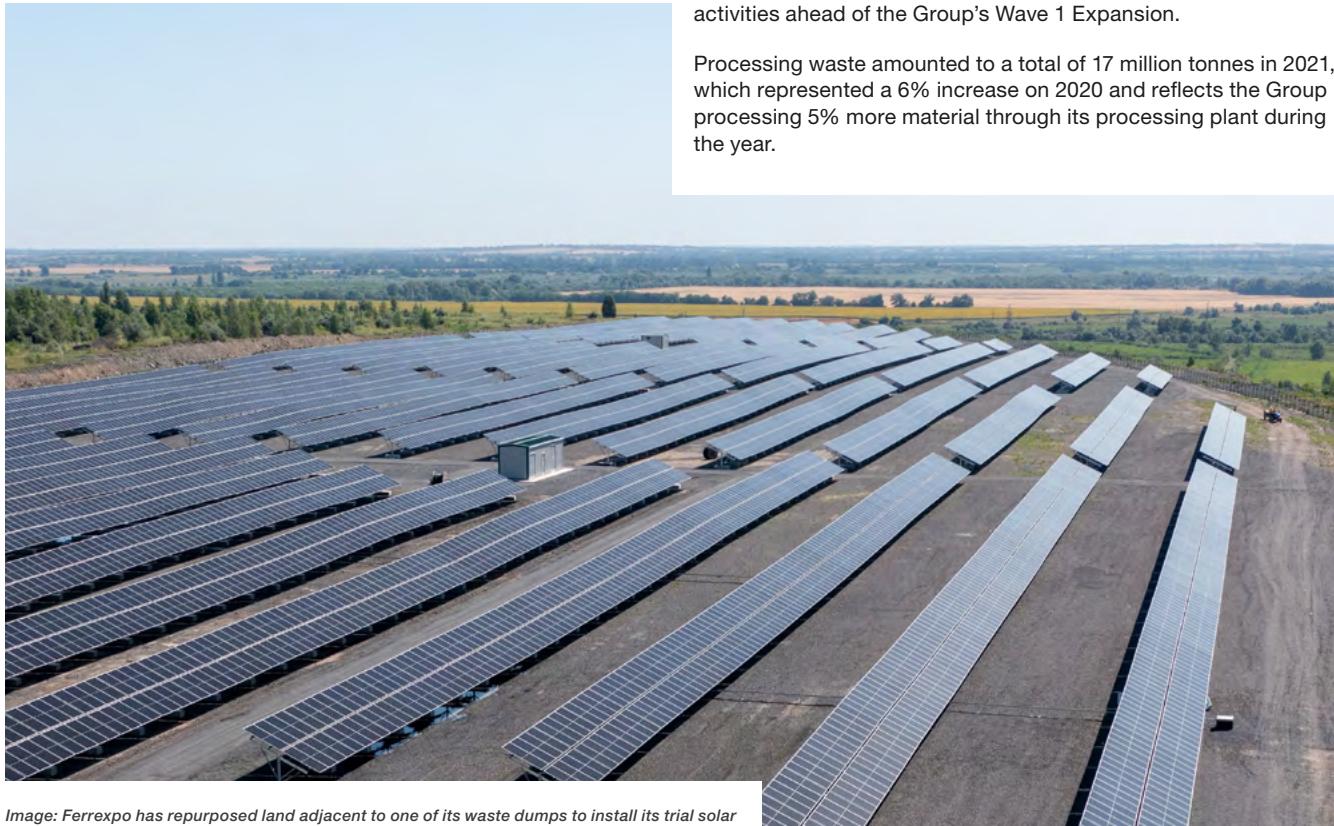
► Scan me



*Image: River restocking project in action on the banks of the Dnieper River.*

## Waste generation

# REDUCED WASTE, INCREASED REUSE



*Image: Ferrexpo has repurposed land adjacent to one of its waste dumps to install its trial solar power plant, utilising brownfields land this modern project.*

### Waste generation overview

The Group primarily produces solid waste in two areas of its operations in Ukraine: (1) waste generated through mining activities and the stripping of material to access iron ore, and (2) waste generated through the processing of raw iron ore into the Group's high grade products. Mining waste is typically stored in engineered waste storage facilities adjacent to the Group's mines, with the design and construction method of these facilities approved by external parties.

Mining waste in 2021 amounted to 107 million tonnes of material, with this 15% increase reflecting an increase in the planned mining activities ahead of the Group's Wave 1 Expansion.

Processing waste amounted to a total of 17 million tonnes in 2021, which represented a 6% increase on 2020 and reflects the Group processing 5% more material through its processing plant during the year.

### Recycling initiatives

Activities in 2021 included:

- the Group reuses waste oils to fuel heating facilities at FYM, consuming 563 tonnes in 2021 (2020: 383 tonnes);
- consumption of sunflower husks, otherwise considered to be a waste product, in the Group's pelletiser – representing 18% of total pelletiser energy in 2021 (2020: 25%);
- reconstruction of the drainage system for process water used in the cooling of manufactured parts in maintenance facilities; and
- reconstruction of the oil capture section of equipment in the Group's beneficiation plant.

Through its mining and processing operations, the Group is able to re-purpose an amount of material for other uses. These efforts include the six million tonnes of engineered material used in the construction of tailings storage facilities, and gravel produced as a by-product of processing iron ores, which can be used in road construction. Gravel production amounted to 1.7 million tonnes in 2021, which represents the equivalent of 6% of iron ore processed during the year (2020: 7%).

### Implementing recycling initiatives

In 2020, the Group initiated a scheme to commence recycling efforts for plastic and paper around its processing plant and administrative buildings, establishing a network of separate recycling bins. The Group has continued to accelerate this initiative in 2021, and has recorded an eight-fold increase in plastic recycling to more than 20,000 kilogrammes. Similarly with paper, the Group saw a three-fold increase in paper recycling to more than 15,000 kilogrammes in 2021.

As the Group embeds this cultural shift towards recycling and the environment throughout its operations, it is expected that recycling volumes will continue to increase over time.

# ETHICAL BUSINESS

Through a framework for governance, the Group hopes to facilitate positive relationships with business partners and socially responsible business practices.

The following section should be reviewed in conjunction with the supplementary information and data provided in the Appendices to this report (page 68 onwards).

## SUPPLIER GOVERNANCE

**96%**

Of supplier contracts now reference the Group's Code of Conduct, establishing a clear framework for engagement.

## INDEPENDENT BOARD

**Five**

Number of Independent Non-executive Directors increased to five in 2021 (2020: three).

## LOCAL SOURCING

**96%**

More than 96% of the value of Ferrexpo's goods and services sourced by its operations in Ukraine came from Ukrainian companies in 2021.

## LOCAL EMPLOYMENT

**99%**

More than 99% of Ferrexpo's employees in Ukraine are based in local communities.



Image: Serhiy Fedorenko, haul truck driver at Ferrexpo Yeristovo Mining.

## Corporate governance

# LEADERSHIP ON GOVERNANCE

### Ethical business

The Group aims to maintain a high standard of corporate governance for a clear oversight of the Group's strategy, vision and purpose, which facilitates clear and effective communications with Ferrexpo's stakeholders. Wherever Ferrexpo operates, it complies with applicable laws and regulations in each jurisdiction, and Ferrexpo firmly believes that good corporate governance and ethical conduct are essential for sustainable performance and long-lasting relationships with stakeholders. Compliance within Ferrexpo's local operating businesses is managed by the Group's compliance department, which is a team of four Compliance Officers based in Ukraine. At Group level, Ferrexpo also has a Group Compliance Officer, who reports activities to the Finance, Risk Management and Compliance ("FRMC") Committee, which is chaired by the Group's Chief Financial Officer.

### Promoting compliance awareness through training

In May 2021, Ferrexpo held its fourth Compliance Week, which was hosted in a digital format as a consequence of restrictions related to Covid-19, to facilitate attendance from across the Group's departments. The Group's goal in hosting such events is to raise awareness about compliance and anti-bribery initiatives, to promote Ferrexpo's Integrity Line for reporting compliance concerns, to demonstrate the Group's commitment to anti-bribery and ethical business practices, and to provide a platform for face-to-face training on ethical leadership and compliance topics.

The following events took place as part of the Group's Compliance Week:

- The second Ferrexpo Compliance Championship for employees.
- Anti-corruption lessons for 24 students at the Higher Professional Mining and Construction School in the local city of Horishni Plavni.
- A round-table discussion on compliance topics with senior leaders, held in association with Ferrexpo's Charity Fund, which coordinates activities in local communities.



*Image: Directors Fiona MacAulay, Ann-Christin Andersen, and Jim North, alongside Greg Nortje (Group Chief Human Resources Officer) at the launch of the latest "Fe\_Munity" programme.*

#### INDEPENDENT DIRECTORS

# Five

Number of Independent Non-executive Directors rises from three to five during 2021.

#### SUPPLIER GOVERNANCE

# 96%

Of all supplier agreements include reference to Ferrexpo's Code of Conduct.

#### UKRAINE CONTRIBUTION

# Top 100

Ferrexpo once again included in Ukrainian government's list of Top 100 taxpayers in 2021.

#### SUPPLIER SCREENING

# 1,000

More than 1,000 suppliers screened for risks in 2021 (2020: 1,784).

## Corporate governance continued

- A online webinar on compliance for the Group's commercial department.
- Compliance knowledge day for middle-level managers of the Group.
- "Integrity in what we do" corporate forum, held in digital format, with 94 employees participating alongside representatives from the Group's business partners.
- Over 740 employees completed Compliance Tests in 2021, promoting the Group's Code of Conduct (2020: 600 employees).

In addition, the Group hosted an online competition to mark "International Anti-corruption Day", with employees from across the Group answering questions on anti-corruption principles. In an effort to promote engagement with compliance topics, the Group has begun to include an assessment of an individual's participation in compliance activities during the annual performance review for employees.

Furthermore, the Group has initiated online compliance courses covering the topics of the Group's Code of Conduct and personal data protection, as well as an adaptation programme for those new to each of Ferrexpo's three Ukrainian businesses. At the Group's Family Day in September 2021, the Group hosted a session on compliance with more than 1,000 visitors attending this exhibit, comprising of both employees, their family members and local community members.

### Transparency in charitable activities

In 2021, the Group's compliance department organised and conducted a round-table discussion with representatives from Ferrexpo's Charity Fund regarding anti-corruption compliance and compliance risks in relation to the activities conducted by the Charity Fund. An updated procedure to conduct verification checks on any recipients of funding through the Charity Fund was implemented in 2021, as part of a broader policy that aims to mitigate risks in the Charity Fund conducting its activities in providing charitable assistance.

Charitable assistance is either provided directly by Ferrexpo's subsidiaries in Ukraine, or through the Ferrexpo Charity Fund, and is provided on the basis of a range of criteria to assess recipients, which is a process that covers both contractors and suppliers that are involved in charity-related projects.

The revised criteria for assessing recipients include the following:

- A requirement for individuals and/or organisations receiving funding to have no previous instances of corruption offences. This requirement applies to any party receiving funding, shareholders of a receiving organisation, or any person associated with the receiving organisation. Screening procedures are based on information provided by authorised state bodies of Ukraine and foreign states, which includes any legal action relating to criminal, administrative and civil liability.
- Recipients are required to not be subject to national or international sanctions, with this restriction applying to founding individuals, owners (including ultimate beneficiaries), or company directors.
- Additional checks are required if a recipient is a related party to the Group.
- Funding is not provided to persons that hold positions in governmental authorities or state companies.

### Human rights

Ferrexpo is committed to create an environment within its business whereby all employees are treated with dignity and respect, as this helps to promote the full potential within each individual, which helps to contribute directly to a successful business model.

Ferrexpo aims to promote a policy of equity to create a workplace that is free of discrimination, which may take the form of abusive, offensive or harassing behaviour. At Ferrexpo, any employee that feels harassed or discriminated against is able to report incidents to either their line manager or the Group's human resources department, whereby reporting mechanisms exist for managing instances of discrimination.

Ferrexpo's managers have a clear responsibility to create an open and supportive environment, whereby the Group's employees feel sufficiently comfortable to raise ethical concerns. The Group aims to promote a corporate culture within its business whereby employees are able to exercise their right to prevent mistakes or wrongdoing by asking the right questions at the right time.

Through various policies, Ferrexpo aims to promote a culture of open and honest communication. The Group has investigated all reported instances of unethical behaviour, and if improper behaviour is found to have occurred, the Group has taken appropriate action.

Ferrexpo protects the rights of employees to report concerns, and does not tolerate any retaliation against employees raising ethics concerns in good faith. In 2021 there were no confirmed cases on ethics and compliance (2020: none).

In order to provide a platform for employees and contractors to report whistleblowing concerns, the Group maintains its "Integrity Line" ([link](#)) whereby individuals can anonymously submit reports to the Group via an independently hosted platform. In 2021, the Group received a total of 15 reports to the Integrity Line (2020: 16), with safety concerns, employee relations and concerns regarding an abuse of power representing the main areas of the topics raised.

Through its newly adopted ETI Base Code, Ferrexpo takes a responsible approach to business and human rights. As part of this internationally recognised code, the Group aims to keep workers safe and free from exploitation through the following key principles:

1. employment is freely chosen;
2. freedom of association;
3. working conditions are safe and hygienic;
4. child labour shall not be used;
5. living wages are paid;
6. working hours are not excessive;
7. no discrimination is practised;
8. regular employment is provided; and
9. no harsh or inhumane treatment is allowed.

For more information on the ETI and the ETI Base Code, please visit: [www.ethicaltrade.org/eti-base-code](http://www.ethicaltrade.org/eti-base-code).

In 2021, the Group successfully completed a Sedex Members Ethical Trade Audit ("SMETA") and has also implemented an Ethical Trading Initiative ("ETI") Base Code throughout the Ferrexpo business, which covers the Group's approach to labour practices.

Based on the recommendations of the SMETA audit, the Group has implemented a procedure for actions regarding youth work, which relates to the Group's interaction with minors aged between 14 and 18 years of age, with such interaction occurring during educational visits by those attending Ferrexpo's operations as part of their studies.

## Governance framework

# OVERVIEW OF GOVERNANCE STRUCTURES

Ferrexpo's management structure for its Responsible Business Report is shown here, with the Group's Board of Directors ("Board") ultimately responsible for the Group's performance in all Responsible Business areas. The Board has a sub-committee – the Health, Safety, Environment and Community ("HSEC") Committee, which focuses on all the Responsible Business activities that are covered in this report. The Group's original committee for Responsible Business activities was formed in 2009 and the committee was re-formed as the HSEC Committee in 2020, with a renewed focus on: (1) health and safety; and (2) climate change.

As of the publication date of this year's report (August 2022), the HSEC Committee is comprised of the following members of the Ferrexpo team:

- Ann-Christin Andersen, Independent Non-executive Director (Chair);
- Natalie Polischuk, Independent Non-executive Director;
- Jim North, CEO and Executive Director;
- Yuriy Khimich, General Director of Ferrexpo Belanovo Mining and Chair of the local CSR Committee; and
- Nataliya Storozh, Health & Safety Director, Ferrexpo Poltava Mining.

The HSEC Committee meets quarterly and, accordingly, four meetings were held in 2021 (2020: four).

Risks relating to Responsible Business activities are communicated to the Group's executive management team through the Group risk register, which aims to describe all of the major risks facing the business and is updated and presented on a monthly basis for regular updates (with ad-hoc updates for any material events as required). The risk register describes individual risks faced by the Group, the likelihood of occurrence, scale of any impact and the scale of any financial impact, including a maximum foreseeable financial loss to the business related to each risk.



