



Management Report

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1. Overview of the economic environment and the past fiscal year

1.1 Development of the semiconductor sector

Geopolitical conflicts, high inflation rates, and rising interest rates had a negative impact on demand in many end markets in 2023, as in the previous year. The global semiconductor market recorded a decline of 9 % to USD 520 bn in the year under review, compared to USD 574 bn in the previous year, although monthly growth rates have been positive again since October of 2023. Excluding the highly volatile memory market (-31 %) in which ams OSRAM is not involved, the growth rate of the semiconductor market came to -3 % in 2023. The growth rate in the market for optoelectronic semiconductors, which is an important market for ams OSRAM, was negative at -3 %, after it stood at 1 % in the previous year. At -11 %, the growth rate of the market for sensors was significantly lower, dropping from 14 % in the previous year when it had registered above-average growth.

The most important end markets for ams OSRAM are the automotive market, industrial and medical technology applications and consumer devices such as smartphones or wearables. Following an increase of 7 % in the previous year, automotive production recorded growth of 9 % in 2023. Based on ZVEI (Global Electric and Digital Industry) data, the growth rate in the industrial and medical technology sectors relevant to ams OSRAM was 7-11 % in 2023 (2022: 10-14 %). Shipments in the global smartphone market fell by 3 % in 2023, following a decline of 10 % in the previous year. In the global wearables market, shipments increased by 7 % (2022: -7 %).

1.2 Structure and development of the segments

The business activities of the ams OSRAM Group are grouped into two segments: Semiconductors and Lamps & Systems. Our Semiconductors segment comprises the Group's semiconductor-related business in the automotive, industrial, medical technology and consumer end markets. The business segment Lamps & Systems comprises the Group's business related to lamps and lighting systems, with a focus on the automotive market, as well as the industrial and medical technology markets.

Semiconductors

Our Semiconductors segment made the largest contribution to Group revenues in the year under review from its automotive, industrial, medical technology, and consumer end markets. In the automotive end market, the segment is the global leader in automotive LED lighting for a wide range of exterior and interior vehicle lighting applications. These include differentiated LED solutions for head lamps and other front lighting, exterior lighting (including signaling/rear lighting amongst others), and interior ambient lighting for vehicles. Other business areas in the segment include interior sensors, components for safety and ADAS systems and visualization technologies. High-performance solutions and innovations for exterior and interior applications form the basis of the Group's success and strong customer penetration in all key regions. Following a build-up of inventories in our customers' supply chains in 2022, the supply chains in the automotive market for LEDs normalized in 2023. Towards the end of the year, a significant upturn in demand was recorded, particularly from China. In summary, the automotive semiconductors business recorded solid full-year results for 2023. The segment confirmed its position as the world's leading supplier of LED automotive lighting in the year under review. It was also able to expand its customer project base and innovation pipeline across many product families.

The industrial and medical business in our Semiconductors segment recorded a mixed development overall, which was characterized by inventory adjustments and lower sales rates in the wake of a weak overall economic activity. After a weak start, demand increased but remained at lower levels compared to previous years. For example, demand for ams OSRAM's HyperRed LEDs (special red light-emitting diodes for plant cultivation lighting systems) remained weak as comparatively few lighting projects were started due to high energy prices and high financing costs. The Company's LED solutions for industrial and outdoor lighting, as well as industrial imaging, recorded much lower demand than in the previous year due to the weak macro-economic development. The medical market segment achieved solid results in a weak market environment, with the Company benefiting from its leading position in medical imaging solutions for computer tomography and digital X-ray systems. In the consumer end market, our Semiconductors segment is a major supplier of sophisticated sensor solutions for smartphones, wearables and other consumer devices for leading OEMs. The segment's business areas include display management, proximity sensors, 3D technologies, spectral and biosensors and other optoelectronic applications. A significant decline was recorded in consumer applications business

in 2023, as some important customer projects are coming to an end and there was a general decline in global smartphone sales. At the same time, the Group underlined its leading position in key submarkets with customers selecting ams OSRAM sensors for their future devices. Despite a weak overall market, there was a slight recovery in the market for smartphones with Android operating systems towards the end of the fiscal year, driven in particular by China.

Lamps and Systems

The Lamps & Systems (L&S) segment contributed the remaining share of Group sales in the reporting year. L&S's automotive business mainly comprises traditional halogen, xenon and signal lamps for vehicles, but also includes, amongst other products, LED-based lamps and modules and retrofit lighting systems. As a leading supplier of automotive lighting, L&S serves both automotive manufacturers and suppliers as well as the automotive aftermarket in the most important geographical regions. The automotive segment of L&S recorded a positive business development in 2023. The OEM business performed in line with expectations, while the automotive aftermarket business developed positively.

L&S's other business line comprise a range of lighting products for various entertainment, medical and industrial applications. These areas performed weaker in line with the market environment. The planned strategic realignment of the Lamps & Systems segment was completed in 2023.

1.3 New management and strategic realignment of Semiconductors segment

During fiscal year 2023, a new management structure was created for the ams OSRAM Group. On April 1, 2023, Aldo Kamper was appointed Chief Executive Officer (CEO), and on July 1, 2023, Rainer Irle was appointed Chief Financial Officer (CFO) of ams-OSRAM AG. Following an intensive review of previous business plans, the management adopted a new overall strategic direction, initiating a strategy and efficiency program called 'Re-establish the Base'. The program aims to focus on ams OSRAM's core portfolio, achieve a leaner group structure, and accelerate the market launch of innovations. The related measures are expected to improve earnings

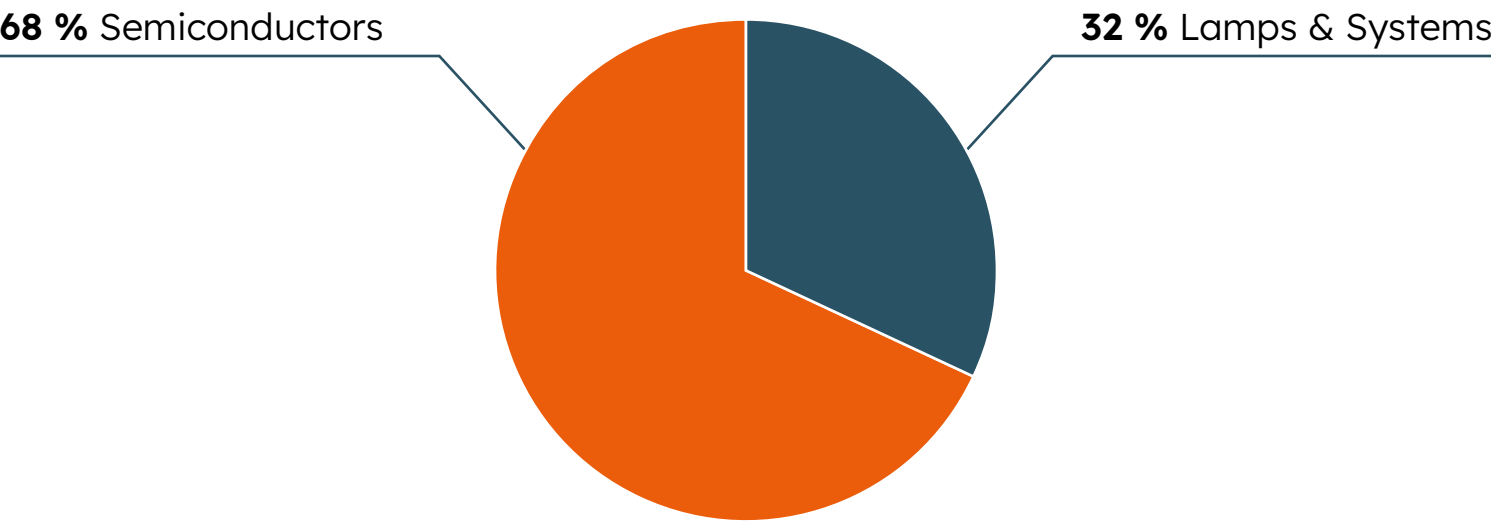
2. Business results

2.1 Revenues

Consolidated revenues fell by 25 % to EUR 3,590 mn in fiscal year 2023, compared to EUR 4,819 mn in 2022. The Semiconductors segment accounted for EUR 2,425 mn of that figure (2022: EUR 3,167 mn), which equates to a 68 % share in sales (2022: 66 %). The Lamps & Systems (L&S) segment contributed EUR 1,165 mn (2022: EUR 1,652 mn) to consolidated revenues, equating to a 32 % share of sales (2022: 34 %).

The decline in consolidated revenues is due in particular to portfolio effects from the sale of business activities in the segment Lamps & Systems and the lower demand for semiconductor products, especially in our consumer applications business. In our consumer business, the end of product cycles for products that made major contributions to revenues in previous years had a perceptible impact. Adjusted for portfolio effects (on a ‘constant perimeter basis’), revenues amounted to EUR 3,477 mn (2022: EUR 4,233 mn), equating to a decrease of 18 %. ‘Constant perimeter basis’ means that the Group structure is shown as of December 31, 2023. As a result, revenues from business activities sold in fiscal years 2023 and 2022, or held for sale as of the reporting dates, are eliminated. The sales of business activities in fiscal year 2023 related to the remaining Digital Systems (DS) business in Europe and Asia, the automotive lighting systems business (AMLS Italy), and Clay Paky S.p.A. In fiscal year 2022, the automotive lighting systems business (AMLS excluding Italy), Fluence Bioengineering, Inc., and Traxon Technologies were sold.

Revenues breakdown by segment

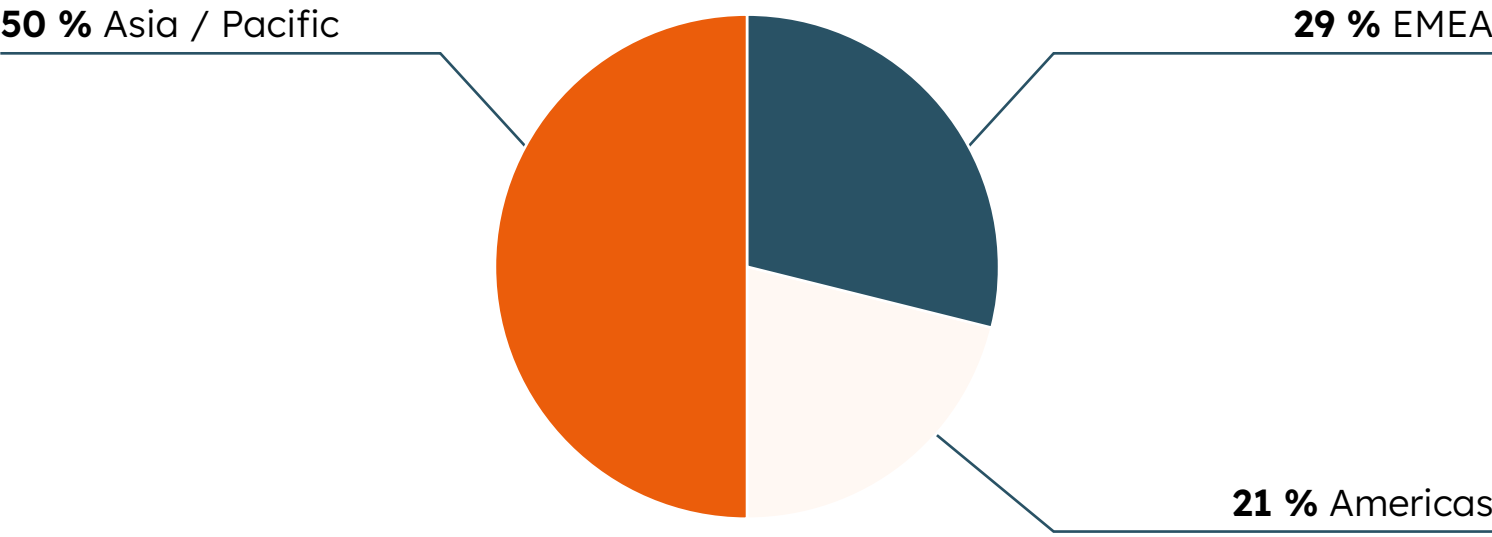


in mn EUR	2023	% of revenues	2022	% of revenues	Change in %
Semiconductors	2,425	68 %	3,167	66 %	-23 %
Lamps & Systems	1,165	32 %	1,652	34 %	-29 %
	3,590		4,819		

Revenues breakdown by region

The breakdown of revenues by region reflects the location of the invoice recipient.

in mn EUR	2023	% of revenues	2022	% of revenues	Change in %
EMEA	1,053	29 %	1,455	30 %	-28 %
Americas	755	21 %	849	18 %	-11 %
Asia / Pacific	1,783	50 %	2,515	52 %	-29 %
	3,590		4,819		



Revenues generated in EMEA fell to EUR 1,053 mn, down from EUR 1,455 mn in the previous year, due to the deconsolidation of our Digital Systems (DS) business in fiscal year 2023 and lower demand for semiconductor products, particularly in the area of consumer applications. Revenues in North and South America fell by EUR 94 mn to EUR 755 mn as a result of the deconsolidation of Fluence Bioengineering, Inc. in fiscal year 2022. Revenues in the Asia/Pacific region fell to EUR 1,783 mn, down from EUR 2,515 mn in the previous year. The decline in revenues is also primarily due to the deconsolidation of our Digital Systems (DS) business and lower demand for semiconductor products, particularly in the area of consumer applications.

2.2 Earnings

in mn EUR	2023	2022	Change in %
Revenues	3,590	4,819	-25 %
Cost of sales	-2,750	-3,561	-23 %
Gross profit	840	1,258	-33 %
Gross margin – IFRS reported	23 %	26 %	
Gross margin – adjusted	29 %	31 %	

Gross profit decreased to EUR 840 mn in fiscal year 2023, compared to EUR 1,258 mn in the previous year, mainly due to portfolio effects from disposals and lower demand for semiconductor products, particularly in the area of consumer applications.

Adjusted for acquisition-related expenses, transformation costs and expense for share-based compensation, the adjusted gross profit margin for the full fiscal year 2023 decreased to 29 %, compared to 31 % in the previous year. The reported gross profit margin reported in accordance with IFRS fell to 23 %, compared to 26 % in the previous year. The change in margin was influenced by lower capacity utilization at our semiconductor plants as compared with the previous year. Furthermore, the gross profit margin in the year under review was negatively impacted by impairment losses on property, plant and equipment amounting to EUR 65 mn (2022: EUR 102 mn). In the 2023 fiscal year, EUR 60 mn of this was attributable to impairment losses following the expiration of customer contracts in Singapore.

in mn EUR	2023	2022	Change in %
Research and development expenses	-480	-630	-24 %
Selling, general and administrative expenses	-501	-608	-18 %

As in the previous year, research and development expenses accounted for 13 % of revenues. The absolute amount fell to EUR 480 mn, down from EUR 630 mn in the previous year. This is primarily due to the recognition of government grants of EUR 50 mn (2022: EUR 25 mn), lower personnel expenses, and the outsourcing of activities to R&D partners. The long-term target for research and development expenses is 11-14 % of revenues.

Selling, general, and administrative expenses fell to EUR 501 mn, down from EUR 608 mn in the previous year. Their share in comparison to the revenues rose from 13 % to 14 % as a result of the decrease in revenues. Additional measures to adjust our cost base are planned as part of the ‘Re-establish the Base’ Program.

in mn EUR	2023	2022	Change in %
Result from operations (EBIT) – IFRS reported	-1,430	-161	789 %
EBIT margin – IFRS reported	-40 %	-3 %	
Result from operations (EBIT) – adjusted	233	407	-43 %
EBIT margin – adjusted	7 %	8 %	
Result from operations (EBIT) – adjusted	233	407	-43 %
Amortization, depreciation and impairment (excluding acquisition-related expense)	370	446	-17 %
EBITDA – adjusted	604	853	-29 %

The result from operations (EBIT), adjusted for goodwill impairment, acquisition-related expenses, asset restructuring, transformation costs, expenses for share-based payments, and the result from investments in associates and from the sale of businesses, fell by EUR 174 mn to EUR 233 mn compared to the previous year. Reported EBIT according to IFRS fell by EUR 1,269 mn to EUR -1,430 mn, primarily due to impairment of goodwill totaling EUR 1,313 mn (2022: EUR 277 mn), which was attributable to BU OS (EUR 1,019 mn) and BU AOS (EUR 294 mn) and resulted from adjustments to business plans due to lower long-term market expectations.

EBITDA amounted to EUR 463 mn compared to EUR 857 mn in the previous year. Adjusted EBITDA fell by EUR 249 mn to EUR 604 mn compared to the previous year.

in millions of EUR	2023	2022	Change in %
Financial income	62	25	151 %
Financial expenses	-233	-225	4 %
Net financial result	-171	-201	-15 %

The net financial result improved from EUR -201 mn to EUR -171 mn. The improvement is attributable to a EUR 9 mn increase in interest income as a result of higher interest on credit balances and a EUR 18 mn reduction in interest expenses, which was due in particular to the capitalization of interest on borrowed capital in the amount of EUR 10 mn in fiscal year 2023 as part of the acquisition costs of property, plant and equipment and intangible assets in connection with the construction of the semiconductor production facilities for LEDs and microLEDs in Kulim, Malaysia, and in Regensburg, Germany.

Another effect was the valuation of options for the early repayment of bonds, which led to income of EUR 5 mn in fiscal year 2023 and related to the bonds issued at the end of November 2023. As of December 31, 2022, however, the options for the early repayment of the bonds repaid in December 2023 did not have a positive fair value, which led to a negative valuation effect of EUR 25 mn in fiscal year 2022. In fiscal year 2023, a countervailing expense of EUR 13 mn occurred from the early repayment of those bonds, however, which resulted from the difference between the repayment amounts and the carrying amounts at the time of repayment.

Currency effects and valuation effects from derivatives impacted the change in the net financial result by EUR -14 mn. The positive currency effects of EUR 2 mn in the previous year were contrasted by negative currency effects of EUR 38 mn in the year under review. Accordingly, income from derivatives, which are mainly foreign currency derivatives for hedging purposes, was higher in the year under review, at EUR 33 mn, than in the previous year, at EUR 8 mn. In fiscal year 2023, income from derivatives includes an offsetting expense of EUR 19 mn from a currency hedge for the capital increase. The hedge transaction was used to hedge currency risks relating to differences in the CHF rate between the time the subscription price of the new shares (CHF 1.07 per share) was set and the payout was effected.

in millions of EUR	2023	2022	Change in %
Current taxes	-59	-84	-30 %
Deferred taxes	47	2	2,250 %
Income taxes	-12	-82	-85 %

Income taxes amounted to EUR 12 mn in fiscal year 2023, following tax expenses of EUR 82 mn in the previous year. The actual income taxes of EUR -59 mn (2022: EUR -84 mn) mainly resulted from the foreign companies that were profitable due to the global transfer pricing system. Deferred taxes had a net positive effect totaling EUR 47 mn (2022: EUR 2 mn), which is attributable in particular to the change in deferred tax assets on tax loss carryforwards.

The net result amounted to EUR -1,613 mn, compared to EUR -444 mn in the previous year. As described above, this development was caused, among other things, by one-off special effects, in particular impairment losses on goodwill, and property, plant and equipment. The return on equity was -85 % (2022: -16 %), while the return on revenues was -45 % (2022: -9 %).

in millions of EUR	2023	2022	Change in %
Gross profit	840	1,258	-33 %
Gross margin – IFRS reported	23 %	26 %	
Gross margin – adjusted	29 %	31 %	
EBITDA (IFRS)	463	857	-46 %
EBITDA – adjusted	604	853	-29 %
Result from operations (EBIT) – IFRS reported	-1,430	-161	789 %
EBIT margin – IFRS reported	-40 %	-3 %	
Result from operations (EBIT) – adjusted	233	407	-43 %
EBIT margin – adjusted	7 %	8 %	
Financial result	-171	-201	-15 %
Result before income taxes	-1,601	-361	343 %
Net result	-1,613	-444	263 %
Net result – adjusted	50	124	-60 %
Return on equity	-85 %	-16 %	
Return on revenues	-45 %	-9 %	

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

The result from operations (EBIT, adjusted) and EBIT margin (adjusted) are additionally adjusted for the result from investments in associates and from the sale of businesses, which are included in the result from operations (EBIT, IFRS).

EBITDA (adjusted) is derived from EBIT (adjusted) by adding non-acquisition and non-transformation-related depreciation, amortization and impairment losses.

The net result (adjusted) is based on the result from operating activities (EBIT, adjusted) and takes into account the financial result and income taxes.

Acquisition-related expenses include depreciation, amortization and impairment losses on assets from purchase price allocations, as well as integration, carve-out, and acquisition costs.

Asset restructuring includes costs incurred in connection with the consolidation of our production sites, as well as impairment losses on technical equipment and machinery.

Transformation costs result primarily from necessary measures to improve our competitiveness and cost position, as well as efficiency measures and other restructuring expenses.

Reconciliation of adjusted financial figures to the financial figures reported in accordance with IFRS:

in millions of EUR	2023	2022
Gross profit – adjusted	1,031	1,470
Acquisition-related expense	-82	-82
Asset restructuring	-65	-102
Share-based compensation	-9	-2
Transformation costs	-35	-25
Gross profit – IFRS reported	840	1,258
Operating expenses – adjusted	-798	-1,063
Goodwill impairment	-1,313	-277
Acquisition-related expense	-71	-144
Share-based compensation	-40	-38
Result from the sale of businesses	18	155
Transformation costs	-43	-48
Results from investments accounted for using the equity method, net	-24	-4
Operating expenses – IFRS reported	-2,270	-1,419
Result from operations (EBIT) – adjusted	233	407
Goodwill impairment	-1,313	-277
Acquisition-related expense	-152	-226
Asset restructuring	-65	-102
Share-based compensation	-49	-41
Result from the sale of businesses	-78	-73
Transformation costs	18	155
Results from investments accounted for using the equity method, net	-24	-4
Result from operations (EBIT) – IFRS reported	-1,430	-161
Result from operations (EBIT) – adjusted	233	407
Amortization, depreciation and impairment (excluding acquisition-related expense)	370	446
EBITDA – adjusted	604	853
Result from operations (EBIT) – adjusted	233	407
Financial result	-171	-201
Income taxes	-12	-82
Net result – adjusted	50	124

2.3 Assets and Financial Position

Assets in millions of EUR	2023	2022	Equity and liabilities in millions of EUR	2023	2022
Inventories	716	864	Interest-bearing loans and borrowings	2,458	2,803
Trade receivables	470	533	Trade liabilities	572	811
Other current assets	1,434	1,487	Other liabilities	2,041	1,904
Non-current assets	4,710	5,879	Provisions	425	480
Deferred tax asset	72	69	Equity	1,905	2,833
Total assets	7,401	8,832	Total equity and liabilities	7,401	8,832

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 intangible assets reflect the significant acquisitions carried out in recent years. At 57 %, the proportion of total assets accounted for by property, plant, and equipment and by intangible assets was slightly lower than the prior-year figure of 62 %.

Cash-effective capital expenditure on non-current assets (CAPEX) amounted to EUR 1,049 mn, or 29 % of revenues (2022: 11 %). Amortization, depreciation and impairments of EUR 1,892 mn (2022: EUR 1,018 mn) included scheduled non-acquisition and non-transformation-related amortization and depreciation totaling EUR 370 mn (2022: EUR 446 mn). The ratio of non-current assets to equity decreased to around 45 % at the end of the fiscal year 2023, compared to 52 % in the previous year. Non-current assets include deferred tax assets of EUR 72 mn (2022: EUR 69 mn).

Inventories decreased to EUR 716 mn, down from EUR 864 mn in the previous year, in particular due to measures to optimize working capital and the sale of our automotive lighting systems business (AMLS Italy). Trade receivables amounted to EUR 470 mn as of the reporting date (2022: EUR 533 mn).

Assets held for sale amounted to EUR 3 mn and include the assets of OSRAM Russia. Assets held for sale of EUR 157 mn as of December 31, 2022 comprised the assets of Digital Systems (DS) in Europe and Asia, and Clay Paky S.p.A., as well as the investments in Unternehmertum VC Fonds II GmbH & Co. KG and Partech Partners S.A.S, all of which were sold during fiscal year 2023.

The increase in property, plant and equipment (after taking into account government grants) to EUR 1,997 mn (2022: EUR 1,856 mn) is mainly due to the construction of the LED-semiconductor manufacturing plant in Kulim (Malaysia), and the investments in Premstaetten (Austria) to expand our CMOS production capacity. The carrying amount of assets under construction and advance payments on property, plant and equipment increased by EUR 364 mn to EUR 973 mn (2022: EUR 609 mn). Intangible assets amounted to EUR 2,249 mn (2022: EUR 3,645 mn). The change resulted mainly from impairment losses on goodwill in the amount of EUR 1,313 mn, as well as from the scheduled amortization of assets capitalized in connection with the acquisition of OSRAM.

Interest-bearing loans and borrowings decreased by EUR 345 mn (2022: EUR 323 mn) to EUR 2,458 mn (2022: EUR 2,803 mn), mainly due to the full repayment of the bonds issued in 2020 with a nominal volume of EUR 850 mn and USD 450 mn, the carrying amount of which was EUR 1,271 mn as of December 31, 2022. In contrast, the carrying amount of the bonds issued at the end of November 2023 amounted to EUR 998 mn as of December 31, 2023, with nominal volumes of EUR 625 mn and USD 400 mn. In addition, the repayment of bank loans, which were only partially refinanced by taking out new loans, led to a net cash outflow of EUR 103 mn in fiscal year 2023. As interest-bearing loans and borrowings decreased by EUR 345 mn, while cash and cash equivalents increased by EUR 59 mn, net financial debt fell to EUR 1,312 mn, down from EUR 1,717 mn in the previous year. If the liability from the sale and leaseback financing of buildings at the newly constructed 8-inch semiconductor plant in Kulim (Malaysia) is also taken into account, net financial debt fell to EUR 1,696 mn, down from EUR 1,717 mn in the previous year.

Trade payables decreased to EUR 572 mn as of the reporting date (2022: EUR 811 mn). The decrease is partly due to the fact that liabilities in connection with the construction of the building and manufacturing facilities for the semiconductor production of LEDs and microLEDs in Kulim, Malaysia, were significantly lower than at the end of the previous fiscal year. Measures implemented to optimize our net working capital also had an impact.

At the end of the year under review, there were no significant liabilities in connection with assets held for sale. As of December 31, 2022, such liabilities amounted to EUR 50 mn and related to the liabilities of Digital Systems (DS) in Europe and Asia, and Clay Paky S.p.A.

Group equity decreased by a total of EUR 928 mn to EUR 1,905 mn as of December 31, 2023. As a result of the increase in capital, equity increased by EUR 797 mn net of transaction costs. Other changes mainly consist of the result after tax of EUR -1,613 mn, and other comprehensive income of EUR -152 mn, which includes currency effects from the euro translation of foreign subsidiaries of EUR -118 mn that arose as a result of the appreciation of the euro against other currencies, in particular the US dollar.

The debt to equity ratio was 129 % (2022: 99 %), and the equity ratio was 26 % (2022: 32 %).

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

	2023	2022
Equity ratio	26 %	32 %
Debt to equity ratio	129 %	99 %
Equity to fixed assets ratio	45 %	52 %
Net debt	1,312	1,717
Net debt including liabilities from a sale-and-leaseback financing transaction	1,696	1,717

The above performance indicators are derived directly from the consolidated financial statements. The equity ratio is calculated as the share of equity in the balance sheet total. The equity to fixed assets ratio expresses the proportion of the carrying amounts of property, plant and equipment and intangible assets that is financed by equity. Net debt is calculated from the carrying amounts of current and non-current interest-bearing loans and borrowings less cash and cash equivalents. In addition to interest-bearing loans and borrowings, net debt including sale and leaseback financing also includes the liability from the sale and leaseback financing of buildings at the newly constructed 8-inch semiconductor plant in Kulim (Malaysia).

2.4 Cash Flow

in millions of EUR	2023	2022	Change in %
Cash flows from operating activities	674	599	13 %
Cash flows from investing activities	-826	-164	403 %
Free cash flow	-151	443	-134 %
Cash flows from financing activities	245	-745	133 %
Effects of changes in foreign exchange rates on cash and cash equivalents	-45	69	-166 %
Cash and cash equivalents	1,146	1,087	5 %

The definition of free cash flow was changed as of December 31, 2023. It now includes cash flows from operating activities, payments for the acquisition of intangible assets and property, plant and equipment, inflows from the sale of financial assets, intangible assets and property, plant and equipment, and inflows from the sale of businesses, net of cash and cash equivalents disposed. The comparative figure for fiscal year 2022 was adjusted in line with the new definition. As part of a change in presentation in the consolidated cash flow statement compared to the previous year, payments for the acquisition of shares in OSRAM Licht AG, which were previously reported as part of the line item acquisition of subsidiaries, net of cash and cash equivalents acquired within cash flows from investing activities, are now reported in a separate line within cash flows from financing activities. This led to a reduction of EUR 19 mn in cash flows from financing activities and had an offsetting effect in cash flows from investing activities.

in millions of EUR	2023	2022	Change in %
Cash flows from operating activities	674	599	13 %

Cash flows from operating activities increased to EUR 674 mn, up from EUR 599 mn in fiscal year 2022. This was due to the release of funds under current assets and liabilities of EUR 242 mn (2022: EUR 44 mn). As a result of measures implemented to optimize current assets, funds released amounted to EUR 96 mn for inventories, while funds of EUR 30 mn were tied up here in the previous year. The positive effect on other liabilities of EUR 175 mn resulted from a supply chain financing program initiated by ams OSRAM for trade payables in the amount of EUR 190 mn. The pro-

gram, which was utilized for the first time in the first quarter of fiscal year 2023, includes EUR and USD liabilities. Another positive effect on cash flows from operating activities was a return of funds of EUR 31 mn from a trust fund in Germany, as trust assets in that amount were replaced by a bank guarantee.

in millions of EUR	2023	2022	Change in %
Cash flows from investing activities	-826	-164	403 %
therein:			
Additions to intangible assets and property, plant, and equipment	-1,049	-537	95 %
Inflows from sale of investments, intangible assets, and property, plant and equipment	134	346	-61 %
Inflows and payments from disposals of businesses, net of cash and cash equivalents disposed	90	34	163 %

Cash flows from investing activities amounted to EUR -826 mn (2022: EUR -164 mn). Investments in intangible assets and property, plant and equipment amounted to EUR -1,049 mn (2022: EUR -537 mn). The development is mainly due to the EUR 512 mn increase in investments in intangible assets and property, plant and equipment, including in particular investments in connection with the construction of the semiconductor manufacturing facilities for LEDs and microLEDs in Kulim, Malaysia, and in Regensburg, Germany, as well as the expansion of manufacturing capacities for CMOS products in Premstaetten, Austria. Payments of EUR 7 mn for acquisitions in fiscal year 2022 related to the acquisition of a further 70 % of the shares in 7Sensing Software BV, Belgium (7Sensing), which accordingly became a subsidiary.

