AMG CRITICAL MATERIALS N.V.

THE ENERGY OF NATURE

ANNUAL REPORT 2023

GLOBAL TRENDS

CO_2 emission reduction, circular economy, population growth, increasing affluence, and energy efficiency

DEMAND

Innovative new products that promote CO_2 reduction, including materials with higher energy density and higher temperature resistance, as well as products that are lighter and stronger than competing materials

SUPPLY

AMG sources, upgrades, purifies, and supplies the critical materials that the market demands

At a Glance

AMG's mission is to provide critical materials and related process technologies to advance a less carbon-intensive world. To this end, AMG is focused on the production and development of energy storage materials such as lithium, vanadium, and tantalum. In addition, AMG's products include highly engineered systems to reduce CO_2 in aerospace engines, as well as critical materials addressing CO_2 reduction in a variety of other end use markets.

TRANSPORTATION

Innovation is driving demand for critical materials in the transportation industry. AMG's lithium concentrate is in high demand as electric vehicle battery demand continues to grow. Highly engineered materials science-based solutions are needed to increase operating efficiency, lower aircraft weight and improve economics.

ENERGY

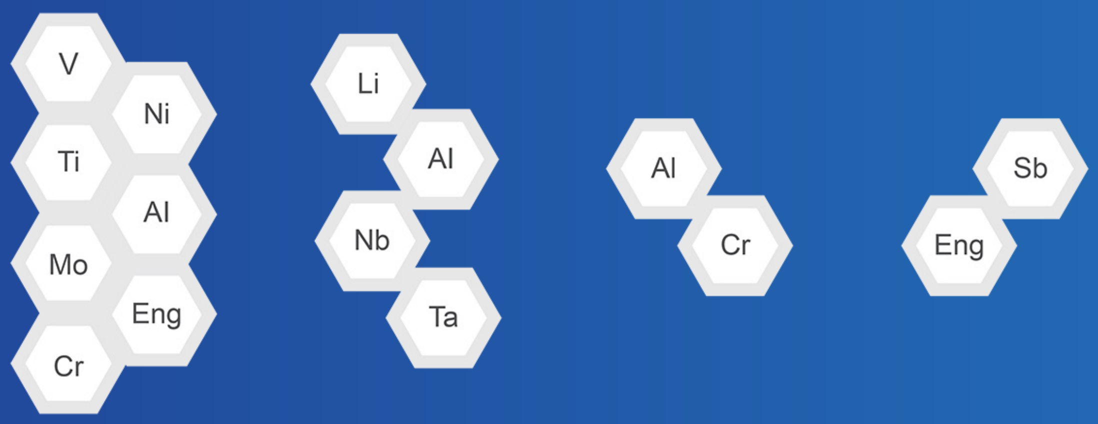
Global energy demand growth is driven by three factors—increasing demand of electricity, increasing supply of renewable energies and improvements in energy efficiency. AMG provides materials science-based technologies to improve energy efficiency and increase energy supply, such as vanadium electrolyte for vanadium redox flow batteries and AMG's LIVA Hybrid Energy Storage System (Hybrid ESS) for industrial applications.

INFRASTRUCTURE

Improvements in infrastructure are essential to growing global GDP and reducing carbon emissions. AMG provides critical materials such as ferrovanadium for high-strength steels. These technologies are deployed in infrastructure projects that are critical to addressing global urbanization trends.

SPECIALTY METALS & CHEMICALS

Specialty metals and chemicals are used to create products that improve global living standards. AMG produces customized materials science-based solutions that meet the market's exacting demands, including tantalum, a material used as a capacitor in electronics, and vanadium-based chemicals which improve the insulating and infrared absorbent properties of structural glass and chemical compounds.



USA
Aluminum Master Alloys
Titanium
Chrome Metal
Nickel
Ferrovanadium
Molybdenum
Engineering

Brazil
Tantalum
Aluminum Master Alloys
Niobium
Lithium

United Kingdom
Aluminum Master Alloys
Aluminum Powders
Chrome Metal

France
Antimony
Engineering

Germany
Titanium
Natural Graphite
Silicon Metal
Engineering

China
Aluminum Master Alloys
Natural Graphite
Engineering

Sri Lanka
Natural Graphite

Mozambique
Natural Graphite

Mexico
Engineering

Report of the Management Board

DR. HEINZ SCHIMMELBUSCH
CHAIRMAN & CHIEF EXECUTIVE OFFICER

ERIC JACKSON
CHIEF OPERATING OFFICER

JACKSON DUNCKEL
CHIEF FINANCIAL OFFICER

BORN 1944

Dr. Schimmelbusch was appointed Chief Executive Officer and Chairman of the Management Board on November 21, 2006, and he was reappointed for a term of two years starting May 4, 2023. He has served in a similar capacity for businesses comprising AMG since 1998. Dr. Schimmelbusch served as Chairman of the Management Board of Metallgesellschaft AG from 1989 to 1993. His directorships have included Allianz Versicherung AG, Mobil Oil AG, Teck Corporation, Methanex Corporation, Metall Mining Corporation and MMC Norilsk Nickel. Dr. Schimmelbusch served as a member of the Presidency of the Federation of German Industries (BDI) and the Presidency of the International Chamber of Commerce (ICC). Dr. Schimmelbusch received his graduate degree (with distinction) and his doctorate (magna cum laude) from the University of Tübingen, Germany.

BORN 1952

Mr. Jackson was appointed a member of the AMG Management Board on April 1, 2007. He was appointed to the newly created position of Chief Operating Officer on November 9, 2011, and reappointed to the AMG Management Board for a term of four years on May 6, 2021. Mr. Jackson has served in various senior management positions for businesses now owned by AMG since 1996, most recently as President and Chief Operating Officer of Metallurg, Inc. Mr. Jackson previously held senior management positions at Phibro, a division of Salomon Inc., Louis Dreyfus Corporation and Cargill Incorporated in Canada and the United States. Mr. Jackson received a Bachelor of Science degree in Economics and an MBA, both from the University of Saskatchewan.

BORN 1964

Mr. Dunckel was appointed Chief Financial Officer of AMG on February 1, 2016. He was appointed a member of the AMG Management Board on May 4, 2016 and reappointed for a term of four years on May 6, 2020. Mr. Dunckel joined AMG from the Macquarie Group Limited where he served as Managing Director and US Head of Chemicals from 2010 to 2015. Prior to this, Mr. Dunckel held various senior level positions at JP Morgan Chase since 1995, including Executive Director, Investment Banking Coverage. Mr. Dunckel graduated, cum laude, with a bachelor’s degree in European History from the University of California, Berkeley, and completed his MBA in International Finance at the Leonard Stern School of Business in 1995.

Financial & Operational Highlights

1,626
REVENUE $M

389
GROSS PROFIT $M

350
ADJUSTED EBITDA $M

223
CASH FROM OPERATING ACTIVITIES $M

11
WORKING CAPITAL DAYS

323
NET DEBT $M

0.51
LOST TIME INCIDENT RATE

0.90
TOTAL INCIDENT RATE

3.12
DILUTED EARNINGS PER SHARE $

48%
Transportation

20%
Infrastructure

17%
Specialty Metals & Chemicals

15%
Energy

Operational Highlights

A new corporate structure went into effect on January 1, 2024, changing the segmental reporting structure (AMG Clean Energy Materials, AMG Critical Minerals, and AMG Critical Materials Technologies) into three corporate entities, each with its own leadership team and operating management: AMG Lithium, AMG Vanadium, and AMG Technologies.

At the 2023 Annual General Meeting, approval was granted for the Company's articles of association to be amended to accommodate the name change from "AMG Advanced Metallurgical Group N.V." to "AMG Critical Materials N.V."

In Brazil, AMG's lithium concentrate plant will temporarily stop production to facilitate the expansion from 90,000 tons to 130,000 tons. We expect to produce 93,000 tons during 2024 and will operate at the full expanded capacity rate, or 130,000 tons per year, in the fourth quarter of 2024.

AMG Brazil signed an exclusive memorandum of understanding ("MOU") with Grupo Lagoa, which operates a pegmatite mine. The partnership's intention is to concentrate the lithium minerals contained in the pegmatite to produce commercial grade spodumene concentrate.

AMG's lithium hydroxide refinery's first 20,000-ton module in Bitterfeld, Germany, is in advanced phases of commissioning, and the product qualification process is planned to start in the third quarter of 2024.

AMG Lithium signed a non-binding MOU with FREYR Battery in January 2023, the basis of which is for AMG Lithium to supply FREYR between 3,000 to 5,000 tons of battery-grade lithium hydroxide per year.

AMG Lithium signed a non-binding MOU in May 2023 with Fortum Battery Recycling Oy ("Fortum"), a Nordic clean energy provider. Fortum's all new commercial scale hydrometallurgical plant can efficiently recover valuable metals from old electric vehicle lithium-ion batteries while recycling various waste fractions derived throughout the battery supply chain. According to the MOU, the lithium product recovered by Fortum will be delivered to AMG Lithium for further processing.

As of March 2023, AMG has a 25% shareholding in Zinnwald Lithium PLC and is supporting the Zinnwald Board to accelerate the development of its lithium project in Germany.

AMG's innovative lithium vanadium battery ("LIVA") projects are integral for industrial power management applications and acceleration of the energy transition. The batteries are currently under various stages of bidding and development. One is operational, three are currently under contract and are being engineered, and 15 are in bidding and development stages, with a total megawatt hour (MWh) capacity of 749 MWh.

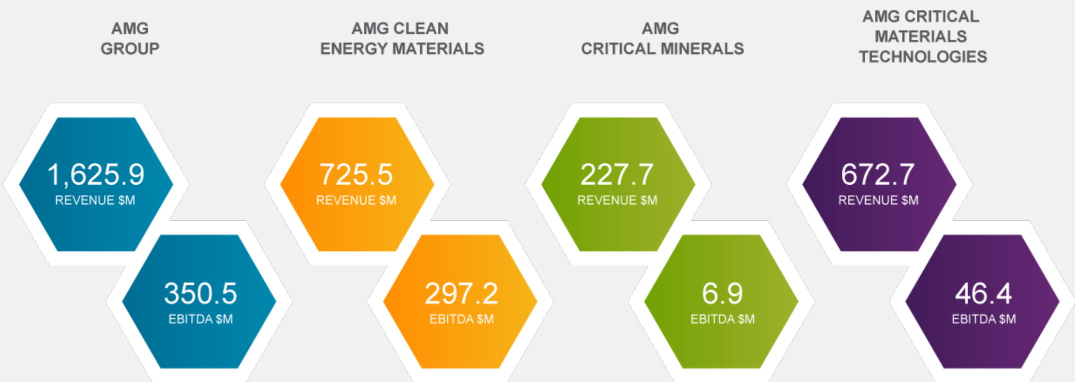
In January 2023, AMG approved building a vanadium electrolyte plant at its subsidiary, AMG Titanium, in Nuremberg, Germany. The target capacity is 6,000 m³ vanadium electrolyte, the equivalent of approximately 100 MWh, which will serve the electricity storage market, including a vertical integration into LIVA batteries. The plant is under construction, and AMG expects nameplate capacity to be available by the second half of 2024.

AMG LIVA has agreed to acquire the Vanadium Redox Flow Battery ("VRFB") activities from J.M. VOITH SE & CO. KG ("VOITH"). VOITH has developed an advanced technology for controlling and balancing large-scale high-voltage VRFB energy storage systems. The technology complements LIVA's VRFB system development. LIVA will continue to develop the technology and integrate it into its large-scale energy storage systems.

AMG Vanadium acquired the processing technologies and intellectual property related activities from Transformation Technologies Inc. ("TTI"), a US company based in Oregon. This unique thermal treatment of spent catalyst and other oil refinery wastes into valuable products is complementary to AMG's existing spent catalyst processing technology and know-how. AMG will integrate the TTI technology into its global strategic growth initiatives conducted through the 50-50 joint venture Shell & AMG Recycling B.V. ("SARBV").

SARBV's "Supercenter" project in the Middle East is a facility to produce high-purity vanadium oxides for applications such as chemicals and aerospace, as well as vanadium electrolyte for the long duration energy storage market in the Kingdom of Saudi Arabia. The facility will operate under a long-term supply contract with Saudi Aramco for vanadium-containing gasification ash from its power plants in the Kingdom of Saudi Arabia. For illustration purposes, Phase 1 of the Supercenter plans to produce 8 million pounds of vanadium oxide from 7,000 metric tons of gasification ash located at a site in Jubail, Kingdom of Saudi Arabia. The FEL3 basic engineering has been submitted. The full Supercenter project will also include the processing of spent catalysts, a Fresh Catalyst R&D facility and a LIVA Hybrid Energy Storage System (Hybrid ESS).

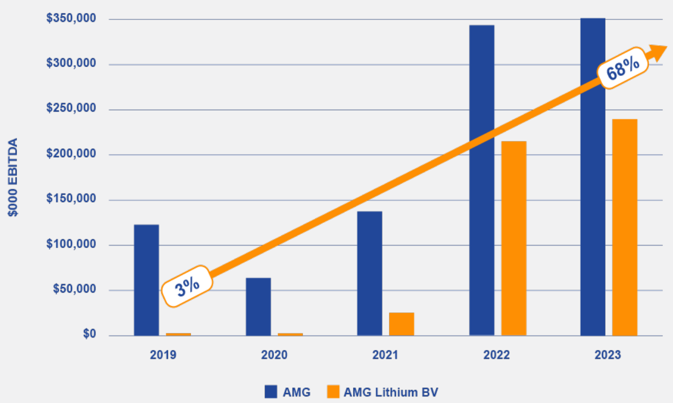
AMG Engineering has partnered with PCC's TIMET on furnaces for a new, state-of-the-art Titanium melt facility in Ravenswood, West Virginia. Representing one of the largest orders in its history, AMG Engineering was selected to supply the vacuum melting and re-melting furnaces that will produce titanium products for the aerospace industry, among other business sectors.



Letter to Shareholders

2023 was AMG Critical Material's most successful year in terms of financial results since its inception in 2007. The adjusted EBITDA reached an all-time high at $350 million, combined with an Operating Cash Flow of $223 million and a ROCE of 26%. Since 2019, our adjusted EBITDA Compound Annual Growth Rate ("CAGR") is 30%.

AMG 5-year EBITDA/Lithium EBITDA



AMG LITHIUM

This outstanding outcome is first and foremost the result of the decision in 2016 to extract lithium – in addition to tantalum – from the complex ore and from the tailings at the Mibra mine in Brazil, with an initial production capacity of 90,000 tons per annum of spodumene (lithium concentrate). As with all major expansions, the project faced challenges. In response, AMG's team excelled, bringing the project online on time and on budget. We then proceeded to effectively operate the plant for several years, meeting design specifications and volumes year after year. I am exceptionally proud of this accomplishment because as I look around the world of lithium projects, I see an industry plagued with massive delays and overruns. Our diligence has been rewarded. It is interesting to calculate the return on the $75 million capital expenditure. The cumulative adjusted EBITDA 2019 to 2023 from this investment was $494 million, a payback of over six times or, in terms of PE "6X" with a long mine life to go.

In the year 2023, the adjusted EBITDA attributable to this new lithium mining activity was $237 million or 68% of AMG's total

Mibra mine, Brazil

Lithium Hydroxide battery-grade refinery - Bitterfeld, Germany

adjusted EBITDA of $350 million (following the 2022 lithium adjusted EBITDA contribution of $215 million, or 63%). With that, we became a “lithium company,” and our stock price is now correlated to the lithium industry. Some may claim that it's bad timing, but ours is a volatile industry. It has to be noted that the Mibra mine is one of the lowest cost lithium concentrate mines on a global scale, partly because of the sales of tantalum credited to the lithium production.

In 2022, we started the engineering for the expansion of the lithium concentrate capacity to 130,000 tons per annum. Our lithium concentrate plant will temporarily stop production to facilitate the expansion from 90,000 tons to 130,000 tons. We expect to produce 93,000 tons for full year 2024 and reach full production, or 130,000 tons, in 2025.

In 2021, we gave the go ahead to start the construction of a lithium refinery in Bitterfeld, Germany with an initial capacity of 20,000 tons of battery-grade lithium hydroxide, and an investment of $150 million. We are presently in the process of starting up with extensive process and product qualifications and audits. We expect to be in full production later this year.

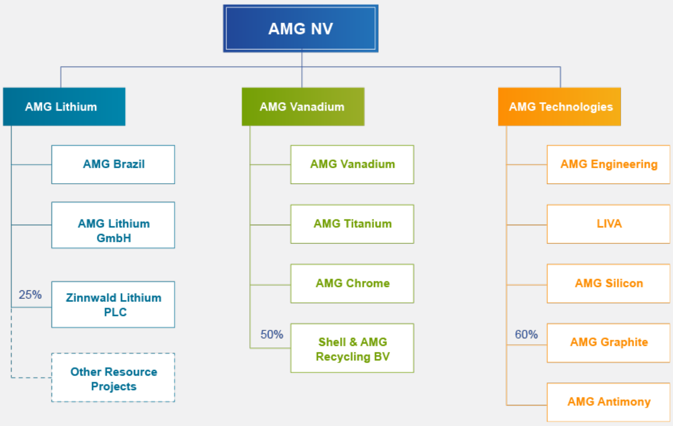
One major AMG asset that you won’t see in our financial statements is our large and exceptionally experienced lithium management team in Frankfurt. This team has taken years to build. Following Albemarle's acquisition of Rockwood, the owner of Chemetall GmbH, a renowned global leader in lithium technology and the inaugural producer of lithium salts since 1922, a skilled team became available. Numerous former Chemetall employees seamlessly transitioned to join AMG following this acquisition.

The Mibra mine and the Bitterfeld refinery are the cornerstones of AMG Lithium’s transatlantic lithium value chain. The Bitterfeld refinery will be the first facility of its kind in Europe. An estimated 82% of the world’s hydroxide refinery capacity is presently located in China. The layout of Bitterfeld is designed for 5 modules with an ultimate capacity of 100,000 tons per annum. That, according to estimates, would supply 17% of the estimated consumption of hydroxide in Europe by 2030.

In recent years we have assembled a unique lithium research & development team in Frankfurt around a new laboratory complex, where we operate a pilot plant for materials of the next generation lithium battery, the “solid state” battery.

We are presently finalizing the feasibility work on a lithium chemical (hydroxide/carbonate) conversion plant in Brazil to complete the value chain from Brazil to Germany. For the time being, that conversion takes place in China under long-term agreements.

NEW CORPORATE ORGANIZATION



Since January 1, 2024, AMG Critical Materials has been operating through three wholly owned subsidiaries, AMG Lithium, AMG Vanadium, and AMG Technologies. The legal restructuring work is still ongoing. AMG Lithium BV, Amsterdam, is up and running and has been audited on a standalone basis since 2021.

The three new subsidiaries have different end markets: AMG Lithium is supplying the market for vehicle and stationary batteries, through cathode producers ("e-mobility" and "e-storage"). AMG Vanadium is supplying vanadium to the high-performance steel market and the market for stationary vanadium redox flow batteries ("e-saving" and "e-storage"). AMG Technologies' primary market is aerospace engines where high stress materials are at work ("e-saving").

The trends behind these markets are powerful and persistent, and our aggressive investment strategy has positioned these companies and AMG as a whole as a high growth company.

AMG VANADIUM

AMG Vanadium is a holding company (in formation) with the corporate center in Cambridge, Ohio, and major wholly owned subsidiaries in Newcastle, Pennsylvania (vanadium aluminum alloys, chromium metal); Nuremberg, Germany (titanium alloys, vanadium oxide, vanadium electrolyte); and Rotherham, UK (chromium metal). AMG Vanadium oversees AMG Critical Materials' 50% interest in SARBV, Amsterdam, with its projects in the Middle East region.

During 2023, AMG Vanadium ramped up its new ferrovanadium production facility in Zanesville, Ohio, which essentially doubles our spent catalyst throughput capacity to approximately 60,000 tons per year (equivalent to about 11 million pounds of ferrovanadium). With capital expenditures of $325 million, the Zanesville project is the largest project ever undertaken by AMG Critical Materials. It has been financed by an industrial revenue bond with a tenor of 30 years and an interest rate below 5%.

AMG Vanadium – Zanesville, Ohio, USA

Vanadium electrolyte project - Nuremberg, Germany

AMG Vanadium is the western world's low-cost producer of ferrovanadium, partly because we also extract molybdenum and nickel from the spent catalysts and partly because we receive recycling fees for our services.

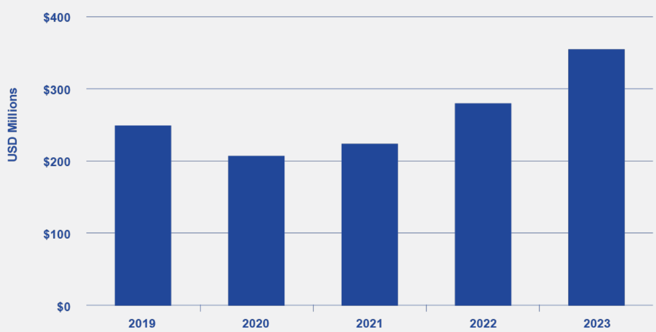
The growth of AMG Vanadium is shifting from ferrovanadium to vanadium oxide which we produce in Nuremberg, Germany, in a proprietary process from a variety of vanadium-containing residues including gasification ash. Vanadium oxide is the base material for vanadium electrolytes for use in vanadium redox flow batteries. The production facilities for vanadium oxide and vanadium electrolytes in Nuremberg, Germany, are presently being expanded.

Through proprietary technology, we have successfully linked our two main vanadium plants in Ohio and Nuremberg. The facilities in Ohio apply a two-step process in treating spent catalysts, roasting first, and then melting. Instead of going to the second step, we can re-route the roasted spent catalysts and use them as a feed for the production of vanadium oxides in Nuremberg on the way to battery materials. This is where the growth is and this optionality has great strategic value.

SARBV is developing Phase 1 of the "Supercenter" project in the Kingdom of Saudi Arabia. The main objective of the project is to build a recycling facility to extract vanadium from the residues of the Jazan gasification project of ARAMCO, based on AMG proprietary process technologies. At the end of 2023, the FEL3 feasibility study, which was contracted to Hatch Engineering, was completed and is under review. The full Supercenter project will also include the processing of spent catalysts, a Fresh Catalyst R&D facility, and a LIVA Hybrid ESS.

AMG TECHNOLOGIES

AMG ENGINEERING ORDER INTAKE



Contrary to its two “sister” companies, AMG Technologies is light in fixed assets – the main asset is the intellectual property which resides in the knowledge and experience of our employees. Among its end markets are the aerospace engine mainly via its turbine blade technology (Thermal Barrier Coating, or "TBC," in particular), high-performance steel, specialty alloys, and other materials requiring vacuum treatment, such as glass or new ways of reducing energy consumption/CO_2 in the production of synthetic graphite from petroleum coke.

AMG Engineering – Thermal Barrier Coating

An excellent illustration of the high-performance titanium product line is the recent contract to build the vacuum furnaces for the new $500 million TIMET operation in Ravenswood, West Virginia, USA. Another is AMG Engineering’s Electron Beam / Physical vapor deposition TBC process which is virtually exclusively approved in aerospace for high temperature applications. Given our world market share, when you fly, you have the comfortable feeling that the turbine blades are coated with an AMG Engineering coater.

LIVA

The energy storage market is poised for exponential growth, with BloombergNEF data indicating an energy storage capacity surge from 1.4GW/8.2GWh in 2023 to a projected 650GW/1,885GWh worldwide by 2030. The growth of this market is secured by the need to overcome the intermittency of solar and wind energy sources to increase the efficiency of use. Another driver is the need of manufacturing plants to connect to renewables. And finally, there is the need for rethinking grid management to handle the large-scale intermittencies.

Remarkably, Germany is set to contribute significantly to this expansion, accounting for 50GW/98GWh by 2030, according to BloombergNEF. This robust trajectory reflects a remarkable 27% CAGR and stands 33% higher than the early 2023 forecast, highlighting the accelerating demand for large-scale energy storage solutions.

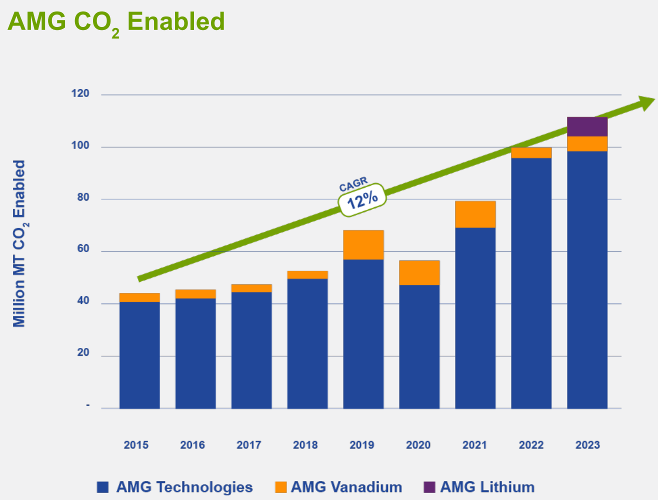
AMG’s specific contribution to this market is the LIVA battery technology. This technology consists of three parts: a lithium battery, a vanadium battery, and a software/AI package to manage the interaction of the parts. The lithium component guarantees the instant availability of the storage system, and the vanadium part provides low-cost storage and evergreen use of the electrolyte without the need for recycling.

LIVA Power Management GmbH is located at AMG’s technology & engineering center in Hanau, Germany, capitalizing on the experience there with large equipment engineering.

LIVA Power Management Systems GmbH - Frankfurt, Germany

HEALTH AND SAFETY

In addition to the excellent financial results, AMG’s year-end 2023 total incident rate performance is at record best levels. AMG delivered another strong safety record which was 58% better than industry averages. As reported regularly, we relentlessly pursue health and safety of our employees with a target of zero incidents.



At the heart of AMG's core tenets is the drive to reduce CO_2 and a key testament to this is ECO_2RP (our Enabled CO_2 Reduction Portfolio). In 2023 alone, our innovative product lines facilitated the reduction of an astounding 110 million metric tons of CO_2.

Our planet is at a critical juncture, and the decisions we make today will shape the future for generations to come. Our company, at the forefront of the decarbonization movement, understands the gravity of the situation. We recognize that the reduction of CO_2 emissions is not only an environmental imperative but also a strategic business decision that aligns with our core values.

The journey from 42 million metric tons of enabled CO_2 reduction in 2015 to 110 million metric tons in 2023 showcases our relentless pursuit of innovation and sustainability. We are not just witnessing growth in numbers; we are witnessing a transformation – an evolution towards a more sustainable and eco-conscious paradigm. Our commitment to enabling CO_2 reduction is not just a business strategy; it is a moral imperative, a pledge to be the architects of a healthier and more sustainable future. We foresee significant growth from the base of the 2023 level of enabled CO_2 reduction, especially related to AMG's proprietary Thermal Barrier Coating technology, and – for the first time – from applications of AMG's proprietary MOX nuclear fuel technology as newly built plutonium – MOX conversion facilities are starting up. We expect that our leading presence in the MOX fuel space will be enhanced by the emerging Small Modular Reactor movement.

Over the past 19 years, many carbon reduction schemes, with both positive and negative impacts, have been created and/or accepted by regulatory agencies to deter CO_2 emissions and slow the impacts of climate change. Whether it be the EU Emissions Trading System (EU ETS) or the multitude of Carbon Credit Registries, the penalties or incentives were never capable of clearly quantifying or validating the actual contribution these programs have made to reducing the release and buildup of CO_2 in the atmosphere.

Although we strongly disagree with certain carbon accounting interpretations regarding the reporting of avoided emissions, known to us as scope 4, alongside traditional scopes 1, 2, and 3 emissions, we still consider this area the cornerstone of our environmental value proposition. At AMG, we understand that our positive impact lies not in the reduction of nominal CO_2 values in the hundreds of thousands of tons represented by our scopes 1, 2, and 3, but instead in the millions of tons by the scope 4 contribution we make to the planet.

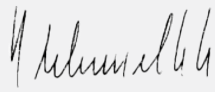
In a remarkable feat of environmental stewardship, AMG has facilitated a reduction of 110 million metric tons of CO_2 emissions in 2023, representing 0.27% of the world's total emissions. This achievement underscores our unwavering commitment to a greener future, showcasing the profound impact that focused innovation and eco-conscious solutions can have on mitigating climate change.

In the past several years, I am happy to see the increasing acceptance by regulatory agencies (e.g. EU Taxonomy for sustainable activities) and industry consensus (e.g. Estimating and Reporting the Comparative Emissions Impacts of Products, World Resources Institute) recognizing the overwhelming benefit of enabling CO_2 emissions. It gives me satisfaction to see the alignment of these regulatory bodies and thought leaders with AMG's core belief that the pathway to climate reduction goals is through increased investment in groundbreaking products and technologies.

DIVERSITY

I am pleased to share the remarkable strides our company has made in fostering diversity and inclusion, a vital aspect of our corporate ethos. In 2023, AMG's Corporate Diversity Council oversaw the creation of two Employee Resource Groups to help foster inclusivity and bonds between our employees.

Our commitment to increasing the representation of women in management roles has yielded promising results. Over the past three years, we have observed a consistent uptrend, culminating in a noteworthy 24% representation in 2023. This trajectory positions us on the path towards achieving our 2030 goal of at least 30% of management roles held by women. These achievements underscore our dedication to cultivating a workplace that thrives on diverse perspectives, ensuring that our organization reflects the vibrant tapestry of talent that propels us forward. We remain resolute in our pursuit of inclusivity, recognizing its intrinsic value to both our corporate culture and overall success.



DR. HEINZ SCHIMMELBUSCH

CHIEF EXECUTIVE OFFICER

AMG Clean Energy Materials

Higher average annual prices for spodumene as well as higher sales volumes in 2023 of vanadium, lithium concentrate, and tantalum propelled revenue for the segment 9% higher on a full year basis than 2022. In 2023, ferrovanadium and tantalum concentrate sales increased 45% and 56%, respectively, compared to 2022. AMG Clean Energy Materials' adjusted EBITDA grew 15% year-over-year, from $259 million in 2022 to $297 million in 2023. This was driven primarily by the higher prices and increased volumes as a result of strong operations in the lithium and the vanadium expansion projects, as well as a $10 million incremental dividend from an equity investment.

AMG Lithium is on its way to becoming the premier European lithium refiner, from its own low-cost resources in Brazil, and operates a value chain starting with mining and including solid-state lithium batteries in Germany. In Brazil, AMG's lithium concentrate plant will temporary stop production to facilitate the expansion from 90,000 tons to 130,000 tons. We expect to produce 93,000 tons during 2024 and operate at the full expanded capacity rate, or 130,000 tons per year, in the fourth quarter of 2024.

AMG Brazil signed an exclusive MOU with Grupo Lagoa to concentrate the lithium minerals contained in pegmatite to produce commercial grade lithium concentrate.

AMG's lithium hydroxide refinery's first 20,000-ton module in Bitterfeld, Germany, is in advanced phases of commissioning, and the product qualification process is planned to start in the third quarter of 2024.

AMG Lithium signed a non-binding MOU with FREYR Battery in January 2023 to supply FREYR between 3,000 to 5,000 tons per annum of battery-grade lithium hydroxide.

In 2023 AMG's low-cost position in lithium led to improved profitability within AMG Clean Energy Materials.

Lithium Hydroxide battery-grade refinery - Bitterfeld, Germany

AMG Lithium GmbH signed a non-binding MOU in May 2023 with Fortum to further process Fortum's recovered lithium from old electric vehicle lithium-ion batteries.

AMG Vanadium is the world's market leader in recycling vanadium from oil refining residues and the only US ferrovanadium producer. It is expanding in the Middle East via SARBV's Supercenter project in the Kingdom of Saudi Arabia, which is a facility to produce high-purity vanadium oxides and vanadium electrolyte. The facility will operate under a long-term supply contract with Saudi Aramco for vanadium-containing gasification ash from its power plants in the Kingdom. The full Supercenter project will include the processing of spent catalysts, a Fresh Catalyst R&D facility, and a LIVA Hybrid ESS.

Enacted by the Inflation Reduction Act of 2022, AMG Vanadium qualifies for the Section 45X Advanced Manufacturing Production Tax Credit effective from 2023 onwards, which provides a production credit for domestic manufacturing of certain critical materials. Based on proposed regulations as issued by the IRS, AMG expects to receive a subsidy of approximately $6 million for full year 2023. The ruling is still in the comment period and, as such, is subject to a final determination.

AMG Vanadium acquired the processing technologies and intellectual property related activities from TTI, and will integrate them into its global strategic growth initiatives conducted through SARBV.

AMG Critical Minerals

AMG Critical Minerals’ revenue during 2023 was 38% lower than in 2022 due to lower volumes driven by both the silicon metal plant operating one furnace for most of the year as well as a downturn in the end-use markets for the segment.

Gross profit for the year decreased from $47 million in 2022 to $22 million in 2023. AMG Critical Minerals’ profitability was negatively impacted by decreasing metal prices in 2023 compared to the prior year, as well as the slowdown in the European industrial economy. As a result, adjusted EBITDA in 2023 decreased to $7 million from $38 million in 2022.

AMG LIVA’s first battery Hybrid ESS in Hauzenberg, Germany, which has been in fully automatic operation mode for more than a year, has performed very well in flattening production-driven spikes in electricity demand, known as "Peak Shaving." The

AMG's mineral processing operations was negatively impacted by the slowdown in the European industrial economy.

AMG Graphite - Hauzenberg, Germany

Hybrid ESS battery system combines Lithium-ion and Vanadium Redox Flow batteries with artificial intelligence routines and self-learning algorithms to maximize efficiency, safety, and lifetime of the batteries.

On January 1, 2023, AMG placed its silicon metal plant in Pocking, Germany, on care and maintenance. AMG Silicon operated one of four furnaces beginning in March 2023 through the end of the year, and it plans to run two of four furnaces for the remainder of 2024. The operational parameters of the silicon business will continue to be reviewed on an ongoing basis. Due to the noted interruptions in AMG Silicon's operations, the financial impact of the business will be excluded from adjusted EBITDA during this period of abnormal operations. However, AMG Silicon generated $56 million in cash from operating activities during 2023 driven by the receipt of energy sales made in the fourth quarter of 2022.

AMG Critical Materials Technologies

AMG Critical Materials Technologies' engineering unit signed a record $350 million in new orders in 2023.

AMG Critical Materials Technologies' revenue during 2023 increased by 10%, due largely to the strong performance of its engineering unit associated with the continued recovery of the aerospace market. Adjusted EBITDA in 2023 was $46 million, increasing slightly compared to the $45 million in 2022, largely as a result of higher profitability in engineering and titanium.

AMG Engineering signed a record high of $350 million new orders in 2023, an increase of 24% from the $281 million in 2022, representing a 1.27x book to bill ratio. This record level was driven by strong orders for remelting and heat treatment furnaces during the year. Order backlog was $295 million at the end of 2023, 34% greater than the year end 2022 order backlog of $220 million.

In January 2023, AMG's Management Board approved the construction of a vanadium electrolyte plant with a target capacity of 6,000 m³ at its subsidiary, AMG Titanium, in Nuremberg, Germany. The target capacity is 6,000 m³ vanadium electrolyte, the equivalent of approximately 100 MWh, which will serve the electricity storage market, including a vertical integration into LIVA batteries. We expect to have nameplate capacity available by the second half of 2024.

AMG Engineering has been selected by PCC's TIMET to supply the vacuum melting and re-melting furnaces for their new, state-

AMG Engineering coater for the production of Thermal Barrier Coatings; Source: Honeywell

of-the-art Titanium melt facility in Ravenswood, West Virginia. AMG's scope includes several vacuum arc re-melting, electron beam welding, and electron beam melting furnaces, signifying one of the largest orders in all of AMG Engineering's history. In total, the project represents a $500 million investment by PCC. The new facility will be powered by a solar energy, micro-grid using renewable green energy; the first of its kind for PCC.

AMG's LIVA projects are integral for industrial power management applications and acceleration of the energy transition. The batteries are currently under various stages of bidding and development. One is operational, three are currently under contract and being engineered, and 15 are in bidding and development stages, with a total megawatt hour (MWh) capacity of 749 MWh.

AMG LIVA has agreed to acquire the VRFB activities from VOITH. VOITH has developed an advanced technology for controlling and balancing large-scale high-voltage VRFB energy storage systems. The technology complements LIVA's VRFB system development. LIVA will continue to develop the technology and integrate it into its large-scale energy storage systems.

Risk Management & Internal Controls

AMG employs a risk management approach that identifies and mitigates risk at all levels of the organization.

The Audit & Risk Management Committee is comprised of Dr. Donatella Ceccarelli (Chair), Willem van Hassel and Warmolt Prins, and meets on a quarterly basis. In addition to its Audit Committee duties, this committee is responsible for monitoring and advising the Supervisory Board on the risk environment as well as the risk management processes of AMG.

RISK MANAGEMENT APPROACH

AMG employs a risk management approach that identifies and mitigates risk at all levels of the organization. The Company analyzes risks in formal settings such as scheduled Management Board and Supervisory Board meetings as well as everyday operational situations faced by its global employee base. AMG utilizes a comprehensive Enterprise Risk Management program (ERM) centered on the Company's Risk Assessment Package (RAP). The RAP includes a "top-down" and "bottom-up" analysis and assessment of the Company's risks. The RAP is a detailed document requiring each business unit to:

(i) identify potential risks and quantify the impact of such risks;

(ii) prioritize the risks using a ranking system to estimate the financial impact, probability, and mitigation delay of these risks;

(iii) describe the risk mitigation or transfer procedures in place;

(iv) document the periodic monitoring of the risks;

(v) assign the individuals responsible for monitoring the risks;

(vi) review the trends of the risks identified by the business units; and

(vii) periodically audit previous RAP submissions to evaluate the risk management process.

Each business unit undertakes a full review of its RAP on a quarterly basis. The RAPs are then reviewed and discussed in detail by the Management Board of AMG.

AMG's risk management functions in coordination with the senior management of each business unit. Direct follow-up calls take place by AMG's Chief Financial Officer and his team with the Presidents of the business units. The corporate Legal, Finance and HSE (Health, Safety and Environment) functions also contribute to the quarterly submission of risks identified. Key risks from all business units and functions are then summarized and presented to the Management Board, which reviews them. Any new material risk assessment observed by a business unit or function is reported instantly to the Management Board, while individual risks of special note are regularly discussed at the Management Board's bi-weekly meetings. The Chair of the Audit & Risk Management Committee of the Supervisory Board is informed immediately of any new material risk assessments which have been reported to the Management Board. The Audit & Risk Management Committee of the Supervisory Board formally reviews the consolidated risk package provided by AMG's Management Board during its quarterly meetings. In addition, the Audit & Risk Management Committee of the Supervisory Board supervises, monitors, and reports on the Company's internal control and risk management programs.

During 2023, special attention was given to:

- liquidity and cash flow;
- supply chain disruptions;
- global recession and inflation;
- raw material inputs including global energy costs;
- managing price and volume risk associated with the volatility of commodities;
- information technology and cybersecurity;
- improving contractual terms to lessen inventory price risk;
- evaluating the risk of climate change both on AMG's operations as well as potential supply and demand issues associated with an increasing emphasis on CO_2 reduction;
- understanding geopolitical risks;
- evaluating risks associated with long-term contracts; and
- continuation of the COVID-19 global pandemic.

Appropriate and diverse lines of property and liability insurance coverage are also an integral part of AMG's risk management program.

RISKS

Risks faced by AMG can be broadly categorized as:

Strategic: includes risks related to marketing and sales strategy, product innovation, technology innovation, project execution risk, and acquisitions or divestitures

Operational: includes risks related to executing the strategic direction, production, raw material sourcing, capacity utilization, maintenance of production equipment, distribution of products, labor relations, human resources, IT infrastructure and cybersecurity, and health, safety and environmental issues

Market and External: includes risks related to global and regional economic conditions, market supply/ demand characteristics, competition, metal prices, product substitution, customer and supplier performance and community relations

Financial: includes risks related to compliance with credit facility covenants, currency fluctuations, liquidity, refinancing, budgeting, metal price and currency hedging, treasury and tax functions, accuracy and timeliness of financial reporting, compliance with IFRS-EU accounting standards, compliance with the Netherlands Authority for the Financial Markets (AFM) and Euronext Amsterdam requirements

Climate Change: includes risks related to the physical impact of weather-related events, more volatile weather patterns, water scarcity, flooding, wildfires, as well as transitional impacts and opportunities such as changing supply and demand dynamics associated with customers and suppliers focusing on reducing CO_2

Legal and Regulatory: includes risks related to the political, environmental, legislative, and corporate governance landscape

AMG is subject to a broad array of risks which are inherent in the markets in which it operates. While all risks are important to consider, the following are the principal risks that could have a material impact on results.

METAL PRICE VOLATILITY RISK

AMG is exposed to metal price volatility. AMG is primarily a processor of metals, so risk can arise from short-term changes in price between purchase, process, and sale of the metals or from end-user price risk for metals when raw materials are purchased under fixed-price contracts. The Company hedges exchange-traded metals when possible.

In its aluminum business, AMG also sells conversion services with no metal-price risk. However, most metals, alloys and chemicals that AMG processes and sells, such as vanadium, chrome metal, tantalum, lithium, graphite, niobium, and antimony trioxide, cannot be hedged on an exchange. Prices in 2023 decreased versus 2022, and in some cases quite significantly.

To mitigate price risk across its portfolio, AMG takes the following actions:

- Seeks to enter into complementary raw material supply agreements and sales agreements whereby the price is determined by the same index;
- Aligns its raw material purchases with sales orders from customers;
- Establishes low-cost long positions in key raw materials through, for example, ownership positions in mining activities or structured long-term supply contracts;
- Maintains limits on acceptable metals positions, as approved by the Management Board; and
- Enters into long-term fixed-price sales contracts at prices which are expected to be sustainably above the cost of production.

Success of the mitigation plan is dependent on the severity of metal price volatility and on the stability of counterparties performing under their contracts. Due to the diverse mix of metals that AMG processes and the fact that metal processing has more pass-through risk than long-position risk, this risk is difficult to quantify.

MINING RISK

At its lithium and tantalum mine in Brazil and three graphite mines in Germany, Sri Lanka and Mozambique, AMG is exposed to certain safety, regulatory, geopolitical, environmental, operational, and economic risks that are inherent to a mining operation. The profitability and sustainability of the Company's operations in various jurisdictions could be negatively impacted by environmental legislation or political developments, including changes to safety standards and permitting processes. The mining businesses have certain operational risks related to the ability to extract materials, including weather conditions, the performance of key machinery and the ability to maintain appropriate tailings dams. These risks are all mitigated by continuous monitoring and maintenance of all mining activities. AMG has always recognized the need to carefully manage the risk associated with tailings dams within its operations and takes its commitment to ensuring the safety of its workforce and the surrounding communities very seriously. AMG leadership commissioned a study that was conducted by a third party to ensure that its three tailings dams in Brazil are legally compliant and technically sound. The outcome of the legal study indicated we are compliant with applicable regulation as related to our three tailings facilities.

Mining is also subject to geological risk relating to the uncertainty of mine resources, and economic risk relating to the uncertainty of future market prices of particular minerals. Geological risk is managed by continuously updating mine maps and plans; however, the profitability of the Company's mining operations is also dependent upon the market price of mineral commodities. Mineral prices fluctuate widely and are affected by numerous factors beyond the control of the Company. The level of interest rates, the rate of inflation, world supply of mineral commodities, consumption patterns, speculative activities and stability of exchange rates can all cause significant fluctuations in prices. The prices of mineral commodities have fluctuated widely in recent years. Continued future price volatility could cause commercial production to be impracticable. Mitigation strategies include managing price risk by entering into long-term fixed-price contracts with customers, and via vertical integration strategies.

Other cost-related strategies include continuously reducing cost of production for current products or expanding product lines to enable profitable mine production even in low price environments.

CUSTOMER RISK

Customer concentrations in certain business units amplify the importance of monitoring customer risk. In addition, turbulent economic conditions for commodity producers increase customer risk. Since AMG has a low appetite for customer credit risk, the Company attempts to mitigate this exposure by insuring and monitoring receivables, maintaining a diversified product and contract portfolio, and retaining adequate liquidity. AMG has insured its accounts receivable where economically feasible and has set credit limits on its customers, which are closely tracked. In addition to constant monitoring from business unit leaders, AMG's Management Board reviews accounts receivable balances monthly. Given that the Company has thousands of customers, this risk is difficult to quantify. However, no single customer accounts for more than 12% of AMG's revenues, and therefore, while the impact of a customer failure is manageable, it may have an adverse impact on results. In particular, AMG Engineering can mitigate a portion of customer payment and performance risk due to the collection of prepayments from many of its customers. In addition to risks associated with collectability of receivables, AMG has long-term contracts with numerous customers that have enabled the Company to solidify relationships and deepen its knowledge of its customer base. If a customer does not perform according to a long-term contract and a replacement customer cannot be immediately found, it could have an adverse impact on results.