## Supply chains

# HELPING LOCAL BUSINESSES TO THRIVE

Ferrexpo understands the importance of working with local communities, to support local employment and local economies to thrive alongside the Group in its business activities. Support for local communities is of particular importance in 2022, given Russia's invasion of Ukraine, and the Group has been working hard to source goods and services where possible for both its own business, and for local groups in need of support through the Ferrexpo Humanitarian Fund (see page 65 for more details).

The Group has long provided employment to local communities, with the city of Horishni Plavni established in 1960 to support the construction of the mine and development into the global business that exists today. The Group employed an average of 8,267 men and women in 2021, with a focus on local communities for recruitment, with 96% of new starters coming from communities less than 30 kilometres from the Group's operations. As a reflection of this link with local communities, 100% of salaries paid by the

Group's local operating entities in Ukraine (FPM, FYM and FBM) went to individuals local to Horishni Plavni in 2021 (2020: 100%).

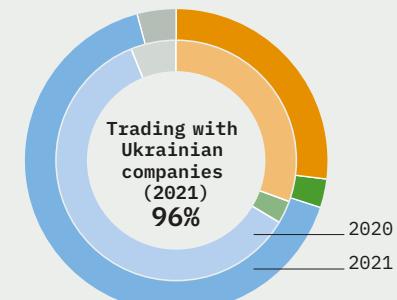
In addition, of equal importance are the Group's local supply chains for goods and services, with the war in Ukraine in 2022 resulting in the Ferrexpo business having to rely on these close relationships to ensure an uninterrupted supply for continuous pellet production. Ferrexpo has long sourced a high proportion of its goods and services from entities within the communities of Horishni Plavni, representing 27% of the total in 2021 (2020: 31%), and an overall total of 96% from entities within Ukraine (2020: 94%).

Given the destructive nature of Russia's invasion of Ukraine, the Group's ability to do business with entities in Ukraine in 2022 may be reduced, but the Group will endeavour to support and promote Ukrainian businesses wherever possible in its activities.



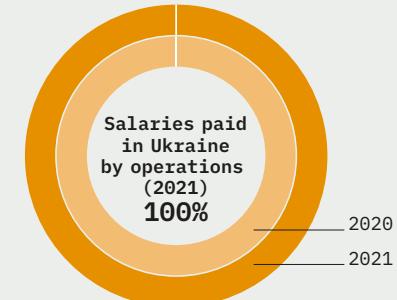
*Image: Ferrexpo works with local drilling services provider Epiroc Ukraine at its mines.*

### PAYMENTS FOR GOODS AND SERVICES (2020-2021)



	2020	2021
► Local (2020)	31%	31%
► Regional (2020)	3%	3%
► National (2020)	61%	61%
► International (2020)	6%	6%

### PAYMENTS FOR SALARIES (2020-2021)



	2020
► Local (2020)	100%

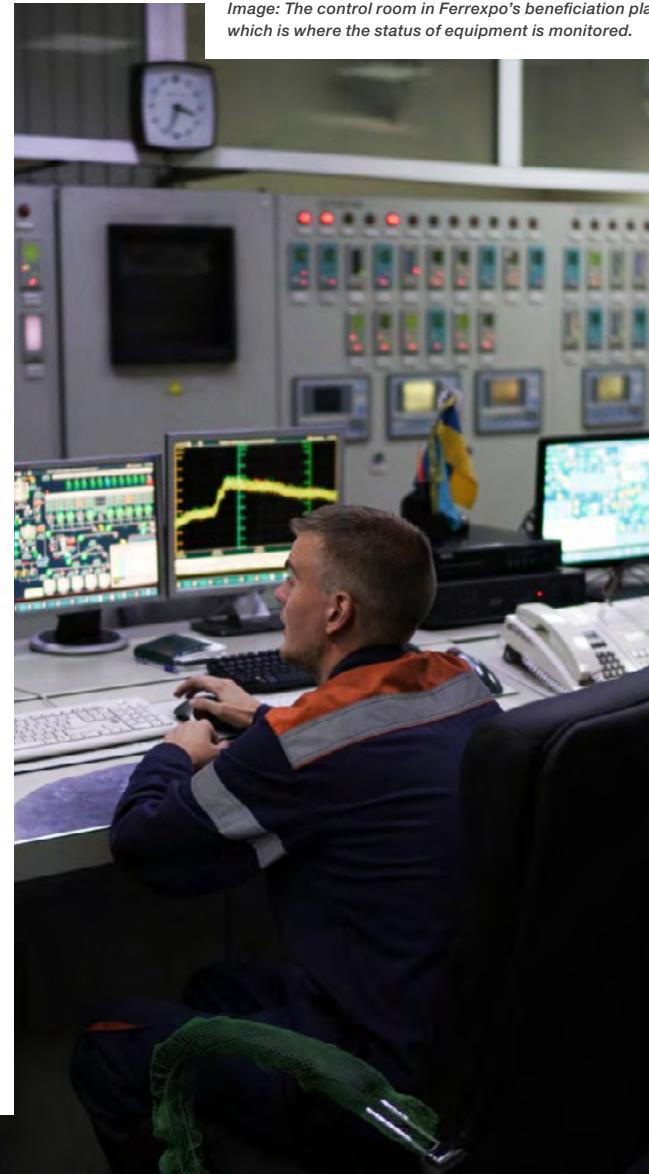
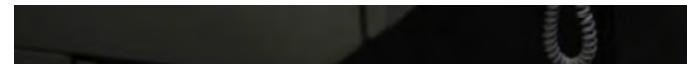
## Cybersecurity

# PROTECTING MODERN TECHNOLOGY

As a modern business, digitalisation is increasingly becoming a key factor in day-to-day activities. From computers and automation being increasingly used to carry out tasks, such as the newly deployed warehouse management software and hardware for the Group to coordinate the ordering of key components required for maintenance scheduling, through to enterprise resource planning modules for tasks such as risk management. With increasing digitalisation and increasing reliance on information technology ("IT") networks, comes increasing risk relating to IT security and cybersecurity. This risk area was elevated to a Principal Risk on page 70 of the Group's latest Annual Report and Accounts, with particular reference to Russia's war in Ukraine in 2022 and the rising risk of cyberwarfare at the present time.

Over time, the Group has moved to address cybersecurity with an increasing presence in this field and increasing investment in technology to ensure the continuous operation of the Group's IT infrastructure. On the one hand, digitalisation represents a key opportunity for the Group to embrace technology, improve productivity and implement safer working practices through removing operatives from hazardous environments, whilst also paying particular attention to emerging risks in this area of the business, as these are inherently unpredictable in nature.

The Group has invested in its cybersecurity, with efforts in 2021 focused on an on-site data centre, implementing elevated protocols to ensure continuous access to data, regular updates to software and hardware throughout the business, regular assessments of emerging requirements for data protection, internal IT security bulletins to inform the Group's workforce of emerging threats and a cyber-awareness training programme to mitigate the risks relating to cybersecurity.



*Image: The control room in Ferrexpco's beneficiation plant, which is where the status of equipment is monitored.*

### CASE STUDY:

#### MODERNISATION OF KEY IT INFRASTRUCTURE

In 2019, the Group commenced an ambitious new project to establish a modern IT network at its operations, to facilitate the Group's modernisation efforts to implement technology and automation throughout the Ferrexpco business. In undertaking this multi-year project, efforts in 2021 focused on the installation and commissioning of a new data centre with the core network hardware, backup data system, and backup power equipment. A full IT infrastructure and security audit was completed on the Group's network. Over 1,000 desktop computers were converted into desktop terminals and virtual desktops, and following a successful initial trial have been migrated across to this more secure working environment.

In 2022-2023, the Group plans to implement hardware and software configurations for about 1,500 more users and implement a further layer of deep security anti-virus software.



## Tax

# CONTRIBUTING RESPONSIBLY



*Image: Independent Non-executive Director Ann-Christin Andersen visits Ferrexpo's operations in September 2021.*

As a responsible corporate citizen, the Group aims to contribute to the communities in which it operates in the form of corporate taxes on profits, royalties and levies on production, taxes on employment and activities, in addition to other taxes. The Group also makes charitable contributions to local communities, principally either through the Group's Charity Fund or direct payments from the Group's operating subsidiaries. The Ferrexpo Charity Fund has been particularly active in recent years, with dedicated funds to help with humanitarian assistance during the war in Ukraine in 2022, as well as another fund dedicated to assist during the global Covid-19 pandemic. Details of these activities are provided on pages 32-33 and 64 of this report.

In 2021, the Group paid taxes and royalties of US\$281 million, representing a 180% increase on the previous year, reflecting the strong operational and financial performance of the Group, as well as the Group's multi-year investments in establishing itself as a producer of high grade iron ore pellets. Since IPO in 2007, the Group has contributed more than US\$1.3 billion of taxes and royalties to Ukraine through its continued operation and development of its assets through investment.

The effective tax rate for the Group in 2021 was 18.7% (2020: 15.1%), with this change reflecting a higher proportion of taxable profits in Ukraine and an impairment loss recorded in 2021.

Ferrexpo's tax strategy is approved by the Group's Board of Directors as the relevant governance body for reviewing and approving Group strategy. The Group's Executive Committee oversees operational activities and reports directly to the Board regularly throughout the year. The Board also oversees compliance with the Group's tax strategy. Risks associated with tax are identified and monitored through the Group's risk register, which is maintained by the Group's finance function, and changes relating to risks are reported to the Executive Committee on a monthly basis. The Executive Committee also oversees compliance with tax governance and control frameworks. In line with common practice with other publicly listed companies, assurance in tax matters is sought from independent tax consultants and auditors of the Group's financial accounts. For more information, please see the Audit Committee Report and Auditor's Report in the Group's 2021 Annual Report and Accounts, available on the Group's website ([www.ferrexpo.com](http://www.ferrexpo.com)).

## Code of Conduct

# CLEAR FRAMEWORK FOR ETHICAL BUSINESS

The Group's Code of Conduct ("Code") covers the Group's approach to ethical business, and can be summarised in one simple statement: do the right thing. Through a fair approach to everyday activities, Ferrexpo expects that its employees, contractors and business partners will conduct themselves in a fair and balanced manner, and with courage, aiming to create and maintain a corporate brand that stakeholders can be proud of. The person responsible for the Group's Code of Conduct is the Group's CEO, with additional oversight from the Board of Directors and Executive Committee.

The Code is available on the Group's website: [www.ferrexpo.com/about-ferrexpo/corporate-governance/policies-and-standards/](http://www.ferrexpo.com/about-ferrexpo/corporate-governance/policies-and-standards/).

### Modern Slavery Act

As part of the Group's approach to ethical business and its Code, the Group seeks to ensure modern day slavery is not present in its supply chain, and the Group's Code of Conduct for Suppliers includes provisions to this effect. The Group also publishes an annual statement on the Modern Slavery Act on its website: [www.ferrexpo.com/about-ferrexpo/corporate-governance/policies-and-standards/](http://www.ferrexpo.com/about-ferrexpo/corporate-governance/policies-and-standards/).

This statement aims to provide a summary of the policies and controls that the Group has in place to mitigate the risk of slavery in the Group's business activities and supply chain.

In order to ensure that this remains the case, the Group conducts risk assessments on any third party considered to be high risk, with these reviews submitted to the Finance, Risk Management and Compliance Committee for review as to whether they can be used alongside certain additional conditions (such as more detailed checks and monitoring), or avoided altogether. In 2021, of the 1,013 entities that were subjected to third-party compliance checks, 16 entities were considered to be high risk and therefore raised for additional screening (2020: 43).

### Human rights

Ferrexpo believes in fundamental human rights and in dignity for all people, as set out in the Universal Declaration of Human Rights. The Group supports the UN Guiding Principles on Business and Human Rights which outline the duties and responsibilities of industry to address business-related human rights issues.

For more information on the topics covered here, please see the Appendices section of this document.



# GENERATING VALUE FOR COMMUNITIES

Ferrexpo shares a rich history with its local communities, understanding the link between the health of local communities and the Group's success.

The following section should be reviewed in conjunction with the supplementary information and data provided in the Appendices to this report (page 68 onwards).

## COMMUNITY DONATIONS IN 2021

**US\$6<sup>M</sup>**

Funding for the Ferrexpo Charity Fund rose by 63% in 2021 to US\$6 million.

## DEDICATED HUMANITARIAN FUND IN 2022

**US\$15<sup>M</sup>**

Additional funding to support the people of Ukraine during Russia's invasion in 2022.

## COVID-19 SUPPORT

**US\$3.5<sup>M</sup>**

Funding made available for local medical institutions and other community facilities, to help combat the transmission of Covid-19.

## INDIVIDUALS SUPPORTED

**4,670**

Direct aid to 4,670 individuals in local communities in 2021 in the form of care packages and social support.



*Image: Local residents at Ferrexpo's Family Day at its operations in 2021.*

## Ferrexpo Charity Fund

# DIRECT SUPPORT TO LOCAL COMMUNITIES SINCE 2010

### FERREXPO CHARITY FUND: CELEBRATING 11 YEARS OF SUPPORT (2011-2022)

#### Healthcare support in 2021



Medical projects for ten hospitals in Horishni Plavni, Kremenchuk and other local communities.



Total of US\$3.5 million of approved funding for Covid-19 Response Fund.

#### Supporting education in 2021



Implemented 31 educational projects for seven schools in local communities.



Supporting seven regional universities.

#### Health and wellbeing in 2021



Supported clubs for 13 types of sports in Horishni Plavni and other local communities.



Sponsored four sportsmen (canoe) from Ukraine to attend the Olympic Games in Tokyo in 2021.

#### Local community support in 2021



29 projects supporting Horishni Plavni infrastructure.



42 local Non-Governmental Organisations ("NGOs") supported.

#### Healthcare support in 2021



Direct aid provided to 483 vulnerable people.



4,460 food packages subsidised for local citizens under the "Social Store" programme.



**Total funding  
US\$6 million (2021)**

The Group directly supports local communities through the Ferrexpo Charity Fund, which is an organisation that marked ten years of support for communities in March 2021. Projects funded by the Charity Fund, which is an organisation wholly owned and controlled by the Group, are initiated through consultation with local community representatives.

For activities in 2021, the Group approved the equivalent of US\$6 million of funding (2020: equivalent of US\$4 million), with projects spanning different aspects of community life, including: projects relating to education, culture, sports, social, medical and infrastructure. In addition, the Ferrexpo Charity Fund also provides direct support to individuals needing social support through its 'Social Store' initiative, with 4,460 local individuals supported in 2021 as a result of this programme (2020: 4,672). Support is typically provided in the form of food packages for vulnerable members of local society.

#### Covid-19 Response Fund

With the unfolding events of early 2020, the Group moved quickly to establish a dedicated fund to coordinate assistance to local institutions in their actions to protect local communities and limit the spread of the Covid-19 virus.

In the fight against the spread of Covid-19 since 2020, it has been crucial for companies in Ukraine like Ferrexpo to support local medical institutions, with an effective effort only possible through the combined efforts of medical experts, city authorities and responsible private businesses like Ferrexpo. Ferrexpo has always sought to provide support to those who protect and save lives, and the Covid-19 Response Fund has been an effective tool in coordinating this support. To date, the Covid-19 Response Fund has approved funding of US\$3.5 million to ensure consistent support to local medical institutions and local communities, which is in addition to the funding of the Ferrexpo Charity Fund described above. For more information on the initiatives undertaken in response to Covid-19, please see pages 32 to 33.