The net cash provided by the sale of business activities amounted to EUR 134 mn (2022: EUR 346 mn), which in particular included Digital Systems (DS) Europe and Asia (EUR 74 mn), our automotive lighting systems business (AMLS Italy: EUR 39 mn), and Clay Paky S.p.A. (EUR 17 mn). In fiscal year 2022, EUR 251 mn was attributable to Fluence Bioengineering Inc., EUR 85 mn to Automotive Lighting Systems (AMLS), and EUR 10 mn to Traxon Technologies (Traxon). In fiscal year 2023, proceeds from the sale of investments, intangible assets, and property, plant and equipment, include EUR 41 mn from the sale of a plant in Singapore in the Tampines district (including taxes received), EUR 17 mn from a sale and leaseback transaction

for a property in Plano, Texas, USA, and EUR 10 mn from the sale of investments in two funds (Unternehmertum VC Fonds II GmbH & Co. KG, and Partech Entrepreneur Fund III FPCI).

Free cash flow came to EUR -151 mn (2022: EUR 442 mn). The Company’s available liquidity in the form of cash and cash equivalents increased by EUR 59 mn to EUR 1,146 mn in 2023. As of December 31, 2023, ams OSRAM had unused committed credit lines from banks in the amount of EUR 1,006 mn (2022: EUR 1,026 mn).

in millions of EUR	2023	2022	Change in %
Cash flows from financing activities	245	-745	133 %
therein:			
Inflows from issuance of common stock	827		
Inflows from issuance of bonds	981		
Transaction costs from the issuance of common stock and bonds	-56		
Repayment of bonds	-1,288		
Interest paid	-181	-125	45 %
Inflows from a sale and leaseback financing	382		
Acquisition of non-controlling interests in OSRAM Licht AG	-232	-19	1,134 %

Cash flows from financing activities amounted to EUR 245 mn in the year under review (2022: EUR -745 mn), which includes EUR 827 mn (before transaction costs) from the issue of 724,154,662 new no-par value bearer shares in ams-OSRAM AG. The inflows from the issue of bonds (EUR 981 mn before transaction costs) result from the two bonds issued at the end of November 2023, an EUR bond with a nominal volume of EUR 625 mn, and a USD bond with a nominal volume of USD 400 mn. The proceeds were used to repay the bonds issued in July 2020 with a nominal volume of EUR 850 mn and USD 450 mn, for which a total of EUR 1,288 mn was accrued. Interest paid rose from EUR 125 mn to EUR 181 mn. The increase was due in particular to the fact that the early repayment of the bonds resulted in the payment of accrued interest that would otherwise not have been due until the next interest payment date at the beginning of fiscal year 2024.

In fiscal year 2023, cash flows from financing activities also include EUR 382 mn from a sale and leaseback transaction, which constitutes a financing transaction.

The amount of EUR 232 mn (2022: EUR 19 mn) was paid for the acquisition of shares in OSRAM Licht AG. As a result, the participation held by ams-OSRAM AG in OSRAM Licht AG increased from 80.35 % to 85.76 % as of December 31, 2023.

3. Research and development

The Group's 41 development sites are globally positioned, with LED development in Germany and Malaysia, packaging development in Malaysia, China, Singapore and Germany, and micro-optics in Switzerland and Singapore. Conversion solutions, optical coatings and filter solutions, image and color sensor technology are developed in the USA and Europe, while IC design and development take place in India, the USA, Italy, Spain, Austria, and Switzerland. This global network and associated leading expertise give ams OSRAM a strategic advantage.

As one of the technological leaders in the development and production of high-quality sensor and lighting technologies for use in automotive lighting, industrial applications, medical diagnostic technology and mobile devices, ams OSRAM's expertise is based on intensive research and development activities. In order to secure and expand its strong market position, ams OSRAM invests heavily in research and development. Research and development expenses amounted to EUR 480 mn (13 % of revenues) in fiscal year 2023, compared with EUR 630 mn (13 % of revenues) in fiscal year 2022. The average number of employees working in R&D was 3,144 in 2023, compared with 3,453 in 2022.

ams OSRAM's R&D activities mainly comprise optical technologies for applications involving sensors, lighting, and visualization. Our broad technology portfolio serves the automotive, industrial, medical, and consumer end markets. Furthermore, the development of software and algorithms and the integration of machine learning and artificial intelligence are now an integral part of ams OSRAM's R&D activities.

One focus of development in the reporting period was microLED technology, which is characterized by microscopically small LEDs that form individual light points/pixels and can be combined to form high-resolution displays. Future areas of application include televisions, automotive head-up displays, and wearables. In particular, the technology allows for more vibrant colors, a high contrast ratio, improved display performance in unfavorable lighting conditions, and lower relative energy consumption for improved efficiency. In connection with the development of microLED technology and the construction of the industry's first 8-inch LED manufacturing facility in Kulim (Malaysia), ams OSRAM entered into a funding agreement with the Malaysian Investment Department Authority (MIDA) in fiscal year 2023. The cooperation agreement includes funding for investments in buildings and technical equipment, in development activities and high-tech jobs. Due to the unexpected cancellation of a

customer project in the context of microLED technology at the end of February 2024, the strategy regarding microLED is currently being reassessed.

In 2023, ams OSRAM launched a variety of new LED and laser products that improve performance, expand end-device design possibilities, and enable new applications. The ALIYOS LED-on-Foil technology enables unprecedented effects in automotive lighting due to its transparency, minimal thickness, and 2.5D bendability. With the intelligent multi-pixel EVIYOS 2.0 LED, ams OSRAM is ushering in a new era of automotive lighting and road safety. The fifth generation of OSOLON Square Hyper Red LEDs underlines the market leadership with particularly high energy efficiency in plant cultivation / greenhouse lighting, which contributes to sustainable agriculture. Automotive-grade near-infrared VCSELs, which project flood and dot patterns and thus enable 3D sensor applications in vehicle interiors, complement our VCSEL portfolio. Our new multi-LED package, which enables more accurate heart rate and SpO2 measurements in wearables, increases total radiant intensity by more than 40 percent and green radiant intensity by more than 100 percent. In addition, our portfolio of flat, ultra-bright projection LEDs has been expanded to include the colors red, true green, and blue, in order to make image processing systems or stage lighting slimmer and more powerful.

Also in 2023, ams OSRAM once again confirmed its position as a market and technology leader in optical sensors, high-performance ambient lighting and color sensors, as well as spectroscopy, the core elements of which are state-of-the-art CMOS ICs with further improved integrated photodiodes, combined with optical filters and diffusers manufactured using the thin-film process. The combination of hybrid optical filter technologies and highly sensitive photodiodes and chip-scale packaging solutions enables very finely tuned and brilliant displays for smartphones, wearables, and automotive applications. Thanks to the latest optical packaging technologies, the sensors meet performance and robustness requirements for innovative consumer applications, such as data glasses for augmented reality and virtual reality. Improved III/V semiconductor photodiodes and their optical coatings also extend the wavelength range of multispectral sensors, allowing for products for material analysis. The new image sensors combine industry-leading high performance with low power consumption, providing greater flexibility for manufacturers of data glasses and other products with limited installation sizes. In medical imaging, ams OSRAM's fast and ultra-low noise solutions provide unprecedented image quality and reduced radiation exposure. They also form the basis of upcoming photon-counting

technology, which will enable even greater resolution in computed tomography. In the field of vehicle front lighting, ams OSRAM has also developed and launched a new type of intelligent multi-pixel LED that enables fully adaptive, dynamic headlight operation and image projection at the same time.

Close strategic coordination between our business units, strategy department, and R&D management continuously improves our innovation processes and determines our strategic decisions on technology and product development. Collaboration takes place, for example, through research programs supported by the European Commission, as well as country-specific funding programs around the world. For example, the 'OptoSuRe' Program, which is publicly funded by the German Federal Government (i.e. the Federal Ministry of Economics and Climate Protection) and the Free State of Bavaria, promotes the further development of semiconductor technology. IPCEI (Important Project of Common European Interest) funding also supports ams OSRAM in its own investments in research and development focused on innovative optoelectronic components. As part of our approach to working with strategic partners, we also collaborate with leading research institutes, universities, and other partners worldwide.

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 and monetize our R&D investments. Our global patent portfolio comprises around 13,600 patents and patent applications, corresponding to approximately 5,200 patent families.

4. Purchasing and manufacturing

While the procurement situation in the previous year was characterized by persistent imbalances in the semiconductor and other supply chains, fiscal year 2023 was hardly characterized by procurement bottlenecks and the associated burdens. Overall, cost savings were achieved in the procurement of materials, semi-finished products and services in fiscal year 2023. However, market price trends for electricity, precious metals and industrial gases counteracted the savings achieved through price negotiations and productivity projects.

As of December 31, 2023, the ams OSRAM Group had 18 production sites worldwide. As of December 31, 2022, there were 20 production sites, excluding the Clay Paky production site, which was reported as an asset held for sale in the balance sheet as of December 31, 2022. In addition to Clay Paky, the decline resulted from the sale of the plant in Treviso (Italy) in connection with the sale of our Italian automotive lighting systems business to the Flex-n-Gate Group, in Urbana, USA. Our production sites are located in Premstaetten (Austria), Regensburg, Herbrechtingen (both in Germany), Singapore, Wuxi (China), Penang and Kulim (both in Malaysia), Antwerp (Belgium), Nové Zámky (Slovakia), Hillsboro (New Hampshire, USA), Exeter (New Hampshire, USA), Calamba City (Philippines), and elsewhere. Of the two existing plants in Singapore, one plant in the Tampines district was sold in fiscal year 2023.

Capacity utilization at our semiconductor plants was lower overall than in the previous year. In the second half of 2023, capacity utilization improved compared to the first half of the year and followed the sales trend in corresponding end markets. Investments included the construction of the industry's first 8-inch LED manufacturing facility in Kulim (Malaysia) for front-end semiconductor production of LEDs and microLEDs, which began in 2022, and associated investments for a pilot plant in Regensburg (Germany). Investments are also being made to expand our manufacturing site in Premstaetten (Austria) to increase internal CMOS capacity. The move should provide ams OSRAM with better opportunities to respond more quickly and flexibly to increased demand and reduce the risk of dependence on external producers, allowing us to strengthen our manufacturing processes and improve profitability over the long term.

5. Employees

Our employees form the foundation for our long-term business success and create the added value ams OSRAM wants to offer its customers. It is important to us to offer our employees a long-term job with appealing working conditions and prospects, to contribute to their development, and to pay them fairly. Furthermore, as a globally active company, the diversity of our employees is a major concern for us. As of December 31, 2023, the ams OSRAM Group had 20,378 employees (2022: 22,461). The average number of employees for the year was 20,530 (2022: 23,322), based on FTEs (full-time equivalents).

At ams OSRAM, we are aware of our responsibility as an important employer in the regions where we operate. Accordingly, we continued to offer comprehensive internal and external training and development opportunities for all of our employee groups during the past year, and are committed to training apprentices in various professions.

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

Based upon earnings performance in the previous fiscal year, a profit-sharing bonus for fiscal year 2022 was paid to employees in the amount of EUR 6 mn in 2023 (2022: EUR 16 mn for fiscal year 2021). The amount of the bonus is determined on the basis of adjusted earnings after tax.

In addition, active internal company and employee communication as well as recurring employee events – a long-standing company tradition – support employee identification with the Company. Such events include dialog formats such as town hall meetings or webcasts given by our Management Board and other management representatives. ams OSRAM also conducts employee surveys to obtain feedback from employees. Following an initial survey in 2022, another survey is planned for 2024. The findings are to be used as a basis for developing measures aimed at increasing ams OSRAM's attractiveness as an employer and improving employee satisfaction.

6. Environmental management

As an industrial company, ams OSRAM consumes natural resources and causes greenhouse gas emissions at its production facilities. In order to meet our environmental responsibilities, we have committed to conserving resources through environmental management and to developing innovative and energy-efficient products, and have developed a climate strategy that is in line with the Paris Climate Agreement. Through that strategy, we firstly aim to achieve CO₂ neutrality in our own value creation (Scope 1 and 2)¹ by 2030. Secondly, we aim to reduce emissions in the 'purchased goods and services' category of our supply chain (Scope 3) by 47.5 % per euro of value added by 2030, and by 97 % per euro of value added by 2050, compared to our base year 2021. As part of our environmental reporting, we also collect data on energy consumption, greenhouse gas emissions, water abstraction, and waste generation.

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

¹ ams OSRAM bases the measuring and reporting of its greenhouse gas emissions on the recognized standard of the Greenhouse Gas (GHG) Protocol, which classifies greenhouse gas emissions into three scopes, among others, as well as the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). The GHG Protocol creates a comprehensive, globally standardized framework for the measurement and management of greenhouse gas (GHG) emissions from the private and public sectors, from value chains, and from measures to reduce emissions.

7. Subsidiaries and investments

As the parent company of the ams OSRAM Group, ams-OSRAM AG had 86 subsidiaries in 39 countries as of December 31, 2023 (December 31, 2022: 99 subsidiaries in 40 countries). The decline resulted from the disposal of businesses and other measures intended to optimize our Group structure. In addition, ams-OSRAM AG held direct or indirect interests in 23 companies as of December 31, 2023 (December 31, 2022: 26 companies).

As of December 31, 2023, ams-OSRAM AG held 85.76 % (2022: 80.35 %) of the outstanding shares in OSRAM Licht AG. OSRAM Licht AG directly or indirectly holds 100 % of the shares in all fully consolidated OSRAM companies, with the exception of OSRAM China Lighting Ltd., in which it holds only 90 % of the shares.

Significant associates and other investments:

As of December 31, 2023, significant associates for ams OSRAM that are accounted for using the equity method particularly included the following:

Name of holding	Country of incorporation	Ownership interest
Jinan Smart Sensing Sensor Co, Ltd.	China	49.00 %
Sciosense Holding BV	Netherlands	45.22 %
Bolb Inc.	USA	17.48 %

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

Bolb Inc. is a manufacturer of high-efficiency ultraviolet C-band (UV-C) light-emitting LEDs. Research collaboration between our two companies is expected to accelerate the industrialization of highly efficient, high-performance UV-C LEDs.

As of December 31, 2023, significant investments for ams OSRAM that are accounted for at fair value particularly included the following:

Name of holding	Country of incorporation	Ownership interest
LeddarTech Inc.	Canada	4.49 %
Recogni, Inc.	USA	3.84 %
SiLC Technologies Inc.	USA	3.48 %

8. Risk management

Main features of the accounting-related internal control system

The internal control system, which has been adapted in the context of integration into the ams OSRAM Group, has been implemented on schedule. In line with the plan, ams OSRAM made further progress in fiscal year 2023 with respect to the harmonization of processes and IT systems at the Company as a whole. We are also continuously refining our internal control system in order to meet all requirements.

The overarching goal of our accounting-related internal control system is to ensure the correctness of financial reporting in the annual and consolidated financial statements. The system consists of preventive and detective controls, which aim to ensure that group-wide standards for accounting, valuation, and account assignment are continuously updated and complied with. It aims to ensure that transactions can be completely recorded, group-internal transactions are appropriately eliminated, and processes and rules are established for the separation of functions and for observing the principle of dual control when preparing the financial statements. It also aims to ensure that individual access authorizations for accounting-related IT systems are in place.

The effectiveness of the internal control system is reviewed on an annual basis. The relevant internal controls are adjusted if necessary to eliminate any areas of weakness that may be detected. The internal audit function of ams OSRAM uses continuous and group-wide audits to ensure compliance with group-wide guidelines as well as the reliability and functionality of the control system.

The Audit Committee of the Supervisory Board oversees the accounting process and the effectiveness of the control system. It is also responsible for auditing the documents for the individual financial statements of ams-OSRAM AG and the consolidated financial statements, and it discusses the individual financial statements of ams-OSRAM AG, the consolidated financial statements, and the group management report with the Management Board and the auditor. The Supervisory Board also examines the remuneration report and the voluntary prepared sustainability report of the ams OSRAM Group.

Enterprise Risk Management (ERM) System

ams OSRAM practices systematic risk management to identify, assess, and control risks. Risks that could endanger the continued existence of the ams OSRAM Group or the achievement of our strategic, operational, financial, and compliance objectives

can therefore be identified at an early stage and risk-limiting measures initiated. The existing risk management system is continually refined and adapted in order to meet changing internal and external requirements.

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

Semi-annual meetings are held with management to assess any material risks identified. In these meetings, the reported risks are assessed uniformly based upon their effects on our business activity and their probability of occurrence. ams OSRAM’s assessments follow the net principle, in which we assess risks in light of previously initiated effective actions.

Non-financial risks, such as transitory and physical climate risks, are also included in the ERM process and are qualitatively assessed using the aforementioned method. Should this assessment show significant risks for the Group, the risks would be reported as part of the subsequent risk reporting.

At ams OSRAM, the ERM system is a part of the interrelated processes and systems used for managing the Company. In this system, strategic business planning, controlling, and reporting provide detailed information about the Company’s performance. Although enterprise risk management focuses primarily on systematically addressing risks to the Company, business opportunities that arise and the means to achieve them form the core of the strategy, planning, and controlling process.

Regular reports on significant risks to the Company are submitted to the Management Board and the Audit Committee of the Supervisory Board on a semi-annual basis and are supplemented by ad-hoc reports as necessary. This ensures that the Management Board and the Supervisory Board receive complete and timely information on significant risks to the Company. The Management Board of the ams OSRAM Group determines whether risks, either individually or in their entirety, represent an existential threat and establish that there is no substantial threat to the going concern. The Audit Committee of the Supervisory Board monitors the effectiveness of this system.

The following section provides a description of the significant risks that the ams OSRAM Group was exposed to as of December 31, 2023, and that could have particularly negative effects overall on our business activity and on the results of operations, net assets, and financial position. The risks that were classified and reported as particularly negative in the previous year also represent in their entirety the material risks for the Company as of December 31, 2023.

Strategic Risks

Competition for the introduction of new technologies

The ams OSRAM Group operates in a high-tech industry with a strong focus on technologically advanced applications and relatively short product life cycles. There is a risk that disruptive technologies could quickly become market-ready. Competitors could also introduce alternative products or technologies that are more cost-effective, of higher quality, possessing greater functionality, more energy-efficient, or more competitive for other reasons. As a result, there is a risk that the products we offer might suffer price erosion. There is also the risk that changes in market and customer requirements are not or cannot be considered early enough and to a sufficient extent, or that such changes can be implemented only at a higher cost. In addition to entirely product-specific and technical requirements, requirements from other areas, such as meeting extended customer-specific and regulatory requirements > [Legal and Compliance Risks](#), are also becoming increasingly important, including those related to climate change and environmental protection. Especially, for the introduction of new technologies, also including microLED technology, there are also various uncertainties involving if, when and to what extent sales will be generated from the products based on these new technologies. These uncertainties may lie within our sphere of influence (e.g. product and technology development) or could be outside of our control (e.g. dependencies on other parts of the customer’s value chain or market acceptance by customers) and could result in significant dependencies. It is possible, that the actual adoption of new and highly innovative technologies by the markets will deviate from the Company’s or the customer’s expectations and this may lead to an adjustment of the technology roadmap. As a result, there is a risk that investments already made in research and development or investments in property, plant and equipment cannot be recovered, or that the amortization through sales may change over time or not be sufficient. In addition, production

capacities that have been newly created or are under construction could not be utilised or not used to a sufficient extent and thus lose value. Moreover, government grants already received related to this technology development could be reclaimed. These risks may have a negative impact on the results of operations, financial position and net assets of the ams OSRAM Group.

ams OSRAM must therefore develop innovative and differentiated technologies, as well as products that can be manufactured competitively in terms of technology and cost for the right applications and markets, and must make them market-ready in a timely manner. The future success of ams OSRAM also depends upon whether its internally developed intellectual property can be sufficiently protected and profitably utilized. Failure to do so may endanger the future growth and competitiveness of the entire Group. It may lead to a rapid decline in market share in established areas of business or failure to achieve growth objectives in new fields of technology. Investments already made in research and development could not be recouped through revenues, which would reduce the profitability of the entire Group.

ams OSRAM counters these risks with specific measures. Potential new fields of technology are monitored and the results of these observations are thoroughly considered in our strategic planning. Technological expertise that will be necessary in the future is incorporated into the technology roadmap for the respective business segments at an early stage. The technology roadmap is an integral part of medium and long-term strategic planning. ams OSRAM has also established teams that perform market analyses and review areas of technology as well as research and development plans on a regular basis, so that these areas can be focused on more sharply and reinforced if needed. In addition, the most important areas of application for new technologies are closely monitored. Dedicated project management closely follows progress in the implementation of ongoing projects. Any necessary measures are initiated and their implementation is tracked should the course of the project require this. Risk management for the most important innovation projects has been further intensified. In addition, we are working to continuously optimize the efficiency of our operational product development processes.

In an ad-hoc announcement on February 28, 2024, ams OSRAM announced that due to the unexpected cancellation of the key project, the microLED strategy will be re-assessed, see note 33 ‘Events after the Reporting Period’ in the Notes to the Consolidated Financial Statements. As a result of the cancellation and the resulting

necessary strategy adjustment, significant parts of the risk described here will materialize. As announced in the ad-hoc announcement above, this may also have a negative impact on the results of operations, financial position and net assets of the ams OSRAM Group.

Macroeconomic effects as well as volatile and cyclical market developments
Current macroeconomic developments continue to be heavily influenced by the consequences of the ongoing war in Ukraine, the escalating conflict in the Middle East, and the long-term effects of the COVID-19 pandemic. In the opinion of ams OSRAM, there are still significant uncertainties with respect to the further performance of the global economy, and these could also grow in the future.

Other factors, such as the emergence of new geopolitical conflicts, like, for example, the escalation of the Middle East conflict triggered by the Hamas attacks on Israel in 2023, or the intensification of existing conflicts > [Geopolitical risks – Russia, China, and Middle East](#) could also have a negative effect on global economic performance.

Further selective supply chain disruptions, and above all the ongoing war in Ukraine, which is associated with sanctions and supply restrictions, continued to cause higher than average global inflation and consequently high interest rates in 2023. A number of central banks, including the European Central Bank and the US Federal Reserve, are keeping key interest rates at a comparatively high level and continue to pursue a restrictive monetary policy. As a result, the weakening of economic activity that had begun over the course of fiscal year 2022 continued in 2023. The economic outlook for 2024 also currently assumes a further slight weakening of the global economy. It is apparent, however, that the large number of interest rate hikes by central banks are taking effect and that inflation has fallen significantly over the course of 2023. There is nevertheless a risk that economic growth will weaken more than previously assumed. It is therefore possible that global economic performance, as well as performance in relevant regional submarkets, will be poorer than expected in the current plans for fiscal year 2024.

Economic trends could cause end customer demand for technologically advanced consumer products and vehicles to decline more strongly than anticipated in our plans. This could also have negative effects on demand for semiconductor-based technologies such as sensors, LEDs, or optical solutions, and could cause customers to make short-term adjustments of their purchase quantities. In addition to the

revenue risk, this also creates a cost risk for ams OSRAM due to fluctuations in capacity utilization of our own production and potentially increased inventories. Inflation-related price increases could also have an effect on the procurement markets that are relevant for ams OSRAM. Economic trends could also cause individual countries and regions to experience significant increases in wages and salaries, which could lead to a higher than expected increase in personnel costs.

We constantly monitor appropriate early warning indicators and incorporate them into our continuously improved market models, which enable us to develop and regularly adapt effective response strategies. We take appropriate proactive measures where needed to safeguard the generation of profits and financial resources. We precisely monitor our inventory levels and structures, and have installed a strict receivables management system. In addition, planned investments are regularly evaluated based upon changing circumstances, and are rescheduled and even reduced, if necessary and feasible.

We also conduct regular reviews of our value chain, i.e., our global and regional presence and the relevant processes. With these measures, we strive to achieve cost savings and operational improvements that will enable ams OSRAM to secure its profitability even in unfavorable economic conditions.

Geopolitical risks – Russia, China, and Middle East
The current geopolitical situation continues to be mainly influenced by the ongoing war in Ukraine. There could also be a further escalation in China’s claims of sovereignty over Taiwan and therefore an increased decoupling of the relationship between the USA and China. The Middle East conflict, which escalated in the second half of the year following the Hamas attack on Israel and Israel’s subsequent response, carries indirect risks for ams OSRAM’s business. These risks are further described under > [Macroeconomic effects](#).

These risks could have direct effects on ams OSRAM’s existing procurement and sales markets, as well as indirect consequences due to changing macroeconomic conditions.

A geographical expansion of the wars in Ukraine and the Middle East, which cannot be ruled out, including the involvement of the NATO countries, could have serious consequences on the macroeconomic environment and also on the market

environment of ams OSRAM. Even a continuation of the current military conflict entails significant risks, however. Shortages in energy supply could cause energy prices to remain at the current high level over the long term or even to rise further, which could slow the decline in inflation and subsequently have a negative impact on economic development. The consequences of this development could increase the risks described under > [Macroeconomic effects as well as volatile and cyclical market developments](#), > [Business interruption risk](#), > [Financial risk](#) and > [Dependence on suppliers](#), and the realization of such risks could have negative effects on the results of operations, financial position, and net assets of the ams OSRAM Group.

ams OSRAM’s business could also suffer from increasing protectionism and the expansion of trade barriers caused by political conflicts between individual countries. First and foremost, an increase in the political tensions between the USA and China could impair the trade relationships of both nations’ economies – which are also important for ams OSRAM’s business – and could lead to further restrictions. In particular, such restrictions could also have an effect on sales volume and procurement by ams OSRAM in both markets. Customers and suppliers of ams OSRAM could also be directly affected by the effects of the geopolitical conflicts. Firstly, there is a risk that despite great care and systematic implementation of increasing regulatory requirements within the international supply chains, violations of foreign trade-related regulations could occur and have a negative impact on ams OSRAM’s business. Secondly, indirect consequences such as those described under > [Macroeconomic effects and volatile as well as cyclical market developments](#), could also affect sales and procurement markets.

ams OSRAM is monitoring developments very closely so that it well prepared and can respond in a rapid manner to any changes in business conditions. The resources in the divisions and units involved have been and continue to be reviewed, and are adjusted if necessary. In addition, geopolitical developments are also playing an increasingly important role in upcoming investment decisions.

Competitive environment

Competitive pressure in the semiconductor industry is generally high due to the large number of existing competitors and new companies entering the market. Because of the prevalent semiconductor shortage over the past few years, worldwide expansions of production capacity are currently being implemented, some with substantial government subsidies.

Given the drop in demand for semiconductor products caused by the current economic situation and the risk of a prolonged economic downturn or a further deterioration in the economic environment described under > [Macroeconomic effects as well as volatile and cyclical market developments](#), there is the risk that manufacturers such as ams OSRAM will have to differentiate themselves by price in future to a greater extent than expected in order to fully utilize their production capacity. This increased price competition could negatively influence the achievement of business objectives in terms of both profitability and market share.

ams OSRAM continuously monitors and analyzes its competitive environment. In addition, we regularly review additional productivity enhancement and cost reduction measures, including the consolidation of production capacities. ams OSRAM also focuses on targeted research and development expenditures that allow us to differentiate our products through technological advances, thereby ensuring the profitable utilization of existing capacities. Applications to participate in government funding programs are also regularly reviewed. Through these efforts, we can also counteract the risk described under > [Competition for the introduction of new technologies](#).

We also regularly review the effectiveness of our marketing and distribution channels.

Operational Risks

Customer concentration

If a high percentage of the ams OSRAM Group’s revenues and profit is earned from individual customers, the Company’s business success or market share could become dependent upon these individual customers’ market share or business success. If these customers cannot be contractually committed to minimum order quantities, customer order quantities may be reduced, projects and orders may be delayed or completely canceled. In such a case, it may be impossible or possible only to a limited degree to recoup through revenues the investments already made in research and development. In addition, new customer-specific production capacities that have been created or are in the process of being set up could not be used to a sufficient extent and thus lose value. Overall, this could lead to a deterioration in the

profitability and financial position of the Group. There is also the risk that customer-specific product adaptations for significant orders from key accounts could lead to higher development costs and higher production costs in serial production, and that the additional costs thereby incurred could not be adequately compensated, for example through price adjustments. Thus, there is the risk that profit contributions from business with key accounts could be lower than forecast in the original plans.