SUPPLY RISK

All three of AMG's segments are dependent on supplies of metals and metal-containing raw materials to produce their products. Despite a normally low appetite for risk in most categories, supply risk is more difficult to manage given the limited number of suppliers for certain materials. Some of these raw materials are available from only a few sources or a few countries, including countries that have some amount of political risk. AMG Engineering is dependent on a limited number of suppliers for many of the components of its vacuum furnace systems because of its stringent quality requirements. If the availability of AMG's raw materials or engineering components is limited, the Company could suffer from reduced capacity utilization. This could result in lower economies of scale and higher per-unit costs. If AMG is not able to pass on its increased costs, financial results could be negatively impacted. To mitigate the risk of raw materials and supplies becoming difficult to source, AMG enters into longer-term contracts with its suppliers when practical and has been diversifying its supplier base when alternative suppliers are available. The Company also mitigates the risk by monitoring supplier performance, maintaining a diversified product portfolio and retaining adequate liquidity.

PROJECT EXECUTION RISK

AMG is currently engaged in expanding its operating footprint via capital expenditures. These projects, which include amongst others the recently completed Zanesville vanadium plant in the US, the lithium concentrate expansion in Brazil, and the battery-grade lithium hydroxide plant in Germany, carry significant technological, logistical, and project management risks. These risks can result in the delay of a project or, in extreme cases, an inability to complete the project with the projected production volume. AMG manages the risks inherent in building and expanding plants via a comprehensive engineering stage-gate process. In order to support this work, AMG has created a stand-alone engineering group in Brazil that manages the various projects and reports directly to the Management Board regarding each project's progress or potential delays. This group is tasked with utilizing best practices across all of AMG's projects in order to minimize completion or delay risk. This group executes a supplier contracting strategy that is designed to incentivize on-time delivery and performance and reduce AMG's risks with regard to delay or non-performance. AMG believes that its centralized engineering group is differentiated versus its peers and provides a competitive advantage in terms of managing project risk, but nonetheless, project execution risk is a significant, ongoing risk during this period of expansion.

LEGAL AND REGULATORY RISK

AMG must comply with evolving regulatory environments in the countries and regions where it conducts business. Adjustments to environmental policy, as well as governmental restrictions on the flexibility to operate in certain locations, could affect the Company. AMG is required to comply with various international trade laws, including import, export, export control and economic sanctions laws. Failure to comply with any of these regulations could have an adverse effect on the Company's financial results, and AMG's appetite for regulatory compliance risk is very low. Additionally, changes to these laws could limit AMG's ability to conduct certain business. A change in regulatory bodies that have jurisdiction over AMG products and facilities could also result in new restrictions, including those relating to the storage or disposal of legacy material at AMG-owned properties. This may result in significantly higher costs to AMG. See note 33 to the consolidated financial statements for more details on the currently known environmental sites. More stringent regulations may be enacted for air emissions, wastewater discharge or solid waste, which may negatively impact AMG's operations. In addition, international and governmental policies and regulations may restrict AMG's access to key materials or scarce natural resources in certain regions or countries or may limit its ability to operate with respect to certain countries.

As regulations change, the Company proactively works to implement any required changes in advance of the deadlines. The REACH Directive is in effect in the European Union, and AMG's business units pre-registered all required materials and made complete registrations for those products. AMG has continuing obligations to comply with international and national regulations and practices concerning corporate organization, business conduct, corporate governance, and reporting. For example, in addressing possible conflicts of interest affecting its Management or Supervisory Board members, AMG follows strict rules which are described in the Company's Articles of Association and the Rules of Procedure of the Management Board and Supervisory Board, respectively. Compliance with both legal and regulatory matters is monitored and augmented by the Company's Chief Compliance Officer and the Company's General Counsel who make use of the services of several prominent local and global law firms. The AMG Code of Business Conduct and AMG's Values, both updated in 2023, have been distributed to all employees and are available in all workplace locations in local languages and are monitored by a global network of compliance officers and representatives who are stationed at all sites of the AMG Group. Fraud risks are continuously monitored by the Management Board and the Internal Audit function together with the key finance managers of the units, reviewing the proper operation of controls framework, with regular reporting to the Audit & Risk Management Committee. Continuous mandatory training programs, and updates thereof, are provided by the Company to its management and employees to ensure appropriate business conduct. An estimate of potential impact related to regulatory risk is not possible.

AMG's global Speak Up & Reporting Policy is widely available and provides guidance to every employee, contractor or third party, including suppliers, customers, local communities and stakeholders, about how to voice concerns relating to AMG's business or people in confidence and without fear of retaliation. Employees and third parties, including stakeholders and local communities, are encouraged to first report concerns to the relevant managers or supervisors at their local AMG office or industrial site since they are usually best equipped to resolve concerns quickly and effectively. If concerns remain unresolved or one feels uncomfortable using these local channels for other reasons, one can contact AMG Compliance about any concerns through the channels that are published on the Corporate Governance section of AMG's website.

CLIMATE CHANGE RISK AND OPPORTUNITY

The effects of climate change are increasingly visible on the environment, society, and the global economy. AMG evaluates climate risk in two ways: as part of our ERM program, and as part of our operational work focused on reducing our business's direct and indirect impacts on climate change. These risks are reported from the business units to the Management Board and summarized in reports to the Audit and Risk Committee and the Supervisory Board.

AMG is fully committed to proactively understanding and addressing climate risks and opportunities. As part of this commitment, we have conducted a comprehensive scenario analysis exercise to assess our global footprint's exposure to physical climate risks in 2022. Additionally in 2023, we finalized a transition risk analysis of our portfolio and top supplier facilities. This analysis involved evaluating the potential impacts of climate scenarios based on five different emission pathways, ranging from a "No Policy" scenario with a temperature increase of over 4°C to the "Paris Aspiration" scenario aiming for a 1.5°C increase.

Based on the analysis and climate modeling scenarios, no risks have been identified which would have a material effect on amounts and disclosures included in the financial statements as of December 31, 2023. See the Sustainable Development chapter in this Annual Report for additional details on our climate related physical and transitional risk analysis.

CURRENCY RISK

AMG's global production and sales footprint exposes the Company to potential adverse changes in currency exchange rates, resulting in transaction, translation, and economic foreign exchange risk. These risks arise from operations, investments and financing transactions related to AMG's international business profile. While AMG transacts business in numerous currencies other than its functional currency, the US dollar, the Company's primary areas of exposure are the euro, Brazilian real, and British pound. Given the location of our operations, it is not possible to mitigate translation risk in a cost-effective manner. AMG has developed a uniform foreign exchange policy that governs the activities of its subsidiaries and corporate headquarters. AMG enters into non-speculative spot and forward hedge transactions to mitigate its transaction risk exposure and employs hedges to limit certain balance sheet translation risks. The Company will also at times hold cash in foreign currencies to naturally hedge certain translation risks. AMG's overall economic foreign exchange risk is somewhat mitigated by the natural hedge provided by its global operations and diversified portfolio of products: namely, the majority of AMG's products are sold in the country in which they are produced. While AMG will continue to manage foreign exchange risk and hedge exposures where appropriate, fundamental changes in exchange rates could have an adverse impact on the Company's financial results. Starting January 2021, the Company is no longer hedging European cash pool intergroup balance sheet exposures which will result in higher volatility in our financial results from foreign exchange which we believe is not representative of our operating performance.

COMPETITION

AMG's markets are highly competitive. The Company competes domestically and internationally with multinational, regional and local providers. AMG competes primarily on product technology, quality, availability, distribution, price, and service. Competition may also arise from alternative materials and the development of new products. Increased competition could lead to higher supply or lower overall pricing. AMG is a leader in many of its key niche markets. The Company strives to be at the forefront of technology and product development. Despite this, there can be no assurance that the Company will not be materially impacted by increased competition.

PRODUCT QUALITY, SAFETY AND LIABILITY

AMG's products are used in various applications including mission critical components. Failure to maintain strict quality control could result in material liabilities and reputational damage. The Company maintains a stringent quality control program to ensure its products meet or exceed customer requirements and regulatory standards. AMG further mitigates this risk via liability insurance.

FINANCING RISK

A prolonged restriction on AMG's ability to access the capital markets and additional financing may negatively affect the Company's ability to fund future innovations and capital projects. AMG's financing risk was mitigated in November 2021 with the Company's refinancing. In November 2021, the Company entered into a new $350 million 7-year senior secured term loan B facility ("term loan") and a $200 million 5-year senior secured revolving credit facility ("revolver"). The total facility amount of $550 million replaces AMG's existing credit facility and extends our term loan maturity from 2025 to 2028 and revolver maturity from 2023 to 2026. Our financing risk is further mitigated by the year-end 2023 liquidity of $540 million. AMG's exposure to rising interest rates is substantially mitigated as a majority of the company's outstanding debt facilities are either fixed-rate facilities or fixed due to interest rate swaps for the next several years. AMG has an average interest charge across its two main debt instruments of 5%. AMG's future liquidity is dependent on the Company's continued compliance with the terms and conditions of its credit facility and its ability to refinance. As of December 31, 2023, the Company was in compliance with all financial covenants.

BUSINESS INTERRUPTION

A significant interruption of a key business operation could have a material impact on results. AMG's operations could be impacted by many factors including a natural disaster, serious incident, or labor strike. Key suppliers and customers could also experience business interruption whereby the Company is indirectly impacted. AMG's broadly diversified business model mitigates some of the risk associated with business interruption. The Company's insurance policies also include business interruption coverage subject to certain terms. AMG attempts to further mitigate this risk by actively monitoring the supply chain and maintaining rigorous training programs on operational and safety procedures.

COVID-19 PANDEMIC

The continuing public health crisis caused by the COVID-19 pandemic and the unprecedented containment and mitigation measures taken by governments and businesses to limit COVID-19's spread have had, and may continue to have, certain negative impacts on the broader global economy and our business including, but not limited to: decrease or postponement in customer demand; supply chain disruptions; travel restrictions that impact project timing; and ongoing health risks to our employee population.

Throughout the pandemic, AMG has maintained operations sufficient to meet our customer demand. The Company's ongoing focus remains the health and safety of our employees.

AMG continues to monitor the global COVID-19 pandemic and, although the potential future magnitude and duration of the business and economic impacts of it are uncertain and will depend on many factors outside of the Company's control, including the pandemic's duration and severity, emergence of new variants and vaccines and treatments, currently we do not believe the COVID-19 pandemic will impact the Company's ability to meet any of its financial obligations. The Company has not experienced and does not anticipate material negative impacts to its access to the capital markets or any material disruption to the Company's supply chain.

INFORMATION TECHNOLOGY (IT)

The Company utilizes both internal and external IT systems to achieve our overall business objectives. Our IT systems are used for, but not limited to, the processing and storing of financial information, business planning, order processing, and intellectual property. We believe AMG is exposed to IT threats given the Company's global footprint and our use of technology. An information security incident, including a cybersecurity breach, could have a negative impact on the Company's business, financial condition, and reputation. AMG experienced one instance of ransomware infection in 2021, but due to the backup and security systems in place, this resulted in no monetary loss and no business interruption. AMG experienced no instances of successful ransomware attacks in 2023. The Company believes its improvement in resilience and preventative measures in place adequately mitigate the risk of a significant company-wide IT incident. Such measures include:

- Diversity and physical separation of systems across our businesses — each unit maintains their own IT platform disconnected from other units
- Complete asset management of IT and IT network inventory. Larger business units have a live asset view of devices with software version tracking
- Proactive patching processes that ensure that all patches are implemented as soon as possible
- Separation of business IT networks, operational technology, and production networks
- Segregation of IT networks in different risk segments
- Proactively monitoring activities on the networks and/or endpoints

- Disaster recovery planning including dry runs and tabletop exercises
- Information security training and compliance programs
- IT security measures at all business units include next generation firewalls, encryption, physical access controls, endpoint detection and response software for virus and malware detection and remote-controlled countermeasures, multi-factor authentication for field staff/working from home, staff and privileged accounts, on-site and off-site offline backup schemes
- Regular testing of backup functionality
- Websites are hosted and maintained by an external partner and are not connected to the company's computer network
- Exposure to the internet is reduced to the minimum

AMG's Management Board has overall responsibility for the Company's information technology. The Company's CFO is responsible for oversight and compliance and provides updates to the Management Board on a regular basis and reports to the Supervisory Board on IT matters at least annually. In 2021, the Company engaged a third-party cyber security provider to assess our IT risks and improve our IT systems across all AMG units. In 2022, AMG hired a Global Information Security Officer, and implemented a comprehensive cybersecurity implementation plan. This plan improved AMG's cybersecurity defenses in 2022, and a penetration test executed in the third quarter of 2022 demonstrated the resilience of AMG's global IT systems. In 2023, a meeting of all IT heads was held with a one-day training session in incident response, basic threat modeling and threat intelligence.

RISK MONITORING AND PROCEDURES

AMG has a strategic risk function that actively monitors and establishes internal controls to mitigate business and financial risks. AMG's strategic risk function is complemented by its Internal Audit function. Through the risk reporting system, the AMG Corporate Risk Committee works with business unit managers to develop risk mitigation strategies, where applicable. The strategic risk function likewise monitors and assesses the Company's reputational risk, recognizing that it is a subjective measure of the Company's performance by its various stakeholders, and establishing appropriate internal controls to address it. The purpose of the risk reporting and monitoring system is to manage, rather than eliminate, the risk of failure to achieve business objectives, and provide only reasonable, not absolute, assurance against material misstatement or loss.

In addition to the risk assessment process, the Company has established various financial policies and control procedures to ensure proper initiation, authorization and review of transactions. A Corporate Financial Policy manual establishes clear policies around various aspects of the business including human resources, accounting and financial reporting, information technology and cybersecurity, and treasury. Each of the business units are monitored for adherence to these policies by the Company's independent internal audit function. The findings of internal audits are reported to the Audit and Risk Committee along with action plans for remediation of any noted deficiencies. These activities along with the top-down and bottom-up risk assessment processes work in concert with one another as part of the Company's overall risk monitoring and control activities.

STATEMENT ON INTERNAL CONTROL PURSUANT TO THE DUTCH CORPORATE GOVERNANCE CODE

Risks related to financial reporting include timeliness, accuracy, and implementation of appropriate internal controls to avoid material misstatements. During 2023, the Management Board conducted an evaluation of the structure and operation of the internal risk management and control systems. The Management Board discussed the outcome of such assessment with the Supervisory Board in accordance with the 2022 Dutch Corporate Governance Code. AMG's Management Board believes the internal risk management and control systems in place provide a reasonable level of assurance that AMG's financial reporting does not include material misstatements. In relation to AMG's financial reporting, these systems operated effectively during 2023.

Statement of Responsibilities

The Management Board regularly assesses the effectiveness of the design and operation of the internal control and risk management systems.

Based on this report and in accordance with best practice provision 1.4.3 of the Dutch Corporate Governance Code as adopted on December 20, 2022, and effective as of January 1, 2023 ("the 2022 Code"), and article 5:25c of the Financial Supervision Act, the aforementioned assessment, the current state of affairs, the Management Board confirms that, to the best of its knowledge:

- the internal risk management and control systems of the Company provide reasonable assurance that financial reporting does not contain any material inaccuracies;
- there have been no material failings in the effectiveness of the internal risk management and control systems of the Company with regard to the risks associated with the strategy and activities of the Company and its affiliated business, including the strategic, operational, compliance and reporting risks;
- there are no material risks associated with the strategy and activities of the Company and its affiliated business, including the strategic, operational, compliance and reporting risks, or uncertainties that could reasonably be expected to have a material adverse effect on the continuity of the Company's operations in the coming twelve months; and
- it is appropriate that the financial reporting is prepared on a going concern basis.

It should be noted that the above does not imply that these systems and procedures provide absolute assurance as to the realization of operational and strategic business objectives, or that they can prevent all misstatements, inaccuracies, errors, fraud and non-compliance with legislation, rules and regulations. Nor can they provide certainty that we will achieve our objectives.

In view of all the above, the Management Board confirms that, to the best of its knowledge:

- the financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and of companies included in the consolidation;
- the management report provides a fair review of the position at the balance sheet date, the development and performance of the business during the financial year of the Company and its affiliated companies whose information is included in the annual accounts; and
- the management report describes the principal risks associated with the strategy and activities of the Company and its affiliated business, including the strategic, operational, compliance and reporting risks and uncertainties that the Company faces.

DR. HEINZ SCHIMMELBUSCH

ERIC JACKSON

JACKSON DUNCKEL

Management Board

AMG Critical Materials N.V.

March 13, 2024

AMG Vanadium – Zanesville, Ohio, USA

Report of the Supervisory Board

STEVE HANKE
CHAIRMAN
Nationality: American
Born: 1942
Date of initial appointment: May 3, 2013
Date of end of term: 2025

Current positions: Professor of Applied Economics and Founder & Co-Director of the Institute for Applied Economics, Global Health and the Study of Business Enterprise at The Johns Hopkins University in Baltimore, Maryland, USA, Senior Fellow at the Cato Institute in Washington, D.C., USA, and Chairman Emeritus, the Friedberg Mercantile Group, Inc. (Toronto, Canada)
Former positions: Professor, Colorado School of Mines, Professor, the University of California, Berkeley, and senior economist, President's Council of Economic Advisers (Ronald Reagan)

WILLEM VAN HASSEL
VICE CHAIRMAN
Nationality: Dutch
Born: 1946
Date of initial appointment: May 4, 2017
Date of end of term: 2025

Current board position: Investigator/director a.i. by appointment of Enterprise Chamber (Court of Appeals Amsterdam)
Former positions: Attorney-at-law with Trenite van Doorne law firm (Chairman), Dean of the Dutch Bar Association, Supervisory Board Eurocommercial Properties NV, Brack Capital Properties NV, Afvalverwerking Rijnmond NV, and a number of private companies in the Netherlands

HERB DEPP
Nationality: American
Born: 1944
Date of initial appointment: November 8, 2013
Date of end of term: 2025

Current board positions: University of Montana Athletics, Teller Wildlife Refuge
Former positions: VP GE Boeing Commercial Aircraft Programs, VP GE Aviation Operations, VP Marketing and Sales GE Aircraft Engines, President General Electric Capital Aviation Services (GECAS)

DONATELLA CECCARELLI

Nationality: Italian
Born: 1959
Date of initial appointment: May 8, 2014
Date of end of term: 2024

Current board positions: Organization for International Economic Relations, Vienna (OiER)
Former positions: Chairwoman Executive Board of the Flick Privatstiftung, Global Wealth Management Director at Merrill Lynch International Bank Ltd. (Milan, Italy), Executive Director at Lehman Brothers International Europe (Frankfurt, Germany)

WARMOLT PRINS

Nationality: Dutch
Born: 1957
Date of initial appointment: May 6, 2021
Date of end of term: 2025

Current board positions: JHC de Rooy Holding BV, SRG International BV (Advisory Council)
Former positions: Audit Partner at EY (the Netherlands), member of the EY EMEIA Assurance leadership team (Europe, Middle East, India and Africa), regional Managing Partner in the Netherlands, member of the Curatorium of Tilburg University, Chairman of Micro Turbine Technology BV

ANNE ROBY

Nationality: American
Born: 1964
Date of initial appointment: May 4, 2023
Date of end of term: 2027

Current board positions: Nuvance Health network (Chair), Trustee of Villanova University, non-executive director on the board of Rogers Corporation, non-executive board member of Rinchem Company and Twelve
Former positions: Member of the Linde management committee, head of the Praxair Surface Technologies, Electronic Materials and Helium/Rare Gases businesses

The Supervisory Board advises the Management Board and monitors the implementation of AMG's sustainable long-term value-creation strategy, ensuring that all stakeholder interests are appropriately considered.

2023: GLOBAL INSTABILITY, PERSISTENT INFLATION, AND HIGH PRICE VOLATILITY

The year 2023 started on the back of a very strong performance by AMG in 2022, with record sales and profitability (adjusted EBITDA of USD $343 million, mainly caused by AMG Lithium results that were fueled by above average pricing). 2022 confronted AMG with an entirely new reality and set of challenges driven by Russia's invasion of Ukraine, high inflation on a global scale and endangered energy security for many countries in Europe. The global economy in 2023 showed signs of improvement but the upturn remains weak, amid significant downside risks. Lower energy prices which have been helping to bring down headline inflation and ease strains on household budgets, and the earlier-than-expected reopening of China early in the year, all provided a boost to global activity. However, core inflation has been proving persistent and the impact of higher interest rates continues to be increasingly felt across the economy. These were the circumstances the AMG Management Board had to manage during most of 2023, including the fallout from the continuing conflict between Russia and Ukraine (which fortunately did not have a material impact on AMG's operations).

The AMG Management Board and the heads of its units continued to prioritize the health and safety of AMG's employees throughout the year and concentrated on its growth projects with specific focus on progressing the Spodumene 1+ expansion in Brazil; progressing the construction of the Bitterfeld lithium hydroxide refinery; securing incremental lithium resources; the development and expansion the LIVA battery proposition; and the activities of the Shell & AMG Recycling joint venture in Saudi Arabia and Kuwait. AMG's financial results for 2023 are in line with the record results of 2022 despite a severe downturn during 2023 of its key materials prices including lithium concentrate (spodumene) and vanadium. The Company can reflect on 2023 as a year that surpassed the prior record earnings in 2022 with adjusted EBITDA of $350 million, and record cash flow from operations of USD $223 million.

The year 2023 was also highlighted by the introduction of the revised Dutch Corporate Governance Code that became effective as of January 1, 2023 ("the new Code"), replacing the Code that had been effective since 2016. The new Code continues to focus on the need for long-term value creation by companies and has mandated that this needs to be sustainable. Looking back on 2023, the Supervisory Board can report that the Management Board and the management of its units and staff continued to do very well in weathering the disruptive economic environment that hit AMG's global operations. Despite ongoing global geopolitical instability, volatility throughout the electric vehicle lithium battery chain, and various European countries nearing recession, the Supervisory Board is very pleased to report that during 2023 the Management Board maintained full control of and focus on its strategic agenda and achieved the best financial performance in AMG's history.

TASKS AND RESPONSIBILITY

The Supervisory Board oversees the actions taken by the Management Board in determining the implementation of the long-term strategy and the general affairs of AMG. In doing so, the Supervisory Board focuses on the effectiveness of AMG's internal risk management and control system and the integrity and quality of the financial system. The Supervisory Board also monitors compliance in a broader sense and is kept up to date on compliance incidents concerning AMG's Code of Business Conduct, including incidents pertaining to business integrity (fraud, bribery, conflicts of interest), HR issues (discrimination, harassment), EHS matters, and misuse of corporate assets (theft). The Supervisory Board is also responsible for determining the remuneration of the individual members of the Management Board within the context of the Remuneration Policy as adopted at the General Meeting of Shareholders.

While retaining overall responsibility, it has assigned certain of its preparatory tasks to four committees: the Audit & Risk Management Committee; the Selection & Appointment Committee; the Remuneration Committee; and the Safety, Sustainability, and Science Committee; each of which reports on a regular basis to the Supervisory Board. The separate reports of each of these committees are included in this report.

SUSTAINABILITY, ESG, AND DOUBLE MATERIALITY

Since 2021, following the introduction in Europe in 2020 of the EU Taxonomy Regulation, AMG continues to build on the now widely accepted principle that enabling of CO_2 reduction can be classified as an economic activity that significantly contributes to environmental objectives. The Supervisory Board witnessed and supported over the years the development and growth of AMG's ECO_2RP portfolio (as further explained in the Letter to Shareholders in this Annual Report) as one of the cornerstones of AMG's ESG

Strategy. In 2023, the Supervisory Board continued to fully support the Management Board's approach to actively contribute to CO_2 reduction on two levels, first by reducing its (Scope 1, 2, and 3) CO_2 emissions through a variety of measures and target-setting; and second, by enabling its customers (i.e., end-users of its products and technologies) to reduce CO_2 emissions by using AMG's products through its ECO_2RP portfolio. AMG believes that this two-pronged approach benefits all stakeholders, and the Supervisory Board is confident that AMG will be at the forefront of ESG developments as a result.

As first initiated in 2021, in 2023 the Supervisory Board also reviewed the climate change risks AMG is facing which are further discussed in the Sustainable Development chapter of this report. In its climate change risk assessment, AMG's business operations and financial performance as pursued via AMG's three segments, Clean Energy Materials, Critical Minerals and Critical Materials Technologies, are reviewed based on the notion that climate change has the potential to affect companies in two ways. First: physical risk, i.e., climate change – rising sea levels, extreme weather, water shortages – may directly (physically) threaten valuable company assets. Second: transition risk, i.e., global efforts to reduce CO_2 emissions or otherwise mitigate the effects of climate change could affect the value of company assets in a major way. The Supervisory Board is discussing and monitoring how the reduction of CO_2 emissions coupled with the increased deployment of clean and energy efficient technologies and their rapidly declining costs could impact AMG's business operations and financial performance.

As another major and related initiative, AMG started the double materiality assessment of its operations, as required under the provisions of the Corporate Sustainability Reporting Directive (CSRD) that was implemented in the European Union and became effective on January 1, 2024. The CSRD signals a major milestone in sustainability reporting by medium and large-sized companies in the EU and will first be visible in AMG's annual report for 2024. Double materiality measures the Impacts, Risks and Opportunities of the operations of a business enterprise, and classifies how information disclosed by a company can be material both in terms of its implications for the company's financial value as well as the impact on the world at large.

COMPOSITION OF THE SUPERVISORY BOARD

The Supervisory Board was first established on June 6, 2007, and currently consists of six members, as follows: Professor Steve Hanke (Chairman), Willem van Hassel (Vice Chairman), Herb Depp, Dr. Donatella Ceccarelli, Warmolt Prins, and Dr. Anne Roby (the personal details of each member are included on the first two pages of this chapter). During the 2023 financial year, Professor Steve Hanke, Chairman of the Board, was reappointed as a member of the Supervisory Board (and Chairman) for a term of two (2) years to continue, amongst other things, to oversee, in tandem with the CEO, the critical growth and transition phase AMG is going through. Further, during the 2023 financial year, Mr. Herb Depp was reappointed as a member of the Supervisory Board for a term of two (2) years to continue his important work as Chair of the Remuneration Committee. For both Professor Hanke and Mr. Depp, these will be their final terms as members of the Supervisory Board. Finally, during 2023, the Supervisory Board welcomed Dr. Anne Roby who was appointed a member of the Supervisory Board for a term of four (4) years and the Board bid farewell to Ms. Dagmar Bottenbruch, who had served four (4) years as a member of the Supervisory Board and a member of the Remuneration Committee.

An important development in 2023 concerned the creation of a fourth standing Committee of the Supervisory Board - the Safety, Sustainability, and Science Committee ("3S Committee") - to enable the Board to better focus on the sustainability agenda of the Company, including the regulatory developments that comprise, amongst other things, the introduction of the EU Corporate Sustainability Reporting Directive in 2023. Dr. Roby was appointed Chair of this Committee with Mr. Prins serving as a member.

Since AMG is active in the supply of critical materials (including specialty metals and alloys), mining and capital goods, and operates in a difficult and unpredictable economic environment, the Supervisory Board believes that diversity in skills and experience is a key prerequisite for the performance of the Supervisory Board going forward. The Supervisory Board believes it has the right set of skills in place to take on the challenges facing AMG now and in the future. The Supervisory Board aims for an appropriate level of experience in technological, manufacturing, economic, operational, strategic, social, and financial aspects of international business, public administration, and corporate governance. The composition of the Supervisory Board must be such that the combined experience, expertise, and independence of its members enable it to carry out its duties. During 2023, all Supervisory Board members qualified as independent, as defined in the Dutch Corporate Governance Code. All current members of the Supervisory Board completed and signed a questionnaire to verify compliance in 2023 with the applicable corporate governance rules, including the Rules of Procedure of the Supervisory Board.

THE RESIGNATION SCHEDULE OF THE MEMBERS OF THE SUPERVISORY BOARD IS AS FOLLOWS:

Steve Hanke	2025
Willem van Hassel	2025
Herb Depp	2025
Donatella Ceccarelli	2024
Warmolt Prins	2025
Anne Roby	2027

At the Annual General Meeting (“AGM”) in May 2024, Dr. Donatella Ceccarelli will have served ten years on the Supervisory Board when her current term ends. The Board is very pleased that Dr. Ceccarelli has agreed to continue to serve on the Supervisory Board for a term of two (2) years, which will be her final term, in order to continue her critical role as head of the Audit & Risk Management Committee and oversee the transition process to a new external accountant as KPMG Accountants NV ("KPMG") will rotate out after completion of the audit for the year 2025 due to mandatory term limit regulations in the Netherlands. Therefore, the Supervisory Board will nominate Dr. Ceccarelli for reappointment by the General Meeting of Shareholders on May 8, 2024 as an independent member of the Supervisory Board for a term of two (2) years.

Given the rotation schedule of the Supervisory Board and the retirement of Professor Hanke and Mr. Depp in 2025, the Supervisory Board has resolved, in order to prepare for an orderly transition, to expand its resources in 2024 to create a Board with seven (7) members at the AGM in May 2024. The Supervisory Board is very pleased that Ms. Dagmar Bottenbruch, who stepped down from the Board for personal reasons and scheduling commitments in 2023, is prepared to re-join AMG’s Supervisory Board as an independent member, and to secure continuity given her past experience and successful track record as a Supervisory Board member and member of the Remuneration Committee until 2023. The Supervisory Board will therefore nominate Ms. Bottenbruch for appointment by the General Meeting Shareholders on May 8, 2024 as an independent member of the Supervisory Board for a term of four (4) years.

DIVERSITY

Since 2017, AMG has had a Diversity Policy in place that set out AMG’s views on Diversity. This Diversity Policy has been updated and amended and the amended Policy is effective as of the start of 2023, in order to be fully aligned with the latest developments and changes in the workplace and business environment that affects the AMG Group. The Management Board and the Supervisory Board fully support the initiatives that have been reflected in the Diversity Policy of the Company.

Since May 2019, AMG has met its diversity objectives in terms of gender, having at least one third of the seats on the Supervisory Board be held by each gender. Regarding the Management Board, the Supervisory Board will continue to strive to reach the target. The Supervisory Board will carefully consider a candidate's personal qualities, including integrity, strong leadership, global experience, expertise in relevant areas, past accomplishments, understanding of the company, and adaptability in a changing world, when choosing members for the Management Board. Additionally, diversity in terms of factors such as age, gender, and professional and educational background are crucial factors in deciding on appointments for Management Board positions.

During 2023, AMG’s Management Board continued to oversee the Corporate Diversity Council that was established in 2021. The Diversity Council consists of 11 members from different departments and with varying backgrounds and experiences. The Diversity Council’s goal is to focus on creating awareness on diversity throughout AMG, initiate actions to drive diversity within AMG, and render ongoing advice to the Management Board and to the management of the units to monitor diversity at a variety of levels within the AMG Group.

Please refer to the extensive Diversity Report included in AMG’s Sustainable Development chapter of this Annual Report, explaining the actions taken by the Management Board with support of the Corporate Diversity Council and the targets set by the Management Board in 2023 as reported in 2023 to the Netherlands-based Sociaal-Economische Raad (SER) in view of recent Dutch legislation concerning diversity that became effective in 2022.

SUPERVISORY BOARD MEETINGS

The Supervisory Board held 12 meetings over the course of 2023, all taking place by telephone or video conference, except for four physical meetings that took place in Amsterdam (the Netherlands) and in Wayne, Pennsylvania (USA). Eight of these meetings were held in the presence of the Management Board. All meetings were attended by all members, with the exception of Mr. Prins who missed two meetings.

Throughout 2023 AMG continued to be structured into three reporting segments: AMG Clean Energy Materials (CEM), AMG Critical Minerals (CMI) and AMG Critical Materials Technologies (CMT). Each of these segments addresses similar markets, applies similar business models, and has its own set of peers. In addition, each segment has products which enable CO_2 reduction and contribute to AMG’s core ESG concept that is embodied by ECO_2RP (Enabling CO_2 Reduction Portfolio). AMG’s strategic investments that drive earnings growth over the next decade are primarily focused on enabling CO_2 reduction through both its products as well as its technologies.

The performance of these three segments were important topics for review by the Supervisory Board during its regular quarterly meeting together with updates of the Company's strategic projects, its ESG agenda and updates about safety and the COVID-19 pandemic. In addition, recurring subjects, such as AMG's financial position, objectives and results, the operating cash flow (OCF) development as well as the net debt situation of the Company; potential acquisitions and divestments; capital expenditure programs; succession planning and remuneration; legal and compliance review; operations review as well as regular review of the strategic objectives and initiatives of the Company; and the Company's ongoing actions in the field of ESG and diversity in particular, were part of the agenda of the Supervisory Board in 2023.

Financial metrics presented to the Supervisory Board to measure the performance of AMG included net income, earnings per share, adjusted EBITDA, financial leverage (net debt to adjusted EBITDA), working capital, liquidity, operational cash flow (OCF) and return on capital employed (ROCE). The Supervisory Board further discussed the top risks and risk profile of AMG's business and operations and the assessment by the Management Board of the structure of the internal risk management and control systems, and any significant changes thereto, as well as the functioning of the internal audit function and of the external auditor, KPMG. As part of their audit, KPMG considered the internal control environment relevant to the preparation of the financial statements and assessed the design and implementation of the Company's internal controls related to the risks of fraud identified in their audit (revenue recognition and management override of controls).

KPMG's main observations in the area of internal controls relate to the formally documented visible controls on posting of (manual) journal entries. To a certain extent, this is mitigated through management oversight and (informal) management review procedures. KPMG utilized a primarily substantive-based approach as part of the overall audit strategy. With respect to accounting estimates (which may require significant management judgment or involve complexity in the face of high levels of estimation uncertainty), KPMG reported that they assessed these accounting estimates as part of their audit procedures and concluded that the estimates are balanced.

Besides the scheduled meetings, the Chairman had regular contact with the Chief Executive Officer and the other members of the Management Board as well as senior executives of the Company throughout the year.

Throughout 2023, the Supervisory Board regularly reviewed and was regularly updated by the Management Board about the implementation of the long-term strategy of AMG, which was fundamentally renewed and approved by the Supervisory Board first in July 2016 and subsequently fine-tuned and updated during the following years. This strategy review took place on a continuing basis by way of strategy updates during the regular and incidental Board meetings in 2023, headed by the Chairman of the Management Board, in order to keep the Supervisory Board fully informed on the progress and financing of the strategy, as well as the principal risks related to the strategy. An important topic of review concerned the redefining of the corporate and governance structure of the AMG Group at the initiative of the CEO and Management Board, in view of the massive value shift towards clean energy materials (lithium and vanadium) and the need to have adequate access to capital markets to finance the investments needed for implementing the strategy and transparency for investors. All this resulted in a new corporate and governance structure that has become operational as of January 1, 2024, with three reporting segments in legally separate and stand-alone divisions (AMG Lithium, AMG Vanadium and AMG Technologies) which prepares AMG to execute on its strategic objectives that are firmly rooted in strong financial fundamentals.

Also, under the new corporate structure of the AMG Group, AMG's core strategy continues to be based on a growth-driven long-term sustainable value creation approach that will be supported by the three newly created reporting segments. This updated structure will enable AMG to realize strategic, operational, and risk management synergies that will improve decision making, as well as strengthen the resiliency of the organization. Additionally, the new structure will create strategic flexibility for various forms of equity diversification.

Following a record-breaking performance during 2022, the exceptional performance in 2023 by the Clean Energy Materials segment (comprising AMG's lithium, vanadium and tantalum businesses) continued to stand out, led by results from AMG's lithium business that made up 68% of AMG's total adjusted EBITDA in 2023 (compared to 63% in 2022). The market circumstances were however much different from 2022, as shown by a very sharp decline in price levels, especially affecting lithium concentrate and vanadium, from the third quarter of 2023 onwards. The Chinese economy stalled in 2023, the entire lithium value chain experienced high inventory levels, and the continuing inflationary pressure and geopolitical situation caused uncertainty in the markets. Despite all that, the Management Board continued its strong focus on driving the key strategic projects of the Company which included: i) progressing the expansion of the spodumene producing Mibra mine in Brazil and progressing the planning and financing of a Brazilian technical-grade lithium hydroxide plant; (ii) the advancement of the search for lithium resource projects as evidenced by the signing of a 25% investment in Zinnwald plc, the signing of an MOU with Lagoa, signing a contract with General Lithium to toll process our spodumene, and pursuing discussions with various possible lithium resource partners; (iii) progressing the Supercenter recycling project in Saudi Arabia via its joint venture SARBV; iv) progressing the lithium hydroxide upgrader plant in Bitterfeld, Germany, that is on course to ramp up on schedule; and (v) progressing the marketing, expansion and operation by AMG LIVA of its industrial battery solution (referred to as Hybrid ESS), that was first introduced in 2022 (HESS is an ecosystem combining lithium-ion and vanadium redox flow batteries with artificial intelligence routines and self-learning algorithms).

These developments are all examples of the evolution of AMG's strategy towards a focus on markets directly relating to E-mobility, Circular Economy, and Industrial Batteries. The Supervisory Board was fully briefed about these strategic developments and the financial and risk implications thereof for the company.

Please refer to the Chairman of the Management Board's Letter to Shareholders in this Annual Report for an update and overview of AMG's strategy and its implementation thereof going forward.

As a result, 2023 was a very good year despite the unpredictable economic environment, with financial results exceeding the record adjusted EBITDA achieved in 2022, and enabled the Management Board to pursue its strategic objectives and projects without delay.

Because in 2022, the annual self-evaluation process by the Supervisory Board took place with the assistance of an external facilitator, in line with the Board's policy to use the services of external facilitators for this process once every three years, the self-evaluation process in 2023 was carried out informally under the guidance of the Chairman. All Board members received and completed a comprehensive questionnaire, which concerned, among other things, the Board members' mutual interaction; their interaction with the Management Board; the functioning of the Supervisory Board Committees; and the desired profile and competencies of the Supervisory Board. During an executive session of the Supervisory Board held on November 6, 2023, the Chairman shared and discussed the results with the Board members, and the Supervisory Board concluded, based on the findings and the results of the questionnaire, after ample discussion, that the Board, its Committees and individual members have been functioning very well during 2023. The Chairman recorded that the conclusions following from the review closely resembled the conclusions reached by Dr. Peij during his 2022 evaluation (as referenced in the 2022 Annual Report), including high praise for the quality of discussions about strategy, risk, control, and ESG; the professionalism of the Management Board and Supervisory Board members; and the work of Board Committees. During the evaluation session, the Board had a lively discussion about the role of supervisory boards in general and how such boards should fulfill their tasks and what that means for the frequency of interaction between the Chairman and his fellow Board members (on an individual basis) outside Board meetings, and whether it would be desirable from that perspective if Board members would visit operating units of the company, and/or engage with senior managers of such units outside organized visits or engagements where the full Board is attending. Upon ample discussion and having heard the opinion of the CEO on this matter, the Board endorsed the Chairman's views that such visits and engagements, outside of scheduled Board meetings, should only take place by exception in special circumstances.

Also on November 6, 2023, the Supervisory Board (without the presence of the Management Board) met and reviewed the performance of the Management Board and its members over the past twelve months. During this meeting, the Supervisory Board discussed and unanimously adopted the recommendation of the Selection & Appointment Committee, which had based its findings on the results of the Company and feedback from senior management within the AMG Group. The Supervisory Board was impressed by the persistent focus on operational performance, costs and cash flow, and on the implementation and monitoring by the Management Board members of the strategic objectives during unsettling economic circumstances. The Committee concluded that the functioning of the Management Board and its individual members during the review period qualified as very good, despite the ongoing uncertainty caused by the unpredictable economic environment, geopolitical tensions, extreme price volatility, and inflationary pressure. Throughout the review period, the Board kept focus and concentrated on its growth projects with specific focus on the completion of the Ohio II facility (AMG Vanadium), that occurred on time and on budget; progress of the Spodumene 1+ expansion in Brazil; progress of the construction of the Bitterfeld Lithium Hydroxide refinery; securing incremental lithium resources; the development and expansion of the LIVA battery proposition; and the activities of the Shell & AMG Recycling joint venture in Saudi Arabia and Kuwait. AMG' s financial results for 2023 have exceeded the record results of 2022, despite a severe downturn during 2023 of prices of its key materials, including spodumene and vanadium.

SHARES HELD BY MEMBERS OF THE SUPERVISORY BOARD

As of December 31, 2023, the members of the Supervisory Board held 242,043 shares in the Company. Of that number, 91,270 shares were awarded as part of their annual remuneration.

COMMITTEE REPORTS

The Supervisory Board has four standing committees: the Audit & Risk Management Committee; the Selection & Appointment Committee; the Remuneration Committee; and the Safety, Sustainability, and Science Committee.

REPORT OF THE AUDIT & RISK MANAGEMENT COMMITTEE

COMPOSITION: DR. DONATELLA CECCARELLI (CHAIR), MR. WILLEM VAN HASSEL, AND MR. WARMOLT PRINS

The Audit & Risk Management Committee is responsible for, among other things, the review of matters relating to financial controls and reporting, internal and external audits, the scope and results of audits and the independence and objectivity of auditors as well as the Company's process for monitoring compliance with laws and regulations and its Code of Business Conduct.

It monitors and reviews the Company's internal audit function and, with the involvement of the independent external auditor, focuses on compliance with applicable legal and regulatory requirements and accounting standards.

The Audit & Risk Management Committee met in person and by video conference seven times during 2023 (compared to six times in 2022), including its meetings to review and approve annual and interim financial reports and statements of the Company, and reported its findings periodically to the plenary meetings of the Supervisory Board. All members of the Audit & Risk Management Committee attended all meetings.

The structure, process and effectiveness of the Company's internal risk management and control systems and the accompanying risk reports from the Management Board were regular topics of discussion at the Audit & Risk Management Committee meetings. Others included the Internal Audit plan prepared by the Internal Auditor of AMG and the External Audit plan prepared by KPMG (see the chapter on Corporate Governance). Additional topics discussed were internal audit reports of the various units within the group and the identified risks per entity, summarized in the top risks of the Company; quarterly financial results; liquidity and cash situation; credit facility and arrangement with the Company's major banks; insurance; environmental risk; status of the IT and cybersecurity controls within AMG; compliance and Code of Business Conduct review program; foreign currency exposure and hedging policies; tax structuring and spending approval matrices; risk management reports; ESG requirements; and litigation reports.

AMG's Internal Auditor maintained regular contact with the Audit & Risk Management Committee and the external auditors of the Company. The Audit & Risk Management Committee did meet with the external auditors without any member of the Company's Management Board or financial and accounting staff present in May 2023.

At all regular Audit & Risk Management Committee meetings, an important agenda item concerned the review of the Quarterly Risk Report that was prepared by the Management Board as further explained in the Risk Report section of the Annual Report. During that agenda item, all Management Board members joined the Committee meeting to explain the Risk Report, and to update the Committee members about any changes in the risk profile of the Company.

The Audit & Risk Management Committee discussed with KPMG the findings from the 2022/2023 audit of the 2022 Financial Statements and reviewed the contents and key audit matters of the 2023 Independent Auditor's Report of KPMG and reported on this matter to the plenary meeting of the Supervisory Board. In 2023 the external audit fees amounted to $3.094 million for audit and related services performed by the statutory auditor. Present at all regular meetings of the Audit & Risk Management Committee were the Chief Financial Officer, Chief Controller, and the Internal Auditor. KPMG was present at all these meetings, while at most meetings, the Chief Compliance Officer was also present.

As reported before in 2022, the Management Board also in 2023 identified the importance of IT and cybersecurity risks for AMG and the operation of its business units. Based on a review performed by an external cybersecurity consultant company, a comprehensive action plan was defined. AMG's IT departments and their management are responsible for implementing the needed actions. The progress is monitored by the global Information Security Officer (ISO). The action plan and the progress are regularly presented to the Management Board and the Audit & Risk Management Committee. The Supervisory Board receives a summary of all actions.

The Internal Auditor at AMG reports to the Audit & Risk Management Committee and to the Management Board and operates on the basis of an Internal Audit plan approved by the Audit & Risk Management Committee, the Management Board, and the Supervisory Board. The Internal Audit plan is risk-based and comprises units and subsidiaries of the AMG Group with a focus on operational, financial, compliance, and cybersecurity risks.

The Internal Audit function closely cooperates with the external auditors of the Company and was present at all meetings of the Audit & Risk Management Committee of the Supervisory Board.

Recently a third-party audit company reviewed AMG's Internal Audit function against the International Professional Practices Framework ("IPPF") of the Institute of Internal Auditors ("IIA"). In addition to the request of the IIA, the review is also listed in the Dutch Corporate Governance Code and should be executed once every 5 years. Like in 2019, AMG's Internal Audit function once again received the highest rating.

