

OUR COMPANY

ams OSRAM is a global leader in optical solutions with a focus on sensing and lighting technologies. We are known for our imagination, deep engineering expertise and worldwide industrial manufacturing appacities. We imagine radically new applications that make life better for everyone. Using the full spectrum of light, we capture, analyze and visualize the information our environment provides. We enable humans and machines to comprehend and interact with the world around us: to make journeys safer, medical diagnoses more accurate and everyday moments of communication a richer experience.

Based an our vision to become the uncontested leader in optical solutions, we continuously advance our technologies in sensing, illumination and visualization. We offer what we believe to be the broadest portfolio of optical solutions and technologies: from high-qualify light emitters and optical components to micro-modules, light sensors, ICs and the related software and algorithms.

Our deep system understanding, paired with our unique expertise in the areas of emitting, directing, sensing and processing light, makes us the partner of choice for many industries. We enable our customers in the automotive, consumer, healthcare and industrial sectors to create innovative, market-changing applications and thus maintain their competitive edge.

With a view to creating technologies for breakthrough applications, we continue to add to our innovation roadmap through significant R&D investments and strategic acquisitions, strengthening our strong IP position with more than 15,000 patents. We continually invest in our leading semiconductor expertise and world-class manufacturing network to live up to our reputation of reliably bringing top quality to the world at scale.

By systematically executing our strategy to gain innovation and technology leadership, we make our vision come true while ensuring long-term profitable growth for our company and its stakeholders.

What we value

Our rechnological leadership position is based on the ingenuity and possion of our employees. We are a team of global experts inspired by anticipating tomorrow's world and translating it into today's technologies.

to become the uncontested leader in optical solutions, we have established strong company values that we live by.

OUR TALENT

Our employees are the foundation for our company's long-term success. Thanks to their unprecedented support, we have been able to realize significant integration steps for our company during a global pandemic. Around 24,000 experts globally bring passion to innovation, day by day, we work together as a unified team in a truly global network to anticipate the future and create market-leading solutions for our customers

we believe our deep engineering expertise along the entire value chain of optical solutions is unparalleled in the industry today. Inspired by our proud heritage of pioneering innovation and our ambition to set the benchmark in our markets, we are able to affract the best falent around the globe. To position ams OSRAM as an employer of choice, we are investing heavily in a wide range of communication and marketing activities.

To support our corporate culture and foste appreciative and respectful relationships, we build on a set of clear core values and leadership principles. We imagine the impossible and make it happen.

We offer a dynamic, engaging and positive work arimosphere and exciting opportunities for both personal and professional development in a highly diverse international environment. A variety of employee communities, self-managed networks and mentorships, combined with our extensive ams OSRAM University, support our commitment to lifelong learning.

We continuously and systematically address the development of our employees, based on regular and structured dialog between employees and managers, supported by a comprehensive training program at our ams OSRAM University.

Treating our employees with respect and appreciation also includes fair and performance-related compensation. Diversity and inclusion are an integral part of our company, based on a long history. They actively shape our global business. International customer and supplier relationships require cultural competence and flexibility, and diverse teams bring a high level of innovation.

We are one company, one team – valued by customers and ready to shape the technology trends of tomorrow.

OUR BUSINESS

We are a worldwide leader in optical technologies serving the entire value chain of optical solutions. From product idea to tangible concept through to the manufacturing process, we enable our customers to create ground-breaking solutions for the automotive, consumer, industrial and medical markets. What makes us unique in our opinion is our broad technology spectrum, since we cover the emission of light as well as its detection through sensing and intelligent processing. Our innovative products and solutions range from light emitters,

optical components and micro-modules to light sensors, related ICs, algorithms and software. They are designed for best-inclass performance, size, cost and energy efficiency.

We are experts in the development and integration of a wide range of optical solutions, from single components through to complex systems. This enables us to be market and innovation leaders and clearly differentiate ourselves from the competition



A growing business

Harricultural lighting is transforming the way we produce rood. Harrical transferred to controlled, often close-by urban farming is increasingly being transferred to controlled, often close-by urban environments. Our precise LED light and sensing solutions provide new possibilities to grow food in a smart, easy and sustainable way. They enable cutting-edge growth stimulation and precise condition monitoring, in professional top-/inter-lighting as well as vertical forming applications. The OSLON Square Hyper Red LEDs' special wavelength and performance are unmarched in the industry. Together with our customers, we define targeted growth lighting recipes, with or without natural light, optimizing harvests and minimizing fertilizer use. We create new solutions in professional greenhouse lighting at significantly reduced energy costs.

Automotive: Setting the benchmark as a trusted innovation partner

Advanced rechnologies and new mobility concepts are transforming the automotive industry, making vehicles increasingly safe and smart. As a long-time innovation leader in semiconductor technologies, we play a crucial role in the ongoing redefinition of mobility – from cars to two-wheelers and beyond. We are able to turn ideas into breakthrough technologies, with the highest quality and reliability. This makes us a trusted partner for leading automotive manufacturers and their suppliers.

Our cutring-edge solutions for interior and exterior lighting and sensing add real value to road safety and comfort, we enable automotive manufacturers worldwide to create intelligent lighting and visualization solutions, realize advanced driver-assistance systems (ADAS) and pove the way to automated and autonomous driving, based on our pioneering technologies such as LIDAR and energy-efficient, miniaturized products.

Our innovative matrix LED for dynamic headlights caters to the trend toward intelligent driving lights and enables the light beem to be instantly adapted to the traffic situation. Its ability to visualize information like projecting information and warning symbols onto the road, assists the driver and enables vehicle-to-everything (VZX) communication.

Automated cas are expected to increasingly transform into living spaces. High-resolution displays, smart surfaces, seamless human-machine interaction and adaptable ambient lighting solutions are integrated into the car of the future. Our optical solutions enable high levels of convenience and more attractive user experiences with high energy efficiency.

We provide the key technologies to improve safety for drivers and passengers, such as interior sensor technology for driver monitoring and different warning systems. With our technologies, we are shaping automotive mobility, making it safer, smarter and more comfortable.



Making light intelligent

Intelligent forward lighting brings car safety to another level. In the future, multifunctional, intelligent headlamps will illuminate the road and communicate with the environment at the same time – this progress is due to cutting-edge semiconductor technology.

Our Eviyos LED represents our innovation leadership in highly pixelated light sources with low energy and space needs. Its more than 25,000 individually controllable pixels make it possible to adapt the light beam to the driving struation, with optimum illumination of the road and without any glare. Not only does it provide for permanently glare-fee high beam light, it also brings HD-quality projections onto the road. Car-to-driver communication, such as projections of warning signals or welcome messages, can be realized with a single LED light source.

technologies Consumer: Creating inspiring user experiences with pioneering

wearables are constant companions that connect us to the world, making our lives excitement. act, capture moments and create fun and easier and safer while allowing us to inter-Smartphones, computers, tablets and

or computing devices. Our miniaturized eye-tracking, proximity sensing and gesture alities, such as near-to-eye projection, solutions enable multiple AR/VR functionexperiences on smartphones and wearables applications, we enable outstanding user the future. Across a broad range of mobile property. They are essential for applicaalgorithms and proprietary intellectual ed by IC hardware capabilities, custom relevant optical technologies, complementworld. Our portfolio compiles several highly the way we capture and interact with the light-emitting technologies actively shape Together with our customers, we anticipate mobile, portable and computing devices. full-screen displays and brilliant images for tions such as secure identification, bright ams OSRAM's advanced sensing and

tions, making digital lives easier, safer and roadmap to deliver the demanding performore fulfilling. experiences in next-generation applica-With our expertise, we create inspiring user mence ramp-up in the course of 2024. micro-LED is currently planned to com-8" capacity supporting mass production of mance of micro-LED products. High-volume the number one micro-LED player in the OSRAM is in a strong position to become consumption, brightness and contrast. ams OLED displays in aspects such as energy offer significant advantages over LCD and for the display industry going forward. They expected to be one of key growth drivers Micro-LEDs that are smaller than 50µm are micro-LEDs for next-generation displays. ambient light, color and proximity sensing their visualization. They enable accurate nologies improve the quality of images and universes. Our lighting and sensing techworld. We have the capabilities and a clear tion of emerging innovation areas such as We are a frontrunner in the industrializasolutions to operate behind OLED displays. Pictures say more than words; they create