The consumer business of ams was characterized by high customer concentration. The merger with the OSRAM Group has clearly expanded the existing customer and product portfolio of ams and reduced the share of customer-specific contract manufacturing volume. ams OSRAM is striving to achieve further diversification of its customer and product portfolio in order to reduce possible negative effects from business with key accounts. We have also set up close-knit project management for significant individual orders from key accounts.

Cyber risks and IT risks

The increasing digitization of business processes makes the reliability and security of the company-wide system infrastructure extremely important. Regulatory requirements for the protection, integrity, and availability of data are also on the rise. IT systems and networks are susceptible to disruption from a variety of sources, including unauthorized access, cyberattacks, power outages, application failures, and a range of other hardware, software and network issues.

There has been an evident worldwide increase in cyberattacks perpetrated by organized groups and individuals with a wide range of motives behind their actions, and external attacks on the IT systems of ams OSRAM therefore cannot be ruled out. Such attacks could result in the theft of business information, intellectual property, or personal data. A lack of risk awareness on the part of employees and improper handling of IT systems could also make external attacks easier, or could lead to situations in which data are lost or can be recovered only at significant expense. Malfunctions in the IT systems could also cause significant interruptions in production and of supply chains, which would entail loss of revenues.

To counter these risks, ams OSRAM has already transferred IT systems and applications to sufficiently secure cloud solutions and conducts independent tests at regular intervals to determine the vulnerability of existing IT systems. With regard to information security, the Company operates in accordance with the ISO27001

standard and the TISAX standard for the automotive sector. External certifications have been in place for both standards since 2023. The Company also conducts regular employee training and has contracted with an emergency response service provider in the event of a serious cyberattack. At ams OSRAM, information security is organizationally integrated in an independent department, whose head reports to the person responsible for company-wide IT. In addition to technical measures, information security also requires communication and governance. The existing system is continuously enhanced and its effectiveness monitored through internal and external audits. The Supervisory Board is regularly kept informed about the results of these activities.

In the area of data protection, a comprehensive data protection management system has been implemented and globally applicable corporate guidelines ensure company-wide standards for handling personal data. Further refinement of data protection is promoted by actions that include training for all employees and implementation of uniform technical and organizational measures, particularly when data are being processed by external service providers.

Business interruption risk

The continuous optimization and focusing of the integrated production environment means that dependence on individual production locations is increasing. Thus, there is a risk that disruptions at ams OSRAM’s plants or external influences could result in an inability to produce or deliver products in the planned scope. That is why, in addition to insuring against damage to equipment and buildings, we also maintain appropriate insurance to protect against risks arising from business interruption. We also conduct improved maintenance and have defined emergency plans for critical areas to ensure the availability and quality of our products. Fire and disaster protection for significant locations is also continually reviewed and improved. The risk of supply bottlenecks is reduced where possible by diversifying our supplier base and closely monitoring critical vendors and materials.

The ongoing war in Ukraine is having enormous effects on global energy supply, particularly in Europe > [Geopolitical risks – Russia, China, and Middle East](#). ams OSRAM has been working to secure gas supplies for the plants in Germany and Austria since the beginning of fiscal year 2022 and has largely eliminated the risk of a gas shortage. Nevertheless, energy supply bottlenecks could lead to rationing of energy supplies, or in a worst-case scenario could even cause unannounced, longer

lasting, and widespread power outages. ams OSRAM is countering this risk with appropriate emergency plans.

Dependence on suppliers

To avoid dependence on individual suppliers for critical materials, we generally vet at least one secondary source in addition to the preferred vendor. This is not always possible or economically practical, however. Moreover, certain production services in the semiconductor industry can be outsourced to only a limited number of wafer producers.

Firstly, ams OSRAM faces the risk of price increases by suppliers. Secondly, one or more of these suppliers may fail to fulfill its supply obligations, which would impair our delivery capacity and result in loss of revenues.

Although we were able to find sufficient alternatives for Russian suppliers in fiscal years 2022 and 2023, because of sanctions we continue to depend substantially upon Taiwan-based suppliers. The occurrence or worsening of the geopolitical risks described under > [Geopolitical risks – Russia, China, and Middle East](#) could negatively affect the supply situation for these suppliers, and in a worst-case scenario could even lead to business interruptions > [Business interruption risk](#). It is also possible that we will be unable to develop a long-term business relationship with some of our alternate suppliers and must therefore establish new supplier relationships. Existing or potentially emerging trade conflicts could also lead to export or import restrictions for certain critical goods, e.g. China’s export controls for gallium (> 80 percent of global demand). These restrictions could result in the purchase of affected goods becoming significantly more expensive due to punitive tariffs, for example, or in the worst case could even lead to business interruptions > [Business interruption risk](#).

Information collection and regular monitoring of our suppliers’ financial situations are fixed components of our supplier risk management process. Dedicated employees coordinate our collaboration with important production service providers. ams OSRAM also maintains a forward-looking inventory and procurement management process and concludes long-term delivery agreements wherever possible. ams OSRAM is also working on substituting important substances with alternative substances or materials.

Manpower shortages and the loss of skilled employees

To develop, produce, and sell its high-tech products and solutions, the ams OSRAM Group requires highly qualified employees in the engineering sciences and other technical areas, as well as executives with international experience. There is tough competition for such talent, particularly in the semiconductor industry and in the regions where we are active. In addition, the restructuring and realignment of the business following the merger of ams and OSRAM led to employees leaving the Company and it was not possible to retain certain key personnel to the desired extent. The future performance of ams OSRAM also depends upon the degree to which the Company can identify, recruit, develop, and retain the talent needed.

ams OSRAM is countering this risk with a mix of professional measures in the areas of recruiting and personnel marketing. These measures are continuously adapted and optimized to meet current market conditions. For example, we have strongly expanded our presence in social media and ams OSRAM also uses these channels to hire new employees. In addition, we conduct a large number of career events, such as participation in training days and career fairs for students to present the Company as an attractive employer.

Moreover, we are using information gained from employee surveys to implement measures aimed at making jobs even more attractive. ams OSRAM places a high priority on further enhancing opportunities for career development and employee satisfaction in order to ensure the long-term retention of important skilled employees and top performers.

Well-defined career development processes and programs, as well as targeted succession planning for key functions, help our employees to grow in their own roles and prepare for internal promotion to management positions if they are suitable and willing to take on such functions.

Quality risk

Meeting market-related, customer-specific, and legal requirements for our products is particularly important for ams OSRAM’s business success. The increasing complexity of products and the manufacturing processes required for their manufacture, as well as ever shorter development cycles, increase the risk of possible quality issues. Products manufactured by ams OSRAM are integrated into complex electronic systems. Errors or functional defects in products produced by ams OSRAM could

directly or indirectly compromise the property, health, or life of third parties and therefore lead to recalls from our customers. In addition to having a direct negative impact on the results of operations, financial position, and net assets, such events could also have negative effects on our reputation.

This risk is countered through group-wide quality processes, which are internally and externally (by customers) audited at regular intervals based upon established standards (e.g., ISO 14001, ISO 13485, ISO 9001, and IATF 16949), and also certified by external companies. ams OSRAM suppliers are also systematically integrated into these quality processes. We have established an effective reporting system to ensure a timely response in the event of quality defects or product safety incidents.

Financial Risks

The ams OSRAM Group is subject to a variety of financial risks. The relevant risks include liquidity risk, interest-rate risk, foreign currency risk, and credit risk.

Changes in credit ratings, currency exchange rates, interest rates, and the general capital market situation can influence both our operational business and our investment and financing activities. Market price fluctuations can lead to significant volatility in profits and payment flows.

The Central Treasury department manages financial risk in accordance with the policies set out by the Company’s Management Board and Supervisory Board. The Treasury department assesses and hedges against financial risks, which also encompasses the use of financial derivatives, in close collaboration with the operational business areas.

Liquidity risk

The liquidity risk is that ams OSRAM could be incapable of meeting its financial obligations when they come due. Debt financing undertaken in conjunction with the acquisition of the OSRAM Group has generally increased the need for financing, as well as expectations concerning the Group’s financial performance. Short-term and long-term liquidity and business planning, which also takes into account the sale of parts of companies and the achievement of integration-related cost synergies, as

well as the ‘Re-establish the Base’ Program for the future, are helping to secure the future financial success of the ams OSRAM Group. To secure the refinancing that will come due in the coming years and the targeted structural growth, ams OSRAM prepared a multi-stage financing plan and fully implemented it in fiscal year 2023. This included a capital increase through the issue of 724,154,662 new no-par-value bearer shares of ams-OSRAM AG, as well as the issue of new bonds and other financing instruments, such as sale and lease back transactions. Early refinancing with an extension of the maturity profile and diversification of financing instruments increases the predictability of the financing result, which also counteracts the risk explained under > [Interest rate risk](#). The Company also has sufficient cash and cash equivalents, as well as a substantial amount in approved long-term credit lines that have not been utilized.

Several financing agreements contain arrangements customary for the market, under which the ratio of net financing debt to adjusted EBITDA (pursuant to the respective definition) must not exceed 4.5:1 in fiscal year 2024. The resulting risk of calls for early repayment or blocks on utilization of credit is intensively analyzed in the context of short- and long-term business and financial planning. The ‘Re-establish the Base’ Program, which has been initiated and rolled out throughout the Company, is also intended to sustainably strengthen the Group’s profitability.

Most notably, the realization, either to their full extent or in a disadvantageous combination, of the risks described under > [Macroeconomic effects as well as volatile and cyclical market developments](#), > [Geopolitical risks – Russia, China, and Middle East](#), > [Competition for the introduction of new technologies](#), and > [Customer concentration](#) could significantly increase future financing risk.

Interest rate risk

In particular, the effects and risks described under > [Macroeconomic effects as well as volatile and cyclical market developments](#) and > [Geopolitical risks – Russia, China, and Middle East](#) have led to changes on the financial markets over the course of fiscal year 2023, including higher interest rates and more restrictive financing.

In principle, a further increase in interest rates could lead to rising financing costs for ams OSRAM and thus increased interest-rate risk, while falling interest rates could lead to lower interest income from financial investments. This risk of changes in interest rates is countered by the fact that under liabilities, approximately 95 % of

the Company’s financial liabilities have fixed interest rates. Upcoming refinancing of existing fixed-interest-rate financing may encumber the future interest result, depending upon how the market develops. ams OSRAM also counteracts the interest rate risk structurally through the diversified financing plan described under > [Liquidity risk](#), which also includes equity and other financing elements. Under assets, risks of changes in interest rates primarily relate to short-term time deposits, which are linked to the market interest rate. Offsetting items under assets and liabilities naturally reduces overall exposure.

Most notably, the realization, either to their full extent or in a disadvantageous combination, of the risks described under > [Competition for the introduction of new technologies](#) and > [Customer concentration](#), > [Macroeconomic effects as well as volatile and cyclical market developments](#) and > [Geopolitical risks – Russia, China, and Middle East](#) could cause rating agencies to adjust the financial valuation of the ams OSRAM Group. Possible adjustments could also negatively affect the Group’s future individual financing terms. The ‘Re-establish the Base’ Program, which has been initiated and rolled out throughout the Company, is also intended to sustainably strengthen the Group’s profitability and thus have a positive impact on the assessment basis used by the rating agencies.

Foreign currency risk

As a global company, we conduct financial transactions in various currencies. This results in risks caused by fluctuations in foreign currency exchange rates, both in our operational business and in financial reporting from currency conversion into the group reporting currency. Based upon our corporate structure, currency risk results primarily from fluctuations of the euro vis-à-vis the US-dollar and the Malaysian ringgit. Exchange rate fluctuations can have a negative impact on our profit, equity, and cash flow. In order to hedge currency risks from our operational business and financial positions, we monitor all transaction risks and conversion risks. Depending upon the respective risk situation, we also use financial derivatives to hedge against net risks from monetary balance sheet items and possible risks from scheduled transactions.

Credit risk

Credit risks arise when a customer or a counterparty to a financial instrument is incapable of fulfilling its payment obligations. Our maximum default risk corresponds to the carrying amounts of the recognized financial assets. In accordance with the

treasury and risk management policy, investments and transactions involving derivative financial instruments are carried out only with a diversified selection of financial institutions having a high level of creditworthiness (i.e. having an investment grade rating or higher). Individual credit limits for customers and financial institutions are defined on the basis of external and internal data and are monitored on an ongoing basis to avoid any concentrations of credit risk at the level of customers and financial institutions.

Legal and Compliance Risks

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

Like ams OSRAM, many of our competitors, suppliers, and customers also protect their technology through patents or other industrial property rights. The enforcement of claims by other parties based upon an alleged infringement of industrial property 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 that risk by maintaining and, if necessary, enforcing a strong IP and brand portfolio. We also monitor the external IP environment. If necessary, we also acquire licenses to ensure our freedom of action.

ams OSRAM is also subject to a wide range of government regulation worldwide, e.g., in the areas of climate and environmental protection, product safety, and labor conditions. Of primary significance here is the high complexity of regulations relating to reporting obligations in the area of sustainability, the implementation and meeting of emission targets, and in dealing with the protection of human rights in the supply chains. Under certain circumstances, a failure to comply with the relevant regulations may result in significant fines and reputational risk. To prevent this to the extent possible and to anticipate future regulatory changes in a timely manner, ams

OSRAM monitors global changes in the legal landscape through central departments that support the country-specific implementation of appropriate processes and controls.

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. ams OSRAM also has a group-wide compliance management system in order to avoid and, if necessary, identify compliance-related events in a timely manner.

Overall estimate of risks

In the past fiscal year, the risk situation of the ams OSRAM Group was particularly influenced by the continuing uncertain macroeconomic conditions. We do not currently envision any direct risks related to COVID-19. While the significance of risks from the competitive environment > [Competitive environment](#) decreased slightly, the significance of risks on the procurement side > [Dependence on suppliers](#) increased. The increase is primarily due to the continuing high level of geopolitical uncertainties and risks > [Geopolitical risks - Russia, China, and the Middle East](#). Significant financial risks > [Financial Risks](#) continue to exist, primarily due to the high level of geopolitical uncertainty and its consequences for the global economy, despite the successful completion of the refinancing in 2023. In addition, the introduction of microLED technology described under > [Competition for the introduction of new technologies](#) and the risk of > [Customer concentration](#) continue to represent significant risks for the Company. In an ad-hoc announcement on February 28, 2024, ams OSRAM announced that due to the unexpected cancellation of the key project, the microLED strategy will be re-assessed, see note 33 ‘Events after the Reporting Period’ in the Notes to the Consolidated Financial Statements. As a result of the cancellation and the resulting necessary strategy adjustment, significant parts of the risk described here will materialize. As announced in the ad-hoc announcement above, this may also have a negative impact on the results of operations, financial position and net assets of the ams OSRAM Group.

The risks associated with the overall business environment, which continue to be strongly influenced by the current multifaceted geopolitical crises, could have a major impact on the business of ams OSRAM and could require new operational actions as well as adjustments to our strategy. It remains to be seen how extensive and long-lasting these effects will be for our business.

Taking into account the respective probability of occurrence, the potential effects, and also the described partial materialization of individual risks after the reporting period, the risks enumerated in this report do not currently put the going concern assumption at risk, 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 also supported by the current financing structure, see Note 19 ‘Interest-bearing Loans’ of the Notes to the Consolidated Financial Statements.

9. Outlook

ams OSRAM continues to anticipate considerable uncertainty for 2024. Global industrial production is going through a weak phase, private consumption remains subdued and the further development of production volumes in the automotive industry is also uncertain. ams OSRAM is thus confronted with overall conditions characterized by possible ongoing fluctuations in end markets, unpredictable customer behavior, and possible unforeseen changes in the dynamics of the semiconductor industry, demand trends, and developments in the supply chain.

As a result, ams OSRAM expects a typical seasonal decline in revenues and adjusted EBIT at the beginning of the year, which is likely to be somewhat exacerbated by the weakness in industrial markets. However, the second half of the year is expected to come in stronger, mainly due to the ramp-up of new products, particularly in our semiconductor automotive business, but also a new type of light sensor for display management applications. Should global demand for semiconductors and the macroeconomic environment develop less favorably in 2024, and/or the US dollar show significant weakness, ams OSRAM's business and earnings situation would be significantly impacted.

In summer 2023, the new management at ams OSRAM undertook a strategic realignment. As part of our efficiency and realignment program 'Re-establish the Base', the Semiconductors segment will focus on its highly profitable core business, with differentiated, intelligent sensor and emitter components that have the best growth prospects. In the Consumer segment, ams OSRAM will continue to pursue selected projects based on technologies that allow it to differentiate itself from the competition in the long term. ams OSRAM holds leading positions in the areas of automotive, industrial, and medical technology, and consumer applications, which remain part of our core business. Technology leadership, regular leaps in innovation, and strong customer relationships are at the heart of such leading positions, some of which have been built up over decades. The market segments addressed are driven by global megatrends and offer structural growth opportunities. In addition to improving profitability, the implementation of the above structural growth strategy is ams OSRAM's main priority, which includes the global expansion of the Group's business with key accounts, and gaining shares in global markets and customer segments.

As part of our 'Re-establish the Base' Program, units with sales of EUR 300 mn to 400 mn in 2023 that are no longer part of our core business will also be sold or no

longer pursued. ams OSRAM has prioritized the carve out preparation of the first parts of that non-core portfolio, possibly reaching agreements with potential strategic buyers in the process. As part of our portfolio streamlining, the associated efficiency improvements and cost reduction measures needed to adapt the Group to the anticipated smaller size, structural, ongoing savings effects of around EUR 75 mn are expected by the end of the year.

On February 28, 2024, ams OSRAM announced in an ad-hoc announcement that the key project for the introduction of the disruptive microLED technology for innovative displays, including mobile devices, was unexpectedly cancelled by the lead customer. ams OSRAM only served a part of the value chain on the way to a display component that is then installed in the corresponding end devices. This requires a fundamental realignment of the microLED strategy and the associated development and manufacturing strategy, as there are currently no similarly significant customer projects with a similar time horizon. In fiscal 2024, a change in strategy may lead to a material impairment of property, plant and equipment and capitalized development costs related to microLED technology. The carrying amounts of the assets related to microLED technology and 8-inch LED production, the risks from recognized government grants and orders placed amount to a total of around EUR 1,211 mn as at the reporting date. At the same time, an improvement in free cash flow is expected in the financial years 2024 and 2025 due to a decrease in the previously planned capital expenditures in manufacturing facilities, as well as a reduction in the microLED development work. In addition, a slightly lower mid-term average revenue growth of 6 % to 8 % is now expected based on the core portfolio of 2023, i.e. excluding the non-core semiconductor portfolio and the businesses in the Lamps & Systems segment sold in fiscal 2023. The future strategy regarding the further development of the microLED technology as well as the future use of the state-of-the-art 8-inch LED production facility in Kulim (Malaysia) is currently being developed.

10. Other information

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

Premstaetten, March 19, 2024

Aldo Kamper
Chief Executive Officer
CEO

Rainer Irle
Chief Financial Officer
CFO



Group Financial Statements

IFRS Consolidated Financial Statements as of December 31, 2023

Notes to the Consolidated Financial Statements

Auditor's Report

IFRS Consolidated Financial Statements as of December 31, 2023

Consolidated Statement of Income

for the fiscal year ending December 31, 2023, including prior period

in mn EUR	Note	2023	2022
Revenues	Note 2	3,590	4,819
Cost of sales		-2,750	-3,561
Gross profit		840	1,258
Research and development expenses		-480	-630
Selling, general and administrative expenses		-501	-608
Goodwill impairment	Note 12	-1,313	-277
Other operating income	Note 3	81	179
Other operating expenses	Note 4	-34	-79
Results from investments accounted for using the equity method, net	Note 14	-24	-4
Result from operations		-1,430	-161
Financial income	Note 5	62	25
Financial expenses	Note 5	-233	-225
Net financial result		-171	-201
Result before income taxes		-1,601	-361
Income taxes	Note 6	-12	-82
Net result		-1,613	-444
Attributable to:			
Non-controlling interests		1	1
Shareholders of ams-OSRAM AG		-1,613	-444
Basic earnings per share (in EUR)	Note 24	-5.20	-1.70
Diluted earnings per share (in EUR)	Note 24	-5.20	-1.70

Consolidated Statement of Comprehensive Income

for the fiscal year ending December 31, 2023, including prior period

in mn EUR	Note	2023	2022
Net result		-1,613	-444
Remeasurements of defined benefit plans	Note 21, 22	14	-13
therein income tax effect		5	4
Fair value measurement of equity instruments (FVOCI)	Note 22	-36	-84
therein income tax effect		0	11
Items that will not be reclassified in profit or loss		-22	-96
Currency translation differences	Note 22	-118	165
Fair value measurement of debt instruments (FVOCI)	Note 22	-4	-2
therein income tax effect		1	0
Derivative financial instruments of hedging purposes	Note 22	-8	23
therein income tax effect		4	-5
Items that may be reclassified subsequently to profit or loss		-130	186
Other comprehensive income (loss), net of tax		-152	90
Total comprehensive income (loss)		-1,765	-354
Attributable to:			
Non-controlling interests		0	1
Shareholders of ams-OSRAM AG		-1,765	-354

Consolidated Balance Sheet

for the fiscal year ending December 31, 2023, including prior period

in mn EUR	Note	December 31, 2023	December 31, 2022
ASSETS			
Cash and cash equivalents	Note 7	1,146	1,087
Current financial investments		6	21
Trade receivables	Note 8	470	533
Inventories	Note 9	716	864
Other current receivables and assets	Note 10	279	223
Assets held for sale	Note 27	3	157
Total current assets		2,620	2,884
Property, plant, and equipment	Note 11	1,997	1,856
Intangible assets	Note 12	2,249	3,645
Right-of-use assets	Note 13	215	230
Investment in associates	Note 14	11	35
Deferred tax assets	Note 15	72	69
Other non-current assets	Note 16	216	54
Non-current financial investments	Note 16	22	59
Total non-current assets		4,782	5,948
Total assets		7,401	8,832

in mn EUR	Note	December 31, 2023	December 31, 2022
LIABILITIES AND EQUITY			
Current liabilities			
Current interest-bearing loans and borrowings	Note 19	322	169
Trade payables	Note 17	572	811
Income tax payable		64	87
Current provisions	Note 18	236	256
Other current liabilities	Note 17	1,259	1,345
Liabilities associated with assets held for sale	Note 27	0	50
Total current liabilities		2,455	2,717
Non-current interest-bearing loans and borrowings	Note 19	2,136	2,635
Employee benefits	Note 21	147	179
Deferred tax liabilities	Note 15	58	105
Non-current provisions	Note 18	43	45
Other non-current liabilities	Note 17	659	318
Total non-current liabilities		3,042	3,281
Equity			
Issued capital		998	274
Additional paid-in capital		2,130	2,036
Treasury shares		-103	-121
Other components of equity		162	280
Retained earnings		-1,289	358
Total equity attributable of shareholders of ams-OSRAM AG		1,899	2,826
Non-controlling interests		6	7
Total equity	Note 22	1,905	2,833
Total liabilities and equity		7,401	8,832



Consolidated Statement of Cash Flows
for the fiscal year ending December 31, 2023, including prior period

in mn EUR	Note	2023	2022
Operating activities			
Net result		-1,613	-444
Reconciliation between net result and cash flows from operating activities			
Amortization, depreciation, and impairment	Notes 11, 12, 13	1,892	1,018
Expenses from stock option plans (acc. to IFRS 2)	Note 4	49	40
Income taxes	Note 6	12	82
Net financial result		171	201
Result from sales of businesses, intangible assets and property, plant, and equipment		-11	-154
Result from investments in associates	Note 14	24	3
Other adjustments for non-cash items		0	14
Changes in current assets and current liabilities			
Inventories		96	-30
Trade receivables		24	118
Other current assets		32	-13
Trade payables		-73	-56
Current provisions		-13	-56
Other current liabilities		175	-6
Changes in other assets and liabilities		-30	-48
Income taxes paid		-85	-82
Dividends received		0	1
Interest received		22	12
Cash flows from operating activities		674	599

in mn EUR	Note	2023	2022
Investing activities			
Additions to intangible assets and property, plant, and equipment	Notes 11, 12	-1,049	-537
Acquisition of subsidiaries, net of cash and cash equivalents acquired			-7
Acquisition of financial investments		-1	-1
Inflows from sale of investments, intangible assets, and property, plant and equipment		90	34
Inflows from sale of businesses, net of cash and cash equivalents disposed	Note 27	134	346
Cash flows from investing activities		-826	-164
Financing activities			
Inflows from capital increase	Note 22	827	
Inflows from bonds	Note 19	981	
Transaction costs for the capital increase and the issue of bonds	Note 19, 22	-56	
Repayment of bonds	Note 19	-1,288	
Payments from transactions with former non-controlling shareholders		0	-3
Acquisition of treasury shares	Note 24	0	-1
Sale of treasury shares	Note 24	9	1
Inflows from bonds	Note 19	378	32
Repayment of loans	Note 19	-481	-134
Repayment of convertible bonds	Note 19	0	-334
Repayment of lease liabilities	Note 26	-57	-109
Inflows from sale and lease back financing	Note 17	382	
Interest paid		-181	-125
Acquisition of non-controlling interests in OSRAM Licht AG	Note 1,17	-232	-19
Dividends paid to shareholders of OSRAM Licht AG		-37	-53
Dividends paid to non-controlling shareholders		-1	-2
Cash flows from financing activities		245	-745
Change in cash and cash equivalents		47	-241
Effect of changes in foreign exchanges rates on cash and cash equivalents		-45	69
Cash and cash equivalents at the beginning of the period		1,098	1,339
Cash and cash equivalents at the end of the period		1,146	1,098
Less: Cash and cash equivalents of assets held for sale at end of period		0	12
Cash and cash equivalents at the end of the period		1,146	1,087



Consolidated Statement of Changes in Equity

for the fiscal year ending December 31, 2023, including prior period

in mn EUR	Note	Issued capital	Additional paid-in capital	Treasury shares	Other components of equity	Retained earnings	Total equity attribut-able to shareholders of ams-OSRAM AG	Non-controlling interests	Total equity
Balance as of January 1, 2022		274	1,997	-122	115	877	3,142	8	3,150
Net result						-444	-444	1	-444
Other comprehensive income (loss), net of tax	Note 21, 22				165	-75	90	0	90
Total comprehensive income (loss)		0	0	0	165	-519	-354	1	-354
Share based payments	Note 4		39				39		39
Dividends paid							0	-2	-2
Re-issuance of treasury shares	Note 24			1			1		1
Balance as of December 31, 2022 = January 1, 2023		274	2,036	-121	280	358	2,826	7	2,833
Capital increase	Note 22	724	73				797		797
Net result						-1,613	-1,613	1	-1,613
Other comprehensive income (loss), net of tax	Note 21, 22				-118	-33	-151	-1	-152
Total comprehensive income (loss)		0	0	0	-118	-1,647	-1,765	0	-1,765
Share based payments	Note 4		30				30		30
Acquisition and sale of treasury shares			-8	17			8		8
Re- issuance of treasury shares	Note 24			2			2		2
Dividends paid								-1	-1
Total equity as of December 31, 2023		998	2,130	-103	162	-1,289	1,899	6	1,905

Notes to the Consolidated Financial Statements

1. General Principles

Reporting Entity

ams-OSRAM AG (‘the Company’) is a stock corporation under Austrian law and is headquartered in 8141 Premstaetten, Austria. The Company is a worldwide leader in the design, manufacture, and sale of high-performance LED solutions for automotive and industrial applications as well as of optical sensor solutions for the automotive, industrial, medical technology, and consumer end-user markets. The Company is a leading provider of optical technologies and solutions for sensors, lighting, and visualization. These technologies and solutions may also contain relevant packaging and software. The IFRS consolidated financial statements as of December 31, 2023 encompass the parent company ams-OSRAM AG and its subsidiaries (together referred to as ‘ams OSRAM Group’, ‘the Group’, or ‘ams OSRAM’).

The Management Board prepared the IFRS consolidated financial statements as of December 31, 2023 on March 19, 2024 and released them to the Supervisory Board for approval. The consolidated financial statements were prepared on the basis of the going concern assumption.

The section below describes general presentation and financial reporting principles that are not directly addressed on a topic-specific basis in other sections of the notes.

Statement of Compliance

The consolidated financial statements were prepared in accordance with all International Financial Reporting Standards of the International Accounting Standards Board (IASB) and related interpretations of the International Financial Reporting Interpretations Committee (IFRS IC) that were required to be applied in 2023. Furthermore, these financial statements comply with all applicable International Financial Reporting Standards for fiscal year 2023, as adopted by the European Union, and the additional requirements pursuant to section 245a of the Austrian Commercial Code (UGB).

Changes to Material Accounting Policies

The standards and interpretations issued by the IASB and applicable for the first time in 2023, which have not been applied early by ams OSRAM, are as follows:

- Amendments to IAS 12 (International Tax Reform),
- IFRS 17 Insurance Contracts.

In March 2022, the OECD (Organization for Economic Cooperation and Development) published the technical guidelines for its global minimum tax of 15 %, which was agreed as Pillar Two of a project to address the tax challenges arising from the digitalization of the economy. These guidelines explain the application and operation of the Global Anti-Base Erosion (GloBE) rules, which were agreed and published in December 2021. These rules provide for a co-ordinated system to ensure that multinational companies with an annual revenue of more than EUR 750 mn pay a minimum rate of tax of 15 % on the income generated in each jurisdiction in which they operate.