SELECTION & APPOINTMENT COMMITTEE

COMPOSITION: PROF. STEVE HANKE (CHAIR) AND DR. DONATELLA CECCARELLI

The Selection & Appointment Committee is responsible for: (i) preparing the selection criteria, appointment procedures, and leading searches for Management Board and Supervisory Board candidates; (ii) periodically evaluating the scope and composition of the Management Board and the Supervisory Board; (iii) periodically evaluating the functioning of individual members of the Management Board and the Supervisory Board; and (iv) supervising the policy of the Supervisory Board in relation to the selection and appointment criteria for senior management of the Company. The Selection & Appointment Committee held two regular meetings during 2022, in addition to various informal meetings between the committee members who also had contacts with the Chairman of the Management Board and other members of the Supervisory Board and reported its findings to the Supervisory Board. In these meetings, all committee members were present. In its succession planning for the Management Board and Supervisory Board, the Committee takes into account the profile set for new members as well as the diversity policy of the Company as explained earlier in this chapter, bearing in mind the need to have in place at all times the right set of skills and experience on the Board. During 2023, the committee continued its succession planning process to identify adequate candidates for the Supervisory Board, based on the approved profile.

Also during 2023, the Committee continued the succession review of the Management Board that had been initiated back in 2020 given that in 2021, the term of Mr. Eric Jackson as COO was renewed by four years until 2025, and the term of Dr. Heinz Schimmelbusch as CEO was renewed by two years until 2023. As extensively explained at earlier occasions, the Supervisory Board highly values the leadership of Dr. Heinz Schimmelbusch as CEO and Chairman of the Management Board since he is the key driver of the strategic agenda of the Company and the implementation thereof. Hence, as reported in the 2022 Annual Report, after extensive deliberations, the Supervisory Board nominated Dr. Schimmelbusch, who was reappointed by the General Meeting of Shareholders as Chairman of the Management Board and CEO for a period of two years at the Annual General Meeting in May 2023.

On Management Board succession, the Committee had otherwise regular consultations and exchanged views with Dr. Heinz Schimmelbusch, given his long-standing executive, leadership and industry experience since he founded AMG in 2006, about future candidates that would qualify for Management Board positions in view of the changing strategic dynamics of the Company. Dr. Schimmelbusch explained that within the three reporting segments, AMG is building a solid base of human capital of in-house senior managers of excellent quality.

As regards its own succession, the Supervisory Board was faced with three vacancies in 2023. It had already agreed in 2022 to nominate both Professor Hanke, Chairman of the Supervisory Board, and Mr. Depp, Chair of the Remuneration Committee, to be reappointed for their final terms of two years each at the Annual Meeting in May 2023. Both Professor Hanke and Mr. Depp were reappointed as independent members of the Supervisory Board by the General Meeting of Shareholders in May 2023 for terms of two years each. Ms. Dagmar Bottenbruch had regretfully indicated that she would not be available for another four-year term, after her term ended in May 2023, due to her busy schedule and other priorities. The Supervisory Board was very pleased to welcome Dr. Anne Roby who had agreed to serve on the Supervisory Board and was appointed by the General Meeting of Shareholders in May 2023 as a member of the Supervisory Board for a term of four years.

REMUNERATION COMMITTEE

COMPOSITION: MR. HERB DEPP (CHAIR) AND DR. ANNE ROBY

The Remuneration Committee is responsible for establishing and reviewing material aspects of the Company's policy on compensation of members of the Management Board and the Supervisory Board and preparing decisions for the Supervisory Board in relation thereto. This responsibility includes, but is not limited to, the preparation and ongoing review of: (i) the remuneration policy as adopted by the General Meeting of Shareholders; and (ii) proposals concerning the individual remuneration of the members of the Management Board to be determined by the Supervisory Board.

The Remuneration Committee met four times in 2023, in addition to various informal discussions among its members, the other members of the Supervisory Board, the Chairman of the Management Board and the Chief Financial Officer, and the executive compensation consultant (Mercer) hired by the Supervisory Board. In these meetings, all committee members were present.

The revised Remuneration Policy for the Management Board, in effect since 2021, contains a 70-30 percentage split between financial and non-financial targets for the short-term incentive (bonus) component of the compensation. Financial targets are set based on scenario analysis and are comprised of 35% adjusted EBITDA and 35% Operating Cash Flow. Non-financial targets saw a split between ESG related targets (20%) and personal objectives (10%). As in 2022, in 2023, the ESG related targets concerned CO_2 enabling, lost time incident rate and a third new target that concerns a CO_2 intensity target that is similar to the target used by AMG (and the banks) in the Sustainability Linked Loan documentation that is part of the new credit facility for the AMG Group that was concluded in 2021. Both the ESG related targets, as well as the personal objectives and results, are discussed in the Remuneration Report for 2023 that follows hereafter.

During 2023 an important topic for discussion at the Committee meetings concerned the review and adjustment of the base salaries of the members of the Management Board. The base salary review for the CEO was long overdue (the last time was 2007) and given the strategic agenda of the Company and the highly competitive environment in particular for the senior leadership of the Company's lithium unit, the Committee recommended and the Supervisory Board approved substantial increases in the base salaries of the Management Board members with effect as of July 1, 2023. Please refer to the Remuneration Report for 2023, included after this chapter, for a detailed review and background on the change in base salaries. Another important topic during 2023 concerned the review of the compensation for the Supervisory Board members, as the Remuneration Policy for the Supervisory Board had last been approved in May 2020 and would hence be on the agenda of and for approval by the General Meeting of Shareholders in May 2024. The Supervisory Board in its meeting of November 2023 unanimously endorsed the recommendation of the Committee, to continue the Remuneration Policy for the Supervisory Board unchanged, and to ask at the General Meeting of Shareholders in May 2024 to extend the existing Remuneration Policy for another period of four years.

Further, the Chair of the Remuneration Committee met with the Chairman of the Management Board during the beginning of 2023 to learn about the views of the Management Board members regarding the amount and structure of the Management Board's own compensation – as renewed under the 2021 Remuneration Policy – in view of best practice provision 3.1.2. of the Dutch Corporate Governance Code.

2023 REMUNERATION REPORT

See the following chapter containing the Remuneration Report for 2023 for further detail.

SAFETY, SUSTAINABILITY, AND SCIENCE COMMITTEE (3S COMMITTEE)

COMPOSITION: DR. ANNE ROBY (CHAIR) AND MR. WARMOLT PRINS

The 3S Committee was created in 2023 and held its inaugural meeting in the presence of the Management Board members and the head of EHS of the Company, on July 26, 2023. At this meeting the Charter of the Committee was discussed and finalized and thereafter approved by the Supervisory Board.

The Committee is responsible for oversight and review of (i) safety matters, including safety performance and technology to enhance safety performance; (ii) sustainability and environmental matters, including policies and practices and reporting obligations under prevailing EU regulations (CSRD) as well as climate change impact reporting; (iii) science matters, including use of technology to further business strategy, monitor R&D efforts, evaluate potential disruptive technologies; and (iv) providing input and guidance to the Audit & Risk Management Committee on certain enterprise risks, including risk management processes relating to safety, sustainability and science matters.

The Committee held two meetings in 2023 (including the inaugural meeting). Matters discussed concerned the areas where there will be overlap with the Audit & Risk Management Committee, where it was agreed between the two Committees that Mr. Prins, being a member of both Committees, would act as a natural liaison and who could call for a joint Committee meeting if appropriate. Further matters that were discussed included, amongst others, safety culture and indicators, and progress with CSRD reporting for which PWC has been hired to assist in, among other matters, the double materiality assessment and the report of site visit by the Chair to the new AMG Vanadium Zanesville plant.

APPRECIATION FOR THE MANAGEMENT BOARD AND THE EMPLOYEES OF AMG

The Supervisory Board would like to thank the Management Board for its dedication and outstanding efforts in 2023 in leading the Company, as they continued to weather a highly volatile and complex economic environment. The Management Board continued to focus not only on its operational and financial performance during the year, but also on sustainable long-term value creation amid the challenges presented by the generally volatile global economic and geopolitical environment as highlighted by continuing price volatility, inflationary pressures, and an increase of armed conflicts that fuel uncertainty. The Supervisory Board would also like to thank all the employees of AMG for their continued commitment to the Company's success and well-being.

ANNUAL REPORT 2023

The Annual Report and the 2023 financial statements, audited by KPMG, have been presented to the Supervisory Board. The 2023 financial statements and the Independent Auditor's Report with respect to the audit of the financial statements were discussed with the Audit & Risk Management Committee in the presence of the Management Board and the external auditor. The Supervisory Board endorses the 2023 Annual Report and recommends that the General Meeting of Shareholders adopt the 2023 financial statements.

SUPERVISORY BOARD

AMG CRITICAL MATERIALS N.V.

PROFESSOR STEVE HANKE, CHAIRMAN

WILLEM VAN HASSEL, VICE CHAIRMAN

HERB DEPP

DR. DONATELLA CECCARELLI

WARMOLT PRINS

DR. ANNE ROBY

March 13, 2024

Remuneration Report for the Year 2023

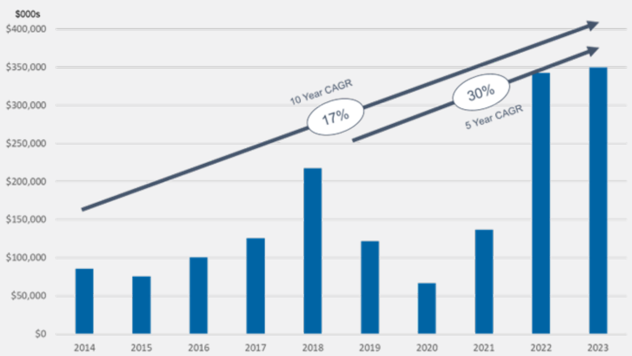
Dear Shareholder, as Chairman of the Remuneration Committee of the Supervisory Board, I am pleased to present the 2023 Remuneration Report of AMG Critical Materials N.V. (“the Company,” “AMG NV” or “AMG”).

AMG's shareholders voted in favor of our Remuneration Report in 2023 with 92.74% approval. We thank our shareholders for their support. Our Supervisory Board remains committed to shareholder engagement and will continue to engage with shareholders on our decision-making in the future.

STRATEGIC AND FINANCIAL OVERVIEW

In 2023, AMG concluded its second consecutive year of all-time best financial results as shown in the graph below:

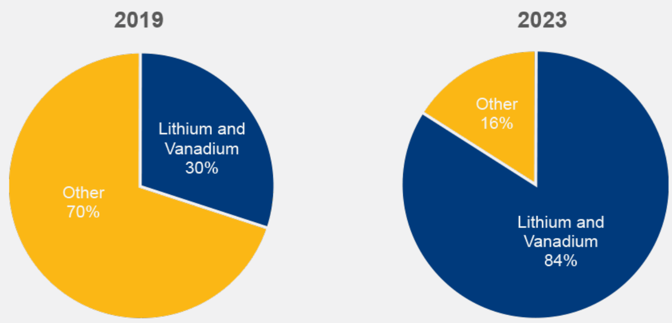
AMG ADJUSTED EBITDA, 5-YEAR, & 10-YEAR COMPOUND ANNUAL GROWTH RATES (CAGR)



As a result of the fundamental strategic decisions the Management Board has made, adjusted EBITDA increased from a 5-year average of $92 million prior to 2018 to over $343 million in 2022 and $350 million in 2023, representing compound annual growth of 30% over the past 5 years and 17% over 10 years. At the same time, cash flow from operating activities increased from a 5-year average prior to 2018 of $77 million to $168 million in 2022 and $223 million in 2023, representing compound annual growth of 48% over 5 years and 10% over 10 years. This phenomenal growth was driven by the creation of a new lithium business and the expansion of the existing vanadium business, generating $693 million of adjusted EBITDA and $391 million of operating cash flow over the past 2 years.

This new platform for growth - the combined lithium and vanadium business - accounted for 84% of AMG’s 2023 adjusted EBITDA, up from 30% in 2019.

AMG'S CHANGE IN SEGMENTAL SHARE OF ADJUSTED EBITDA



$122 million EBITDA

$350 million EBITDA

During the past 10 years, the AMG Management Board has spearheaded strategic change at AMG by making significant investments and creating robust growth platforms that will continue to provide growth for AMG over the next decade.

AMG MANAGEMENT BOARD FUNDAMENTAL STRATEGIC DECISIONS

	Investment Decision	Project
Lithium Expansion	June 2016	Brazil Spodumene Plant
	June 2019	Lithium Laboratory Center, Germany
	January 2021	Brazil Spodumene Expansion
	December 2021	German Lithium Hydroxide Refinery
	March 2023	Zinnwald Plc Acquisition
	August 2023	MOU with Lagoa (Portugal)
Vanadium Expansion	June 2019	Zanesville Vanadium Plant
	September 2019	Shell AMG Recycling BV Formation
	October 2019	International Specialty Alloys Acquisition
	September 2021	Saudi Aramco Offtake Agreement
	November 2021	V_2O_5 and VEL Expansion, Germany
Technologies Expansion	May 2021	Synthetic Graphite Furnace Development
	July 2021	LIVA Formation & IP Acquisition
	January 2024	Voith Energy Purchase

Each of these strategic decisions detailed above were the result of a long decision-making process and extensive study, and all of them either laid the groundwork for the current adjusted EBITDA growth or created a platform for future growth:

- AMG Lithium is currently larger in adjusted EBITDA terms than all of AMG prior to 2021. This business will now be a standalone division at AMG, and includes a significant growth platform in Germany, where AMG will become the first European producer of battery grade lithium hydroxide when our plant in Bitterfeld, Germany starts up in 2024;
- AMG Vanadium doubled its ferrovanadium capacity in Ohio; formed a JV with Shell named Shell & AMG Recycling B.V. to expand vanadium production from refinery waste in the Middle East; and expanded its production capacity of titanium alloys and vanadium electrolyte to service the emerging vanadium redox flow battery industry;
- AMG Technologies created a new business unit, LIVA, which is building grid scale batteries to balance the production of renewable energy for industrial and utility customers; and continued to expand its considerable IP footprint with a synthetic graphite vacuum furnace system.

None of these three strategic growth platforms existed 10 years ago, and all of them represent significant future growth for AMG.

INCREASE IN BASE SALARY LEVELS

Given the above, the Remuneration Committee reviewed the Management Board's overall remuneration packages. They took into account the significant increase in the size, complexity, and management intensity of AMG, as well as the outstanding financial performance and strong future growth prospects that the Management Board's strategy has generated. In addition, the Remuneration Committee recognized that this outstanding performance coincided with both excellent performance in safety and leading performance in reducing AMG's carbon footprint and developing innovative solutions which enable the energy transition. The AMG Supervisory Board agreed with the recommendation by the Remuneration Committee and approved the following salary increases to the Management Board effective July 1, 2023:

USD 000's	2022 Salary	2024 Salary[1]	% Increase	Effective Per Annum Increase[2]
Heinz Schimmelbusch, CEO	1,063	1,500	41%	2.2%
Eric Jackson, COO	833	1,100	32%	3.4%
Jackson Dunckel, CFO	633	900	42%	5.2%

1. Implemented July 1, 2023
2. Effective per annum increase since joining AMG, including the salary increase. Joining dates are July, 2007, at IPO, for Schimmelbusch and Jackson, and January, 2016 for Dunckel.

The Committee believes that these increases are appropriate for a number of reasons:

1. Material Change in Business Scope and Management Intensity

As detailed above and in the letter from the CEO and Chairman of the AMG Management Board, AMG has experienced a material change to its business both in terms of its complexity, scope, and management intensity, as well as in terms of its future growth opportunities. In addition, as detailed above, AMG has had exceptional financial performance.

2. Management Board members have received limited increases over their tenures

Heinz Schimmelbusch, the founder of AMG and our current CEO and Chairman of the Management Board, has been in this role since the 2007 Initial Public Offering of AMG, and has to date never had a salary increase.

- The increase is equivalent to a 2.2% increase per annum over the past 16 years.
- In comparison, the average annual US CPI over that time period was 2.4% and median US CEO salaries grew by 2.7% over the same period.[1]
- If Dr. Schimmelbusch had received salary increases in line with CPI over the 16 years, the cumulative additional costs to shareholders would have been $4 million of salary alone.

The other two Management Board members had their salaries increased commensurate with the increase of the CEO's salary. This was the CFO's first increase since joining in 2016, and the COO's first increase since 2019.

3. Overall Compensation Relative to Peers

With the adjustments in base salary, overall 2024 compensation at target – including short and long-term incentives, which are not changing as a percentage of salary – is positioned just above the Committee's target of 50th – 75th percentile versus its Compensation Peers (unchanged from 2022 and further discussed in the Remuneration Report) which the Committee considers is justified by AMG's very strong financial performance and the establishment of multiple new growth platforms.

1. Median CEO salaries at the largest 1,500 publicly listed companies in the US as measured by the Copenhagen Business School.

PENSION ALIGNMENT

In addition to the salary increase, the Committee aligned all three Management Board members' pensions at 50% of the average of the last three years of each executive's annual base salary only[1]. As disclosed in the 2021 Remuneration Policy, this payout structure was the target for the entire Management Board, but the legacy pension arrangements were structured differently. The Committee decided to equalize the pension structure of all three Management Board members, with the only difference being that the CEO will receive a pension for life, and the CFO and COO will receive pensions until 88 years of age. The rationale for equalizing the Management Board pensions was to ensure equal treatment post retirement as was the original intent of the policy. The result of these changes was a one-time pension expense of $5.3 million. Whilst this is a high figure, we would note that the ongoing annual pension expense will be below $1 million per year.

1. The executives are not able to draw a pension until retirement, and the value of the pension is not adjusted for late retirement. Please see "Pension and Retirement Benefits" below for more details on the changes to the pension plan.

2023 PERFORMANCE AND REALIZED PAY

Despite delivering in 2023 the highest adjusted EBITDA and Operating Cash Flow in its history, the Management Board did not achieve the stretch targets established by the Remuneration Committee. The adjusted EBITDA target was $409 million, $67MM and 19% higher than 2022's all-time high result. Actual adjusted EBITDA was $350 million, due mainly to lower lithium prices than planned, resulting in a payout of 86% for this metric. The Operating Cash Flow target was set at $133 million, or 20% below the 2022 realized figure due to the working capital increase associated with the start up the Lithium Hydroxide plant in Bitterfeld, Germany. The very strong 2023 result of $223 million of Operating Cash Flow resulted in a payout of 200% for this metric, driven by significantly lower than planned lithium prices, lower than anticipated tax payments, and lower prices and strong working capital management across the AMG portfolio.

In terms of ESG measures, AMG Management delivered another strong safety record which was 58% better than industry averages. In addition, the CO_2 intensity of its operations was reduced significantly and the targeted tons of CO_2 enabled products was exceeded.

In terms of 2023 realized pay, the Management Board will receive a cash bonus at 144% of target. This bonus award reflects very strong performance and the stretch targets that Remuneration Committee set, in particular the adjusted EBITDA target of $409 million.

As of December 31, 2023, the PSU payment for 2023 will be zero due to the decline in AMG's share price precipitated by the fall in lithium prices, resulting in a low relative total shareholder return performance of AMG shares versus its peers.

2021 REMUNERATION POLICY CHANGES

In closing, I would like to remind our shareholders of the significant changes AMG made to its remuneration policy in 2021 as we strove to meet the evolving best practices of corporate governance:

- Reducing the maximum Annual Bonus opportunity from 300% of target to 200% in line with best practice.
- Introducing quantifiable, verifiable, and strategically aligned ESG targets to our Annual Bonus award at a weighting of 20%.

We also simplified the Long-Term Incentive Plan and aligned it to best practice, taking into account investor feedback, as follows:

- Share options are no longer awarded. All awards are in the form of performance share units ("PSUs").
- PSUs feature a 3-year performance period and an additional 2-year holding period in line with the Dutch Corporate Governance Code.
- Payouts are based 100% on relative Total Shareholder Return versus the global sector peers we utilize to benchmark Management Board pay.
- There is no vesting of the PSUs for performance below the 50th percentile. This is in line with best market practice and a more stringent requirement than is typical in the US market and

- means that there is a significant probability of a zero payment (as is the case for the cycle that has just completed).

All of these changes were made with direct input from shareholders, proxy advisors, and corporate governance experts, and the 2021 Remuneration Policy received 88.4% of the shareholder vote in 2021. As we prepare to refine our remuneration policy in 2025, we look forward to receiving your feedback on the compensation changes I have outlined above and we welcome any suggestions regarding the 2025 remuneration policy. Please reach out to Michele Fischer, our Senior Vice President of Communications, with any feedback. She can be reached at mfischer@amg-nv.com.

On a final note I wish to refer to the Remuneration Policy for the Supervisory Board at the end of this chapter, which was approved by the shareholders in 2020 and will be up for approval again at the Annual Meeting in May 2024. The Supervisory Board proposes to continue the current Remuneration Policy for another period of four (4) years unchanged.

On behalf of AMG, the Supervisory Board and its Remuneration Committee, I would like to thank you for your continued support and feedback.

Sincerely,

Herb Depp,

Chairman of the Remuneration Committee

INTRODUCTION

This Remuneration Report for 2023 should be read in conjunction with the Remuneration Policy for the Management Board that was accepted by the shareholders at the 2021 Annual General Meeting. It reflects those disclosure changes that were mandated by the European Shareholder Rights Directive ("SRD") in 2019. Regarding the Supervisory Board, its Remuneration Policy was approved by the shareholders at the 2020 Annual General Meeting and this Report also contains the Remuneration Report for the Supervisory Board for the year 2023.

This Remuneration Report details 2023 realized pay in line with the Remuneration Policy for the Management Board and our intentions for 2024 remuneration.

MANAGEMENT BOARD COMPENSATION PHILOSOPHY AND PRINCIPLES

AMG COMPENSATION PHILOSOPHY

The AMG Values (safety, value creation, respect for people, protection of our planet, and integrity) are the foundation of AMG's ambition to be a leader in the field of critical materials and engineering services. These values underpin the assessment of overall performance for Annual Incentive Payments across the Company.

AMG's strategy is to be at the forefront of critical material technologies which target clean energy and energy efficiency and ultimately reduce CO_2 production.

The Remuneration Policy and the performance measures included within it endeavor to align AMG's performance targets with AMG's long-term strategic objectives and AMG's Values, and in so doing, support the generation of sustainable long-term stakeholder value, in line with the revised Dutch Corporate Governance Code that became effective in 2023.

To this end, AMG focuses on pay for performance: AMG's variable compensation is tied directly to the achievement of strategic targets. The performance measures focus management on the delivery of a combination of robust key performance indicators relating to the annual performance of the Company, and on long-term share price appreciation. AMG has concluded that this combination of annual key performance indicators and long-term share price appreciation align well with shareholder value creation.

AMG believes that shareholder value creation is an important pillar to creating long-term, sustainable stakeholder value. AMG's Remuneration Policy incentivizes the Management Board to focus on the other key pillars of sustainable stakeholder value creation: employees must be motivated to work in an environment that puts safety first, and the Company must consider the best interests of the surrounding community, customers, suppliers, service providers, financial institutions, and government agencies. AMG's nonfinancial performance measures focus management on delivering leadership in strategic projects and in long-term sustainability by targeting a specific set of goals including CO_2 abatement, safety, environmental stewardship, diversity, human resource development, and risk management.

AMG targets a Remuneration Policy that is balanced between financial metrics, strategic objectives, and protecting stakeholder values. In addition, AMG targets a total compensation package that is sufficient to attract and retain key management team members.

COMPETITIVE ENVIRONMENT AND PEER GROUP

From the inception of AMG in 2007, the Supervisory Board has adopted a US-centric approach towards executive remuneration, but with due regard to the prevailing Dutch corporate governance environment. This US focus is due to the location of AMG's operational headquarters in the US and the fact that all of its Management Board members have been and continue to be US residents. AMG is mindful of the views of society about the level and structure of remuneration for its senior leadership and AMG continues to inform itself about those views in the major countries in which it is operating like the United States, Germany, Brazil, and the United Kingdom. Although AMG has no operational activities in the Netherlands, it continues to take into account the Dutch perspective since its head office is located and its shares are listed in Amsterdam.

The AMG group of companies competes throughout the world for business and for talent. Given its size and the diversity of its business, it must compete for superior talent with corporations of considerable scale. Therefore, AMG must provide top talent with roles that are challenging and motivating in a fast-paced environment and offer very competitive reward opportunities for superior performance.

In establishing the 2023 remuneration, the Supervisory Board considered multiple scenarios of how the remuneration components would be affected given different sets of circumstances, including one in which incentive plan thresholds were not achieved.

Every year, the Remuneration Committee of the Supervisory Board reviews, confirms and uses an executive compensation peer group for benchmarking purposes. During 2023, the Supervisory Board utilized a peer group that was established with the assistance of our independent adviser Mercer Limited ("Mercer") in 2021. This peer group features 12 of 17 peers which are listed and domiciled in Europe and has been used for the basis of reviewing our Remuneration Policy and how we will implement it in 2023.

The peer group used in 2023 consists of the following companies:

1. Allegheny Technologies Inc*
2. AMAG
3. Aperam
4. Bodycote
5. Carpenter Technologies*
6. Commercial Metals*
7. Constellium*
8. Elementis
9. Eramet
10. Ferrexpo
11. Hill & Smith
12. Materion*
13. OCI N.V.
14. Outokumpu
15. Salzgitter
16. SGL Carbon
17. Vallourec

*Denotes a US Listed Peer

This peer group is an important yardstick for the Supervisory Board in determining performance by the Company and setting compensation for the Company's Management Board.

SUMMARY: REMUNERATION POLICY

FIXED PAY SUMMARY

2023 FIXED PAY AND BENEFITS		
	ANNUAL BASE SALARY	PENSION AND OTHER BENEFITS
Purpose	Reflects responsibilities, experience, and skill sets	Provides retirement and risk insurances tailored to local market practices and regulations
Form of Payment	Cash	Country and Individual specific and aligned with other senior managers
Performance Measures	—	—
Total By Management Board Member [1]	Heinz Schimmelbusch: $1,500,000 Eric Jackson: $1,100,000 Jackson Dunckel: $900,000	Set at 50% of the average salary for the final 3 years of employment. Please see below for further details.

1. Salary changes were implemented July 1, 2023

ANNUAL BONUS

The CEO's target bonus will be 85% of base salary and the COO's and CFO's will be 65% of salary. As per the approved policy, the maximum opportunity is 200% of target in line with best practice.

Financial Measure	Weighting
Operating Cash Flow	35%
Adjusted EBITDA	35%
Non-financial Measures	
ESG Measures • Lost Time Incident Rate • Enabling CO_2 Reduction • CO_2 Intensity	6.7% each, totaling: 20%
Management Board Personal Targets	10%

The 2021 remuneration policy replaced ROCE with adjusted EBITDA as a financial measure because of the very heavy CapEx schedule the Company is engaged in. The rationale for the change was that setting low ROCE targets due to the increase in capital employed would not provide a challenging enough target for Management and did not represent the strategy the Management Board presented to shareholders to deliver the growth targets as expeditiously as possible.

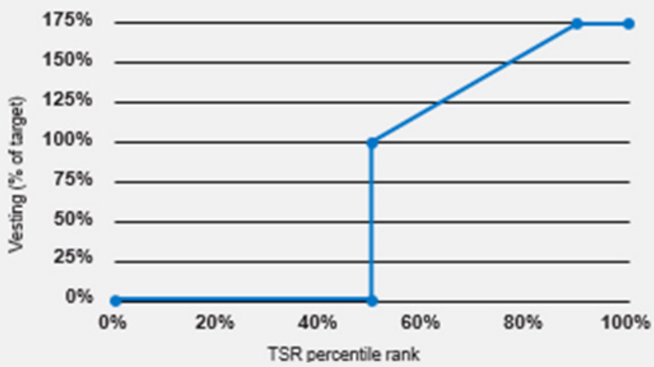
PERFORMANCE SHARE UNITS

In line with the 2021 Remuneration Policy, the Long-Term Incentive Plan is now called the Performance Share Unit Plan. PSUs will be granted based on a Euro face value amount which is approximately 185% of 2024 salary for the CEO and 90% of 2024 salary for the CFO and COO, but the actual figure will fluctuate based on exchange rates. The maximum opportunity will continue at 175% of target.

Performance will continue to be measured over a three-year period. In addition, a two-year holding period of the number of post-tax shares awarded under the PSU plan applies to all PSUs.

Performance will be measured solely based on relative TSR versus the peer group utilized to benchmark Management Board compensation. The vesting schedule for awards after 2021 is shown below—the maximum opportunity is only available with outperformance at the 90th percentile, and unlike the old policy, there will no longer be any vesting for below-median performance.

RELATIVE TSR— VESTING SCHEDULE



The vesting value for the 2024 grant will be based on the TSR performance over three years and will utilize the average share price over the 30 trading days prior to year-end 2023 versus the average share price over the 30 trading days prior to year-end 2026.

The 2021 policy removed the ROCE hurdle for the PSUs in line with the change in financial measures for the annual bonus discussed above. However, the Supervisory Board may apply judgement where necessary to ensure approved vesting levels are representative of actual, overall Company performance including (but not limited to) the level of profit achieved and aim to manage risk in line with integrating business ethics and compliance.

VARIABLE AWARD OPPORTUNITIES

EXECUTIVE	SALARY[1]	ANNUAL BONUS TARGET (% of salary)	PERFORMANCE SHARE UNIT PLAN (% of salary)
Heinz Schimmelbusch, CEO	$1,500,000	85%	185%
Eric Jackson, COO	$1,100,000	65%	90%
Jackson Dunckel, CFO	$900,000	65%	90%

1. Salary post July 1, 2023

COMPENSATION GOVERNANCE SUMMARY

DECISION ON	DECISION MAKING AUTHORITY
Compensation of Supervisory Board	Supervisory Board
Compensation of Management Board	Supervisory Board
Compensation of Senior Executives	Management Board/Remuneration Committee

MANAGEMENT BOARD COMPENSATION RISK MANAGEMENT PRINCIPLES

- Rigorous performance management process
- Balanced mix of short-term and long-term variable compensation elements
- Performance evaluation on an individual basis
- Long-term incentive plan focused on share price performance with three and four-year vesting
- Annual incentive compensation capped at 200% of salary and PSU performance capped at 175% of face value
- Post contractual non-compete of 24 months
- Severance payment is base salary plus in some cases target annual incentive payment
- Good and bad leaver provisions apply to annual bonus and unvested share plans
- Clawback and malus principles apply to all elements of variable compensation
- Share ownership requirements
- No loans to executives permitted

2023 MANAGEMENT BOARD COMPENSATION

2023 AND 2022 REALIZED PAY FOR THE MANAGEMENT BOARD

USD 000's	YEAR	BASE SALARY	ANNUAL BONUS[1]	PSUs[2]	OPTIONS[2]	PENSION	OTHER[3]	TOTAL	FIXED (% OF TOTAL)	VARIABLE (% OF TOTAL)
Heinz Schimmelbusch, CEO	2023	1,260	1,836	—	163	1,231	809	5,299	62%	38%
	2022	1,013	1,697	5,435	72	210	196	8,623	16%	84%
Eric Jackson, COO	2023	966	1,030	—	63	2,437	800	5,296	79%	21%
	2022	828	1,061	2,110	24	116	54	4,193	24%	76%
Jackson Dunckel, CFO	2023	766	842	—	48	2,310	92	4,058	78%	22%
	2022	628	805	1,599	21	406	38	3,497	31%	69%

1. Calculated based on the new salary levels.
2. The 2021—2023 PSUs did not meet the performance criteria and therefore vested with a performance multiplier of 0.0x. Option value detail is described on the following pages.
3. In 2023, other income includes a one-time cost of life insurance for the CEO and COO.

BASE SALARY

As detailed above in the Remuneration Chairman's letter, the Management Board received salary increases as of July 1, 2023. The full year effect of these salary increases is detailed below, and the rationale is explained in the Chairman of the Remuneration Committee's letter.

USD 000's	2022 SALARY	2023 SALARY[1]	% INCREASE	EFFECTIVE PER ANNUM INCREASE[2]
Heinz Schimmelbusch, CEO	1,063	1,500	41%	2.2%
Eric Jackson, COO	833	1,100	32%	3.4%
Jackson Dunckel, CFO	633	900	42%	5.2%

1. Implemented July 1, 2023
2. Effective per annum increase since joining AMG, including the salary increase. Joining dates are July 2007, IPO, for Schimmelbusch and Jackson, and January 2016 for Dunckel.

PENSIONS AND RETIREMENT BENEFITS

The members of the Management Board are members of a defined contribution plan maintained in the United States. They receive additional retirement benefits from Metallurg's Supplemental Executive Retirement Plan (SERP). As detailed in the Remuneration Committee Chairman's letter, the pension structure for all Management Board executives was harmonized at 50% of the last 3 year's salary, and in all cases only starts after the end of their employment with AMG.

With respect to Heinz Schimmelbusch, the supplemental benefits are payable for life commencing at the end of his employment with AMG and are 50% of the average of his last 3 year's salary.

Pursuant to Eric Jackson's and Jackson Dunckel's SERP, if they are employed by AMG or remain in AMG's employment until the age of 65, they are entitled after retirement to receive a pension equivalent to 50% of the average of their last 3 years salary until the age of 88. Jackson Dunckel's benefits will be reduced if his employment with AMG ends prior to reaching age 65. The structural changes to the SERP's are summarized in the table below:

EXECUTIVE	PRIOR STRUCTURE	CURRENT STRUCTURE
Heinz Schimmelbusch, CEO	Pension paid for life post retirement, set at 50% of salary plus bonus, capped at $600,000	Pension paid post retirement for life, set at 50% of the average of the last three years' salary
Eric Jackson, COO	Pension paid post retirement until age 88, set at $252,000 per year	Pension paid post retirement until age 88, set at 50% of the average of the last three years' salary
Jackson Dunckel, CFO	Pension paid post retirement until age 88, set at 50% of last three years' salary, discounted by the IRS Minimum Present Value Segment Rates	Pension paid post retirement until age 88, set at 50% of the average of the last three years' salary

2023 ANNUAL BONUS

Target opportunity was 85% of salary for the CEO and 65% for the COO and CFO. Maximum performance was 200% of target subject to the attainment of exceptional performance.

MEASURE	TARGET	ACTUAL	ACTUAL % VS TARGET	ACHIEVEMENT VS TARGET	2022	TARGET % VS 2022
Financial Measures—70% of total, comprising:						
Operating Cash Flow (35%)	$133.3M	$223.0M	167%	200%	$167.6M	(20%)
Adjusted EBITDA (35%)	$408.8M	$350.5M	86%	86%	$342.6M	19%
Non-financial Measures - 30% of total, comprising:						
ESG Measures (20%)						
• Lost Time Incident Rate (6.7%)	1.05	0.51	(51%)	200%		
• Enabling CO_2 Reduction (6.7%)	109	110	101%	107%		
• CO_2 Intensity (6.7%)	2.47	1.89	(23%)	200%		
Management Board Strategic Targets (10%)	Qualitative	Meets	Meets	100%		
Total Annual Incentive Award				144%		

As explained in the Chairman of the Remuneration Committee's letter, AMG's 2023 performance did not exceed the max targets set despite the outstanding performance of the Company. The adjusted EBITDA target was $409 million, $67MM and 19% higher than 2022's all-time high result. Actual adjusted EBITDA was $350 million, due mainly to significantly lower lithium prices than planned, resulting in a payout of 86% for this metric. The Operating Cash Flow target was set at $133 million, or 20% below the 2022 realized figure due to the working capital increase associated with the start up the Lithium Hydroxide plant in Bitterfeld, Germany. The very strong 2023 result of $223 million of Operating Cash Flow resulted in a payout of 200% for this metric, driven by significantly lower than planned lithium prices, lower than anticipated tax payments, and lower prices and strong working capital management across the AMG portfolio.

ESG MEASURES PERFORMANCE – WEIGHTING 20%

Metric	Weight	Result
Lost Time Incident Rate	6.7%	AMG's aspirational target is clearly zero Lost Time Incidents ("LTI"), but for the purposes of setting a compensation target, we aspire to be significantly better than our peers. Our peers are defined by the North American Industry Classification System code of 331 (Primary Metal Producers). This peer group had a 2022 LTI of 1.2. Our target was set at a 10% improvement vs. these peers, or 1.08, and Significantly Above was set at a 50% improvement, or 0.58. AMG's LTI of 0.51 was best in class and 58% below the peer group figure of 1.2. **Outcome: 200% Achievement**
Enabling CO_2 Reduction	6.7%	In 2022, AMG increased enabled CO_2 savings to 99 million tons from 78 million tons. The 2023 target was set at 109 million tons (+10% of 2022 actuals) with a Significantly Above target set at 129 million tons. In 2023, AMG enabled its customers to reduce 110 million tons of CO_2. This calculation is detailed in our CEO letter and our Sustainability report, and it is mainly driven by higher aerospace activity by our customers. **Outcome: 107% Achievement**
CO_2 Intensity	6.7%	In 2021, AMG entered into a Sustainability Linked Loan which included a commitment to reduce the CO_2 intensity of its operations. Based on a CO_2 intensity of 4.25 in 2021, AMG agreed to reduce its CO_2 intensity to 3.0 by 2026. Based on volume projections including the start-up of the Zanesville vanadium plant, the compensation target for 2023 was set at 2.47 – significantly ahead of the Sustainability Loan commitment of 3.75 in 2023. The Significantly Above target was set at 2.17. AMG delivered a CO_2 intensity target of 1.89. The drop in CO_2 intensity is mainly driven by the partial closure of our silicon metal facility in Germany, AMG's largest CO_2 emitter, offset by higher CO_2 emissions at our Zanesville vanadium facility. **Outcome: 200% Achievement**

MANAGEMENT BOARD PERSONAL TARGET SCORE CARD AND DISCUSSION – 10% WEIGHTING

The scale used in evaluating the Management Board's performance is as follows:

OUTCOME	VALUE
Significantly Below	0%
Below	50%
Met	100%
Above	150%
Significantly Above	200%

Management Board Strategic Targets	Key Achievements	Result
Commission the Spodumene Mine expansion (SP1+) on time and deliver target volumes	• Management decided to delay startup in order to take advantage of strong lithium prices during the year • All engineering and part procurement was finalized. Start-up in Q2 2024	Below
Mechanical Completion of Bitterfeld Hydroxide Project	• Bitterfeld Project was mechanically complete in November and will start up in Q2 2024	Met
Progressing Shell Joint Venture ("Shell AMG Recycling BV") by advancing the Jazan V_2O_5 project	• The Jazan V_2O_5 project completed basic engineering (FEL3) and began dialogue with financing counterparties • Secured a site and completed all geo-technical work	Met
Increase access to incremental lithium sources	• Purchased 25% of Zinnwald, a prospective lithium producer in East Germany • Signed an MOU with Lagoa to develop a lithium mine in Portugal • Signed a tolling agreement with General Lithium to process AMG's lithium concentrate into technical-grade hydroxide	Significantly Above
Progress Brazil Technical Grade Hydroxide Plant	• Final Engineering received • Financing arranged • Management Board decided to delay implementation due to low lithium prices	Met
Improve EHS Ranking	• Significant resource was dedicated to increasing environmental and social disclosures, setting targets, and demonstrating progress toward targets • These targets include CO_2 emission reduction and management diversity targets • The benefit of this increased disclosure and target setting will be seen in AMG's 2024 EHS rankings	Below
Overall Assessment		Met
Total Annual Incentive Award		100%

Dr. Schimmelbusch was instrumental in progressing multiple long term growth projects in 2023. He led the implementation of the Shell-AMG Joint Venture, and progressed further projects including a potential Kuwaiti project and progressing the Jazan Supercenter recycling facility that was awarded in 2022 by Saudi Aramco in Saudi Arabia. He led the negotiations for multiple lithium expansion projects and as detailed above delivered three of them in 2023. He fundamentally reorganized AMG into three self-standing divisions. This reorganization will increase investor transparency and improve management focus. In conjunction with the Corporate Sustainability Directive, he initiated an in-depth study on decarbonization within AMG.

Mr. Jackson was engaged throughout 2023 executing the various projects AMG is pursuing. Despite the planned delay of the spodumene expansion project, the project was progressed such that it will start up in the second quarter of 2024. The Bitterfeld battery grade hydroxide plant reached mechanical completion on time, and will be starting up in the second quarter of 2024. Mr. Jackson was instrumental in negotiating the purchase of Transformation Technologies Inc. (TTI) which will fundamentally improve our global expansion efforts in vanadium processing. In addition, amongst other things, Mr. Jackson worked extensively with AMG Silicon and AMG Titanium to improve their operating performance.

Mr. Dunckel arranged for financing of a planned Technical-Grade Carbonate Plant in Brazil and initiated financing discussions for the Jazan Supercenter recycling facility in Saudi Arabia. He initiated a review of AMG's cash management systems and is implementing a new system in 2024. He refinanced AMG Engineering's Letter of Credit Guarantee facilities, and initiated a working capital financing project for AMG Lithium. In addition, Mr. Dunckel began extensive preparations for the Corporate Sustainability Reporting Directive, hiring two full-time employees and organizing the project across AMG's business units.

Given the success each of the Management Board members have had with their personal targets, the Supervisory Board has found their performance at the "Met" level and recommended that they be awarded their personal targets at a bonus percentage of 100%.

2021 LONG-TERM INCENTIVES (VESTED DECEMBER 2023)

For the 2021 PSU award, the three-year vesting period was completed in December 2023. Based on the average share price over the final 30 trading days of 2023, the relative TSR for the Company as compared to its peer group did not meet the performance criteria and therefore resulted in a 0.0x multiplier. This value is included in 2023's realized pay.

50% of the 2019 Stock Options and 50% of the 2020 Stock Options vested in 2023, and based on the closing share price at December 31, 2023, resulted in the following net vesting value to the Management Board:

(in thousands except shares)	NUMBER OF SHARES	VALUE[1]
Heinz Schimmelbusch, CEO	60,731	$163
Eric Jackson, COO	22,688	$63
Jackson Dunckel, CFO	17,863	$48

1. Calculated based on the share price of €22.82 at December 31, 2023 and an average USD/EUR exchange rate of 1.0815 for the year ended December 31, 2023.

The Management Board members did not exercise any stock options in 2023.

LEGACY 2020 LONG-TERM INCENTIVES

For the legacy 2020 PSU award (vesting period December 2020 to December 2022), the award calculation was based on the share price performance on the average share price 10 days after the announcement of the 2022 annual results, and the relative TSR for the Company resulted in a 1.75x multiplier. This value is included in 2022's realized pay.

(in thousands except shares)	NUMBER OF SHARES	VALUE[1]
Heinz Schimmelbusch, CEO	129,542	$5,435
Eric Jackson, COO	50,293	$2,110
Jackson Dunckel, CFO	38,100	$1,599

1. Calculated based on the share prices of €39.46 at March 8, 2023 vesting date and converted at 1.0633 USD/EUR exchange rate.

50% of the 2018 Stock Options and 50% of the 2019 Stock Options vested in 2022, and based on the closing share price at December 31, 2022, resulted in the following net vesting value to the Management Board:

(in thousands except shares)	NUMBER OF SHARES	VALUE[1]
Heinz Schimmelbusch, CEO	26,344	$53
Eric Jackson, COO	8,533	$18
Jackson Dunckel, CFO	7,748	$16

1. Calculated based on the share prices of €34.40 at December 31, 2022.

2023 LONG-TERM INCENTIVES

In March 2023, the Supervisory Board awarded Performance Share Units to the Management Board pursuant to the 2021 Remuneration Policy. The Remuneration Committee awarded a higher percentage of salary than in preceding years to compensate the Management Board for the drop in the Euro / USD rate from 1.2 to 1.1, and the USD value of the PSU's remained the same versus 2022.

The face value of the Long-Term Incentive Plan for 2023 is as follows, and is included in the 2023 compensation expense table below:

(in thousands except shares)	PSU Face Value	# of PSU's Granted	% of Salary
Heinz Schimmelbusch, CEO	€1,860	48,986	200%
Eric Jackson, COO	€715	18,831	94%
Jackson Dunckel, CFO	€550	14,485	96%

1. Awarded at the average 5 day share price prior to March 2, 2023 of €37.97.

Per the 2021 Remuneration Policy, the number of PSUs awarded in 2023 is calculated as the face value divided by the average share price of the 5 trading days after the publication of the annual results of 2023. These PSU awards will vest after three years (a performance period of December 2022 to December 2025), subject to:

- a 3-year performance period and an additional 2-year holding period in line with the Dutch Corporate Governance Code.
- payouts will be based 100% on relative Total Shareholder Return versus the global sector peers we utilize to benchmark Management Board pay. Due to the cyclical nature of some of AMG's products, the Supervisory Board believes that a relative measure versus AMG's industry peers is the best way to incentivize the Management Board to outperform its industry over time.
- there will no longer be any vesting of the PSUs for performance below the 50th percentile, in line with best market practice.

As per the 2021 Remuneration Policy, no share options were granted to Management Board members as this incentive scheme was terminated in 2021. All share options granted to the Management Board members prior to 2021 remain in full force and effect in accordance with the governing share option plan.