#### CASE STUDY:

### ACCOMMODATION FOR LOCAL FAMILIES IN NEED

In Ferrexpo's local communities, large dwellings are not common and this results in larger families not being able to find accommodation for their entire families. As such, in 2021, the Ferrexpo Charity Fund assisted two such families, where both parents are employees of Ferrexpo, to find suitable apartments to live locally; one family with 13 children (the Kornatykh family – pictured below), in addition to another family with eight children. Through this initiative, local families with strong connections to Ferrexpo are able to remain in local communities, enabling them to raise their children in comfort and relative proximity to their place of work.



*Image: Mayor of Horishni Plavni city Dmytro Bykov at the ceremony for the house provided to the Kornatykh family.*

## Ferrexpo Charity Fund continued

### Humanitarian Fund

Following Russia's invasion of Ukraine in February 2022, Ferrexpo established a Humanitarian Fund to focus the Group's response to the growing humanitarian crisis that is unfolding within Ukraine, with this fund created to provide direct and relevant financial support to those that have suffered from Russian aggression in Ukraine.

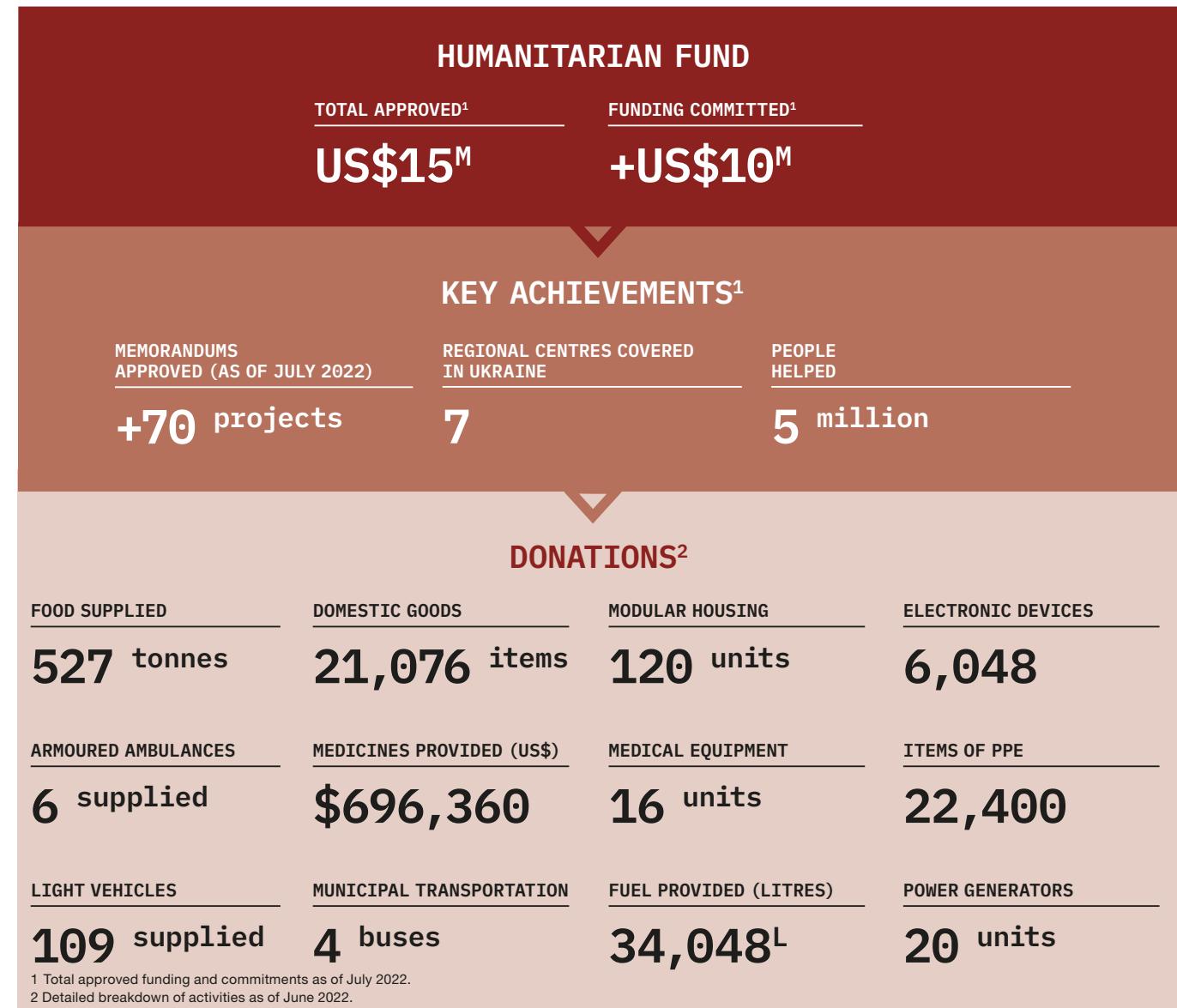
To date, Ferrexpo has approved US\$15 million of funding for the Ferrexpo Humanitarian Fund to respond in an effective and timely manner. The Humanitarian Fund is assisting a range of projects, from small-scale, local initiatives to provide fuel, medicine and food to local communities, to larger-scale projects across Ukraine. The projects that the Group has assisted through the Fund have included the following:

- logistics support for the delivery of humanitarian goods from Europe to Ukraine;
- the purchase of armoured ambulances for regional hospitals in central Ukraine;
- renovation work on facilities in local communities that are being used to house refugees;
- medical equipment for the treatment of wounds;
- assistance in relocating animals from zoological parks in eastern Ukraine; and
- the purchase of electronic equipment to assist the Ukrainian authorities in documenting the damage being inflicted on communities across the country.

For more information on the Group's efforts to support its workforce and local communities during Russia's invasion of Ukraine, please see pages 19 to 25.

### Community engagement in central Europe

Ferrexpo's logistics subsidiary First-DDSG enables the Group to deliver its products via the Danube River to customers in central Europe. For many years, First-DDSG has supported the Ivan Franko Centre for Culture and Education, which is a school in Vienna, Austria, that helps support and promote Ukrainian cultural values. Following the war in Ukraine in 2022, this school has seen a four-fold increase in the number of pupils attending and First-DDSG has therefore provided a four-fold increase in its support. In addition, following the outbreak of hostilities in Ukraine, First-DDSG helped 30 Ukrainian families to set up new lives across the border in Bulgaria, with free accommodation and daily meals, as well as financial support.



## Supporting community projects

# TARGETED ASSISTANCE

Ferrexpo provides support to communities in the areas surrounding the Group's operations in Ukraine, with a range of example projects provided here. Through this support, the Group aims to improve infrastructure and facilitate social development, with a particular focus on children and socially vulnerable citizens.



**External insulation of the House of Culture in Novogaleshchinskaya ATC**

In 2021, the Group provided support to improve the insulation of the local cultural centre "House of Culture" in Novaya Galeshchina. This work built upon previous work completed in 2020 to upgrade the building's interior.



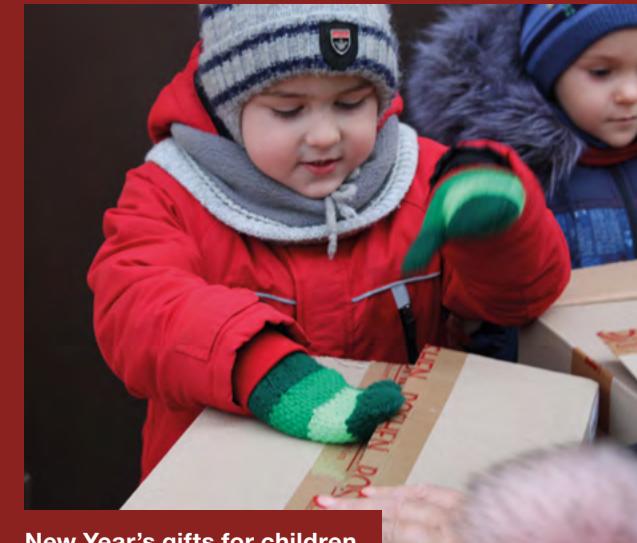
**Repair of the health centre**

Repair works were completed in the paramedic's office in the village of Peski with the support of FBM, which provides medical care and treatment to over 700 people in the local community.



**Modern car for medical support**

The outpatient clinic in Novaya Galeshchina serves more than 4,000 people and this facility covers a number of remote communities. To help local medical professionals to provide fast and effective care, Ferrexpo's local subsidiary supplied a modern 4x4 vehicle in 2021.



**New Year's gifts for children**

Every year, for the children of kindergartens in Novaya Galeshchyna and students of the Novogaleshchinsk lyceum are provided with New Year's gifts under a long standing social partnership agreement.



**Repair of an outpatient clinic**

Renovation works were conducted at the outpatient clinic in the village of Kozelshchina, which supports more than 14,000 people.

## Supporting community projects continued



### Charity initiative for kindergartens of Horishni Plavni and surrounding areas

Ferrexpo initiated a charity event for kindergartens in 2021, bringing together 23 preschools in the communities of Horishni Plavni, Novaya Galeshchina, Pryshib and Kozelshchyna, purchasing educational toys and games for a total amount of UAH 230,000.



### St. Nicholas Day charity initiative

In collaboration with local communities, around Christmas, Ferrexpo employees collect letters from children with disabilities in the cities of Horishni Plavni and Kremenchuk, and through an online portal the Group's workforce are able to select individual letters and provide a gift for that child. Employees gift presents on an individual basis, or collectively within a department, and in total this initiative covered 130 children in 2021.

# APPENDICES

**Presented in this section is a data supplement to the information presented in the front section of this report. This information presented here is to provide a detailed view of the Group's performance in Responsible Business activities in 2021.**

## Forward looking statements

This Responsible Business Report contains forward looking statements, including statements regarding plans, strategies and objectives of management; closure or divestment of certain assets, operations or facilities; and regulatory developments. Forward looking statements may be identified by the use of terminology, including, but not limited to, "intend", "aim", "project", "anticipate", "estimate", "plan", "believe", "expect", "may", "should", "will", "continue" or similar words. These statements discuss future expectations or provide other forward looking information. These forward-looking statements are not guarantees or predictions of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond our control and which may cause actual results to differ materially from those expressed in the statements contained in this Responsible Business Report. Readers are cautioned not to put undue reliance on forward-looking statements.

Actual results may differ materially from those expressed in such statements as a result of a variety of factors, including the Company's ability to profitably produce and transport iron ore to applicable markets; the impact of foreign currency exchange rates on the market prices of iron ore that the Company produces; activities of government authorities in the countries where Ferrexpo operates, including increases in taxes, changes in environmental and other regulations and political uncertainty; labour unrest; and other factors identified in the risk factors set out in the Group's 2021 Annual Report and Accounts, available online at [www.ferrexpo.com](http://www.ferrexpo.com).

Except as required by applicable regulations or by law, Ferrexpo does not undertake to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance.

*Image: Hot pellets exiting Ferrexpo's pelletiser.*

## Appendix – Global Reporting Initiative index

The Group presents its Responsible Business Report in accordance with the Global Reporting Initiative (“GRI”), using the GRI framework as a basis for its reporting of Responsible Business topics. The following table presents the various aspects of the GRI framework and where to find them in this report, the Group’s Annual Report and wider reporting suite.

Disclosure number	Disclosure title	Where to find this information
<b>► Economic Standards and Business Ethics</b>		
<b>GRI-201</b>	<b>Economic Performance</b>	
201-1	Direct economic value generated and distributed	<ul style="list-style-type: none"> <li>– Ferrexpo Annual Report and Accounts for 2021, pages 147 to 205.</li> <li>– Appendix – Ethical Business, page 101.</li> <li>– The Group does not provide a breakdown of value generated and distributed by country on the basis that the Group’s production facilities are based in one country (Ukraine).</li> <li>– A breakdown of sales by country is provided on page 157 of the Group’s Annual Report and Accounts for 2021.</li> </ul>
201-2	Financial implications and other risks and opportunities due to climate change	<ul style="list-style-type: none"> <li>– Ferrexpo Annual Report and Accounts for 2021, pages 35 to 39.</li> <li>– Appendix – Climate change risks and opportunities, pages 77 to 81.</li> </ul>
201-3	Defined benefit plan obligations and other retirement plans	<ul style="list-style-type: none"> <li>– Appendix – Ethical Business, page 101.</li> </ul>
201-4	Financial assistance received from government	<ul style="list-style-type: none"> <li>– Appendix – Ethical Business, page 101.</li> </ul>
<b>GRI-202</b>	<b>Market Presence</b>	
202-1	Ratios of standard entry level wage by gender compared to local minimum wage	<ul style="list-style-type: none"> <li>– The Group can confirm that the significant proportion of its workforce are remunerated above the minimum wage in the countries in which it operates. In 2021, no individuals were paid in line with the minimum wage in Ukraine, where the majority of the Group’s workforce are based.</li> <li>– The Group defines Ukraine as its only “significant location of operation” on the basis that 100% of its production is from its assets in Ukraine.</li> <li>– Average salaries for Ferrexpo’s entry level positions (Grade 1) are 7% above the Ukrainian minimum wage for women (2020: 3.4% above) and 3% above the minimum wage for men (2020: 1.3% above).</li> </ul>
202-2	Proportion of senior management hired from the local community	<ul style="list-style-type: none"> <li>– Appendix – Workforce development, page 85.</li> </ul>

# Appendix – Global Reporting Initiative index

continued

Disclosure number	Disclosure title	Where to find this information
<b>► Economic Standards and Business Ethics</b>		
<b>GRI-203</b>	<b>Indirect Economic Impacts</b>	
203-1	Infrastructure investments and services supported	– Supporting Communities section, pages 63 to 67.
203-2	Significant indirect economic impacts	– Ethical Business section, pages 59 and 61.
<b>GRI-204</b>	<b>Procurement Practices</b>	
GRI 204-1	Proportion of spending on local suppliers	– Ethical Business section (Partnering with local suppliers), page 59.
<b>GRI-205</b>	<b>Anti-Corruption</b>	
205-1	Operations assessed for risks related to corruption	– Ethical Business section (Supplier screening), page 59.
205-2	Communication and training about anti-corruption policies and procedures	– Ethical Business section, pages 56 to 57.
205-3	Confirmed incidents of corruption and actions taken	– Appendix – Ethical Business, page 102.
<b>GRI-206</b>	<b>Anti-Competitive Behaviour</b>	
206-1	Legal actions for anti-competitive behaviour, anti-trust, and monopoly practices	– Appendix – Ethical Business, page 102.
<b>GRI-207</b>	<b>Tax</b>	
207-1	Approach to tax	– Ethical Business section (Tax), page 61.
207-2	Tax governance, control, and risk management	– Annual Report and Accounts for 2021, pages 54 to 72. – Ethical Business section, pages 55 to 62.