The International Accounting Standards Board (IASB) issued “International Tax Reform–Pillar Two Model Rules (Amendments to IAS 12)” on May 23, 2023. The amendments introduce an additional, clarifying rule that any income taxes resulting from the national implementation of Pillar Two generally fall within the scope of IAS 12, as well as a temporary exception from the recognition of deferred taxes resulting from the implementation of the global tax regulations on Pillar Two by the respective countries. Additional disclosures are also required to help users of financial statements better understand an entity’s exposure to income taxes related to the implementation of the Pillar Two rules:

- disclosure that the exception from the recognition of deferred taxes is applied
- separate disclosure of the current income tax expense due to the application of Pillar Two rules
- to the extent that Pillar Two rules have been introduced but are not yet effective: qualitative disclosure of the main jurisdictions in which the Company is exposed to Pillar Two rules and indicative quantitative disclosure of the proportion of income that is subject to additional taxes under Pillar Two rules and the average effective tax rate applicable to this proportion of income, or indicative quantitative disclo-

sure of how the average effective tax rate would have changed if Pillar Two rules had already been in effect.

Pillar Two rules have to be applied at ams OSRAM as well. The binding national law has been in effect in Austria since December 2023. The regulations have to be applied from December 31, 2023. ams OSRAM applies the exception under IAS 12 (International Tax Reform) for the recognition and disclosure of information on deferred tax assets and liabilities in connection with Pillar Two.

In accordance with the Pillar Two rules, a top-up tax in the amount of the difference between the global minimum tax rate of 15 % and the lower effective tax rate has to be levied.

Analyses have already been carried out to identify the subsidiaries and corresponding countries with an effective tax rate below 15 % for 2024. Preliminary calculations show that, for the 2024 fiscal year, all countries will fall within the scope of the safe harbor rules. Among other things, the safe harbor rules provide for temporary simplifications, according to which a calculation of the top-up tax rate for a tax jurisdiction is not required if certain value caps are met. Due to the complexity of the application of the legislation and the calculation of minimum taxable income, the quantitative impact of the planned legislation cannot yet be reliably estimated. For this reason, Pillar Two can have tax implications even for subsidiaries with an effective tax rate above 15 %.

As the business transactions at ams OSRAM are not within the scope of IFRS 17, this new IFRS standard has no impact on the Company.

ams OSRAM opted for early application of Amendments to IFRS 16 (Lease Liability in a Sale and Leaseback). The amendments include specific requirements with respect to the subsequent measurement of lease liabilities in sale and leaseback transactions to ensure that no gains or losses relating to the right-of-use retained are recognized. This is done using two possible approaches as regards the underlying lease payments to determine the lease liability for the first time: (1) an estimate of the lease payments, including variable lease payments, must be made at the commencement date of the lease or (2) equal lease payments are determined over the lease term. The selected method has to be defined as an accounting method that is applied consistently. In both cases, there are no changes to the lease payments

during the lease term, and differences to the actual payments to be made are directly recognized in the statement of income. ams OSRAM has selected the first approach for the sale and leaseback transactions carried out in 2023.

Furthermore, ams OSRAM opted for early application of certain Amendments to IAS 7 and IFRS 7 published by the IASB on May 25, 2023 regarding supplier finance arrangements, and provided additional disclosures (see note 17. Other Liabilities). The two amendments have not yet been endorsed by the EU Commission.

Other issued amendments to standards (Amendments to IAS 1 – Classification of Liabilities as Current or Non-current in connection with Long-term Loans with Covenants, Amendments to IAS 21 – Lack of Exchangeability) whose application was not yet mandatory as of December 31, 2023 were not applied early. The effects of these new rules were deemed not material.

Basis of Presentation

The consolidated financial statements have been prepared in millions of euros (mn EUR), rounded to the nearest million. The use of automated calculation systems may give rise to rounding differences in the totals of rounded amounts and percentages. All individual assets are measured on the basis of historical cost, with the exception of the following material line items:

- Certain financial assets and financial liabilities: fair value;
- Derivative financial instruments: fair value;
- Employee benefits: present value of the defined benefit obligation;
- Stock option plans (share-based compensation): fair value and
- Non-current provisions: present value of expected future cash outflows

The following change was made to the presentation of the consolidated statement of income for the financial year ending December 31, 2023. Due to the material amount of goodwill impairment (EUR 1,313 mn; see note 12. Intangible Assets), a separate presentation was made by adding a new line in the consolidated statement of income instead of presenting it under other operating expenses. The separate disclosure was also made for the comparative period. Impairment losses on business units held for sale continue to be presented under other operating expenses (see note 4. Expenses).

The presentation of the consolidated statement of cash flows as of December 31, 2023 (including the comparative period for the previous year) was adjusted with regard to the following points, as we believe this provides a better understanding of our financial position. The payments for the acquisition of shares in OSRAM Licht AG, which were previously reported within cash flows from investing activities as part of the item “acquisition of subsidiaries, net of cash and cash equivalents acquired,” are now reported in a separate line item within cash flows from financing activities. This led to a reduction of EUR 19 mn in the presented cash flows from financing activities and an offsetting effect in cash flows from investing activities.

Contingencies and Main Judgments

The preparation of the consolidated financial statements in accordance with IFRS requires senior management to make judgments in applying accounting rules and estimates when making assumptions about future developments that may materially impact the recognition and value of assets and liabilities, the disclosure of other obligations as of the reporting date, and the recognition of income and expenses during the fiscal year.

The main judgments to be made in applying accounting rules relate to:

- classification of the option rights for the convertible bond issued in euros as equity (notes 19. Interest-bearing Loans and 22. Equity)
- ams OSRAM applied for a significant amount of government funding in the year under review. The approval processes are very complex and require the interpretation of the underlying funding agreements, including further clarification with the authorities providing the funds. As a result, the assessment as to whether final approval by the authorities providing the funds can be assumed with reasonable certainty as of the reporting date and whether ams OSRAM meets current and future underlying conditions of the subsidies, as well as the determination of the grant amounts expected to be received as of the reporting date, is based on significant management judgment. With regard to the final approval by the competent authorities and an assessment as regards meeting the funding conditions, ams OSRAM is in close contact with the authorities providing the funds and has come to the conclusion that it can be assumed with reasonable certainty that the final approvals will be granted and that ams OSRAM is in a position to meet the funding conditions. With regard to the amount of grants to be taken into account

as of the reporting date (as a reduction in the acquisition costs of the underlying assets or a reduction in the subsidized development expenses), the following factors in particular were taken into account where relevant: the total amount of the investment requirements, the investment progress of the respective projects as of the reporting date, and the subsidy gap. As a result of possible deviations in future actual developments from current expectations and possible changes in estimates, it may therefore be necessary to adjust the amount of grants recognized (for details, see note 20. Government Grants).

In the case of the following assumptions and estimates, there is a risk, which is not insignificant, that they could lead to changes in the value of assets and liabilities in the next fiscal year:

- The assessment of the recoverability of goodwill, property, plant and equipment, and capitalized development costs is subject to major estimation uncertainties. The recoverable amount of the respective cash generating unit (CGU) or group of CGUs is determined on the basis of discounted cash flow methods; the important assumptions in this context were the expected sales and EBITDA margins used as the basis for business planning, as well as the terminal value growth rates, which are driven in particular by market trends and potential, technological trends, and expected sales prices. The assumption of the discount rates also has a significant influence on the determination of these assets’ recoverable amounts. With respect to intangible assets under development, their technical feasibility, expected marketability, and the usefulness of the knowledge gained in achieving internal process improvements are particularly subject to increased estimation uncertainties (see note 12. Intangible Assets).
- Estimation uncertainties also exist as regards the measurement of leases, particularly with respect to the estimation of lease term and discount rates as well as concerning sale and leaseback transactions with respect to meeting the true sale criteria (see note 13. Right-of-use Assets).
- Deferred tax assets are recognized if sufficient future taxable profit is available. This taxable result is derived from corporate planning over a period of five years and existing taxable temporary differences. The recoverability of recognized and unrecognized deferred tax items is verified at every reporting date (see note 15. Deferred Tax Assets and Deferred Tax Liabilities).
- Measurement of the existing long-term obligations to employees, primarily pension obligations: assumptions about the discount rate, retirement age, employee

- turnover, and future salary and pension increases are used for this purpose (see note 21. Employee Benefits).
- ams OSRAM is subject to litigation and regulatory proceedings in various jurisdictions. Such proceedings may result in criminal or civil sanctions, penalties, or disgorgement orders against ams OSRAM. Litigation, regulatory proceedings, or investigations by authorities often involve complex legal issues and are subject to substantial uncertainties. Accordingly, senior management exercises considerable judgment in determining whether there is a present obligation as a result of a past event at the end of the reporting period, whether it is more likely than not that such an obligation will result in an outflow of resources, and whether the amount of the obligation can be reliably estimated. The required amount of a provision may change in the future due to new developments in the particular matter concerned (see note 18. Provisions).
 - Estimates are subject to increased uncertainty with respect to macroeconomic effects, geopolitical conflicts, and business interruption risks.

As part of the systematic enterprise risk management process (ERM process) applied at ams OSRAM, non-financial risks – including potential climate-related risks – are also recorded and evaluated uniformly in accordance with the methodology defined in the ERM process. The identified and evaluated risks are reported, depending on specified materiality thresholds. As of December 31, 2023, no material climate-related risks with an impact on balance sheet line items were reported.

On the demand side, the trend towards more eco-friendly and energy-saving products primarily creates opportunities for ams OSRAM as our product portfolio focuses on energy-saving technologies. Significant negative effects of increased climate awareness on demand for our products or the solvency of our customers have not been apparent to date. In terms of costs, our climate strategy (becoming CO₂ neutral with respect to our own business activities by 2030) currently has no significant impact on planning, as its implementation will lead to only a slight increase in energy costs in the medium term, and the future costs to obtain green electricity are currently estimated at a manageable level. Furthermore, investments required as part of the implementation of the climate strategy are largely in line with our long-standing objective of efficient and energy-saving production. In addition to feasibility considerations, climate-friendly implementation is already being taken into account in investments that are being implemented or planned.

In the course of goodwill impairment tests, these are generally taken into account if they are sufficiently specific in accordance with the requirements of IAS 36. From a current perspective, identified physical and transition climate risks do not have any significant effects in the short or medium term. For a long-term assessment (beyond five years), ams OSRAM closely monitors developments and we incorporate the results into our evaluations as appropriate. These risks are generally taken into account during the impairment test by general risk parameters in cash flow planning, the interest rate, and the terminal value growth rate. Likewise, there are currently no effects on useful lives or residual values of our property, plant, and equipment and intangible assets.

Sustainability and climate-related targets are also enshrined in the new remuneration policy for the Managing Board of ams-OSRAM AG. Accordingly, a Scope 1&2 CO₂ emissions reduction target with a 20 % weighting in line with our sustainability and climate strategy was included in the LTIP program in fiscal year 2023 (see note 4. Expenses). In addition, individual government grants received or approved are linked to compliance with climate and environmental conditions, which ams OSRAM expects to fulfill as planned (see note 20. Government Grants).

Basis of Consolidation

Subsidiaries are all companies that are under the control of ams-OSRAM AG. Control exists when ams-OSRAM AG holds the majority of the voting rights, provided that such control is not restricted by contractual agreements with other shareholders. For the following German subsidiaries, the exemption option in accordance with Section 264 (3) HGB was applied with regard to the preparation, audit, and disclosure of individual financial statements: ams Sensors Germany GmbH, ams Offer GmbH, OSRAM GmbH, OSRAM Beteiligungen GmbH, OSRAM Beteiligungsverwaltung GmbH, ams-OSRAM International GmbH, OSRAM SL GmbH, OSRAM SBT GmbH, OSRAM OLED GmbH, and Fluxunit GmbH.

Revenue from Contracts with Customers

ams OSRAM generates most of its revenue from the manufacture and supply of products that are sold to end customers, either directly or via distributors. Sales revenues are generated from licenses and development services (engineering services) only to a minor extent.

If individual products can be sold to several customers (standard products), revenue is recognized when the customers obtain control over these products. This is generally the case when the risks and rewards are transferred to the customers in accordance with the applicable terms of delivery (Incoterms). The transaction price for revenue includes both fixed and variable price components. ams OSRAM takes into account possible price adjustments due to contractual agreements, volume discounts, rebates, and other price reductions.

In the case of customer-specific products, which due to their nature can be sold only to one specific customer and therefore have no alternative use for ams OSRAM, the products are generally manufactured on the basis of advance information and orders from the customer, often based on existing framework agreements. In this context, control passes to the customer if an unconditional order exists and ams OSRAM is entitled to compensation for the costs incurred, including an appropriate margin, in the event that the customer withdraws from the contract. In this case, revenue is recognized in accordance with the stage of completion over the period of time. Due to the short lead time in the manufacturing of products and the fact that binding orders are often placed by customers at relatively short notice, there were no material circumstances as of January 1 and December 31, 2023 in which contract assets and revenue would have had to be recognized before the invoice has been issued. Performance obligations are usually satisfied within a period of less than one year. Consequently, the option pursuant to IFRS 15.121 is exercised and no disclosures on existing performance obligations are made at the end of the respective reporting period.

2. Segment Reporting and Revenue

Business segments are the business units in accordance with the independent operating activities and the internal reporting structure. The semiconductor-focused business units concentrate on semiconductor-based products and solutions (incl. LED) for the automotive, consumer, industrial, and medical technology markets and are combined in the ‘Semiconductors’ reporting segment. The ‘Lamps & Systems’ business segment comprises lamps and lighting systems focusing on the automotive, including traditional lighting technologies, and industrial end markets, and represents another reporting segment. In the previous year, this reporting segment encompassed the business units AM (Automotive) and DI (Digital). As part of the portfolio adjustment measures that have now been completed, the remaining business of the former DI business unit was integrated into the former AM business unit (now the ‘Lamps & Systems’ business unit) at the start of the fiscal year 2023 due to its small size from a Group perspective, and the DI business unit was dissolved.

The segment indicator ‘Segment result’ comprises gross profit, research and development expenses, administrative and selling expenses, other operating income and expenses, and the result from investments in associates. The highest amount of revenue came from a customer in the Semiconductors segment and accounted for more than 10 % of revenue (2022: less than 20 %).

Business Segments

Business Segments in mn EUR	Semiconductors		Lamps & Systems		Total	
	2023	2022	2023	2022	2023	2022
Consolidated revenues	2,425	3,167	1,165	1,652	3,590	4,819
Research and development	447	560	33	70	480	630
Depreciation, amortization, and impairment	1,817	888	75	130	1,892	1,018
Segment result	-1,536	-305	106	145	-1,430	-161

In terms of geographical regions, the Group is broken down into the following three regions: EMEA (Europe, Middle East, and Africa), Americas (North and South America), and Asia/Pacific. Revenue is allocated to these regions based on customers’ geographical location (billing address).

Revenue by Region

in mn EUR	Semiconductors		Lamps & Systems		Total	
	2023	2022	2023	2022	2023	2022
EMEA	665	785	387	669	1,053	1,455
thereof Austria	27	31	11	13	38	44
thereof Germany	356	410	85	137	441	547
Americas	242	276	513	573	755	849
thereof USA	174	214	385	472	558	686
Asia / Pacific	1,518	2,106	265	410	1,783	2,515
thereof Greater China ¹	1,138	1,614	118	215	1,257	1,828
Total	2,425	3,167	1,165	1,652	3,590	4,819

Non-current Assets by Region

in mn EUR	2023	2022
EMEA	2,299	2,668
Americas	458	836
Asia / Pacific	1,704	2,228
Total	4,461	5,731
thereof Austria	442	317
thereof Germany	1,526	1,941
thereof Malaysia	1,088	988

Segment assets include only those assets that are directly attributable to the segment, such as segment-specific property, plant, and equipment, intangible assets, and right-of-use assets under leases.

¹ Greater China includes China, Hong Kong, and Taiwan.

Segment Assets

Business Segments in mn EUR	Semiconductors		Lamps & Systems		Total	
	2023	2022	2023	2022	2023	2022
Segment assets	3,824	5,009	637	722	4,461	5,731
Reconciliation to consolidated financial statements						
Cash and cash equivalents					1,146	1,087
Inventories					716	864
Trade receivables					470	533
Deferred taxes					72	69
Financial investments					28	80
Investments in associates					11	35
Assets held for sale					3	157
Other unallocated assets					495	277
Total assets					7,401	8,832

3. Other Operating Income

in mn EUR	2023	2022
Gains from the disposal of property, plant, and equipment, and intangible assets	44	5
Gains from disposal of businesses	14	152
Gains on grants	1	4
Gain on remeasurement of equity interests on business combinations achieved in stages		3
Compensation payments		2
Other	22	13
Other operating income	81	179

Gains from the disposal of property, plant, and equipment, and intangible assets mainly relate to the sale of production facilities in Singapore (EUR 39 mn).

Gains from the disposal of businesses include income from the sale of Digital Systems (DS) Europe and Asia in the amount of EUR 7 mn (see note 27. Disposals of Business Activities and Property, Plant, and Equipment; Assets and Liabilities Classified as Held for Sale) and the amount of EUR 6 mn stemming from purchase price adjustments for disposals completed in the previous year. In the previous year, gains from the disposal of businesses mainly comprised the gains from the sale of Fluence Bioengineering Inc. in the amount of EUR 151 mn.

The line item Other mainly includes income from service agreements for transitional services concerning sold business units in the amount of EUR 7 mn, as well as income from the reversal of provisions.

4. Expenses

Other Operating Expenses

in mn EUR	2023	2022
Impairments on assets held for sale	13	51
Losses from disposal of businesses	11	3
Allowances for bad debts	4	4
Losses on sales of property, plant, and equipment, and intangible assets	3	2
Reclassification of currency differences previously recognized in equity	0	15
Other	4	5
Other operating expenses	34	79

The impairment losses on assets held for sale include the impairment of goodwill of the AMLS Italy business in the amount of EUR 10 mn and the impairment of goodwill and other assets of OSRAM Russia in the amount of EUR 3 mn that was recognized when classifying the corresponding assets as being held for sale (see notes 12. Intangible Assets and 27. Disposals of Business Activities and Property, Plant, and Equipment; Assets and Liabilities Classified as Held for Sale).

The losses from the disposal of businesses include losses incurred from disposals that were completed in the current fiscal year as well as effects attributable to purchase price adjustments concerning disposals completed in the previous year (see note 27. Disposals of Business Activities and Property, Plant, and Equipment; Assets and Liabilities Classified as Held for Sale).

Personnel Costs

in mn EUR	2023	2022
Wages and salaries	1,143	1,306
Statutory social welfare contributions and expenses for optional support	146	167
Personnel expenses for share-based compensation	49	39
Expenses relating to pension plans and employee benefits	14	33
Personnel costs	1,352	1,545

Number of Employees by Function

in FTE	2023	2022
Production and service	14,098	16,479
Research and development	3,144	3,453
Administration and sales	3,289	3,389
Employees	20,530	23,322

The number of employees decreased by 1,104 in fiscal year 2023 due to the sale of business segments.

Share-based Compensation

The Group uses share-based compensation arrangements to remunerate the members of the Management Board and selected groups of managers, under which a defined number of stock awards or options to purchase ams OSRAM shares are issued, subject to the specified terms and conditions being met. The share-based compensation granted can be settled by ams OSRAM either through granting equity instruments or through cash settlement.

The share-based compensation arrangements are classified as equity-settled plans and are therefore measured at fair value at the grant date. The options and stock awards are measured on the basis of the Black-Scholes model. The expected volatility was derived from the historical price performance of the ams OSRAM share during the last three years (source: Bloomberg). For share-based compensation whose exercisability depends on the fulfillment of market-related performance cri-

teria, the probabilities of fulfillment are determined using a Monte Carlo simulation and taken into account in the measurement of the options and stock awards at the time they are granted.

The interpretation of the market information needed to determine fair values is subject to management judgment. This can result in a difference between the disclosed values and the values subsequently realized on the market.

The determined value of the share-based compensation is expensed over the vesting period until the options become exercisable and the stock awards become vested. The amount recognized as an expense is adjusted if expectations regarding the achievement of service conditions and non-market-based performance conditions change in such a way that the amount ultimately recognized as an expense is based on the number of those options and/or stock awards that satisfy the relevant service conditions and non-market-based performance conditions at the end of the vesting period.

Following the capital increase on December 7, 2023, the Group initiated measures to compensate for the dilution of all share-based compensation plans. The recognition of these measures and their impact are presented at the end of this chapter.

Key information on the individual plans is provided below:

Long-Term Incentive Plan 2014

The long-term incentive plan (LTIP 2014) was adopted in October 2014 and entitles the participants to purchase, for each option held and exercisable, one no-par-value share in ams-OSRAM AG at an exercise price of EUR 0.68 (adjusted after the capital increase in April 2020). As of December 31, 2023, all options outstanding from the LTIP 2014 are exercisable and no further options will be granted.

The change in the options in fiscal years 2023 and 2022 was as follows:

Long-Term Incentive Plan 2014

LTIP 2014	2023		2022	
	Options	Weighted average exercise price (in EUR)	Options	Weighted average exercise price (in EUR)
Outstanding at January 1	815,811	0.68	877,616	0.68
Granted during the period				
Forfeited during the period				
Exercised during the period	70,396	0.68	52,108	0.68
Expired during the period	22,118	0.68	9,697	0.68
Outstanding at December 31	723,297	0.68	815,811	0.68
Exercisable at December 31	723,297	0.68	815,811	0.68
Not yet granted				
Weighted average share price at the date of exercise (in EUR)	6.17		9.85	
Range of exercise price (in EUR)	0.68		0.68	
Remaining contractual life	Until June 30, 2028		Until June 30, 2028	

Special Stock Option Plan 2017

The special stock option plan (SSOP 2017) was adopted in June 2017 and entitles the participants to purchase, for each option held and exercisable, one no-par-value share in ams-OSRAM AG at an exercise price of EUR 18.63 (adjusted after the capital increase in April 2020). As of December 31, 2023, all options outstanding from the SSOP 2017 are exercisable and no further options will be granted.

The change in the options in fiscal years 2023 and 2022 was as follows:

Special Stock Option Plan 2017

SSOP 2017	2023		2022	
	Options	Weighted average exercise price (in EUR)	Options	Weighted average exercise price (in EUR)
Outstanding at January 1	2,793,434	18.63	2,813,089	18.63
Granted during the period				
Forfeited during the period				
Exercised during the period				
Expired during the period	426,993	18.63	19,655	18.63
Outstanding at December 31	2,366,441	18.63	2,793,434	18.63
Exercisable at December 31	2,366,441	18.63	2,327,916	18.63
Not yet granted				
Weighted average share price at the date of exercise (in EUR)				
Range of exercise price (in EUR)	18.63		18.63	
Remaining contractual life	Until June 30, 2027		Until June 30, 2027	

Special Long-Term Incentive Plan 2018

The special long-term incentive plan (SLTIP 2018) was adopted in October 2018 and entitles the participants to purchase, for each option held and exercisable, one no-par-value share in ams-OSRAM AG at an exercise price of EUR 29.34 (adjusted after the capital increase in April 2020).

As of December 31, 2023, all options outstanding from the SLTIP 2018 are exercisable and no further options will be granted.

The change in the options in fiscal years 2023 and 2022 was as follows:

Special Long-Term Incentive Plan 2018

SLTIP 2018	2023		2022	
	Options	Weighted average exercise price (in EUR)	Options	Weighted average exercise price (in EUR)
Outstanding at January 1	411,246	29.34	421,210	29.34
Granted during the period				
Forfeited during the period				
Exercised during the period				
Expired during the period			9,964	29.34
Outstanding at December 31	411,246	29.34	411,246	29.34
Exercisable at December 31	411,246	29.34	411,246	29.34
Not yet granted				
Weighted average share price at the date of exercise (in EUR)				
Range of exercise price (in EUR)	29.34		29.34	
Remaining contractual life	Until October 11, 2028		Until October 11, 2028	

Special Stock Option Plan 2019

The special stock option plan (SSOP 2019) was adopted in February 2019 and entitles the participants to purchase, for each option held and exercisable, one no-par-value share in ams-OSRAM AG at an exercise price of EUR 13.94 (adjusted after the capital increase in April 2020).

As of December 31, 2023, all options outstanding from the SSOP 2019 are exercisable and no further options will be granted.

The change in the options in fiscal years 2023 and 2022 was as follows:

Special Stock Option Plan 2019

SSOP 2019	2023		2022	
	Options	Weighted average exercise price (in EUR)	Options	Weighted average exercise price (in EUR)
Outstanding at January 1	671,170	13.94	674,851	13.94
Granted during the period				
Forfeited during the period				
Exercised during the period			2,129	13.94
Expired during the period			1,552	13.94
Outstanding at December 31	671,170	13.94	671,170	13.94
Exercisable at December 31	671,170	13.94	671,170	13.94
Not yet granted				
Weighted average share price at the date of exercise (in EUR)			15.04	
Range of exercise prices (in EUR)	13.94		13.94	
Remaining contractual life	Until February 5, 2029		Until February 5, 2029	

Long-Term Incentive Plan 2019

The long-term incentive plan 2019 (LTIP 2019) was adopted in June 2019; options from the LTIP 2019 were last granted in 2022.

Three different types of options were granted: PSUs, RSUs, and SPSUs (performance share units, restricted share units, and special performance share units). The PSUs depend on the performance of the Total Shareholder Return (TSR, defined as the change in share price plus reinvested dividends over the performance period) of ams-OSRAM AG compared to a defined peer group and the achievement of a certain level of earnings per share (EPS) in the year that the options are granted. They become exercisable after three years. The RSUs and SPSUs become exercisable within the next four years. Each year, a quarter of the total tranche of RSUs and SPSUs becomes exercisable.

Each PSU and RSU granted entitles the participant to purchase one no-par-value share in ams-OSRAM AG at an exercise price of EUR 1.00. Each SPSU granted entitles the participant to purchase one no-par-value share at a price based on the average share price of the last 60 days prior to the grant date. As part of the capital increase in April 2020, anti-dilution measures were taken for the option plan. As a result, the exercise price of the SPSUs issued so far was reduced to EUR 4.76 per share on average.

All options granted can be exercised only up to ten years from allocation.

The change in the options in fiscal years 2023 and 2022 was as follows:

Long-Term Incentive Plan 2019

LTIP 2019	2023		2022	
	Options	Weighted average exercise price (in EUR)	Options	Weighted average exercise price (in EUR)
Outstanding at January 1	12,178,903	5.86	9,638,718	8.55
Granted during the period			4,111,759	2.77
Forfeited during the period				
Exercised during the period	131,294	0.91	48,190	8.01
Expired during the period	3,596,390	3.44	1,523,384	3.68
Outstanding at December 31	8,451,219	4.84	12,178,903	5.86
Exercisable at December 31	2,652,285	8.82	1,437,145	9.47
Not yet granted				
Weighted average share price at the date of exercise (in EUR)	6.13		8.80	
Range of exercise price (in EUR)	0.68-22.69		0.68-22.69	
Remaining contractual life	Until June 30, 2032		Until June 30, 2032	

Long-Term Incentive Plan 2023

The Supervisory Board and Management Board adopted a new long-term incentive plan (LTIP 2023) on May 25, 2023 that replaced the LTIP 2019.

The LTIP 2023 comprises a maximum of 27,428,928 stock awards, which correspond to about 10 % of the Company’s share capital as of the date of the implementation of the LTIP 2023. The awards issued under the LTIP 2023 are granted within five years of the plan’s adoption and were granted for the first time in July 2023.

Each stock award entitles the participant to receive, without payment of a consideration, one no-par-value share in ams-OSRAM AG, subject to the conditions applicable to the LTIP 2023. There are two distinct types of awards: PSUs and RSUs (performance share units and restricted share units). The PSUs are conditional upon satisfying the following performance criteria: (a) the cumulative adjusted EBIT defined for one performance period, (b) the relative total shareholder return (“Relative TSR”) of the Company compared with a defined peer group over one performance period, and (c) the fulfillment of environmental, social and governance (ESG) targets, as specified by the Company. In case there is an overachievement of the performance criteria for the PSUs (achievement between 100 % and 150 %), the participant may receive up to 50 % more shares per PSU when PSUs are redeemed. If the performance criteria are not met, however, the participant may receive fewer shares.

The PSU awards will be redeemable after three years from the grant date, with the exception of the first award, where the vesting period ends on March 31, 2026. In addition, a waiting period of one year after the end of the vesting period applies to the members of the Management Board. For the RSU awards, one-third of the awards will be redeemable in each case on the first, second, and third anniversaries of the grant date, with the exception of the first award, where the vesting period is shorter and one-third of the RSU awards will be redeemable on March 31, 2024, 2025, and 2026, respectively. PSUs and RSUs will become redeemable subject to the condition that the participant remains employed throughout the entire vesting period.

In the 2023 fiscal year, 4,212,654 stock awards were awarded under the LTIP 2023, which resulted in an expense of EUR 3 mn.