OUTSTANDING OPTIONS HELD BY THE MANAGEMENT BOARD

The summary of all options outstanding, both vested and non-vested, is presented in the table below:

AMG OPTION PLAN		NON-VESTED OPTIONS UNDER THE PLAN				VESTED OPTIONS UNDER THE PLAN		
FOR THE YEAR ENDED DECEMBER 31, 2023	YEAR	DATE OF GRANT	NUMBER OF OPTIONS	PRESENT VALUE AT DATE OF GRANT (€)	VESTING SCHEME	EXERCISE PRICE (€)	NUMBER OF OPTIONS	MARKET VALUE AT 12/31/23 ($000)[1]
Dr. Heinz Schimmelbusch	2017	5-4-17	—	340,000	50% vested after 3 years, 50% vested after 4 years	25.50	47,667	—
	2018	5-2-18	—	340,000	50% vested after 3 years, 50% vested after 4 years	44.24	17,086	—
	2019	5-13-19	—	340,000	50% vested after 3 years, 50% vested after 4 years	31.43	35,602	—
	2020	3-11-20	42,929	340,000	50% vested after 3 years, 50% vested after 4 years	19.31	42,930	163
Eric Jackson	2017	5-4-17	—	100,000	50% vested after 3 years, 50% vested after 4 years	25.50	14,020	—
	2018	5-2-18	—	100,000	50% vested after 3 years, 50% vested after 4 years	44.24	5,026	—
	2019	5-13-19	—	115,000	50% vested after 3 years, 50% vested after 4 years	31.43	12,042	—
	2020	3-11-20	16,666	132,000	50% vested after 3 years, 50% vested after 4 years	19.31	16,667	63
Jackson Dunckel	2017	5-4-17	—	100,000	50% vested after 3 years, 50% vested after 4 years	25.50	14,020	—
	2018	5-2-18	—	100,000	50% vested after 3 years, 50% vested after 4 years	44.24	5,026	—
	2019	5-13-19	—	100,000	50% vested after 3 years, 50% vested after 4 years	31.43	10,471	—
	2020	3-11-20	12,626	100,000	50% vested after 3 years, 50% vested after 4 years	19.31	12,627	48

1. Calculated based on an average USD/EUR exchange rate of 1.0815 for the year ended December 31, 2023.

SHARE OWNERSHIP GUIDELINES

Management Board Members are required to hold a minimum level of shares in relation to their base salary. The CEO's guideline is 4x base salary whilst the COO and CFO's guidelines are 2x base salary. Per the table below, the CEO currently holds 21x his base salary, the COO holds 9x his base salary, and the CFO holds 2x his base salary, so all Management Board member have met the policy.

The table below outlines the number of shares held by Management Board Members on an unvested and vested basis.

	SHARES OWNED	MULTIPLE OF SALARY[1]	UNVESTED PSUs	PSU AWARD PRICE	NET UNDERLYING SHARES UNVESTED OPTIONS[1]	NET UNDERLYING SHARES VESTED OPTIONS[1]	TOTAL SHARES
Dr. Heinz Schimmelbusch	1,247,333	21x			6,603	6,603	
2022–2024[2]			0	€34.19			
2023–2025[2]			0	€37.97			
TOTAL SHARES	1,247,333		0		6,603	6,603	1,260,539
Eric Jackson	385,554	9x			2,564	2,564	
2022–2024[2]			0	€34.19			
2023–2025[2]			0	€37.97			
TOTAL SHARES	385,554		0		2,564	2,564	390,682
Jackson Dunckel	85,206	2x			1,942	1,942	
2022–2024[2]			0	€34.19			
2023–2025[2]			0	€37.97			
TOTAL SHARES	85,206		0		1,942	1,942	89,090
TOTAL SHARES OWNED BY MANAGEMENT BOARD	1,718,093		0		11,109	11,109	1,740,311

1. Based on December 31, 2023 share price of €22.82 and new annual salaries as of July 1, 2023. Calculated based on an average USD/EUR exchange rate of 1.0815 for the year ended December 31, 2023.
2. The 2022 and 2023 awards had a 0.0x multiplier as of December 31, 2023.

PAY RATIO AND AMG GROUP WORKFORCE COMPENSATION

Since the introduction of the pay ratio in 2017, the Supervisory Board, upon recommendation of the Remuneration Committee, has established that the most informative ratio would be one which compares the average Management Board actual compensation with that of the average total employee benefit cost per employee (global workforce). The average Management Board compensation (rather than only CEO compensation) is deemed to be the appropriate parameter, given the collective management responsibility of the Management Board members under the Dutch corporate governance system.

It should be noted that pay-ratios are specific to a company's industry, geographic footprint, and organizational structure. For example, a large part of AMG's workforce is located in emerging and developing countries, whereas AMG's Management Board members are based in the United States. Compensation packages are designed to be locally competitive. Pay ratios are also susceptible to volatility over time, as they can vary with incentive outcomes, stock market movements (impacting the LTI part of the Management Board compensation), changes in incumbents, exchange rate movements and actual financial performance by the Company.

	2019	2020	2021	2022	2023
Management Board Pay Ratio	40	25	61	50	76
CEO Pay Ratio	61	35	92	72	92

The average remuneration on a full-time equivalent basis of workforce of the AMG Group was $76K and $73K per year in 2023 and 2022, respectively.

The development of this pay ratio will be monitored and disclosed going forward. The Remuneration Committee has taken into account these pay ratios in establishing the Management Board compensation for 2023 and believes that these ratios are fair and adequate for this purpose.

FIVE-YEAR CHANGE IN REALIZED COMPENSATION VERSUS KEY PERFORMANCE INDICATORS

The table below shows the change in total realized remuneration for each Management Board member over the past five-year period, compared to (i) financial performance by the Company and (ii) average remuneration of the AMG Group workforce, during the same period.

YEAR ON YEAR % CHANGE (EXCEPT ROCE)	2019	2020	2021	2022	2023
Heinz Schimmelbusch	-72%	-34%	46%	64%	(39%)
Eric Jackson	-63%	-33%	70%	50%	26%
Jackson Dunckel	-54%	-45%	57%	37%	16%
Cash Flow from Operations	-52%	-58%	363%	85%	33%
Share Price Change	-21%	15%	16%	22%	(34%)
Actual ROCE	13.7%	3.5%	11.9%	30.8%	26.3%
Adjusted EBITDA (USD in millions)	$121.4	$66.8	$136.7	$342.6	$350.5
Average Remuneration AMG Group Workforce	-4%	-8%	13%	0%	5%

COMPENSATION EXPENSE OF THE MANAGEMENT BOARD IN 2023

Total compensation expense recorded by AMG in its financial reports with respect to the pension and retirement benefits of the Management Board are provided in the table below, which sets forth total expenses incurred in 2023 for Management Board remuneration.

All Management Board members receive benefits that are in line with industry and individual country practice. No loans, advances, or guarantees are granted to any Management Board members. Total costs to the Company with respect to other remuneration of the Management Board are provided in the table below, which sets forth total costs incurred in 2023 for Management Board remuneration.

(in thousands) FOR THE YEAR ENDED DECEMBER 31, 2023	BASE SALARY	ANNUAL BONUS	OPTION COMPENSATION	PERFORMANCE SHARE UNITS	RETIREMENT BENEFITS & PENSIONS	OTHER REMUNERATION[1]	TOTAL
Heinz Schimmelbusch	$1,260	$1,836	$76	$1,799	$1,231	$809	$7,011
Eric Jackson	$966	$1,030	$29	$688	$2,437	$76	$5,226
Jackson Dunckel	$766	$842	$22	$530	$2,310	$92	$4,562

Note: These amounts represent the expense recorded by AMG for each component.

1. "Other Remuneration" includes car expenses and additional insurance paid for by the Company, and in 2023 includes a one-time cost of life insurance.

2024 CHANGES TO MANAGEMENT BOARD REMUNERATION

There will be no changes to Management Board Remuneration in 2024. The salary increase in 2023 will be effective for the full year 2024, but the percentage awards for Annual Bonus and PSUs will remain the same. For reference, the at target compensation (i.e., assuming 100% of the target is reached) will be as follows:

2024 MANAGEMENT BOARD COMPENSATION AT TARGET

(in thousands) FOR THE YEAR ENDED DECEMBER 31, 2024	BASE SALARY	ANNUAL BONUS	OPTION COMPENSATION	PERFORMANCE SHARE UNITS	RETIREMENT BENEFITS & PENSIONS	OTHER REMUNERATION	TOTAL
Heinz Schimmelbusch	$1,500	$1,275	—	$2,775	$307	$123	$5,980
Eric Jackson	$1,100	$715	—	$990	$255	$53	$3,113
Jackson Dunckel	$900	$585	—	$810	$454	$86	$2,835

SUPERVISORY BOARD REMUNERATION REPORT 2023

BACKGROUND AND STRATEGIC FRAMEWORK

Reference is made to the Remuneration Policy for the Supervisory Board of the Company with respect to a description of the relevance of the Company's values, identity, and mission and of the background, strategic framework and ambitions and guiding principles that apply to the Company's remuneration philosophy for the Company's Supervisory Board members.

As explained in the 2020 Remuneration Policy for the Supervisory Board, which was adopted during the Annual General Meeting in May 2020, Supervisory Board members have a different role than Management Board members and are compensated differently. Accordingly, Supervisory Board members are not entitled to variable compensation or long-term incentives. No financial or non-financial performance indicators apply to the annual compensation of Supervisory Board members.

The Supervisory Board believes that the benchmarks it uses to attract and retain members for the Management Board should equally apply to the composition and membership of the Supervisory Board. Hence, and given the fast-paced and competitive international environment surrounding AMG's operations, competitive reward opportunities are necessary to attract highly qualified Supervisory Board members.

The Supervisory Board therefore has selected and uses an appropriate compensation peer group for benchmarking purposes that is the same as the peer group used for benchmarking the remuneration of the Management Board.

REMUNERATION COMPONENTS – SUPERVISORY BOARD

Fees paid to Supervisory Board members are not linked to the financial results of the Company. Supervisory Board members receive fixed compensation on an annual basis that is partly payable in AMG shares as explained below. Supervisory Board members do not accrue pension rights and are compensated for travel and lodging expenses incurred as a result of discharging their Supervisory Board duties. They are not entitled to any benefits upon the termination of their appointment.
The individual Supervisory Board members are paid annually:

1. a fixed retainer fee in cash (USD)
2. a fixed Share Award (EUR)

taking into account the level of responsibility of each Supervisory Board member within the Board.

In 2023, the following amounts were paid to the Supervisory Board members:

(in thousands except shares)	CASH	SHARES[1]	SHARE VALUE[2]	TOTAL
Steve Hanke	$110	1,551	$64	$174
Willem van Hassel	$83	1,034	$42	$125
Herb Depp	$80	905	$37	$117
Donatella Ceccarelli	$80	905	$37	$117
Anne Roby (joined May 2023)	$52	597	$25	$77
Dagmar Bottenbruch (departed May 2023)	$23	308	$13	$36
Warmolt Prins	$65	905	$37	$102

1. Share quantity calculated based on the share price on the award date.
2. Share value is fixed in Euros, but changes each year due to exchange rate movements.

The amounts above comprise the total remuneration received on an annual basis by Supervisory Board members for their services rendered.

The share award that is given as compensation to Supervisory Board members comprises a number of AMG shares that is equal to the award amount divided by the average share price of the 10 trading days immediately following the publication of the annual results of AMG of the previous year. Shares awarded to and received by Supervisory Board members as compensation are held for long-term investment purposes and shall be held for a period of at least three years from the date of receipt, and for at least one year after the date a Supervisory Board member has retired.

The Supervisory Board acknowledges that by awarding shares to its members as compensation, AMG deviates from best practice provision 3.3.2. of the Dutch Corporate Governance Code (2016). As explained by the Supervisory Board during and as early as the 2009 and 2013 Annual General Meetings, and again during the 2020 Annual General Meeting, it considers it important to be able to recruit future members from the global marketplace given the size and complexity of the markets AMG is operating in. This merits that part of the remuneration be paid in company shares, in line with US practice (and the general US centric approach for executive compensation as chosen by the Supervisory Board and explained in the Remuneration Policy of the Management Board), where the Company has its operational headquarters. Shares granted as compensation to Supervisory Board members are held as long-term investments and restricted from trading for a period of at least three years from the date of granting. As a result, the Company departs from best practice provision 3.3.2. for reasons explained above. The Supervisory Board expects that this departure will continue to apply indefinitely as it has been in place since 2007 and has contributed to the quality of the Supervisory Board and success of AMG. Further, the Supervisory Board holds the view that this departure does not in any way negatively affect good corporate governance at the Company.

The decision by the Supervisory Board to continue its practice to partly compensate its members in AMG shares fully aligns with the long-term share-based incentives granted to the Management Board members under the Management Board Remuneration Policy as a tool to drive and reward sound business decisions and judgment to support AMG's long-term health that is necessary for achieving its strategic objectives and to align the interests of its Board members with those of AMG's shareholders.

FIVE-YEAR CHANGE IN SUPERVISORY BOARD COMPENSATION EXPENSE VERSUS KEY PERFORMANCE INDICATORS

YEAR ON YEAR % CHANGE (EXCEPT ROCE)	2019	2020	2021	2022	2023
Steve Hanke	33%	11%	1%	-4%	1%
Willem van Hassel	5%	-2%	1%	-4%	7%
Herb Depp	3%	1%	1%	-3%	—%
Donatella Ceccarelli	10%	3%	1%	-3%	—%
Frank Löhner	N/A	1%	N/A	N/A	N/A
Dagmar Bottenbruch	N/A	N/A	1%	-4%	(65%)
Warmolt Prins	N/A	N/A	N/A	46%	—%
Anne Roby	N/A	N/A	N/A	N/A	N/A
Cash Flow from Operations	-52%	-58%	363%	85%	33%
Total Shareholder Return	-21%	15%	16%	22%	-34%
Actual ROCE	13.7%	3.5%	11.9%	30.8%	26.3%
Adjusted EBITDA (USD in millions)	$121.4	$66.8	136.7	$342.6	$350.5
Average Remuneration AMG Group Workforce	-4%	-8%	13%	0%	5%

2024 Remuneration Policy Supervisory Board

Since the current Remuneration Policy for the Supervisory Board was approved by the shareholders in 2020, the General Meeting of Shareholders will have to vote again on the Remuneration Policy for the Supervisory Board during the Annual Meeting in May 2024. The Supervisory Board has decided, upon the recommendation of the Remuneration Committee, to continue with the current Remuneration Policy unchanged for the next four years, except for a minor change in the calculation of the applicable share price for the share award that is fixed in EUR value. The Supervisory Board believes that both the current and proposed compensation is adequate, fair and in line with its long-standing policy, including for the reasons explained above, and therefore submits to the shareholders to vote in favor of the proposed Remuneration Policy for the Supervisory Board during the Annual Meeting in May 2024.

Sustainable Development

This section provides our sixteenth annual sustainability report, which evaluates AMG's social and environmental performance.

LOCATIONS OF OPERATIONS

SITE NAME[1]	LOCATION	COUNTRY	DIVISION
AMG Headquarters[2]	Amsterdam	Netherlands	AMG Corporate
AMG USA Headquarters[2]	Pennsylvania	USA	AMG Corporate
AMG Aluminum	Jiaxing	China	AMG Clean Energy Materials
AMG Aluminum	Sanming	China	AMG Clean Energy Materials
AMG Aluminum	Kentucky	USA	AMG Clean Energy Materials
AMG Aluminum	Washington	USA	AMG Clean Energy Materials
AMG Aluminum[2]	Mexico City	Mexico	AMG Clean Energy Materials
AMG Brazil S.A.	Nazareno	Brazil	AMG Clean Energy Materials
AMG Brazil S.A.	São João del Rei	Brazil	AMG Clean Energy Materials
AMG Brazil S.A.[2]	Belo Horizonte	Brazil	AMG Clean Energy Materials
AMG Lithium[4]	Bitterfeld	Germany	AMG Clean Energy Materials
AMG Lithium[2]	Frankfurt	Germany	AMG Clean Energy Materials
AMG Vanadium	Cambridge, Ohio	USA	AMG Clean Energy Materials
AMG Vanadium	Zanesville, Ohio	USA	AMG Clean Energy Materials
AMG Antimony	Chauny	France	AMG Critical Minerals
AMG Antimony	Lucette	France	AMG Critical Minerals
AMG Graphite	Hauzenberg	Germany	AMG Critical Minerals
AMG Graphite	Cabo Delgado Province	Mozambique	AMG Critical Minerals
AMG Graphite	Qingdao	China	AMG Critical Minerals
Bogala Graphite Lanka	Colombo	Sri Lanka	AMG Critical Minerals
AMG Silicon	Pocking	Germany	AMG Critical Minerals
ALD C&K	Suzho	China	AMG Critical Materials Technologies
ALD Dynatech	Mumbai	India	AMG Critical Materials Technologies
ALD France	Grenoble	France	AMG Critical Materials Technologies
ALD Japan[2]	Tokyo	Japan	AMG Critical Materials Technologies
ALD TT USA	Michigan	USA	AMG Critical Materials Technologies
ALD TT C&K	Suzhou	China	AMG Critical Materials Technologies
ALD TT Mexico	Ramos Arizpe	Mexico	AMG Critical Materials Technologies
ALD Russia[2][3]	Moscow	Russia	AMG Critical Materials Technologies
ALD Thailand[2]	Bangkok	Thailand	AMG Critical Materials Technologies
ALD USA[2]	Connecticut	USA	AMG Critical Materials Technologies
ALD Vacuum Technologies	Hanau	Germany	AMG Critical Materials Technologies
ALD Vacuheat	Limbach	Germany	AMG Critical Materials Technologies
AMG Alpoco	Anglesey	UK	AMG Critical Materials Technologies
AMG Chrome	Pennsylvania	USA	AMG Critical Materials Technologies
AMG Chrome and AMG Aluminum	Rotherham	UK	AMG Critical Materials Technologies
AMG Titanium	Brand Erbisdorf	Germany	AMG Critical Materials Technologies
AMG Titanium	Nürnberg	Germany	AMG Critical Materials Technologies
AMG Titanium	Pennsylvania	USA	AMG Critical Materials Technologies

(1) The chart indicates which facilities were included in the scope of the sustainable development data. Only data from these facilities are included in this section, which may therefore show inconsistency with other sections of this annual report covering all facilities. Please revert to Trade Register filing dated March 13, 2024 for a full list of companies of the AMG Group.
(2) Sales, administrative, and smaller engineering sites with estimated data.
(3) AMG does not have material operations in Russia and is in full compliance with all applicable sanctions.
(4) In 2023 this facility was under construction and is not included in this report.

REPORT BOUNDARIES

The reporting boundaries have changed since 2022 to include AMG Lithium, Bitterfeld, Germany. The thirty-eight locations reporting in 2023 (in which AMG has operational control) are detailed in the Locations of Operations table at the beginning of this chapter. AMG uses actual data for all facilities within the reporting boundary except for sales and administrative offices and some smaller engineering sites (typically with less than 10 employees or with environmental impacts <1% in all aspects) which have been determined to be non-material to the report, and therefore estimated data has been used for these locations in 2023. Those sites utilizing estimated data are indicated in the Locations of Operations table at the beginning of this chapter. The lithium refinery plant in Bitterfeld, Germany was under construction in 2023 and therefore, is not included in this report.

AMG reporting locations include mining, manufacturing, sales, and administrative offices in 14 countries across five continents. This report covers AMG's three operating segments: AMG Clean Energy Materials, AMG Critical Minerals, and AMG Critical Materials Technologies.

ABOUT AMG & OUR SUSTAINABLE DEVELOPMENT REPORT

At AMG, we produce highly engineered specialty metal products as well as market-leading vacuum furnaces for specialized alloying applications and heat treatment services to the transportation, infrastructure, energy, and specialty metals and chemicals markets. Our corporate headquarters is located in Amsterdam, Netherlands, and we are listed on the Amsterdam stock exchange.

We operate three segments: AMG Clean Energy Materials, AMG Critical Minerals, and AMG Critical Materials Technologies, with more than 3,500 employees and 39 sites. Of the 39 sites, 29 are production facilities.

This is our sixteenth Annual Sustainability Report, and it covers the 2023 calendar year. AMG does not include entities in the boundaries of this report of which we do not have operational control.

SUSTAINABILITY STRATEGY & GOVERNANCE

AMG endorses and supports the definition of corporate social responsibility as set by the World Business Council for Sustainable Development: "...the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large." For AMG and its affiliated companies, this definition translates into four main sustainable development objectives that the Company has formulated in line with its financial objectives, technological capabilities, and its leading position in the global metallurgical industry. These objectives are to:

- Provide safe working conditions for our employees and be responsible stewards of the environment.
- Meet or exceed regulatory standards by engaging in ethical business practices.
- Be a valued member of the local economy, community, and society by contributing to solutions to address some of the fundamental environmental and social challenges facing society today.
- Target industrial activities which either contribute to the reduction of greenhouse gas levels through the circular economy or by arriving at technologies which enable our business partners to reduce greenhouse gas levels and quantify the success of these endeavors.

AMG is a global leader in "critical" materials which are essential building blocks for containing and eventually reversing the growth of atmospheric CO_2 levels. AMG understands our obligation to minimizing our impact on climate change and are committed to achieving the following goal:

- By 2030, AMG commits to reduce its direct CO_2 emissions by 20% from a baseline of 2019 (i.e., pre COVID-19) adjusted for the startup of our Zanesville facility. This is a total reduction of 125,000 tons of CO_2.

AMG's Supervisory Board and Management Board are guided by these objectives when defining and implementing the Company's strategic objectives.

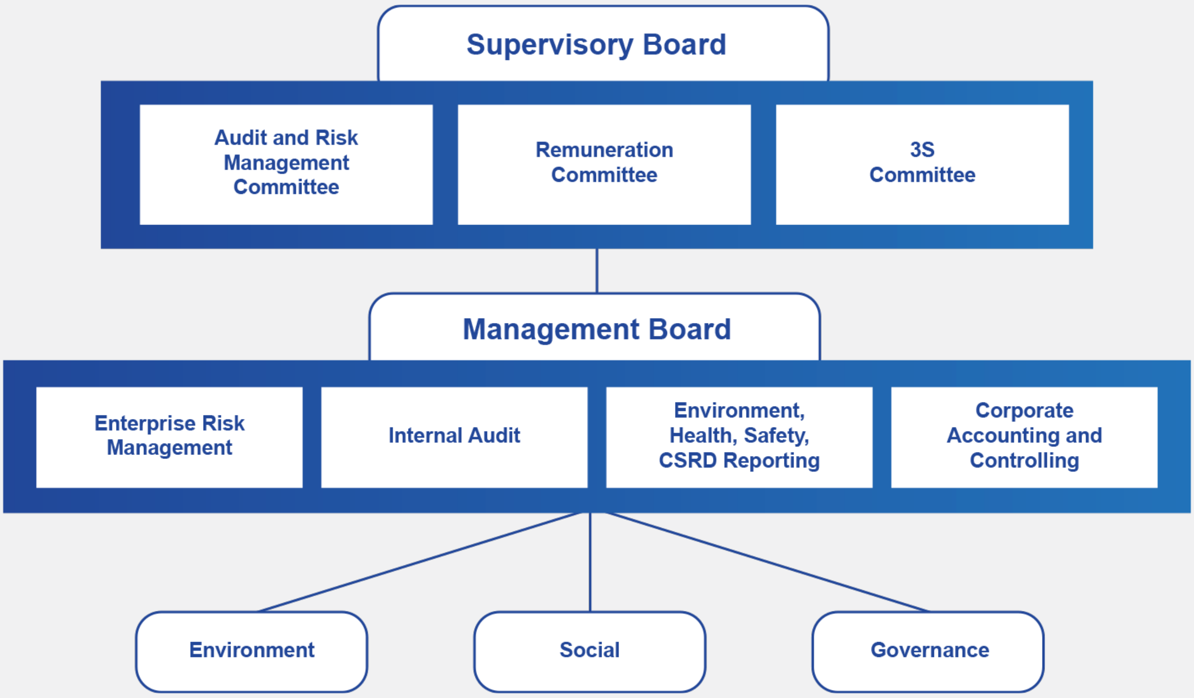
The Management Board members are collectively responsible for building a culture within AMG focused on sustainable long-term value creation. Each Management Board member has the responsibility to serve the best interests of the Company and its stakeholders.

The Supervisory Board oversees the Management Board's implementation of the sustainable long-term value-creation strategy of AMG. The Supervisory Board regularly discusses the strategy, implementation of the strategy, and principal risks associated with the strategy.

An important development in 2023 concerned the creation of a fourth standing Committee of the Supervisory Board - the 3S Committee - to enable the Board to better focus on the sustainability agenda of the Company, climate-related impacts, risks, and opportunities and the regulatory developments that comprise, amongst other things, the introduction of the EU Corporate Sustainability Reporting Directive in 2023. Dr. Roby was appointed Chair of this Committee with Mr. Prins serving as a member.

The Vice President of Sustainability, Environment, Health, and Safety is responsible for the overall sustainability strategy for the organization and reports results to the Management Board on a regular basis.

CLIMATE GOVERNANCE STRUCTURE



STAKEHOLDER ENGAGEMENT & MATERIALITY

AMG conducts materiality assessments to advance its sustainability program by identifying environmental, social, and governance impacts, risks, and opportunities that are most critical to AMG's business and stakeholders. The results of these materiality assessments informed the content of this report, including specific topics and metrics to track and disclose. ESG Materiality assessments by nature are not static and related disclosures may change over time.

In 2023, we reassessed our strategy for identification of stakeholders. Our new approach included identifying stakeholders and classifying them into two groups (with some stakeholders possibly belonging to both groups):

- Affected stakeholders: individuals or groups whose interests are affected or could be affected by AMG's activities and business relationships across the value chain;
- Users of sustainability statements: individuals or groups who can affect AMG and/or are a primary user of its sustainability statements.

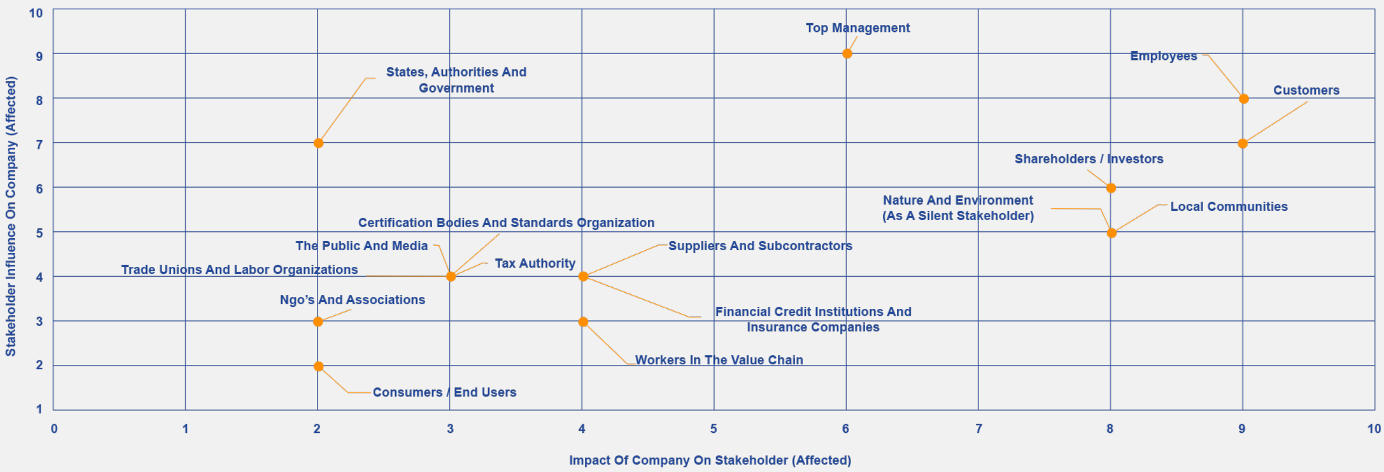
In an attempt to prioritize stakeholders, AMG applied a semi-quantitative ranking to determine:

- The extent to which the stakeholder (group) is or could be affected by AMG; and
- The extent to which the stakeholder (group) affects or could affect AMG.

The results of the the quantitative ranking are shown below in AMG's Stakeholder Map. Stakeholders with a ranking > 5 for one or both affects, were identified as priority for further consideration and input to our materiality assessment. The following table presents a summary of the top affected stakeholders and stakeholder groups in our value chain.

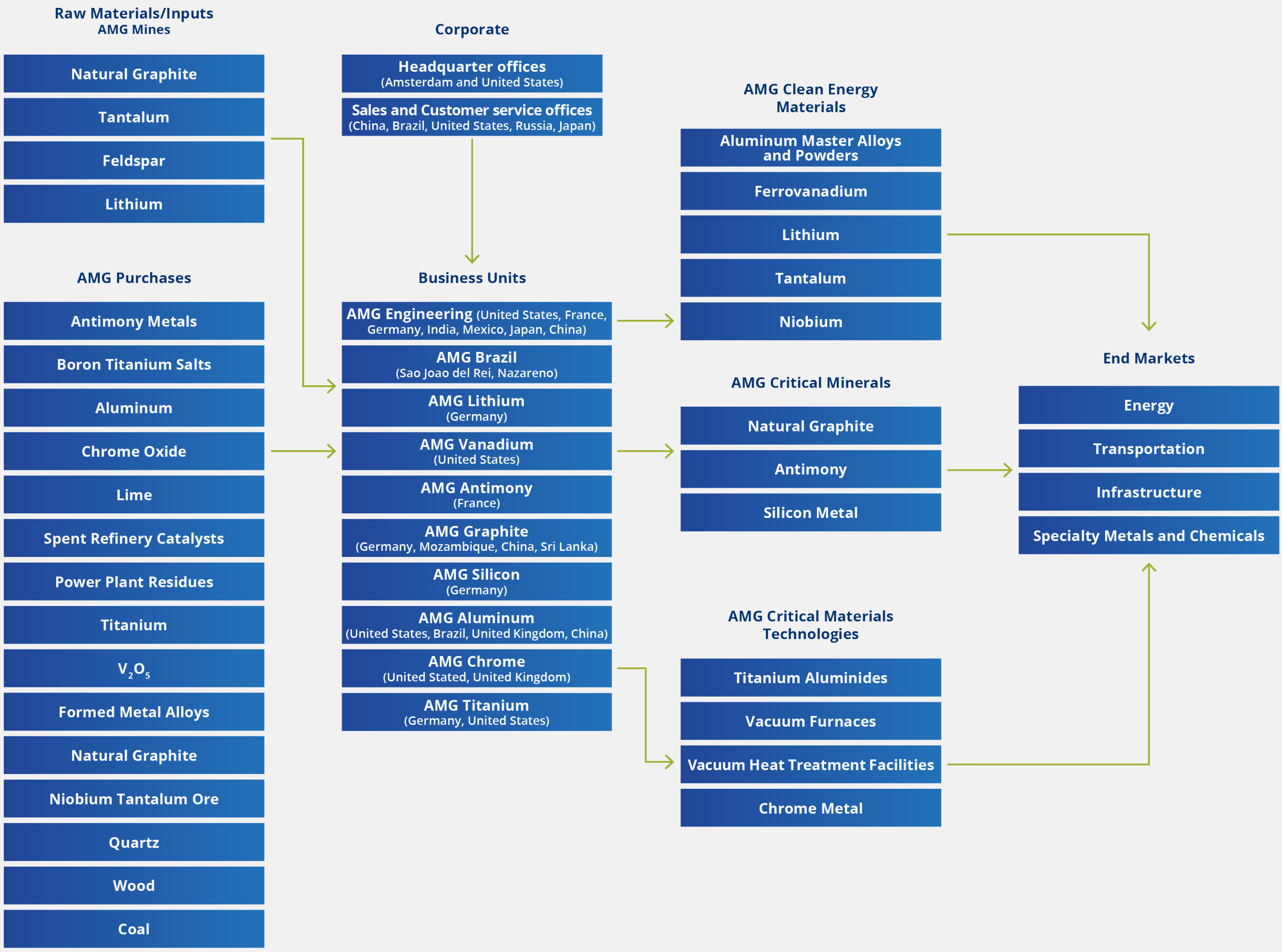
Stakeholder	Value Chain Step
Employees	Own Operations
Customers	Downstream
Shareholders/Investors	Own Operations
Top Management	Own Operations
States, Authorities and Government	Across value chain
Nature and Environment (as a silent stakeholder)	Across value chain
Local Communities	Across value chain

AMG'S STAKEHOLDER MAP



Material topics were considered across AMG's supply and product value chain:

AMG'S SUPPLY AND PRODUCT VALUE CHAIN



Throughout this report, we report on the ESG topics that have been identified as most significant, detailing our management approach and key metrics for measuring performance across such topics. Throughout 2023 AMG began working toward compliance with the European Parliament Regulation as regards to corporate sustainability reporting (Corporate Sustainability Reporting Directive "CSRD"). Our 2024 Annual Report will comply with this legislation. As part of this compliance, in 2023 AMG performed a double materiality assessment to identify sustainability topics that are material from either an impact, risk, or opportunity perspective. The underlying goal of the materiality assessment was to ensure that the impact to affected stakeholders was considered. The materiality assessment followed a structured process and included the steps and objectives described in the following table.

STEP	OBJECTIVE
Developing a long list of sustainability matters	• Understand which sustainability matters could potentially be material. • Structure and cluster sustainability matters before performing the material assessment.
Determine focus areas across the value chain for each sustainability cluster, sub-topic and/or sub-sub-topics	• Assess the relevance of sustainability clusters, sub-topics and/or sub-sub topics across the value chain.
Define impacts, risks and opportunities, timeline for the occurrence (short, medium, long-term) and where in the value chain they occur	• Define and list the impacts, risks and opportunities for each sustainability matter.
Assess the parameters of impact materiality for each identified impact • how grave the negative impact or beneficial the positive impact • how widespread the impact • how hard to counteract the negative impact • how likely for impact to happen	• Determine the materiality score of all impacts on the list
Assess the parameters of financial materiality for each risk and opportunity • the magnitude of financial effect • likelihood of occurrence	• Determine a materiality score for all risk and opportunities on the list
Rank and categorize impacts, risks and opportunities	• Assess which impacts, risks and opportunities are material as compared to thresholds for materiality

The priority list of material sustainability topics and potential impacts identified through the materiality assessment are provided in the following table:

MATERIAL TOPIC	IMPACTS, RISKS AND OPPORTUNITIES
ENVIRONMENT	
Climate Change	As global energy demand increases, there will be a higher demand for AMG's materials and technologies that improve energy efficiency and increase energy supply resulting in an impact on the environment by reducing GHG emissions due to a shift to renewable energy and developing energy storage solutions and materials that enable further CO_2 reduction by end users.
Circularity (resource inflows, including resource use)	Risk of disruptions in the supply chain caused by scarcity or unavailability of (raw) materials and parts and legislative developments affecting critical suppliers and their supply chains.
Circularity (resource outflows, related to products and services)	AMG reviews manufacturing processes to identify non-sellable product streams for opportunities to innovate these materials into products.
SOCIAL	
Health & Safety & Human Rights	Protection of employees, supply chain workers working onsite at our facilities, and visitors through design of safe operations and work practices, employee well-being initiatives, training programs, robust safety management systems, and culture. Potential impacts include occupational injuries and illnesses, non-compliance with health and safety regulations, off-site consequences from upset conditions, and exposure of workers in the supply chain to forced labor and child labor.
Diversity & Inclusion	A diverse and inclusive workplace, accepting of and providing equal opportunity to all employees regardless of race, ethnicity, gender, age, education, ability/disability, sexual orientation, religious affiliation, veteran and disabled veteran stats, experience, and thought. Potential impacts such as discrimination can impose unequal burdens on individuals or deny fair opportunities based on individual merit.
Community Engagement	Hiring employees for our own workforce, from the local region and providing fair wages and competitive benefits and influencing other local businesses to do the same. AMG employees providing community support through pro bono services or volunteering; cooperating with the public and private institutions to promote social programs. Potential socioeconomic, cultural, health and human rights impacts on local communities from the AMG operations and activities.
GOVERNANCE	
Business Ethics	Prevention of unethical or illegal behavior involving a company employee or agent, with respect to how the Company works with suppliers, customers, and other business partners in developing and marketing products and driving business growth and profitability (e.g. no bribery, collusion, antitrust, monopoly, practices, etc.). Potential impacts include regulatory non-compliance, fines, penalties and damage to organization's reputation and community standing.
Compliance	Operating in accordance with regulations across a full range of fractional areas. Potential impacts include regulatory non-compliance, fines, penalties and damage to organization's reputation and community standing.
Risk Management	Proactive consideration of risk factors and opportunities, including resilience and sustainability in business decisions, taking effective steps to mitigate risks and to capitalize on opportunities to protect and enhance the business and its assets. Potential impacts could include unplanned financial expenditures and business interruption.

EXTERNAL INITIATIVES

Extractive Industries Transparency Initiative

AMG continues its support of the Extractive Industries Transparency Initiative (EITI), a global initiative to improve governance in resource-rich countries through the verification and full publication of Company payments and government revenues from oil, gas, and mining. EITI works to build multi-stakeholder partnerships in developing countries to increase the accountability of governments. Over 50 countries have now committed to the EITI principles and criteria. As of today, AMG has two extractive operations in EITI-implementing countries: Germany and Mozambique.

United Nations Global Compact

AMG is an active participant in the United Nations Global Compact. The Global Compact is a strategic policy initiative for businesses that, like AMG, are dedicated to aligning their operations and strategies with 10 universally accepted principles in the areas of human rights, labor, the environment, and anti-corruption. Since 2009, the AMG Management Board has expressed its commitment to the Global Compact and its intent to support the 10 principles. AMG reaffirms its support annually.

Memberships

AMG is a participating member of the International Antimony Association, International Lithium Association, Tantalum-Niobium International Study Center and Vanitec, with employees serving on the governance body for each organization. The International Antimony Association or i2a is the Brussels-based organization representing the producers, importers and users of multiple Antimony substances. i2a's aim is the sustainable and responsible production, use and recycling of Antimony. ILiA is the global trade association for the lithium industry and represents the entire lithium value chain. The Association was established in 2021 as an international not-for-profit industry association run by and for its members. ILiA, supports the lithium industry's efforts to supply high quality lithium sustainably and responsibly, and proactively promote a better understanding of ILiA members' ESG credentials. The Tantalum-Niobium International Study Center was founded in 1974 as an international nonprofit association developed to spread information about tantalum and to promote the common interest and welfare of the producers of tantalum. Vanitec brings together representatives of companies and organizations involved in the mining, processing, manufacture, research and safe use of vanadium and vanadium-containing products.

ESG Rating Agencies

AMG is actively engaged with ESG Rating Agencies which through publicly available sustainability information and direct engagement, provide AMG with scores based upon its environmental, social, and governance performance. AMG is committed to improving its scoring with these rating agencies through policy improvement, increased engagement, and identification of risks, opportunities, and mitigation within AMG.

EU TAXONOMY

The EU Taxonomy Regulation requires companies, such as AMG, to report on the share of the turnover, Capital Expenditure and Operational Expenditure that are aligned with environmental objectives and climate change laid out in the Taxonomy.

We apply the following regulations and definitions internally relating to the Taxonomy:

- Amended Climate Delegated Act (Commission Delegated Regulation (EU) 2023/2485) and the Environmental Delegated Act (Commission Delegated Regulation (EU) 2023/2486) released in June 2023.
- Taxonomy Regulation – Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088.
- Climate Delegated Act – Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives.
- Taxonomy-Eligible – Economic activities that can make a substantial contribution to one or more environmental objectives under the Taxonomy Regulation, are described in the Delegated acts, and consequently have received technical screening criteria.
- Taxonomy Non-Eligible – means any economic activity that is not described in the delegated acts supplementing the Taxonomy Regulation.
- Taxonomy-Aligned – An economic activity is environmentally sustainable and aligned where that activity:
  - makes a substantial contribution to one or more environmental objectives.
  - does not significantly harm any of the environmental objectives, and
  - is carried out in compliance with the minimum social safeguards.
- Transitional activities – These are activities for which there are no technologically and economically feasible low-carbon alternatives, but that support the transition to a climate-neutral economy in a manner that is consistent with a pathway to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels, including phasing out greenhouse gas emissions.
- Enabling Activities – These are activities that enable other activities to make a substantial contribution to one or more of the environmental objectives, and where that activity:
  - Does not lead to lock-in assets that undermine long-term environmental goals considering the economic lifetime of those assets; and
  - Has a substantial positive environmental impact based on lifecycle considerations.

For 2021 the reporting requirements were limited to Eligibility of the Climate Delegated Act activities. For financial year 2022, non-financial undertakings such as AMG were required to disclose information on the Taxonomy-alignment of their economic activities related to climate change mitigation and adaptation. For financial year 2023, the alignment reporting is required for the two environmental objectives related to climate change and eligibility of the remaining four environmental objectives and eligibility of the new climate change mitigation and climate change adaptation activities.

An activity can be considered taxonomy-eligible when the activity is described as such in the relevant EU Taxonomy Delegated Acts. To assess whether the activity can be considered taxonomy-aligned, an assessment of the activity has to be performed to identify if it complies with the established technical screening criteria and minimum safeguards.

Activities identified as eligible during this reporting period does not mean these activities will be disclosed as taxonomy-aligned in subsequent reports.

This disclosure was prepared based on our current interpretation of the Taxonomy Regulation, Climate Delegated Acts, Environmental Delegated Acts, and the availability of data.

Taxonomy Approach

The approach AMG has taken follows 5 steps:

1. Identified AMG's economic activities over financial year 2023.
2. Performed an assessment of economic activities to determine if they could be linked to the activities as published in the EU Taxonomy Climate Delegated Act, Environmental Delegated Acts, and be identified as Taxonomy-eligible economic activities.
3. Technically screened each economic activity to determine if the activity substantially contributes to climate change mitigation and/or adaptation.
4. Further screened economic activities that are determined to substantially contribute to climate change mitigation and/or adaptation, to confirm they do no significant harm to any of the other environmental objectives; and
5. Confirmed that the economic activity complies with minimum social safeguards.

Core business activities and external turnover

Our assessment of Taxonomy-eligible activities is focused on economic activities defined as the offering of goods or services in a market, thus (potentially) generating revenues (at the present time or in the future). AMG is a producer of highly engineered specialty metals and mineral products, Hybrid ESS, and provides related vacuum furnace systems and services to the transportation, infrastructure, energy, and specialty metals and chemicals end markets. In general, many of our products are intermediate products that enable other products to substantially contribute to mitigating climate change. In this context, we assess our business by our contribution to provide climate neutral, low carbon, and other low carbon technologies.

Taxonomy-eligible economic activities:

The taxonomy regulation considers economic sectors and economic activities that have been included in the Taxonomy to have the greatest potential to make a substantial contribution to climate change mitigation, climate change adaptation, sustainable use and protection of water and marine resources,transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems. The breadth of the selected economic sectors and activities is narrow; therefore, the Taxonomy does not allow for the inclusion of a majority of AMG's economic activities under the current delegated acts.

The activities provided in the following table represent our core business activities which we evaluate against the taxonomy regulation and delegated acts:

Eligible economic activity (#, name)	Description	NACE-Code	Climate Change Mitigation/ Adaptation	Taxonomy Qualification
3.4. Manufacture of batteries	LiVa Power Management System, Lithium	27.2	Mitigation	Eligible
3.5. Manufacture of energy efficiency equipment for buildings	Manufacturing of Graphite for Gray Insulation and coating products for Low-E Glass for buildings	N/A	Mitigation	Eligible

Allocation of Turnover, CapEx and OpEx to Environmental Objectives

It was determined that portions of our activities should be allocated to climate change mitigation and climate change adaptation.

Our KPIs and Accounting Policies

The key performance indicators ("KPIs") include the turnover KPI, the CapEx KPI and the OpEx KPI. For the reporting period 2023, the KPIs must be disclosed in relation to our Taxonomy-aligned, eligible, and non-eligible economic activities (Art. 10 (2) of the Art. 8 Delegated Act).

The specification of the KPIs is determined in accordance with Annex I of the Art. 8 Delegated Act. We determine the Taxonomy-eligible KPIs in accordance with the legal requirements and describe our accounting policy in this regard as follows.

Turnover KPI

The proportion of Taxonomy-eligible economic activities in our total turnover has been calculated as the part of net turnover derived from products and services associated with Taxonomy-eligible economic activities (numerator) divided by the net turnover (denominator), in each case for the financial year from January 1, 2023 to December 31, 2023.

The denominator of the turnover KPI is based on our consolidated net turnover in accordance with IAS 1.82(a). For further details on our accounting policies, refer to note 3 in the consolidated financial statements for additional detail.

The numerator of the turnover KPI is defined as the net turnover derived from the products and services associated with taxonomy-eligible economic activities.

CapEx KPI

Our CapEx KPI represents the proportion of a non-financial undertaking's capital expenditure that is either already associated with environmentally sustainable economic activities or is part of a credible plan to extend such activities or for activities which are not yet taxonomy-aligned. CapEx for each project was considered 100% eligible.