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Disclosure number	Disclosure title	Where to find this information
<b>► Environmental Standards</b>		
<b>GRI-301</b>	<b>Materials Used</b>	
301-1	Materials used by weight or volume	– Appendix – Protecting environments, page 98.
301-2	Recycled input materials used	– Appendix – Protecting environments, page 98.
301-3	Reclaimed products and their packaging materials	– Appendix – Protecting environments, page 98.
<b>GRI-302</b>	<b>Energy Usage</b>	
302-1	Energy consumption within the organisation	– Protecting Environments section (Energy), page 50. – Appendix – Protecting environments, pages 95 to 96.
302-2	Energy consumption outside the organisation	– Not applicable
302-3	Energy intensity	– Protecting Environments section (Energy), page 50. – Appendix – Protecting environments, pages 95 to 96.
302-4	Reduction of energy consumption	– Protecting Environments section (Energy), page 50. – Appendix – Protecting environments, pages 95 to 96.
302-5	Reductions in energy requirements of products and services	– Protecting Environments section (Energy), page 50. – Ferrexpo's products (iron ore pellets) are used by steelmakers to produce steel, with each steel mill using its own process and mix of materials to produce the desired steel product, which will vary from facility to facility. Therefore there is no uniform energy requirement applicable for Ferrexpo's products.
<b>GRI-303</b>	<b>Water and Effluents</b>	
303-1	Water withdrawal	– Protecting Environments section (Water), page 51. – Appendix – Protecting environments, pages 91 and 97.
303-2	Water consumption	– Sustainable Environments section (Water), page 51. – Appendix – Protecting environments, pages 91 and 97.
303-3	Water discharge	– Sustainable Environments section (Water), page 51. – Appendix – Protecting environments, pages 91 and 97.
<b>GRI-304</b>	<b>Biodiversity</b>	
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	– Protecting Environments section (biodiversity), pages 52 to 53.
304-2	Significant impacts of activities, products, and services on biodiversity	– Protecting Environments section (biodiversity), pages 52 to 53.
304-3	Habitats protected or restored	– Protecting Environments section (biodiversity), pages 52 to 53.

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Disclosure number	Disclosure title	Where to find this information
<b>► Environmental Standards</b>		
<b>GRI-305</b>	<b>Emissions</b>	
305-1	Direct (Scope 1) GHG emissions	<ul style="list-style-type: none"> <li>– Protecting Environments Section (climate change), pages 43 to 49.</li> <li>– Appendix – Protecting environments, pages 91 to 94.</li> </ul>
305-2	Energy indirect (Scope 2) GHG emissions	<ul style="list-style-type: none"> <li>– Protecting Environments Section (climate change), pages 43 to 49.</li> <li>– Appendix – Protecting environments, pages 91 to 94.</li> </ul>
305-3	Other indirect (Scope 3) GHG emissions	<ul style="list-style-type: none"> <li>– Protecting Environments Section (climate change), pages 43 to 49.</li> <li>– Appendix – Protecting environments, pages 91 to 94.</li> </ul>
305-4	GHG emissions intensity	<ul style="list-style-type: none"> <li>– Protecting Environments Section (climate change), pages 43 to 49.</li> <li>– Appendix – Protecting environments, pages 91 to 94.</li> </ul>
305-5	Reduction of GHG emissions	<ul style="list-style-type: none"> <li>– Climate change – net zero pathway, page 47.</li> <li>– Climate change – climate change footprint, page 43.</li> <li>– Appendix – Protecting environments, pages 91 to 94.</li> </ul>
305-6	Emissions of ozone-depleting substances	<ul style="list-style-type: none"> <li>– Appendix – Protecting environments, page 95.</li> </ul>
305-7	Nitrogen oxides (NO <sub>x</sub> ), sulphur oxides (SO <sub>x</sub> ), and other significant air emissions	<ul style="list-style-type: none"> <li>– Appendix – Protecting environments, page 94.</li> </ul>
<b>GRI-306</b>	<b>Waste</b>	
306-1	Water discharge – N/A	<ul style="list-style-type: none"> <li>– Standard incorporated into GRI-303 (2018)</li> </ul>
306-2	Waste by type and disposal method	<ul style="list-style-type: none"> <li>– Protecting Environments Section (waste generation), page 54.</li> <li>– Appendix – Protecting environments, waste generated, pages 96 to 97.</li> </ul>
306-3	Significant spills	<ul style="list-style-type: none"> <li>– Appendix – Protecting environments, waste generated, pages 96 to 97.</li> </ul>
306-4	Transport of hazardous waste	<ul style="list-style-type: none"> <li>– Appendix – Protecting environments, waste generated, pages 96 to 97.</li> </ul>
306-5	Water bodies affected by discharge	<ul style="list-style-type: none"> <li>– Appendix – Protecting environments, waste generated, pages 96 to 97.</li> </ul>
<b>GRI-307</b>	<b>Environmental Compliance</b>	
307-1	Non-compliance with environmental laws and regulations	<ul style="list-style-type: none"> <li>– Appendix – Protecting environments, waste generated, page 98.</li> </ul>
<b>GRI-308</b>	<b>Supplier Environmental Assessment</b>	
308-1	New suppliers that were screened using environmental criteria	<ul style="list-style-type: none"> <li>– Ethical Business section (corporate governance), pages 55 to 59.</li> <li>– Appendix – Ethical Business, supplier screening, page 99.</li> </ul>
308-2	Negative environmental impacts in the supply chain and actions taken	<ul style="list-style-type: none"> <li>– Appendix – Protecting environments, waste generated, page 98.</li> <li>– Appendix – Ethical business, page 99.</li> </ul>

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continued

Disclosure number	Disclosure title	Where to find this information
<b>► People and Workforce Standards</b>		
<b>GRI-401</b>	<b>Employment</b>	
401-1	New employee hires and employee turnover	– Appendix – workforce development (employee turnover), page 87.
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	– Not applicable – benefits apply equally
401-3	Parental leave	– Appendix – Workforce development (parental leave), page 90.
<b>GRI-402</b>	<b>Labour Management Relations</b>	
402-1	Minimum notice periods regarding operational changes	– Unchanged from 2018 – See 2018 Responsible Business Report, page 15
<b>GRI-403</b>	<b>Occupational Health and Safety</b>	
403-1	Occupational health and safety management system	– Appendix – Workforce development (safety management systems), page 83.
403-2	Hazard identification, risk assessment, and incident investigation	– Appendix – Workforce development (risk identification), page 84.
403-3	Occupational health services	– Appendix – Workforce development (occupational health), page 84.
403-4	Worker participation, consultation, and communication on occupational health and safety	– Appendix – Workforce development (engagement on health and safety topics), page 84.
403-5	Worker training on occupational health and safety	– Workforce Development section, pages 28 to 40. – Appendix – Workforce development (safety training), page 84.
403-6	Promotion of worker health	– Workforce Development section, pages 28 to 40. – Appendix – Workforce development (safety training), page 84.
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	– Appendix – Workforce development (occupational health), page 84.
403-8	Workers covered by an occupational health and safety management system	– Appendix – Workforce development (occupational health), page 84.
403-9	Work-related injuries	– Workforce Development section, pages 28 to 31. – Appendix – Workforce development (safety statistics by region and gender), page 83.
403-10	Work-related ill health	– Appendix – Workforce development, page 84.
<b>GRI-404</b>	<b>Training and Education</b>	
404-1	Average hours of training per year per employee	– Appendix – Workforce development (training offered), page 88.
404-2	Programmes for upgrading employee skills and transition assistance programmes	– Workforce Development section, pages 38 to 40. – Appendix – Workforce development (training offered), page 88.
404-3	Percentage of employees receiving regular performance and career development reviews	– Appendix – Workforce development (training offered), page 88.

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Disclosure number	Disclosure title	Where to find this information
<b>► People and Workforce Standards</b>		
<b>GRI-405</b>	<b>Diversity and Equal Opportunity</b>	
405-1	Diversity of governance bodies and employees	<ul style="list-style-type: none"> <li>– Appendix – Workforce development (diversity at Board level), page 89.</li> <li>– Appendix – Workforce development (diversity within employee workforce), page 89.</li> </ul>
405-2	Ratio of basic salary and remuneration of women to men	<ul style="list-style-type: none"> <li>– In 2021, the average entry level salary for women at Ferrexpo's Ukrainian operations was 104% of the equivalent for men (2020: female salary 102% of male).</li> </ul>
<b>GRI-406</b>		
406-1	Incidents of discrimination and corrective actions taken	<ul style="list-style-type: none"> <li>– The Group can confirm that there were no incidents of discrimination in 2021 (2020: none).</li> </ul>
<b>GRI-407</b>	<b>Freedom of Association and Collective Bargaining</b>	
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	<ul style="list-style-type: none"> <li>– Appendix – Workforce development (Supplier Code of Conduct), page 90.</li> </ul>
<b>GRI-408</b>	<b>Child Labour</b>	
408-1	Operations and suppliers at significant risk for incidents of child labour	<ul style="list-style-type: none"> <li>– Appendix – Workforce development (policies to protect against modern day slavery), pages 89 to 90.</li> </ul>
<b>GRI-409</b>	<b>Forced or Compulsory Labour</b>	
409-1	Operations and suppliers at significant risk for incidents of forced or compulsory labour	<ul style="list-style-type: none"> <li>– Appendix – Workforce development (policies to protect against modern day slavery), pages 89 to 90.</li> </ul>
<b>GRI-410</b>	<b>Security Practices</b>	
410-1	Security personnel trained in human rights policies or procedures	<ul style="list-style-type: none"> <li>– The Group aims to train all employees, including security personnel, in the Group's Code of Conduct, which includes training on human rights.</li> <li>– Ethical Business section (Code of Conduct), page 62.</li> </ul>
<b>GRI-411</b>	<b>Rights of Indigenous Peoples</b>	
411-1	Incidents of violations involving rights of indigenous peoples	<ul style="list-style-type: none"> <li>– The Group can confirm that there were no identified incidents of violations by the Group that involved the rights of indigenous peoples during 2021 (2020: none).</li> </ul>

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continued

Disclosure number	Disclosure title	Where to find this information
<b>► People and Workforce Standards</b>		
<b>GRI-412</b>	<b>Human Rights Assessment</b>	
412-1	Operations that have been subject to human rights reviews or impact assessments	<ul style="list-style-type: none"> <li>– The Group can confirm that it was not subject to a human rights review in 2021 (2020: none).</li> </ul>
412-2	Employee training on human rights policies or procedures	<ul style="list-style-type: none"> <li>– The Group aims to train all employees in the Group's Code of Conduct, which includes training on human rights.</li> <li>– Ethical Business section (Code of Conduct), page 62.</li> </ul>
412-3	Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening	<ul style="list-style-type: none"> <li>– As of 2021, 98% of the total number of agreements signed by Ferrexpo's operating entities that have a value of over UAH 500,000 included references to Ferrexpo's Code of Conduct for Business Partners, which covers human rights screening (96% of total number of contracts).</li> </ul>
<b>GRI-413</b>	<b>Local Communities</b>	
413-1	Operations with local community engagement, impact assessments, and development programmes	<ul style="list-style-type: none"> <li>– The Group has three operating entities in Ukraine, which all have local community engagement programmes. In addition, the Group's barging subsidiary in central Europe also has a community engagement programme.</li> <li>– Communities section, pages 63 to 67.</li> </ul>
413-2	Operations with significant actual and potential negative impacts on local communities	<ul style="list-style-type: none"> <li>– Appendix – Ethical business and communities, page 102.</li> </ul>
<b>GRI-414</b>	<b>Supplier Social Assessment</b>	
414-1	New suppliers that were screened using social criteria	<ul style="list-style-type: none"> <li>– Ethical Business section, pages 55 to 62.</li> <li>– Appendix – Ethical business, pages 99 to 102.</li> </ul>
414-2	Negative social impacts in the supply chain and actions taken	<ul style="list-style-type: none"> <li>– The Group identifies high-risk entities in its supply chain through regular monitoring, and finds alternative suppliers where possible. As of the end of 2021, no negative social impacts were identified in the Group's current supply chain (2020: none).</li> </ul>
<b>GRI-415</b>	<b>Public Policy</b>	
415-1	Political contributions	<ul style="list-style-type: none"> <li>– The Group can confirm that it made no political donations during 2021 (2020: none).</li> </ul>
<b>GRI-416</b>	<b>Customer Health and Safety</b>	
416-1	Assessment of the health and safety impacts of product and service categories	<ul style="list-style-type: none"> <li>– Not applicable to iron ore pellets</li> </ul>
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	<ul style="list-style-type: none"> <li>– The Group can confirm that there were no incidents of non-compliance with regulations and/or voluntary codes concerning the impact on health and safety of the Company's products and services in 2021 (2020: none).</li> </ul>

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continued

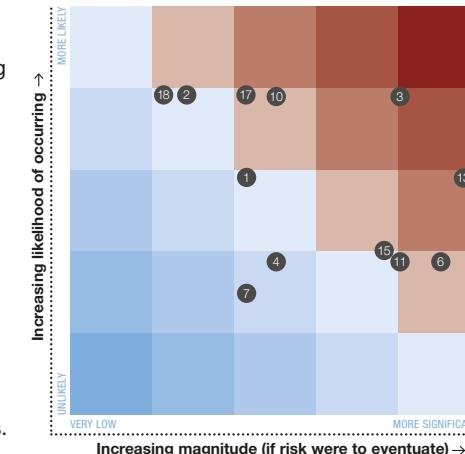
Disclosure number	Disclosure title	Where to find this information
<b>► People and Workforce Standards</b>		
<b>GRI-417</b>	<b>Marketing and Labelling</b>	
417-1	Requirements for product and service information and labelling	– Appendix – Ethical business, page 101.
417-2	Incidents of non-compliance concerning product and service information and labelling	– The Group can confirm that there were no incidents of non-compliance with regulations and/or voluntary codes concerning product and service information and labelling in 2021 (2020: none).
417-3	Incidents of non-compliance concerning marketing communications	– The Group can confirm that there were no incidents of non-compliance with regulations and/or voluntary codes concerning marketing communications in 2021 (2020: none).
<b>GRI-418</b>	<b>Customer Privacy</b>	
418-1	Substantiated complaints concerning breaches of customer privacy and losses of customer data	– The Group can confirm that there were no substantiated complaints received during 2021 regarding breaches of data privacy (2020: none).
<b>GRI-419</b>	<b>Socioeconomic Compliance</b>	
419-1	Non-compliance with laws and regulations in the social and economic area	– The Group can confirm that it remains in compliance with local laws and regulations in the countries in which it operates.

## Appendix – Climate change risks and opportunities

# MITIGATING RISKS, IDENTIFYING OPPORTUNITIES

The Group has an internal risk register which considers emerging and principal risks related to the business in terms of monetary impact, probability, maximum foreseeable loss, trend and mitigating actions. The risk register is updated monthly and discussed by executive management at the Group's Finance and Risk Management Committee, where the completeness of the risk register is also considered and any new identifiable risks added. The risk register is also discussed and reviewed by the Audit Committee, at least quarterly per year.

The Board of Directors of Ferrexpo has ultimate responsibility for the identification of emerging and principal risks and associated strategies to manage and mitigate such risks, and confirms that during the year it carried out a robust assessment of the Group's emerging and principal risks. The Chief Executive Officer, Chief Financial Officer, Chief Operating Officer and Chief Marketing Officer manage specific risks on a day-to-day basis related to their functions.



Area	Risk description	Category (physical, regulatory or other) and time horizon	Potential financial implication of risk	Methods used to manage risk and associated costs
► Part 1: Transition risks associated with the transition to a lower-carbon economy				
<b>Policy and legal risks (related to the transition to a lower-carbon economy)</b>				
1) Carbon pricing	As of 1 January 2019, Ukrainian parliament passed a law increasing the country's carbon tax from UAH 0.41 per tCO <sub>2</sub> e to UAH 10 per tCO <sub>2</sub> e, with further planned increases of UAH 5 per year for the following four years. Ukraine has also stated through the Ukraine-EU Association Agreement that it intends to establish an Emissions Trading System ("ETS"), similar to the EU's existing ETS. Under the EU ETS, carbon reached a price of €89 per tCO <sub>2</sub> e in January 2022, representing a rise of more than 150% on the price seen 12 months previous, and reflecting a potential increase to the Group's cost base if Ukrainian carbon pricing were to align with EU pricing.	Regulatory. Short to medium term.	Increased operating costs.	Carbon reduction initiatives.  Clear reporting of the Company's GHG emissions.
2) Enhanced emissions-reporting obligations	Currently, under local legislation, the Group is required to report emissions of a number of gaseous emissions on both a quarterly and annual basis to local authorities, including CO <sub>2</sub> , SO <sub>2</sub> , NO <sub>2</sub> , CO and NMVOCs, as well as solid emissions (dust), from stationary and mobile sources of emissions. Increased frequency and/or the number of gases required to be reported would potentially require additional testing equipment.	Regulatory. Short to medium term.	Increased operating costs.  Social licence to operate.	Not applicable.