The following parameters were used to determine the value of the stock awards for one, two, three, and four years:

Valuation of Stock Awards (Weighted Average) for the 2023 Grant

		PSU	RSU
Share price at grant	In EUR	4.06	4.06
Duration	In years	10	10
Risk free investment-rate	In %	2.88	2.88
Dividend yield	In %	0.00	0.00
Expected volatility	In %	54.02	54.02
Fair value per stock award	In EUR	3.34	3.62

The change in the stock awards in fiscal year 2023 was as follows:

LTIP 2023	PSU	RSU
Outstanding at January 1		
Granted during the period	1,540,829	2,671,825
Forfeited during the period		
Exercised during the period		
Expired during the period		6,159
Outstanding at December 31	1,540,829	2,665,666
Exercisable at December 31		
Remaining contractual life	Unit March 31, 2026	Unit March 31, 2026

Anti-dilution Measures

Following the capital increase on December 7, 2023, the Group initiated two measures to compensate for the dilution effects. For the programs and options granted under LTIP 2014, SSOP 2017, SLTIP 2018, SSOP 2019, and LTIP 2019, participants are offered the opportunity to redeem these options in return for a one-off cash payment. This opportunity was communicated to the employees on December 21, 2023.

The fair value of all exercisable and non-exercisable options was calculated by an independent external expert, using the Black-Scholes model as of the cut-off date November 17, 2023 for the measurement parameters, i.e., price and volatility of the ams-OSRAM AG share, remaining term, and risk-free interest rate. The valuation date is the last trading day prior to announcement of the parameters of the rights issue trading as part of the capital increase. The maximum compensation amount of EUR 17 mn resulting from the valuation was reclassified from equity to current liabilities until expected payout. The resulting total expense amounts to EUR 19 mn.

As far as the LTIP 2023 is concerned, participants are given the opportunity to cancel the stock awards granted in 2023 and to receive a higher number of stock awards to compensate for the dilution effect of the capital increase. The equalization factor was determined by an independent external expert, taking into account the subscription price and the subscription ratio of the capital increase, and amounts to 1.99. Accordingly, each participant who accepts the conversion offer receives almost twice the number of stock awards as compared to the number awarded in 2023. The additional fair value from anti-dilution measures recorded as an expense in the period is immaterial. The grant date, the vesting dates, the performance criteria, and all other conditions of the stock awards remain unchanged.

Valuation Parameters for the Measurement of Options and Stock Awards at Fair Value for Anti-Dilution Measures

Share price before dilution	In EUR	3.52
Risk free investment-rate		European Central Bank yield curve
Dividend yield	In %	0.00 %
Expected volatility	In %	62.10 %

5. Net Financial Result

in mn EUR	2023	2022
Income from derivatives	33	8
Interest income	22	14
Valuation of options for early repayment of outstanding bonds	5	
Exchange differences		2
Other financial income	2	2
Financial income	62	25
Interest expenses	-180	-198
Exchange differences	-38	
Valuation of options for early repayment of settled bonds		-25
Other financial expense	-15	-2
Financial expense	-233	-225
Net financial result	-171	-201

Interest expenses include an amount of EUR 10 mn (2022: EUR 10 mn) in connection with the supply chain financing programs following the sale of trade receivables to the factor; the amount was reclassified from other comprehensive income reported under retained earnings to the consolidated statement of income. In the 2023 fiscal year, income from derivatives includes an offsetting expense from a currency hedge for the capital increase in the amount of EUR 19 mn. This hedging transaction was used to hedge CHF currency risks between the date on which the subscription price of the new shares (CHF 1.07 per share) was determined and the date of payment. In the 2023 fiscal year, other financial expenses include an expense of EUR 13 mn from the early repayment of bonds in connection with the refinancing, which results from the difference between the repayment amounts and the carrying amounts at the date of repayment.

In the 2023 fiscal year, borrowing costs of EUR 10 mn were capitalized in accordance with IAS 23 as part of the cost of property, plant, and equipment and intangible assets in connection with the construction of the new semiconductor production facilities for LEDs and microLEDs in Kulim, Malaysia, and Regensburg, Germany. As of December 31, 2023, the capitalization rate, which results from the borrowing costs weighted in line with the financing structure, was 1.91 % p.a. Payments for capitalized

borrowing costs are reported in the consolidated statement of cash flows under cash flows from financing activities.

6. Income Taxes

in Mio. EUR	2023	2022
Current tax expense, net, current fiscal year	-66	-98
Current tax benefit, net, prior fiscal years	7	13
Current taxes	-59	-84
Deferred tax benefit, net, from changes in temporary differences	47	2
Deferred tax expenses, net, others	0	0
Deferred taxes	47	2
Income taxes	-12	-82

Reconciliation to Actual Income Tax Expenses

in mn EUR	2023	2022
Result before income taxes	-1,601	-361
Group tax rate	24 %	25 %
Expected income tax benefit	384	90
Increase/decrease in income taxes resulting from:		
Non-deductible losses and expenses	-323	-104
Tax-free income	17	39
Taxes for prior years	23	12
Change in realizability of unrecognized deferred tax assets including unrecognized deferred tax assets arising in the current financial year	-92	-116
Foreign tax rate differential	-11	2
Change in tax rates	-2	-1
Other, net	-8	-6
Actual income tax expenses as presented in the Consolidated Statement of Income	-12	-82

The line item Non-deductible losses and expenses includes, as in the previous year, the effect of non-tax-deductible goodwill impairment.

The line item Other, net mainly refers to non-deductible withholding tax on intra-Group dividend payments.

Income taxes

in mn EUR	2023	2022
Income taxes	-12	-82
Taxes in other comprehensive income	11	11

Deferred tax assets are recognized for all temporary differences and losses carried forward, to the extent that it is probable that future taxable profit against which they can be utilized will be available within a foreseeable period. No deferred tax

assets were recognized for tax loss carryforwards and interest carryforwards of EUR 2,194 mn (2022: EUR 1,310 mn), for temporary differences of EUR 530 mn (2022: EUR 1,079 mn), and for tax credits of EUR 85 mn (2022: EUR 90 mn).

Of the tax loss carryforwards for which no deferred tax assets have been recognized as of December 31, 2023, EUR 10 mn (2022: EUR 20 mn) are subject to a time limitation. The expiry of these loss carryforwards will start in 2034.

For distributable profits of subsidiaries, income and withholding taxes arising in connection with the distribution are recognized as deferred tax liabilities if it is either expected that these profits will be subject to corresponding taxation, or it is intended that they will not be permanently reinvested.

As of December 31, 2023, no deferred tax liabilities have been recognized for temporary differences arising from investments in subsidiaries of EUR 3,490 mn (2022: EUR 3,558 mn).

7. Cash and Cash Equivalents

in mn EUR	2023	2022
Bank deposits	1,146	1,088
Valuation allowance	0	-1
Cash and cash equivalents	1,146	1,087

Expected credit losses with respect to deposits with banks are measured using publicly available credit ratings.

8. Trade Receivables

in mn EUR	2023	2022
Gross carrying amount of receivables	488	558
Valuation allowance	-18	-25
Net carrying amount of receivables	470	533

Loss Allowances

in mn EUR	Total	Expected impairment losses	Impairment losses on credit impaired receivables
Balance as of January 1, 2022	-24	-6	-18
Reclassification in assets held for sale	3	2	2
Derecognition of receivables	1	0	1
Change in value allowances recorded in the statement of income in the current period	-4	-2	-2
Currency translation and other changes	-1	-1	-1
Balance as of December 31, 2022	-25	-7	-19
Balance as of January 1, 2023	-25	-7	-19
Reclassification in assets held for sale	1	1	0
Derecognition of receivables	10	0	10
Change in value allowances recorded in the statement of income in the current period	-4	-2	-1
Currency translation and other changes	0	0	0
Balance as of December 31, 2023	-18	-8	-10

Loss allowances for trade receivables are always measured at the lifetime expected credit loss. The expected loss rates were derived from historical information and future expectations. A receivable is deemed defaulted, and an impairment is deemed to have occurred if insolvency proceedings have been initiated against the debtor or if there are other significant reductions in the debtor’s ability to pay, which is assumed no later than when the amounts are more than 90 days past due.

For some of the trade receivables measured at amortized cost, with a gross carrying amount of EUR 353 mn (2022: EUR 420 mn), the expected loss allowances are calculated on the basis of credit ratings, which are then used to determine portfolio-specific default rates. Customers are grouped in risk categories with low, moderate, and higher credit risk based on credit ratings provided by external agencies.

Gross Carrying Amount of Trade Receivables Measured Based on Ratings

in mn EUR	2023	2022
Risk class 1: low risk	71	126
Risk class 2: moderate risk	230	229
Risk class 3: higher risk	40	31
Risk class 4: insolvent	5	13
Customers without individual rating	7	21
Total	353	420

The expected loss allowances for the remaining trade receivables measured at amortized cost, with a gross carrying amount of EUR 3 mn (2022: EUR 69 mn), are calculated on the basis of default rates derived from historical empirical values and estimated according to how far past due they are.

Trade receivables include receivables with a carrying amount of EUR 133 mn (2022: EUR 69 mn) that are measured at fair value. These are receivables from customers that are sold on a case-by-case basis to a factoring company in connection with customers’ supply-chain financing programs. They are subsequently derecognized. In addition, receivables are sold via ams OSRAM’s own factoring program and derecognized. Some of the risk of late payment by the customer (late payment risk) remains with ams OSRAM, and a financial liability is recognized in this amount, although no separate asset. Instead, trade receivables continue to be reported in the same amount. As of December 31, 2023, the volume of receivables sold under this program amounted to EUR 69 mn (2022: EUR 53 mn). Proceeds from the sale of receivables to factoring companies are reported in the consolidated statement of cash flows under cash flows from operating activities.

The gross carrying amount of trade and other financial receivables is derecognized if, following an appropriate assessment, the Group no longer believes that the financial asset can be fully or partially realized. In general, this is the case particularly when the statute of limitations has elapsed, when a debtor is legally released from the original obligation, or when insolvency proceedings are not initiated for lack of assets.

Trade Receivables by Region

in mn EUR	2023	2022
EMEA	103	216
Americas	180	120
Asia / Pacific	187	196
Trade receivables	470	533

9. Inventories

in mn EUR	2023	2022
Raw materials and supplies	261	326
Work in progress	211	257
Finished goods and merchandise	239	278
Advances to suppliers	5	3
Inventories	716	864

As of December 31, 2023, EUR 38 mn (2022: EUR 39 mn) relate to spare parts and tools, which are reported under raw materials and supplies. Cumulative loss allowances for inventories stood at EUR 191 mn as of December 31, 2023 (2022: EUR 220 mn).

Inventories are measured at the lower of cost and net realizable value. The cost of inventories is based on either the first-in-first-out allocation method (FIFO) or the weighted average cost method. The cost of inventories produced comprised an appropriate share of the production overheads based on average production capacity utilization.

Raw materials and supplies are recognized at the lower of cost on the basis of average values or the FIFO method and the net realizable value. For certain inventories, this is measured at the replacement price. Work in progress and finished goods are measured at the lower of cost or net realizable value. The net realizable value is calculated based on the expected sales proceeds in the ordinary course of business, less the estimated costs of completion and the expected administrative and selling expenses still to be incurred. The cost of inventories includes all costs incurred in acquiring the item and bringing it to the required condition and location. In the case of finished goods and work in progress, cost comprises the direct cost of materials and production, the directly attributable proportion of materials and production overheads, and production-related depreciation. Fixed cost items are allocated on the basis of an average capacity utilization of the production facilities.

10. Other Current Receivables and Assets

in mn EUR	2023	2022
Debit balances of trade payables	3	2
Accrual for financial transaction costs	1	4
Other	44	45
Financial current receivables and assets	49	51
Tax receivables	116	112
Prepaid expenses	50	40
Receivables from government grants	54	3
Other	10	17
Non-financial current receivables and assets	230	172
Other current receivables and assets	279	223

As of December 31, 2023, Other financial current receivables and assets included a receivable in the amount of EUR 9 mn in connection with the sale of the Digital Systems (DS) business in Europe and Asia.

With respect to changes in receivables from government grants, see note 20. Government Grants.

11. Property, Plant, and Equipment

in mn EUR	Gross carrying amount as of January 1, 2023	Translation differences	Additions through business combinations	Additions	Reclassifications	Retirements	Reclassification in assets held for sale	Gross carrying amount as of December 31, 2023	Accumulated depreciation and impairment	Net book value as of December 31, 2023	Depreciation and impairment during fiscal year 2023
Land and buildings	813	-17		3	13	-121		690	-423	267	-34
Technical machinery and equipment	4,430	-127		80	102	-293		4,192	-3,453	739	-301
Furniture and office equipment	211	-4		15	1	-20	0	203	-186	18	-9
Advances to suppliers and assets under construction	614	-48		531	-116	-8	0	974	-1	973	0
Property, plant, and equipment	6,069	-196		630		-443	0	6,059	-4,062	1,997	-344

As of December 31, 2023, commitments to purchase property, plant, and equipment amounted to EUR 152 mn (2022: EUR 516 mn). Regarding the purchase commitments for investments into MicroLED Technology refer to note 33. Events after the Reporting Period. Impairment losses amounting to EUR 60 mn were recorded following the expiration of customer contracts in Singapore in the Semiconductors segment. These impairments were mainly recorded on technical machinery and equipment and were primarily included in cost of sales.

	Gross carrying amount as of January 1, 2022	Translation differences	Additions through business combinations	Additions	Reclassifications	Retirements	Reclassification in assets held for sale	Gross carrying amount as of December 31, 2022	Accumulated depreciation and impairment	Net book value as of December 31, 2022	Depreciation and impairment during fiscal year 2022
Land and buildings	886	13		6	28	-112	-9	813	-471	342	-70
Technical machinery and equipment	4,391	68		140	150	-307	-14	4,430	-3,534	896	-385
Furniture and office equipment	224	2		6	5	-22	-3	211	-201	10	-17
Advances to suppliers and assets under construction	225	-5		582	-184	-3	0	614	-6	609	0
Property, plant, and equipment	5,726	78		734		-444	-25	6,069	-4,212	1,856	-472

In fiscal year 2022, the consolidation of production networks primarily in Singapore led to an impairment of EUR 103 mn and were primarily included in cost of sales. These impairments were mainly recorded on technical machinery and equipment in the Semiconductors segment.

Property, plant, and equipment is measured at cost less accumulated depreciation and impairment losses and net of government grants. The cost of internally generated property, plant, and equipment includes the cost of materials, direct labor, the directly attributable proportion of production overheads, and borrowing costs for qualifying assets.

Depreciation of property, plant, and equipment is recognized in profit or loss on a straight-line basis over the estimated useful life of the assets. Land is not depreciated. If the cost of certain components of an item of property, plant, and equipment is significant in relation to the total cost of the item, these components are accounted for and depreciated separately. Residual values and useful lives are reviewed annually and, if expectations differ from previous estimates, adjusted accordingly. Carrying amounts are based on the following useful lives:

Buildings	10 – 50 years
Technical machinery and equipment	2 – 15 years
Other non-current assets	3 – 5 years

For some rented buildings, there is an obligation to return the building to the lessor in a certain condition at the end of the lease term (asset restoration obligation). The projected cost of such a restoration is recognized as part of the cost of the respective asset and as a provision for the asset restoration obligation. The provision for the asset restoration obligation is measured at the present value of the expenditure expected to be required to settle the obligation, using a pre-tax discount rate that reflects the current market assessment of the time value of money and the risks specific to the obligation. The unwinding of the discount on the provision due to the passage of time is recognized as a financial expense. Changes in the estimated expenditure result in an adjustment of the amount recognized as part of the cost.

12. Intangible Assets

in mn EUR	Gross carrying amount as of January 1, 2023	Translation differences	Additions through business combinations	Additions	Retirements	Reclassification in assets held for sale	Gross carrying amount as of December 31, 2023	Accumulated amortization and impairment	Net book value as of December 31, 2023	Amortization and impairment during fiscal year 2023
Goodwill	3,099	-6	0	0	-16	-1	3,076	-1,590	1,487	-1,323 ¹
Customer base	677	0	0	0	0	0	677	-484	193	-80
Technology	317	0	0	0	-4	0	313	-240	73	-32
Trademarks	234	0	0	0	0	0	234	-7	226	-2
Capitalized development costs	349	2	0	109	0	0	459	-220	240	-50 ²
Patents, licenses and other rights	150	-4	0	4	-3	0	147	-117	30	-10
Intangible assets	4,825	-8	0	113	-23	-1	4,906	-2,657	2,249	-1,497

	Gross carrying amount as of January 1, 2022	Translation differences	Additions through business combinations ¹	Additions	Retirements	Reclassification in assets held for sale	Gross carrying amount as of December 31, 2022	Accumulated amortization and impairment	Net book value as of December 31, 2022 ¹	Amortization and impairment during fiscal year 2022
Goodwill	3,081	56	4		-14	-28	3,099	-277	2,821	-287 ³
Customer base	668	9					677	-398	279	-83
Technology	321	2	6		-2	-10	317	-212	105	-50
Trademarks	242					-9	234	-4	229	-11
Capitalized development costs	317	3		87	-59		349	-171	177	-26
Patents, licenses and other rights	211	21		5	-80	-7	150	-117	33	-13
Intangible assets	4,841	89	11	93	-155	-54	4,825	-1,180	3,645	-469

1 The impairment of goodwill relates to impairments of BU OS and AOS due to an adjustment of market expectations amounting to EUR 1,313 mn and an impairment of goodwill amounting to EUR 11 mn following the classification of AMLS Italy and OSRAM Russia as held for sale (see Note 27. Disposals of business activities and property, plant and equipment, assets and liabilities classified as held for sale).

2 Amortization and impairment of capitalized development costs includes impairment losses of EUR 23 mn in the Semiconductor segment, which were recognized in the income statement under research and development expenses.

3 The impairment of goodwill includes the impairment of BU OS and AOS due to an adjustment of market expectations in the amount of EUR 277 mn and an impairment of goodwill in the amount of EUR 10 mn following the classification of Clay Paky S.p.A. and Traxon Technologies as held for sale.

At each reporting date or upon triggering events, non-financial assets – including right-of-use assets under leases and intangible assets not yet available for use – are reviewed to determine whether there is any indication of impairment. For this purpose, assets are grouped into the smallest group of assets that generates cash inflows from continuing use, which are largely independent of the cash inflows from other assets (‘cash generating unit’). The analysis also takes into account how management manages and monitors the Company’s operations.

Intangible assets acquired by the Group are measured at cost less amortization and impairment losses. The goodwill and trademarks arising in connection with business combinations are measured at cost less accumulated impairment losses.

Development expenses are capitalized from the date on which the technical and commercial feasibility of the asset for sale or use has been established. The Group has about 80 projects for which development expenses have been capitalized, some of which are still under development, while others are already in use. One of the largest development projects, which accounts for around half of the carrying amount of capitalized development expenses, relates to the development of microLED technology and the production process. At the reporting date the project was still in the development phase and therefore had an indefinite useful life. For developments regarding the project occurring after the reporting date refer to note 33. Events after the Reporting Period.

Amortization of intangible assets – with the exception of assets with indefinite useful life and goodwill – is recognized in profit and loss on a straight-line basis over the estimated useful life of the assets. Amortization and depreciation is included in the line item cost of sales in the consolidated statement of income. As a general rule, the following useful lives are assumed:

Patents, licenses, and software	3 – 5 years
Customer base	5 – 15 years
Technology	5 – 10 years
Capitalized development costs	3 – 7 years

Goodwill and Trademarks with Indefinite Useful Lives

Goodwill is allocated to a CGU or a group of CGUs if it is expected to benefit from the synergies of the acquisition. The business units represent the CGUs or groups of

CGUs for the consolidated ams OSRAM Group, at which level goodwill is monitored by the Management Board. For purposes of impairment testing, goodwill and trademarks with indefinite useful lives are allocated as follows.

in mn EUR	2023	
	Goodwill	Trademarks
Semiconductors		
Advanced Optical Sensors (AOS)	0	
Image Sensor Solutions (ISS)	149	
Opto Semiconductors (OS)	997	158
Lamps & Systems		
Lamps & Systems	341	68
Total	1,487	226

	2022	
	Goodwill	Trademarks
Semiconductors		
Advanced Optical Sensors (AOS)	298	
Image Sensor Solutions (ISS)	131	
Opto Semiconductors (OS)	2,035	158
Lamps & Systems		
Automotive (AM)	353	61
Digital (DI)	4	8
Total	2,821	226

During the year, the optical components business was transferred from BU OS to BU ISS in order to strengthen the focus and end-to-end responsibility of the individual business units. In accordance with IAS 36.87, goodwill in the amount of EUR 17 mn was reallocated between the business units and a trigger analysis was carried out, which did not require an impairment test to be performed. Furthermore, following the disposals within the former BU Digital (DI), this BU was dissolved and the remaining business was integrated into the new BU Lamps & Systems.

ams OSRAM carried out an assessment as of June 30, 2023 to verify whether there are any indications of a possible impairment. The business plans for OS and AOS in particular were adjusted downwards in line with long-term market expectations. In addition, the market capitalization of ams OSRAM decreased further compared to December 31, 2022 and was significantly below the carrying amount of equity on a long-term basis. This led to a re-evaluation of the strategic direction of ams OSRAM and a corresponding update of the business plans, which were adjusted downwards, particularly for OS and AOS.

An impairment loss of EUR 1,019 mn was recognized on goodwill for BU OS (value in use of the BU of EUR 2,694 mn) and an impairment loss of EUR 294 mn was recognized on goodwill for BU AOS (value in use of the BU of EUR 407 mn). A discount rate (before taxes) of 12.2 % (December 31, 2022: 12.4 %) was used for BU OS and 12.2 % (December 31, 2022: 12.7 %) for BU AOS.

The impairment of goodwill recognized in the reporting period up to June 30, 2023 had no impact on income tax expense and therefore leads to a significant change in the effective tax rate compared to the last reporting year.

An impairment test was carried out for all CGUs and groups of CGUs during the fourth quarter of the year under review. This test did not identify any further need for impairment losses to be recognized. Moreover, at each reporting date, an assessment is made to determine whether there is any indication of impairment. This assessment is based on external factors such as market environment, market interest rates and yields, and market capitalization, as well as internal factors such as obsolescence, damages, discontinuation, or possibilities of alternative uses.

The recoverable amount is determined based on the higher of value in use and fair value less costs to sell. The recoverable amount of the BUs AOS and OS was determined using the value in use, while the recoverable amount of the BUs ISS and Lamps & Systems was determined using the fair value less costs to sell. The calculations were based on the discounted cash flow method. The measurement based on fair value less costs to sell is classified as level 3 of the IFRS 13 measurement hierarchy. The discounted cash flows are based on five-year forecasts.

The key assumptions used for determining the recoverable amount were the expected sales and EBITDA margins that are used as the basis for business planning, the

terminal value growth rates, and the discount rates. The values of the assumptions are based on past experience, and take into account external inflation and market growth expectations, as well as macroeconomic data and industry-specific trends.

Sales revenue is budgeted taking regional circumstances and customer information into account. In this context, possible future price reductions, which are typical for the semiconductor sector in particular, are also factored in. Factory utilization and capacities are also considered. Based on current market expectations and the resulting corporate planning, the growth rates of the detailed planning phase are in some cases considerably higher than the assumed terminal value growth rate. Direct costs are planned on the basis of these sales, taking into account expected inflation and price developments for cost of materials. The operating costs take into account the expected personnel development and salary trends.

The calculation was based on a planning period up to 2028; the positive cash flow for the subsequent planning period is regarded as sustainable and serves as the basis for calculating the present value of a perpetuity. BU-specific growth rates were used to extrapolate the cash flows in the perpetuity. These growth rates are based, among other things, on long-term inflation expectations for the countries relevant to sales. The discount rates were determined on the basis of BU-specific weighted average costs of capital (WACC), assuming a market yield of 9.25 %.

The assumptions regarding growth rate and discount rate for determining the recoverable amount were as follows:

Valuation Parameters (Perpetuity Growth Rate; Pre-tax Discount Rate)

	2023	
	Perpetuity growth rate in %	Discount rate in %
Semiconductors		
Advanced Optical Sensors (AOS)	1.2 %	11.5 %
Image Sensor Solutions (ISS)	1.3 %	14.1 %
Opto Semiconductors (OS)	1.3 %	12.3 %
Lamps & Systems		
Lamps & Systems	1.0 %	14.8 %
	2022	
	Perpetuity growth rate in %	Discount rate in %
Semiconductors		
Advanced Optical Sensors (AOS)	1.1 %	12.7 %
Image Sensor Solutions (ISS)	1.0 %	15.2 %
Opto Semiconductors (OS)	1.2 %	12.4 %
Lamps & Systems		
Automotive (AM)	1.0 %	15.6 %
Digital (DI)	1.0 %	16.4 %

A reasonably possible change in the key assumptions regarding the discount rate and the long-term EBITDA margin could have the effect that the carrying amount of the respective BU mentioned below exceeds its recoverable amount:

The recoverable amount of the BU OS exceeds its carrying amount by EUR 286 mn. The underlying discount rate is 12.3 % and the underlying long-term EBITDA margin amounts to 28.8 %. An increase in the discount rate by 0.8 % or a decrease of the long-term EBITDA margin by 2.1 % would result in a carrying amount that approximates the recoverable amount.

13. Right-of-use Assets

in mn EUR	Gross carrying amount as of January 1, 2023	Translation differences	Additions through business combinations	Additions	Reclassification	Retirements	Reclassification in assets held for sale	Gross carrying amount as of December 31, 2023	Accumulated amortization and impairment	Net book value as of December 31, 2023	Amortization and impairment during fiscal year 2023
Land and buildings	350	-9		37	0	-54	0	324	-131	193	-43
Technical machinery and equipment	30	-2		6	0	-1		33	-18	15	-5
Furniture and office equipment	15	0		4		-5		14	-7	7	-4
Right-of-use assets	395	-11		47		-60	0	372	-157	215	-51

	Gross carrying amount as of January 1, 2022	Translation differences	Additions through business combinations	Additions	Reclassification	Retirements	Reclassification in assets held for sale	Gross carrying amount as of December 31, 2022	Accumulated amortization and impairment	Net book value as of December 31, 2022	Amortization and impairment during fiscal year 2022
Land and buildings	341	9		40		-40	0	350	-141	209	-52
Technical machinery and equipment	33	0		0		-2	-2	30	-17	13	-6
Furniture and office equipment	12	0		6		-3	0	15	-7	8	-4
Right-of-use assets	387	10		46		-45	-2	395	-165	230	-62

Expenses Related to Lease Contracts

in mn EUR	2023	2022
Expenses for short-term or low-value leases	9	11
Interest expenses	8	9
Expenses related to lessee accounting	18	19

In fiscal year 2023, ams OSRAM entered into sale and leaseback transactions. In accordance with IFRS 16, a right-of-use asset has to be recognized for sale and leaseback transactions that meet the true sale criteria. The value of the right-of-use asset is determined by the ratio of the present value of the lease payments to the market value, which has to be applied to the carrying amount of the assets sold. In determining the present value of the lease payments, ams OSRAM uses the expected lease payments over the lease term. In addition, ams OSRAM applies the practical relief in accordance with IFRS 16.15 and elects not to separate non-lease components from lease components.

In the reporting year, ams OSRAM sold a property in Plano, Texas, USA, as part of a sale and leaseback transaction, which was classified as a true sale, and partially leased it back over a period of 10 years. After deducting incidental contract costs, ams OSRAM received a payment of EUR 17 mn. The present value of the lease payments at the date of initial recognition is EUR 18 mn and is reported under lease liabilities. The right-of-use asset was recognized at an amount of EUR 12 mn at that date. Due to the extent of the leaseback by ams OSRAM, income from the sale of the underlying assets is of minor significance.

Transactions that do not meet the true sale criteria are deemed financing transactions; the assets that have been sold with legal effect continue to be reported under property, plant, and equipment, and other financial liabilities are recorded in the amount of the present value of future payments (see note 17. Other Liabilities).

14. Investments in Associates

Investments in associates are accounted for using the equity method, with the acquisition costs of the investment being adjusted by the pro rata profit or loss of the associate.

An impairment loss is recognized if there are objective indications of impairment and the recoverable amount of the investment is lower than the carrying amount. Impairment losses are recognized through the statement of income as a loss. If the recoverable amount subsequently increases, the impairment loss is reversed.

in mn EUR	2023	2022
Share of profit (loss) from associates	-7	-3
Reversals of impairments/impairments	-17	
Gains (losses) on disposals	0	-1
Result from investments accounted for using the equity method	-24	-4

Summary of Financial Information for Sciosense Holding B.V.

Sciosense Holding B.V. in mn EUR	2023	2022
Reporting date	September 30, 2023	September 30, 2022
Interest in income (loss)	45.22 %	45.22 %
Current assets	26	35
Non-current assets	81	82
Current liabilities	12	15
Non-current liabilities	6	4
Net assets (100 %)	89	98
Group's share of net assets	40	44
Group's share of net result	-4	-2
Accumulated impairments	-29	-21
Accumulated currency translation differences	0	2
Carrying amount of interest in the entity	7	19
Revenue	21	33
Net result	-10	-5
Total comprehensive income (loss)	-10	-5
Dividends received	0	0

The Group holds a share of 45.22 % in Sciosense Holding B.V., Amsterdam, Netherlands, via a direct shareholding of 22.15 % and indirectly via Jinan Smart Sensing Sensor Co. Ltd., Jinan, China, in which ams OSRAM holds a share of 49.00 %. Sciosense Holding B.V. is the parent company of the operating units, which offer environmental, flow, and pressure sensing solutions. As a result of the negative development of revenue and net income, an impairment test was carried out in December 2023, which led to the recognition of an impairment loss on the investment in the amount of EUR 8 mn.

In addition, ams OSRAM recognized an impairment loss of EUR 6 mn on its investment in Bolb Inc., Livermore, United States, due to accumulated losses and the expectation that the negative business development will continue (shareholding ratio: 20.38 %).