The consolidated CapEx amount includes assets pertaining to lease arrangements accounted for under IFRS 16 and capitalized borrowing costs totaled $158,538. See note 10 in the consolidated financial statements for additional details.

OpEx KPI

Our OpEx KPI represents the proportion of operating expenditure associated with environmentally sustainable economic activities. The operating expenditure covers essentially non-capitalized costs relating to the maintenance and servicing of company assets (plant, equipment) that are necessary to ensure the continued and effective use of such assets associated with taxonomy-alignment.

Our Disclosures:

The tables providing AMG's disclosure on the proportion of Taxonomy-eligible and non-eligible KPI's for Turnover, Capital Expenditure (CapEx) and Operational Expenditure (OpEx) are presented on the last two pages of this chapter.

We do not have any economic activities related to nuclear energy and fossil gas. Therefore, the Complementary Delegated Act of the EU Taxonomy is not relevant, and we have omitted the templates outlined in this Delegated Act in drafting the EU Taxonomy disclosures related to nuclear energy and fossil gas.

CLIMATE CHANGE

AMG is fully committed to proactively understanding and addressing climate risks and opportunities. As part of this commitment, we have conducted a comprehensive scenario analysis exercise to assess our global footprint's exposure to physical climate risks and finalized a transition risk analysis of our portfolio and top supplier facilities.

To better understand and mitigate physical climate change risk, we analyzed the severity, likelihood, and velocity of identified physical climate risks by 1) assessing specific risk profiles to all AMG physical asset locations including building characteristics, usage type and level of resilience and 2) analyzing physical exposure with climate modeling scenarios (RCP 8.5 and RCP 2.6) to identify perils driving physical exposure, changes in risk profile from 2020 to 2100 and quantification of the value at risk. Our value at risk assumptions are based on the current replacement value of assets and associated income generated from those assets.

Based on the analysis and climate modeling scenarios, no risks have been identified which would have a material effect on amounts and disclosures included in the financial statements as of December 31, 2023. From a physical risk perspective, we now have a refined understanding of our risk today and over multiple time horizons in the future that allows us to better manage medium and long-term risks. For locations at higher risk from physical climate change, we can evaluate effectiveness of resilience measures and incorporate mitigations into our CapEx planning as well as overall risk management practices.

Transitioning to a lower-carbon economy may entail extensive policy, legal, technology, and market changes to address mitigation and adaptation requirements related to climate change. Depending on the nature, speed, and focus of these changes, transition risks may pose varying levels of financial and reputational risk to organizations.

Our transition risk analysis involved evaluating the potential impacts of climate scenarios based on five different emission pathways, ranging from a "No Policy" scenario with a temperature increase of over 4°C to the "Paris Aspiration" scenario aiming for a 1.5°C increase.

To quantify the potential impacts of transition risks under various climate scenarios, we have developed a financial representation, referred to as a "digital twin" of AMG. This digital twin encompasses our business's financial statements, key facilities, supplier facilities, market breakdown, and greenhouse gas (GHG) emissions. It captures the geographic presence of our value chain, including the origins of supplies and AMG-owned facilities, as well as the commercial and geographic aspects of our carbon footprint across scopes 1, 2, and 3 emissions. The model allows for short-term quantification over a 5-year timeframe and also provides a 10-year outlook.

Our supplier analysis focused on the policy risk related to carbon taxes and the physical risk that leads to facility disruption. The identified risks were based on the Scope 3 emissions, physical addresses, and revenue share of select suppliers, with a focus on the next 5-10 years. Understanding and addressing these climate risks is crucial for ensuring the resilience and continuity of our supply chain. By proactively addressing these challenges, we can work towards minimizing the potential disruptions and developing strategies to mitigate the impact of climate-related physical risks on AMG and our suppliers. Through ongoing monitoring, analysis, and collaboration with our suppliers, we aim to enhance our preparedness and resilience in the face of these climate risks.

The results of the transition risk analysis revealed potential losses in future cash flows that are deemed "at risk." By discounting these cash flows to obtain their present value, we can quantify the total financial impact of each scenario. The assessment considers both the physical risks and transition risks that AMG faces. Each risk is modeled independently, assuming no interdependencies or trade-offs between them. The analysis focuses on the emission pathway aligned with the Paris Agreement's goals, specifically a 2°C temperature increase. This pathway aligns with our firm's strategy.

Based on our analysis, we anticipate that under a 2°C temperature increase scenario, AMG may face a 16.5% impact on our 5-year earnings value. Policy Risk, driven by factors such as carbon pricing, poses the most significant risk, while the global electric vehicle (EV) uptake presents the most significant opportunity upside, particularly in the Lithium sector.

Improving energy efficiency and gaining access to reliable renewable energy is an emerging risk that we have identified as priority. We continue to explore all available sources of electricity, monitor our consumption, and assess supply risks and opportunities for renewable use and battery deployment. Additionally, we are monitoring the development of carbon tax or emissions trading schemes in our operational jurisdictions.

At AMG we recognize that, an effective risk management process requires that we consider our vulnerabilities to climate related risks and confirm controls are in place to effectively mitigate potential consequences and ensure the safety of employees, while identifying and creating opportunities to develop and deliver solutions that reduce carbon emissions and minimize the negative environmental effects of energy production.

AMG continues to position the organization to capitalize on transitional opportunities that are expected to arise due to the shift to a less carbon intensive economy. As a leading lithium producer and the largest recycler of vanadium-containing refinery waste, we are enabling green mobility and grid scale energy storage capabilities. AMG's market-leading technologies provide access to new markets, to support a lower-carbon economy and provide customers alternatives to achieve resource efficiency, cost savings, and the enabling of CO_2 reduction through the use of our products and technologies.

ENVIRONMENT

AMG is committed to achieving the highest standards for environmental conduct at all its manufacturing facilities, as well as producing materials that help its customers minimize adverse environmental impact. Protecting the environment is directly linked to our focus on sustainable development and support of the UN Global Compact.

AMG's management approach aims to protect the environment in two specific ways. The first involves serving the green economy by acting as a key link in the supply chain of advanced materials, recycling, and energy storage. Each of these sectors plays a vital role in addressing the ongoing challenges of climate change, waste and pollution reduction. The second involves AMG's commitment to measuring and minimizing the environmental footprint associated with its own manufacturing operations. Managing our impact on the environment is of the utmost importance to AMG. As a company with low risk tolerance, we manage environmental impacts closely so that they do not develop into significant environmental risks.

AMG has a global footprint and, therefore, our facilities are subject to a variety of compliance obligations. Each of our facilities and business units manage their environmental impacts through dedicated Environmental, Health, and Safety teams. Of the 29 production facilities, 14 have International Organization for Standardization (ISO) 14001-certified environmental management systems. If an environmental aspect at an AMG site develops into a significant business risk, the business unit notifies the Vice President of Sustainability, Environment, Health, and Safety for additional support.

Currently, AMG collects and internally audits environmental data from all locations once per year and uses the information gathered to assess potential opportunities for improvement and key performance indicators.

GHG EMISSIONS

We consider our most important responsibility to our stakeholders to be our responsibility to the global community and environment. We feel the best way to measure this is in terms of our contribution to global CO_2e reduction. Developing innovative products that enable the reduction of CO_2e across the diverse industries we serve is fundamental to AMG's business strategy. As we carry out this critical work, we closely monitor the emissions that result from our activities and strive for year-over-year reduction in emissions. AMG reports on our facilities' emissions of Scope 1, Scope 2 and Scope 3 greenhouse gases (GHGs).

Scope 1, 2, and 3 GHG emissions have been calculated based on an operational control approach in accordance with the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard.

Scope 1 GHG emissions result primarily from the combustion of carbon-containing materials as part of the metallurgical process, such as using coke as a reductant. They also result from the generation of heat, such as burning natural gas in a furnace. GHGs from processes other than combustion are minimal. Our innovative production practices for metallurgical processing require significant heat generation from the use of electricity, which is the largest source of AMG's Scope 2 GHG emissions. AMG's total CO_2e emissions were calculated using Scope 1 GHG and Scope 2 Market-Based GHG emissions to reflect renewable energy power purchase agreements and renewable energy credits.

On January 1, 2023, AMG placed its silicon metal plant in Pocking, Germany, on care and maintenance. AMG Silicon operated one of four furnaces beginning in March 2023 through the end of the year, and it plans to run two of four furnaces for 2024. By operating only one of the four furnaces from March 2023 through the end of 2023, AMG reduced its emissions during this period. As the largest contributor to GHG emissions, the reduced operational output translated into lower emissions across both Scope 1 and Scope 2 categories. In 2023, AMG Silicon contributed 61,011 mt of CO_2e (Scope 1: 26,611 mt, Scope 2 location based: 34,400 mt) to the AMG Group total CO_2e emissions.

Looking forward, the plan to run only two of the four furnaces for 2024 suggests that emissions may remain lower compared to previous years, as the plant continues to operate at reduced capacity. However, the extent of emissions reduction will depend on various factors, including the efficiency of the remaining furnaces and any changes in operational practices or energy sources.

Scope 1 and Scope 2 air emissions data are shown in the following table.

Metric	Units	AMG Group	
		2022	2023
Total CO_2e emissions (Scope 1 + Scope 2: Market-Based)	mt	419,011	260,467
CO_2e emissions (Scope 1)	mt	203,631	129,280
CO_2e emissions (Scope 2: Market-Based)	mt	215,380	131,187
CO_2e emissions (Scope 2: Location-Based)	mt	221,899	138,018

In 2023, AMG calculated our baseline Scope 3 emissions using full year 2022 annual purchasing and sustainability data. Scope 3 is the term used to describe the indirect GHG emissions (not included in Scope 2) resulting from activities in our value chain but outside of our operational control.

All fifteen categories of scope 3 emissions, as described in the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard, were screened to prioritize data collection efforts on the scope 3 activities that are expected to have the most significant GHG emissions, offer the most significant GHG reduction opportunities, and are most relevant to the company's business goals.

Category 1, purchased goods, accounted for 78% of our scope 3 emissions, dominated by raw materials such as aluminum used in the manufacturing of AMG products. Emissions associated with category 3 (fuel and energy related activities) and categories 4 and 9 (upstream and downstream transportation and distribution) each contribute approximately 9% and 10%, respectively, to our total scope 3 emissions footprint.

The results of our Scope 3 baseline assessment are presented in the following table.

Scope 3 Category	AMG Group
	Scope 3 Emissions[1] (metric tons of CO_2e)
Total Scope 3 CO_2e emissions	913,445
1) Purchased goods and services[2]	709,202
2) Capital goods[2]	12,553
3) Fuel and energy related activities[3]	89,587
4 & 9) Upstream and Downstream transportation and distribution[4]	80,075
5) Waste generated in operations[4]	14,859
6) Business travel[1]	1,679
7) Employee commuting[4]	5,490
8) Upstream leased assets	Not calculated, not relevant
10) processing of sold products	Not calculated, not relevant
11) Use of sold products	Not calculated, not relevant
12) Product end of life	Not calculated, not relevant
13) Downstream leased assets	Not calculated, not relevant
14) Franchises	Not applicable
15) Investments	Not applicable

(1) Based on FY 2022 data. (2) spend-based method using EEIO factors from US EPA. (3) well to tank emissions using UK Dept. of Energy Security and Net Zero (formally BEIS) and EnerData. (4) distance-based method USEPA emission factors for greenhouse gas inventories.

ENERGY

Sourcing renewable energy and improving energy efficiency is an operational priority at AMG that results in environmental and economic benefit. In 2023, AMG generated 74 TJ of renewable energy, contracted 46 TJ through a power purchase agreement and, purchased 10 TJ of renewable energy certificates in the United Kingdom and Germany, respectively.

At AMG, electricity and natural gas are the two most significant sources of energy. Seven of AMG's facilities with the most energy-intensive activities are currently certified to the ISO 50001 standard for energy management systems. Energy management systems provide a formal structure for managing energy use. By promoting energy efficiency, energy management systems help AMG conserve resources, address climate change, and save money.

Energy consumption within the organization is shown in the following table.

Metric	AMG Group	
	2022	2023
Total Energy Consumption (TJ)	3,458	2,367
AMG Owned Renewable energy generated and consumed (TJ)	37	43
Renewable energy consumed (TJ)	133	133
Percentage of energy consumed that is derived from renewable sources (%)	4%	6%
Non-renewable energy consumed (TJ)	3,325	2,233
Percentage of energy consumed that is derived from non-renewable sources (%)	96%	94%
Electricity consumed from the grid (TJ)	2,392	1,312
Percentage of consumed electricity from the grid (%)	95%	91%

CIRCULARITY

At AMG, we look for ways to eliminate waste and use recycled materials as product inputs to enable the growth of a circular economy. In particular, we innovate processes that allow us to take what was once waste, such as spent refinery catalyst, and extract the critical materials necessary to make our products.

AMG also proactively reviews our manufacturing processes to identify non-sellable product streams for opportunities to innovate these materials into products our customers need. We understand that resource efficiency not only creates good outcomes for our customers but is also far better for our environment. Identifying opportunities for innovation and efficiency is a strategic focus at AMG. We strive to improve and optimize our processes to achieve year-over-year resource efficiency improvements.

AMG believes in the responsible and sustainable management of hazardous and non-hazardous waste streams generated by our segments. Our manufacturing sites reuse and recycle waste to conserve natural resources and reduce pollution, but also to create cost-saving opportunities for our business. Waste that is unable to be recycled is disposed in accordance with regulatory requirements at facilities licensed or approved to handle final disposal (e.g., landfill, destruction, etc.) of the specific waste material. In 2023, there was an increase of hazardous waste generated and sent offsite for final disposition. The increase is not associated with manufacturing but instead is attributed to a project at an AMG location in Germany.

As noted above, AMG processes spent catalyst, a waste product of the petroleum refining industry, by transforming it into valuable goods which largely eliminates long-term environmental liability for refineries and, so long as it is done appropriately, can eliminate human health, financial, and reputational risks as well. AMG has designed its processes to achieve over 99% conversion of oil refinery wastes to finished goods for sale, while generating no process wastewater. For spent catalysts in particular, this permanent disposition is much safer than landfill solutions.

Waste within the organization is shown in the following table.

Metric	Units	AMG Group	
		2022	2023
Total Waste	mt	36,907	36,187
Total Recycled Waste	mt	10,894	13,556
Percent Waste Recycled	%	29.5%	37.5%
Hazardous Waste (Including Recycled)	mt	3,919	6,222
Recycled Hazardous Waste	mt	1,461	2,713
Percent Hazardous Waste Recycled	%	37.3%	43.6%
Non-Hazardous Waste (Including Recycled)	mt	32,988	29,965
Recycled Non-Hazardous Waste	mt	9,433	10,849
Percent Recycled Non-Hazardous Waste	%	28.6	36.2
Waste Directed to Disposal	mt	26,013	22,631

SOCIAL

AMG stakeholders and the communities where we operate remain central to our business. Within our company, our human rights principles are sustained through the provision of safe and healthy working conditions in a non-discriminatory environment. We continuously support these principles by living our values in our interactions with local and national governments and the communities in which we operate. AMG is invested in the communities where we operate and committed to hiring employees from the community, investing in building diverse talent pools, and providing training to improve skill levels. Wherever possible, we endeavor to extend our values and principles to our suppliers and contractors.

Diversity and inclusion, human rights, and safety are the primary focuses of AMG's approach to maintaining a sustainable business for our people. We invest in our people to develop their skills and provide training in critical areas like technical and professional development, quality, anti-corruption, human rights, and health and safety. AMG respects the rights and freedoms for individual employees to freely make choices about their career as described in Article 23 of the Universal Declaration of Human Rights. Encompassing these efforts is AMG's commitment to achieving the highest standards of safety and environmental conduct at all its manufacturing facilities and producing materials that help its customers to minimize negative environmental impact.

HEALTH AND SAFETY

Nothing is more important to AMG than the safety, health, and well-being of our workers and their families. All injuries and occupational illnesses are preventable, and we firmly believe that there is no job worth doing in an unsafe manner. Safety is understood across our business units as our number one priority.

AMG fosters a culture of safety communication and encourages our people to actively listen to safety and health concerns to fully understand each issue, while supporting each other to work in a safe manner. Our employees understand that part of what keeps us safe is compliance with all applicable legal requirements and site-specific safety programs and procedures. Our leadership team acts with a sense of urgency to eliminate or effectively control safety, health, and environmental hazards and risks.

AMG'S SAFETY COMMITMENT

- Continuously identify and implement safe and healthy ways to do the job;
- Hold each other accountable for superior health and safety practices;
- Keep protection of safety, health, and the environment as a value that drives overall performance;
- Remember that no task is so important that it puts the safety and health of employees at risk;
- Provide the leadership and resources needed to achieve our vision;
- Encourage each other to be champions of safety and health, both at work and at home; and
- Maintain a high degree of emergency preparedness.

AMG safety programs are unique to each of our sites and their management systems are tailored to their local regulatory environment. Formal safety management systems continue to play an important role in achieving zero harm to employees. Our sites review and maintain their safety management systems through internal audits and participate in external audits when seeking certification.

Our individual sites manage safety training for all employees and contractors. The nature and rigor of our safety trainings are tailored to the type of work completed at each site. For example, a higher-hazard facility requires a full week of training before an employee may begin work, whereas a low-risk office building will require a lower training commitment. Contractor safety training is a formal requirement at our facilities with current ISO 45001 certification.

At AMG's corporate level, our leadership remains engaged with the health and safety and performance of our sites. Each site produces a monthly safety report, which is consolidated into a management report for AMG's Management Board. In addition to this monthly reporting, AMG instituted Safety Alerts for safety issues, such as a lost-time incident, that require immediate attention. When a site initiates a Safety Alert, their concern goes immediately to AMG's Vice President of Sustainability, Environment, Health and Safety and receives appropriate attention. AMG develops lessons learned from any safety incident that we share across our Company as a method of education and prevention.

Safety performance data regarding the number of workplace injuries, illnesses and fatalities are a key performance indicator used to identify initiatives that strengthen safety culture and ensure a safe workplace. AMG utilizes the United States Occupational Safety and Health Administration (OSHA) standard for Reporting and Recording Occupational Injuries and Illnesses as the basis for the definition of workplace injuries and illnesses. Total Incident Rate and Lost Time Incident Rate are calculated as follows:

- Total incident Rate: (# of recordable injuries, illnesses, and fatalities) x (200,000) / (Total Hours Worked)
- Lost Time Incident Rate: (excluding fatalities) calculated as follows: (# of lost time injuries and illnesses) x (200,000) / (Total Hours Worked)

Based on CSRD guidance, these rates have also been calculated as follows:

- Total incident Rate (normalized to 1,000,000): (# of recordable injuries, illnesses, and fatalities) x (1,000,000) / (Total Hours Worked)
- Lost Time Incident Rate (normalized to 1,000,000): (excluding fatalities) calculated as follows: (# of lost time injuries and illnesses) x (1,000,000) / (Total Hours Worked)

Each year, AMG aims to achieve a zero-incident status. This is, of course, a very challenging objective.

Safety performance, management system certification and training is shown in the following table.

Metric	AMG Group	
	2022	2023
Number of ISO 14001 Certified Facilities	13	14
Percentage of AMG Production Facilities ISO 14001 Certified	42	48
Number of ISO 45001 Certified Facilities	15	17
Percentage of AMG Production Facilities ISO 45001 Certified	48	59
Number of ISO 50001 Certified Facilities	7	7
Percentage of AMG Production Facilities ISO 50001 Certified	23	24
Safety Training Hours	60,325	68,202
Lost Time Incident Rate (normalized to 200,000)	0.46	0.51
Lost Time Incident Rate (normalized to 1,000,000)	2.24	2.55
Total Incident Rate (normalized to 200,000)	0.95	0.90
Total Incident Rate (normalized to 1,000,000)	4.63	4.50
Employee Fatalities	0	0
Contractor Fatalities	0	0

DIVERSITY AND INCLUSION

AMG'S DIVERSITY

AMG's diverse experiences, backgrounds, cultures, and perspectives create a foundation for success and growth in the global market in which it operates. Safety, value creation, respect, and integrity form the basis of our culture and values at AMG, and underlie all interactions with our customers, employees, business partners, and stakeholders. We are committed to embracing diversity and inclusion in all our practices and policies to create an environment where everyone has an equal opportunity to thrive. At AMG, we hold each other accountable to our core values of honesty and integrity and view our diversity as an asset in each of our communities.

AMG'S DIVERSITY POLICY

Since 2017 AMG has a Diversity Policy in place that sets out AMG's view on diversity. The Management Board and the Supervisory Board fully support the initiatives that have been reflected in the Diversity Policy of the Company to promote diversity among its global employee population, including among the staff and senior management of AMG's Group companies. AMG promotes diversity not only in gender but also in, amongst others, ethnicity, background, and country of origin.

AMG'S DIVERSITY TARGETS

Since May 2019, AMG has met its diversity objectives in terms of gender, having at least one third of the seats on the Supervisory Board be held by each gender. Currently the Supervisory Board comprises four male members and two female members. Regarding the Management Board, the Supervisory Board will continue to strive to reach the target to have at least one-third of its members held by each gender. The Supervisory Board will carefully consider a candidate's background, gender, personal qualities, including integrity, strong leadership, global experience, expertise in relevant areas, past accomplishments, understanding of the company, and adaptability in a changing world, when choosing members for the Management Board.

AMG continues to recruit diverse talent. As of 2023, the number of female managers is roughly 24%. AMG's target is to increase women in management-level leadership roles globally to exceed 30% by 2030, which would be in line with new legislation in the Netherlands concerning gender diversity. "Management-level employees" is defined as anyone who is managing salaried staff and/or hourly wage staff; or employees who are managing substantial projects that include outside consultants or contractors. AMG will continue to report annually in the SER (The Social and Economic Council of the Netherlands) online portal on the progress with its diversity targets in line with new legislation in the Netherlands.

AMG Demographic Data		AMG Group	
Diversity Type	Units	2022	2023
Gender Diversity	% Male	83	81
	% Female	17	19
Age Diversity	% Under 30	17	16
	% 30 to 50	54	56
	% Over 50	29	28
Women on Management Board	%	0	0
Women on Supervisory Board	%	33	33
Women in Management	%	23	24

In addition, AMG will continue to take its key diversity objectives, including maintaining a proper balance of nationalities and backgrounds, into account in connection with recruitment, retention of employees and succession planning for its entire working population.

AMG'S CORPORATE DIVERSITY COUNCIL AND DIVERSITY INITIATIVES

In recent years, our commitment to fostering diversity and inclusion within our organization has been evident through the establishment of the Diversity Council. The Diversity Council currently consists of 11 members from different departments and backgrounds. The Diversity Council's goal is to focus on creating awareness of diversity throughout AMG, initiate actions to drive diversity within AMG and render ongoing advice to the Management Board and to the management of the units to monitor diversity at a variety of levels within the AMG Group. This strategic initiative, implemented a few years ago, serves as a cornerstone for driving positive change and creating an inclusive workplace culture.

This year marked a significant milestone as we introduced two Employee Resource Groups (ERGs) designed to empower and support our employees. The first, Women In Networking (WIN) ERG, provides a platform for women to connect, share experiences, and foster professional growth. The second, Leadership, Development and Mentorship ERG, centers around leadership and mentorship, aiming to cultivate the next generation of leaders within our organization.

These ERGs were established with the overarching goal of enhancing employee engagement, promoting diversity in leadership roles, and fostering a culture of mentorship and support. By providing dedicated spaces for networking and mentorship, we aim to create a more inclusive and collaborative work environment where every employee feels valued and has the opportunity to thrive.

In 2023, our Diversity Council actively participated in two prominent recruiting events, further underlining our commitment to diversity in the industry. The council attended the "Women in STEM" event in London and the "Society of Women Engineer's Annual Conference" in Los Angeles. These events not only allowed us to connect with diverse talent but also provided a platform to showcase our commitment to fostering inclusivity in the workplace.

To extend our commitment beyond our organization, we proudly established a new scholarship at the Colorado School of Mines. This scholarship aims to support two young women aspiring to enter the metals and mining industry. By investing in education and providing opportunities for underrepresented individuals, we contribute to the diversification of talent in our field and support the aspirations of future professionals.

As we continue to grow and evolve, our dedication to diversity and inclusion remains unwavering. These initiatives are a testament to our belief that a diverse workforce fosters innovation, creativity, and ultimately contributes to the overall success of our organization.

COMMUNITY ENGAGEMENT

AMG believes that maintaining enduring and healthy relationships with the communities where we work is important to our success around the world. Some of AMG's businesses have operated for more than a century, have employed generations of families, and are a significant component of their communities and local economies. At AMG, we feel a responsibility to our local communities as well as the global community to work toward a sustainable future.

One of the ways we contribute to sustainable communities is by providing consistent and competitive employment opportunities. We offer fair wages and the opportunity to work for a company that treats its employees ethically. Our Company performs activities in parts of the world where human rights abuses have been known to occur, but as discussed in the Business Ethics section, AMG makes every effort to ensure there are no human rights abuses at our facilities and we monitor our supply chain for human rights risks, including human trafficking. In terms of supporting human rights, we embrace and promote a diverse and inclusive work culture. By offering gainful career opportunities and compensation that can exceed average local wages, AMG helps enable our communities to thrive.

In addition to contributing to the local economies and communities where we operate, AMG invests in our employees by providing training and opportunities for career advancement. Through these investments, AMG maintains an effective workforce that has been trained in the health, safety, and technical skills required to do its critical work. This training provides our employees with life skills that can be used beyond AMG and can contribute to the betterment of our communities. We also encourage our employees to volunteer within the communities where they live and work. In 2023 AMG employees contributed 6,270 volunteered hours to supporting their communities. In addition, $1,745,620 in community outreach was spent on various causes in the communities where we operate.

AMG takes steps at all facilities to limit and mitigate our environmental impacts in our communities. For example, by focusing on our Brazilian tailings dams, we are investing in the environmental health and safety of our communities while reducing our overall business risk. In the United Kingdom, AMG has in place a power purchase agreement for renewable power for our operations, helping to decrease the local air emissions associated with traditional energy production. On a local and global scale, our enabling technologies contribute to significant CO_2 emissions reduction. AMG will continue to foster long-lasting, productive relationships with our employees and communities.

GOVERNANCE

At AMG, we understand the importance of maintaining proper business ethics, regulatory compliance, and risk management. The Company endorses good corporate governance, with a focus on independence, accountability, and transparency. AMG aims to be as open and transparent as possible about its structure, financial reporting, internal controls, tax reporting, and procedures. Headquartered in the Netherlands, AMG also governs in accordance with best practices outlined in the Dutch Corporate Governance Code. Our robust approach to ethics, compliance, and risk management across our various business units serves as a strong foundation for a sustainable business.

BUSINESS ETHICS

At AMG, our leaders ensure that proper business ethics permeate the Company. AMG introduced the first official company-wide Code of Business Conduct in 2009, though our Management Board had complied with their specific Code of Business Conduct since 2007 when our Company went public. As of the start of 2023, AMG updated its Values Statement and its Code of Business Conduct, both of which serve as continuing guidance for AMG's employees and management, and reflect the changes in our working and business environment.

AMG VALUES

- We act safely
- We create value for our stakeholders
- We respect people
- We protect our planet by enabling CO_2 reduction
- We act with integrity

Our Code of Business Conduct is one of a few policies standardized across our business units that otherwise have a significant amount of operational independence. The AMG Code of Business Conduct and the Speak Up and Reporting policy, which both reference the AMG Values, are now available in 15 languages, and are prominently available in the local language at each facility where AMG companies carry out their operations and where staff are employed. AMG's shares were listed on the Amsterdam stock exchange in 2007 and AMG has complied with the Dutch Corporate Governance Code ever since. More detail on AMG's Corporate Governance policies can be found on the Corporate Governance page of our website (www.amg-nv.com/about-amg/corporate-governance/).

AMG's leadership provides oversight on business ethics through frequent discussions with our business units, reiterating the importance of this topic. AMG's Internal Risk Committee develops a quarterly report to review performance against our Code of Business Conduct and employee awareness of the Code, as well as any prospective changes to present to the Supervisory Board on a regular basis.

A network of compliance officers located at all major sites oversees deployment of AMG's ethics training programs and distribution of information concerning AMG's Values and Code of Business

Conduct and serves as a first point of contact for employees, suppliers, customers, and other third parties who wish to file a report, complaint, or have an inquiry about AMG's business practices. In February 2024, AMG's Chief Compliance Officer presented his Annual Report to the Management Board and the Supervisory Board about applicable compliance and incident trends at AMG during 2023. The number of reports received under AMG's Speak Up and Reporting policy in 2023 was well below the available benchmark as published by NAVEX Global (2020 Ethics & Compliance Hotline & Incident Management Benchmark report). No incidents or complaints have been reported to AMG or any public authorities in 2023 to date which would implicate AMG or any of its staff in any bribery scheme involving public officials or agencies.

Employees are made aware of our business ethics expectations through various communications and annual trainings. AMG employees complete an online training focused on our Code of Business Conduct when they join and receive their own copy of this Code in an introductory meeting with Human Resources. The online training is required every 3 years as a refresher. AMG also provides on a regular basis anti-trust and anti-bribery training for staff members as appropriate. Refer to the following table.

Metric	AMG Group	
	2022	2023
Anti-Corruption Training Hours	2,057	3,107
Human Rights Training Hours	1,402	2,516

AMG is highly aware of and fully committed to the protection of internationally decreed human rights. We assess each AMG facility during visits by our internal auditors to identify any possibility that freedom of association or collective bargaining is at risk due to political or business factors. In 2023, no AMG sites were at risk, except for China where the formation of unions remains restricted. Similarly, the Company reviews sites to assess risk for employing child labor or exposing young workers to hazards. No sites have identified risks at this time.

AMG also aims to ensure rights are protected in our supply chain through our AMG Supplier Conduct Charter. AMG actively mitigates supply chain risk by making ethical choices that benefit our employees and our customers, such as investing in and leveraging existing mining infrastructure to maintain our position as the largest conflict-free supplier of tantalum. Our Policy on Human Rights, the AMG Code of Business Conduct, the AMG Supplier Conduct Charter, and other AMG policies are available on the AMG website (www.amg-nv.com/about-amg/corporate-governance/).

COMPLIANCE

AMG has a robust culture of compliance, mirroring AMG's emphasis on business ethics to manage and mitigate our risks and secure a sustainable future. We work systematically to build compliance processes that enable the success of our business units and reinforce the message from top leadership that adherence to ethics and compliance standards is expected.

Additional details about AMG's compliance commitments in our Code of Business Conduct and related policies can be found on the Corporate Governance page of our website.

As with many critical aspects of our Company, AMG's first line of defense is our local compliance teams. Various of our facilities have existed for over a century, allowing for a robust understanding of local compliance issues. A network of compliance officers located at all of AMG's major sites oversees compliance. In addition to managing the facilities' legal compliance with local and federal regulations, compliance officers manage AMG's ethics training programs and distribution of information concerning AMG's values and Code of Business Conduct.

AMG employs a Chief Compliance Officer who works with our local compliance officers to manage their compliance needs and communicate material compliance risks to our Management Board and senior management as appropriate. AMG's Chief Compliance Officer also looks for trends relating to incidents, new regulations, or compliance challenges to identify opportunities for improvement.

While our legal and compliance functions regularly visit our local business units to provide compliance support, AMG also relies on a network of external legal and other subject matter experts who advise us on material changes to local and global regulations. With the support of our internal and external compliance advisors, AMG engages with a number of voluntary compliance standards that align with our Company's mission. AMG is an active participant of the United Nations Global Compact, a strategic initiative for businesses that, like AMG, are committed to aligning their operations and strategies with 10 universally accepted principles in the areas of human rights, labor, the environment, and anti-corruption.

We maintain compliance with international anti-corruption and anti-bribery standards, and no incidents or complaints have been reported to AMG or any public authorities to date that would implicate AMG or any of its staff in any bribery scheme involving public officials or agencies. In addition to general business conduct concerns, AMG's Speak Up and Reporting policy ensures that our employees, customers, or other third parties can raise concerns or file reports in confidence and/or anonymously regarding compliance matters.

RISK MANAGEMENT

The Company's diverse portfolio, unique business units, and global footprint make a comprehensive and continual understanding of business risk a critical matter. Through a formal and thorough Enterprise Risk Management program, AMG creates value for its customers and investors while maintaining safe and innovative places of work. The risk management program applies the Precautionary Principle to determine when threats of serious or irreversible damage, exist due to our current or future operations, and without delay, requires the implementation of cost-effective measures to prevent environmental degradation.

A formal Internal Risk Committee supports our Risk Management program. Through frequent engagement with our facilities, the

Internal Risk Committee produces a quarterly risk report, which is presented to AMG's Management and Supervisory Boards to inform decision-making at the highest levels of our Company. The quarterly risk report contains information from our business units, including a summary of key risks, the associated potential monetary impacts, a projected 1-year risk outlook, probability, and prospect of mitigation. Our facilities and Internal Risk Committee consider each of these factors and assign a risk rating to each risk, which we track each quarter.

At our facilities, we rely on our business unit level management to identify and understand their unique risks and to work with AMG's Internal Risk Committee to manage them. By embedding risk management into every level of our operations, we decrease the likelihood of unknowns. We believe that our risk management program is most successful because of our top-down and bottom-up approaches. We trust our business units to have an intimate understanding of their safety, environmental, climate, operational, and financial risks. Additionally, many of our business units have decades-long relationships with their suppliers, providing them with deep insight into supply chain risks.

To mitigate the risk of raw materials and supplies becoming difficult to source, AMG enters into longer-term contracts with its suppliers when practical and diversifies its supplier base when alternative suppliers are available. The Company also mitigates risk by monitoring supplier performance and holding our suppliers accountable to comply with AMG's Supplier Conduct Charter. AMG engages with all new suppliers and audits our suppliers throughout our relationship to ensure compliance.

In 2023, AMG spent more than 375 hours evaluating our business risks through quarterly risk management meetings. We are confident in our risk assessment process because the risks that ultimately impact our business consistently appear in the risk report and are proactively addressed through mitigating actions.

Metric	AMG Group	
	2022	2023
Hours Invested in Risk Management Meetings	350	375

Throughout the organization, AMG has implemented critical planning processes such as emergency preparedness (i.e., flood and earthquake response plans where applicable), crisis management, business continuity to help ensure resilience, and the ability to recover quickly from unexpected events. These detailed and comprehensive plans involve the identification of the risks, tools, and resources to mitigate impact and the responsible personnel to successfully implement the response. Using internal and external resources, employees are trained on their responsibilities and participate in exercises to ensure readiness. The practice improves our production rates and helps avoid long downtimes.

A proactive approach to identifying and mitigating risks allows us to focus on developing innovative, sustainable solutions for our customers. At AMG, we will continue to maintain an effective risk management process, including quarterly risk reporting and day-to-day communication regarding risk. Our executive leadership will maintain our reporting process and open, active dialogue with business unit leadership. We all work to anticipate known and unknown risks.

AMG ESG Metrics

ENVIRONMENT

DESCRIPTION	UNITS	AMG GROUP	
		2022	2023
Percent of Recycled Materials Used to Manufacture Products	%	52	56
Total Energy Consumption	TJ	3,458	2,367
Total Electricity/Heat Use	TJ	2,525	1,445
Total Non-renewable Fuel Consumed	TJ	933	921
Total Hydrogen Fuel Consumed	TJ	0	0
Total Biogenic Fuel Consumed	TJ	0.13	0.11
Purchased Third-Party Electricity/Heat	TJ	2,488	1,402
AMG Owned Renewable Energy Generated	TJ	66	74
AMG Owned Renewable Energy Consumed	TJ	37	43
Electricity Consumed from the Grid	TJ	2,392	1,312
Renewable Energy Credit (REC)	TJ	9.66	10.35
Renewable from Power Purchase Agreement	TJ	63.76	46.19
Metals Discharged	mt	0.5	0.3
Scope 1 CO_2 Equivalent Emissions	mt	203,631	129,280
Scope 2 (Location-Based) CO_2 Equivalent Emissions	mt	221,899	138,018
Scope 2 (Market-Based) CO_2 Equivalent Emissions	mt	215,380	131,187
Total CO_2 Equivalent Emissions	mt	419,011	260,467
Hazardous Waste Generated (Including Recycled)	mt	3,919	6,222
Non-Hazardous Waste Generated (Including Recycled)	mt	32,988	29,965
Percent of Waste Recycled	%	30	37
Waste Directed to Disposal	mt	26,013	22,631
Number of ISO 14001 Certified Facilities	Total	13	14
Percentage of AMG Production Facilities 14001 Certified	%	42	45
Number of ISO 50001 Certified Facilities	Total	7	7
Percentage of AMG Production Facilities 50001 Certified	%	23	23

GOVERNANCE

DESCRIPTION	UNITS	AMG GROUP	
		2022	2023
Hours of Anti-Corruption Training	Hours	2,057	3,107
Environmental - Total Monetary Value of Significant Fines	Thousand USD	25	1
Environmental - Total Number of Non-Monetary Sanctions	#	0	0
Hours of Human Rights Training	Hours	1,402	2,516
Hours of Diversity & Inclusion Training	Hours	877.5	1,871
Non-Environmental - Total Monetary Value of Significant Fines	Thousand USD	2	64
Non-Environmental - Total Number of Non-Monetary Sanctions	#	0	1
Hours Invested in Risk Management Meetings	Hours	350	375

PRODUCTS

DESCRIPTION	UNITS	AMG GROUP 2022	AMG GROUP 2023
Number of ISO 9001 Certified Facilities	Total	25	25
Percentage of ISO 9001 Certified Facilities	%	81	86
Proportion of Taxonomy-aligned Activities Turnover	%	-	-
Proportion of Taxonomy-aligned Activities CapEx	%	-	-
Proportion of Taxonomy-aligned Activities OpEx	%	-	-
Proportion of Taxonomy-eligible Activities Turnover	%	2	1
Proportion of Taxonomy-eligible Activities CapEx	%	2	2
Proportion of Taxonomy-eligible Activities OpEx	%	9	9

SOCIAL

DESCRIPTION	UNITS	AMG GROUP 2022	AMG GROUP 2023
Workforce	Total	3,423	3,567
Total Incident Rates	Rate	0.95	0.9
Lost Time Incident Rates	Rate	0.46	0.51
Employee Fatalities	Total	0	0
Contractor Fatalities	Total	0	0
Safety Training Hours	Hours	60,325	68,202
Gender Diversity	% Male	83	81
Gender Diversity	% Female	17	19
Age Diversity	% Under 30	17	16
Age Diversity	% 30 to 50	54	56
Age Diversity	% Over 50	29	28
Women in Management	%	23	24
Number of ISO 45001 Certified Facilities	Total	15	17
Number of Production Facilities ISO 45001 Certified	%	48	59
Sites Where AMG Encourages Local Hiring Practices	%	100	100
Volunteer Hours	Hours	663	6,270

Turnover - Proportion of Turnover from products or services associated with Taxonomy-aligned economic activities (disclosure covering year 2023)

				Substantial Contribution Criteria						DNSH criteria ("Does Not Significantly Harm")									
Economic Activities (1)	Code (2)	Absolute turnover (3)	Proportion of Turnover (4)	Climate Change Mitigation (5)	Climate Change Adaptation (6)	Water (7)	Pollution (8)	Circular Economy (9)	Biodiversity and ecosystems (10)	Climate Change Mitigation (11)	Climate Change Adaptation (12)	Water (13)	Pollution (14)	Circular Economy (15)	Biodiversity (16)	Minimum Safeguards (17)	Taxonomy aligned proportion of total turnover, year 2022 (18)	Category (enabling activity) (20)	Category (transitional activity) (21)
			%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**0.00**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**0%**	**0%**	**0%**
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Manufacture of batteries	CCM 3.4	22,331	1%																
Manufacture of energy efficiency equipment for buildings	CCM 3.5	2,039	0%																
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**24,370**	**1%**														**2%**	**E**	**-**
Total (A.1+A.2)		**24,370**	**1%**																
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
Turnover of Taxonomy-non-eligible activities		**1,601,491**	**99%**																
Total (A+B)		**1,625,861**	**100%**																

CapEx - Proportion of CapEx from products or services associated with Taxonomy-aligned economic activities (disclosure covering year 2023)

				Substantial Contribution Criteria						DNSH criteria ("Does Not Significantly Harm")									
Economic Activities (1)	Code (2)	Absolute CapEx (3)	Proportion of CapEx (4)	Climate Change Mitigation (5)	Climate Change Adaptation (6)	Water (7)	Pollution (8)	Circular Economy (9)	Biodiversity and ecosystems (10)	Climate Change Mitigation (11)	Climate Change Adaptation (12)	Water (13)	Pollution (14)	Circular Economy (15)	Biodiversity (16)	Minimum Safeguards (17)	Taxonomy aligned proportion of total CapEx, year 2022 (18)	Category (enabling activity) (20)	Category (transitional activity) (21)
			%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. CapEx of environmentally sustainable activities (Taxonomy-aligned)																			
CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**0.00**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	N	N	N	N	N	N	N	**0%**	**0%**	**0%**
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Manufacture of batteries	CCM 3.4	1,016	1%																
Manufacture of energy efficiency equipment for buildings	CCM 3.5	1,497	1%																
CapEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**2,513**	**2%**														**2%**	**E**	**-**
Total (A.1+A.2)		**2,513**	**2%**																
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
CapEx of Taxonomy-non-eligible activities		**156,024**	**98%**																
Total (A+B)		**158,537**	**100%**																

OpEx - Proportion of OpEx from products or services associated with Taxonomy-aligned economic activities (disclosure covering year 2023)

				Substantial Contribution Criteria						DNSH criteria ("Does Not Significantly Harm")									
Economic Activities (1)	Code (2)	Absolute OpEx (3)	Proportion of OpEx (4)	Climate Change Mitigation (5)	Climate Change Adaptation (6)	Water (7)	Pollution (8)	Circular Economy (9)	Biodiversity and ecosystems (10)	Climate Change Mitigation (11)	Climate Change Adaptation (12)	Water (13)	Pollution (14)	Circular Economy (15)	Biodiversity (16)	Minimum Safeguards (17)	Taxonomy aligned proportion of total OpEx, year 2022 (18)	Category (enabling activity) (20)	Category (transitional activity) (21)
			%	%	%	%	%	%	%	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1. Environmentally sustainable activities (Taxonomy-aligned)																			
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**0.00**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	N	N	N	N	N	N	N	**0%**	**0%**	**0%**
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Manufacture of batteries	CCM 3.4	627	2%																
Manufacture of energy efficiency equipment for buildings	CCM 3.5	2,648	7%																
OpEx of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**3,275**	**9%**														**9%**	**E**	**-**
Total (A.1+A.2)		**3,275**	**9%**																
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
OpEx of Taxonomy-non-eligible activities		**32,075**	**91%**																
Total (A+B)		**35,350**	**100%**																

Corporate Governance

AMG Critical Materials N.V. is a Dutch company located in the Netherlands which was established in 2006 as the holding company for the AMG group companies. Its shares were first listed on Euronext Amsterdam in July 2007.

In this report, the Company, as a Dutch listed company, sets forth its overall corporate governance structure and the extent to which it applies the provisions of the Dutch Corporate Governance Code. The previous code was issued on December 8, 2016 (the "2016 Code"). As of January 1, 2023, the 2022 Code (amended and issued on December 20, 2022) is effective in the Netherlands, replacing the 2016 Code. The company will report on 2023 taking into account the applicable 2022 Code. The Dutch Corporate Governance Code can be downloaded at www.mccg.nl.

As provided under the 2022 Code, the Company reviewed and updated its procedures and documentation in order to be compliant with the principles and best practice provisions set forth in the 2022 Code. The Supervisory Board and the Management Board, which are responsible for the corporate governance structure of the Company, hold the view that the vast majority of principles and best practice provisions set forth in the 2022 Code, as applicable during 2023, are being applied, while certain deviations are discussed and explained hereafter. A full and detailed description of AMG's Corporate Governance structure and AMG's compliance with the Dutch Corporate Governance Code follows hereafter and can be found on AMG's website (amg-nv.com).

AMG Critical Materials N.V., located in the Netherlands, is a company organized under Dutch law that has various subsidiaries in multiple jurisdictions to enable efficient business operations. The Management Board is responsible for maintaining a culture that is conducive to achieving its strategic objectives with a focus on sustainable long-term value creation when determining strategy and making decisions. All is further explained in this chapter as well as other sections of the report of the Management Board.

2023 ANNUAL ACCOUNTS AND DIVIDENDS

The Management Board and the Supervisory Board have approved AMG's audited financial statements for 2023. KPMG audited these financial statements, which will be submitted for adoption to the General Meeting of Shareholders on May 8, 2024.

The Management Board is authorized, subject to approval by the Supervisory Board, to reserve profits wholly or partly. The General Meeting is authorized to distribute and/or reserve any remaining part of the profits. The General Meeting may decide on the disposition of reserves only after a proposal by the Management Board, which must have been approved by the Supervisory Board.