Small

is beautifu

of the projection light engine in AR smart glasses by up to half. This enables form factor of only 0.7 cm³. These enormous space savings reduce the size advanced functionalities can only be realized by key optical technologies AR/VR applications in industry and consumer markets are bound to tak tise, we drive cutting-edge visualization applications into the future. information-rich smart glasses to become as fashionable as normal eyetargeted for near-to-eye projection, has a light engine with a very small proximity-, eye- and position-tracking sensors. Our latest laser solution, spanning from LED and laser light sources to 3D sensors all the way to vear, accelerating their market growth. With our deep engineering exper-



Industrial: Making light work with reliable innovations

Digitalization and 5G are revolutionizing industrial automation by enabling machines to interact with each other as well as with humans. For machines to sense their environment, they need high-performance sensor and light-emitting solutions. Our comprehensive technology portfolio of sensors, cameras and light emitters covers different market requirements: speed, power and accuracy as well as small form factors and cost efficiency.

human-machine interaction. or at home. Our precise emitter and sensor (automatically guided vehicles) in factories environments for mobile robots and AGVs avoidance systems to unguarded working collaborative environments, from collision erful. We support safety solutions for and robots smarter and thus more powimaging for inspections make machines appliances – our key technologies for 3D maintenance and secure human-machine advanced machine vision to predictive by enabling innovations ranging from trial production faster and more efficient Our state-of-the-art products make indusnext phase of Industry 5.0 with advanced solutions for AR/VR applications boost the sensing, industrial X-ray and global shutter interaction. From production lines to home

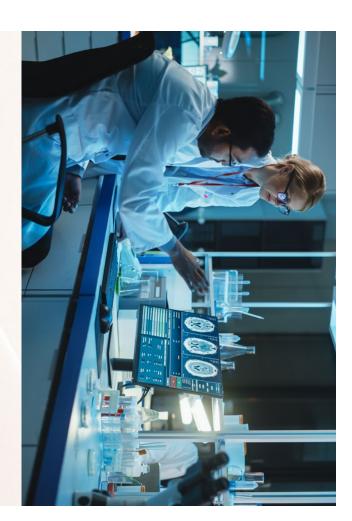
As a market leader in horticultural/agricultural lighting, we create the perfect light environment for indoor plant growth, like indoor or vertical farming. We combine pio-

neering wavelength-optimized LEDs across the relevant color spectrum with spectral sensing technologies for cutting-edge growth stimulation and precise condition monitoring. Targeted lighting solutions also minimize fertilizer use and reduce energy costs.

We use our distinctive product portfolio of highly efficient UV-C LED emithers, spectral sensors and accurate presence detectors to make our environment safer. And we enable new functionalities for easy, safe and affordable UV treatment in a variety of applications – embedded in standard light sources to clean public areas, transport or workplaces.

Our comprehensive lighting portfolio includes spectral and ambient light sensors alongside innovative LEDs - perfectly matching the various industrial lighting needs. Miniaturized LED components provide our customers with endless design possibilities, greater cost efficiency, outstanding performance and maximum accuracy. Our portfolio covers the light spectrums required for consistent and precise high-performance work processes.

With our outstanding portfolio and application expertise, we make industrial processes smart and secure.



More with less

fer deep engineering expertise for the pioneering technologies of tomorrow dose and generates specific information on the radiation spectrum. We of our customers to create CT data at a very high spatial resolution, with an approach reduces the data conversion process considerably and enables ately by the readout electronics – with photon accuracy. This innovative directly into a charge which can be quantified and processed immedisolutions cover the spectrum from infrared to visible light all the way to while significantly reducing radiation dose. Our unique imaging sensing Photon-counting CT technology will enable advanced clinical applications Semiconductor technology brings novel features to medical imaging. improved contrast-to-noise ratio. At the same time, it reduces the radiation X-rays. Photon-counting detector technology converts X-ray photons

Medical: Delivering miniaturized solutions with high precision

opening up completely new functionalities. professional and personal healthcare and diagnostics at the point of care are driving pandemic. Increasing digitization and steadily growing, boosted by the COVID-19

Awareness of personal health and fitness is

ing solutions, we pioneer key technologies tions, with and without medical supervision sensor solutions to components for fitness spanning from innovative biometric optical As a leading supplier of vital sign monitortracking and health monitoring applica-

and CT images, as well as invasive examof health application areas. We develop key camera module. inations with the ultra-compact NanEye where we enable best-in-class digital X-ray use cases, for example in medical imaging, racy, simplify processes and create new products offer the highest levels of accutems. Our advanced sensing and lighting efficient diagnostics and healthcare systechnologies for accessible, precise and sive experience and a deep understanding Co-creating with customers requires exten-

> is ideal for rapid, cloud-based readout and reliability. solutions and that improves performance based on spectral-sensing technology that cost-effective lateral flow-testing module box, we were able to develop a small and doctor's appointments and expensive laboratory testing. By thinking outside the and point-of-care diagnostics help reduce Affordable solutions for remote monitoring

affordable and individual. Our products make treatment less invasive and healthcare more accurate, remote,

Group Management Report 2021

1. Overview of the Economic Environment and the Past Financial Year

Development of the semiconductor sector

year 2020. USD 556bn compared to USD 440bn in the tor market increased by 26% in 2021 to healthy in 2021. The global semiconducdemand in many end-markets remained the world and their corresponding impact, Despite the various Covid-19 waves around

market, shipments increased by 23% (2020: of 7% one year ago. In the global wearable in 2021 compared to a year-on-year decline global smartphone market increased by 3% and medical technology. Shipments in the smartphones or wearables, and industrial important end markets include the autoductor market of 25%. For ams OSRAM, above the average growth of the semicon-28%). Global automotive car production motive market, consumer devices such as semiconductors which showed growth rates logic & memory, analog IC and discrete The growth was driven by sensors, MOS

> en additional demand from the build-up of semiconductors improved considerably giv conductor sector, the situation for optical 2020. Despite shortages for ICs in the semishowed a slight year-on-year growth of technology markets. inventories in the automotive and medical 2.5% in 2021 compared to a 16% decline in

industrial, and medical technology market areas. comprises the group's business related to al, and medical technology market areas. business in automotive, consumer, industriprises the group's semiconductor-related business segment Semiconductors com-Semiconductors and Lamps & Systems. The group are presented in two segments, The business activities of the ams OSRAM Structure and development of the segments lamps and lighting systems in automotive, The business segment Lamps & Systems

a market share loss related to its position

ing, and additional optical applications.

Semiconductors

exterior and interior lighting applications automotive LED lighting for a wide range of automotive business is a global leader in This includes differentiated LED solutions trial business areas. The Semiconductors from its automotive, consumer and industhe majority of group revenues last year The Semiconductors segment contributed

as ADAS, and visualization technologies. balances in the global automotive indus-Persistent market and supply chain imprises interior sensing, safety systems such the segment's automotive business comand interior ambient lighting. In addition, for head lamps and other front lighting, rear lighting and other exterior lighting,

Lamps and Systems

ed in a lower utilization of related manunegative market share development result second half and the first half of 2021. The half when compared to the previous year": impact on group revenues in the second development had a noticeable negative in the mobile device market last year. This The segment's consumer business faced proximity sensing, spectral and bio-sensment and similar functions, ultra-compact including world-tacing camera enhance-OEMs. The business encompasses the areas ditional consumer devices serving leading optical solutions for smartphones and admajor supplier of sophisticated sensing and

ogies. As a leader in automotive lighting traditional automotive lighting technollamps and illumination products including business of L&S comprises automotive group revenues last year. The automotive vided the remaining contribution to total The Lamps & Systems (L&S) segment pro