Other investments in associates account for an immaterial share of the total carrying amount of investments in associates and of the total result from associates.

15. Deferred Tax Assets and Deferred Tax Liabilities

in mn EUR	2023			2022		
	Net	Deferred tax assets	Deferred tax liabilities	Net	Deferred tax assets	Deferred tax liabilities
Intangible assets, property, plant, and equipment and other non-current assets	-173	29	-203	-174	29	-203
Other current receivables and assets	5	31	-26	18	51	-33
Inventories	25	25		27	28	-1
Employee benefits	52	92	-40	29	68	-39
Current provisions	24	27	-3	20	22	-2
Liabilities	14	35	-21	30	73	-43
Tax losses and tax credit carried forward	69	69		18	18	
Other	-1	4	-5	-3	8	-11
Deferred taxes	14	312	-298	-36	296	-332
Netting		-240	240		-227	227
Item in the statement of financial position	14	72	-58	-36	69	-105

Deferred tax assets for tax loss carry forwards, mainly relate to ams-OSRAM AG, Austria, ams Offer GmbH Deutschland, and Heptagon Holding CA Inc., United States.

In Austria and Germany, tax losses can be carried forward indefinitely and can be offset against a maximum of 75 % (Austria) and 60 % (Germany) of the current taxable profit. ams OSRAM assumes that there will be sufficient positive taxable income available from existing taxable differences and from future business activities to recover these deferred tax assets. As of 2024, a new corporation tax rates applies

in Austria (currently 24 %, 2024: 23 %). This new tax rate is taken into account in the measurement of deferred taxes.

Future changes in tax laws and regulations, as well as their interpretation, and other changes in tax systems could materially affect our existing tax assets and liabilities, as well as our deferred tax assets and liabilities. This could result in a higher expense for direct and indirect taxes, as well as higher tax payments. In addition, uncertainty in the tax environment of some regions could limit our ability to enforce our rights.

Within the ams OSRAM Group some entities have not yet been finally assessed by the tax audit for several years. ams OSRAM recognizes appropriate provisions for those outstanding assessment periods considering numerous factors, including interpretations of tax law and past experience.

16. Other Non-current Assets and Financial Investments

in mn EUR	2023	2022
Financial investments	22	59
Other financial non-current assets	56	4
Receivables from public grants	113	
Overfunding of pension plans	19	21
Deferred compensation assets	11	10
Accruals and prepaid expenses	1	1
Other	17	18
Non-current non-financial assets	160	50
Other non-current assets and financial investments	237	113

Non-current financial investments relate to strategic equity investments that do not give rise to significant influence or control. They mainly comprise investments in LeddarTech Inc. in the amount of EUR 3 mn (2022: EUR 50 mn) and Recogni, Inc. in the amount of EUR 15 mn (2022: EUR 7 mn). LeddarTech Inc. has been listed on the

stock exchange since December 2023; the investment was remeasured at the relevant share price with a corresponding charge in other comprehensive income.

Upon initial recognition of an equity investment that is not held for trading, there is an irrevocable option to recognize subsequent changes in fair value through other comprehensive income. This option is exercised on a case-by-case basis for each investment. The decision on whether to classify an equity instrument as at fair value through profit or loss (FVTPL) or at fair value through other comprehensive income (FVOCI) is made on the basis of an individual assessment of each single investment. FVOCI is generally chosen for transactions of particular strategic significance. As of December 31, 2023, all equity investments were accounted for at fair value through other comprehensive income (FVOCI). The shares in investment funds held by ams OSRAM do not represent equity instruments within the meaning of IFRS 9 due to their contractual terms. Therefore, the option described above does not apply to these shares, and they are measured at fair value through profit or loss (FVTPL).

As of December 31, 2023, Other financial non-current assets included the positive fair value (EUR 45 mn) of options to redeem bonds issued at the end of November 2023 early (not earlier than March 30, 2026) (see note 19. Interest-bearing Loans and Borrowings). Furthermore, the item includes a rent deposit in the amount of EUR 5 mn in connection with the sale and leaseback financing of the main and adjacent buildings of the newly established 8-inch semiconductor plant in Kulim, Malaysia (see note 17. Other Liabilities).

Please see note 20. Government Grants for details on the changes in receivables from government grants.

See note 21. Employee Benefits for more information on the development of funding surplus of pension plans.

17. Other Liabilities

in mn EUR	Current		Non-current	
	2023	2022	2023	2022
Obligation to acquire the non-controlling interests in OSRAM Licht AG	611	843		
Liability from a sale and leaseback financing transaction			384	
Liabilities from a supply chain financing program	191			
Refund liabilities toward customers	84	74		
Lease liabilities	43	45	166	172
Obligation from dividends guaranteed to shareholders of OSRAM Licht AG	30	41	29	81
Derivative financial instruments	16	26		
Accrued interest	14	37		
Credit balances on trade receivables	9	9		
Other	22	31		
Financial liabilities	1,021	1,108	580	252
Employee related liabilities	73	68	44	26
Liabilities from precious metal lending transactions	52	53		
Accrued vacation days	26	30		
Accrued expenses	20	28		
Liabilities from share-based payments	17			
Other	51	57	35	39
Non-financial liabilities	238	237	79	65
Other liabilities	1,259	1,345	659	318

A domination and profit and loss transfer agreement was entered into by OSRAM and ams Offer GmbH (“ams”) on September 22, 2020, amended on November 2, 2020, approved by the Extraordinary General Meeting of OSRAM Licht AG on November 3, 2020, and entered in the commercial register on March 3, 2021. On the

basis of this agreement, there is a time-limited obligation to acquire the OSRAM shares of any outside OSRAM shareholder, upon request by such shareholder, in return for a cash settlement of EUR 45.54 per OSRAM share (plus pro-rata interest of 5 percentage points above the applicable benchmark figure, net of any dividends recognized). The shares held by these shareholders are therefore recognized in other liabilities rather than in non-controlling interests. The non-controlling shareholders will be granted a guaranteed compensation payment of EUR 2.57 (gross) or EUR 2.24 (net) per year starting from fiscal year 2021 (reduced pro-rata in short fiscal years) until the OSRAM shareholders have exercised their right to sell the shares.

In principle, the obligation to acquire OSRAM shares ends two months after the day on which the entry in the commercial register of the existence of the domination and profit and loss transfer agreement was announced. Owing to legal objections relating to the domination and profit and loss transfer agreement raised by 71 non-controlling shareholders of OSRAM Licht AG up to the end of July 2021, ams OSRAM has an obligation to acquire OSRAM shares at the specified price and to pay the guaranteed annual compensation payment until the proceedings have ended. Experience shows that such proceedings last four to five years from the entry of the domination and profit and loss transfer agreement in the commercial register. A liability with respect to the annual compensation payment has therefore been recognized through equity.

In fiscal year 2023, 5,102,935 shares of OSRAM Licht AG were acquired, which resulted in a EUR 232 mn decline in the liability.

On October 30, 2023, ams OSRAM entered into a sale and leaseback transaction with gross proceeds of EUR 391 mn. The transaction involves the main and adjacent buildings of the newly constructed 8-inch semiconductor plant in Kulim and was entered into on December 15, 2023. The contractual term is ten years. The transaction does not meet the criteria of a true sale in accordance with IFRS 15. The buildings will therefore continue to be recognized as property, plant, and equipment in accordance with IAS 16 (the building with a carrying amount of EUR 290 mn as of December 31, 2023, serves as collateral for the investors as part of the underlying financing transaction). On the liabilities side, a financial liability was recognized in accordance with IFRS 9 in the amount of the present value of the future payments, which is

subsequently measured at amortized cost using the effective interest method. As of December 31, 2023, a total of EUR 382 mn had been received. The remaining amount of EUR 10 mn was paid in January 2024 as contractually agreed. For developments regarding the microLED project and the semiconductor facility in Kulim occurring after the reporting date refer to note 33. Events after the Reporting Period.

For another sale and leaseback transaction for a property in Plano, Texas, USA, which meets the true sale criteria and falls within the scope of IFRS 16, the liabilities from the rental payments are included in the lease liabilities (also see note 13. Right-of-use Assets).

The utilization of a supply chain financing program in the amount of EUR 190 mn led to the derecognition of the original trade payables and the recognition of other financial liabilities to the payment service provider. The program, which was used for the first time in the first quarter of the 2023 fiscal year, comprises liabilities denominated in euros and US dollars. The program has a maximum volume of EUR 140 mn and USD 55 mn. The use of the supply chain financing program extends the original payment terms for ams OSRAM by 60 days. Payment terms for suppliers are normally between 45 and 90 days. The payment service provider makes a payment of the original trade payables, which are then extinguished. The payments made by ams OSRAM to the payment service provider are reported in the consolidated statement of cash flows as part of operating activities.

Liabilities arising under precious metal lending transactions represent a non-financial benefit-in-kind obligation. They are recognized at the average acquisition costs of the inventories capitalized as part of the lending transaction. If the benefit-in-kind obligation exceeds the precious metal inventories, this excess is measured at the market price as of the reporting date.

18. Provisions

for the fiscal year ending December 31, 2023

in mn EUR	Warranties	Order-related losses and risks	Other personnel	Other	Total
Balance at the beginning of the fiscal year	18	4	181	98	302
Additions	8	8	84	51	150
Usage	-2	-3	-107	-34	-146
Reversals	-3	-1	-6	-15	-24
Foreign currency translation effects	0	0	-2	0	-2
Other changes	2	0	0	-2	-1
Balance at the end of the fiscal year	22	8	150	99	278
therein non-current	7			36	43

Warranties

Provisions for warranties are recognized for warranty claims asserted by customers.

EBV Elektronik SAS gegen ams-OSRAM International GmbH

On January 20, 2016, ams-OSRAM International GmbH (AOI) was joined in the case pending before the commercial court in Nanterre (France), between EBV Elektronik SAS (EBV) and Société Provence D’Electronique et Cabelage (SPEC) by means of an action in warranty. SPEC is suing EBV for damages relating to the supply of allegedly faulty AOI LEDs in SPEC passenger information boards. EBV brought AOI into the action in order to seek recourse from AOI as the supplier of the allegedly defective products. Following the clarification of preliminary procedural issues, the commercial court in Nanterre was declared as the court competent to hear the case. In its pronouncement of the judgment/ruling on February 26, 2020, the commercial court ordered that technical and financial expert proceedings shall take place. These proceedings have been pending since May 2020.

In accordance with IAS 37.92, no further information will be disclosed with respect to the aforementioned matters, as ams OSRAM believes that such disclosure could seriously prejudice the outcome of the litigation in question.

ams OSRAM was named as a defendant in various legal disputes and proceedings in connection with its business activities. Some of the legal actions include claims for indeterminate amounts of damages and/or punitive damages claims. In light of the number of legal disputes and other proceedings in which ams OSRAM is involved, there is a possibility that some of these proceedings could result in decisions against ams OSRAM that may have a considerable effect on ams OSRAM’s net assets, financial position, and results of operations. In these cases, a provision is recognized only to the extent that ams OSRAM assumes that it is probable that the legal dispute will result in a future payment obligation.

Order-related Losses and Risks

Provisions for order-related losses and risks relate to contracts with customers concerning the development of certain products in which the expected revenue is lower than the necessary costs.

Other Personnel Provisions

Significant amounts of the provisions for other personnel expenses primarily include variable salary components and employee bonuses due within 12 months after the reporting date of EUR 87 mn (2022: EUR 120 mn) as well as restructuring measures of EUR 20 mn (2022: EUR 23 mn).

Other Provisions

Other provisions relate mainly to obligations in connection with outstanding invoices of EUR 27 mn (2022: EUR 18 mn), restructuring measures of EUR 22 mn (2022: EUR 28 mn), and restoration obligations of EUR 14 mn (2022: EUR 14 mn), which have a high long-term portion.

19. Interest-bearing Loans and Borrowings

Interest-bearing Loans and Borrowings

in mn EUR	Current		Non-current	
	2023	2022	2023	2022
Bank loans	271	110	23	228
Promissory notes	51	59	10	61
Convertible bond			1,105	1,074
Bonds			998	1,271
Interest-bearing loans and borrowings	322	169	2,136	2,635

Repayments, Interest Rates, and Terms

December 31, 2023 in mn EUR	Effective interest rate	Carrying amount	Expected cash flow	0-1 year	2-5 years	More than 5 years
Bank loans (R&D loans)						
EUR – fixed rate	0.92 %	30	30	7	23	
Other bank loans						
EUR – fixed rate	4.25 %	164	170	170		
EUR – floating rate	7.78 %	100	104	104		
Promissory note						
EUR – fixed rate	1.68 %	56	57	47	10	
EUR – floating rate	5.74 %	6	6	6		
Convertible bond						
EUR – fixed rate (600 mn EUR)	2.11 %	436	447		447	
EUR – fixed rate (760 mn EUR)	5.42 %	669	824	16	808	
Bonds						
USD – fixed rate	13.78 %	368	604	45	182	377
EUR – fixed rate	11.81 %	630	974	67	266	641
Interest-bearing loans and borrowings		2,458	3,217	462	1,736	1,018

December 31, 2022	Effective interest rate	Carrying amount	Expected cash flow	0-1 year	2-5 years	More than 5 years
Bank loans (R&D loans)						
EUR – fixed rate	0.91 %	39	39	11	29	
Other bank loans						
EUR – fixed rate	2.56 %	200	206	104	102	
EUR – floating rate	3.24 %	100	105	3	102	
Promissory note						
EUR – fixed rate	1.68 %	93	96	39	57	
EUR – floating rate	4.34 %	27	27	22	6	
Convertible bond						
EUR – fixed rate (600 mn EUR)	2.11 %	427	447	0	447	
EUR – fixed rate (760 mn EUR)	5.42 %	647	840	16	824	
Bonds						
USD – fixed rate	7.33 %	423	500	30	470	
EUR – fixed rate	6.25 %	848	983	52	932	
Interest-bearing loans and borrowings		2,803	3,245	277	2,968	

On February 26, 2018, ams-OSRAM AG issued a convertible bond with a nominal amount of EUR 600 mn. The nominal amount still outstanding following the repurchases thereof in earlier fiscal years stood at EUR 447 mn as of December 31, 2023 (2022: EUR 447 mn). The term of the bond is seven years. The holders of the convertible bond have the right to convert the bond into a total of 4,410,412 ordinary shares at any time (conversion price: EUR 43.4985 per share). This option constituted equity in the amount of its fair value of EUR 82 mn at the time of issue and will not be measured subsequently. No bonds had been converted by December 31, 2023.

On November 3, 2020, ams-OSRAM AG issued a convertible bond with a nominal amount of EUR 760 mn. The term of the bond is seven years. The holders of the convertible bond have the right to convert the bond into a total of 27,416,137 ordinary shares at any time (conversion price: EUR 14.3602 per share). This option constitutes equity at a fair value of EUR 151 mn at the time of issue and will not be measured subsequently. No bonds had been converted by December 31, 2023.

Lines of credit drawn down from banks in the amount of EUR 264 mn as of December 31, 2023, contain standard market covenants according to which the ratio of net financial debt to adjusted EBITDA may not exceed 4.5:1 in the 2024 fiscal year. If this ratio is exceeded, which is reviewed on a quarterly basis, the banks are generally entitled to terminate the agreement.

	2023		2022	
Impact on Consolidated Statement of Income	+100 BP	-100 BP	+100 BP	-100 BP
Floating rate loans	-1	1	-2	2

in mn EUR	2023	2022
R&D premium	25	27
Project-related research funding	195	7
Total Government Grants	220	34
Of which reduction of acquisition costs of subsidized assets	168	5
Of which offset against the respective expense items	50	25
Of which recognized in other operating income	2	4

Furthermore, ams OSRAM entered into a funding agreement with the Malaysian Investment Department Authority (MIDA) in the reporting year to continue the investment in a plant for the design, development, and manufacture of 8-inch microLED wafers, which is currently being built in the Kulim Hi-Tech Park in Kedah, Malaysia (for details regarding Kulim, see note 11. Property, Plant, and Equipment). The agreement is essentially for funding of investments in buildings and technical

equipment. Funding is also used for development activities and establishing high-tech workstations. The main prerequisite for receiving the funding amounts is that certain investment targets in the above-mentioned areas are achieved.

Investments in buildings and machinery totaling EUR 811 mn (of which EUR 401 mn in 2023) had been made by the reporting date. As of the reporting date, it was assessed that an amount of EUR 143 mn would be disbursed on the basis of the underlying funding provisions. The disbursement amount is calculated by multiplying the total amount of investments made to date (EUR 811 mn) by the ratio of the subsidized amount to the total investment requirements. This amount is therefore also shown as a reduction in the acquisition costs of the subsidized equipment. As the payment would not be made until 2024, a receivable in the same amount is presented under non-financial receivables (see note 16. Other Non-current Assets and 10. Other Current Receivables and Assets). In principle, payments are planned to be made in equal annual installments over a term of 10 years. Approval of the grant and subsequent payment largely depends on the achievement of the overall investment target. Based on knowledge as of the reporting date, ams OSRAM expected to achieve this investment target. ams OSRAM will continuously evaluate the status during the funding period. If the underlying investment target can no longer be achieved or the project is canceled, ams OSRAM will approach MIDA as a first step and clarify in further discussions to what extent MIDA can reclaim the funding amounts. For developments regarding the investment in the semiconductor facility in Kulim and assessment of the related funding agreement with MIDA occurring after the reporting date refer to note 33. Events after the Reporting Period.

21. Employee Benefits

At ams OSRAM, almost all employees in Germany and many employees in other countries have defined benefit and/or defined contribution pension entitlements based on contractual arrangements and statutory requirements. ams OSRAM regularly reviews the design of the pension plans, which are predominantly based on defined benefit obligations for historical reasons. The majority of ams OSRAM’s pension obligations are funded with assets in segregated entities.

Defined Benefit Plans

ams OSRAM’s principal pension plans and similar commitments relate to Germany and the USA.

Germany

In Germany, ams OSRAM provides pension benefits predominantly through the OSRAM Altersversorgung (‘BOA’) defined contribution plan launched in fiscal year 2004, legacy defined benefit plans, and deferred compensation plans. The BOA is a pension plan in which the benefits are predominantly based on contributions made by the Company and the returns earned on such contributions, subject to a minimum return guaranteed by the Company. The obligations under this plan thus continue to be affected by the life expectancy of plan participants, inflation adjustments, and salary increases. The plan is therefore recognized as a defined benefit plan in accordance with IAS 19.

No further employee entitlements can be added to the majority of the legacy defined benefit plans. Nevertheless, these frozen plans still expose the Company to financial and demographic risks such as investment risk, interest-rate risk, and longevity risk.

ams OSRAM (at the time: OSRAM) entered into a trust agreement with the Deutsche Treuinvest Stiftung, Frankfurt am Main (Germany), in November 2011 for all funded pension plans. The trustee administers the plan assets and is responsible for ensuring that they are invested in line with the trust agreement with the Company. A deferred compensation plan is also offered to employees.

USA

The majority of the employees at OSRAM SYLVANIA INC., Wilmington (USA), who joined the company up to December 31, 2006 are members of two closed defined benefit pension plans. The benefits for most of the employees under these plans are largely linked to final salary on retirement, although the benefits for a small group of employees are based on fixed amounts. All these defined benefit plans expose the company to financial and demographic risks such as interest-rate risk, risk from salary and wage increases, investment risk, and longevity risk. Benefits for salaried participants are frozen and therefore a risk of future increases in remuneration for these employees is eliminated.

The plans are subject to the applicable legal and regulatory framework, which is determined by the U.S. Employee Retirement Income Security Act (‘ERISA’). Based on this legislation, a funding valuation is undertaken yearly to ensure that the minimum funding level for funded defined benefit plans is achieved. The funding level must be at least 80 % to avoid benefit restrictions. The evaluation of the funding level is used as a basis for determining the statutory contributions to the plan assets. As the sponsoring employer, OSRAM SYLVANIA Inc. has set up an investment committee comprising members of the senior management of OSRAM SYLVANIA Inc. to make investment decisions.

The company provides other post-employment benefits in the form of two closed medical benefit plans. For one of the plans, the benefits are indexed with a fixed interest rate, while the other plan is mainly based on life insurance benefits for pensioners.

Unfunded Commitments

Unfunded commitments predominantly relate to a pension plan and similar commitments in the USA, the severance payment obligation at ams-OSRAM AG in Austria, and other similar commitments in a number of countries.

Defined Contribution Plans

The defined contribution plans are structured in such a way that the Company pays contributions to public or private institutions on the basis of statutory or contractual provisions or on a voluntary basis, without assuming any obligation to provide further benefits to employees. In the calendar year 2023, contributions to defined contribution plans amounted to EUR 11 mn (2022: EUR 9 mn). The contributions are recognized in profit or loss.

Actuarial Assumptions

The amount of the obligation arising from defined benefit plans is generally determined as of the end of the reporting period on the basis of reports prepared by external, independent actuaries. The actuarial measurement of the present value of the defined benefit obligation (DBO) is based on demographic and financial assumptions. Significant assumptions include mortality rates, pension trends, trends in healthcare costs, and the discount rate. Here, the Company makes its best estimate, taking into account the economic environment of the country in question and existing expectations.

The discount rates used are determined by reference to market yields on high-quality fixed-income corporate bonds at the end of the reporting period. In countries where there is no liquid market in such corporate bonds, market yields on government bonds are used.

Funding Policy and Investment Strategy

The policy for funding defined benefit plans is an integral part of ams OSRAM’s financial management, and also includes an ongoing analysis of the structure of its defined benefit liabilities. The investment strategy for plan assets is derived from the structure and characteristics of the liabilities and is based on asset-liability modeling studies at the individual plan level.

ams OSRAM intends to reduce the volatility of the proportion of commitments covered by plan assets through liability-driven investing (LDI).

Risk budgets are used as the basis for determining the investment strategy at the individual plan level, i.e., for the strategic asset allocation of key plan assets and the level of appropriate limits for interest-rate and credit spread risk hedging.

The investment strategy, hedging rules, and changes in the proportion of commitments covered by plan assets are regularly reviewed, with the participation of external experts in the international asset management industry, to permit an integral view of plan assets and defined benefit obligations. A plan’s asset allocation is evaluated regularly in order to initiate appropriate measures at a very early stage. This is done by looking at the duration of the related defined benefit obligation and analyzing trends and events that may affect asset values.

Asset managers are selected on the basis of a process of quantitative and qualitative analysis. The performance of each asset manager mandate and the risk it entails is monitored continually, both individually and in a more general portfolio context.

Our investment strategy is based mainly on investments in securities such as bonds and shares. As part of an integrated risk management approach for assets and liabilities and to reduce risk, ams OSRAM also uses derivatives, either to reduce the fluctuations in the value of plan assets or to reduce volatility in the proportion of commitments covered by plan assets. OTC derivatives are collateralized on a daily basis to mitigate counterparty risk.

Notes on the Obligations Presented in the Consolidated Financial Statements

The consolidated balance sheet contained the items below, related to pension plans and similar commitments as of December 31, 2023.

The funded status of these plans and the reconciliation of the funded status to the carrying amounts contained in the relevant balance sheet items were as follows:

Commitments by Type and Financial Position

in mn EUR	2023	2022
DBO for funded plans	-835	-805
Fair value of plan assets	821	795
Non-capitalizable plan assets due to asset celling	-4	-4
Funded status of funded plans (Funding ratio: 98 %, Previous year: 98 %)	-17	-13
DBO for unfunded plans (without funding)	-103	-132
Funded status	-121	-145
Thereof pension plans	-80	-89
Thereof similar commitments	-41	-56
Reconciliation to the financial position		
Obligation for employee benefits	-139	-164
Liabilities associated with assets held for sale	0	-2
Other assets	19	21

In fiscal year 2022, the previously closed Canadian pension plan was sold to an external insurer in return for the transfer of part of the plan assets. The remaining plan assets of EUR 4 mn may not be capitalized in the balance sheet until regulatory approval of the distribution of the funds (‘asset ceiling’) has been obtained.

The following table shows the expenses recognized in connection with the pension plans and similar commitments presented in the consolidated statement of income and consolidated statement of comprehensive income:

Defined Benefit Costs

in mn EUR	2023	2022
Current service cost	17	23
Past service cost/(income)	-12	1
Settlement loss/(gain)		-1
Net interest expense (income)	5	2
Liability administration cost	1	1
Defined benefit cost recognized in consolidated statement of income	10	26
Thereof Germany	14	15
Thereof USA	-8	4
Thereof other countries	5	7
Return on plan assets excluding amounts included in net interest on the net defined benefit liability (asset)	-38	272
Actuarial (gains) and losses arising from changes in financial assumptions	36	-281
Actuarial (gains) and losses arising from experience adjustments	-1	21
Remeasurements of the net defined benefit liability (asset) recognized in consolidated statement of other comprehensive income	-4	12
Thereof Germany	-2	27
Thereof USA	-2	-2
Thereof other countries	0	-13
Defined benefit cost	6	38

The expected contributions to defined benefit plans in fiscal year 2024 come to EUR 18 mn.

The Group reports the current service cost for the pension entitlements acquired in the reporting period, past service cost, settlement gains and losses, and

administrative expenses incurred for the pension obligation under functional costs (cost of sales, research and development expenses, and marketing, selling, and general administrative costs) in line with the functional area of the respective profit centers and cost centers.

In fiscal year 2023, the entitlements of retirees in the US Retiree Welfare Plan were transferred to a Medicare Advantage Plan. A one-off effect was reported in profit/loss under past service cost/(income) in the amount of EUR 12 mn due to the resulting cost savings.

A detailed reconciliation of the changes in the present value of the defined benefit obligation (DBO) for the reporting period is provided in the following table.

Development of the Present Value of the DBO

in mn EUR	2023	2022
DBO at beginning of fiscal year	936	1,234
Current service cost	17	23
Past service cost/(income)	-12	1
Settlement		-38
Interest cost	36	19
Actuarial (gains) and losses arising from changes in financial assumptions	36	-281
Actuarial (gains) and losses arising from experience adjustments	-1	21
Plan participants' contributions	6	8
Benefits paid	-60	-65
Divestments	-11	-9
Foreign currency translation effects	-8	25
DBO at the end of fiscal year	938	936
Thereof Germany	616	585
Thereof USA	245	264
Thereof other countries	77	87

A detailed reconciliation of the changes in the fair value of plan assets for the reporting period is provided in the following table:

Change in Plan Assets

in mn EUR	2023	2022
Fair value of plan assets at beginning of fiscal year	795	1,146
Interest income	31	17
Remeasurement:		
Return on plan assets, excluding amounts including in net interest on the net defined benefit liability (asset)	38	-272
Employer contributions	2	-20
Plan participants' contributions	4	5
Benefits paid	-38	-51
Settlements		-38
Divestments	-5	-10
Liability administration cost	-1	-1
Foreign currency translation effects	-5	20
Fair value of plan assets at end of fiscal year	821	795
Thereof Germany	582	556
Thereof USA	199	199
Thereof other countries	41	40

Refunds from plan assets in Germany for benefits paid in the previous year directly by the employer are recorded as negative employer contributions in an insignificant amount (2022: EUR 23 mn). In the financial year, contributions to plan assets mainly took the form of employer contributions to the pension fund in Switzerland and amount to EUR 2 mn.

Composition of Plan Assets

in mn EUR	2023	2022
Equities		
Global equities (excl. emerging markets)	71	65
Emerging markets equities	12	12
Fixed income		
Fixed income	181	170
Corporate bonds	477	461
Mixed funds	48	47
Commodities	5	4
Cash and similar assets	47	43
Plan assets that do have a quoted market price in an active market	842	802
Derivative financial instruments	-21	-7
Plan assets that do not have a quoted market price in an active market	-21	-7
Fair value of plan assets at end of fiscal year	821	795

The main actuarial and demographic assumptions as of the reporting date were as follows:

Key Assumptions for the Calculations of the DBO

	2023	2022
Discount rate	3.64 %	4.00 %
Germany	3.29 %	3.82 %
USA	4.97 %	5.20 %
Expected pension development ¹	1.77 %	1.79 %
Germany	1.87 %	1.88 %
USA		
Mortality tables		
Germany	Richttafeln Heubeck 2018G	Richttafeln Heubeck 2018G
USA	Pri-2012 Healthy Generational Projected	Pri-2012 Healthy Generational Projected

The US Society of Actuaries usually publishes an annual update of its projection tables (Mortality Improvement Scale), which is subsequently used to measure the ams OSRAM Group’s pension obligations in the United States. No update of the projection tables was published in the reporting period, however.

The financial measurement parameters are weighted using the amount of the obligation at the end of the reporting period and include all pension plans and similar commitments.

The measurement assumptions determined at the beginning of ams OSRAM’s fiscal year are used to determine the current service cost, interest income, and interest expenses for the obligations in existence.

The following sensitivity analysis shows the effects of a change in actuarial assumptions on the amount of the defined benefit obligation as of December 31, 2023.

Sensitivity Analysis

in mn EUR	Effect on DBO as of December 31, 2023	
	50-basis-points increase	50-basis-points decrease
Discount rate	-45	49
Rate of pension progression	22	-20

A 10 % decrease in mortality probability for each age bracket would result in an increase of EUR 20 mn in the DBO. The weighted average duration of the DBO for defined benefit plans and similar commitments was 10.4 years.