The dividend policy was lastly discussed in the 2022 Annual General Meeting. In 2021 the Management Board, with the approval of the Supervisory Board, amended the dividend policy given the intrinsic volatility AMG has experienced in some of its markets. Given that AMG has cyclical elements in its product mix and that it desires to have a relatively consistent dividend payout, the revised policy will allow for stable dividend pay-outs and target gradual increases to historic dividend levels, provided that such pay-outs and possible increases are supported by AMG's liquidity and cash flow generation, and subject to prevailing statutory requirements. In line with Dutch corporate governance best practices, the revised dividend policy was discussed during the Annual Meeting in 2022 and endorsed by the shareholders.

The Company intends to propose a full year dividend for 2023 of €0.60 to the General Meeting of Shareholders for approval as part of the adoption of the 2023 Annual Accounts. The interim dividend of €0.40 per ordinary AMG share, paid on August 9, 2023, will be deducted from this amount. The proposed final dividend per ordinary share therefore amounts to €0.20. This dividend payment is in line with the revised dividend policy as explained above. Future dividend payments to shareholders will be at the discretion of the Management Board subject to the approval of the Supervisory Board and after taking into account various factors, including business prospects, cash requirements, financial performance, expansion plans, the terms of the Company's financing facilities, and the compliance with applicable statutory and regulatory requirements.

Additionally, any payment of dividends (whether interim or after adoption of the annual accounts) or other distributions to shareholders may be made only if the Company's shareholders' equity exceeds the sum of the issued share capital plus the reserves required to be maintained by law.

SHARES AND SHAREHOLDERS' RIGHTS

As of December 31, 2023, the total issued share capital of AMG amounted to €650,083.28 consisting of 32,504,164 ordinary shares of €0.02 each. Each ordinary share carries one vote. The ordinary shares are listed on Euronext Amsterdam and are freely transferable.

Pursuant to the Financial Markets Supervision Act (Wet op het financieel toezicht) and the Decree on Disclosure of Major Holdings and Capital Interests in Securities-Issuing Institutions (Besluit melding zeggenschap en kapitaalbelang in uitgevende instellingen), the Netherlands Authority for the Financial Markets (Stichting Autoriteit Financiële Markten) ("AFM") substantial holdings (>3%) in ordinary shares of AMG have to be registered by investors. The Company refers to the applicable substantial holdings register at the AFM website for the most recent registrations by AMG investors. As the Company is not involved in any AFM registrations of substantial holdings by its investors, the positions registered and visible in the AFM register may not necessarily reflect the actual holdings of an investor in AMG.

SHAREHOLDING	2023	2022
Number of ordinary shares issued	32,504,164	32,504,164
Average daily turnover	264,209	294,324
Highest Closing Price	€49.73	€41.36
Lowest Closing Price	€19.72	€21.64

PREFERENCE SHARES

The General Meeting of Shareholders approved in its meetings of May 12, 2010 and July 6, 2010 that the Articles of Association of the Company would be changed in order to introduce a new class of preference shares, which may be issued and used as a response device in order to safeguard the interests of the Company and its stakeholders in all those situations where the Company's interests and those of its stakeholders are at stake, including but not limited to situations in which non-solicited public offers are made.

The preference shares carry equal voting rights as ordinary shares and are entitled, if distribution to shareholders is permitted, to a fixed dividend equal to the Euro Interbank Offered Rate for deposit loans of one year, increased with a maximum of 400 basis points as determined by the Management Board of the Company and subject to approval by the Supervisory Board. The Articles of Association of the Company were amended on July 6, 2010 to provide for an authorized share capital of 65.0 million ordinary shares and 65.0 million preference shares. Contrary to ordinary shares, preference shares may be issued against partial payment thereon, provided that at least one quarter of the nominal amount is paid-up in full upon subscription. The preference shares are not freely transferable; any transfer thereof is subject to the approval of the Supervisory Board.

STICHTING CONTINUÏTEIT AMG

In line with Dutch law and corporate practice, on July 6, 2010, Stichting Continuïteit AMG (the "Foundation") was established in Amsterdam, having as its main objective to safeguard the interests of the Company and its stakeholders.

The Board of the Foundation is independent from the Company and currently consists of Mr. H. de Munnik, Chairman, Mr. H. Reumkens, and Professor K. Lutz as members.

The main objective of the Foundation is to represent the interests of the Company and of the enterprises maintained by the Company and the companies affiliated with the Company in a group, in such a way that the interests of the Company and of those enterprises and of all parties involved in this are safeguarded in the best possible way, and that influences which could affect the independence and/or continuity and/or identity of the Company and those enterprises in breach of those interests are deterred to the best of the Foundation's ability.

Under the terms of an option agreement dated December 22, 2010 between the Company and the Foundation, the Foundation has been granted an option pursuant to which it may purchase a number of preference shares up to a maximum of the total number of ordinary shares outstanding at any given time in the event of a threat to the continuity or strategy of AMG.

VOTING RIGHTS

There are no restrictions on voting rights of ordinary and preference shares. Shareholders who hold shares on April 10, 2024 (mandated as the 28th day prior to the day of the General Meeting of Shareholders on May 8, 2024) are entitled to attend and vote at the General Meeting of Shareholders regardless of a sale of shares after such date.

MANAGEMENT BOARD

The executive management of AMG, and its representation towards third parties, is entrusted to its Management Board, which is chaired by the Chief Executive Officer. The Articles of Association provide that the number of members of the Management Board shall be determined by the Supervisory Board. The members of the Management Board are appointed by the General Meeting of Shareholders for a maximum term of four years and may be reappointed for additional terms not to exceed four years.

The Management Board members are collectively responsible for creating a culture within the AMG Group that is focused on sustainable long-term value creation when determining strategy and making decisions. Stakeholder interests are taken into careful consideration. Each Management Board member shall serve the best interests of the Company with a view to creating sustainable long-term value, while carrying out his responsibilities and will take into account the interests of all the Company's stakeholders.

The Management Board has drawn up the AMG Code of Business Conduct, monitors its effectiveness with the assistance of the Chief Compliance Officer, and has established a procedure for reporting actual or suspected irregularities within the Company or its group companies (Speak-Up process). The Management Board has further adopted values for the Company and the AMG Group ("AMG Values") and is responsible for maintenance of the AMG Values within the Company and its group companies by encouraging behavior that upholds the AMG Values and by leading by example. In this regard, specific attention shall be given to the strategy and the business model, the environment in which the Company and the AMG Group operate, and the existing culture within the Company and the AMG Group. The updated AMG Values Statement reads as follows:

- We act safely
- We create value for our stakeholders
- We respect people
- We protect our planet by enabling CO_2 reduction
- We act with integrity

The energy transformation demands materials science-based solutions. AMG was founded to be a leader in providing the critical materials that meet these demands. Our greatest stakeholder is our planet. At AMG we are committed to increasing both the CO_2 efficiency of our operations as well as the amount of CO_2 we enable our end-use customers to reduce by utilizing our products. We are ambitious, innovative and committed to being a leader in the fields of critical materials and related technologies. AMG's core values represent our priorities with all employees, business partners and stakeholders.

Please refer to the Sustainable Development section for a further review of the application of the AMG Values within the AMG Group and compliance with the AMG Code of Business Conduct during 2023.

The Management Board is responsible for the internal audit function of the AMG Group and the Management Board appoints and dismisses the senior internal auditor upon approval of the Supervisory Board, along with the recommendation of the Audit & Risk Management Committee. The internal audit function reports to (a member of) the Management Board. The Supervisory Board oversees the internal audit function (through the Audit and Risk Committee) and maintains regular contact with the person fulfilling this function. The Management Board assesses annually the way in which the internal audit function fulfills its responsibility, after consultation with the Audit and Risk Committee.

The Supervisory Board is authorized to make a non-binding or binding nomination regarding the appointment of members of the Management Board. A binding nomination means that the General Meeting of Shareholders may appoint the nominated persons, unless the General Meeting of Shareholders rejects the nomination by an absolute majority (more than 50% of the votes cast) representing at least one-third of the issued share capital. In case the absolute majority is reached, however, not representing one-third of issued share capital, a second meeting will be convened in which the resolution may be adopted without a quorum applying. If the Supervisory Board has not made a nomination, the appointment of the members of the Management Board is at the full discretion of the General Meeting of Shareholders. The General Meeting of Shareholders and the Supervisory Board may suspend a member of the Management Board at any time.

A resolution of the General Meeting of Shareholders to suspend or dismiss a member of the Management Board requires an absolute majority (more than 50% of the votes cast), representing at least one-third of the issued share capital, unless the Supervisory Board has proposed the suspension or dismissal to the General Meeting of Shareholders, in which case an absolute majority is required but without any quorum requirement.

The Management Board follows its own rules of procedure concerning meetings, resolutions, and similar matters. These rules of procedure are published on the Company's website.

The Company has set a diversity target of 33% of each gender on the Management Board by 2030.

The Company has rules to avoid and deal with conflicts of interest between the Company and members of the Management Board. The Articles of Association state that in the event of a direct or indirect personal conflict of interest between the Company and any of the members of the Management Board, the relevant member of the Management Board shall not participate in the deliberations and decision-making process concerned. If all members of the Management Board are conflicted, and, as a result, no Management Board resolution can be adopted, the Supervisory Board shall adopt the resolution. In addition, it is provided in the rules of procedure of the Management Board that the respective member of the Management Board shall not take part in any decision-making that involves a subject or transaction to which he or she has a conflict of interest with the Company. Such transaction must be concluded on market practice terms and approved by the Supervisory Board. The rules of procedure of the Management Board establish further rules on the reporting of (potential) conflicts of interest.

SUPERVISORY BOARD

The Supervisory Board supervises the general course of business of the Company and the way the Management Board implements the sustainable long-term value-creation strategy of the Company. The Supervisory Board regularly discusses the strategy, the implementation of the strategy and the principal risks associated with it. The Supervisory Board assists the Management Board by providing advice. In fulfilling their duties, the Supervisory Directors shall act in the interest of the Company and its affiliated enterprises, and the Supervisory Board shall take into account the stakeholder interests that are relevant in this context. The Supervisory Board is responsible for the quality of its own performance and evaluates its own performance and that of the Management Board once per year.

Under the two-tier corporate structure pursuant to Dutch law, the Supervisory Board is a separate body that is independent of the Management Board. Members of the Supervisory Board can be neither members of the Management Board nor employees of the Company.

The Supervisory Board discusses and approves major management decisions as well as the strategy that is developed and implemented by the Management Board. The Supervisory Board has adopted its own rules of procedure concerning its own governance, committees, conflicts of interest, etc. The rules of procedure are published on the Company's website and include the charters of the committees to which the Supervisory Board has assigned certain preparatory tasks, while retaining overall responsibility.

These committees are the Remuneration Committee; the Selection & Appointment Committee; the Audit & Risk Management Committee; and the Safety, Sustainability, and Science Committee. The Supervisory Board shall be assisted by the Corporate Secretary of the Company, who shall be appointed by the Management Board after approval of the Supervisory Board has been obtained. The number of members of the Supervisory Board will be determined by the General Meeting of Shareholders with a minimum of three members. Please refer to the Report of the Supervisory Board published as part of the 2023 Annual Report for a report by each committee of the Supervisory Board for the year 2023 as well as for the Remuneration Report for the year 2023.

A Supervisory Director is appointed for a maximum period of four years and may then be reappointed once for another maximum four-year period. The Supervisory Director may then subsequently be reappointed again for a period of two years, after which point the appointment may be extended by at most two years. In the event of a reappointment after an eight-year period, reasons shall be given in the (annual) report of the Supervisory Board. For any appointment or reappointment, the profile for Supervisory Board candidates, which was drawn up by the Supervisory Board, will be observed. The Supervisory Board prepares a rotation schedule, which is made generally available and is posted on the Company's website.

The Supervisory Board is authorized to make a binding or non-binding nomination regarding the appointment of the members of the Supervisory Board. In the event of a binding nomination, the General Meeting of Shareholders appoints the members of the Supervisory Board from a nomination made by the Supervisory Board.

A binding nomination means that the General Meeting of Shareholders may appoint the nominated person, unless the General Meeting of Shareholders rejects the nomination by an absolute majority (more than 50% of the votes cast) representing at least one-third of the issued share capital.

In case the absolute majority is reached, however, not representing one-third of issued share capital, a second meeting of record will be convened in which the resolution may be adopted with normal majority, without a quorum applying.

If the Supervisory Board has not made a nomination, the appointment of the members of the Supervisory Board is at the full discretion of the General Meeting of Shareholders. The General Meeting of Shareholders may, at any time, suspend or remove members of the Supervisory Board. A resolution of the General Meeting of Shareholders to suspend or remove members of the Supervisory Board requires an absolute majority (more than 50% of the votes cast) representing at least one-third of the issued share capital, unless the Supervisory Board has proposed the suspension or dismissal, in which case an absolute majority is required, without any quorum requirement.

As required under the Code and Dutch law, the Company has formalized strict rules to avoid and deal with conflicts of interest between the Company and the members of the Supervisory Board, as further described in the Rules of Procedure of the Supervisory Board. Further information on the Supervisory Board and its activities can be found in the Report of the Supervisory Board published as part of the 2023 Annual Report.

Each of the current members of the Supervisory Board is obliged not to transfer or otherwise dispose of any shares awarded as part of their annual remuneration until the earlier of the third anniversary of the date of the award or the first anniversary of the date on which he or she ceases to be a member of the Supervisory Board. Shares in the Company held by the Supervisory Directors shall be held only as long-term investments.

GENERAL MEETING OF SHAREHOLDERS

A General Meeting of Shareholders is held at least once per year. During the Annual General Meeting, the Annual Report, including the Report of the Management Board, the annual (consolidated) financial statements, the implementation of the remuneration policy for the Management Board, and the Report of the Supervisory Board are discussed, as well as other matters pursuant to Dutch law or the Company's Articles of Association.

As a separate item on the agenda, the General Meeting of Shareholders is entrusted with the discharge of the members of the Management Board and the Supervisory Board from responsibility for the performance of their duties during the preceding financial year. The General Meeting of Shareholders is held in Amsterdam or Haarlemmermeer (Schiphol Airport), and takes place within six months following the end of the preceding financial year. During the years 2020, 2021 and 2022 the Annual General Meeting was held virtually by TEAMS conference due to the travel restrictions that were in place as a result of the COVID-19 pandemic and on the basis of special legislation adopted by Dutch Parliament. In May 2023, the Annual General Meeting was held in person in Amsterdam.

Meetings are convened by public notice on the website of the Company and by letter, or by use of electronic means of communication, to registered shareholders (if any). Notice is given at least 42 days prior to the date of the General Meeting of Shareholders. The main powers of the General Meeting of Shareholders are set forth in the Company's Articles of Association, which are published on the Company's website, and the applicable provisions of Dutch law.

On May 4, 2023, the General Meeting of Shareholders resolved to authorize the Management Board for a period of 18 months from that date (until November 3, 2024) as the corporate body, which, subject to approval by the Supervisory Board, is authorized to issue shares, including any grant of rights to subscribe to shares up to a maximum of 10% of the Company's issued share capital as per December 31, 2022, for general corporate purposes and/or for the purpose of mergers and acquisitions, and/or for strategic alliances and/or financial support arrangements. This authorization also includes the power to restrict or exclude preemptive rights.

On May 4, 2023, the General Meeting of Shareholders resolved to authorize the Management Board for a period of 18 months from that date (until November 3, 2024) as the corporate body which, subject to approval by the Supervisory Board, is authorized to effect acquisitions of its own shares by AMG. The number of shares to be acquired is limited to 10% of the Company's issued share capital as of December 31, 2022, taking into account the shares previously acquired and disposed of at the time of any new acquisition. Shares may be acquired through the stock exchange or otherwise, at a price between par value and 110% of the average stock exchange price for a five-day period prior to the date of acquisition. The stock exchange price referred to in the previous sentence is the average closing price of the shares at Euronext Amsterdam on the five consecutive trading days immediately preceding the day of purchase by, or for, the account of the Company.

ARTICLES OF ASSOCIATION

The Company's Articles of Association can be amended by a resolution of the General Meeting of Shareholders on a proposal from the Management Board that has been approved by the Supervisory Board. A resolution of the General Meeting of Shareholders to amend the Articles of Association that has not been taken on the proposal from the Management Board and the approval of the Supervisory Board, should be adopted by a majority of at least two-thirds of the votes cast in a meeting in which at least 50% of the issued share capital is represented. The Articles of Association have last been amended on May 12, 2023, following approval by the General Meeting of Shareholders in its Annual General Meeting held on May 4, 2023, and are published on the Company's website (amg-nv.com). At this occasion the name of the Company was changed from AMG Advanced Metallurgical Group N.V. to AMG Critical Materials N.V.

CORPORATE SOCIAL RESPONSIBILITY AND ESG

AMG's Values (safety, value creation, respect for people, protect the planet by enabling CO_2 reduction, and integrity) form the core foundation of AMG's ambition to be a leader in the fields of critical materials and engineering services and to achieve excellence in all that it does. They apply to how AMG and its group companies conduct their operations and how they deal with their employees, business partners, and stakeholders.

In being a responsible corporate citizen, AMG endorses and supports the definition of corporate social responsibility as set by the World Business Council for Sustainable Development: "…the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large." For AMG and its affiliated companies, this statement, which forms the basis of AMG's ESG strategy, translates into four main sustainable development objectives that the Company has formulated in connection with its financial objectives, technological capabilities and its leading position at the heart of the global metallurgical industry: 1) to provide safe working conditions for our employees and to be responsible stewards of the environment; 2) to meet or exceed regulatory standards by engaging in ethical business practices; 3) to be a valued member of the local economy, community and society at large by contributing to solutions for addressing some of the fundamental environmental and social challenges facing society today; and 4) target industrial activities which either contribute to the production of greenhouse gas levels through the circular economy or by arriving at technologies which enable our business partners to reduce greenhouse levels and quantify the success of these endeavors. The Supervisory Board and the Management Board of the Company take continued guidance from these objectives when defining and implementing the Company's strategic objectives.

The Sustainable Development chapter in this Annual Report further elaborates on the application of AMG's Code of Business Conduct, its Speak Up and Reporting Policy, and the activities of the Company concerning diversity during 2023.

The Company has adopted a Diversity & Inclusion Policy that includes the diversity targets for the Management Board, Supervisory Board, and the management sub-top, and mentions the Diversity Council at AMG and its goal and purpose.

In line with Dutch legislation, AMG also reports as of 2023 to the SER online portal, on its diversity plan (measures taken) and targets going forward, the results of the diversity plan in the preceding financial year and - if results are not met - an explanation. The reporting also includes the inflow, progression and retention of employees (male and female) and the gender composition of the Management Board, Supervisory Board, and AMG management's sub-top.

DECREE ON ARTICLE 10 OF THE TAKEOVER DIRECTIVE

The information required by the Decree on Article 10 of the Takeover Directive (published on April 5, 2006) is included in this Corporate Governance Report and is published and updated in the 2023 Annual Report.

Below is an overview of the significant agreements to which the Company is a party, which are affected, changed, or terminated subject to the condition of a change of control, or which contain new restrictions on voting rights attached to shares.

The Company is a party to the following arrangements that may be terminated or amended under the condition of a change of control over the Company as a result of a public takeover offer:

a. The Company has entered into a credit facility for its general financing needs and purposes, dated November 30, 2021, consisting of a $350 million Term Loan B and a $200 million Revolving Credit facility (“Credit Agreement”), which includes a provision that triggers the Company to repay the entire outstanding amount under the Credit Agreement upon a change of control, as defined therein;

b. Under terms of the $307 million municipal bond issued to refinance the construction of a new spent resid catalyst recycling facility in Zanesville, Ohio, in the senior unsecured 30-year US tax-exempt bond market in July 2019 by AMG Vanadium LLC that is a wholly owned affiliate of the Company, the holders of the bonds have the right to tender their bonds for purchase by the Company (that acts as Guarantor) upon a change in control of the Company at a purchase price of 101% of the principal amount of the bonds plus accrued interest;

c. The members of the Management Board of the Company all have an employment agreement with a wholly owned US subsidiary of the Company, that will trigger termination rights for the Management Board members upon a change of control of the Company pursuant to a public offer. These employment agreements are entered into for an indefinite period of time and are explained in detail on the Company's website;

d. The members of the Management Board participate together with a group of senior staff and executives of the AMG Group, in the AMG Performance Share Unit Plan. This Plan is administered by the Company and creates rights and obligations for each participant of the respective Plans towards the Company. The plan has provisions that permit the Supervisory Board (and Management Board respectively) to cancel or modify performance share units awarded to its participants, upon a change of control of the Company;

e. The Company is party to an option agreement concluded on December 10, 2010 with Stichting Continuïteit AMG, that triggers certain option rights for the Stichting Continuïteit AMG upon a change of control of the Company, as further detailed in the "Stichting Continuïteit AMG" section of this chapter;

f. The Company is party to a joint venture agreement concluded on October 7, 2019 with Shell Overseas Investments B.V. (“Shell”) in order to jointly identify and pursue opportunities to offer customers outside North America an environmentally sustainable solution for their spent catalyst and gasification ash (“the JV Agreement”). The terms of the JV Agreement trigger termination rights for the Company and Shell in case the other party suffers a change of control by a Major Competitor or Sanctioned Person (as these terms are defined in the JV Agreement).

RISK MANAGEMENT AND INTERNAL CONTROLS

AMG employs a risk management approach that identifies and mitigates risk at all levels of the organization. The Company analyzes risks in formal settings such as scheduled Management Board and Supervisory Board meetings as well as everyday operational situations faced by its global employee base. AMG has implemented a comprehensive risk management program centered on the Company’s Risk Assessment Package (RAP), as further explained in detail in the chapter on Risk Management and Internal Controls published as part of the 2023 Annual Report.

As stated above, the Management Board is responsible for the internal audit function of the Company. The Internal Auditor at AMG reports to the Audit & Risk Management Committee and to the Management Board and operates on the basis of an Internal Audit plan approved annually by the Supervisory Board and the Management Board. The Internal Audit plan is risk-based and comprises all units and subsidiaries of the AMG Group with a focus on financial control, IT risks and compliance.

The Internal Audit function closely cooperates with the external auditors of the Company and attends all meetings of the Audit & Risk Management Committee of the Supervisory Board.

INVESTOR RELATIONS

The Company highly values good relations with its shareholders and is compliant with applicable rules and regulations on non-selective and timely disclosure and equal treatment of shareholders. Apart from communication at the Annual General Meeting of Shareholders, the Company explains its financial results during public quarterly conference calls and capital markets days. Further, the Company publishes annual, semi-annual, and quarterly reports and press releases and makes information available through its public website (**amg-nv.com**).

The Company also engages in bilateral communications with investors and, in doing so, adheres to its policy on bilateral contacts, which is published on the Company’s website. During these communications, the Company is, in general, represented by its Investor Relations Officer, occasionally accompanied by a member of the Management Board.

COMPLIANCE WITH THE DUTCH CORPORATE GOVERNANCE CODE 2022

As stated above, AMG is subject to the 2022 Code for the 2023 financial year. As a general statement the Company fully endorses the Code’s principles and believes that it complies with virtually all best practice provisions as included in the 2022 Code. On certain matters involving the remuneration policy of the Company, specifically best practice provision 3.2.3 concerning severance payments and best practice provision 3.3.2 concerning remuneration of the Supervisory Board members in the form of AMG shares, the Company does not comply with these best practice provisions and believes that it has sound reasons for doing so, which are explained in the Corporate Governance at AMG report published on the AMG website (amg-nv.com/about-amg/corporate-governance/).

CONFLICTS OF INTEREST

No conflicts of interest that were of material significance to the Company and/or members of the Management Board and Supervisory Board were reported in the period starting January 1, 2023, up to and including March 13, 2024.

During the period starting January 1, 2023 up to and including March 13, 2024, the Company did not enter into any material transaction with a shareholder holding an interest of 10% or more in the Company's share capital.

Accordingly, the Company has complied with best practice provisions 2.7.3, 2.7.4, and 2.7.5 of the 2022 Code.

CORPORATE GOVERNANCE STATEMENT

The Decree of December 23, 2004, adopting further rules regarding the contents of the annual report, most recently amended and extended as of January 1, 2018 (the "Decree"), requires a statement to be published annually by the Company on its compliance with Corporate Governance regulations in the Netherlands.

The Company hereby submits that it has fully complied with this requirement by way of publication of this Annual Report and the specific references therein, notably the Report of the Management Board, the Report of the Supervisory Board, the Remuneration Report for 2023, and the chapters on Risk Management and Internal Controls, Sustainable Development and Corporate Governance, all of which are deemed to be incorporated by reference into the Company's statement on corporate governance.

FINANCIALS

Financial Review

Amounts in tables in thousands of US dollars

For the year ended December 31	2023	2022
Revenue and expenses		
AMG Clean Energy Materials revenue	725,505	667,804
AMG Critical Minerals revenue	227,696	364,502
AMG Critical Materials Technologies revenue	672,660	610,468
Total revenue	1,625,861	1,642,774
Cost of sales	(1,236,430)	(1,233,288)
Gross profit	389,431	409,486
Selling, general and administrative expenses	(178,162)	(147,963)
Other income, net	10,483	45,536
Operating profit	221,752	307,059

REVENUE

Total 2023 revenues for the AMG Group decreased 1% to $1,626 million from $1,643 million in 2022. Within the AMG Clean Energy Materials segment, 2023 revenue increased by $58 million, from $668 million in 2022 to $726 million. Higher average annual prices for spodumene as well as higher sales volumes of vanadium, lithium concentrate, and tantalum propelled revenue for the segment 9% higher on a full year basis. In 2023, ferrovanadium and tantalum concentrate sales increased 45% and 56%, respectively, versus the prior year. AMG Critical Minerals' revenue decreased by $137 million, or 38%, to $228 million from $365 million in 2022 mainly due to lower volumes largely driven by the silicon metal plant operating one furnace during the year. The slowdown in the European industrial economy also continued to negatively impact the segment. AMG Critical Materials Technologies' 2023 revenue increased by $63 million to $673 million from $610 million, or 10% compared to the same period in 2022. This improvement was mainly driven by strong revenues in our engineering unit, as well as higher sales volumes of chrome metal and higher sales prices of titanium alloys, partially offset by lower chrome metal pricing. On a full year basis, the Company signed a record high of $350 million in new orders during 2023, 24% higher than in 2022, representing a 1.27x book to bill ratio.

GROSS PROFIT

AMG's gross profit declined by $20 million to $389 million in the year ended December 31, 2023, a 5% decrease. As a percentage of revenue, gross margin decreased from 25% to 24%.

AMG Clean Energy Materials' gross profit increased 2% for the year ending December 31, 2023 compared to 2022 due to higher prices and volumes noted above. AMG Critical Minerals' gross profit decreased by $25 million, or 53%, to $22 million, driven by lower volumes as noted above. The 2023 gross margin for AMG Critical Materials Technologies was 14%, slightly lower than 2022 due to lower chrome metal pricing partially offset by higher revenues in our engineering business.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Selling, general and administrative (SG&A) costs were $178 million in the year ended December 31, 2023, as compared to $148 million in the year ended December 31, 2022. The increase is primarily related to higher personnel expenses, professional fees, and research and development costs arising from the Company's strategic projects as well as the growth in the businesses servicing the aerospace end markets.

Personnel expenses increased $14 million to $102 million in the year ended December 31, 2023 from $88 million in the year ended December 31, 2022. The increase is attributable to additional hiring in our Lithium, Engineering, and LIVA businesses. Professional fees increased $5 million to $28 million in the year ended December 31, 2023 compared to $23 million in the prior year. The increased costs were incurred to support the Company's lithium expansion projects in Brazil and Germany, as well as the continued development of the LIVA technology. Research and development expense increased $4 million to $8 million in the year ended December, 31 2023 compared to $4 million with the same period of 2022. This increase was driven by the Company's strategic projects mentioned previously. Other SG&A expenses, such as travel and entertainment, insurance, occupancy, communication and bank fees were $40 million in the year ended December 31, 2023, versus $33 million in the year ended December 31, 2022. This increase is mainly driven by global inflationary price trends as well as higher ancillary costs related to the Company's increased headcount and strategic projects.

PROFIT FOR THE YEAR TO ADJUSTED EBITDA RECONCILIATION

For the year ended December 31	2023	2022
Profit for the year	102,288	190,771
Income tax expense	95,002	84,097
Net finance cost	20,739	30,941
Equity-settled share-based payment transactions	5,799	5,552
Restructuring expense	9,223	582
Pension adjustment	5,290	—
Net contract settlements	—	(45,436)
Silicon's partial closure	(1,520)	—
Inventory cost adjustment	26,731	1,589
Asset impairment expense	8,818	10,597
Strategic project expense	19,179	17,070
Share of loss of associates	3,723	1,250
Others	583	238
Adjusted EBIT	295,855	297,251
Depreciation and amortization	54,636	45,299
Adjusted EBITDA	350,491	342,550

The Company has presented the performance measure adjusted EBITDA because it monitors this performance measure at a consolidated level, and it believes that this measure is relevant to an understanding of the Company's financial performance. The Company generally applies the definition of Adjusted EBITDA that aligns with the provisions of its credit facility. Adjusted EBITDA is not a defined performance measure in IFRS Accounting Standards. The Company's definition of adjusted EBITDA may not be comparable with similarly titled performance measures and disclosures by other entities.

AMG has achieved the highest adjusted EBITDA in its 16 year history with $350 million for the full year 2023 due largely to strong profitability in our lithium and vanadium businesses.

AMG excluded $27 million of non-cash expense that it incurred during 2023 due to exceptional price movements in its lithium and vanadium inventory positions. The inventory cost adjustment was mainly related to lithium hydroxide which the Company had acquired in connection with the upcoming commissioning of its lithium refinery in Bitterfeld, Germany. See note 14. During 2022, AMG had exceptional non-cash expense related to inventory cost adjustments in the UK operation.

In the fourth quarter of 2023, AMG initiated a restructuring program to improve efficiencies and reduce headcount. As a result of this initiative, the Company incurred restructuring expenses at AMG Titanium of $6 million and at AMG Graphite in the amount of $2 million in the year ended December 31, 2023. As a result of these restructuring programs, AMG decreased its headcount at those locations by 114.

Additionally, certain non-core assets were also impacted. Asset impairments were recorded due to the retirement of these assets at AMG Titanium and AMG Graphite in the amount of $3 million and $7 million, respectively. In the year ended December 31, 2022, asset impairments were recorded in relation to the write-off of property, plant and equipment associated with the silicon metal facility shut down noted below. See notes 10, 11, 14 and 26.

Effective January 2023, AMG significantly reduced the operations of its silicon metal facility in Pocking, Germany. The facility was placed under a care and maintenance plan to begin the year, and then operated only one of four furnaces from the second quarter through December 31, 2023. Due to the noted interruptions in operations, the financial impact of the business was excluded from adjusted EBITDA during this period of abnormal operations. The decision to curtail operations was made during 2022. At the time the decision was made, AMG recorded income from the sale of an existing supply contract which positively impacted operating profit for the year 2022. This income was offset partially by a settlement with a major customer and an impairment of existing assets. AMG excluded the net benefit of these contract settlements from EBITDA for the year ended December 31, 2022. See notes 6 and 10.

The Company is in the initial development and ramp-up phases for several strategic expansion projects, including the joint venture with Shell, the LIVA Battery System, and the lithium expansion in Germany, which incurred project expenses during the year but are not yet operational. AMG is adjusting EBITDA for these exceptional charges.

OPERATING PROFIT

AMG's operating profit of $222 million for the year ended December 31, 2023, was a decrease of $85 million compared to $307 million reported for the year ended December 31, 2022. The operating profit in 2022 benefited from $60 million of gains related to the sale of supply contracts at our Silicon business. As discussed above, these contracts were sold when the Company made the determination to place its Silicon facility on a care and maintenance plan and are non-recurring in nature. The remaining impact was driven by the global decline in metal prices within our portfolio in the latter portion of 2023, predominantly the lithium price decline.

NET FINANCE COST

The table below sets forth AMG's net finance costs for the years ended December 31, 2023 and 2022. Net finance cost decreased in 2023 due to foreign exchange gains recognized on intergroup balances and higher interest income earned on an increased cash and cash equivalents balance in 2023 compared to 2022. Additionally, in today's rising rate environment, AMG continues to benefit from its low-cost fixed-rate debt facilities. AMG has an average interest rate charge across its two main debt instruments of 5%.

For the year ended December 31	2023	2022
Finance income	28,989	9,061
Finance cost	(49,728)	(40,002)
Net finance cost	(20,739)	(30,941)

INCOME TAXES

The Company recorded an income tax expense of $95 million for the year ended December 31, 2023, compared to $84 million for the year ended December 31, 2022. This variance was due to negative movements in the Brazilian real in 2023 as compared to 2022 as well as non-cash deferred tax expenses related to the derecognition of certain tax assets. These tax assets were associated with interest expense carryforwards in our US business as well as loss carryforwards in our German business. These deferred tax expenses were partially offset by the lower profitability in the current quarter relative to the same period in the prior year.

The effective tax rate for 2023 was 48% based on a profit before income tax of $197 million, as compared to the 31% effective tax rate for 2022, based on pre-tax profits of $275 million. The increase in the effective tax rate relative to prior year is driven by the various deferred tax expenses as noted above.

NET PROFIT

The Company recorded a net profit attributable to shareholders of $101 million in the year ended December 31, 2023, as compared to $188 million in the year ended December 31, 2022. This variance was driven by: (1) lower gross margin due to the global decline in metal prices within our portfolio in the latter portion of 2023, particularly the decline in lithium prices; (2) increased selling, general and administrative expenses as the Company continues to progress its strategic projects that are not yet operational; and (3) the gains related to the net contract settlements in our Silicon business which benefited 2022 net profit.

EQUITY ATTRIBUTABLE TO SHAREHOLDERS

The Company's equity attributable to shareholders increased 15% during the year from $491 million as of December 31, 2022 to $562 million as of December 31, 2023. This increase was mainly driven by cumulative net profit from both the current and prior year.

WORKING CAPITAL

The Company's working capital decreased due to a combination of lower inventory in our Chrome, Titanium and Antimony businesses, higher trade and other payables along with higher advanced payments within the Critical Materials Technologies segment driven by increased aerospace end market demand in 2023 relative to 2022.

LIQUIDITY AND CAPITAL RESOURCES

SOURCES OF LIQUIDITY

The Company's sources of liquidity include cash and cash equivalents, cash from operations and amounts available under credit facilities. At December 31, 2023, the Company had $345 million in unrestricted cash and cash equivalents and $195 million available on its revolving credit facility.

The table below summarizes the Company's net debt for the years ended December 31, 2023 and 2022.

For the year ended December 31	2023	2022
Senior secured debt	337,402	348,622
Cash & cash equivalents	345,308	346,043
Senior secured net (cash) debt	(7,906)	2,579
Other debt	13,105	14,959
Net debt excluding municipal bond	5,199	17,538
Municipal bond debt	319,002	319,244
Restricted cash	1,451	6,920
Net debt	322,750	329,862

The Company was subject to one maintenance debt covenant in its current revolving credit facility. Violating this covenant would limit the Company's access to liquidity. The Company was fully in compliance with this debt covenant as of December 31, 2023. See note 22 of the financial statements for additional information.

The table below summarizes the Company's net cash provided by or used in its operating activities, investing activities and financing activities for the years ended December 31, 2023 and 2022.

For the year ended December 31	2023	2022
Net cash from operating activities	223,000	167,567
Net cash used in investing activities	(185,344)	(103,104)
Net cash used in financing activities	(41,536)	(49,290)

Cash from operating activities was $223 million for the year ended December 31, 2023, the highest in AMG's history, and 33% higher than the $168 million in 2022. The increase was largely driven by continued strength in the lithium business and improved cash flows from the Critical Materials Technologies segment due to recovery in the aerospace end market as well as strong cash flows from the Critical Minerals segment related to the proceeds from the sales of supply contracts in 2023.

Cash used in investing activities was $185 million for the year ended December 31, 2023, compared to $103 million for the year ended December 31, 2022 . This increase was mainly driven by capital expenditures associated with our expansion projects.

Cash used in financing activities was $42 million for the year ended December 31, 2023, compared to $49 million for the year ended December 31, 2022. This variance was mainly driven by higher dividends paid to shareholders offset by lower repayment of debt versus prior year.

OUTLOOK

Our ongoing cost reduction and efficiency programs will reduce our headcount by approximately 200 which will essentially be offset by the ramp-up of our expansions in Germany and Brazil, as well as the growth in our LIVA and Engineering businesses.

Capital expenditures for 2024 are expected to be approximately $125 million, mainly driven by the lithium concentrate expansion in Brazil and expenditures related to the construction of the lithium hydroxide plant in Germany.

AMG refinanced its $350 million term loan and $200 million revolver in November 2021, extending revolver and term loan maturities to 2026 and 2028, respectively. AMG has no significant near-term debt maturities. And although we look to consistently optimize our financial structure, our current liquidity of $540 million can fully fund all of the approved capital expansion projects and all other financial obligations.

AMG's two main lithium expansion projects are heading towards completion: our lithium concentrate expansion project from 90,000 tons to 130,000 tons in Brazil and module 1 of our lithium hydroxide refinery in Germany. We are reviewing our resource development projects and all other expansion activities in light of the present market conditions.

Regarding 2024 outlook, from the lithium concentrate and lithium carbonate market price highs in November 2022 of $6,110 per ton and $84,062 per ton, respectively, prices have each declined by 84%.

On November 8, 2023, we indicated an adjusted EBITDA for 2024 of approximately $200 million excluding any profitability from our Bitterfeld lithium hydroxide refinery and utilizing contemporary pricing.

Since then, market prices for spodumene and lithium carbonate have declined 50% and 39%, respectively. Utilizing February 2024 price levels, lithium profitability will be $60 million lower and vanadium profitability will be $10 million lower, therefore AMG's 2024 adjusted EBITDA will be approximately $130 million.

Our analysis of the long-term supply and demand trends in lithium gives us confidence that the present low prices are unsustainable.

CONSOLIDATED INCOME STATEMENT

For the year ended December 31	Note	2023	2022
In thousands of US dollars			
Continuing operations			
Revenue	5	1,625,861	1,642,774
Cost of sales	7	(1,236,430)	(1,233,288)
Gross profit		389,431	409,486
Selling, general and administrative expenses	7	(178,162)	(147,963)
Other expenses	6	(313)	(14,544)
Other income	6	10,796	60,080
Net other operating income	6	10,483	45,536
Operating profit		221,752	307,059
Finance income	8	28,989	9,061
Finance cost	8, 22	(49,728)	(40,002)
Net finance cost	8	(20,739)	(30,941)
Share of loss of associates and joint ventures	12	(3,723)	(1,250)
Profit before income tax		197,290	274,868
Income tax expense	9	(95,002)	(84,097)
Profit for the year		102,288	190,771
Profit attributable to:			
Shareholders of the Company		101,320	187,589
Non-controlling interests		968	3,182
Profit for the year		102,288	190,771
Earnings per share			
Basic earnings per share	20	3.15	5.87
Diluted earnings per share	20	3.12	5.73

The notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF OTHER COMPREHENSIVE INCOME

For the year ended December 31	Note	2023	2022
In thousands of US dollars			
Profit for the year		102,288	190,771
Other comprehensive (loss) income			
Items of other comprehensive income (loss) that may be reclassified to profit or loss in subsequent periods:			
Exchange differences on translation of foreign operations	19	5,675	(1,631)
Cash flow hedges, effective portion of changes in fair value	19	(9,947)	24,237
Cash flow hedges reclassified to profit or loss, net of tax	19	2,121	5,091
Cost of hedging reserve, changes in fair value	19	758	520
Income tax expense on cash flow hedges	9	(90)	(1,304)
Net (decrease) increase on cash flow hedges		(7,158)	28,544
Net other comprehensive (loss) income that may be reclassified to profit or loss in subsequent periods		(1,483)	26,913
Items of other comprehensive income (loss) not to be reclassified to profit or loss in subsequent periods:			
Exchange differences on translation of foreign operations - non-controlling interest		945	(2,961)
Actuarial (losses) gains on defined benefit plans	24	(11,669)	37,245
Income tax benefit (expense) on actuarial (losses) gains	9	3,240	(10,851)
Net (loss) gain on defined benefit plans		(8,429)	26,394
Change in fair value of equity investments classified as fair value through other comprehensive income	12, 19	2,397	(267)
Net other comprehensive (loss) income not being reclassified to profit or loss in subsequent periods		(5,087)	23,166
Other comprehensive (loss) income for the year, net of tax		(6,570)	50,079
Total comprehensive income for the year, net of tax		95,718	240,850
Total comprehensive income attributable to:			
Shareholders of the Company		93,729	239,357
Non-controlling interest		1,989	1,493
Total comprehensive income for the year, net of tax		95,718	240,850

The notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at December 31	Note	2023	2022
In thousands of US dollars			
Assets			
Property, plant and equipment	10	921,178	797,611
Goodwill and other intangible assets	11	40,313	41,404
Derivative financial instruments	30	22,847	33,042
Equity-accounted investees	13	18,266	—
Other investments	12, 30	38,160	29,324
Deferred tax assets	9	26,882	37,181
Restricted cash	17, 30	387	5,875
Other assets	16	12,060	8,612
Total non-current assets		1,080,093	953,049
Inventories	14	260,945	277,311
Derivative financial instruments	30	3,397	3,516
Trade and other receivables	5, 15	164,027	162,548
Other assets	16	100,128	121,834
Current tax assets	9	7,845	7,289
Restricted cash	17, 30	1,064	1,045
Cash and cash equivalents	18	345,308	346,043
Total current assets		882,714	919,586
Total assets		1,962,807	1,872,635
Equity			
Issued capital	19	853	853
Share premium	19	553,715	553,715
Treasury shares	19	(10,593)	(14,685)
Other reserves	19	(52,269)	(44,869)
Retained earnings (deficit)		70,077	(4,461)
Equity attributable to shareholders of the Company		561,783	490,553
Non-controlling interests	21	44,220	27,296
Total equity		606,003	517,849
Liabilities			
Loans and borrowings	22	656,265	661,270
Lease liabilities	31	46,629	44,224
Employee benefits	24	133,333	117,160
Provisions	26	17,951	12,361
Deferred revenue	5	17,836	20,000
Other liabilities	27	4,784	15,009
Derivative financial instruments	30	27	284
Deferred tax liabilities	9	6,664	27,269
Total non-current liabilities		883,489	897,577
Loans and borrowings	22	5,566	15,164
Lease liabilities	31	5,725	4,710
Short-term bank debt	23	7,678	6,391
Deferred revenue	5	14,083	28,277
Other liabilities	27	77,052	69,917
Trade and other payables	28	259,339	240,101
Derivative financial instruments	30	2,828	7,746
Advance payments from customers	5	60,561	51,054
Current tax liability	9	24,279	23,548
Provisions	26	16,204	10,301
Total current liabilities		473,315	457,209
Total liabilities		1,356,804	1,354,786
Total equity and liabilities		1,962,807	1,872,635

The notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	Equity attributable to shareholders of the Company							
In thousands of US dollars	Issued capital	Share premium	Treasury shares	Other reserves	Retained deficit	Total	Non-controlling interests	Total equity
	(note 19)		(note 19)	(note 19)			(note 21)	
Balance at January 1, 2022	853	553,715	(16,596)	(96,421)	(173,117)	268,434	25,718	294,152
Foreign currency translation	—	—	—	(1,631)	—	(1,631)	(2,961)	(4,592)
Change in fair value of equity investments classified as fair value through other comprehensive income	—	—	—	(267)	—	(267)	—	(267)
Gain (loss) on cash flow hedges, net of tax	—	—	—	28,548	—	28,548	(4)	28,544
Actuarial gain, net of tax	—	—	—	25,118	—	25,118	1,276	26,394
Net gain (loss) recognized through other comprehensive income	—	—	—	51,768	—	51,768	(1,689)	50,079
Profit for the year	—	—	—	—	187,589	187,589	3,182	190,771
Total comprehensive income for the year	—	—	—	51,768	187,589	239,357	1,493	240,850
Purchase of common shares	—	—	(1,504)	—	—	(1,504)	—	(1,504)
Equity-settled share-based payments	—	—	—	—	5,552	5,552	—	5,552
Settlement of share-based payment awards	—	—	3,415	—	(3,475)	(60)	—	(60)
Transfer to retained deficit	—	—	—	(216)	216	—	—	—
Change in non-controlling interests	—	—	—	—	(1,341)	(1,341)	85	(1,256)
Dividend	—	—	—	—	(19,885)	(19,885)	—	(19,885)
Balance at December 31, 2022	853	553,715	(14,685)	(44,869)	(4,461)	490,553	27,296	517,849
Balance at January 1, 2023	853	553,715	(14,685)	(44,869)	(4,461)	490,553	27,296	517,849
Foreign currency translation	—	—	—	5,675	—	5,675	945	6,620
Change in fair value of equity investments classified as fair value through other comprehensive income	—	—	—	2,397	—	2,397	—	2,397
(Loss) gain on cash flow hedges, net of tax	—	—	—	(7,164)	—	(7,164)	6	(7,158)
Actuarial (loss) gain, net of tax	—	—	—	(8,499)	—	(8,499)	70	(8,429)
Net (loss) gain recognized through other comprehensive income	—	—	—	(7,591)	—	(7,591)	1,021	(6,570)
Profit for the year	—	—	—	—	101,320	101,320	968	102,288
Total comprehensive (loss) income for the year	—	—	—	(7,591)	101,320	93,729	1,989	95,718
Purchase of common shares	—	—	(6,960)	—	—	(6,960)	—	(6,960)
Equity-settled share-based payments	—	—	—	—	5,799	5,799	—	5,799
Settlement of share-based payment awards	—	—	11,052	—	(10,684)	368	—	368
Transfer to retained deficit	—	—	—	191	(191)	—	—	—
Gain on sale of non-controlling interest	—	—	—	—	18,867	18,867	—	18,867
Change in non-controlling interests	—	—	—	—	(12,361)	(12,361)	17,011	4,650
Dividend	—	—	—	—	(28,212)	(28,212)	(2,076)	(30,288)
Balance at December 31, 2023	853	553,715	(10,593)	(52,269)	70,077	561,783	44,220	606,003

The notes are an integral part of these consolidated financial statements.