OEM production volumes which, together of the market situation. Towards year-end, negative effect on the segment's automowith related supply chain volatilities, had a the market imbalances resulted in lower automotive business' supply chains in light the year and efficient management of the healthy backlog situation over the course of areas. This performance was driven by a delivering very solid results across product recorded a strong performance last year the Semiconductors automotive business environment through 2021. Despite this, try created a highly demanding market full year 2021. less achieved attractive overall results for the supply chain imbalances in the semicertain negative revenue effects caused by profitability despite cost mitigation meafacturing capacity in the second half which impacts the consumer business nevertheabovementioned developments and related conductor sector. Taking into account the Moreover, the consumer business saw have also continued into the current year. sures. Effects related to this development negatively affected the consumer business

phy and digital X-ray. ing solutions such as computed tomogradriven by solid demand for medical imag-The Semiconductors medical technology components for this attractive growth mar ams OSRAM is the leading supplier of LED half and continuing into the current year. demand momentum through the second lighting applications market showed strong course of the year with a more pronounced the demand environment in established last year. In the segment's industrial area business delivered overall healthy results ing supported the segment's performance ket. Other industrial markets such as imag recovery in the second half. The horticulture tions markets developed positively over the and emerging industrial lighting applicatechnology business performed very well The Semiconductors industrial and medica

of display management, 3D applications

The Semiconductors consumer business is a

market including the continued market and developments in the global automotive also negatively impacted by last year's Similar to the Semiconductors automotive aftermarket in major geographic regions. L&S serves OEMs as well as the automotive business, the L&S automotive business was

Quellen: WSTS, OMDIA, IDC.

increasing signs of recovery. end these subdued markets started to show demand for most of the year. Towards yearby Covid-19 and the resulting decrease in entertainment, remained heavily impacted Other markets, in particular related to kets recovered over the course of last year. in a number of industrial and other mardelivered overall solid results as demand lated and medical applications. These areas products for various industrial, building-refor the L&S segment. The other areas of the momentum in the seasonally important the automotive aftermarket showed robust strained supply chain situation. Demand in product lines against the backdrop of the lated business saw solid demand across last year despite these effects. The OEM-retive business recorded a solid performance OEM production volumes. The L&S automo-L&S business comprise a range of lighting second half helping to drive overall results

ams OSRAM is implementing a strategic re-alignment of its business portfolio as announced. This includes the announced disposal of several businesses in the L&S segment which belonged to the former OSRAM Digital (DI) division. As part of this portfolio re-alignment two L&S business units were disposed of last year, Digital Systems North America for electronic lighting components such as drivers and ballast and Connected

Building Applications for building automation. Both sale transactions were concluded in the third quarter. In a further portfolio re-alignment step the joint venture between OSRAM and Continental AG for automotive lighting systems, which ams OSRAM had designated as non-strategic, was dissolved in the fourth quarter 2021 as planned. Both partners received their respective business activities back, as well as the assets created during the existence of the joint venture. The activities contributed by Continental AG were deconsolidated. A sale is being examined for the business activities remaining at ams OSRAM.

safety of its employees is a clear priority for its global manufacturing network despite In its operations, ams OSRAM was able past year. supply chain environment throughout the manage the very demanding market and factor enabling ams OSRAM to successfully performance. At the same time, the group's thereby supported the company's business mitigate the impact of the pandemic and measures globally which also helped to ams OSRAM and the group implemented a strictions due to Covid-19. The health and operational challenges and changing reto ensure high production volumes across robust operational infrastructure was a key wide range of protective and risk-reduction

2. Business Results

supply chain imbalances as well as reduced

With regard to the following analysis of business performance, please note that, in fiscal year 2021, OSRAM Licht AG and its subsidaries are included for the full fiscal year but, in fiscal year 2020, are included only for the second half of the year from

the date of consolidation. This means that the results and the cash flows in the startement of cash flows for fiscal year 2021 can be compared with those for 2020 only to a limited extent.

2.1 Revenue

In fiscal year 2021, consolidated revenue rose by 44% to EUR 5,038 million, compared with EUR 5,038 million in 2020. This increase was primarily due to the fact that OSRAM was consolidated for the full twelve months for the first time in fiscal year 2021, but only for six months from the date of initial consolidation in the previous year. The increase in revenue was partly offset by portfolio effects of EUR 86 million in connection with the disposal of companies, i.e. revenue that the second half of 2020 was not repeated in 2021. This related

to the disposal of Digital Systems (DS) in North America and of Connected Business Applications (CBA) as well as to the winding up of OSRAM Continental.

The Seniconductors segment contributed EUR 3,279 million (2020: EUR 2,605 million) to consolidated revenue, which equates to a share of 65% (2020: 74%). The Lamps & Systems (1.63) segment contributed EUR 1,760 million (2020: EUR 9,00 million) to consolidated revenue, which equates to a share of 35% (2020: 26%).

Revenue breakdown by segment

		3 504		5 0 28	
+96%	26%	900	35%	1,760	Lamps & Systems
+26%	74%	2,605	65%	3,279	Semiconductors
Change in %	% of revenues	2020	% of revenues	2021	in millions of EUR



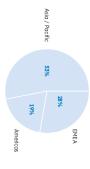
76

The breakdown of revenue by region does not reflect the demand situation in the Company's target markets because revenue is assigned to a region on the basis of the location of the invoice recipient.

Revenue in the North and South America region increased significantly year on year, in particular due to the revenue of the OSRAM companies being included for a full fiscal year for the first time.

Revenue breakdown by region

		3,504		5,038	
20%	63%	2,218	53%	2,663	Asia / Pacific
85%	15%	521	19%	962	Americas
85%	22%	765	28%	1,413	EMEA
Change in %	% of revenues	2020	% of revenues	2021	in millions of EUR



2.2 Earnings

Gross profit increased to €1,440 million in fiscal year 2021, compared with €1,035 million in the previous year.

Adjusted for acquisition-related expense

transformation costs, and expense for share-based compensation, the gross profit margin for the full fiscal year 2021 increased to 34%, compared with 33% in the previous year. The unadjusted gross profit margin, reported in accordance with IFRS, fell to 29%, compared with 30% in the previous year. The biggest drag on this item was impoliment of EUR 151 million on property, plant, and equipment in connection with the loss of market share for certain consumer

Expressed as a percentage of revenue, spending on research and development increased from 12% in the previous year to 13%. The absolute amount rose from EUR 423 million in the previous year to EUR 642 million, primarily due to the effect of consolidating OSRAM. Selling, general and administrative expenses therefore increased too, from EUR 527 million in the previous year to EUR 745 million. Expressed as a percentage of revenue, they were on a par with the previous year of 15%. The long-term target for selling, general and administrative expenses going forward is 7-9% of revenue.

certain consumer applications. connection with the loss of market share for lion on property, plant, and equipment in 2021 included impairment of EUR 151 milrecognized as an expense in fiscal year to a property in Berlin. The one-off effects the sale-and-leaseback transaction relating increased valuation of LeddarTech Inc., and the winding up of OSRAM Continental, the EUR 191 million arising from income on there were positive one-off effects totaling EUR 172 million year on year. Conversely, recognized as an expense that were up by fiscal year 2021, there were one-off effects by EUR 59 million to EUR 197 million. In to EUR 502 million. Unadjusted EBIT rose increased by EUR 39 million year on year associates and from the sale of a business sation, and the result from investments in costs, expense for share-based compenacquisition-related expense, transformation The operating result (EBIT), adjusted for

The net financial result improved from a net expense of EUR 217 million in the previous year to a net expense of EUR 198 million. The prior-year figure had included one-off transaction costs of EUR 114 million in connection with the funding of the

acquisition of OSRAM. In 2021, there were higher interest expenses resulting from the increased average debt for the year and from currency translation effects caused, in particular, by the appreciation of the U.S. dollar against the euro.

the previous year. As described above, this (2020: -3%). return on revenue also improved to -1% on equity improved to -1% (2020: -3%); the and transformation expenses. The return partly offset by higher one-off restructuring was mainly due to one-off income. There million, compared with EUR -87 million in In 2021, the net result improved to EUR -32 EUR 25 million from the reversal of deferred lion that included, in particular, income of system. There were countervailing deferred itable due to the global transfer pricing from foreign companies that were prof-31 million in fiscal year 2021. The current tax EUR 10 million in the previous year to EUR The income tax expense increased from were also cost synergies, but these were tax liabilities resulting from acquisitions. taxes with a total net effect of EUR 17 milexpense of EUR 48 million mainly resulted

in millions of EUR	2021	2020	Changein %
Gross profit on revenues	1,440	1,035	+39%
Gross margin (IFRS)	29%	30%	
Gross margin (adjusted)	34%	33%	
EBITDA (IFRS)	957	718	+33%
Operating result (EBIT, IFRS)	197	138	+43%
EBIT margin (IFRS)	4%	4%	
Operating result (EBIT, adjusted)	502	463	+9%
EBIT margin (adjusted)	10%	13%	
Financial result	-198	-218	+9%
Result before tax	-1	-80	+99%
Net result	-32	-87	+63%
Return on equity	-1%	-3%	
Return on revenues	-1%	-3%	

79

The gross profit margin (adjusted) is based on gross profit adjusted for acquisition-related expense, transformation costs, and expense for share-based compensation.