22. Equity

The share capital of ams-OSRAM AG was increased by EUR 724,154,662.00 to EUR 998,443,942.00 by issuing 724,154,662 no-par-value shares on the basis of the resolution of the Extraordinary General Meeting on October 20, 2023 in the course of a subscription rights issue, and currently consists of 998,443,942 no-par-value bearer shares with a notional par value of EUR 1.00 each. The offered shares were listed and registered for trading on the SIX Swiss Exchange on December 7, 2023. The holders of ordinary shares are entitled to receive dividends based on the distributable net income (‘Bilanzgewinn’) shown in the separate financial statements of the parent company prepared in accordance with the Austrian Commercial Code (UGB); the appropriation of profits is to be resolved upon by the General Meeting. The holders of ordinary shares have one vote per share at the Company’s General Meeting. All shares rank equally with regard to the Company’s residual assets.

Contingent Capital

In recent years, the General Meeting has authorized the Management Board on several occasions to issue a limited number of new shares for a specific purpose (contingent capital increases in accordance with section 159 (2) of the Austrian Stock Corporation Act (AktG)). Three contingent capital increases of the Company are currently recorded, each in connection with financial instruments in accordance with section 174 AktG:

1 According to plan regulations, 1.00 % is always used for BOA in Germany and no adjustment is made to current pensions in the USA.

Most recently, the General Meeting in June 2023 resolved upon an authorization that empowers the Management Board to carry out a contingent increase in the share capital in accordance with section 159 (2) Z 1 AktG of up to EUR 27,428,928.00 by issuing 27,428,928 no-par-value bearer shares to creditors of financial instruments in accordance with section 174 AktG, provided that the creditors of the financial instruments make use of their conversion and/or pre-emption rights with respect to the Company’s shares (“Contingent Capital 2023”).

There is also an authorization, which was resolved upon by the General Meeting in June 2020, that empowers the Management Board to carry out a contingent increase in the share capital in accordance with section 159 (2) Z 1 AktG of up to EUR 27,428,928.00 by issuing up to 27,428,928 no-par-value bearer shares to creditors of financial instruments in accordance with section 174 AktG, provided that the creditors of the financial instruments make use of their conversion and/or pre-emption rights with respect to the Company’s shares (“Contingent Capital 2020”). These potential shares are reserved for the convertible bond that was issued in euros in 2020.

There is currently also another authorization, resolved upon by the General Meeting in June 2017, which empowers the Management Board to carry out a contingent increase in the share capital in accordance with section 159 (2) Z 1 AktG of up to EUR 8,441,982.00 by issuing 8,441,982 no-par-value bearer shares to creditors of financial instruments in accordance with section 174 AktG, provided that the creditors of the financial instruments make use of their conversion and/or pre-emption rights with respect to the Company’s shares (“Contingent Capital 2017”). These possible shares are reserved for the convertible bond issued in euros in 2018; the convertible bond issued in U.S. dollars in 2017 was settled in September 2022.

Authorized Capital

The General Meeting on June 6, 2018 resolved to create new authorized capital of 10 % of the share capital at that time of EUR 84,419,826.00; this equates to a potential share capital increase of up to EUR 8,441,982.00 (Authorized Capital 2018). The associated authorization granted to the Management Board, with the approval of the Supervisory Board, to increase the share capital against cash and/or contribution in kind, directly disapplying the pre-emption right if needed, and to amend section 3 of the Articles of Association accordingly, expired on June 5, 2023.

The General Meeting on June 2, 2021 resolved to create further new authorized capital of 3.84 % of the share capital at that time of EUR 274,289,280.00; this equates to a potential share capital increase of up to EUR 10,544,963.00 (Authorized Capital 2021). The Management Board was authorized until June 1, 2026, with the approval of the Supervisory Board, to increase the share capital against cash and/or contribution in kind, directly disapplying the pre-emption right if needed, and to amend section 3 of the Articles of Association accordingly. The General Meeting on June 23, 2023 revoked the Authorized Capital 2021 and resolved to delete the Authorized Capital 2018 and the Authorized Capital 2021 from the Company’s Articles of Association. Thus, there is no authorized capital at this time.

Additional Paid-in Capital

Additional paid-in capital comprises:

- the difference between paid-in capital when shares are issued and the par value of the shares, which amounted to EUR 104 mn with respect to the capital increase carried out in fiscal year 2023. Moreover, the change in the additional paid-in capital in fiscal year 2023 includes EUR -31 mn in transaction costs in connection with the capital increase.
- expenses for share-based compensation recognized in accordance with IFRS 2
- the fair value of the conversion options resulting from the issue of the convertible bonds denominated in euros
- the difference resulting from the acquisition of further shares in OSRAM Licht AG (see note 17. Other Liabilities).

Treasury Shares

In recent years, the General Meeting has authorized the Management Board to acquire treasury shares in amounts that are within the statutory limits. According to the Austrian Stock Corporation Act, such authorizations are always limited to a maximum of 30 months.

The current authorization arising from the General Meeting held on June 23, 2023 empowers the Management Board to acquire treasury shares in accordance with section 65 (1) Z4 and Z8 and (1a) and (1b) AktG in an amount equivalent to up to 10 % of the issued share capital existing on the date the resolution was adopted. The authorization has been granted until December 22, 2025. The acquisition of treasury shares is therefore possible up to a maximum of 27,428,928 shares, which

corresponds to around 2.75 % of the Company’s current share capital. The treasury shares can be acquired either via the stock market or over the counter. Furthermore, the pro rata disposal rights that may arise with such acquisitions can be excluded (reverse disapplication of pre-emption rights).

Furthermore, the Management Board has been authorized:

- to decide, in accordance with section 65 (1b) AktG, to sell or use treasury shares by way of sale other than via the stock market or through a public offer, analogously applying the rules on disapplying the pre-emption rights of shareholders,
- for a period of five years (until June 22, 2028), to sell treasury shares at any time via the stock market or through a public offer or in any other legally permitted manner, including over the counter, whereby the Management Board can also decide on the exclusion of the general purchase option.
- to reduce the Company’s share capital by retiring no-par-value bearer treasury shares without the adoption of a further resolution by the General Meeting. The Supervisory Board is authorized to adopt resolutions on amendments to the Articles of Association resulting from the reduction; and
- to use treasury shares to settle stock options and stock awards of employees, executives, and members of the Management Board of the Company or of its affiliates,
- to use treasury shares to settle convertible bonds, and
- to use treasury shares as consideration for the acquisition of companies, operations, partial operations, or shares in one or more companies in Austria or abroad

Other Components of Equity

The other components of equity contain cumulative currency translation differences, which amounted to EUR 162 mn as of December 31, 2023 (2022: EUR 280 mn), resulting from the translation of the annual financial statements of foreign subsidiaries.

Accumulated Other Comprehensive Income Reported under Retained Earnings

in mn EUR	Defined benefit obligations	Equity instruments FVOCI	Debt instruments FVOCI	Derivative financial instruments held for hedging	Total
Balance as of January 1, 2023	35	-77	-3	10	-35
Changes from portfolio transactions					0
Other changes	14	-36	-4	-8	-33
Balance as of December 31, 2023	49	-113	-7	2	-68

	Defined benefit obligations	Equity instruments FVOCI	Debt instruments FVOCI	Derivative financial instruments held for hedging	Total
Balance as of January 1, 2022	61	-16	-1	-14	30
Changes from portfolio transactions	-13	22			9
Other changes	-13	-84	-2	23	-75
Balance as of December 31, 2022	35	-77	-3	10	-35

Non-controlling Interests

Owing to the domination and profit and loss transfer agreement between ams Offer GmbH, which is a wholly owned subsidiary of ams-OSRAM AG, and OSRAM Licht AG, under which the minority shareholders have a time-limited right to sell their shares in OSRAM Licht AG, the value of OSRAM Licht AG assigned to the non-controlling interests constitutes a liability rather than an item of equity (see note 17. Other Liabilities).

Management of Capital

Economic capital corresponds to the equity reported on the consolidated balance sheet less non-controlling interests. The Management Board’s objective is to provide the Group with a solid capital base in order to maintain the confidence of investors, creditors, and customers, and to ensure that the Company can continue to grow. Among other things, the Management Board continuously monitors the equity ratio and return on equity. Capital increases, dividend payments, and the repurchase of

shares are considered possible measures for ensuring capital adequacy. Given the current end market and the economic environment, ams OSRAM has decided to suspend its dividend policy for fiscal 2023 in order to focus on strengthening its business position in 2024.

The Management Board aims to achieve a balance between profitability and liquidity that is customary in the industry. To this end, long-term assurance of liquidity is monitored, as is profitability. Profitability is measured on the basis of Earnings Before Interests and Taxes (EBIT).

23. Statement of Cash Flows

The consolidated statement of cash flows is prepared using the indirect method. Cash and cash equivalents comprise deposits with banks with a term of up to three months. In fiscal 2023 a positive effect on cash flows from operating activities was a return of funds of EUR 31 mn from a trust fund in Germany, as trust assets in that amount were replaced by a bank guarantee. The other non-cash expense of fiscal year 2022 in the amount of EUR 14 mn resulted mainly from the realization of currency translation differences of items recorded in equity (see note 4. Expenses).

24. Earnings per Share

in mn EUR	2023	2022
Net result (in mn EUR)	-1,613	-444
Net result attributable to non-controlling interests (in mn EUR)	1	1
Net result attributable to shareholders of ams-OSRAM AG (in mn EUR)	-1,613	-444
Weighted average number of shares outstanding	310,175,838	261,266,718
Earnings per share (basic)	-5.20	-1.70
Weighted average number of diluted shares	310,175,838	261,266,718
Earnings per share (diluted)	-5.20	-1.70
Dividends per share (paid in fiscal year)	0.00	0.00

In principle, the share-based compensation issued under LTIP 2014, SSOP 2017, SLTIP 2018, SSOP 2019, LTIP 2019, and LTIP 2023 may result in a dilutive effect. The dilutive effect is dependent upon the acceptance of the option buyback offer for the options issued up to and including 2022, and the acceptance of new stock awards for the LTIP 2023 within the context of the anti-dilution measures (see note 4. Expenses). Moreover, such a dilution effect would occur only if the share-based compensation resulted in the issue of shares at a price below the average market price. Such dilutive effects have to be taken into account only if they lead to lower earnings per share or a higher loss per share. In fiscal year 2023 and in the previous year, no dilutive effects had to be taken into account with respect to the issued share-based compensation.

Dilutive effects may arise in connection with the issued convertible bonds. Such dilutive effects have to be taken into account only if they lead to lower earnings per share or a higher loss per share. In fiscal year 2023 and in the previous year, no dilutive effects had to be taken into account with respect to the convertible bonds issued in euros.

Treasury Shares

in number of shares	2023	2022
Reconciliation of number of outstanding shares		
Outstanding shares as of January 1	261,283,708	261,192,432
Acquisition and sale of treasury shares	2,073,410	91,276
Capital increase	724,154,662	
Outstanding shares as of December 31	987,511,780	261,283,708
Reconciliation of number of diluted shares		
Weighted average number of shares outstanding before the capital increase	262,560,189	261,266,718
Weighted average number of shares from the capital increase	47,615,649	
Dilutions related to issue of stock options		
Dilutions related to the issue of convertible bonds		
Weighted average number of diluted shares during the fiscal year	310,175,838	261,266,718
Reconciliation of number of treasury shares		
Treasury shares as of January 1	13,005,572	13,096,848
Acquisition of treasury shares		
Sale of treasury shares	-1,871,720	
Usage as part of share-based compensation	-201,690	-91,276
Treasury shares as of December 31	10,932,162	13,005,527

Treasury shares with a carrying amount of EUR 16 mn were sold for EUR 8 mn. The difference of EUR 8 mn was recognized as a reduction of the additional paid-in capital.

25. Financial Instruments and Management of Financial Risks

In the course of its business activities, the Group is exposed to a wide variety of risks attaching to financial instruments, specifically credit risk, interest-rate risk, currency risk, and liquidity risk.

The Central Treasury department manages financial risks in accordance with the policies set out by the Company’s Management Board and Supervisory Board. The Treasury department assesses and hedges against financial risks in close collaboration with the operational business areas, also using financial derivatives.

Credit Risk

Credit risk arises when a customer or a counterparty to a financial instrument is unable to meet its payment obligations. Our maximum default risk corresponds to the carrying amounts of the recognized financial assets. In accordance with the treasury and risk management policy, investments and transactions involving derivative financial instruments are carried out only with a diversified selection of financial institutions having a high level of creditworthiness (i.e. at least an investment grade rating). Individual credit limits for customers and financial institutions are defined on the basis of external and internal data and are monitored on an ongoing basis to avoid any concentrations of credit risk at the level of customers and financial institutions.

Interest-rate Risk

ams OSRAM may be exposed to interest-rate risk, especially as a result of rising finance costs due to an increase in interest rates; conversely, falling interest rates lead to lower interest income from deposits. This interest-rate risk is mitigated on the liabilities side as a result of approximately 95 % of financial liabilities having a fixed interest rate. Under assets, risks of changes in interest rates primarily relate to short-term time deposits, which are linked to the market interest rate. Offsetting items under assets and liabilities naturally reduces overall exposure.

Currency Risk

Financial transactions in the semiconductor industry are predominantly conducted in U.S. dollars. All transaction and translation risks are monitored on an ongoing basis

in order to hedge against currency risk. Within the Group, cash flows in the same currency are netted. Exchange-rate fluctuation affecting transactions in foreign currencies primarily relate to the U.S. dollar. Depending on the specific risk situation, net risks attaching to monetary line items on the balance sheet and, where applicable, to planned transactions are also hedged using derivative financial instruments, primarily forward exchange contracts.

Liquidity Risk

Liquidity risk is the risk that the Company cannot fulfill its financial obligations at the maturity date. The borrowing taken out in connection with the acquisition of OSRAM has increased the Company’s need for funding. ams OSRAM carries out short-term and long-term liquidity planning and corporate planning at regular intervals in order to monitor and manage liquidity risk. As of December 31, 2023, the liquidity reserve in the form of cash and cash equivalents amounted to EUR 1,146 mn (2022: EUR 1,087 mn). As of December 31, 2023, ams OSRAM also had at its disposal unused committed credit facilities from banks amounting to EUR 1,006 mn (2022: 1,026 mn). Of this total, EUR 800 mn relate to a revolving syndicated credit line with the core banks of ams OSRAM, which may be utilized only in compliance with an arrangement customary for the market, under which the ratio of net financing debt to adjusted EBITDA must not exceed 4.5:1 in fiscal year 2024. Such arrangements also exist for the credit lines utilized as of December 31, 2023 (see note 19. Interest-bearing Loans and Borrowings).

Future Payments for Financial Liabilities

in mn EUR	0-1 year	2-5 years	More than 5 years	Total
Interest-bearing loans and borrowings	462	1,736	1,018	3,217
Trade payables	572			572
Liability from a sale and leaseback financing transaction	30	97	636	763
Lease liabilities	50	133	65	248
Obligation to acquire the non-controlling interests in OSRAM Licht AG and obligation from dividends guaranteed to shareholders of OSRAM Licht AG	640	29		670
Other financial liabilities	146			146
Liabilities from derivative financial instruments	16			16
Total	1,917	1,996	1,719	5,632

The amount and timing of the cash payments for the obligation to purchase the non-controlling interests in OSRAM Licht AG depend on when and to what extent the non-controlling minority shareholders exercise their right to sell their shares to ams OSRAM. The future payments for interest-bearing loans and bonds, the liability from a sale and leaseback financing transaction, and the lease liabilities represent the undiscounted payments, including the interest component. A portion of the interest in the sale and leaseback financing arrangement is only paid at the end of the term.

Carrying Amounts and Fair Values of Financial Assets and Liabilities

in mn EUR		December 31, 2023		December 31, 2022	
	Category according to IFRS 9	Carrying amount	Fair value	Carrying amount	Fair value
Financial assets					
Cash and cash equivalents	FAaC	1,146	1,146	1,087	1,087
Trade receivables	FAaC	338	338	464	464
Trade receivables that are to be held/sold under a factoring agreement ¹	FVOCI	118	118	61	61
Trade receivables that are to be sold under a factoring agreement	FVTPL	14	14	8	8
Other receivables and assets ¹					
Derivates not designated in a hedge accounting relationship	FVTPL	3	3	5	5
Derivates in connection with cash flow hedges	n.a.	3	3	16	16
Other financial assets	FAaC	49	49	51	51
Other non-current assets					
Option for early repayment of bonds	FVTPL	45	45		
Other	FAaC	11	11	4	4
Financial investments					
Equity instruments ²	FVOCI	22	22	59	59
Assets held for sale					
Shares in investment funds	FVTPL			10	10

in mn EUR		December 31, 2023		December 31, 2022	
	Category according to IFRS 9	Carrying amount	Fair value	Carrying amount	Fair value
Financial liabilities					
Interest-bearing loans	FLaC	2,458	2,793	2,803	2,785
Trade payables	FLaC	572	572	811	811
Other current liabilities ^{2 4}					
Derivatives not designated in a hedge accounting relationship	FVTPL	16	16	25	25
Derivates in connection with cash flow hedges	n.a.	0	0	1	1
Obligation to acquire the non-controlling interests in OSRAM Licht AG	n.a.	611	611	843	843
Other financial liabilities	FLaC	394	394	239	239
Other non-current liabilities ³					
Liabilities from a sale and lease-back financing transaction	FLaC	384	384		
Other financial liabilities	FLaC	195	195	252	252
Liabilities associated with assets held for sale	FLaC			14	14

1 The derivatives are mainly forward exchange contracts.
2 The equity instruments assigned to the FVOCI category are set out in note 30. Group Companies
3 As of December 31, 2023, other current liabilities and other non-current liabilities included lease liabilities totaling EUR 209 mn (2022: EUR 217 mn) accounted for in accordance with IFRS 16.

Aggregated Carrying Amounts

in mn EUR	Category according to IFRS 9	2023	2022
Financial assets			
Financial assets measured at amortized cost	FAaC	1,543	1,634
Debt instruments measured at fair value through other comprehensive income with recycling to profit or loss	FVOCI	118	61
Equity instruments measured at fair value through other comprehensive income without recycling to profit or loss	FVOCI	22	59
Financial assets at fair value through profit or loss	FVTPL	62	23
Financial liabilities			
Financial liabilities at amortized cost	FLaC	4,004	4,119
Financial liabilities at fair value through profit or loss	FVTPL	16	25

The classification of trade receivables that can be sold on the basis of factoring programs as debt instruments at fair value through other comprehensive income (FVOCI) or as at fair value through profit or loss (FVTPL) depends on the business model as defined under IFRS 9. Receivables that can be sold under supply chain financing programs are attributable to the Hold-or-Sell business model, as these programs are used by ams OSRAM on a selective basis. In contrast, receivables are regularly sold via an internal factoring program. Therefore, the receivables not yet sold as of the reporting date, but which can be tendered to the factor, are to be allocated to the Sell business model.

The fair value of current financial assets and current financial liabilities essentially corresponds to their carrying amount because they are due to mature soon.

For the financial assets and liabilities measured at fair value, the following tables show the level of the fair value hierarchy to which the fair value is to be assigned. The levels are defined as follows:
Level 1: quoted prices (unadjusted) in active markets for identical assets and liabilities
Level 2: inputs, other than quoted prices included in Level 1, that are observable for the asset or liability either directly (i.e. as prices) or indirectly (i.e. derived from prices)
Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs). In contrast to forward exchange contracts, the valuation of options for the early repayment of bonds, which are derivatives embedded in loan agreements, is partly not based on observable market data such as the exercise probabilities at different points in time.

Valuation Category

2023 in mn EUR	Level 1	Level 2	Level 3	Total
Current financial assets	0	139	0	139
Non-current financial assets	3	0	63	66
Current financial liabilities	0	16	0	16
Non-current financial liabilities	0	0	0	0

2022 in mn EUR	Level 1	Level 2	Level 3	Total
Current financial assets	0	100	0	100
Non-current financial assets	0	0	59	59
Current financial liabilities	0	26	0	26
Non-current financial liabilities	0	0	0	0

The change in the carrying amount of non-current financial assets of Level 3 in fiscal year 2023 primarily resulted from the reclassification of the investment in LeddarTech Inc. from Level 3 to Level 1 due to the fact that this investment has been an exchange-traded company since December 2023. The investment was written down from EUR 123 mn to EUR 50 mn in the fiscal year 2022, with the amount being recog-

nized in other comprehensive income. In addition, the fair value of the investment in Recogni, Inc., which is allocated to Level 3, increased by EUR 9 mn to EUR 15 mn.

ams OSRAM uses derivative financial instruments, especially forward exchange contracts, to hedge against exchange-rate fluctuation. Certain derivative financial instruments that are used to hedge planned transactions and pending transactions (hedged items) and meet the requirements for hedge accounting are accounted for as cash flow hedges. Derivative financial instruments are initially recognized on the trade date.

There is an economic relationship between each of the hedged items and the hedging instruments, as the terms of the forward exchange contracts match those of the highly probable planned transactions, in terms of both the nominal amount and the expected payment date. The underlying risk of the forward exchange contracts is identical to that of the hedged risk components. A hedge ratio of 1:1 was therefore specified. To test hedge effectiveness, ams OSRAM uses the dollar offset method, which involves comparing the change in the fair value of the hedging instruments to the change in the fair value of the hedged items attributable to the hedged risks. As of December 31, 2023, the net balance of the cumulative change in the fair values of the hedging instruments was EUR 3 mn (2022: EUR 15 mn), whereas the net balance of the fair values of the hedged items changed by EUR -3 mn (2022: EUR -15 mn).

Forward Exchange Contracts Designated as Hedging Instruments

in mn USD	Maturity				Total
	up to 3 months	3 to 6 months	6 to 9 months	9 to 12 months	
Balance as of December 31, 2023					
Nominal amount in mn USD	89	77	69	28	263
Average forward rate (EUR/USD)	1.096	1.104	1.100	1.096	

in mn USD	Maturity				Total
	up to 3 months	3 to 6 months	6 to 9 months	9 to 12 months	
Balance as of December 31, 2022					
Nominal amount in mn USD	104	82	74	28	287
Average forward rate (EUR/USD)	1.007	1.006	1.035	1.044	

In connection with cash flow hedges, a realized hedging result before taxes amounting to EUR 16 mn (2022: EUR -43 mn) was reclassified from other comprehensive income within retained earnings to the consolidated statement of income, where it was recognized under cost of sales. This reclassification was due to the realization of the hedged item. Hedging losses of EUR -8 mn (2022: hedging gains of 23 mn) were recognized under other comprehensive income in the course of the fiscal year.

Currency Risk

The Company’s financial instruments denominated in foreign currency (excluding net investments in subsidiaries and investments in associates) and hedged planned transactions had the following nominal values as of the reporting date.

USD Exposure

Nominal amounts in mn USD	2023	2022
Net currency risk before hedging	149	83
Net currency risk after hedging	80	31

Sensitivity Analysis

Appreciation/depreciation of the euro by 10 % against the USD would have affected equity and the consolidated statement of income as follows:

Sensitivity Analysis

in mn EUR	2023			
	Profit & Loss		Equity	
	+10 % increase	-10 % decrease	+10 % increase	-10 % decrease
Sensitivity of the euro against the USD	0	0	21	-26

2022				
	Profit & Loss		Equity	
	+10 % increase	-10 % decrease	+10 % increase	-10 % decrease
Sensitivity of the euro against the USD	11	-13	24	-29

This analysis assumes that all other variables, particularly interest rates, remain constant.

The table above does not include the impact of currency changes on equity resulting from the translation of financial statements prepared in foreign currencies.

The following exchange rates were used during the fiscal year:

Exchange Rates

In foreign currency units		Middle Spot		Annual Average Exchange Rate	
		December, 31		Fiscal Year	
		2023	2022	2023	2022
US-Dollar	USD	1.106	1.065	1.082	1.054
Malaysian Ringgit	MYR	5.079	4.691	4.929	4.623
Swiss Franc	CHF	0.926	0.985	0.974	1.003
Singapore Dollar	SGD	1.460	1.429	1.453	1.452
Chinese Renminbi	CNY	7.850	7.347	7.664	7.073

The functional currency of the parent company is the euro (EUR). The functional currency of the subsidiaries is the relevant national currency or the U.S. dollar (USD). The assets and liabilities of subsidiaries located outside the eurozone, including any goodwill arising upon acquisition, are translated at the average exchange rate at the reporting date; income and expenses are translated into euros at the average rate for the fiscal year.

26. Reconciliation of Changes in Liabilities to Cash Flows from Financing Activities

Cash Flow and Cash Flow Reconciliation

in mn EUR	Loans	Convertible Bonds	Bonds	Lease liabilities	Sale and Leaseback financing	Total
Balance as of January 1, 2023	459	1,074	1,271	217		3,020
Inflows from bonds			981			981
Transaction costs for the issue of bonds			-11			-11
Repayment of bonds (nominal amount)			-1,268			-1,268
Repayment of bonds (Call premium)			-20			-20
Inflows from bonds	378					378
Repayment of loans	-481					-481
Inflows from a sale and lease back financing					382	382
Repayment of lease liabilities				-57		-57
Interest paid	-15	-16	-109	-11		-151
Changes in cash flows from financing activities	-118	-16	427	-68	382	-247
Interest paid	15	16	109	11		151
Repayment of bonds (Call premium)			20			20
Effects of changes in foreign exchange rates			-8	-2	2	-8
Transaction costs not yet paid			-8			-8
Non-cash interest expenses		31	2	8	0	42
Amortization of carrying amount adjustment from embedded derivatives as income (Options for early repayment)			-1			-1
Carrying amount adjustment for embedded derivatives recognized directly in equity (Options for early repayment)			40			40
Other changes				42		42
Balance as of December 31, 2023	355	1,105	998	209	384	3,051

	Loans	Convertible Bonds	Bonds	Lease liabilities	Total
Balance as of January 1, 2022	560	1,319	1,247	270	3,396
Inflows from loans	32				32
Repayment of loans	-134				-134
Repayment of convertible bonds		-334			-334
Repayment of lease liabilities				-109	-109
Interest paid	-16	-19	-81	-10	-125
Changes in cash flows from financing activities	-117	-353	-81	-119	-670
Interest paid	16	19	81	10	125
Effects of changes in foreign exchange rates		51	22	9	82
Non-cash interest expenses		38	2	9	49
Other changes				38	38
Balance as of December 31, 2022	459	1,074	1,271	217	3,020

27. Disposals of Business Activities and Property, Plant, and Equipment; Assets and Liabilities Classified as Held for Sale

Non-current assets, or disposal groups containing assets and liabilities, are classified as held for sale if it is highly likely that their carrying amount will be recovered principally through their sale or distribution rather than through continued use. A sale is generally highly probable when the purchase agreement has been signed.

A disposal group is classified as a discontinued operation if, prior to the intended sale, it was an independent cash generating unit and represented a major line of business or geographical area of operations. Materiality is reviewed on a case-by-case basis and is based on the total assets and external revenues of the disposal group in relation to the entire Group.

Control is generally lost upon the closing of the sales transaction, i.e. at the date when the ownership in the shares of the sold subsidiary is transferred with legal effect to the buyer.

Sale of Business Units and Investment Fund Holdings

Clay Paky S.p.A.

On March 1, 2023, ams OSRAM sold its entertainment lighting business to ARRI AG, Munich, Germany, as part of the strategic realignment following the acquisition of OSRAM. Prior to the sale, that business was reported in the Lamps & Systems segment. On classification as held for sale in December 2022, an impairment loss of EUR 44 mn was recognized on non-current tangible and intangible assets and inventories. Upon completion of the sale in March 2023, a loss on disposal of EUR 2 mn was recognized in other operating expenses. The cash inflows from the disposal less the cash and cash equivalents disposed of amounted to EUR 17 mn, and were recognized in cash flows from investing activities.

Automotive Lighting Systems Italy (AMLS Italy)

On August 1, 2023, ams OSRAM sold its Italian automotive lamp business to the Flex-n-Gate Group, Urbana, USA. Prior to the sale, the business was allocated to the Lamps & Systems segment. The transaction completed the sale of the automotive lamps business that remained following the dissolution of the OSRAM Continental joint venture in 2021. On the classification as held for sale, an impairment test was carried out, which led to an impairment on goodwill of EUR 10 mn, which was recognized in other operating expenses. The purchase price closely corresponded to the carrying amounts of the net assets sold, resulting in a small gain on disposal. The cash inflows from the disposal less the cash and cash equivalents disposed of amounted to EUR 39 mn and were recognized in cash flows from investing activities.

Digital Systems (DS) Europe and Asia

On April 4, 2023, ams OSRAM completed the sale of its DS business in Germany, Italy and China through a share deal to Inventronics Inc. in Hangzhou, China. The entire transaction was completed by September 1, 2023 by transferring the remaining assets and employees in other countries to Inventronics. Prior to the sale, the business was allocated to the Lamps & Systems segment. The transaction is a further milestone in the implementation of ams OSRAM's strategy to focus on core technologies and divest businesses that are not part of the Company's core strategy. The disposal resulted in a gain of EUR 7 mn, which was recognized in other operating income. The cash inflows from the sale less the cash and cash equivalents sold amounted to EUR 74 mn and were recognized in cash flows from investing activities. The final purchase price is subject to the customary adjustments following the completion of the final accounts.

Assets and Liabilities Disposed of at the respective Disposal Dates

in mn EUR	DS	Clay Paky	AMLS Italy	Total
Cash and cash equivalents	12	3	3	18
Trade receivables and other current assets	35	24	5	63
Inventories	75	5	24	103
Non- current assets	32	1	24	56
Assets	153	32	56	241
Current liabilities	53	8	9	70
Employee benefits	2	3	4	9
Long-term liabilities and provisions	10		0	11
Liabilities	66	11	14	90
Net assets	88	21	42	151

Fund investments

On January 27, 2023, ams OSRAM sold its investments in two funds: Unternehmer-tum VC Fonds II GmbH & Co. KG, and Partech Entrepreneur Fund III FPCI, which were held by the Group's venture capital division, Fluxunit GmbH. The selling price of EUR 10 mn corresponded to the carrying amount of the investments. The cash inflows from the sale were recognized in the cash flows from investing activities.