## Appendix – Climate change risks and opportunities continued

Area	Risk description	Category (physical, regulatory or other) and time horizon	Potential financial implication of risk	Methods used to manage risk and associated costs
<b>► Part 1: Transition risks associated with the transition to a lower-carbon economy continued</b>				
<b>3) Mandates on and regulation of existing products</b>	The global steel industry is facing increasing scrutiny and regulatory pressure, particularly in regard to its environmental impact. Increasing regulatory requirements for steelmakers, to which Ferrexpo sells its iron ore pellets, may have an impact on Ferrexpo's ability to market its pellets to specific customers and/or markets. This may also present an opportunity as countries regulate away from less efficient forms of iron ore and towards pellets – see opportunities section below.	Regulatory. Long term.	Increased operating costs.  Markets served.	Not applicable.
<b>4) Exposure to litigation</b>	As environmental regulation increases, a number of environmental pledges are being made at the international level (e.g. Paris Agreement) and corporate level. Stakeholders, including local communities and financial investors, are increasingly reliant on these pledges to understand the strategy and positioning of a company. With investors, this may affect investment decisions. With local communities, this may affect approval of local licences to operate. Increasing environmental legislation and public pledges exposes companies to increased risk of litigation should that company not adhere to legislation and/or commitments made.	Regulatory. Short to medium term.	Increased operating costs.  Social licence to operate.	Carbon reduction initiatives.  Clear reporting of the Group's GHG emissions.
<b>Policy and legal opportunities (related to the transition to a lower-carbon economy)</b>				
<b>5) Mandates on and regulation of existing products</b>	Iron ore pellets, which tend to be higher grade in terms of iron content and contain fewer impurities than alternative sources of iron for steelmakers (such as sinter and lump), have an environmental benefit for the steelmakers as iron ore pellets require less iron ore and less coal to process these raw materials into a tonne of steel (compared to sinter or lump). As changing regulations encourage steel mills to reduce their environmental footprints, this may encourage increased demand for iron ore pellets. For more details, see Protecting Environments section (climate change), on pages 43 to 49.	Regulatory. Long term.	Increased demand for iron ore pellets.	Not applicable
<b>Technology risks (related to the transition to a lower-carbon economy)</b>				
<b>6) Substitution of existing products and services with lower emissions options</b>	The Group principally produces iron ore pellets for customers that utilise blast furnaces to produce steel. As environmental regulation increases, a number of customers may switch to forms of steel production that generate less greenhouse gas emissions, such as direct reduction ("DR") pellets. This switch would require Ferrexpo to change its product mix, to produce more DR pellets, which currently represent less than 5% of total sales.	Regulatory. Long term.	Capital cost of changing production process.	Investment in mining and processing operations to optimise product mix for long-term future.
<b>7) Unsuccessful investment in new technologies</b>	The Group is constantly looking to drive efficiency gains and increase output at its operations, which often entails new technology and techniques, not all of which will be successful.	Physical. Short, medium and long term.	Capital cost of changing production process.	Operational best practices.

## Appendix – Climate change risks and opportunities continued

Area	Risk description	Category (physical, regulatory or other) and time horizon	Potential financial implication of risk	Methods used to manage risk and associated costs
► Part 1: Transition risks associated with the transition to a lower-carbon economy continued				
<b>Technology opportunities (related to the transition to a lower-carbon economy)</b>				
<b>8) Successful investment in new technologies</b>	The Group is constantly looking to drive efficiency gains and increase output at its operations, which often entails new technology and techniques. An example of a successful change in the production process is the partial substitution of natural gas in the pelletiser with sunflower husks, which has been a project underway since 2015, and provides an environmental gain through reduced hydrocarbon consumption.	Physical. Short, medium and long term.	Capital cost of changing production process.	Not applicable.
<b>Market risks (related to the transition to a lower-carbon economy)</b>				
<b>9) Changing customer behaviour</b>	Whilst Ferrexpco works hard to develop its customer relationships, and sell the Group's iron ore pellets under long-term contracts, the risk exists that customers may elect to receive iron ore (pellets, sinter or lump) from alternative sources. Examples for this risk include financial, political or climate-related reasons (perceived or actual).	Commercial and physical. Long term.	Lower realised prices for Ferrexpco products.	Marketing/customer relationships.
<b>10) Market uncertainty leading to lower realised prices</b>	Market factors such as the iron ore price, pellet premiums, freight rates and currency rates are all factors that are independent of the Company's controlled activities and can be influenced by a number of reasons that may be financial, market, social, or environmental in nature.	Commercial. Short, medium and long term.	Lower realised prices for Ferrexpco products.	Operational improvements to lower costs and increase product quality.
<b>11) Increased cost of raw materials/access to raw materials</b>	The Group relies on a number of input materials to mine, process and transport its products to its customers, such as natural gas, diesel, sunflower husks, and steel grinding media. Climate change and shifting environmental regulations may either restrict access to these materials and/or raise unit costs of purchasing them.	Physical and regulatory. Short to medium term.	Increased operating costs.	Improving operational efficiencies and efficient procurement practices.
<b>Market opportunities (related to the transition to a lower-carbon economy)</b>				
<b>12) Changing customer behaviour</b>	Increasing environmental regulation is driving steel mills around the world to adapt their behaviours and improve operational efficiencies. This presents an opportunity for Ferrexpco to potentially supply a wider range of steel mills with iron ore pellets, which tend to be higher grade products than alternatives to pellets, which in turn would lead to increased demand and higher realised prices for iron ore pellets.	Commercial/market. Long term.	Higher realised prices for Ferrexpco products.	Marketing/customer relationships. Operational consistency and improvements.

## Appendix – Climate change risks and opportunities continued

Area	Risk description	Category (physical, regulatory or other) and time horizon	Potential financial implication of risk	Methods used to manage risk and associated costs
► Part 1: Transition risks associated with the transition to a lower-carbon economy continued				
<b>Reputational risks (related to the transition to a lower-carbon economy)</b>				
<b>13) Shifts in consumer preferences</b>	Ferrexpo's customers may elect to buy iron ore pellets from another supplier, should Ferrexpo not be viewed as having sufficient environmental credentials as a producer of iron ore pellets. A poor reputation on the Group's environmental footprint may also affect other stakeholders, such as lenders providing access to finance, and local communities granting a social licence to operate.	Commercial/market, and physical. Medium to long term.	Access to capital. Share price.	Continued clear reporting on GHG emissions and environmental benefits of using iron ore pellets.
<b>14) Stigmatisation of sector</b>	The iron ore mining sector, wider mining and steel sectors may face reputational headwinds similar to those experienced by the coal industry in recent years, whereby access to capital and investor interest may become limited due to changing environmental priorities of stakeholders.	Commercial/market, and regulatory. Medium to long term.	Access to capital. Share price.	Continued clear reporting on GHG emissions and environmental benefits of using iron ore pellets.
<b>15) Increased stakeholder concern or negative stakeholder feedback</b>	Ferrexpo's activities have a direct and indirect (perceived) impact on those around it, including stakeholders such as employees, contractors, local communities, lenders, investors, and customers. Any non-compliance with environmental best practices, whether actual or perceived, could negatively impact the Company's reputation, and therefore its ability to operate.	Physical and commercial/market. Short, medium and long term.	Increased operating costs. Access to capital. Share price.	Marketing/customer relationships. Operational best practices.
<b>Reputational opportunities (related to the transition to a lower-carbon economy)</b>				
<b>16) Shifts in consumer preferences</b>	Should Ferrexpo successfully position itself as a low-carbon producer of iron ore relative to its peers, demand for Ferrexpo's pellets is likely to increase from existing customers and potential new customers.	Commercial/market, and physical. Long term.	Access to capital. Share price.	Not applicable.

## Appendix – Climate change risks and opportunities continued

Area	Risk description	Category (physical, regulatory or other) and time horizon	Potential financial implication of risk	Methods used to manage risk and associated costs
<b>► Part 2: Physical risks associated with the transition to a lower-carbon economy</b>				
<b>Acute physical risks (related to the transition to a lower-carbon economy)</b>				
<b>17) Increased severity of extreme weather events such as cyclones and floods</b>	<p>Ferrexpo is located adjacent to a major river, the Dnieper River, the local level of which is controlled by hydroelectric dams upstream and downstream of the Group's mines. This however does not rule out localised flooding of the river, due to a changing climate, which would have an adverse impact on the Group's operations.</p> <p>Ferrexpo also mines its iron ore via open cast mines, which require dewatering via pumps. The rate of dewatering is dictated by the level of water ingress, and extreme rainfall events could have the potential to temporarily exceed the Group's ability to dewater its mines, which would temporarily restrict access to the mining of iron ore.</p>	Physical. Long term.	<p>Restricted access to mining operations.</p> <p>Increased operating costs.</p> <p>Reduced revenue.</p>	Operational best practices.
<b>18) Changes in precipitation patterns and extreme variability in weather patterns</b>	Ferrexpo relies on water to process its iron ores through wet magnetic separation and also utilises water to pump tailings to the tailings dam, situated one kilometre to the east of the Group's processing facilities. Restrictions on the use of water would require capital expenditures to modify the existing process flow sheet. Failure to do so would potentially lower the quality of Ferrexpo's pellets as dry processing of ores is not as efficient at removing waste materials than wet processing.	Physical. Long term.	<p>Capital expenditures.</p> <p>Reduced revenues.</p>	Operational best practices.

## Appendix – Index of reporting under Sustainability Accounting Standards Board

Topic	Accounting metric	Code	Location in this report
<b>Greenhouse gas emissions</b>	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations.	EM-IS-110a.1	Protecting Environments section, pages 43 to 49. Appendix – Protecting environments, pages 91 to 94.
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets.	EM-IS-110a.2	Protecting Environments section, pages 43 to 44. Appendix – Protecting environments, pages 91 to 92.
<b>Air emissions</b>	Air emissions of the following pollutants:  (1) CO, (2) NO <sub>x</sub> (excluding N <sub>2</sub> O), (3) SO <sub>x</sub> , (4) particulate matter (PM10), (5) manganese oxide (MnO <sub>2</sub> ), (6) lead (Pb), (7) volatile organic compounds (“VOCs”), and (8) polycyclic aromatic hydrocarbons (“PAHs”).	EM-IS-120a.1	Appendix – Sustainable environments, page 94.
<b>Energy management</b>	(1) Total energy consumed, (2) percentage grid electricity, and (3) percentage renewable.	EM-IS-130a.1	Appendix – Sustainable environments, page 95.
	(1) Total fuel consumed, (2) percentage coal, (3) percentage natural gas, and (4) percentage renewable.	EM-IS-130a.2	Appendix – Sustainable environments, pages 92 and 95.  Coal represented 0.017% of the energy consumed in 2021 (2020: 0.025%). Natural gas represented 30% of the energy consumed in 2021 (2020: 27%). Renewables represented 1% of total energy use in 2021 (2020: 2%). Note that 2020 renewables figure is restated – previous figure quoted was for clean electricity use, rather than renewables.
<b>Water management</b>	(1) Total fresh water withdrawn, (2) percentage recycled, and (3) percentage in regions with high or extremely high baseline water stress.	EM-IS-140a.1	Protecting Environments section, page 51. Appendix – Protecting environments, page 97.
<b>Waste management</b>	Amount of waste generated, percentage hazardous, percentage recycled.	EM-IS-150a.1	Appendix – Protecting environments, pages 96 and 97.
<b>Workforce health &amp; safety</b>	(1) Total recordable injury frequency rate (“TRIFR”), (2) fatality rate, and (3) near miss frequency rate (“NMFR”) for (a) full-time employees, and (b) contract employees.	EM-IS-320a.1	Workforce Development section, pages 28 to 30. Appendix – Workforce development, page 83.
<b>Supply chain management</b>	Discussion of the process for managing iron ore and/or coking coal sourcing risks arising from environmental and social issues.	EM-IS-430a.1	Whilst the Group does not source iron ore or coal from third parties, the Group does conduct third-party due diligence and compliance checks on those it does business with. See Ethical Business section (pages 56-59) for more information.
<b>Activity metric (applicable to iron ore producers)</b>	Total iron ore production.	EM-IS-000.B	Ferrexpo produced 11.5Mt of iron ore products in 2021 (2020: 11.4Mt).

## Appendix – Workforce development

### Safety statistics by region and gender

Jurisdiction	Subsidiary	Ukraine	FPM	FYM	FBM	Central Europe (Austria, Hungary, Serbia)	First-DDSG	Group
<b>2021 data</b>								
Fatalities			–	–	–	–	–	–
Fatality rate			–	–	–	–	–	–
Lost time injuries		7	2	–	–	–	9	
LTIFR		0.43	0.50	–	–	–	0.41	
Lost days		459	38	–	–	–	497	
<b>2020 data</b>								
Fatalities		1	–	–	–	–	1	
Fatality rate		0.06	–	–	–	–	0.05	
Lost time injuries		16	1	–	–	–	17	
LTIFR		0.92	0.39	–	–	–	0.79	
Lost days		1,037	20	–	–	–	1,057	

In 2021, the Group recorded seven LTIs at its main operating subsidiary, Ferrexpo Poltava Mining (“FPM”), one of which involved a female (2020: 16 LTIs at FPM, two of which involved females). At the Group’s second largest operating entity – Ferrexpo Yeristovo Mining (“FYM”) – the Group recorded two LTIs in 2021, neither of which involved a female (2020: only one LTI, which involved a male). The Group’s barging subsidiary in central Europe recorded zero LTIs in both 2021 and 2020. The gender ratio of LTIs at Ferrexpo’s operations in 2021 (14% relating to females in 2021) broadly mirrored the overall gender balance of roles within the Group’s operational activities.

The Group recorded five near miss events across the Group in 2021 (2020: seven), representing a near miss frequency rate of 0.23 per million hours worked, and this represents a 30% reduction on the prior year (2020: 0.32).

### Safety management systems

Following the Group’s successful accreditation for ISO 45001 (occupational health and safety management systems) at FPM in December 2020, the Group has managed to achieve the same result at its other two operating subsidiaries (FYM and FBM) in December 2021 and February 2022 respectively, meaning that the Group’s three operating subsidiaries, collectively representing 95% of the hours worked by the Group’s workforce (employees and contractors combined) is accredited with this operating standard (ISO 45001).

### Safety representation

Ferrexpo operates with a health and safety committee that has employee representation through the workforce union that is present at Ferrexpo’s operations. Committee members include Executive Committee members of the wider Ferrexpo Group, with 88% of the Group’s employees in Ukraine represented by the recognised labour union (2020: 87%). The Group also has a labour union at its barging subsidiary (First-DDSG) in central Europe, which sets the rate of pay for 21 employees (26% of the total employees of this subsidiary).

## Appendix – Workforce development continued

### Safety training

The Group aims to promote worker safety through its own training programmes, to help foster a safety-first culture within the business. In 2021, 3,426 employees undertook safety training (2020: 4,068), with a further 566 contractors trained in safety in 2021 (2020: 242). The Group views contractor training as being equally as important as employee training, since safety is a consideration regardless of an individual's contract status.

### Occupational disease

The Group had no recorded incidents of occupational diseases during 2020 or 2021.