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended December 31	Note	2023	2022
In thousands of US dollars			
Cash from operating activities			
Profit for the period		102,288	190,771
Adjustments to reconcile net profit to net cash flows:			
Non-cash:			
Income tax expense	9	95,002	84,097
Depreciation and amortization	10, 11	54,636	45,299
Asset impairment expense	10, 11,14	8,818	10,597
Net finance cost	8	20,739	30,941
Share of loss of associates and joint ventures	12	3,723	1,250
Loss (gain) on sale or disposal of property, plant and equipment	10	145	(592)
Equity-settled share-based payment transactions	25	5,799	5,552
Movement in provisions, pensions, and government grants	24, 26	(2,137)	(11,982)
Working capital and deferred revenue adjustments			
Change in inventories		7,890	(72,071)
Change in trade and other receivables		4,973	(21,065)
Change in prepayments		36,307	(59,219)
Change in trade payables and other liabilities		27,708	21,602
Change in deferred revenue		(16,358)	7,458
Other		(2,333)	14
Cash generated from operating activities		347,200	232,652
Finance costs paid	8	(40,028)	(27,727)
Finance income received	8	19,000	4,438
Income tax paid	9	(103,172)	(41,796)
Net cash from operating activities		223,000	167,567
Cash used in investing activities			
Proceeds from sale of property, plant and equipment	10	39	2,538
Acquisition of property, plant and equipment and intangibles	10, 11	(153,377)	(174,516)
Investments in associates and joint ventures	13	(21,989)	(1,250)
Use of restricted cash	17	5,469	86,514
Interest received on restricted cash	10	30	250
Capitalized borrowing cost paid	10	(15,519)	(16,652)
Other		3	12
Net cash used in investing activities		(185,344)	(103,104)
Cash used in financing activities			
Net proceeds (repayments) of short term debt	23	1,395	82
Repayment of borrowings	22, 23	(15,995)	(33,863)
Net repurchase of common shares	19	(6,960)	(1,523)
Dividends paid	19	(28,212)	(19,885)
Payment of lease liabilities	31	(5,764)	(5,101)
Advanced contributions	27	—	11,000
Contributions by non-controlling interests	27	14,000	—
Net cash used in financing activities		(41,536)	(49,290)
Net (decrease) increase in cash and cash equivalents		(3,880)	15,173
Cash and cash equivalents at January 1		346,043	337,877
Effect of exchange rate fluctuations on cash held		3,145	(7,007)
Cash and cash equivalents at December 31	18	345,308	346,043

The notes are an integral part of these consolidated financial statements.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. REPORTING ENTITY

The consolidated financial statements of AMG Critical Materials N.V. (herein referred to as “the Company”, “AMG NV” or “AMG”) for the year ended December 31, 2023, were authorized for issuance in accordance with a resolution of the Supervisory Board on March 13, 2024.

AMG is domiciled in the Netherlands. The address of the Company’s registered office is WTC Amsterdam, Tower 7, Strawinskylaan 1343, 1077 XX Amsterdam. The consolidated financial statements of the Company as of and for the year ended December 31, 2023, comprise the Company and the companies that comprise its subsidiaries (together referred to as the “Group”) and the Company’s interest in associates and jointly controlled entities.

AMG was incorporated in the Netherlands as a public limited liability company and its outstanding shares are listed on Euronext, Amsterdam, the Netherlands.

No entities in which the Company has less than a 50% interest are consolidated in the Company’s financial statements.

The following table includes all material operating entities in which AMG has an ownership interest. The Company has filed on March 13, 2024 a complete list of entities in which AMG has an ownership interest with the Amsterdam Chamber of Commerce. Additionally, this list can be found on AMG's website.

		Percentage held (directly or indirectly) by the Company	
Name	**Country of incorporation**	**December 31, 2023**	**December 31, 2022**
ALD Thermal Treatment, Inc.	United States	100	100
ALD Tratamientos Termicos S.A. de C.V.	Mexico	100	100
ALD Vacuum Technologies GmbH	Germany	100	100
AMG Aluminum UK Limited	United Kingdom	100	100
AMG Brazil S.A.	Brazil	100	100
AMG Vanadium LLC	United States	100	100
GfE Gesellschaft für Elektrometallurgie GmbH	Germany	100	100
GfE Metalle und Materialien GmbH	Germany	100	100
Graphit Kropfmühl GmbH	Germany	60	60
AMG Aluminum North America, LLC	United States	100	100
AMG Chrome Limited	United Kingdom	100	100
RW Silicium GmbH	Germany	100	100
Société Industrielle et Chimique de l’Aisne S.A.S.	France	100	100
VACUHEAT GmbH	Germany	100	100

ALD Vacuum Technologies GmbH and VACUHEAT GmbH intend to exercise the exemption of Sec. 264 (3) HGB "Handelsgesetzbuch”.

As of December 31, 2023, there were 3,567 employees at the Company (2022: 3,423). There were 3 employees located in the Netherlands as of December 31, 2023 (2022: 3). All other employees are located outside the Netherlands.

2. BASIS OF PREPARATION

(A) STATEMENT OF COMPLIANCE

EU law (IAS Regulation EC 1606/2002) requires that the annual consolidated financial statements of the Company for the year ending December 31, 2023, be prepared in accordance with accounting standards adopted and endorsed by the European Union ("EU") further to the IAS Regulation (EC 1606/2002) (further referred to as "IFRS, as endorsed by the EU").

The consolidated financial statements of AMG NV and its subsidiaries have been prepared in accordance with International Financial Reporting Standards ("IFRS") as of December 31, 2023, as endorsed by the EU and article 2.362.9 of the Netherlands Civil Code.

(B) BASIS OF MEASUREMENT

The consolidated financial statements have been prepared on the historical cost basis except for the following items, which are measured on an alternative basis on each reporting date. The methods used to measure fair values are discussed further in note 3.

Derivative financial instruments	Fair value
Non-derivative financial instruments at fair value through profit or loss	Fair value
Non-derivative financial instruments, including restricted cash, at fair value through other comprehensive income	Fair value
Net defined benefit (asset) liability	Fair value of plan assets less the present value of the defined benefit obligation, limited as explained in note 3

(C) MEASUREMENT OF FAIR VALUES

A number of the Company's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities. The Company has an established control framework with respect to the measurement of fair values. This includes overseeing all significant fair value measurements, including Level 3 fair values.

The Company regularly reviews significant unobservable inputs and valuation adjustments. If third party information, such as broker quotes or pricing services, is used to measure fair values, then the Company assesses the evidence obtained from the third parties to support the conclusion that these valuations meet the requirements of IFRS, including the level in the fair value hierarchy in which the valuations should be classified.

Significant valuation issues are reported to the Company's audit committee.

When measuring the fair value of an asset or a liability, the Company uses observable market data as far as possible.

Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows:

Level 1: quoted prices (unadjusted) in active markets for identical assets or 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); and

Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

If the inputs used to measure the fair value of an asset or a liability fall into different levels of the fair value hierarchy, then the fair value measurement is categorized in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

The Company recognizes transfers between levels of the fair value hierarchy at the end of the reporting period during which the change has occurred.

Further information about the assumptions made in measuring fair values is included in the following notes:

- note 12 – measurement of other investments
- note 25 – share-based payments
- note 30 – measurement of financial instruments

(D) USE OF ESTIMATES AND JUDGMENTS

The preparation of financial statements requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimate is revised and in any future periods affected.

Key uses of judgments

Information related to critical judgments made in applying accounting policies that have the most significant effects on the amounts recognized in the Company's consolidated financial statements are included in the following notes:

- notes 3 and 5 – Revenue from contracts with customers: determination of revenue recognition from furnace construction contracts
- notes 3 and 13 - other investments: whether the Company has significant influence over an equity-accounted investee
- notes 3 and 31 – Leases: determination of the lease term for some lease contracts which include renewal options

Assumptions and estimation uncertainty

Information about assumptions and estimation uncertainties that may have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next financial year are included in the following notes:

- note 9 – Income tax: recognition of income taxes and deferred tax assets
- note 10 – Property, plant and equipment: determination of useful lives of mining-related assets
- note 11 – Goodwill and other intangible assets: measurement of the recoverable amounts of assets and cash-generating units for purposes of impairment testing
- note 12 – Other investments; the assumptions and model used to determine fair value
- note 24 – Employee benefits: measurement of plan obligations and actuarial assumptions
- note 25 – Share-based payments: the assumptions and model used to determine fair value
- note 26 – Provisions: determination of amounts recorded based on expected payments and any regulatory framework
- note 30 – Financial instruments: fair value determination based on present value of future cash flows
- note 33 - Contingencies: recognition and measurement of contingencies and judgments about the likelihood and magnitude of potential resource outflows

3. SIGNIFICANT ACCOUNTING POLICIES

These consolidated financial statements as of December 31, 2023, present the consolidated financial position, results of operations and cash flows of the Company and its subsidiaries. The Company has consistently applied the following accounting policies to all periods presented in these consolidated financial statements.

(A) BASIS OF CONSOLIDATION

(i) Business combinations

The Company accounts for business combinations using the acquisition method once control is gained by the Company. Consideration transferred and separately identifiable net assets acquired in the acquisition are measured at fair value. Consideration transferred does not include amounts related to the settlement of pre-existing relationships, which are recognized in profit or loss. Any goodwill that arises is tested annually for impairment. In the event of a bargain purchase, any gain is recognized in the income statement immediately. Transaction costs are expensed as incurred, unless related to the issuance of debt or equity securities.

Contingent consideration is measured at fair value at the date of acquisition. If an obligation to pay contingent consideration meets the definition of a financial instrument classified as equity, then it is not remeasured, and settlement is accounted for within equity.

Other contingent consideration is remeasured at fair value at each reporting date, with subsequent changes in the fair value of the contingency being recognized through profit or loss.

(i) Subsidiaries

Subsidiaries are entities controlled by the Company. The Company controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases.

(ii) Non-controlling interests

Non-controlling interests are measured at their proportionate share of the acquiree's identifiable net assets at the date of acquisition.

Changes in the Company's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

(iii) Loss of control

When the Company loses control over a subsidiary, it derecognizes the assets and liabilities of the subsidiary, and any related non-controlling interest and other components of equity. Any resulting gain or loss is recognized in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

(iv) Interests in equity-accounted investees

The Company's interests in equity-accounted investees comprise interests in associates and joint ventures.

Associates are those entities in which the Company has significant influence, but not control or joint control, over the financial and operating policies. A joint venture is an arrangement in which the Company has joint control, whereby the Company has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.

Interests in associates and joint ventures are accounted for using the equity method. They are initially recognized at cost, including transaction costs. Subsequent to initial recognition, the consolidated financial statements include the Company's share of the profit or loss and OCI of equity-accounted investees in accordance with the Company's accounting policies, until the date on which significant influence or joint control ceases.

(v) Transactions eliminated on consolidation

Intergroup balances and transactions, and any unrealized income and expenses arising from intergroup transactions, are eliminated. Unrealized gains arising from transactions with equity-accounted investees are eliminated against the investment to the extent of the Company's interest in the investee. Unrealized losses are eliminated similarly, to the extent there is no evidence of impairment.

(B) FOREIGN CURRENCY

(i) Functional and presentation currency

These consolidated financial statements are presented in US dollars ($), which is the Company's functional and presentation currency.

All financial information is presented in US dollars and has been rounded to the nearest thousand, unless otherwise stated.

The local currency is the functional currency for the Company's significant operations outside the United States (US), except operations in the UK and Brazil, where the US dollar is used as the functional currency. The determination of functional currency is based on appropriate economic and management indicators.

(ii) Foreign currency transactions

Transactions in foreign currencies are translated to the respective functional currencies of the Company's entities at exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are retranslated at the functional currency rate of exchange at the reporting date. Non-monetary assets and liabilities that are measured at fair value in a foreign currency are translated into the functional currency at the exchange rate when the fair value was determined. Non-monetary items that are measured based on historical cost in a foreign currency are translated at the exchange rate at the date of the transaction. Foreign currency differences arising from the translation of monetary assets and liabilities denominated in a foreign currency are recognized in profit or loss.

Foreign currency differences arising from the translation of the following items are recognized in other comprehensive income:

- Equity investments classified as fair value through other comprehensive income (except on impairment, in which case foreign currency differences that have been recognized in other comprehensive income are reclassified to profit or loss);
- A financial liability designated as a hedge of the net investment in a foreign operation to the extent that the hedge is effective; and
- Qualifying cash flow hedges to the extent that the hedges are effective.

(iii) Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated to US dollars at exchange rates at the reporting date. The income and expenses of foreign operations are translated to US dollars at the average exchange rates calculated at the reporting date.

Foreign currency differences arising from the translation of foreign operations are recognized in other comprehensive income and accumulated in the foreign currency translation reserve, except to the extent that the translation difference is allocated to non-controlling interest. When a foreign operation is disposed of, in its entirety or partially such that control, significant influence, or joint control is lost, the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. If the Company disposes of part of its interest in a subsidiary but retains control, then the relevant proportion of the cumulative amount is reattributed to non-controlling interest. When the Company disposes of only part of an associate or joint venture while retaining significant influence or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

(C) REVENUE FROM CONTRACTS WITH CUSTOMERS

(i) Goods sold

The Company's contracts for goods sold typically contain a single performance obligation. The timing of when a customer obtains control over goods sold varies depending on the individual terms of the sales agreement. In satisfying the Company's performance obligation to its customers, transfer of control typically occurs when title and risk of loss pass to the customer. In the case of export sales, control of the goods sold may pass when the product reaches a foreign port. Invoices are generally issued according to contractual terms and are usually payable within 30-90 days. The transaction price of goods sold is typically based on contractual terms or market pricing and is not subject to variable consideration.

(ii) Furnace construction contracts

Furnace construction contract revenue results from the design, engineering and construction of advanced vacuum furnace systems in the AMG Critical Materials Technologies segment. These furnaces are constructed based on specifically negotiated contracts with customers. Contract revenues includes the initial amount agreed in the contract plus any variations in contract work, claims and incentive payments, to the extent that it is probable that they will result in revenue and can be measured reliably. Invoices are generally issued according to contractual terms and are usually payable within 30-90 days.

The performance obligations in the Company's furnace construction contracts are mainly recognized over time. The Company's furnace construction contracts require the Company to develop highly specialized assets that meet the customer's specific needs. The assets do not have an alternative use to the Company, and the Company has a legal right to payment for its services rendered to date for all furnace construction arrangements. The Company recognizes contract revenue over time in proportion to the stage of completion of the contract. The stage of completion is assessed with reference to costs incurred to date and estimated total cost. Otherwise, contract revenue is recognized only to the extent of contract costs incurred that are likely to be recoverable.

Contract expenses are recognized as incurred unless they create an asset related to future contract activity. An expected loss on a contract is recognized immediately in profit or loss.

Amounts expected to be collected from customers for contract work performed is measured at costs incurred plus profits recognized to date, less progress billings and recognized losses.

In the statement of financial position, construction contracts in progress for which costs incurred plus recognized profits exceed progress billings and recognized losses are presented as trade and other receivables. Contracts for which progress billings and recognized losses exceed costs incurred plus recognized profits are presented as deferred revenues and included with advanced payments.

(i) Heat treatment services

The Company offers heat treatment services on a tolling basis using its internally developed furnace and process technology that is owned and operated by the AMG Critical Materials Technologies segment. The Company's performance obligations under these tolling contracts require the Company to apply this technology to the customer's materials at a contractually agreed upon cost per unit. The Company recognizes revenues for heat treatment services completed to date that the Company has a contractual right to invoice its customers for the related services.

(ii) Processing services

Within the AMG Clean Energy Materials segment, the Company performs services to convert spent refinery catalyst and other vanadium-bearing residues into ferrovanadium and a ferronickel-molybdenum alloy. These metals are reclaimed from spent catalyst using the Company's proprietary roasting and pyrometallurgical processes. The reclaimed metals are then sold to the carbon and stainless-steel industries. The Company's performance obligations under these contracts require the Company to process the materials and reclaim the metals at a contractually agreed upon cost per unit. The Company recognizes revenues at a point in time for processing services completed to date to the extent that the Company has a contractual right to invoice its customers for the related services. Processing fees can be subject to adjustments based on the market prices of the reclaimed metals for a period up to to three months after roasting. To account for this potential volatility in the processing fee revenue, the Company defers a portion of its processing fee revenue until the uncertainty related to the metal prices is resolved in accordance with the variable consideration policy noted below. The deferral is determined taking into account the historical volatility of the metal prices relative to the market price at the reporting date.

(iii) Commissions

If the Company acts in the capacity of an agent rather than as the principal in a transaction, then the revenue recognized is the net amount of commission made by the Company.

(iv) Warranty obligations

The Company typically provides warranties for general repairs of defects that existed at the time of sale, as required by law. These assurance-type warranties are not considered to be separate performance obligations and are accounted for under IAS 37 Provisions, Contingent Liabilities and Contingent Assets as described in our accounting policy for provisions.

(i) Variable consideration

If the consideration in a contract includes a variable amount, the Company estimates the amount of consideration to which it will be entitled in exchange for providing services or for transferring the goods to the customer. The variable consideration is estimated at contract inception and constrained until it is highly probable that a significant revenue reversal in the amount of cumulative revenue recognized will not occur when the associated uncertainty with the variable consideration is subsequently resolved.

(D) FINANCE INCOME AND COST

Finance income comprises interest income on funds invested, changes in the discount on provisions, foreign currency gains and gains on derivatives and hedging instruments. Interest income is recognized as it is earned, using the effective interest method.

Finance cost comprises interest expense on borrowings and interest rate caps and swaps, amendment fees on borrowings, amortization of loan issuance costs, interest expense on lease liabilities, commitment fees on borrowings, changes in the discount on provisions, interest on tax liabilities, foreign currency losses, losses on derivatives and hedging instruments, fees for letters of credit/guarantees, interest for accounts receivable factoring or supply chain financing and any loss recorded on debt extinguishment. All transaction costs are recognized in profit or loss using the effective interest method when the costs are related to actual borrowings on the facility or using the straight-line method when they are related to the revolving credit facility.

(E) INCOME TAX EXPENSE

Income tax expense comprises current and deferred tax.

It is recognized in profit or loss except to the extent that it relates to a business combination, or items recognized directly in equity or in other comprehensive income.

Interest and penalties related to income taxes, including uncertain tax treatments, are accounted for under IAS 37 Provisions, Contingent Liabilities and Contingent Assets.

(i) Current tax

Current tax comprises the expected tax payable or receivable on the taxable income or loss for the year and any adjustment to the tax payable or receivable in respect of previous years. The amount of current tax payable or receivable is the best estimate of the tax amount expected to be paid or received that reflects uncertainty related to income taxes, if any. It is measured using tax rates enacted or substantively enacted at the reporting date. Current tax also includes any tax arising from dividends.

Current tax assets and liabilities are offset only if allowable in the related tax jurisdiction.

(i) Deferred tax

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognized for:

- temporary differences on the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss;
- temporary differences related to investments in subsidiaries, associates and joint ventures to the extent that the Company is able to control the timing of the reversal of the temporary differences and it is probable that they will not reverse in the foreseeable future; and
- taxable temporary differences arising on the initial recognition of goodwill.

Deferred tax assets are recognized for unused tax losses, unused tax credits and deductible temporary differences to the extent that it is probable that future taxable profits will be available against which they can be used. Future taxable profits are determined based on business plans for individual subsidiaries in the Company and the reversal of temporary differences. If the amount of taxable temporary differences is insufficient to recognize a deferred tax asset in full, then future taxable profits, adjusted for reversals of existing temporary differences, are considered, based on the business plans for individual subsidiaries in the Company. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized; such reductions are reversed when the probability of future taxable profits improves.

Unrecognized deferred tax assets are reassessed at each reporting date and recognized to the extent that it has become probable that future taxable profits will be available against which they can be used.

Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date.

The measurement of deferred tax reflects the tax consequences that would follow from the manner in which the Company expects, at the reporting date, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset generally when they arise in the same tax jurisdiction.

(ii) Sales and other taxes

Revenues, expenses and assets are recognized net of the amount of sales tax except:

- where the sales tax incurred on a purchase of assets or services is not recoverable from the taxation authority, in which case the sales tax is recognized as part of the cost of acquisition of the asset or as part of the expense item as applicable; and
- receivables and payables that are stated with the amount of sales tax included.

The net amount of sales tax recoverable from, or payable to, the taxation authority is included as part of receivables or payables in the statement of financial position.

Additional income taxes that arise from the distribution of dividends are recognized at the same time as the liability to pay the related dividend is recognized.

(F) GOVERNMENT GRANTS

Grants that compensate the Group for expenses incurred are recognized in profit or loss as a reduction of the relevant expense on a systematic basis in the periods in which the expenses are recognized, unless the condition for receiving the grant are met after the related expenses have been recognized. In this case, the grant is recognized when it becomes receivable. For grants related to the construction of an asset, the Group recognizes the grant proceeds as a reduction in the value of the asset once all conditions of the grant are satisfied.

(G) FINANCIAL INSTRUMENTS

A financial instrument is any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity.

(i) Financial assets: Initial recognition and measurement

Financial assets are classified, at initial recognition, as subsequently measured at amortized cost, fair value through other comprehensive income (OCI), or fair value through profit or loss.

The classification of financial assets at initial recognition depends on the financial asset's contractual cash flow characteristics and the Company's business model for managing them. The Company initially measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs. Trade receivables that do not contain a significant financing component or for which the Company has applied the practical expedient are measured at the transaction price as disclosed in section (c) Revenue from contracts with customers.

In order for a financial asset to be classified and measured at amortized cost or fair value through OCI, it needs to give rise to cash flows that are 'solely payments of principal and interest (SPPI)' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level. Financial assets with cash flows that are not SPPI are classified and measured at fair value through profit or loss, irrespective of the business model.

The Company's business model for managing financial assets refers to how it manages its financial assets in order to generate cash flows. The business model determines whether cash flows will result from collecting contractual cash flows, selling the financial assets, or both. Financial assets classified and measured at amortized cost are held within a business model with the objective to hold financial assets in order to collect contractual cash flows while financial assets classified and measured at fair value through OCI are held within a business model with the objective of both holding to collect contractual cash flows and selling.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the marketplace (regular way trades) are recognized on the trade date, i.e., the date that the Company commits to purchase or sell the asset.

Subsequent measurement

For purposes of subsequent measurement, financial assets are classified in three categories:

- Financial assets at amortized cost (debt instruments)
- Financial assets designated at fair value through OCI with no recycling of cumulative gains and losses upon derecognition (equity instruments)
- Financial assets at fair value through profit or loss

Financial assets at amortized cost (debt instruments)

Financial assets at amortized cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognized in profit or loss when the asset is derecognized, modified or impaired.

The Company's financial assets at amortized cost includes trade receivables.

Financial assets designated at fair value through OCI (equity instruments)

Upon initial recognition, the Company can elect to classify irrevocably its equity investments as equity instruments designated at fair value through OCI when they meet the definition of equity under IAS 32 Financial Instruments: Presentation and are not held for trading. The classification is determined on an instrument-by-instrument basis.

Gains and losses on these financial assets are never recycled to profit or loss. Dividends are recognized as other income in profit or loss when the right of payment has been established, except when the Company benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in OCI. Equity instruments designated at fair value through OCI are not subject to impairment assessment.

The Company elected to classify its other investments (note 12) under this category.

Financial assets at fair value through profit or loss

Financial assets at fair value through profit or loss are carried in the statement of financial position at fair value with net changes in fair value recognized in profit or loss.

This category includes the Company's derivative instruments that have not been designated for hedge accounting.

A derivative embedded in a hybrid contract, with a financial liability or non-financial host, is separated from the host and accounted for as a separate derivative if: the economic characteristics and risks are not closely related to the host; a separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and the hybrid contract is not measured at fair value through profit or loss. Embedded derivatives are measured at fair value with changes in fair value recognized in profit or loss. Reassessment only occurs if there is either a change in the terms of the contract that significantly modifies the cash flows that would otherwise be required or a reclassification of a financial asset out of the fair value through profit or loss category. The Company does not currently have any embedded derivatives that are accounted for separately from the host.

Derecognition

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is primarily derecognized (i.e., removed from the Company's consolidated statement of financial position) when the rights to receive cash flows from the asset have expired or when the Company has transferred its rights to receive cash flows from the asset or has assumed an obligation to pay the received cash flows in full without material delay to a third party under a 'pass-through' arrangement. In order for a pass-through arrangement to qualify for derecognition, the Company must have transferred substantially all the risks and rewards of the asset, or the Company has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

When the Company has transferred its rights to receive cash flows from an asset or has entered into a pass-through arrangement, it evaluates if, and to what extent, it has retained the risks and rewards of ownership. When it has neither transferred nor retained substantially all of the risks and rewards of the asset, nor transferred control of the asset, the Company continues to recognize the transferred asset to the extent of its continuing involvement. In that case, the Company also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Company has retained.

Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Company could be required to repay.

Impairment

The Company recognizes an allowance for expected credit losses ("ECL's") for all debt instruments not held at fair value through profit or loss. ECL's are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Company expects to receive, discounted at an approximation of the original effective interest rate. The expected cash flows will include cash flows from the sale of collateral held or other credit enhancements that are integral to the contractual terms.

ECL's are recognized in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECL's are provided for credit losses that result from default events that are possible within the next 12 months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For trade receivables and contract assets, the Company applies a simplified approach in calculating ECL's. Therefore, the Company does not track changes in credit risk, but instead recognizes a loss allowance based on lifetime ECL's at each reporting date. The Company has established an allowance matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

The Company considers a financial asset to be in default when internal or external information indicates that the Company is unlikely to receive the outstanding contractual amounts in full before considering any credit enhancements held by the Company. A financial asset is written-off when there is no reasonable expectation of recovering the contractual cash flows.

(i) Financial liabilities: Initial recognition and measurement

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognized initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Company's financial liabilities include trade and other payables, loans and borrowings, short-term bank debt and derivative financial instruments.

Subsequent measurement

For purposes of subsequent measurement, financial liabilities are classified in two categories:

- Financial liabilities at fair value through profit or loss
- Financial liabilities at amortized cost (loans and borrowings)

Financial liabilities at fair value through profit or loss

Financial liabilities at fair value through profit or loss include financial liabilities held for trading and financial liabilities designated upon initial recognition as at fair value through profit or loss.

Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivative financial instruments entered into by the Company that are not designated as hedging instruments in hedge relationships as defined by IFRS 9. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments.

Gains or losses on liabilities held for trading are recognized in profit or loss.

Financial liabilities designated upon initial recognition at fair value through profit or loss are designated at the initial date of recognition, and only if the criteria in IFRS 9 are satisfied. The Company has not designated any financial liability as at fair value through profit or loss.

Financial liabilities at amortized cost (loans and borrowings)

This is the category most relevant to the Company. After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the effective interest rate method. Gains and losses are recognized in profit or loss when the liabilities are derecognized as well as through the effective interest rate amortization process.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the effective interest rate. The effective interest rate amortization is included as finance costs in the income statement.

This category generally applies to interest-bearing loans and borrowings (note 22) and short-term bank debt (note 23).

Derecognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognized in profit or loss.

(i) Offsetting of financial instruments

Financial assets and financial liabilities are offset and the net amount is reported in the consolidated statement of financial position if there is a currently enforceable legal right to offset the recognized amounts and there is an intention to settle on a net basis, to realize the assets and settle the liabilities simultaneously.

(ii) Derivative financial instruments and hedge accounting

The Company uses derivative financial instruments, such as forward currency contracts, energy forward contracts, interest rate caps and swaps and forward commodity contracts, to hedge its foreign currency risks, energy price risks, interest rate risks and commodity price risks, respectively. Derivative instruments, which include physical contracts that do not meet the own use exemption, are initially recognized at fair value when the Company becomes a party to the contractual provisions of the instrument and are subsequently remeasured to fair value at the end of each reporting period. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative.

The Company designates derivatives as hedging instruments to hedge the variability in cash flows associated with highly probable forecast transactions arising from changes in foreign exchange rates, energy prices, commodity prices and interest rates.

At inception of designated hedging relationships, the Company documents the risk management objective and strategy for undertaking the hedge. The Company also documents the economic relationship between the hedged item and the hedging instrument, including whether the changes in cash flows of the hedged item and hedging instrument are expected to offset each other.

Cash flow hedges

When a derivative is designated as a cash flow hedging instrument, the effective portion of changes in the fair value of the derivative is recognized in other comprehensive income and accumulated in the hedging reserve. The effective portion of changes in fair value of the derivative that is recognized in other comprehensive income is limited to the cumulative change in fair value of the hedged item, determined on a present value basis, from inception of the hedge. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in profit or loss.

The Company designates only the change in fair value of the spot element of forward exchange contracts as the hedging instrument in cash flow hedging relationships. The change in fair value of the forward element of forward exchange contracts is separately accounted for as a cost of hedging and recognized in a cost of hedging reserve within equity.

When the hedged forecast transaction subsequently results in the recognition of a non-financial item such as inventory, the amount accumulated in the hedging reserve and the cost of hedging reserve is included directly in the initial cost of the non-financial item when it is recognized.

For all other hedged forecast transactions, the amount accumulated in the hedging reserve and the cost of hedging reserve is reclassified to profit or loss in the same period or periods during which the hedged expected future cash flows affect profit or loss.

If the hedge no longer meets the criteria for hedge accounting or the hedging instrument is sold, expires, is terminated or is exercised, then hedge accounting is discontinued prospectively. When hedge accounting for cash flow hedges is discontinued, the amount that has been accumulated in the hedging reserve remains in equity until, for a hedge of a transaction resulting in the recognition of a non-financial item, it is included in the non-financial item's cost on its initial recognition or, for other cash flow hedges, it is reclassified to profit or loss in the same period or periods as the hedged expected future cash flows affect profit or loss.

If the hedged future cash flows are no longer expected to occur, then the amounts that have been accumulated in the hedging reserve and the cost of hedging reserve are immediately reclassified to profit or loss.

(H) SHARE CAPITAL

(i) Ordinary shares

Incremental costs directly attributable to the issue of ordinary shares, net of any tax effects, are recognized as a deduction from equity. Income tax relating to transaction costs of an equity transaction is accounted for in accordance with IAS 12.

(ii) Repurchase and reissue of ordinary shares (treasury shares)

When shares recognized as equity are repurchased, the amount of the consideration paid, which includes directly attributable costs, net of any tax effects, is recognized as a deduction from equity. Repurchased shares are classified as treasury shares and are presented in the treasury share reserve. When treasury shares are sold or reissued subsequently, the amount received is recognized as an increase in equity, and the resulting surplus or deficit on the transaction is presented within share premium.

(I) EMPLOYEE BENEFITS

(i) Short-term benefits

Short-term employee benefits are expensed as the related service is provided. A liability is recognized for the amount expected to be paid if the Company has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

(ii) Share-based payment transactions

The grant date fair value of equity-settled share-based payment arrangements granted to employees is generally recognized as an expense, with a corresponding increase in equity, over the vesting period of the awards. The amount recognized as an expense is adjusted to reflect the number of awards for which the related service and non-market performance conditions are expected to be met, such that the amount ultimately recognized is based on the number of awards that meet the related service and non-market performance conditions at the vesting date. For share-based payment awards with market and non-vesting conditions, the grant date fair value of the share-based payment is measured to reflect such conditions and there is no true-up for differences between expected and actual outcomes.

(iii) Defined contribution plans

Obligations for contributions to defined contribution plans are expensed as the related service is provided. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

(iv) Defined benefit plans

The Company's net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount and deducting the fair value of any plan assets.

The calculation of defined benefit obligations is performed annually by a qualified actuary using the projected unit credit method.

When the calculation results in a potential asset for the Company, the recognized asset is limited to the present value of economic benefits available in the form of any future refunds from the plan or reductions in future contributions to the plan. To calculate the present value of economic benefits, consideration is given to any applicable minimum funding requirements.

Remeasurements of the net defined benefit liability, which comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest), are recognized immediately in other comprehensive income. The Company determines the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the then net defined benefit liability (asset), taking into account any changes in the net defined benefit liability (asset) during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognized in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognized immediately in profit or loss. The Company recognizes gains and losses on the settlement of a defined benefit plan when the settlement occurs.

(i) Other long-term employee benefits

The Company's net obligation in respect of long-term employee benefits is the amount of future benefit that employees have earned in return for their service in the current and prior periods. That benefit is discounted to determine its present value. Remeasurements are recognized in profit or loss in the period in which they arise.

(ii) Termination benefits

Termination benefits are expensed at the earlier of when the Company can no longer withdraw the offer of those benefits and when the Company recognizes costs for a restructuring. If benefits are not expected to be settled wholly within 12 months of the reporting date, then they are discounted.

(J) PROPERTY, PLANT AND EQUIPMENT

(i) Recognition and measurement

Items of property, plant and equipment are measured at cost, which includes capitalized borrowing costs, less accumulated depreciation and any accumulated impairment losses.

Costs associated with developing mine reserves are recognized in property, plant and equipment when they are established as commercially viable. These costs can include amounts that were previously recognized as intangible assets during the evaluation phase of the mine development.

Borrowing costs directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalized as part of the cost of the respective assets. All other borrowing costs are expensed in the period they occur. Borrowing costs consist of interest and other costs that an entity incurs in connection with the borrowing of funds.

If significant parts of an item of property, plant and equipment have different useful lives, then they are accounted for as separate items (major components) of property, plant and equipment.

Any gain or loss on disposal of an item of property, plant and equipment is recognized in profit or loss.

(i) Subsequent expenditures

Subsequent expenditure is capitalized only if it is probable that the future economic benefits associated with the expenditure will flow to the Company.

(ii) Depreciation

Depreciation is calculated to write-off the cost of items of property, plant and equipment less their estimated residual values using the straight-line method over their estimated useful lives and is generally recognized in the income statement. Land is not depreciated.

The estimated useful lives of property, plant and equipment for current and comparative periods are as follows:

• mining costs	4-20 years
• buildings and improvements	2-50 years
• machinery and equipment	2-25 years
• furniture and fixtures	2-15 years

Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

The depreciation of mining costs is linked to production levels. Therefore, these assets are amortized using a units of production basis. The Company's mine in Brazil is currently the only mine asset being depreciated using this basis and approximates a 18-year remaining life of the mine based on updated geology studies. Other mining assets are depreciated on a straight-line basis ranging from 4-20 years, depending on useful life.

(K) GOODWILL AND OTHER INTANGIBLE ASSETS

(i) Goodwill

Goodwill arising on the acquisition of subsidiaries is measured at cost less accumulated impairment losses.

(ii) Research and development

Expenditure on research activities is recognized in profit or loss when incurred.

Development expenditures are capitalized if and only if the following criteria are met:

- the expenditure can be measured reliably;
- the product or process is technically and commercially feasible;
- future economic benefits are probable; and

- the Company intends to and has sufficient resources to complete development and to use or sell the asset.

Research and development costs that do not qualify as assets are shown within selling, general and administrative expenses in the income statement. Subsequent to initial recognition, development expenditure is measured at cost less accumulated amortization and any accumulated impairment losses.

(i) Mining assets

Mining assets which are included in intangible assets include exploration, evaluation and development expenditures. See significant accounting policies section (k) for additional information on the accounting for mining assets.

(ii) Other intangible assets

Other intangible assets, including software, customer relationships, patents and trademarks that are acquired by the Company and have finite useful lives are measured at cost less accumulated amortization and any accumulated impairment losses.

(iii) Subsequent expenditure

Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill, is recognized in the income statement as incurred.

(iv) Amortization

Amortization is calculated to write-off the cost of intangible assets less their estimated residual values using the straight- line method over their estimated useful lives, and is generally recognized in profit or loss. Goodwill is not amortized. Amortization methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

The estimated useful lives for current and comparative periods are based on expected futures sales for the related asset and are as follows:

• customer relationships	5-15 years
• development costs	8-20 years
• machinery and equipment	9-12 years
• mining assets	2-20 years

(L) INVENTORIES

Inventories are measured at the lower of cost and net realizable value. The cost of inventories is determined based on the average cost and specific identification methods, and includes expenditures incurred in acquiring the inventories and bringing them to their existing location and condition. In the case of finished goods inventory and work in process, cost includes materials and labor as well as an appropriate share of production overhead based on normal operating capacity. The Company invests in various growth projects which can include new facilities, technologies or production processes. The Company purchases inventory during the commissioning of these facilities and processes. In some cases, the Company does not have any prior experience in producing the ultimate end product and lacks the historical experience to accurately assess an appropriate net realizable value. In such situations, the Company assesses the cost of the inventory against prevailing market prices. To the extent that the market prices of such inventory exceed the carrying value of inventories, the Company measures the inventory at the lower of the cost or prevailing market prices.

(M) MINING ASSETS

(i) Exploration, evaluation and development expenditures

Exploration and evaluation expenditures relate to costs incurred on the exploration and evaluation of potential mineral resources. These costs are recorded as intangible assets while exploration is in progress. When commercially recoverable reserves are determined, and such development receives the appropriate approvals, capitalized exploration and evaluation expenditures are transferred to construction in progress. Upon completion of development and commencement of production, capitalized development costs as well as exploration and evaluation expenditures are transferred to mining assets in property, plant and equipment and depreciated over their estimated useful life.

(ii) Deferred stripping costs

The Company is following IFRIC 20 for all surface mine accounting. The Interpretation only applies to stripping costs incurred during the production phase of a surface mine (production stripping costs). Costs incurred in undertaking stripping activities are considered to create two possible benefits: a) the production of inventory in the current period and/or b) improved access to ore to be mined in a future period. Where the benefits are realized in the form of inventory produced, the production stripping costs are to be accounted for in accordance with IAS 2. Where the benefit is improved access to ore that will be mined in the future, these costs are to be recognized as a non-current asset.

Production stripping costs are capitalized as part of an asset when the Company can demonstrate: a) it is probable that future economic benefit associated with the stripping activity will flow to the entity; b) the entity can identify the component of an ore body for which access has been improved; and c) the costs can be reliably measured. These costs are amortized over the life of the component ore body identified.

(N) LEASES

At inception of a contract, the Company assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

(i) As a lessee

At commencement or on modification of a contract that contains a lease component, the Company allocates the consideration in the contract to each lease component on the basis of its relative stand-alone prices.

The Company recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Company by the end of the lease term or the cost of the right-of-use asset reflects that the Company will exercise a purchase option. In that case the right-of-use asset will be depreciated over the useful life of the underlying asset, which is determined on the same basis as those of property and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Company's incremental borrowing rate. Generally, the Company uses its incremental borrowing rate as the discount rate.

The Company determines its incremental borrowing rate by obtaining interest rates from various external financing sources and makes adjustments to reflect the terms of the lease and type of the asset leased.

Lease payments included in the measurement of the lease liability comprise the following:

- fixed payments, including in-substance fixed payments;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable under a residual value guarantee; and
- the exercise price under a purchase option that the Company is reasonably certain to exercise, lease payments in an optional renewal period if the Company is reasonably certain to exercise an extension option, and penalties for early termination of a lease unless the Company is reasonably certain not to terminate early.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Company's estimate of the amount expected to be payable under a residual value guarantee, if the Company changes its assessment of whether it will exercise a purchase, extension or termination option or if there is a revised in-substance fixed lease payment.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

The Company presents right-of-use assets that do not meet the definition of investment property in property, plant and equipment and lease liabilities are presented as a separate line item in the statement of financial position.

Short-term leases and leases of low-value assets

The Company has elected not to recognize right-of-use assets and lease liabilities for leases of low-value assets and short- term leases. The Company recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

(O) ASSETS HELD FOR SALE

Non-current assets, or disposal groups comprising assets and liabilities, are classified as held for sale if it is highly probable that they will be recovered primarily through sale rather than through continuing use.

Such assets, or disposal groups, are generally measured at the lower of their carrying amount and fair value less costs to sell. Any impairment loss on a disposal group is allocated first to goodwill, and then to the remaining assets and liabilities on a pro rata basis, except that no loss is allocated to inventories, financial assets, deferred tax assets, employee benefit assets, investment property or biological assets, which continue to be measured in accordance with the Company's other accounting policies. Impairment losses on initial classification as held for sale or held for distribution and subsequent gains and losses on remeasurement are recognized in the income statement.

Once classified as held for sale, intangible assets and property, plant and equipment are no longer amortized or depreciated, and any equity-accounted investee is no longer equity accounted.

(P) IMPAIRMENT OF NON-FINANCIAL ASSETS

At each reporting date, the Company reviews the carrying amounts of its non-financial assets (other than inventories, contract assets and deferred tax assets) to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill is tested annually for impairment.

For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or cash generating units. Goodwill arising from a business combination is allocated to cash generating units or groups of cash generating units that are expected to benefit from the synergies of the combination.

The recoverable amount of an asset or cash generating unit is the greater of its value in use and its fair value less costs to sell. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or cash generating unit.

An impairment loss is recognized if the carrying amount of an asset or cash generating unit exceeds its recoverable amount.

Impairment losses are recognized in the income statement. They are allocated first to reduce the carrying amount of any goodwill allocated to the cash generating unit, and then to reduce the carrying amounts of the other assets in the cash generating unit on a pro rata basis.

An impairment loss in respect of goodwill is not reversed. For other assets, an impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

(Q) PROVISIONS

Provisions are recognized when:

- the Company has a present obligation (legal or constructive) as a result of a past event;
- it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation; and
- a reliable estimate can be made for the amount of the obligation.

If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognized as finance cost.

(i) Environmental remediation costs and recoveries

Several subsidiaries of the Company are faced with a number of issues relating to environmental clean-up requirements, largely resulting from historical solid and hazardous waste handling and disposal practices at their facilities. In accordance with the Company's environmental policy and applicable legal requirements, provisions associated with environmental remediation obligations are accrued when such losses are deemed probable and reasonably estimable. Such accruals generally are recognized no later than the completion of the remedial feasibility study and are adjusted as further information develops or circumstances change.

A provision is made for shutdown, restoration and environmental rehabilitation costs in the financial period when the related environmental disturbance occurs, based on the estimated future costs using information available at the reporting date. The provision is discounted using a current market-based pre-tax discount rate and any change in the discount is included in finance cost. The provision is reviewed on an annual basis for changes to obligations, legislation or discount rates that may lead to changes in cost estimates or the expected timeline for payments.

Where the Company expects some or all of an environmental provision to be reimbursed, for example using a trust account, the reimbursement is recognized as a separate asset but only when the reimbursement is virtually certain. The expense relating to any provision is presented in the income statement net of any reimbursement. The subsidiaries of the Company have been required, in several instances, to create trust funds for the environmental rehabilitation. Once established, the subsidiaries have a 100% interest in these funds. Rehabilitation and restoration trust funds holding monies committed for use in satisfying environmental obligations are included on a discounted basis within other non-current assets on the statement of financial position, only to the extent that a liability exists for these obligations.

Environmental expense recoveries are generally recognized in profit or loss upon final settlement with the Company's insurance carriers.

Additional environmental remediation costs and provisions may be required if the Company were to decide to close its sites. Several of the Company's restructuring programs have involved closure of sites. Remediation liabilities are recognized when the site closure has been announced. In the opinion of the Company, it is not possible to estimate reliably the costs that would be incurred on the eventual closure of its continuing sites, where there is no present obligation to remediate, because it is neither possible to determine a time limit beyond which the sites will no longer be operated, nor what remediation costs may be required on their eventual closure.

(i) Restructuring

A provision for restructuring is recognized when the Company has approved a detailed and formal restructuring plan, and the restructuring either has commenced or has been announced publicly. Provisions are not made for future operating costs. The timing of recording of portions of the restructuring provision is dependent on receiving social plan approval generally in European jurisdictions which require external approval. Changes in the estimate of costs related to restructuring plans are included in profit or loss in the period when the change is identified.