The operating result (EBIT, adjusted) and the EBIT margin (adjusted) are additionally adjusted for the result from investments in associates and from the sale of a business,

which is included in the operating result (EBIT, IFRS).

The acquisition-related expense includes depreciation and amortization of purchase price allocated assets as well as integration, carve-out and acquisition-related costs.

2.3 Assets and Financial Position

The balance sheet has a high ratio of non-current assets to total assets, which is common in the semiconductor industry. At the same time, the intrangible assets reflect the significant acquisitions carried out in recent years. At 58%, the proportion of total assets accounted for by property, plant, and equipment and by intrangible assets was virtually unchanged year on year (December 31, 2020; 60%).

Capital expenditure on non-current assers (CAPEX), which amounted to EUR 310 million, was below the sum of EUR 760 million for depreciation, amortization, and impalirment and equated to 6% of revenue (2020: 5%). The ratio of non-current assers to equity increased to around 56% at the end of fiscal year 2021, compared with 51% as of December 31, 2020. Non-current asserts included deferred tax assers of EUR 182 million).

Inventories rose from EUR 858 million as of December 31, 2020 to EUR 938 million. The rise was primarily due to the fact that inventories were increased for certain areas of production in the fourth quarter of 2021 and, to a large extent, have already been turned into finished goods. This was a precautionary measure taken to maintain the Company's ability to supply its customers in the event of a shortage of raw materials or restrictions resulting from potential

effects of the COVID-19 pandemic. Trade receivables increased to EUR 688 million as of December 31, 2021 (December 31, 2020: EUR 621 million).

Asserts classified as held for sale amounted to EUR 134 million and included the asserts of Fluence Bioengineering, Inc. The asserts classified as held for sale as of December 31, 2020, which stood at EUR 48 million, had related to asserts of OSRAM Continental, which was soold to Continental, which was soold to Continental at the start of October 2021.

The decrease in property, plant, and equipment to EUR 1,606 million (December 31, 2020: EUR 1,938 million) primarily resulted from the derecognition of property, plant, and equipment in connection with the disposal of areas of business and from impairment of EUR 151 million in connection with the loss of market share for certain consumer applications.

The rise in the financial investments line item to EUR 147 million (December 31, 2020) EUR 25 million) was largely a dributable, in an amount of EUR 123 million, to the reclassification of LeddarTech Inc. from an equity-accounted investment to an equity-toccounted investment to an equity-toccounted investment from a cocordance with IFRS 9, ams OSRAM lost its significant influence over LeddarTech Inc. because it did not take up all of the

ncludes

out a capital increase.

available shares relative to its existing shareholding when the company carried

Financial liabilities declined by EUR 177 mil.

Financial liabilities declined by EUR 177 mil.

The purcho reduced ea the repayment of bank loans of EUR 166 million, the repayment of promissory notes of EUR 117 million, and the buyback of convertible bonds with a carrying amount of BUR 187 million. This was partly offset by the taking out of bank loans of EUR 97 million

Teduced ea the obligate million, and the buyback of conversation of EUR 117 million, and the buyback of conversible bonds with a carrying amount of by EUR 162 EUR 187 million.

of EUR 117 million, and the buyback of convertible bonds with a carrying amount of EUR 73 million. This was portly offset by the taking out of bank loans of EUR 97 million and by the effects of translating financial liabilities denominated in U.S. dollars, whose carrying amount increased due to the appreciation of the U.S. dollar against the euro. The EUR 266 million decrease in cash and cash equivalents caused net debt to rise slightly, from EUR 1,707 million as of December 31, 2020 to EUR 1,795 million as of December 31, 2021. The Group's equity increased by EUR 122 million despite the

to other comprehensive income totaling EUR 319 million that arose, in particular, on currency translation from U.S. adulars to euros in respect of foreign subsidiaries. The purchase of shares in OSRAM Licht AG reduced equity by EUR 35 million, while the obligation to pay future guaranteed compensation payments to OSRAM Licht AG's minority sharekolders reduced equity by EUR 152 million.

Libdilifies associated with assets classified as held for sale amounted to EUR 40 million and included the liabilities of Fluence Bioengineering, Inc. The corresponding liabilities as of December 31, 2020, which stood at EUR 127 million, had related to liabilities of OSRAM Continental.

For information on financial instruments and changes in equity, please refer to the disclosures in the notes to the consolidated financial statements.

negative result after tax. This was due

	,,0,,,	TOTAL CARLET STICK TOTAL	,,,,,,	,,0,,,	900000
2,00 0	9 644	Total equity and lighilities	2966	9 644	n nesets
3,027	3,150	Shareholders' equity	165	182	erred tax asset
605	556	Provisions	6,486	6,180	ed assets
2,483	2,103	Other liabilities	1,833	1,656	er current assets
545	710	Trade liabilities	621	688	de receivables
3,303	3,126	Financial liabilities	858	938	entories
2020	2021	Equity and liabilities	2020	2021	ets in millions of EUR

Asse Inve

As a result of the increase in equity and simultaneous decrease in financial liabilities, the debt to equity ratio fell to 99%,

compared with 109% a year earlier. At the same time, the equity ratio rose to 33%

81

1,707	1,795	Net debt
51%	56%	Equity to fixed assets ratio
109%	99%	Debt to equity ratio
30%	33%	Equity ratio
2020	2021	

These performance indicators are derived directly from the consolidated financial statements.

2.4 Cash Flow

assets, whose impact on cash flow is shown of business activities and other non-current creased to EUR 792 million in 2021, compared with EUR 707 million in 2020. This rise 2020, working capital had increased by in working capital of EUR 57 million; in from operating activities was the decrease for the year-on-year increase in cash flows statement of cash flows in the reconciliaand impairment, which is included in the increase in depreciation, amortization, tervailing effect from the EUR 180 million in investing activities. There was a councluded net gains of EUR 70 million on sales from the increased valuation of LeddarTech primarily a sum of EUR 97 million resulting contained significant non-cash income, earnings as the figure for fiscal year 2021 from operating activities. The main reason tion from the result after tax to cash flows Inc. The figure for fiscal year 2021 also inwas only partly due to the improvement in Cash flows from operating activities in-

Cash flows from investing activities amounted to EUR -560 million (2020: EUR -1,495 million), including EUR -310 million for intangible assets and property, plant, and equipment (2020: EUR -177 million) and EUR -524 million for acquisitions (2020: EUR -920 million).

The acquisitions in fiscal year 2021 included cash payments totaling EUR 452 million to increase the number of OSRAM Licht AG shares held (2020: EUR 1,958 million less acquired cash and cash equivalents of EUR 614 million). Further cash payments included EUR 72 million for the acquisition of 50% of the shares in OSRAM CONTINEN.

TAL GmbH in connection with the unwinding of OSRAM Continental. The net cash provided by the sale of business activities amounted to EUR 277 million (2020: EUR 1, and million). A significant sum within this figure, EUR 144 million, related to the sale of companies to Continental.

Free cash flow came to EUR 482 million (2020: EUR 531 million). The Company's available liquidity decreased by EUR 266 million to EUR 1,331 million as of December 31, 2021.