### Engagement on health and safety topics

Ferrexpo's employee workforce at its operations in Ukraine have a recognised labour union, with which the Group has a series of agreements governing the Group's interaction with its employee workforce. Included within these agreements are provisions for health and safety topics, such as an individual's right to personal protective equipment of a specific standard and safety training provisions. The labour union at Ferrexpo's operations represented 88% of the Group's employees at its operations in 2021 (2020: 87%).

### Environmental management systems

As of the date of this report, the Group has ISO 14001:2015 accreditation for its environmental management system at both FPM and FBM. The scope of the ISO accreditation is on the basis of individual business entities, including all employees and contractors that work within each entity. The Group does not selectively cover working areas with ISO practices over others.

### Safety: risk identification

Ferrexpo understands that ensuring all workers return home safely once their shift has finished begins with thorough risk identification and risk mitigation across the Company's business, to help protect workers from risks and remove workers from unsafe situations so that injuries are not incurred. Risks are identified through audits conducted by Ferrexpo's safety teams at FPM, FYM and FBM, and recorded in a risk register that accounts for the potential impact, or severity, of an event occurring and the likelihood of it occurring, and ranking each risk as low, medium, high or very high according to this assessment. All 15 operational departments maintain a risk register specific to each department, with each register reviewed and updated regularly, as new risks are identified, when technological processes change or at times of changes in legislation.

During 2021, a total of 3,293 safety inspections were carried out across Ferrexpo's operations in Ukraine (2020: 3,305).

### Occupational health

The Group aims to promote a healthy, balanced lifestyle with its workers, and engages with workers through social media, billboards around Ferrexpo operations and the town of Horishni Plavni, and advertisements in local newspapers.

Ferrexpo manages the occupational health of its workforce through its own managed medical centre, located at FPM. This medical facility is managed independently on a day-to-day basis, and patient records remain confidential, to ensure no favourable or unfavourable treatment of workers is derived through these health assessments.

In 2021, the Group's medical centre provided medical checks to 5,636 employees (2020: 3,750 checks), with the increase seen related to the easing of Covid-19 restrictions and a general return to people attending their place of work (rather than remote working).

Further to the Group's own medical centre, the Group funds local government-run hospitals and medical centres, which provide free healthcare to local residents and employees. Local residents, including employees based locally, are able to apply to the Group's own Charity Fund for grants to help fund expensive medical procedures that would otherwise be unaffordable.

Ferrexpo's Code of Conduct for Business Partners also makes provisions for the Group's suppliers to provide a healthy and safe working environment to employees of business partners, amongst other provisions.

## Appendix – Workforce development continued

### Total global workforce

Employee and contractor numbers by location (2021)

	Location	Employees	Contractors	Total
Operations	Europe	8,121	2,129	10,250
Logistics and Marketing	Asia, Europe, MENA	121	19	140
Corporate	Europe	25	1	26
<b>Total</b>		<b>8,267</b>	<b>2,149</b>	<b>10,416</b>

### Local hiring

	Operations (Europe)	Logistics and Marketing (Asia, MENA, Europe)	Corporate (Europe)	Ferrexpo Group Total (2021)	Ferrexpo Group Total (2020)
Number of Workers and Administrators hired from local community	1,412	2	–	1,414	387
Number of Specialists hired from local community	272	4	–	276	81
Number of Managers hired from local community	25	1	–	26	9
<b>Total number of hires from local community</b>	<b>1,709</b>	<b>7</b>	<b>–</b>	<b>1,716</b>	<b>477</b>
Number of Workers and Administrators hired (non-local)	55	3	–	58	68
Number of Specialists hired from elsewhere (non-local)	6	4	–	10	12
Number of Managers hired from elsewhere (non-local)	4	1	–	5	6
<b>Total number of hires (non-local)</b>	<b>65</b>	<b>8</b>	<b>–</b>	<b>73</b>	<b>86</b>
<b>Total number of all new hires (#)</b>	<b>1,774</b>	<b>15</b>	<b>–</b>	<b>1,789</b>	<b>563</b>
<i>% Hires from local community</i>	96%	47%	–	96%	85%

Note: Local community defined as being within a 30km radius of Ferrexpo's operations.

## Appendix – Workforce development continued

### New hires to Ferrexpo Group in 2021 (by age, gender and location)

New hires in 2021 by age, gender and location	Operations (Europe)	Logistics and Marketing (Asia, MENA, Europe)	Corporate (Europe)	Ferrexpo Group			% Total 2020
				Total (2021)	% Total 2021	Total (2020)	
Number of new hires – Age 18–29 years (#)	146	–	–	146	26%	313	43%
Number of new hires – Age 30–39 years (#)	162	10	1	173	31%	185	25%
Number of new hires – Age 40–49 years (#)	105	7	–	112	20%	124	17%
Number of new hires – Age 50–59 years (#)	60	3	1	64	11%	62	8%
Number of new hires – Age 60 years and above (#)	66	2	–	68	12%	49	7%
Number of new hires – Male (#)	338	15	1	354	63%	555	76%
Number of new hires – Female (#)	201	3	1	205	37%	178	24%
Number of new hires – Male (%)	63%	83%	50%	63%		76%	
Number of new hires – Female (%)	37%	17%	50%	37%		24%	

## Appendix – Workforce development continued

### Employee turnover – Employees departing Ferrexpo Group in 2021 (by age, gender and location)

	Operations (Europe)	Logistics and Marketing (Asia, MENA, Europe)	Corporate (Europe)	Ferrexpo Group Total (2021)	Ferrexpo Group Total (2020)
Total number of resignations	407	10	–	417	314
Total number of retirees or departures for health reasons	1,578	2	–	1,580	566
Total number of involuntary leavers	141	2	–	143	109
<b>Total</b>	<b>2,126</b>	<b>14</b>	<b>–</b>	<b>2,140</b>	<b>989</b>
<hr/>					
Breakdown by Age					
18-29	277	1	–	278	123
30-39	615	6	–	621	171
40-49	578	3	–	581	134
50-59	442	4	–	446	156
60+	235	1	–	236	405
<b>Total</b>	<b>2,147</b>	<b>15</b>	<b>–</b>	<b>2,162</b>	<b>989</b>
<hr/>					
Total Male	1,768	12	–	1,780	638
Total Female	379	3	–	382	351
<hr/>					
% Turnover Males	30.7%	14.1%	–	30.4%	10.4%
% Turnover Females	16.0%	8.3%	–	15.8%	13.9%
% Turnover Total	26.4%	11.5%	–	25.9%	11.4%
% Turnover Total (involuntary)	1.7%	1.6%	–	1.7%	1.3%
<hr/>					
Total Female workforce	2,370	36	8	2,414	2,529
Total Male workforce	5,751	85	17	5,853	6,135

### Minimum notice periods

Before any major changes are enacted within the employee structure, under Ukrainian legislation, the Company must provide the labour union with a minimum of three months' notice and affected employees with a minimum of two months' notice.

## Appendix – Workforce development continued

### Employee benefits

The Group can confirm that all benefits that are provided as standard to the full-time employees of the organisation are also provided to temporary and part-time employees, in all locations of the business.

#### Training offered

Training undertaken in 2021	Operations (Europe)	Logistics and Marketing (Asia, MENA, Europe)	Corporate (Europe)	Total 2021	Total 2020	% Change
<b>Employees</b>						
Safety training courses undertaken by employees	3,394	32	–	3,426	4,068	-16%
Skills training courses undertaken by employees	1,856	209	–	2,065	1,717	+20%
Other functional training courses undertaken by employees	927	24	–	951	1,078	-12%
<b>Training courses undertaken by employees</b>	<b>6,177</b>	<b>265</b>	–	<b>6,442</b>	<b>6,863</b>	<b>-6%</b>
Number of workers and administrators trained (All)	2,860	231	–	3,091	3,924	-21%
Number of specialists trained (All)	2,378	18	–	2,396	2,252	+6%
Number of managers trained (All)	939	16	–	955	687	+39%
<b>Total number of workers, administrators, specialists and managers trained</b>	<b>6,177</b>	<b>265</b>	–	<b>6,442</b>	<b>6,863</b>	<b>-6%</b>
Total number of training hours for employees trained	114,134	1,130	–	115,264	166,755	-31%
Average number of training hours per employee trained	18	4	–	18	24	-26%
Sponsored learners (graduates, apprentices, bursaries and other trainees)	94	4	–	98	135	-27%
<b>Contractors</b>						
Safety training courses undertaken by contractors	566	–	–	566	242	+134%
Skills training courses undertaken by contractors	217	–	–	217	241	-10%
Other functional training courses undertaken by contractors	148	–	–	148	7	+2,014%
<b>Total number of contractors trained</b>	<b>931</b>	–	–	<b>931</b>	<b>490</b>	<b>+90%</b>
Total number of training hours for contractors trained	9,833	–	–	9,833	5,648	+74%
Average number of training hours per contractor trained	11	–	–	11	12	-8%

As of 2021, a total of 8,158 employees of the Group were covered by a policy providing for an annual training and development review (2020: 7,434), representing 99% of the Group's employees in 2021. 99% of the Group's employees are covered by a training and development policy (2020: 99%).

## Appendix – Workforce development continued

### Diversity at Board level

Governance bodies as at 31.03.2022	Under 30 years		30–50 years		Over 50 years		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
Board of Directors	–	–	1	1	4	2	5	3
HSEC Committee	–	–	1	2	1	1	2	3

### Diversity within employee workforce

Age	FPM		FYM		FBM		Total Operations		
	Male	Female	Male	Female	Male	Female	Male	Female	% Female
18-30	598	171	196	19	7	2	801	192	19%
31-40	992	597	606	92	22	16	1,620	705	30%
41-50	966	715	618	113	12	6	1,596	834	34%
51-60	729	593	450	53	2	2	1,181	648	35%
60+	95	54	88	59	0	0	183	113	38%
Subtotal (male/female)	3,380	2,130	1,958	336	43	26	5,381	2,492	32%
Total	5,510		2,294		69		7,873		

### Incidents of discrimination

The Group can confirm that there were no incidents of discrimination reported in 2021 (2020: none).

### Policies to protect against modern day slavery

In the modern world, companies are not limited to local suppliers for their goods and services, and therefore Ferrexpo must be vigilant for modern day slavery practices in its global network of suppliers and customers. Ferrexpo routinely conducts due diligence and risk assessments on suppliers and customers, through risk assessments, with any third party considered high risk submitted to the Finance, Risk Management and Compliance Committee for review as to whether they can be used on certain conditions (such as more detailed checks and monitoring) or avoided altogether.

As of 2021, 95% of the Group's contracts signed with third parties contain clauses that relate to the Company's Code of Conduct for Business Partners (2020: 94%), which was implemented in 2019 and also includes anti-slavery clauses.

Further details on the Group's efforts to ensure modern slavery is not a part of its business practices can be found in the Group's Modern Day Slavery Act Statement on the Group's website, which is available at the following location: <https://www.ferrexpo.com/about-ferrexpo/corporate-governance/policies-and-standards/>.

# Appendix – Workforce development continued

## Policies to protect against child labour

Ferrexpo does not permit the employment of child labour and does not allow forced or other forms of involuntary labour. The Group consistently reviews its supply chain to ensure it does not do business with businesses considered to be at risk of incidents of either: (1) child labour; or (2) young workers exposed to hazardous work. Ferrexpo complies with the UK Modern Slavery Act 2015 and has taken steps to ensure that human trafficking and slavery are not involved in the Group's supply chain or business. For further details, please see the Group's statement on the Modern Slavery Act on the Group's website ([www.ferrexpo.com](http://www.ferrexpo.com)).

Ferrexpo's approach to human rights is described in the Group's Code of Conduct and Code of Conduct for Business Partners. Both are key policy documents, which state that the Group does not permit the employment of child labour, forced labour, or other forms of involuntary labour, in either Ferrexpo-controlled entities or entities involved in Ferrexpo's supply chain. Ferrexpo's Code of Conduct is available on the Group's website. The Group can confirm that there were no incidences of non-compliance with labour standards in 2021 (2020: none).

## Supplier Code of Conduct

Ferrexpo's Code of Conduct for Business Partners includes provisions to protect Ferrexpo's supply chain from human rights abuses. As of 2021, 96% of the total number of contracts signed by the Group's main operating entities include reference to this document (2020: 87%). Furthermore, 98% of the total number of contracts with a value of over UAH 500,000 include reference to compliance clauses, emphasising the enhanced level of scrutiny applied to larger contracts (2020: 94%).

## Security personnel training in human rights

The Group aims to train all of its employees in the Code of Conduct, which includes provisions for human rights, and training provided by the Group's compliance team included modules on human rights topics.

## Reported incidents relating to the rights of indigenous peoples

The Group can confirm that there were no identified incidents of violations involving the rights of indigenous peoples during 2021 (2020: none).

## Operations that have been subject to human rights reviews or impact assessments

The Group can confirm that its operations have not been subject to human rights reviews or impact assessments in 2021 (2020: none).

## Employee training on human rights policies or procedures

Over 600 individuals completed training on the Group's Code of Conduct in 2021, which includes modules for human rights (2020: 860).

## Parental leave

Ferrexpo understands the importance of a healthy work-life balance, and the Group also understands the benefit of both parents having the opportunity to care for their children. As such, all of the Group's employees in Ukraine are entitled to paid parental leave regardless of gender. In 2021, the Group had 56 individuals that went on parental leave during the year (55 females), and 61 individuals that returned to work in 2021 following parental leave (61 females). A further 25 employees did not return to work in 2021 following parental leave, representing a return-to-work rate of 71%, which is a figure in line with the prior year (2020: 62%).

## Appendix – Protecting environments

### Emissions intensity

Emissions intensity ratios (Scope 1+2 basis)

			2017	2018	2019	2020	2021	% (2020-2021)
Scope 1 and 2 (combined)	Tonnes		1,371,864	1,387,918	1,392,159	1,257,563	<b>1,056,064</b>	-16%
Total production (pellets + commercial concentrate)	MT		10.44	10.61	10.52	11.40	<b>11.45</b>	0%
Revenue	USD '000s		1,197,494	1,274,030	1,506,724	1,700,321	<b>2,518,230</b>	48%
Emissions per tonne production	kg CO <sub>2</sub> per tonne pellet		131.4	130.8	132.3	110.3	<b>92.2</b>	-16%
Emissions per USD revenue	kg CO <sub>2</sub> per USD		1.15	1.09	0.92	0.74	<b>0.42</b>	-43%

Note: Emissions figures quoted above amended following external assurance process in 2022. Please see page 94 for more information.

### Water withdrawal

Ferrexpo does not extract water for the purposes of cooling. Water withdrawal by source is provided on the basis of direct measurements, and the Group does not model its water usage. The Group operates in a location considered by the World Resources Institute to be low-medium for overall water risk, which is an assessment that has remained unchanged from 2020.

### Water recycled and reused

Ferrexpo aims to reuse as much water as possible in its operations, with used water typically sourced from the Company's tailings dam, and returned as used (process) water to the Company's processing plant for reuse in processing iron ore. This process occurs at FPM, where the Company's processing and tailings facilities are located, and represented 87% of the total water extracted at FPM in 2021 (2020: 87%, please note – figure is restated from previous reporting, which gave a figure of 91%). There are no processing facilities at either FYM or FBM and therefore it is not possible to reuse water at these operations.

Ferrexpo can confirm that its operations are located in areas of low to medium baseline water stress, as defined by the World Resources Institute's Water Risk Atlas Tool (<https://www.wri.org/>, accessed July 2022). The Group does not operate in an area of high water stress, as considered by the World Resources Institute, and therefore does not discharge water into an environment considered to be under stress in respect of water.