Other

On October 13, 2023, ams OSRAM terminated the lease agreement for the land and buildings of a discontinued production facility in Asia and sold the associated fixtures. The net assets amounted to EUR 24 mn and the proceeds amounted to EUR 38 mn.

Assets and Liabilities Held for Sale

OSRAM Russia

On May 25, 2023, ams OSRAM signed an agreement regarding the sale of its shares in OOO OSRAM, Moscow, Russia. The sale is expected to be completed in the first half of 2024, subject to the approval of the local authorities. OSRAM Russia was mainly active as a distributor for the automotive market (in the Lamps & Systems segment) but ceased all activities following the start of the war in Ukraine. On classification of the business as held for sale, an impairment test was carried out, resulting in an impairment loss of EUR 3 mn, which was recognized in other operating expenses. As of December 31, 2023, the company’s net assets amounted to EUR 3 mn.

28. Related Parties

Identity of Related Parties

The Company has business relationships with the following related parties:

- associates and
- unconsolidated subsidiaries (in 2023 and 2022, this was solely ams Sensors Hong Kong Ltd.)

Related parties in key positions within the Company:

- the members of the Management Board and their close family members as well as
- the members of the Supervisory Board and their close family members

The Company’s Governing Bodies:

Members of the Management Board: Aldo Kamper (Chief Executive Officer (CEO) since April 1, 2023), Rainer Irle (CFO since July 1, 2023), Mark Hamersma (until December 31, 2023), Alexander Everke (Chief Executive Officer (CEO) until March 31, 2023), Ingo Bank (CFO until April 30, 2023), Dr. Thomas Stockmeier (until September 30, 2023).

Members of the Supervisory Board: Dr. Margarete Haase (Chairwoman), Andreas Mattes (Deputy Chairman, since June 23, 2023), Andreas Gerstenmayer (member),

Dr. Monika Henzinger (member), Yen Yen Tan (member), Kin Wah Loh (member), Mag. Brigitte Ederer (member), Arunjai Mittal (member, since October 20, 2023), Wolfgang Koren (employee representative, since June 21, 2023), Nadine Raidl (employee representative, since June 21, 2023), Michael Krainz (employee representative, since June 21, 2023), Patrick Reinisch (employee representative). The following members have stepped down from the Supervisory Board: Brian Krzanich (as of June 23, 2023), Günter Kneffel, Andreas Pein, and Sabine Radesey (each as of June 21, 2023) Dr. Wolfgang Leitner resigned from the Supervisory Board as of September 7, 2023.

Remuneration

The Management Board’s remuneration as of December 31, 2023 and as of December 31, 2022 was as follows:

Management Board Remuneration

in mn EUR	2023	2022
Salary		
Salary, not variable	3	3
Salary, variable	2	5
Share-based payments	2	8
Other	0	0

The compensation payments for members of the Management Board in connection with their stepping down from the Management Board before the end of their tenure amounted to EUR 2 mn in fiscal year 2023 (2022: EUR 0 mn) and corresponding provisions were recognized for the full amount in the previous year.

In the reporting year, the members of the Management Board were granted a total of 669,060 stock awards (2022: 1,549,509 stock options) in ams-OSRAM AG. All these stock awards were granted from the PSU tranche under LTIP 2023, which means that their vesting conditions are linked to the achievement of performance targets. As soon as they have vested and a twelve-month waiting period has elapsed, ams-OSRAM AG shares are transferred to the eligible Management Board members in exchange for the PSUs without requiring any consideration. In the reporting year, a total of 638,667 options (2022: 410,873 options) for the acquisition of shares in

ams-OSRAM AG from old LTI-Plans were vested and were available for exercise by the Management Board.

For details of the terms and conditions and the measurement of the options for the acquisition of shares in ams-OSRAM AG under LTIP 2014, SSOP 2017, SLTIP 2018, SSOP 2019, LTIP 2019, and LTIP 2023, and any anti-dilution measures, please refer to note 4. Expenses.

Management Board Members’ Holdings of ams-OSRAM AG Shares and Financial Instruments

Number	Dec 31, 2023	Dec 31, 2022
Shares	273,750	93,825
Options and stock awards	1,588,489	6,773,104

The members of the Management Board in office as of December 31, 2023 hold financial instruments for the acquisition of shares in ams-OSRAM AG only as part of share-based compensation plans. As of December 31, 2023, persons related to these members of the Management Board held neither shares (2022: 4,750 shares) nor financial instruments (2022: 0 financial instruments) for the acquisition of shares in ams-OSRAM AG.

The remuneration for the Company’s Supervisory Board amounted to EUR 1 mn in the financial year 2023 (2022: EUR 1 mn). All remuneration was and is paid directly by the Company. The remuneration shown relates to the amounts actually paid in the fiscal year. The remuneration and the amounts payable for fiscal year 2022 were determined on the basis of the principles adopted by the Annual General Meeting in 2021, which were not changed by the Annual General Meeting on June 23, 2023.

Supervisory Board members’ holdings of ams-OSRAM AG shares and financial instruments were as follows:

Supervisory Board Members’ Holdings of ams-OSRAM AG Shares and Financial Instruments

Number	Dec 31, 2023	Dec 31, 2022
Shares		
Options	2,222	414

As of December 31, 2023, persons related to the members of the Supervisory Board held neither shares (2022: 2,041,650 shares) nor financial instruments (2022: 0 financial instruments) for the acquisition of shares in ams-OSRAM AG.

There are no ongoing loan arrangements with members of the Supervisory Board or Management Board or persons related to them.

Transactions with Associates

in mn EUR	Sales of goods and services and other income		Purchases of goods and services and other expense	
	2023	2022	2023	2022
Associates	8	11	0	0

Loans granted to associates amounted to EUR 2 mn as of December 31, 2023 (2022: EUR 4 mn). As of December 31, 2023, cumulative loss allowances on loans and receivables amounted to EUR 0 mn (2022: EUR 4 mn).

These equity investments involve strategic equity investments.

29. Auditor’s Fees

The auditor’s fees for auditing the separate and consolidated financial statements totaled EUR 0.9 mn in fiscal year 2023 (2022: EUR 0.5 mn). Fees incurred for other consultancy services amounted to EUR 0.1 mn in fiscal year 2023 (2022: EUR 0.0 mn). Fees incurred for special audit services in connection with the refinancing activities came to EUR 5.4 mn in fiscal year 2023 (2022: EUR 0.0 mn).



30. Group Companies

	Accounting method	Country of incorporation	Functional currency	Ownership interest	
				2023	2022
7 Sensing Software SASU	Fully consolidated	France	EUR	100,00 %	100,00 %
ams Asia Inc.	Fully consolidated	Philippines	PHP	100,00 %	100,00 %
ams China Co. Ltd.	Fully consolidated	China	RMB	100,00 %	100,00 %
ams International AG	Fully consolidated	Switzerland	CHF	100,00 %	100,00 %
ams Italy S.r.l.	Fully consolidated	Italy	EUR	100,00 %	100,00 %
ams Offer GmbH	Fully consolidated	Germany	EUR	100,00 %	100,00 %
ams-OSRAM Sensors S.R.L.	Fully consolidated	Rumania	RON	100,00 %	0,00 %
ams R&D Spain S.L.	Fully consolidated	Spain	EUR	100,00 %	100,00 %
ams R&D UK Limited	Fully consolidated	United Kingdom	GBP	100,00 %	100,00 %
ams Semiconductors India Pvt Ltd.	Fully consolidated	India	INR	100,00 %	100,00 %
ams Sensors Asia Pte. Ltd.	Fully consolidated	Singapore	USD	100,00 %	100,00 %
ams Sensors Belgium BV	Fully consolidated	Belgium	EUR	100,00 %	100,00 %
ams Sensors Germany GmbH	Fully consolidated	Germany	EUR	100,00 %	100,00 %
ams Sensors Holdings Asia Pte. Ltd.	Fully consolidated	Singapore	USD	100,00 %	100,00 %
ams Sensors Hong Kong Ltd.	At cost	Hong Kong	HKD	100,00 %	100,00 %
ams Sensors Malaysia Sdn. Bhd.	deconsolidated	Malaysia	MYR	0,00 %	100,00 %
ams Sensors Netherlands BV	Fully consolidated	Netherlands	EUR	100,00 %	100,00 %
ams Sensors Taiwan Co. Ltd.	deconsolidated	Taiwan	TWD	0,00 %	100,00 %
ams Sensors UK Limited	deconsolidated	United Kingdom	GBP	0,00 %	100,00 %
ams Sensors USA Inc.	deconsolidated	USA	USD	0,00 %	100,00 %
ams-OSRAM Asia Pacific Pte. Ltd.	Fully consolidated	Singapore	USD	100,00 %	100,00 %
Applied Sensor Sweden Holding AB	Fully consolidated	Sweden	SEK	100,00 %	100,00 %
AWAIBA Holding SA	deconsolidated	Switzerland	CHF	0,00 %	100,00 %
Heptagon Holding AG	Fully consolidated	Switzerland	CHF	100,00 %	100,00 %
Heptagon Holding CA Inc.	Fully consolidated	USA	USD	100,00 %	100,00 %
Heptagon Oy	Fully consolidated	Finland	EUR	100,00 %	100,00 %
Incus Laboratories Limited	deconsolidated	United Kingdom	GBP	0,00 %	100,00 %
KeyLemon SA	deconsolidated	Switzerland	CHF	0,00 %	100,00 %

OSRAM Licht AG	Fully consolidated	Germany	EUR	85,76 %	80,35 %
Princeton Optronics Inc.	deconsolidated	USA	USD	0,00 %	100,00 %
RF Digital Corp.	deconsolidated	USA	USD	0,00 %	100,00 %
Seven Sensing Software BV	Fully consolidated	Belgium	EUR	100,00 %	100,00 %

Entities held via OSRAM Licht AG (shareholding in OSRAM Licht AG: 85.76 %)

	Accounting method	Country of incorporation	Functional currency	Ownership interest OSRAM Licht AG	
				2023	2022
ams OSRAM Automotive Lighting Systems Italia S.r.l.	deconsolidated	Italy	EUR	0,00 %	100,00 %
ams Sensors Portugal	Fully consolidated	Portugal	EUR	100,00 %	100,00 %
ams-OSRAM International GmbH	Fully consolidated	Germany	EUR	100,00 %	100,00 %
ams-OSRAM Japan Ltd.	Fully consolidated	Japan	JPY	100,00 %	100,00 %
ams-OSRAM Korea Ltd.	Fully consolidated	Korea	KRW	100,00 %	100,00 %
ams-OSRAM Taiwan Ltd.	Fully consolidated	Taiwan	TWD	100,00 %	100,00 %
ams-OSRAM USA Inc.	Fully consolidated	USA	USD	100,00 %	100,00 %
Chorus Lighting S.p.A. (vormals: Clay Paky S.p.A.)	Fully consolidated	Italy	EUR	100,00 %	100,00 %
Fluxunit GmbH	Fully consolidated	Germany	EUR	100,00 %	100,00 %
Light Distribution GmbH	Fully consolidated	Germany	EUR	100,00 %	100,00 %
OOO OSRAM	Fully consolidated	Russia	RUB	100,00 %	100,00 %
Optotronic GmbH	deconsolidated	Germany	EUR	0,00 %	100,00 %
Optotronic S.r.l.	deconsolidated	Italy	EUR	0,00 %	100,00 %
OSRAM (Malaysia) Sdn. Bhd.	Fully consolidated	Malaysia	MYR	100,00 %	100,00 %
OSRAM (Thailand) Co., Ltd.	Fully consolidated	Thailand	THB	100,00 %	100,00 %
OSRAM A/S	Fully consolidated	Denmark	DKK	100,00 %	100,00 %
OSRAM AB	Fully consolidated	Schweden	SEK	100,00 %	100,00 %
OSRAM AS	Fully consolidated	Norway	NOK	100,00 %	100,00 %
OSRAM Asia Pacific Ltd.	Fully consolidated	Hong Kong	HKD	100,00 %	100,00 %
OSRAM Asia Pacific Management Company Ltd.	Fully consolidated	China	CNY	100,00 %	100,00 %



	Accounting method	Country of incorporation	Functional currency	Ownership interest OSRAM Licht AG	
				2023	2022
OSRAM Benelux B.V.	Fully consolidated	Netherlands	EUR	100,00 %	100,00 %
OSRAM Beteiligungen GmbH	Fully consolidated	Germany	EUR	100,00 %	100,00 %
OSRAM Beteiligungsverwaltung GmbH	Fully consolidated	Germany	EUR	100,00 %	100,00 %
OSRAM Ceská republika s.r.o.	Fully consolidated	Czech Republic	CZK	100,00 %	100,00 %
OSRAM China Lighting Ltd.	Fully consolidated	China	CNY	90,00 %	90,00 %
OSRAM Co., Ltd.	Fully consolidated	Korea	KRW	100,00 %	100,00 %
OSRAM Comercio de Solucoes de Iluminacao Ltda.	Fully consolidated	Brasil	BRL	100,00 %	100,00 %
OSRAM d.o.o.	Fully consolidated	Croatia	HRK	100,00 %	100,00 %
OSRAM de Colombia Iluminaciones S.A.S.	deconsolidated	Columbia	COP	0,00 %	100,00 %
OSRAM de México S.A. de C.V.	Fully consolidated	Mexico	MXN	100,00 %	100,00 %
OSRAM GmbH	Fully consolidated	Germany	EUR	100,00 %	100,00 %
OSRAM Guangzhou Lighting Technology Limited	deconsolidated	China	CNY	0,00 %	100,00 %
OSRAM Kunshan Display Optic Co., Ltd.	Fully consolidated	China	CNY	100,00 %	100,00 %
OSRAM Lighting (Pty) Ltd.	Fully consolidated	South Africa	ZAR	100,00 %	100,00 %
OSRAM Lighting AG	Fully consolidated	Switzerland	CHF	100,00 %	100,00 %
OSRAM Lighting Middle East FZE	Fully consolidated	United Arab. Emirates	USD	100,00 %	100,00 %
OSRAM Lighting Private Limited	Fully consolidated	India	INR	100,00 %	100,00 %
OSRAM Lighting Pte. Ltd.	Fully consolidated	Singapore	SGD	100,00 %	100,00 %
OSRAM Lighting S.A.S.U.	Fully consolidated	France	EUR	100,00 %	100,00 %
OSRAM Lighting S.L.	Fully consolidated	Spain	EUR	100,00 %	100,00 %
OSRAM Limited	Fully consolidated	United Kingdom	GBP	100,00 %	100,00 %
OSRAM Ltd.	Fully consolidated	Japan	JPY	100,00 %	100,00 %
OSRAM Ltd.	Fully consolidated	Canada	CAD	100,00 %	100,00 %
OSRAM OLED GmbH	Fully consolidated	Germany	EUR	100,00 %	100,00 %
OSRAM Opto Semiconductors (China) Co., Ltd.	Fully consolidated	China	CNY	100,00 %	100,00 %
OSRAM Opto Semiconductors (Malaysia) Sdn Bhd	Fully consolidated	Malaysia	MYR	100,00 %	100,00 %
OSRAM Opto Semiconductors Asia Ltd.	Fully consolidated	Hong Kong	HKD	100,00 %	100,00 %

	Accounting method	Country of incorporation	Functional currency	Ownership interest OSRAM Licht AG	
				2023	2022
OSRAM Opto Semiconductors Trading (Wuxi) Co., Ltd.	Fully consolidated	China	CNY	100,00 %	100,00 %
OSRAM Oy	Fully consolidated	Finland	EUR	100,00 %	100,00 %
OSRAM Pty. Ltd.	Fully consolidated	Australia	AUD	100,00 %	100,00 %
OSRAM Romania S.R.L.	Fully consolidated	Romania	RON	100,00 %	100,00 %
OSRAM S.A.	Fully consolidated	Argentina	ARS	100,00 %	100,00 %
OSRAM S.A. de C.V.	Fully consolidated	Mexico	MXN	100,00 %	100,00 %
OSRAM S.p.A. - Società Riunite OSRAM Edison Clerici	Fully consolidated	Italy	EUR	100,00 %	100,00 %
OSRAM Sales EOOD	Fully consolidated	Bulgaria	BGN	100,00 %	100,00 %
OSRAM SBT GmbH	Fully consolidated	Germany	EUR	100,00 %	100,00 %
OSRAM Servicios Administrativos, S.A. de C.V.	Fully consolidated	Mexico	MXN	100,00 %	100,00 %
OSRAM SL GmbH	Fully consolidated	Germany	EUR	100,00 %	100,00 %
OSRAM Sp. z o.o.	Fully consolidated	Poland	PLN	100,00 %	100,00 %
OSRAM SYLVANIA INC.	Fully consolidated	USA	USD	100,00 %	100,00 %
OSRAM Taiwan Company Ltd.	Fully consolidated	Taiwan	TWD	100,00 %	100,00 %
OSRAM Teknolojileri Ticaret Anonim Sirketi	Fully consolidated	Turkey	TRY	100,00 %	100,00 %
OSRAM, a.s.	Fully consolidated	Slovakia	EUR	100,00 %	100,00 %
OSRAM, Lda	Fully consolidated	Portugal	EUR	100,00 %	100,00 %
P.T. OSRAM Indonesia	Fully consolidated	Indonesia	IDR	100,00 %	100,00 %
Ring Automotive Limited	Fully consolidated	United Kingdom	GBP	100,00 %	100,00 %
Sylvania Lighting Services Corp.	Fully consolidated	USA	USD	100,00 %	100,00 %
Vixar, Inc.	Fully consolidated	USA	USD	100,00 %	100,00 %

31. Associates

	Accounting method	Country of incorporation	Functional currency	Ownership interest	
				2023	2022
Circadian Zirclight LLC	At equity	USA	USD	6,13 %	6,13 %
Jinan Smart Sensing Sensor Co. Ltd.	At equity	China	CNY	49,00 %	49,00 %
New Scale Technologies Inc.	At equity	USA	USD	41,27 %	34,00 %
Sciosense Holding B.V.	At equity	Netherlands	EUR	45,22 %	45,22 %

Entities held via OSRAM Licht AG (shareholding in OSRAM Licht AG: 85.76 %)

	Accounting method	Country of incorporation	Functional currency	Ownership interest OSRAM Licht AG	
				2023	2022
agrilution GmbH	At equity	Germany	EUR	20,62 %	20,62 %
Blickfeld GmbH	At equity	Germany	EUR	9,39 %	11,93 %
Bolb Inc.	At equity	USA	USD	20,38 %	20,38 %
CarbonBook Inc.	At equity	Canada	CAD	12,94 %	12,94 %
iThera Medical GmbH	At equity	Germany	EUR	7,15 %	7,15 %
Tvilight B.V.	At equity	Netherlands	EUR	0,00 %	47,50 %
VividQ Limited	At equity	United Kingdom	GBP	5,89 %	5,89 %

32. Other Equity Investments

	Accounting method	Country of incorporation	Functional currency	Ownership interest	
				2023	2022
GreenTropism	FVOCI	France	EUR	2,38 %	2,38 %
Leman Micro Devices	FVOCI	Switzerland	CHF	11,39 %	11,39 %
RFMicron Inc.	FVOCI	USA	USD	9,83 %	9,83 %
Silicon Alps Cluster GmbH	FVOCI	Austria	EUR	4,00 %	4,00 %

Entities held via OSRAM Licht AG (shareholding in OSRAM Licht AG: 85.76 %)

	Accounting method	Country of incorporation	Functional currency	Ownership interest OSRAM Licht AG	
				2023	2022
Caruso GmbH	FVOCI	Germany	EUR	1,00 %	1,00 %
GSB - Sonderabfall-Entsorgung Bayern GmbH	FVOCI	Germany	EUR	0,07 %	0,07 %
ILOF - Intelligent Lab On Fiber Ltd.	FVOCI	United Kingdom	GBP	0,98 %	0,98 %
KNX Association cvba	FVOCI	Belgium	EUR	0,00 %	2,96 %
LAMP NOOR (P.J.S.) Co.	FVOCI	Iran	IRR	20,00 %	20,00 %
LeddarTech Inc.	FVOCI	Canada	CAD	4,49 %	19,20 %
Partech Partners S.A.S.	FVTPL	France	EUR	0,00 %	5,46 %
Recogni, Inc.	FVOCI	USA	USD	3,84 %	5,80 %
SiLC Technologies Inc.	FVOCI	USA	USD	3,48 %	3,48 %
TetraVue, Inc.	FVOCI	USA	USD	6,36 %	6,36 %
Unternehmertum VC Fonds II GmbH & Co. KG	FVTPL	Germany	EUR	0,00 %	6,06 %

33. Events after the Reporting Period

In order to better harness our innovative strength, we are adapting our corporate structures accordingly, which includes the creation of two business units (instead of three, as was previously the case) in our Semiconductors segment, each with clear overall responsibilities – one focusing on emitters, and the other on sensors and analog mixed-signal chips.

As a result of strengthening our entrepreneurial approach at the business unit level, we changed our functional management model at the Management Board level, reducing the size of our Management Board to two positions, the Chief Executive Officer (CEO) and the Chief Financial Officer (CFO) as of January 1, 2024.

On February 28, 2024, the Management Board was informed of the unexpected cancellation of a key project underlying its microLED strategy. As at the reporting date, this was a significant component of the Group’s medium and long-term growth strategy and one of the main drivers of the investments made in research and development in recent years as well as the expansion of existing production capacity, which includes in particular the new 8-inch LED production facility in Kulim, Malaysia. As a result, it is currently uncertain when or to what extent the microLED strategy will be pursued further and what impact this cancellation will have on other areas. The Management Board is currently evaluating the strategic options and how these will affect the future utilization of the Group’s assets. The carrying amounts of the assets related to microLED technology and 8-inch LED production, the risks from recognized government grants and orders placed amount to a total of around EUR 1,211 mn as at the reporting date. Capitalized development costs account for EUR 118 mn of this amount, property, plant and equipment for around EUR 780 mn and obligations from orders placed for around EUR 123 mn. Depending on the strategic reassessment, there could also be an impact of up to around EUR 190 mn on the government grants recognized in the reporting year. The affected business activity is part of the business unit OS, to which goodwill of EUR 997 mn has been allocated. Courses of action are currently being investigated in connection with the

sale and leaseback transaction for the building in Kulim. The liability recognized as of December 31, 2023 amounted to EUR 384 mn. Legal claims and cost reimbursements from and against the project partner are also currently being examined. This may result in further financial effects that cannot yet be reliably estimated.

Premstaetten, March 19, 2024



Aldo Kamper
Chief Executive Officer
CEO



Rainer Irle
Chief Financial Officer
CFO

Auditor’s Report

Report on the Consolidated Financial Statements

Audit Opinion

We have audited the consolidated financial statements of ams-OSRAM AG, Premstätten, Austria, and its subsidiaries (“the Group”), which comprise the Consolidated Statement of Income, the Consolidated Statement of Comprehensive Income, the Consolidated Balance Sheet as of 31 December 2023, the Consolidated Statement of Cash Flows and the Consolidated Statement of Changes in Equity for the year then ended, and the Notes to the Consolidated Financial Statements.

In our opinion, the consolidated financial statements comply with the legal requirements and present fairly, in all material respects, the consolidated financial position of the Group as of 31 December 2023, and its consolidated financial performance and consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS) as issued by the International Standards Board and as adopted by the EU, and the additional requirements pursuant to Section 245a UGB (Austrian Commercial Code).

Basis for our Opinion

We conducted our audit in accordance with Austrian Standards on Auditing. These standards require the audit to be conducted in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the “Auditor’s Responsibilities” section of our report. We are independent of the audited Group in accordance with Austrian company law and professional regulations, and we have fulfilled our other responsibilities under those relevant ethical requirements. We believe that the audit evidence we have obtained up to the date of the auditor’s report is sufficient and appropriate to provide a basis for our audit opinion on this date.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, however, we do not provide a separate opinion thereon.

Impairment test in accordance with IAS 36

Refer to notes section 12

Risk for the Consolidated Financial Statements

IAS 36 requires the Company to allocate its goodwill to cash-generating units and to test these units as well as intangible assets with indefinite useful lives or not yet ready for use intangible assets for impairment at least annually and whenever there is an indication these intangible assets may be impaired (“impairment test”). At 31 December 2023 the carrying amount of goodwill amounted to 1,487 mn EUR, trademarks to 226 mn EUR and not yet ready for use intangible assets to 179 mn EUR. In the fiscal year, an impairment loss was recognized on goodwill in the amount of 1,323 mn EUR.

The recoverable amount is determined for both value in use and fair value less costs of disposal on the basis of discounted future cash flows using a risk-adequate discount rate (DCF method).

Impairment testing in accordance with IAS 36 requires an appropriate valuation method and the determination of significant assumptions and measurement bases. This results in particular in the risk that

- the cash-generating units have not been determined correctly and their changes have not been made in accordance with the provisions of IAS 36,
- the methods used do not comply with the requirements of IAS 36 or,
- assumptions and other measurement bases are not appropriate

and, therefore, a required impairment loss is not or not correctly recognized in the financial statements.

Our Response

We have assessed the impairment tests according to IAS 36 as follows:

- We gained an understanding of the approach and valuation methods as well as of the design and implementation of internal controls
- We evaluated the determination of the cash-generating units and assessed their appropriateness.
- We have assessed whether the valuation methods applied comply with the requirements of IAS 36. We compared the consistency of the parameters and input factors used in the valuations with external market estimates and existing reference values and assessed their appropriateness. We also verified the mathematical accuracy of the valuations. Furthermore, we assessed the methodologically appropriate derivation and the appropriateness of the amount of the weighted

average cost of capital. For this purpose, we compared the assumptions and parameters underlying the cost of capital with our own assumptions and publicly available data. These assessments were made with the involvement of valuation specialists.

- We have reconciled the planning data used to determine future cashflows with the budgets approved by the Supervisory Board.
- In addition, we have assessed whether the disclosures on impairment testing in the consolidated financial statements are appropriate and relevant.

Other Information

Management is responsible for other information. Other information is all information provided in the annual report, other than the consolidated financial statements, the group management report and the auditor’s report. We expect the annual report to be provided to us after the date of the auditor’s report.

Our opinion on the consolidated financial statements does not cover other information and we do not provide any kind of assurance thereon.

In conjunction with our audit, it is our responsibility to read this other information as soon as it becomes available, to assess whether, based on knowledge gained during our audit, it contains any material inconsistencies with the consolidated financial statements or any apparent material misstatement of fact.

Responsibilities of Management and the Audit Committee for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards (IFRSs) as issued by the International Accounting Standards Board and as adopted by the EU, as well as the additional requirements pursuant to Section 245a UGB (Austrian Commercial Code) and for such internal controls as management determines are necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Management is also responsible for assessing the Group’s ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using

the going concern basis of accounting, unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so. The audit committee is responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our audit opinion. Reasonable assurance represents a high level of assurance, but provides no guarantee that an audit conducted in accordance with Austrian Standards on Auditing (and therefore ISAs), will always detect a material misstatement, if any. Misstatements may result from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Austrian Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit.

Moreover:

- We identify and assess the risks of material misstatement in the consolidated financial statements, whether due to fraud or error, we design and perform audit procedures responsive to those risks and obtain sufficient and appropriate audit evidence to serve as a basis for our audit opinion. The risk of not detecting material misstatements resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or override of internal control.
- We obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- We conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant

doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our audit report to the respective note in the consolidated financial statements. If such disclosures are not appropriate, we will modify our audit opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.

- We evaluate the overall presentation, structure and content of the consolidated financial statements, including the notes, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- We obtain sufficient appropriate audit evidence regarding the financial information of the entities and business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.
- We communicate with the audit committee regarding, amongst other matters, the planned scope and timing of our audit as well as significant findings, including any significant deficiencies in internal control that we identify during our audit.
- We communicate to the audit committee that we have complied with the relevant professional requirements in respect of our independence, that we will report any relationships and other events that could reasonably affect our independence and, where appropriate, the related safeguards.
- From the matters communicated with the audit committee, we determine those matters that were of most significance in the audit i.e. key audit matters. We describe these key audit matters in our auditor's report unless laws or other legal regulations preclude public disclosure about the matter or when in very rare cases, we determine that a matter should not be included in our audit report because the negative consequences of doing so would reasonably be expected to outweigh the public benefits of such communication.

Group Management Report

In accordance with Austrian company law, the group management report is to be audited as to whether it is consistent with the consolidated financial statements and prepared in accordance with legal requirements.

Management is responsible for the preparation of the group management report in accordance with Austrian company law.

We have conducted our audit in accordance with generally accepted standards on the audit of group management reports.

Opinion

In our opinion, the group management report is consistent with the consolidated financial statements and has been prepared in accordance with legal requirements.

Statement

Based on our knowledge gained in the course of the audit of the consolidated financial statements and our understanding of the Group and its environment, we did not note any material misstatements in the group management report.

Engagement Partner

The engagement partner is Mr Johannes Bauer.

Vienna
20 March 2024

KPMG Austria GmbH
Wirtschaftsprüfungs- und Steuerberatungsgesellschaft

signed by:
Johannes Bauer
Wirtschaftsprüfer
(Austrian Chartered Accountant)