Cash flows from financing activities amounted to EUR. 1-534 million in the reporting year (2020: EUR 1,951 million). The prior-year figure had been heavily influenced by the corporate action taken to fund the acquisition of OSRAM, which had involved a net cash inflow of EUR 1,049 million from the capital increase and a net cash inflow of EUR 1,992 million from the issue of bond and a convertible bond. In fiscal year 2021, however, the repayment of bank loans and

promissory notes, which were only partly refinanced by taking out new loans, led to a net cash outflow of EUR 190 million. Fur-

thermore, convertible bonds with a nominal value of EUR 77 million were repurchased at a purchase price of EUR 67 million.

in millions of EUR Operating cash flow Cash flow from investing activities	2021 792 -560	2020 709 -1,495	Change in % +12% -63%
Cash flow from investing activities	-560	-1,495	-63%
Free Cash Flow	482	531	-9%
Cash flow from financing activities	-534	1,951	-127%
Effects of changes in foreign exchange rates on cash and cash equivalents	33	-55	-160%
Cash and cash equivalents	1,331	1,597	-17%

from the operating activities of continuing operations less cash payments for the purchase of intangible assets and property, plant, and equipment. The definition of this performance indicator has changed

Free cash flow comprises the cash flows

compared with the previous year. In 2020, free cash flow had comprised cash flows from operating activities and cash flows from investing activities. The prior-year figure has been adjusted to reflect the new definition.

3. Research and Development

our development sites are globally positioned, with LED development in Germany and Malaysia, VCSEL technology in the US and Singapore, package development in Singapore, Malaysia and China, micro-optics in Switzerland, the development of conversion solutions, optical coatings and filter solutions, image and color sensor technology in the US, Germany and Austria, and IC design development in India, the US, Italy, Austria and Switzerland. This gives ams OSRAM a strategic advantage by providing us with access to both leading expertise and a global production network.

arms OSRAM's position as a technological leader in the development and production of high-quality sensing and lighting technologies for use in products such as mobile devices, automotive lighting and medical technology is based on intensive research and development activities. To secure and strengthen our leading position, we invest significantly in research and development expenses in the post fiscal year amounted to EUR 423 million, or 13% of revenues, compared to EUR 423 million (12% of revenues) in 2020.

Our research and development activities enabled ams OSRAM's growth in recent years and form the basis of an extensive product and design pipeline for the years to come. The average number of employees in research and development was 3,445 in 12021 (2020: 3,732).

arms OSRAM's R&D octivities mainly comprise optical technologies for applications in the sensing, lighting and visualization segments. Our broad technology portfolio addresses the consumer, automotive, industrial, and medical technology end

markets. In addition, the development of software and algorithms and the integration of machine learning and artificial intelligence has become an integral part of our R&D activities. The combination of individual hardware components into modules and systems with differentiating software solutions represents an important element of product development or ams OSRAM, and is a pillar of our development processes for end-to-end solutions.

gle-use applications in high volumes. attractively priced module enables sindigital output for medical endoscopes. The module available on the market with a fully (UV-C) LEDs to the market, which facilialso introduced the first ultraviolet C-band and package technology, ams OSRAM has brightness and image quality for LEDlatest LED generation enables additional the brightest LED available on the marmillimeter, NanEyeM is the smallest camera surfaces and water. Measuring one square tate new possibilities for disinfecting air, based projectors thanks to optimized chip vehicles. In the visualization segment, our ket for use in the low and high beams of innovations for automotive lighting such as portfolio has been expanded to include broad product portfolio. Our LED product activities provide a good overview of our opments based on ams OSRAM's R&D The following innovative product devel-

Close strategic coordination between our business units, strategy department and CTO takes place on an ongoing basis and determines our strategic decisions regarding technology and product development. We attach great importance to stimulating promoting and coordinating a continuous

As part of our approach to working with strategic partners, we collaborate globally with leading research institutes, universities and other companies. Collaboration takes place, for example, through research programs such as those funded by the European Commission as well as local funding programs around the world.

ams OSRAM's venture capital entity Fluxunit continued with the activities it had begun in previous years. Fluxunit makes targeted investments in young start-ups that can meaningfully complement our business activities in the long term. Its investment portfolio currently consists of 11 companies developing products in various fields where ams OSRAM is active, as well

as two additional investments in venture capital fund companies.

The creation, maintenance, enforcement and use of patents, trademarks and other intellectual property rights is an important aspect of our strategy to differentiate ourselves in the marketplace and to protect our R&D investments and generate a return on them. Our global patent portfolio comprises around 15,000 patents and patent applications, corresponding to approximately 5,800 patent families. During the year under review, we continued to develop our patent strategy, taking into account the interplacifs, while focusing on future value creation.

Furchasing and Manufacturing

The procurement situation was challenging in fiscal year 2021 in view of the supply bottlenecks affecting the entire semiconductor industry, as well as ams OSRAM. Our initiatives focused on bundling the purchasing of ams and OSRAM allowed us to successfully realize the synergy potentials resulting from the combination of our businesses. Despite the overall cost savings achieved, however, cost increases for some key materials, goods and services due to the global chip shortage, rising raw material prices and energy supply bottlenecks in China have also had a lasting effect on ams OSRAM.

The ams OSRAM Group has 23 production sites worldwide excluding the Fluence production site, which is reported as an asset held for sale on the balance sheet as of December 31, 2021. Production sites are located in Premstätten (Austria), Regensburg

and Herbrechtingen (both in Germany),
Antwerp (Belgium), Nové Zámky (Slovakia),
Treviso (Italy), Hilisboro (New Hampshire,
USA), Singapore, Wuxi (China), Penang and
Kulim (both in Malaysia), Cademba City (in
the Phillippines), and elsewhere.

One of our most important investments in production in 2021 was a pilot line for micro LEDs built at our Regensburg site to enable new types of display generations. Capacity utilization at our plants in Regensburg, wuxi, Penang and Kulim increased due to positive market development and increased demand in the automotive end customer market as a whole, as well as for LEDs for various lighting applications. In contrast, capacity utilization at our Singapore plants was lower than in the previous fiscal year due to a loss in market share for certain consumer applications.

85

5. Employees

ees (2020: 29,753). The average number of employees for the year was 26,130 (2020: 30,031), based on FTEs (full-time equivaams OSRAM Group had 24,499 employconcern for us. As of December 31, 2021, the diversity of our employees is a major their development, and to pay them fairly. conditions and prospects, to contribute to employees a secure job with good working tomers. It is important to us to offer our added value we want to offer our cus-Our employees are the basis of our long-Furthermore, as a globally active company, term business success and they create the

and external training and development oping training positions for apprentices. during the past year, in addition to providportunities for all of our employee groups continued to offer comprehensive internal regions where we operate. Accordingly, we sponsibility as an important employer in the At ams OSRAM, we are aware of our re-

ing a long-term compensation concept. We seek to retain our employees by offer-

> of our company by rewarding the joint OSRAM's success. contribution of all of our employees to ams the most important factor in the success embodies the belief that our employees are programs. Our profit sharing program option plans and employee compensation direct component to our existing stock OSRAM employees adds an attractive A profit-sharing program for all ams

previous fiscal year, a profit-sharing bonus was paid to employees in the amount of after tax. mined on the basis of adjusted earnings EUR 19 million in 2021 (2020: EUR 21 mil-Due to the development of earnings in the lion). The amount of the bonus is deter-

and other management representatives. In addition, active internal corporate and webcasts given by our Management Board include, for example, town hall meetings or employee events, promote employee idenlong-standing company tradition of regular employee communication, as well as a tification with our company. Such events

6. Environmental Management

gas emissions, water abstraction, and data on energy consumption, greenhouse waste generation. our environmental reporting, we collect and energy-efficient products. As part of ment, as well as to developing innovative resources through environmental manage sibilities, we have committed to conserving In order to meet our environmental respongas emissions at our production facilities. natural resources and create greenhouse As an industrial company, we consume

and results relating to all topics of importance to ams OSRAM. also explains the specific goals, measures our organizational structure, responsibiliability-reporting. In addition to describing found at: https://ams-OSRAM.com/sustain separate sustainability report that can be aspects of sustainability are described in a mental management and address other The ways in which we implement environties, guidelines and processes, the report