### Water discharged

The Group tests its discharge water from all three mining operations for the following chemical elements to ensure natural habitats are not damaged by water extracted and then discharged:

- Biological oxygen demand;
- Total suspended solids;
- Salt content (mg/l);
- Ammonium nitrogen;
- Nitrites and nitrates;
- Fe;
- Oil products;
- Chlorides;
- Sulphate;
- Phosphate;
- Ca;
- Mg.

## Appendix – Protecting environments continued

### Emissions reporting

The principles of reporting of the Group's greenhouse gas emissions remain unchanged in this report, compared to the Group's previous Responsible Business Report. However, the Group has now completed an external assurance process with its independent auditor (MHA MacIntyre Hudson), which was a process completed in July 2022 on the Group's Scope 1 and Scope 2 emissions of carbon dioxide in 2021. As a result of this external assurance process, a number of minor changes have been made to the Group's Scope 1 and Scope 2 footprint, which are reported in the "external assurance process" section of this report on page 94.

Ferrexpo's method of reporting its greenhouse gas ("GHG") emissions is based on reporting on a 100% basis of the Group's activities, rather than equity accounting. Entities covered in Ferrexpo's reporting are those whereby Ferrexpo is the operator, such as its mining, processing and logistics businesses, including its barging subsidiary DDSG. The Group's berth at the Port of Pivdennyi is excluded from Ferrexpo's environmental reporting on the basis that the Group has a minority (49.9%) shareholding in this operation. The Group's transshipment vessel, which is 100% owned and operates in the Black Sea, is included in the Group's calculations presented here.

The Group does not engage in carbon trading and therefore this is not a feature of the GHG emissions reported in the Group's Responsible Business Reports.

### Scope 1 and Scope 2 emissions by geographic location

All figures tonnes CO <sub>2</sub> e, unless stated	Scope 1 Emissions												Scope 2 Emissions			Scope 1 Subtotal	Scope 2 Subtotal	Other Emissions
	Fuels (liquids)				Fuels (solid)		Fuels (gaseous)		Miscellaneous									
	Diesel	Petrol	Gasoil	Other Liquid Fuels	Coal	Natural Gas	Lubricants	Explosives	CFCs and HCFCs	Graphite electrodes	Electricity	Steam					Biofuels	
Location	Ukraine	Ukraine	Central Europe	Ukraine	Ukraine	Ukraine	Ukraine	Ukraine	Ukraine	Ukraine	Ukraine	Ukraine					Ukraine	
Predominant Activity	Mining	Mining	Logistics (barging)	Miscellaneous	Heating	Pelletiser	Miscellaneous	Mining	Miscellaneous	Miscellaneous	Processing	Miscellaneous					Processing	
2020 total	234,297	959	81,338	4,632	547	247,241	4,885	4,964	1,007	69	675,134	–	579,870	675,134	13			
<b>2021 total</b>	<b>262,054</b>	<b>865</b>	<b>85,086</b>	<b>4,659</b>	<b>392</b>	<b>286,606</b>	<b>4,206</b>	<b>4,633</b>	<b>381</b>	<b>99</b>	<b>404,313</b>	<b>–</b>	<b>648,882</b>	<b>404,313</b>	<b>10</b>			
%	12%	-10%	5%	1%	-28%	16%	-14%	-7%	-62%	43%	-40%	N/A <sup>1</sup>	12%	-40%	-24%			
Per tonne production																		
2020 total per tonne	20.5	0.1	7.1	0.4	0.0	21.7	0.4	0.4	0.1	59.2	–	50.9	59.2	0.0				
<b>2021 total per tonne</b>	<b>22.9</b>	<b>0.1</b>	<b>7.4</b>	<b>0.4</b>	<b>0.0</b>	<b>25.0</b>	<b>0.4</b>	<b>0.4</b>	<b>0.0</b>	<b>35.3</b>	<b>–</b>	<b>56.6</b>	<b>35.3</b>	<b>0.0</b>				
%	11%	-10%	4%	0%	-29%	15%	-14%	-7%	-62%	-40%	N/A <sup>1</sup>	11%	-40%	-24%				

<sup>1</sup> Please note that the intensity ratios shown above are provided on the basis of emissions per tonne of production of commercial products (iron ore pellets and commercial concentrate), as this directly correlates to the consumption of materials described in the table above.

## Appendix – Protecting environments continued

### Scope 3 emissions breakdown

The table below outlines the Group's Scope 3 calculation, with total emissions of 1.25<sup>1</sup> tonnes of CO<sub>2</sub> per tonne of production in 2021 (2020: 1.27 tonnes CO<sub>2</sub> per tonne), reflecting a 1% decrease year on year. The Group's calculation incorporates upstream and downstream activities.

Scope 3 Emissions	2020	2021	Unit
<b>3.1 Purchased Goods and Services</b>			
Water supply			
Water supply	280	126	tCO <sub>2</sub> e
Bentonite	3,812	3,812	tCO <sub>2</sub> e
Tyre usage	1,873	1,873	tCO <sub>2</sub> e
<b>3.3 Fuel and Energy Related Activities</b>			
Electricity T&D and WTT			
Electricity T&D and WTT	168,047	134,409	tCO <sub>2</sub> e
Fuels WTT	114,266	138,567	tCO <sub>2</sub> e
<b>3.5 Waste Generated in Operations</b>			
Municipal waste			
Municipal waste	1,972	2,012	tCO <sub>2</sub> e
Organic waste	1,872	1,872	tCO <sub>2</sub> e
Inorganic waste	10,094	10,289	tCO <sub>2</sub> e
<b>3.7 Employee Commuting</b>			
Motorbike			
Motorbike	312	298	tCO <sub>2</sub> e
Own vehicle	7,079	6,757	tCO <sub>2</sub> e
Bus	6,581	6,186	tCO <sub>2</sub> e
<b>3.9 Downstream Transportation and Distribution</b>			
Pellets shipped via rail			
Pellets shipped via rail	146,294 <sup>1</sup>	119,968 <sup>1</sup>	tCO <sub>2</sub> e
Pellets shipped via vessel	388,628	244,185	tCO <sub>2</sub> e
<b>3.10 Processing of Sold Products</b>			
Processing of iron ore pellets to steel			
Processing of iron ore pellets to steel	13,623,965	13,668,038	tCO <sub>2</sub> e
<b>Total Scope 3</b>	<b>14,475,075</b>	<b>14,338,394</b>	<b>tCO<sub>2</sub>e</b>
<b>Total Scope 3 (excluding 3.10)</b>	<b>851,110</b>	<b>670,356</b>	<b>tCO<sub>2</sub>e</b>
<b>Normalised Scope 3</b>	<b>1.27<sup>2</sup></b>	<b>1.25<sup>2</sup></b>	<b>tCO<sub>2</sub>e/t-prod.</b>
<b>Normalised Scope 3 (excluding 3.10)</b>	<b>0.075<sup>2</sup></b>	<b>0.061<sup>2</sup></b>	<b>tCO<sub>2</sub>e/t-prod.</b>
<b>% Related to Steel Production</b>	<b>94%</b>	<b>95%</b>	
<b>% Change YoY</b>		<b>-1%</b>	

As shown above, 95% of Ferrexpo's Scope 3 emissions relate to the emissions produced through the conversion of the Group's iron ore products to steel, which occurs across the Group's global customer base and therefore not in any single country. Of the balance of Scope 3 emissions outside of steelmaking, more than half relates to the transportation of the Group's products (freight) and hence also does not apply to any single location or country.

1 Note that emissions associated with rail are restated.

2 Normalised production per tonne presented on the basis of tonnes of total production in order to make this data comparable to the Group's reporting of Scope 1 and 2 emissions.

## Appendix – Protecting environments continued

### External assurance process: reporting of carbon-equivalent emissions (Scope 1 and Scope 2)

In May 2022, the Group completed an external assurance process (ISAE (UK) 3000) on its reporting of carbon-equivalent emissions and specific safety performance metrics with the Group's independent auditor MHA MacIntyre Hudson. As a consequence of this review, a number of amendments were made to the Group's calculation methodology for Scope 1 and 2 emissions, to bring the Group into line with industry best practice. The net impact of these amendments amounts to a 15 kilotonne downward amendment to the figures quoted in previous reporting, representing a 1% decrease. The amendments that resulted in a change of more than 1,000 tonnes of CO<sub>2</sub>e emissions are detailed below, with the relevant documentation for the Group's completed external assurance process available on the Group's website ([www.ferrexpco.com](http://www.ferrexpco.com)).

#### Adjustments to 2020 calculation:

- **Amendments to Scope 1 calculation:**

- **Lubricants:** additional lubricant consumption included in calculation. Effect: +5kt.
- **Explosives:** correction to calculation of carbon dioxide emissions from blasting materials used in mining operations. Effect: +5kt.
- **Iron Destiny (transshipment vessel):** inclusion of fuel and lubricant consumption at the Group's transshipment vessel, which operates in the Black Sea. Effect: +2kt.
- **Waste oils:** addition of waste oils into the calculation, which are principally used as a recycled fuel to heat water in the Group's boilers. Effect: +1kt.

- **Amendments to Scope 2 calculation:**

- **Steam:** removal of steam from Scope 2 calculation, which is generated using natural gas and was therefore previously double counted in the calculation. Effect: -24kt.
- **Electricity:** alignment of carbon factor for nuclear power to that provided by World Nuclear Association (12g per kWh). Effect: +2kt.

- **Amendments to biofuels calculation:**

- **Sunflower husks:** following consultations with independent environment consultants Ricardo plc, who are assisting with the Group's climate change reporting (see page 45), carbon factor adjusted to reflect other biofuels. Effect: -113kt.

Outside of the amendments described above, which represent all of the amendments more than 1,000 tonnes of CO<sub>2</sub>e emissions, the remaining amendments amount to a combined adjustment of 122 tonnes of CO<sub>2</sub>e (equivalent to 0.01% amendment).

### Emissions of other gases (NO<sub>2</sub>, SO<sub>2</sub> and CO) and dust

The Group's emissions of other gases – NO<sub>2</sub>, SO<sub>2</sub> and CO, solid emissions (dust) and Non-Methane Volatile Organic Substances ("NMVOCS") – were as follows in 2021:

	Stationary sources (Predominantly relates to: processing operations)				Mobile sources (Predominantly relates to: mining operations)					
	NO <sub>2</sub>	SO <sub>2</sub>	CO	Solid emissions	NO <sub>2</sub>	SO <sub>2</sub>	CO	Solid emissions	NMVOCs	Other
	2020	3,595	1,964	1,548	4,278	2,371	320	3,558	417	581
2021	3,480	1,904	1,482	4,555	2,635	354	3,918	463	675	38
%	-3%	-3%	-4%	+6%	+11%	+11%	+10%	+11%	+16%	+9%

Emissions shown in the table above are published for the Group's main operating entities – FPM and FYM – with these two business units collectively covering the Group's only processing operations and 93% of mined volumes in 2021 (2020: 99%). Data is calculated here using direct measurement of gases where possible, and estimates for emissions of dust (in line with calculation methodology provided by the Ukrainian authorities).

## Appendix – Protecting environments continued

### Usage of ozone-depleting substances (“ODSs”)

The Group utilises ODSs in air conditioning units at its operations as follows:

- R410A consumption in 2021: 158kg (2020: 451kg)
- R22 consumption in 2021: 29kg (2020: 36kg)

Using conversion factors provided by the Montreal Protocol, R22 is considered to have an ozone-depleting potential (“ODP”) of 0.055, whilst R410A and R404A are considered to have ODP factors of zero. Based on these factors, the Group has calculated its consumption to be the equivalent of 1.6kg of CFC-11 (trichlorofluoromethane), compared to the equivalent of 2.0kg in 2020 (representing a 21% reduction year-on-year).

### Energy consumption by source

	Ferrexpo Operations (Terajoules used)								DDSG	Total		
	Purchases from third parties		Direct consumption by Ferrexpo subsidiaries									
	Electricity used	Natural gas	Diesel	Petrol	Other liquid fuels	Coal	Sunflower husks	Gasoil				
<b>2021</b>	<b>7,599</b>	<b>5,878</b>	<b>3,748</b>	<b>13</b>	<b>27</b>	<b>3</b>	<b>1,276</b>	<b>1,217</b>	<b>19,761</b>			
2020	7,217	5,071	3,351	14	19	5	1,674	1,163	18,515			
% change	+5%	+16%	+12%	-10%	+41%	-28%	-24%	+5%	+7%			
% of 2021 total	38%	30%	19%	0%	0.1%	0.02%	6%	6%	100%			
Renewable?	–	–	–	–	–	–	–	Yes	–			

Energy reported in the table above only includes energy directly consumed by the Group during 2020 and 2021. Ferrexpo did not self-generate electricity in 2020, except for small generators at site, but commenced a pilot project testing the effectiveness of solar power in 2021. The Group’s solar power project generated a total of 2,612MWh of energy in 2021, which is in line for the Group’s budget expectation for this project.

Energy use is calculated using the coefficients provided by the US Government Energy Information Authority (“EIA”) and the International System of Units (for conversion of kilowatt-hours to joules). A link to the EIA’s conversion factors can be found at: <https://www.eia.gov/energyexplained/units-and-calculators/>.

The Group only reports energy consumption from activities within the Ferrexpo Group. The three main components of the Group’s energy consumption in 2021 were electricity (38% of total energy), natural gas (30%), and diesel (19%), which collectively account for 87% of the total energy consumed (2019: 83%) and are the only sources that are greater than 10% of the total.

## Appendix – Protecting environments continued

### Energy intensity

Energy intensity		2021	2020	%
Production (iron ore pellets and commercial concentrate)	(Mt)	11.45	11.40	0%
Energy consumed	(PJ)	19,761	18,515	7%
<b>Energy intensity (tonnage)</b>	<b>(GJ/Tonne)</b>	<b>1,725</b>	<b>1,624</b>	<b>6%</b>
Group revenue	(USD, million)	2,518	1,700	48%
<b>Energy intensity (revenue)</b>	<b>(GJ/USD)</b>	<b>8</b>	<b>11</b>	<b>-28%</b>

Ferrexpo's intensity ratios are based on tonnes of iron ore produced, covering both iron ore pellets and commercial concentrate. Two intensity figures are provided here – energy usage per tonne of production, which directly reflects the amount of energy required for each tonne of material produced. A second intensity figure, based on energy usage per dollar of revenue generated, is provided for illustrative purposes when comparing to other industries and commodities.

### Renewable sources of energy

Renewable electricity (hydroelectric) represented 3% of the Group's electricity consumption in 2021 (2020: 4%), or 1% of the Group's overall energy consumption (2020: 2%). Furthermore, the Group uses biofuels in its pelletiser, which represented 6% of total energy consumption in 2020 (2020: 9%). Collectively, these two activities accounted for 8% of energy consumption in 2020 (2019: 11%).

### Waste generated

The table below shows the waste generated across the Group's three open pit mines, with mining waste stored in waste dumps situated adjacent to each mining operation, and processing waste (tailings) stored in the Group's tailings facility. Gravel produced by the business is either used in road construction around the Group's operations, or sold to third parties.

(All figures million tonnes)	Overburden (rock)	Overburden (sand)	Total overburden	Tailings (total generated)	Gravel
FY 2020	72.5	21.7	94.0	15.6 <sup>1</sup>	2.2
<b>FY 2021</b>	<b>69.3</b>	<b>43.5</b>	<b>107.4</b>	<b>16.6</b>	<b>1.7</b>
%	(4%)	+100%	+15%	+6%	(21%)

<sup>1</sup> Note figure restated from 2020 Responsible Business Report.

The Group manages all of its own waste disposal and does not engage in third parties for the storage of mining or processing waste. The Group sells a portion of the gravel produced to third parties for use as a construction material for local roads. Data for mining waste is calculated using detailed surveying of the Group's mining operations, whilst processing waste is calculated based on meter readings at the Group's processing plant. Owing to the nature of the Group's business, with ore located at depth and grading 30-35% Fe, there is little the Group can do to limit mining and processing waste generated through its day-to-day operations. The Group can confirm that it does not produce or handle material quantities of hazardous waste at its operations.

The Group does not generate hazardous waste through its day-to-day activities in the production of iron ore pellets, nor does it transport hazardous waste. The Group can confirm that there were no significant spills recorded at the Group's operations in 2021 (2020: none).

## Appendix – Protecting environments continued

(Figures shown: tonnes)	2021	2020	% Change
Domestic waste	8,536	8,323	+3%
Industrial waste			
– Used moulding sand	4,611	4,935	(7%)
– Foundry slag	516	553	(7%)
– Construction waste	39,504	13,510	+173%
– Other waste (including railroad ties, faulty and used rubber products and used mill linings)	2,660	2,445	+9%
<b>Total waste</b>	<b>55,826</b>	<b>28,296</b>	<b>+97%</b>

The Group saw a small increase in domestic waste in 2021 and a material increase in industrial waste, with the latter related to construction work undertaken as part of the Group's Wave 1 Expansion project, which requires the demolition of existing administrative structures adjacent to the processing plant, to clear space for additional processing equipment as part of this expansion project. Waste is transferred to waste facilities managed by municipal facilities.

### Water availability

In terms of overall water availability, Ferrexpo operates in an area regarded to be low to medium risk in relation to water stress, as evaluated by the World Resources Institute's Aqueduct Water Risk Atlas ([link](#)). This evaluation of Horishni Plavni and the surrounding region is unchanged from 2020. This, however, does not preclude responsible water use, which is summarised on page 51 of this report.

### Water withdrawal

Water withdrawal at Ferrexpo's operations is primarily in the form of dewatering of the Group's three open pit mines, with this activity representing 95% of overall water extraction in 2021 (2020: 96%).

Ferrexpo understands the need for local communities to take priority in the supply of water, and 2021 represented a further year of maintaining a reduced level of water extraction from the local water supply network, with water extraction remaining below 1,000ML for a third consecutive year.

### Water consumption, recycling and reuse

The Group uses water in the processing of iron ore, which is used to remove waste elements that are naturally present in the Group's in-situ iron ore reserves. Processing of iron ore involves a recirculating load of water that is continually pumped around the Group's processing plant, carrying ore as a slurry, and reclaimed from the Group's tailings management facility before being pumped back to the Group's processing facilities at FPM. In 2021, the Group recycled over 98% of water already in use as process water, a figure in line with 2020.

Of the water extracted at FPM during 2021, 75% was subsequently recycled (2020: 80%). The opportunity for water recycling only exists at FPM however, where processing facilities provide an opportunity to utilise pit water in significant volumes. Without processing facilities, the Group's mining operations at FYM and FBM do not require sufficient volumes of water to necessitate infrastructure to recycle water, and therefore the Group's overall recycling of water was 26% (9,252ML) of the total water extracted in 2021 (2020: 24%/9,078ML).

### Water discharged

Where possible, Ferrexpo either immediately discharges water extracted as part of pit dewatering activities, and recycles any water used in its processing operations. A component of water, however, cannot be reclaimed, such as the water entrained in tailings after material has been processed, or water used in dust suppression activities. Water discharged without use represented 70% of water extracted in 2021 (2020: 69%), and this increase reflects a further deepening of mining operations at FYM as the Group prepares for the Wave 1 Expansion.

Water that is discharged by the Group through its dewatering activities is routinely tested for its chemistry prior to discharge, to ensure it is not harmful to the environment. A full listing of the chemical elements that the Group tests for is provided here in the Appendices. Water discharge is conducted via discharge channels into a local tributary of the River Dnieper, and the Group adheres to high water quality standards for water discharged, as set by local authorities, with regular test work conducted to ensure compliance. The Group can confirm that it did not incur any penalties in 2021 relating to water quality (2020: none).

Water discharged after use predominantly relates to dust suppression activities in each of the Group's three open pit mines, accounting for 80% of such water discharge in 2021 (2020: 84%). This work is conducted for the health and wellbeing of the Group's operators working close to active mining areas, to local communities and local stakeholders that might also be affected by the presence of dust.

## Appendix – Protecting environments continued

### Environmental compliance in 2021

The Group has not identified any non-compliance with environmental laws and/or regulations in 2021 (2020: none).

### Measures to ensure environmental protection by business partners

Ferrexpo's Code of Conduct for Business Partners stipulates that partners must act in accordance with applicable standards regarding environmental protection, and adhere to applicable environmental laws to ensure responsible practices. Where these requirements are less stringent than Ferrexpo's own standards, business partners must exceed statutory requirements wherever possible. Ferrexpo's business partners are required to remedy any activity that adversely affects human life, wildlife, and the environment. As of 2021, 96% of all agreements (98% of agreements above UAH 500,000) signed by Ferrexpo's business partners at the Group's operation in Ukraine included references to Ferrexpo's Code of Conduct for Business Partners (2020: 87%).

As of 2021, the Group had not identified any negative environmental impacts in its supply chain and regularly assesses key suppliers on an ongoing basis.

### Materials used

(Tonnes)	2021	2020	% Change
Grinding bodies	61,466	57,689	7%
Flotation agent	1,538	1,294	19%
Bentonite	176,933	178,512	-1%
Limestone	79,941	75,401	6%
Dewaterer	1,726	2,028	-15%

The materials used in mining and processing the Group's iron ore are non-renewable, aside from the sunflower husks utilised in part to fuel the Group's pelletiser (less than 1% of total tonnes used). The Group does not utilise any recycled materials in the production of its iron ore pellets. Iron ore pellets are sold unpackaged, and therefore the Group is not able to utilise any recycled packaging in its operations.

# Appendix – Ethical business and communities

## Independent Board of Directors

As at 31 December 2021, Ferrexpo's Board of Directors (the "Board") comprised of a Chair and seven Non-executive Directors, five of whom are considered to be Independent Directors. The Board is responsible for the Group's efforts to maintain good corporate governance practices, and biographies of all Directors are available at: <https://www.ferrexpo.com/about-ferrexpo/board-leadership/board-of-directors/>.

## Anti-corruption and anti-competitive behaviour

The Group's efforts in training around anti-corruption policies and procedures in 2021 focused on modules for Ferrexpo's corporate ethics principles, raising awareness of the Group's Integrity Line for reporting concerns anonymously and testing employees' understanding of the Code of Conduct and compliance programme.

Ferrexpo regularly assesses its operations for risks related to corruption, with risk registers updated monthly and reported internally to the Group's Executive Committee via the Finance, Risk Management and Compliance Committee. Through this activity, a number of corruption-related risks are identified in the Group's risk register.

## Supplier screening

Ferrexpo's suppliers are expected to adhere to the Group's Code of Conduct for Suppliers, which includes provisions on social issues such as the Modern Slavery Act and environmental compliance. The Group conducts regular screening of its suppliers to ensure that suppliers adhere to industry best practice and are not considered to be high risk entities to do business with. In 2021, a total of 1,013 suppliers were screened for a range of risk factors (2020: 2,428). Of those assessed, a total of 16 were considered to be potentially high risk for compliance and were therefore subject to further screening and/or increased monitoring.

## Partnering with local suppliers

Where possible, the Group aims to partner with local businesses in Ukraine to help deliver long-term value to the communities. In 2021, 96% of the goods and services procured by the Group's operating entities in Ukraine were from Ukrainian businesses (2020: 94%), with 27% of the overall total coming from entities local to Horishni Plavni, where the Group is based (2020: 31%). The Group's focus on hiring and retaining local talented individuals is also demonstrated in the proportion of salaries paid to those local to Horishni Plavni – representing 100% of the total salaries paid by the Group's operating entities in Ukraine in 2021 (2020: 100%).

## Tax

Ferrexpo aims to balance tax compliance with ethical, societal and sustainable development-related expectations. Through its role as a good corporate citizen, the Group generates value through a range of activities, including the provision of employment to individuals, tax revenues to governments, and investments in local communities, as shown in the high proportion of expenditure that the Group makes with local businesses (for more detail, please see page 61). In terms of stakeholder engagement on tax matters, the Group does not engage in public policy matters, including advocacy on tax, and the Group engages with local tax authorities in the normal course of day-to-day business. Through regular engagement, Ferrexpo aims to help tax authorities develop expertise and understanding of the mining industry.

The Group paid taxes and royalties of US\$281 million in 2021 (2020: US\$100 million), with this amount paid through royalties on the extraction of iron ore in Ukraine and taxes on revenues generated through the sale of iron ore pellets and concentrate to Ferrexpo's global network of customers.

## Appendix – Ethical business and communities continued

### Approach to ethical business

Ferrexpo's Code of Conduct covers the Group's employees, and alongside the Group's Code of Conduct for Suppliers, covers the minimum standards expected of the Group in respect of its ethical business activities – including topics such as confidentiality, human rights, equality and diversity, workplace conduct, the environment, anti-bribery, anti-corruption and conflicts of interest.

A copy of the Group's Code of Conduct is available online at <https://www.ferrexpo.com/about-ferrexpo/corporate-governance/policies-and-standards/>.

Ferrexpo's core values are provided in detail in the Code of Conduct and are as follows:

- (1) Act responsibly;
- (2) Make it happen;
- (3) Integrity in what we do;
- (4) Diversity within one team; and
- (5) Continuous innovation.

The Group's managers and supervisors are expected to lead by example, coach individuals, and communicate the Group's principles and its expectations to members of their teams. The Group's Chief Executive Officer is responsible to the Ferrexpo Board for upholding the Code of Conduct and the ethical conduct of the Group in general. Every person at Ferrexpo has a responsibility to conduct themselves to a high standard of business conduct within the Group.

### Reporting compliance concerns

Ferrexpo's Code of Conduct prohibits any form of discrimination, and covers employees and contractors alike. The Group can confirm that no cases of discrimination were brought against it during 2021 (2020: zero). Ferrexpo has established channels through which any concern can be raised anonymously, either electronically or by phone, using the Ferrexpo Integrity Line (accessed via [www.ferrexpo.com/about-ferrexpo/corporate-governance/whistleblowing/](https://www.ferrexpo.com/about-ferrexpo/corporate-governance/whistleblowing/)).

The formal review process for any issue raised via this channel is outlined in the Group's Compliance Framework.

### Information security

As the Group seeks to modernise its operations, information security is playing an increasingly important role in the Group's business, particularly given the current risk profile of the Group being a Ukrainian company and risks related to Russia's invasion of Ukraine in 2022. In the Group's most recent Annual Report and Accounts, the risks relating to information security and cybersecurity have been included as a Principal Risk for the Group in 2022 (please see page 70 of the Group's Annual Report and Accounts for 2021 for more information).

### Group structure

The Ferrexpo Group structure is shown in the Additional Disclosures section of the 2021 Annual Report and Accounts (page 206). The Group confirms that there were no material changes to the Group's size, structure or supply chain during 2021.

## Appendix – Ethical business and communities continued

### Summary financials

US\$000	2021	2020
Direct economic value generated (revenue)	2,518,230	1,700,321
Operating expenses	(1,411,911)	(1,018,109)
Included in operating expenses: (but not limited to)		
– Employee costs (excluding logistics and bunker business)	(104,018)	(106,782)
– Royalties	(40,871)	(29,180)
– Community support donations	(6,449)	(5,800)
– Suppliers <sup>1</sup>	(697,900)	(582,796)
<b>Operating profit</b>	<b>1,078,010</b>	<b>748,667</b>

<sup>1</sup> Inventories recognised as an expense upon sale of goods.

### Pension plan obligations

The Group's arrangements with regard to pension plans and retirement plans for its employees remained materially unchanged in 2021. In some jurisdictions, for example Switzerland and the UK, the Group has pension plans for employees, while in others, for example Ukraine and China, the Company contributes towards state retirement plans operating under the social benefit framework provided in the country in which the employee resides.

The Group's defined benefit pension liability was US\$26 million as at 31 December 2021 (31 December 2020: US\$32 million). A full, audited summary of the Group's pension plans for each location where these operate, including any defined benefit liabilities, is provided in Note 22 of the Group's 2021 Annual Report and Accounts (pages 178 to 181).

### Political contributions

The Group can confirm that it does not practice in political lobbying and did not make any political donations, political expenditure or political contributions during the year (2020: none).

### Government financial assistance

The Group does not benefit financially from government initiatives such as tax relief, tax credits, subsidies, investment grants, awards, royalty holidays, or other financial incentives. In the normal course of business, the Group utilises financing provided by an export credit agency as a means to acquire equipment for the mining and processing of iron ore. As at 31 December 2021, the Group had no export credit agency loans outstanding (31 December 2020: none).

### Health and safety impact assessments

The Group produces iron ore pellets and concentrate, which are utilised by steelmakers to produce steel, and as such the Group does not conduct health and safety impacts for the use of its products. The Group has not received any notifications of non-compliance with regulations or voluntary codes in the past 12 months (2020: none).

### Marketing and labelling

The Group produces iron ore products that are made to specifications as agreed with each customer. The Group is not required to label its products according to the content, safe use, disposal or other usage of its products. The Group sources all of the iron ore that is utilised for its products from its own mines in Ukraine. The Group did not have any incidents of serious non-compliance with product information in 2021 (2020: none), and each supply contract includes financial provisions for the non-compliance of the Group's iron ore products.

The Group did not receive any notifications regarding non-compliance of its marketing communications in 2021 (2020: none).

## Appendix – Ethical business and communities continued

### Data privacy

The Group did not have any complaints concerning breaches of customer privacy or losses of customer data in 2021 (2020: none).

### Non-compliance with social and economic laws

The Group did not incur any significant fines or non-monetary sanctions for non-compliance with laws and/or regulations in the social and economic area in 2021 (2020: none).

### Anti-corruption

The Group can confirm that there were no confirmed incidents of corruption in 2021 (2020: zero) either with employees or with Ferrexpo's business partners. Nor were there any public legal cases brought against the Group.

As of 31 December 2021, all Ferrexpo subsidiaries have been assessed for risks relating to corruption, with specific procedures put in place for any dealings between Ferrexpo companies and third parties that are deemed to be high risk.

### Anti-competitive behaviour, anti-trust and monopoly practices

The Group can confirm that it is not subject to any legal actions regarding anti-competitive behaviour or any violations of anti-trust or anti-monopoly legislation.

### Infrastructure investments by the Ferrexpo Charity Fund

The Group can confirm that investments by the Group's Charity Fund in Ukraine are pro bono engagements and are not provided for commercial gain.

### Protecting communities

The Group maintains close contact and regular dialogue with the communities located close to its operations in Ukraine and logistics business in central Europe, and can confirm that there were no significant potential risks or incidents of actual harm identified in 2021 (2020: none).

### Community impact

The Charity Fund is also structured to enable effective reporting by communities to the Group around the potential or actual negative impacts of the Group's business activities on local communities. Through the provision of regular communication, the Charity Fund serves as an effective tool for directing the Group's activities to avoid negative impacts in future. Examples of typical reporting of negative consequences of the Group's activities by local communities may include reporting around dust emissions from mining, or regular maintenance of local roads. The Group can confirm that no significant negative impacts were reported to it by local communities during 2021 (2020: none).

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