7. Subsidiaries and Investments

or indirect interests in 33 companies. in 49 countries, in addition to holding direct Group, ams-OSRAM AG has 117 subsidiaries As parent company of the ams OSRAM

companies with the exception of OSRAM the shares in all fully consolidated OSRAM ing shares in OSRAM Licht AG. OSRAM held 79.91% (2020: 70.72%) of the outstand-As of December 31, 2021, ams-OSRAM AG Licht AG directly or indirectly holds 100% of

> 90% of the shares. China Lighting Ltd., in which it only holds

ments: Significant associates and other invest-

included the following: for using the equity method particularly As of December 31, 2021, significant associates in terms of value that are accounted

DOID FIG.	COA
The investment in Bolb Inc., a manufacturer	companies is expected to ac
of high-efficiency ultraviolet C-band (UV-C)	dustrialization of highly effic
light-emitting LEDs, was acquired in fiscal	formance UV-C LEDs.
year 2021. By investing in the Californian	
company, ams OSRAM is further expanding	In 2019, ams acquired 49.0%
its technological know-how for disinfection	Smart Sensing Sensor Co. Lt
applications using UV-C lighting, Future	(China). In 2020, a further 45

Sciosense Holding BV Name of holding

Jinan Smart Sensing Sensor Co, Ltd.

Country of incorporation

Ownership interest

20.38% 45.22% 49.00%

China

cient, high-perccelerate the in-

sense Holding B.V. in the Netherlands was 45.22% of Scio-.td., Shanghai 6 of Jinan

87

research collaboration between our two

provider of environmental sensors and high Co. Ltd., which is a holding company for a performance flow sensing systems. subsidiary of Jinan Smart Sensing Sensor acquired. Sciosense Holding B.V. is a direct

> following: for at fair value particularly included the ments in terms of value that are accounted As of December 31, 2021, significant invest-

Name of holding	Country of incorporation	Ownership interest
LeddarTech Inc.	Canada	19.20%
HLJ Technologies Co, Ltd.	Taiwan	12.50%
Recogni, Inc.	USA	5.33%

Risk Management

Main features of the accounting-related

requirements. internal control system in order to meet all es. We are also continuously refining our ed as part of the harmonization of processadapted in the course of integration into the ams OSRAM Group, is being implement-The internal control system, which has been

cesses for the separation of functions and ately eliminated. It also establishes progroup-internal transactions are appropriation, and account assignment are contingroup-wide standards for accounting, valuand detective controls, which ensure that ments. The system consists of preventive annual and consolidated financial statethe correctness of financial reporting in the lated internal control system is to ensure accounting-related IT systems. well as individual access authorizations for when preparing the financial statements, as for observing the principle of dual control tions can be completely recorded, and that uously updated and maintained, transac-The overarching goal of our accounting-re-

system is reviewed on an annual basis. Internal controls are revised if necessary to The effectiveness of the internal control

88

ality of our control system. lines as well as the reliability and functionensure compliance with group-wide guideuses continuous and group-wide audits to eliminate any detected areas of weakness The internal audit function of ams OSRAM

and the auditor. ment report with the Management Board statements, and the combined manage-OSRAM AG, the consolidated financial ams-OSRAM AG and the consolidated for the individual financial statements of also responsible for auditing the documents Board oversees the accounting process and individual financial statements of amsfinancial statements, and it discusses the the effectiveness of the control system. It is The Audit Committee of the Supervisory

System Enterprise Risk Management (ERM)

of risks that are inseparably associated with business activity. ams OSRAM Group is subject to a number In the context of its global activities, the

existence of the ams OSRAM Group or the of risks that could endanger the continued risk management for the early detection In order to identify, assess, and control risks, ams OSRAM practices systematic

> internal and external requirements. agement system in order to meet changing We are continuously refining our risk maninitiate risk-limiting measures as necessary financial, and compliance objectives, and to achievement of our strategic, operational,

units and the business units. by management at the level of the central management of significant risks is borne identification, assessment, reporting, and and risk reporting. Responsibility for the coordinates the risk management process The central office for risk management

probability of occurrence. Our assessments effects on our business activity and their are qualitatively assessed based upon their risks. In these meetings, the reported risks agement to assess significant identified risks in light of previously initiated effective follow the net principle, in which we assess Semiannual meetings are held with man-

in a uniform manner using the aforemen-ERM process and are qualitatively assessed Non-financial risks are also included in the

Strategic Risks

Competition for the introduction of new

tomer requirements are not or cannot be the risk that changes in market and cusare more cost-effective, of higher quality, alternative products or technologies that technologies could quickly become marinnovation. There is a risk that disruptive by short product life cycles and constant tech industry with a strong focus on tech-

> reporting. reported as part of the subsequent risk significant risks for the Group, the risks are tioned method. If this assessment shows

Supervisory Board monitors the effectivegoing concern. The Audit Committee of the that there is no substantial danger to the the ams OSRAM Group determines whether significant risks. The Management Board of complete and timely information about ness of this system. represent an existential threat and verify the risks, either individually or as a whole, ment Board and Supervisory Board receive port if needed to ensure that the Manage basis. It is supplemented by an ad hoc reand to the Supervisory Board on an annual Management Board on a semiannual basis The regular report is presented to the

operations of the significant strategic and operationnet assets, financial position, and results of overall on our business activity as well as al risks for the ams OSRAM Group, which The following section provides a description could have particularly negative effects

competitive for other reasons. There is also possess greater functionality, or are more ket-ready. Competitors could also introduce nologically advanced applications, marked The ams OSRAM Group operates in a high-

> considered early enough and to a sufficient get them market-ready in a timely manner. petitively in terms of technology and cost products that can be manufactured comvative and differentiated technologies for for the right applications and markets, and extent. We must therefore develop inno-

and competitiveness of the entire Group. It may lead to a rapid decline in market share to do so may endanger the future growth ly protected and profitably utilized. Failure oped intellectual property can be sufficient The future success of ams OSRAM also depends upon whether its internally devel-

in the affected areas of business or failure to achieve growth objectives. Investments in research and development could not be recouped through revenues, which would reduce the profitability of the entire Group

product development processes. optimize the efficiency of our operational if needed. In addition, we are working to so that they can be focused more sharply and development plans on a regular basis areas of technology as well as research performs market analyses and reviews have a team in the Strategy division that and long-term strategic planning. We also ogy roadmap is an integral part of medium rated into the technology roadmap for the gic planning. Technological expertise that observations are considered in our strateare monitored, and the results of these respective business segments. The technolwill be necessary in the future is incorposures. Potential new fields of technology We counter these risks with specific mea

Macroeconomic effects and geopolitica conflicts

The macroeconomic trend in fiscal years 2020 and 2021 was strongly influenced by the effects of the COVID-19 pandemic. Despite a worldwide economic recovery, the future trend in the global economy still depends largely upon the rate of infection. The rate of infection continues to be volatile, primarily due to the emergence of voriants of the coronovirus that are more contagious than the wild-type strain. This may result in repeated interruptions of global value chains, with negative consequences for the further growth of the global economy.

These disruptions of supply chains caused by the pandemic are leading to goods shortages and thus significant price

90

and profitability. that we fail to achieve planned revenues growth. Another economic downturn, above pair global trade and thus global economic supported by the Chinese state, could imat key companies in the high-tech sector the US and China, which are aimed in part as trade restrictions, such as those between addition, trade and tariff disputes as well turn slow down global economic growth. In to increase interest rates, which could in a less expansive fiscal policy in future and around the world could be forced to pursue Russia and Ukraine. To stem the rising infla up due to the smoldering conflict between materials. Energy prices are also heating increases, primarily for energy and raw all in our relevant sales markets, may mear tion caused by these factors, central banks

To offset the aforementioned effects, we conduct regular reviews of our value chains, i.e., our global and regional presence and our processes. In this way, we strive to achieve cost savings and operational improvements that allow us to avoid tariffs as well as to compensate for market-driven reductions in selling prices for certain product groups, price increases for energy and raw materials, and higher wages. In order to develop and adapt effective response strategies, we continuously monitor early warning indicators. We also regularly negotiate selling prices with our customers and adjust them as needed.

Risk of failure to achieve strategic objectives in connection with the OSRAM merger

The merger of ams and OSRAM is a transformative event for the combined company, which requires significant initiatives for integration and restructuring. These activities entail the risk of overcommit-

ting resources (particularly management

capacities and employees), which could temporarily impair our operational performance and innovative capacity. The loss of key employees (brain drain) due to changes in the company or uncertainty could also have negative effects.

There could also be delays in the timely implementation of approved measures, which could have negative effects on achieving the planned synergies. Possible planned sales of business segments may not occur within the expected timeline or may not produce the expected income.

A dedicated integration and project management team, supported by external consultants, should minimize this risk. Planned savings from program actions are recorded in a central reporting tool, and their implementation is continuously tracked.

Competitive environment

Competitive pressure in the semiconductor industry is generally high due to a large number of current competitors and new market participants. Because of the continuing shortage of semiconductors, a worldwide expansion of production capacities is currently being promoted and subsidized. One result of this may be that producers of LED components and sensor products will have to increasingly differentiate themselves by price in order to fully utilize their production capacity. This price competition could influence the achievement of our objectives in terms of market shares and profit margins.

We therefore regularly review additional productivity enhancement and cost reduction measures, with a focus on targeted research and development expenditures to differentiate our products through technological advances and thereby ensure the profitable utilization of existing capacities.

Volatile and cyclical market developments

End-market demand for technologically End-market demand for technologically advanced consumer products that use semiconductor-based technologies, such as sensors, optical solutions, or LEDs, are subject to rapid technological change and thus relatively short product life cycles. This can have negative effects on the demand for ams OSRAM components, We therefore continuously look for ways to exploit new areas of application for our technologies in consumer electronics and other fields, such as medical applications.

The merger with OSRAM reduced the share of consumer electronics relative to total revenues. The automotive business has longer cycles. Even though the volume of automotive manufacturing in 2019 will not be achieved over the medium term, following the slight recovery in automotive manufacturing in 2021 we continue to assume that there will be positive growth in 2022. There is a risk that this positive trend will be reversed or interrupted by the pandemic.

An increasingly dynamic market or market volatility in both the automotive field and in consumer electronics may cause our customers to adjust their order quantities over the short term. For ams OSRAM, this would mean firstly a cost risk due to fluctuations in capacity utilization in our own production and excess inventory, and secondly the risk of supply difficulties due to capacity bothlenecks. Our forecasts for the growth of our own business are therefore subject to a certain degree of uncertainty.

For this reason, we are continuously monitoring relevant market indicators and implementing appropriate measures for short-term adjustment of inventory and production capacities.

Operational Risks

Business interruption risk

management process. by establishing an appropriate project risk ments in expansion. We have countered this struction projects could delay our investmaterials. Similarly, the progress of conand closely monitoring critical vendors and continually reviewed and improved. The protection for significant locations is also quality of our products. Fire and disaster critical areas to ensure the availability and and have defined emergency plans for We also conduct preventive maintenance appropriate insurance to protect against to equipment and buildings, we maintain in our plants or external influences could of our production environment increase the possible by diversifying our supplier base risk of supply bottlenecks is reduced where risks arising from business interruption. in addition to insuring against damage products in the planned scope. That is why, result in an inability to produce or deliver tions. Thus, there is a risk that disruptions dependence on individual production loca The continuous optimization and focusing

interruptions caused by the pandemic could stances. In addition, we reserve the right ously adapted based upon current circumin effect without change and are continuexisting health protection measures remain of ams OSRAM to supply its products. The ations so that we can maintain the ability ing COVID-19 infections in our own operare therefore strongly focused on preventnevertheless have a negative effect on our tion projects. A new round of production the general contractors for our constructo review the COVID-19 safety measures of ther course of the COVID-19 pandemic. We tion risk as high in connection with the fur-We currently assess the business interrup-

92

lays in our ongoing construction projects delivery capacity. There could also be de-

Customer concentration

orders are delayed or canceled. tomer order quantities are reduced, or if minimum order quantities, the ams OSRAM demand for our products. If these customcess or market share and thus upon their customers, we could become dependent or OSRAM Group is earned from individual of the total revenue and profit of the ams Group may suffer a loss of revenue if cusers cannot be contractually committed to the individual customers' business suc-

of customer-specific production capacities. We are therefore striving to further diversify losses in revenue and insufficient utilization accounts could nevertheless still lead to reduction in business activity with key to total revenue. A loss of projects or a centage of consumer electronics relative the effects of volatile market developments our customer portfolio in order to reduce

Material shortages

may also experience production stoppages claims by customers for contractual liability loss of revenue for ams OSRAM as well as to fulfill customer orders could lead to a global supply chain. Any delay or failure shortage of electronic intermediate prodin customer demand and a serious global could lead to a disproportionate increase all in China, and increasing digitization from the effects of the pandemic, above erbated by continued disruptions in the ucts. This situation may be further exac-

If a disproportionately high percentage

The merger with OSRAM reduced the per-

or even loss of the customer. Our customers A faster market recovery than expected

> ing our suppliers' performance. in the procurement market, and by monitor incoming customer orders as well as trends counter these risks by continuously tracking demand for ams OSRAM components. We due to lack of materials, which could reduce

fully passed on to our customers. affect our profitability if they cannot be in raw material prices. The resulting price shortages have led to significant increases Over the course of the year, material increases by our suppliers could negatively

ble, with long delivery times. materials and equipment as soon as possi es. We are countering this risk by ordering progress of construction and price increas projects, which could lead to delays in the negative effects on current construction materials and equipment could also have This tense situation with the availability of

Dependence on suppliers

To avoid dependence on individual suppliers for critical materials, we generally vet limited number of wafer producers. ductor field can be outsourced only to a certain production services in the semiconeconomically practical, however. Moreover, ferred vendor. This is not always possible or a second source in addition to the pre-

increases by suppliers. of revenue. We also face the risk of price pair our delivery capacity and result in loss to fulfill its supply obligations, this could im-If one or more of these sole suppliers fails

ployees coordinate our collaboration with risk management process. Dedicated empliers is a fixed component of our supplier monitoring the financial situation of sup-Obtaining information on and regularly important production service providers. We

> also maintain a forward-looking inventory where possible. conclude long-term delivery agreements and procurement management process and

risk management is established. current construction activities. Independent could lead to delays in the progress of our companies and experts in this region, which Asia, there is a shortage of construction plants are currently under construction in Because several semiconductor production

Cyber risks and IT risks

data are also on the rise. the protection, integrity, and availability of important. Regulatory requirements for rity of our system infrastructure extremely processes makes the reliability and secu-The increasing digitization of our business

revenue. and supply chain, which would entail loss of external attacks easier, or could lead to on the part of employees and improper business information, intellectual property, Such attacks could result in the theft of on our IT systems are therefore probable. There has been an evident increase in cysignificant interruptions of our production functions in the IT systems could also cause recovered only at significant expense. Malsituations in which data are lost or can be handling of our IT systems could also make and personal data. A lack of risk awareness berattacks worldwide, and external attacks

standard. We also conduct training for our operate in accordance with the ISO 27001 secure cloud solutions, and we conduct tems. In terms of information security, we determine the vulnerability of our IT sysindependent tests at regular intervals to IT systems and applications to sufficiently To counter these risks, we have transferred

event of a serious cyberattack. emergency response service provider in the employees and have a contract with an

includes training for all employees and the standards for handling personal data. This corporate rules" ensures company-wide vice providers. data are being processed by external serorganizational measures, particularly wher implementation of uniform technical and that builds on globally applicable "binding data protection management system

Quality Risk

ly important for our business success. The ment cycles increase the risk of possible ufacturing processes and shorter developincreasing complexity of product and man requirements for our products is particular Meeting market and customer-specific

Financial Risks

riety of financial risks. The relevant risks include liquidity risk, interest-rate risk, foreign business and our investment and financing credit ratings, currency exchange rates, incurrency risk, and credit risk. Changes in payment flows. lead to significant volatility in profits and activities. Market price fluctuations can situation can influence both our operational terest rates, and the general capital market The ams OSRAM Group is subject to a va-

areas, also using financial derivatives. collaboration with the operational business and secures against financial risks in close Board. The Treasury department assesses ny's Management Board and Supervisory upon guidelines approved by the compaby the central Treasury department based Financial risk management is conducted

> ams OSRAM are integrated into complex quality issues. Products manufactured by reputation. our customers and negative effects on our and could therefore lead to recalls from property, health, or life of third persons, could directly or indirectly compromise the fects in products produced by ams OSRAM electronic systems. Errors or functional de-

response. safety incidents, we have established an ef In the event of quality defects and product are also certified by external companies audited externally by our customers, and quality processes, which are audited We counter this risk through group-wide fective reporting system to ensure a timely ISO 13485, ISO 9001, and IATF 16949) and established standards (such as ISO 14001 internally at regular intervals based upon

Liquidity Risk

ary for the market, under which the ratio of net financing debt to adjusted EBITDA agreements contain arrangements custom instruments and maturity profile also prohas been diversified in terms of financial not been utilized. A financing structure that approved long-term credit lines that have assets, as well as a substantial amount in business plan are helping to support the mance. A long-term liquidity plan and for financing as well as expectations with sition of OSRAM has increased the need undertaken in conjunction with the acquitions when they come due. Debt financing incapable of meeting its financial obligavides a sufficient margin. Several financing Group. The company has sufficient liquid future financial success of the ams OSRAM respect to future strong financial perfor-The liquidity risk is that ams OSRAM will be

> of credit is intensively analyzed in the confinancial planning. text of short and long-term business and for early repayment or blocks on utilization not exceed 4.0:1. The resulting risk of calls (pursuant to the respective definition) must

primarily due to short-term time deposits, risks of changes in interest rates exist ties have fixed interest rates. Under assets is countered by the fact that under liabiliments. This risk of changes in interest rates interest income from financial invest-OSRAM primarily through increased financ-Interest-rate risks could arise for ams Having opposing items under assets and which are linked to the market interest rate ties, more than 95% of the financial liabiliwhile falling interest rates lead to lower ing costs due to a rise in interest rates,

Foreign Currency Risk

version into the group reporting currency in financial reporting from currency conboth in our operational business as well as tuations in foreign currency exchange rates rencies. This results in risks caused by fluc-As a global company, we conduct our transactions in a number of different cur-

the balance sheet date.

a negative effect on our profit, equity, and euro vis-à-vis the US dollar and can have Based upon our corporate structure, these uled transactions. financial derivatives to hedge net risks from risks and conversion risks. Depending upon cial positions, we monitor all transaction cash flow. In order to hedge currency risks result primarily from fluctuations of the balance sheet items and risks from schedthe respective risk situation, we also use from our operational business and finan-

liabilities naturally reduces overall exposure

Credit risks arise when a customer or a

financial institutions having a high level of tionate concentration of credit risks as of cial instruments are conducted only with and transactions with derivative finanmanagement policy, financial investments incapable of fulfilling its payment obligauously monitored. There was no dispropor external and internal data and are continfinancial institutions are issued based upon Individual credit limits for customers and creditworthiness, and are widely diversified tions. Pursuant to our treasury and risk counterparty to a financial instrument is

95

Legal and Compliance Risks

As a global company, the arms OSRAM Group with its subsidiaries is subject to a variety of legal and compliance risks. These include the risk of litigation and the risk of noncompliance with regulatory requirements ams OSRAM may therefore be confronted with various court proceedings, claims, and official investigations. These could result in the company incurring costs, e.g., for damages, recalls, fines, or other financial detriments, as well as reputational damage.

a comprehensive group-wide compliance scape through central departments that the extent possible and to anticipate future and reputational risks. To prevent this to circumstances result in significant fines ronmental protection, product safety, and as laws to ensure data protection, enviand anti-money laundering laws, as well regulations worldwide, e.g., anticorruption management system. timely manner, ams OSRAM has established identify compliance-related events in a In order to avoid and, if necessary, to tion of appropriate processes and controls support the country-specific implementamonitor global changes in the legal landregulatory changes in a timely manner, we the relevant regulations may under certain labor conditions. Failure to comply with We are subject to a variety of governmenta

Like us, many of our competitors, suppliers, and customers also protect their technology through patents or other proprietary rights. The enforcement of claims by other parties based upon an alleged infringement of proprietary rights could lead to significant costs in the form of court costs, damages, and/or license fees. Such claims could also hinder the business of ams

OSRAM. We reduce our risk by maintaining and, if necessary, enforcing a strong IP portfolio. We also monitor the external IP environment. If necessary, we also acquire licenses to ensure our freedom of action.

If economically practical, we also purchase insurance to cover a portion of the risks. Note 18 'Provisions' of the Notes to the Consolidated Financial Statements provides an overview of significant legal disputes.

Overall estimate of risks

During the past fiscal year, the risk situation of the ams OSRAM Group cominued to be subject to the effects of the COVID-19 pandemic, and was characterized by materials associated with the overall business environment could have a serious effect on the business of ams OSRAM and could frequently require new operational actions as well as adjustments of its strategy. It remains to be seen how extensive and long-tasting the effects of the COVID-19 pandemic will be for our business.

Taking into account the respective probability of occurrence and the potential effects, the risks enumerated in this report do not endanger the continuity of the compony's business, either individually or in their entirety. Given the balance sheet structure and the current business prospects, the Management Board does not expect any substantial threat to the going concern. This assessment is supported by our financing structure, see Note 19 'Interest-bearing Loans' of the Notes to the Consolidated Financial Statements.

9. Events After the Balance Sheet Date

The renaming of the highest-level Group company from ams AG to ams-OSRAM AG became effective when it was entered

in the commercial register on January 18, 2022.

10. Outlook

and semiconductor industry dynamics. At production ramps of various design-wins. to a global customer base, and planned plications, expected high volume shipments illumination, visualization and sensing apexpected introduction of new solutions for portant markets. This view is based on the well placed to serve customer needs in imabout its market position and sees itself the same time, ams OSRAM is confident demand trends, supply chain performance and potential untoreseen changes in mance that may be difficult to anticipate, end market volatility, customer perforis therefore subject to potential continued major economies and regions, ams OSRAM nomic environment with unclear effect on pandemic and a more volatile macro-ecoreflect the ongoing impact of the Covid-19 automotive production. These uncertainties global economy, private consumption and continue related to the development of the In the current year significant uncertainties worldwide industrial production including

With effective control of OSRAM on the basis of the domination and profit and loss transfer agreement between the companies ams OSRAM will continue the integration of OSRAM in the current year on the basis of planned programs and activities. As a consequence, ams OSRAM expects to record further considerable expenses for 2022 from implementing integration-related measures based on current information.

show notable weakness, ams OSRAM would development overall in 2022. However, expects its business to show positive a current assessment of semiconductor cial effects for the group. On the basis of development of its business and earnings. experience a meaningful impact on the unfavorably in 2022 and/or the US-Dollar the macro-economic environment develop should global semiconductor demand and macro-economic environment ams OSRAM and end market dynamics and the global business advantages and positive finanto drive significant mid and longer-term planned full integration of both companies Looking ahead, ams OSRAM expects the

in the automotive, consumer, industrial and medical technology end markets a diversified range of growth opportunities ogies to drive innovation in its focus areas light emission, optics and sensing technolwill leverage its industry-leading portfolio of markets and customer base, ams OSRAM business with key accounts globally and ams OSRAM are expanding the group's growth strategy the mid-term priorities for ams OSRAM pursues a global leadership tions, ams OSRAM expects to benefit from new applications. Enabled by these soluand create customer-driven solutions for driving higher penetration of its worldwide successful integration of OSRAM. For this focus which is supported by the continuing position in optical solutions as its strategic

11. Other Information

For information on equity, treasury shares, and equity investments, please refer to the notes to the consolidated financial statements.

Premstaetten, February 23, 2022

ams-OSRAM AG, Premstaetten

Alexander Everke
Chairman of the
Management Board
CEO

Ingo Bank Member of the Management Board CFO

Thomas Stockmeier
Member of the
Management Board
CTO

Stochur:

Mark Hamersma Member of the Management Board CBO