(ii) Warranty

A provision for warranty is recognized when the Company has determined that it has a basis for recording a warranty provision based on historical returns for warranty work. The estimate of warranty-related costs is updated and revised at each reporting date.

(iii) Partial retirement

The collective agreements for retirement indemnities on our French subsidiary and the corresponding commitments are updated and revised at each reporting date.

(iv) Cost estimates

As part of its process to provide reliable estimations of profitability for long-term contracts, the Company makes provisions for cost estimates for completed contracts. These provisions are developed on a contract by contract basis and are based on contractor estimates and are utilized or derecognized depending on actual performance of the contracts. The cost estimates are updated and revised at each reporting date.

(i) Restoration, rehabilitation and decommissioning costs

Restoration, rehabilitation and decommissioning costs arising from the installation of plant and other site preparation work, discounted to their net present value, are provided for and capitalized at the time such an obligation arises. The costs are charged to the income statement over the life of the operation through depreciation of the asset and the unwinding of the discount on the provision.

Mine rehabilitation costs will be incurred by the Company at the end of the operating life of some of the Company's facilities and mine properties. The Company assesses its mine rehabilitation provision at each reporting date. The ultimate rehabilitation costs are uncertain, and cost estimates can vary in response to many factors, including estimates of the extent and costs of rehabilitation activities, technological changes, regulatory changes, cost increases as compared to the inflation rates, and changes in discount rates. The provision recorded at each reporting date represents management's best estimate of the present value of the future rehabilitation costs required.

Costs for restoration of subsequent site disturbance, which is created on an ongoing basis during production, are provided for at their net present values and charged to the income statement as extraction progresses.

(R) NEW AND AMENDED STANDARDS AND INTERPRETATIONS

The following new standards became effective for annual periods beginning after January 1, 2023; however, these amended standards and interpretations did not have a significant impact on the Company's consolidated financial statements.

- IFRS 17 Insurance Contracts and amendments to IFRS 17 Insurance Contracts.
- Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2).
- Definition of Accounting Estimates (Amendments to IAS 8).
- Deferred Tax related to Assets and Liabilities arising from a Single Transaction (Amendments to IAS 12).
- International Tax Reform - Pillar Two Model Rules - Amendments to IAS 12.

(S) STANDARDS ISSUED BUT NOT YET EFFECTIVE

A number of new standards are effective for annual periods beginning after January 1, 2024 and earlier application is permitted; however, the Company has not early adopted the new or amended standards in preparing these consolidated financial statements. The following amended standards and interpretations are not expected to have a significant impact on the Company's consolidated financial statements.

- Non-current Liabilities with Covenants - Amendments to IAS 1 and Classification of Liabilities as Current or Non-current - Amendments to IAS 1.
- Lease liability in a Sale and Leaseback - Amendments to IFRS 16
- Supplier Finance Arrangements - Amendments to IAS 7 and IFRS 7
- Lack of Exchangeability - Amendments to IAS 21
- Sale or Contribution of Assets between and Investor and its Associate or Joint Venture - Amendments to IFRS 10 and IAS 28

4. SEGMENT REPORTING

For Management purposes, the Company is organized under three operating segments: AMG Clean Energy Materials, AMG Critical Minerals and AMG Critical Materials Technologies. AMG Clean Energy Materials is comprised of the Vanadium, Lithium and Tantalum business units. AMG Critical Minerals is comprised of the Graphite, Silicon and Antimony business units. AMG Critical Materials Technologies is comprised of the Engineering, Titanium and Chrome Metal business units.

The Management Board of the Company is the Chief Operating Decision Maker and monitors the operating results of its segments separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on operating profit or loss and is measured consistently with operating profit or loss in the consolidated financial statements. The Company's headquarters costs, financing (including finance cost and finance income) and assets are managed on a group basis and are allocated to operating segments. Transfer prices between operating segments are on an arm's length basis in a manner similar to transactions with third parties.

AMG Clean Energy Materials

AMG Clean Energy Materials combines our recycling and mining operations, producing materials for infrastructure and energy storage solutions while reducing the CO_2 footprint of both suppliers and customers. AMG Clean Energy Materials spans the vanadium, lithium, and tantalum value chains. AMG Clean Energy Materials has major production facilities in the US and Brazil and is developing a facility in Germany.

AMG Critical Minerals

AMG Critical Minerals consists of our mineral processing operations in graphite, silicon metal and antimony. AMG Critical Minerals produces materials for the chemical, automotive, aluminum, and building material industries. AMG Critical Minerals has major production facilities in Germany and France.

AMG Critical Materials Technologies

AMG Critical Materials Technologies combines our leading vacuum furnace technology line with high-purity materials serving global leaders in the aerospace sector. This segment produces titanium aluminides, titanium alloys, and chrome metal for the aerospace market; designs, engineers, and produces advanced vacuum furnace systems; and operates vacuum heat treatment facilities, primarily for the transportation and energy industries (including solar and nuclear industries). AMG Critical Materials Technologies also provides vacuum case-hardening heat treatment services on a tolling basis. AMG Critical Materials Technologies has production facilities located in Germany, UK, France, Mexico, India, China and the US.

AMG Corporate headquarters costs and assets are allocated thirty percent to AMG Clean Energy Materials, twenty percent to AMG Critical Minerals, and fifty percent to AMG Critical Materials Technologies in 2023 and 2022 based on an estimation of services provided to the operating segments.

Year ended December 31, 2023	AMG Clean Energy Materials	AMG Critical Minerals	AMG Critical Materials Technologies	Eliminations(a)	Total
Revenue					
Revenue from external customers	725,505	227,696	672,660	—	1,625,861
Intersegment revenue	13,699	—	1,902	(15,601)	—
Total revenue	739,204	227,696	674,562	(15,601)	1,625,861
Segment results					
Depreciation and amortization	29,830	5,290	19,516	—	54,636
Restructuring	1,716	1,537	5,970	—	9,223
Asset impairment expense	243	6,743	1,832	—	8,818
Inventory adjustments	24,192	—	2,539	—	26,731
Other expenses	—	—	(313)	—	(313)
Other income	10,249	540	7	—	10,796
Operating profit	217,309	(6,872)	11,315	—	221,752
Statement of financial position					
Segment assets	1,059,275	198,163	667,209	—	1,924,647
Other investments	38,160	—	—	—	38,160
Total assets	1,097,435	198,163	667,209	—	1,962,807
Segment liabilities	663,469	118,748	407,096	3	1,189,316
Employee benefits	21,133	25,313	86,887	—	133,333
Provisions	10,495	6,956	16,704	—	34,155
Total liabilities	695,097	151,017	510,687	3	1,356,804
Other information					
Capital expenditures for expansion – tangible assets	124,946	203	16,241	—	141,390
Capital expenditures for maintenance – tangible assets	12,472	1,843	9,888	—	24,203
Capital expenditures – intangible assets	204	192	2,877	—	3,273

Year ended December 31, 2022	AMG Clean Energy Materials	AMG Critical Minerals	AMG Critical Materials Technologies	Eliminations (a)	Total
Revenue					
Revenue from external customers	667,804	364,502	610,468	—	1,642,774
Intersegment revenue	26,537	—	4,969	(31,506)	—
Total revenue	694,341	364,502	615,437	(31,506)	1,642,774
Segment results					
Depreciation and amortization	20,663	6,790	17,846	—	45,299
Restructuring	—	(54)	(636)	—	582
Asset impairment expense (reversal)	15	11,261	(679)	—	10,597
Inventory adjustments	1,195	—	4,038	—	5,233
Other expenses	—	(14,455)	(89)	—	(14,544)
Other income	153	59,924	3	—	60,080
Operating profit	222,590	63,995	20,474	—	307,059
Statement of financial position					
Segment assets	982,983	276,145	584,183	—	1,843,311
Other investments	29,324	—	—	—	29,324
Total assets	1,012,307	276,145	584,183	—	1,872,635
Segment liabilities	708,525	123,069	383,370	—	1,214,964
Employee benefits	14,629	23,737	78,794	—	117,160
Provisions	6,941	6,504	9,217	—	22,662
Total liabilities	730,095	153,310	471,381	—	1,354,786
Other information					
Capital expenditures for expansion – tangible assets	156,579	1,474	16,347	—	174,400
Capital expenditures for maintenance – tangible assets	6,817	2,547	6,213	—	15,577
Capital expenditures – intangible assets	208	248	485	—	941

[a] Eliminations column includes intersegment trade eliminations. The intersegment revenue eliminates against the intersegment cost of sales.

GEOGRAPHICAL INFORMATION

Geographical information for the Company is provided below. Revenues are based on the shipping location of the customer while non-current assets are based on the physical location of the assets.

	Year ended December 31, 2023		Year ended December 31, 2022	
	Revenues	Non-current assets	Revenues	Non-current assets
United States	450,141	409,271	391,206	417,173
China	423,012	20,562	377,151	23,042
Germany	139,896	319,026	216,475	216,853
Brazil	59,065	178,714	62,652	140,739
Italy	47,786	—	62,628	—
United Kingdom	56,609	20,964	61,367	21,764
France	84,851	17,373	61,027	15,421
Canada	44,554	—	48,502	—
Japan	45,644	13	43,025	2
Austria	21,621	—	37,554	—
Thailand	26,425	122	27,736	20
India	38,748	77	27,582	92
Belgium	16,212	23	22,712	38
Mexico	22,213	3,556	22,295	3,094
South Korea	11,999	—	18,917	—
Poland	13,576	—	14,016	—
Turkey	7,322	—	13,938	—
Australia	4,718	—	12,162	—
Sweden	8,019	—	11,223	—
Spain	8,494	—	10,505	93
Czech Republic	9,902	—	9,257	—
Netherlands	8,366	—	8,166	—
Taiwan	7,494	—	6,067	—
Switzerland	5,341	11	5,402	—
Argentina	2,036	—	4,051	—
Singapore	2,664	—	1,502	—
Russia	184	4	854	6
Kazakhstan	7,525	—	290	—
Mozambique	14	109	—	6,990
Other	51,430	3,726	64,512	2,300
Total	1,625,861	973,551	1,642,774	847,627

Non-current assets for this purpose consist of property, plant and equipment; goodwill and other intangible assets; and other assets.

5. REVENUE

Revenue from sales of goods, furnace construction contracts, heat treatment services and processing services during the year ended December 31, 2023 was $1,625,861 (2022: $1,642,774). Within the total revenue generated by the AMG Clean Energy Materials segment, there is a contribution from a single customer that represents 12% of AMG's revenue. For revenue by segment and by geographical basis, see note 4.

The following tables show the Company's total revenues disaggregated based on the timing of revenue recognition:

Year ended December 31, 2023	AMG Clean Energy Materials	AMG Critical Minerals	AMG Critical Materials Technologies	Total
Products transferred at a point in time	725,505	227,696	475,361	1,428,562
Products and services transferred over time	—	—	197,299	197,299
Total revenue	725,505	227,696	672,660	1,625,861

Year ended December 31, 2022	AMG Clean Energy Materials	AMG Critical Minerals	AMG Critical Materials Technologies	Total
Products transferred at a point in time	667,804	364,502	455,542	1,487,848
Products and services transferred over time	—	—	154,926	154,926
Total revenue	667,804	364,502	610,468	1,642,774

Contract balances

The following table provides information about receivables, contract assets, and contract liabilities from contracts with customers:

	2023	2022
Trade receivables, net of allowance for doubtful accounts	122,939	124,754
Gross amount due from customers for contract work (note 15)	40,674	37,565
Advanced payments from customers	60,561	51,054
Deferred revenue	31,919	48,277

The contract assets primarily relate to the Company's rights to consideration for work completed but not billed at the reporting date for furnace construction contracts. The contract assets are transferred to receivables when the rights become unconditional. This usually occurs when the Company issues an invoice to the customer.

The contract liabilities primarily relate to the advance consideration received from customers. The advanced payments from customers above pertains to consideration received for furnace construction contracts. The remaining contract liabilities pertain to prepayments received from customers for spodumene sale contracts, spent catalyst processing fee contracts, and titanium aluminide contracts and are included in the deferred revenue balance.

The amount of $92,661 (2022: $48,043) included in contract liabilities as of December 31, 2022 has been recognized as revenue in 2023. The amount of revenues recognized during the year that pertained to performance obligations that were satisfied in a previous year is $4,010 (2022: $3,242).

The transaction price allocated to the remaining performance obligations (unsatisfied or partially satisfied) as of December 31, 2023 and 2022 are as follows:

	2023	2022
Within one year	121,008	96,564
Within two years	16,023	7,128
Within three years	19,292	—

6. OTHER INCOME AND EXPENSE

	2023	2022
Dividend from an equity investment	9,855	—
Energy contract settlements	516	59,847
Other miscellaneous income	425	233
Other income	10,796	60,080
Other expenses	(313)	(14,544)
Net other operating income	10,483	45,536

During the year ended December 31, 2023, the Company received $9,855 dividend from an equity investment.

In 2022, AMG made the decision to place its silicon metal plant in Pocking, Germany, on care and maintenance due to external economic factors. Associated with this shutdown, AMG recorded income from the sale of an existing supply contract which positively impacted operating profit for the year 2022. This income was offset partially by a settlement with a major customer and an impairment of existing assets. See notes 10 and 27.

7. EXPENSES BY NATURE

	Note	2023	2022
Raw materials and consumables		722,293	760,035
Employee benefits		279,060	249,729
Raw material processing and conversion costs		239,806	225,048
Depreciation and amortization	10, 11	54,636	45,299
Maintenance		35,350	32,366
Consultancy		34,099	29,377
Asset impairment expense		8,818	10,597
Other		40,530	28,800
Total cost of sales and selling, general and administrative expenses		1,414,592	1,381,251

Included within the balance of employee benefits is $206,663 (2022: $190,078) of wages and salaries and $41,818 (2022: $41,860) pertaining to social security contributions and defined contribution plan expenses of $4,818 (2022: $4,768).

During the year ended December 31, 2023, the Company received $161 (2022: $271) of governmental support, primarily in its German business units, to subsidize a portion of R&D costs, helping to support job creation. $12 (2022: $270) of this governmental support was recorded as a reduction to the Company's cost of sales and $149 (2022: $1) was recorded as a reduction to selling, general and administrative expenses.

8. FINANCE INCOME AND COST

	2023	2022
Interest income on bank deposits	7,324	2,787
Finance income on derivatives	12,683	1,907
Interest income on fiscal contingency	42	1,759
Discounting on long-term assets and provisions	—	1,436
Interest income on tax refunds	—	136
Other	169	1,036
Foreign exchange gain	8,771	—
Finance income	28,989	9,061
Interest expense on loans, borrowings and related derivative instruments	(20,625)	(20,773)
Municipal bond interest	(15,086)	(5,679)
Interest expense on accounts receivable factoring	(2,990)	(1,490)
Interest paid to suppliers	(2,769)	(968)
Interest expense on taxes	(2,620)	(1,363)
Interest expense related to lease liabilities	(1,821)	(1,663)
Guarantees	(1,355)	(1,064)
Discount on LT assets, provisions and retirement obligations	(1,105)	(1,622)
Commitment/unutilized fees	(968)	(951)
Other	(389)	(153)
Foreign exchange loss	—	(4,276)
Finance cost	(49,728)	(40,002)
Net finance cost	(20,739)	(30,941)

See note 10 for additional information on capitalized borrowing costs. See note 22 for additional information on loans and borrowings as well as related fees. See notes 29 and 30 for additional information on financial instruments. See note 31 for additional information on leases. See note 33 for additional information on bank charges for guarantees.

9. INCOME TAX

Significant components of income tax expense for the years ended:

CONSOLIDATED INCOME STATEMENT

	2023	2022
Current tax expense:		
Current year	101,967	60,331
Adjustment for prior year	(77)	(404)
Total current tax expense for the year	101,890	59,927
Deferred tax (benefit) expense		
Origination and reversal of temporary differences	(20,641)	36,033
Changes in previously unrecognized tax losses, tax credits and unrecognized temporary differences	(456)	(4,704)
Changes in previously recognized tax losses, tax credits and recognized temporary differences for changes in enacted tax rates and currency effects	(445)	(7,375)
Derecognition of previously recognized tax losses, tax credits and temporary differences	14,715	132
Adjustment for prior year	(61)	84
Total deferred tax (benefit) expense	(6,888)	24,170
Total income tax expense reported in consolidated income statement	95,002	84,097
Consolidated statement of other comprehensive income		
Income tax related to items recognized in OCI in the year:		
Cash flow hedges, effective portion of changes in fair value	(90)	(1,304)
Income tax benefit (expense) on actuarial (losses) gains	3,240	(10,851)
Income tax benefit (expense) charged to OCI	3,150	(12,155)

RECONCILIATION OF EFFECTIVE TAX RATE

A reconciliation of income tax expense applicable to accounting profit before income tax at the weighted average statutory income tax rate of 33.39% (2022: 32.03%) to the Company's effective income tax rate for the years ended is as follows:

	2023	2022
Profit before income tax from continuing operations	197,290	274,868
Income tax using the Company's weighted average tax rate	65,868	88,031
Non-deductible expenses	7,595	4,382
Tax exempt income	(9,448)	(4,061)
Current year losses and changes in temporary differences for which no deferred tax asset was recognized	13,461	3,914
Recognition of previously unrecognized tax losses, tax credits and temporary differences of a prior year	(456)	(4,704)
Derecognition of previously recognized tax losses, tax credits and temporary differences	14,713	132
Changes in previously recognized tax losses, tax credits and recognized temporary and permanent differences for changes in enacted tax rates	291	2,840
Changes in previously recognized tax losses, tax credits and recognized temporary and permanent differences for changes in currency effects	2,248	(6,756)
Over provided in prior periods	(218)	(254)
State and local taxes	423	804
Other	525	(231)
Income tax expense reported in consolidated income statement	95,002	84,097

The weighted average statutory income tax rate is the average of the statutory income tax rates applicable in the countries in which the Company operates, weighted by the profit (loss) before income tax of the subsidiaries in the respective countries as included in the consolidated accounts. Several entities have losses and other tax attributes for which no deferred tax assets have been recognized.

During the years ended December 31, 2023 and 2022, the income tax benefits related to the current year losses and other tax attributes of certain entities located primarily in Africa, China, France, Germany, India, and the Netherlands were not recognized. In total, $13,461 and $3,914 were not recognized in 2023 and 2022, respectively, as it is probable that these amounts will not be realized.

During the years ended December 31, 2023 and 2022, certain income tax benefits related to previously unrecognized tax losses and temporary differences related to entities located in Germany and India and other were recognized. In total, $456 and $4,704 were recognized in 2023 and 2022, respectively, through an increase to the net deferred tax asset.

The main factors considered in assessing the realizability of deferred tax benefits were improved profitability, higher forecasted taxable profitability and the carryforward period of the tax losses. After assessing these factors, the Company determined that it is probable that the deferred tax benefit of the tax losses and temporary differences will not be realized in the foreseeable future.

Also, during the year ended December 31, 2023, the net recognized deferred tax assets (liabilities) were adjusted for changes in the enacted tax rates in the United Kingdom and a local jurisdictions in the US. The net impact of the tax rate changes was an increase to income tax expense of $291 (2022: $2,840). The net recognized deferred tax assets (liabilities) were also adjusted to reflect changes in currency rates in Brazil. The impact of the currency rates was an increase to income tax expense (benefit) of $2,248 (2022: ($6,756)).

During the year 2023, an income tax expense (benefit) of $525 (2022: ($231)) was recorded to Other in the effective tax rate reconciliation.

There were no income tax consequences associated with the payment of dividends in either 2023 or 2022 by AMG to its shareholders.

DEFERRED TAX ASSETS AND LIABILITIES

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. In addition, deferred income tax assets include amounts related to net operating loss carryforwards, tax credits and interest limitation carryforwards.

Deferred tax assets are recognized to the extent it is probable that the temporary differences, unused tax losses, unused tax credits, and limitations on interest deductions will be realized. The realization of deferred tax assets is reviewed each reporting period and includes the consideration of historical operating results, projected future taxable income exclusive of reversing temporary differences and carryforwards, the scheduled reversal of deferred tax liabilities and tax planning.

RECOGNIZED DEFERRED TAX ASSETS AND LIABILITIES

Deferred tax assets and liabilities have been recognized in respect of the following:

		2023 Activity			December 31, 2023		
	December 31, 2022 Net tax asset and liability	Deferred benefit (expense)	Other comprehensive income	Currency translation adjustment/ other	Net tax asset and liability	Assets	Liabilities
Inventories	555	(8)	—	(11)	536	1,051	515
Long-term contracts	(18,922)	7,672	—	(515)	(11,765)	291	12,056
Prepaid and other current assets	(17,897)	18,263	—	(233)	133	143	10
Property, plant, and equipment	(23,334)	(1,187)	—	(255)	(24,776)	423	25,199
Deferred charges and non-current assets	(13,712)	3,594	(90)	(190)	(10,398)	1,330	11,728
Accruals and reserves	13,452	(7)	—	413	13,858	13,920	62
Environmental liabilities	2,590	(1,191)	—	11	1,410	1,656	246
Retirement benefits	18,566	(92)	3,240	414	22,128	22,210	82
Tax loss and tax credit carryforwards	48,614	(20,156)	—	634	29,092	29,166	74
Total	9,912	6,888	3,150	268	20,218	70,190	49,972
Set off of tax						(43,308)	(43,308)
Net tax assets and liabilities						26,882	6,664

During the year ended December 31, 2023, the Company recorded deferred income tax expense of $90 (2022: $1,304) related to cash flow hedges and deferred income tax benefit (expense) of $3,240 (2022: ($10,851)) related to actuarial gains in defined benefit plans in other comprehensive income.

UNRECOGNIZED DEFERRED TAX ASSETS

The net deferred tax assets are fully recognized for each of the jurisdictions in which we operate with the exception of the following: (1) a German entity did not recognize the specific deferred tax asset recorded for the impact of assets impaired for book purposes; (2) the US Group under Metallurg Inc is no longer recognizing the deferred tax asset related to interest carryforwards; (3) Dutch companies and operating companies in Germany, China, France, Africa, India and other do not recognize deferred tax assets for their loss carryforward positions and other carryforwards because management has determined that there will not be sufficient and foreseeable taxable profits in these locations to realize the benefits of these carryforward positions.

Deferred tax assets for these entities have not been recognized in respect of tax loss carryforwards, tax attributes, and temporary differences as they may not be used to offset taxable profits generated elsewhere in the Company and they have arisen in subsidiaries that have a history of losses or limited profitability.

Deferred tax assets and liabilities have not been recognized in respect of the following items:

	Assets	
	2023	2022
Deferred charges and non-current assets	8,532	8,236
Tax loss and tax credit carryforwards	50,303	44,065
Net tax assets – unrecognized	58,835	52,301

In addition to the unrecognized federal deferred tax assets that are detailed above, there are $7,997 (2022: $6,826) in unrecognized US state deferred tax assets.

At December 31, 2023, pre-tax net operating losses and tax credit carryforwards for which no deferred tax assets have been recognized on the balance sheet, expire as follows:

2024	1,633
2025	1,844
2026	2,950
2027	7,723
2028	6,447
Unlimited	167,898
Total	188,495

In addition to the federal pre-tax net operating losses scheduled above, $131,681 in pre-tax net operating losses in various US states are set to expire beginning in 2025.

ADVANCED MANUFACTURING PRODUCTION CREDIT UNDER SECTION 45X

The Inflation Reduction Act of 2022 created an Advanced Manufacturing Credit under proposed regulation REG-107423-23 which enables qualifying critical minerals to benefit from 10% of their qualifying production costs as a refundable credit beginning in 2023. AMG Vanadium is a beneficiary of the Section 45X refundable credit opportunity and booked $6,377 of income as an offset to cost of sales and recorded a current asset for $6,377 (note 16) as a Domestic Production Tax Credit.

GLOBAL MINIMUM TOP-UP TAX (PILLAR TWO)

The AMG Group is within the scope of the OECD Pillar Two model rules. AMG operates in various countries that have recently enacted or plan to enact new legislation to implement the global minimum top-up tax beginning in 2024. Pillar Two seeks to provide for a minimum tax rate of 15% in all jurisdictions, and further provides for a Top-Up Tax in the event a jurisdiction's tax rate does not meet the 15% threshold. In particular, in 2023, the Dutch Tax Authority confirmed its guidance and legislation in relation to the OECD's Pillar Two recommendations. AMG operates and pays taxes in jurisdictions that generally have tax rates well above the 15% threshold and therefore, AMG does not expect material additional tax liabilities related to the implementation of Pillar Two in 2024.

Since the Pillar Two legislation was not effective at the reporting date, the AMG group has no related current tax exposure. AMG applies the exception to recognizing and disclosing information about deferred tax assets and liabilities related to Pillar Two income taxes, as provided in the amendments to IAS 12 issued in May 2023.

10. PROPERTY, PLANT AND EQUIPMENT

COST	Mining costs	Land, buildings and improvements	Machinery and equipment	Furniture and fixtures	Construction in progress	Total
Balance at January 1, 2022	46,578	278,498	479,293	39,154	324,530	1,168,053
Additions	2,052	11,531	19,941	3,172	124,401	161,097
Capitalized borrowings	—	—	477	—	11,741	12,218
Retirements and transfers	7	132,697	217,428	615	(361,110)	(10,363)
Impairments	—	398	(1,043)	(46)	—	(691)
Effect of movements in exchange rates	(1,161)	(8,473)	(11,096)	(1,950)	(1,669)	(24,349)
Balance at December 31, 2022	47,476	414,651	705,000	40,945	97,893	1,305,965
Balance at January 1, 2023	47,476	414,651	705,000	40,945	97,893	1,305,965
Additions	4,085	59,447	(35,086)	4,101	125,991	158,538
Capitalized borrowings	—	—	1,702	—	10,297	11,999
Retirements and transfers	(11)	6,511	10,255	(599)	(23,141)	(6,985)
Impairments	(5,499)	(1,775)	(3,485)	(760)	(35)	(11,554)
Effect of movements in exchange rates	359	5,058	8,109	1,144	4,584	19,254
Balance at December 31, 2023	46,410	483,892	686,495	44,831	215,589	1,477,217
DEPRECIATION						
Balance at January 1, 2022	(20,338)	(91,067)	(337,551)	(25,473)	—	(474,429)
Depreciation for the year	(1,711)	(13,678)	(23,282)	(4,056)	—	(42,727)
Retirements and transfers	—	2,057	3,770	1,226	—	7,053
Impairments	—	(1,996)	(7,623)	(187)	—	(9,806)
Effect of movements in exchange rates	705	2,357	7,332	1,161	—	11,555
Balance at December 31, 2022	(21,344)	(102,327)	(357,354)	(27,329)	—	(508,354)
Balance at January 1, 2023	(21,344)	(102,327)	(357,354)	(27,329)	—	(508,354)
Depreciation for the year	(1,833)	(15,112)	(30,630)	(4,406)	—	(51,981)
Retirements and transfers	—	973	3,819	2,295	—	7,087
Impairments	3,115	764	2,532	492	—	6,903
Effect of movements in exchange rates	(257)	(1,916)	(6,779)	(742)	—	(9,694)
Balance at December 31, 2023	(20,319)	(117,618)	(388,412)	(29,690)	—	(556,039)
Carrying amounts						
At January 1, 2022	26,240	187,431	141,742	13,681	324,530	693,624
At December 31, 2022	26,132	312,324	347,646	13,616	97,893	797,611
At January 1, 2023	26,132	312,324	347,646	13,616	97,893	797,611
At December 31, 2023	26,091	366,274	298,083	15,141	215,589	921,178

PROPERTY, PLANT AND EQUIPMENT UNDER CONSTRUCTION

During the years ended December 31, 2023 and 2022, the Company embarked on several different expansion projects as well as several required maintenance projects. The largest projects are the lithium hydroxide refinery in Bitterfeld, Germany, the expansion of the lithium concentrate plant's capacity in Brazil and the vanadium electrolyte plant at AMG Titanium in Nuremberg, Germany. Costs incurred up to December 31, 2023, which are included in construction in progress, totaled $215,589 (2022: $97,893).

BORROWING COSTS

The Company capitalized borrowing costs of $11,999 (2022: $12,218) during 2023 which included $7,695 (2022: $1,532) of interest for the German lithium hydroxide refinery and $4,304 of interest for other AMG facilities (2022: $1,488) from its term loan. AMG Vanadium's expansion in Zanesville, Ohio was finalized and there was no longer capitalized interest associated with the Company's tax-exempt municipal bond as of December 31, 2023 (2022: $9,448). During 2023, there was cash interest paid of $3,490 related to the municipal bond net of $30 (2022: $250) of cash interest received from the restricted cash.

PROPERTY, PLANT AND EQUIPMENT ADDITIONS

At December 31, 2023, the Company had $158,538 in additions, including $15,165 in accounts payable, lease additions of $7,740 and non-cash estimated future costs of $2,871 recognized for asset retirement obligations. At December 31, 2022, the Company had $161,097 in additions, including $17,342 in accounts payable, lease additions of $6,473 and $622 of non-cash future estimated costs recognized for asset retirement obligations.

DEPRECIATION OF PROPERTY, PLANT AND EQUIPMENT

Depreciation expense for the year ended December 31, 2023 was $51,981 (2022: $42,727). Depreciation expense is recorded in the following line items in the income statement:

	2023	2022
Cost of sales	45,834	37,423
Selling, general and administrative expenses	6,147	5,304
Total	51,981	42,727

SALE OF PROPERTY, PLANT AND EQUIPMENT

Certain land, building and equipment were sold in the years ended December 31, 2023 and 2022. In those years, the Company received proceeds of $39 and $2,538, respectively. In 2023, the proceeds were less than the book value of the assets and a loss of $145 was recognized during the year (2022: $592 gain).

IMPAIRMENT TESTING

IAS 36 requires that assets be carried at a value no greater than their recoverable amount. To meet this standard, the Company is required to test tangible assets for impairment when indicators of impairment exist, or at least annually, for goodwill and intangible assets with indefinite useful lives. During the year ended December 31, 2023, the Company recorded an expense of $4,651 in asset impairments on property, plant and equipment mainly related to the closure one of our mines in Mozambique and a restructuring program to improve efficiencies in one of our German facilities. Impairment expense was partially offset by insurance proceeds of $1,010 to rebuild one of our lines in one of our facilities in the UK.

During the year ended December 31, 2022, the Company recorded a net expense of $10,497 in asset impairments on property, plant and equipment mainly related to our silicon metal plant in Pocking, Germany. The impairment was driven by the Company's decision to place the facility on care and maintenance effective January 1, 2023. The plant operated one of four furnaces beginning in March 2023 through the end of the year.

SECURITY

At December 31, 2023, properties with a carrying amount of $235,865 (2022: $275,893) are pledged as collateral to secure bank loans.

11. GOODWILL AND OTHER INTANGIBLE ASSETS

COST	Goodwill	Customer relationships	Capitalized development costs	Mining assets	Other intangible assets	Total goodwill and intangible assets
Balance at January 1, 2022	38,980	11,131	4,751	7,014	36,054	97,930
Additions	—	—	—	150	791	941
Effect of movements in exchange rates	(575)	(528)	(279)	(410)	(1,777)	(3,569)
Balance at December 31, 2022	38,405	10,603	4,472	6,754	35,068	95,302
Balance at January 1, 2023	38,405	10,603	4,472	6,754	35,068	95,302
Additions	—	—	205	182	2,886	3,273
Transfers, disposals and reversals	—	—	—	(87)	87	—
Effect of movements in exchange rates	330	304	111	331	1,193	2,269
Balance at December 31, 2023	38,735	10,907	4,788	7,180	39,234	100,844
AMORTIZATION AND IMPAIRMENT						
Balance at January 1, 2022	(9,548)	(9,708)	(3,605)	(3,415)	(26,970)	(53,246)
Amortization	—	(379)	(147)	(276)	(1,770)	(2,572)
Impairments	—	—	—	—	(100)	(100)
Effect of movements in exchange rates	—	439	210	(53)	1,424	2,020
Balance at December 31, 2022	(9,548)	(9,648)	(3,542)	(3,744)	(27,416)	(53,898)
Balance at January 1, 2023	(9,548)	(9,648)	(3,542)	(3,744)	(27,416)	(53,898)
Amortization	—	(133)	—	(286)	(2,236)	(2,655)
Transfers, disposals and reversals	—	—	—	—	(100)	(100)
Impairment	—	—	—	(2,277)		(2,277)
Effect of movements in exchange rates	—	(273)	(120)	(358)	(850)	(1,601)
Balance at December 31, 2023	(9,548)	(10,054)	(3,662)	(6,665)	(30,602)	(60,531)
Carrying amounts						
At January 1, 2022	29,432	1,423	1,146	3,599	9,084	44,684
At December 31, 2022	28,857	955	930	3,010	7,652	41,404
At January 1, 2023	28,857	955	930	3,010	7,652	41,404
At December 31, 2023	29,187	853	1,126	515	8,632	40,313

ADDITIONS FOR INTANGIBLE ASSETS

At December 31, 2023, the Company had $3,273 (2022: $941) in additions, related to investments in intangible fixed assets.

AMORTIZATION OF INTANGIBLE ASSETS

Amortization expense for the year ended December 31, 2023 was $2,655 (2022: $2,572). Amortization expense is recorded in the following line items in the income statement:

	2023	2022
Cost of sales	798	798
Selling, general and administrative expenses	1,857	1,774
Total	2,655	2,572

RESEARCH COSTS

Research and development expenses are included in selling, general and administrative expenses and were $7,818 and $4,224 in the years ended December 31, 2023 and 2022, respectively.

IMPAIRMENT TESTING FOR INTANGIBLE ASSETS

(i) Goodwill

For the purposes of impairment testing, goodwill has been allocated to the Company's cash-generating units as follows:

	Segment	2023	2022
AMG Antimony	Critical Minerals	9,702	9,702
AMG Chrome	Critical Materials Technologies	1,510	1,510
AMG Engineering	Critical Materials Technologies	13,850	13,520
AMG Titanium	Critical Materials Technologies	4,125	4,125
Total		29,187	28,857

KEY ASSUMPTIONS

The calculations of value in use are most sensitive to the following assumptions:

- Global metals pricing - Estimates are obtained from published

- indices. The estimates are evaluated and are generally used as a guideline for future pricing.
- Discount rate - Discount rates reflect the current market assessment of the time value of money and the risks specific to the asset, based on a comparable peer group.
- Expected future cash flows - Expected future cash flows are based on management's best estimates of future business conditions but cannot be guaranteed as the Company does not have fixed revenues or costs.
- Growth rate - Growth rates are based on management's interpretation of published industry research in order to extrapolate cash flows beyond the business plan period. As most businesses follow economic trends, an inflationary factor of 1% was utilized for all entities.

It is possible that the key assumptions used in the business plan will differ from actual results. However, management does not believe that any reasonably possible changes to any of such key assumptions will cause the carrying amount to exceed the recoverable amount. The values assigned to the key assumptions represent management's assessment of future trends in the metallurgical industry and are based on both external sources and internal sources (historical data).

For the impairment tests for AMG Antimony, AMG Chrome, AMG Engineering and AMG Titanium's cash-generating units, the recoverable amounts are the value in use. The value in use was determined using the discounted cash flow method. In 2023 and 2022, the carrying amounts of the AMG Antimony, AMG Chrome, AMG Engineering and AMG Titanium's cash-generating units were determined to be lower than their recoverable amounts and no impairment losses were recognized.

The following table includes the pre-tax discount rates that were applied in determining the recoverable amount for each cash-generating unit:

	2023	2022
AMG Antimony	10.29%	10.61%
AMG Chrome	15.09%	11.47%
AMG Engineering	14.31%	12.75%
AMG Titanium	12.59%	11.47%

Sensitivities related to the value in use calculation for all cash-generating units would imply that a 1% increase in the discount rate or using a 0% growth rate would not have created an impairment.

(ii) Intangibles with finite lives

The determination of whether long-lived assets are impaired requires an estimate of the recoverable amount of the cash-generating unit or group of cash-generating units to which the long-lived assets have been allocated. The recoverable amount is defined as the higher of a cash-generating unit's fair value less costs of disposal and its value in use. For each of the cash-generating units which tested long-lived assets for recoverability, the recoverable amount was determined as the value in use or fair value less costs to sell as appropriate. The value in use requires the entity to estimate the future cash flows expected to arise from the cash-generating units or group of cash-generating units and to discount these cash flows with a risk adjusted discount rate. Expected future cash flows are based on management's best estimates of future business conditions but cannot be guaranteed as the Company does not have fixed revenues or costs. The risk adjusted discount rate is estimated using a comparison of peers but can vary based on changes in the debt or equity markets or risk premiums assigned to countries or industries.

There was intangible impairment of $2,277 during the year ended December 31, 2023, (2022: $100) related to the closure our mine in Mozambique.

12. OTHER INVESTMENTS

As of December 31, 2023, the Company owned an 11.3% (2022: 11.3%) interest in a former customer, Global Advanced Metals Pty LTD. The investment is being designated as a financial instrument measured at fair value through other comprehensive income because the Company has not gained significant influence.

The investment had a value of $14,557 at December 31, 2023 (2022: $13,629). The fair value of this investment is estimated by management with reference to the relevant available information. The Company relied on the current financial results of the investment including the current financial statements and current year revenue estimates to determine a fair value for the investment. The Company did not have the relevant data to complete a discounted cash flow model. There was a lack of marketability discount applied of 17.5%. Changes in the valuation methodologies or assumptions could lead to different measurements of fair value. The Company recorded investment gains of $928 and $1,329 related to the investment during the years ended December 31, 2023 and 2022, respectively, which is included in other comprehensive income.

Also included in other investments are assets of $23,603 (2022: $15,695) which are designated to fund the non-qualified pension liability. These assets consist of debt securities, equity securities, and insurance contracts which are held at fair value. These assets have been designated as Level 1 and partially Level 3 financial instruments on the fair value hierarchy. The Level 3 investments consist of insurance contracts valued at $8,524 (2022: $7,473). These insurance contracts have been valued using unobservable inputs based on the best available information in the circumstances. The investments are held in a Rabbi Trust and are restricted for use in pension funding. The Company recorded an investment gain of $1,469 (2022: ($1,596) loss) related to the investments during the year ended December 31, 2023, which is included in other comprehensive income. See notes 24 and 30 for additional information.

13. EQUITY METHOD INVESTMENTS

The joint venture between Shell and AMG Recycling B.V. was incorporated in the Netherlands and will provide a long-term sustainable solution for catalyst reclamation and recycling. The Company maintains a 50% interest and joint control of the entity.

The Company’s interest is measured using the equity method as prescribed by IFRS 11 and IAS 28. The Company made capital contributions of $6,800 (2022: $1,250) during the current period. For the year ended December 31, 2023, the Company's share of the joint venture's losses was ($2,580) (2022: ($1,587)). The carrying value of the Company's equity method investments was $3,703 (2022:nil) as of December 31,2023. During 2022, the Company's cumulative losses exceeded its interest in the joint venture, leading to the offsetting of unrecorded losses amounting to ($517) during the year ending on December 31, 2023, through the contributions made.

Also included in equity method investees is the Company's investment in Zinnwald Lithium Plc (Zinnwald") (ZNWD, AIM). On March 23, 2023, Zinnwald issued 118,996,738 of newly issued ordinary shares to the Company for a total subscription amount of $15,189 resulting in a 25.13% shareholding. Zinnwald is an AIM quoted, lithium development company focused on becoming an important supplier to Europe’s fast-growing battery sector. The Company owns the integrated Zinnwald Lithium Project in Germany, a development-stage project with attractive economics and approved mining license. The fair value of the investment was $10,604 (2022:nil) at December 31, 2023. For the year ended December 31, 2023, the Company's share of the investee's losses was ($626) (2022:nil). The carrying value of the Company's equity method investment into Zinnwald was $14,563 (2022:nil) as of December 31, 2023.

14. INVENTORIES

	2023	2022
Raw materials	90,459	95,476
Work in process	51,002	33,417
Finished goods	104,805	132,688
Other	14,679	15,730
Total	260,945	277,311

Other inventory primarily includes spare parts that are maintained for operations.

In the year ended December 31, 2023, the Company reduced certain inventory balances by $29,631 (2022: $5,233) as a result of the write-down to net realizable value. The write-downs were primarily related to an expense of $20,116 due to decreases in the market price for lithium hydroxide that was purchased in connection with the commissioning of our German lithium refinery. $6,615 related to various other inventory adjustments throughout the business due to variability in metals pricing. These write-down of the lithium hydroxide as well as the various other adjustments were included in cost of sales. An additional $2,900 of write-downs of inventory related to certain restructuring activities in our graphite and titanium businesses were charged to restructuring expense, which is also included in cost of sales.

Inventory in the amount of $105,849 (2022: $143,862) is pledged as collateral to secure the bank loans of certain subsidiaries (see note 22).

15. TRADE AND OTHER RECEIVABLES

	2023	2022
Trade receivables, net of allowance for doubtful accounts	122,939	124,754
Due from investment in affiliate	414	229
Gross amount due from customers for contract work	307,658	335,185
Less: progress payments received	(266,984)	(297,620)
Net receivable from contract work (note 5)	40,674	37,565
Total	164,027	162,548

At December 31, 2023 and 2022, trade receivables include receivables from customers who have received direct shipments or services from the Company and receivables from customers who have utilized inventory on consignment. Amounts billed to furnace construction contracts customers are also included in the trade and other receivables line item in the statement of financial position. The carrying amount of trade receivables approximates their fair value due to their short-term nature. Trade receivables are generally non-interest bearing and are generally on 30-90 day terms.

At December 31, 2023, receivables in the amount of $81,970 (2022: $82,043) are pledged as collateral to secure the term loan and revolving credit facility of the Company (see note 22).

As of December 31, the analysis of trade receivables that were past due but not impaired is as follows:

	Total	Neither past due nor impaired	Past due but not impaired				
			<30 days	30-60 days	60-90 days	90-120 days	>120 days
2023	164,027	144,940	12,681	3,712	1,328	730	636
2022	162,548	151,431	8,552	1,103	272	504	686

At December 31, 2023, trade receivables are shown net of expected credit losses of $1,191 (2022: $970) arising from customer unwillingness or inability to pay. Bad debt charges in the amount of $306 and $80 were recorded in the years ended December 31, 2023 and December 31, 2022, respectively. These charges were recorded in selling, general and administrative expenses in the consolidated income statement. Refer to note 3(g) for additional details on the Company’s policy for the calculation of expected credit losses.

Movements in the provision for impairment of receivables were as follows:

	2023	2022
At January 1	970	1,268
Charge for the year	306	80
Amounts written-off	(20)	(315)
Amounts recovered/collected	(94)	(17)
Foreign currency adjustments	29	(46)
At December 31	1,191	970

FACTORING OF RECEIVABLES

As of December 31, 2023 and 2022, the Company had total receivables factored and outstanding of $53,478, and $64,768, respectively. The Company maintains accounts receivable facilities with banks and credit insurance companies in Germany, France and the US. The Company sold receivables in the amount of $290,908 throughout the year which includes security deposits of $4,340 and cash proceeds of $206,926. During 2023, the Company incurred costs of $3,477 in conjunction with the sale of these receivables of which $2,990 were included in finance cost, $487 were recorded to selling, general and administrative expenses, and nil were recorded to sales on the income statement. This activity is included in cash from operating activities during the year ended December 31, 2023.

In 2022, the Company sold receivables in the amount of $427,041 which includes security deposits of $2,667 and cash proceeds of $289,086. During 2022, the Company incurred costs of $1,996 in conjunction with the sale of these receivables of which $1,490 were included in finance cost, $137 were recorded to selling, general and administrative expenses, and $369 were recorded to sales on the income statement. This activity is included in cash from operating activities during the year ended December 31, 2022.

16. OTHER ASSETS

Other assets are comprised of the following:

	2023	2022
Prepaid inventory	37,450	25,395
Prepaid taxes (indirect)	25,059	17,745
Insurance	9,904	7,772
Domestic production tax credit	6,377	—
Government grants	6,119	—
Deposits	5,612	3,263
Energy contract settlement	5,336	66,291
Bank acceptance notes	2,634	—
Dividend receivable	2,464	—
Environmental trusts	1,930	1,924
Maintenance and subscriptions	1,743	1,981
Debt issuance cost	1,216	1,850
Other miscellaneous assets	6,344	4,225
Total	112,188	130,446
Thereof:		
Current	100,128	121,834
Non-current	12,060	8,612

The Inflation Reduction Act of 2022 enacted new renewable energy credits, including an advanced manufacturing production credit under Section 45X. Based on the preliminary regulations as issued by the IRS, our Vanadium business in the US qualifies for this production tax credit for domestic manufacturing of critical materials from 2023 onwards. AMG expects to receive a tax credit of approximately $6,377 for full year 2023. In the year ended December 31, 2023, the ruling is still in the comment period and, as such, is subject to a final determination.

In the year ended December 31, 2022, the Company made the decision to place the Silicon business in Germany on a care and maintenance plan effective in January 2023. The Silicon business held various forward fixed price energy contracts with settlement dates throughout 2023 and into 2024. In connection with the Company's decision to curtail operations, it sold those contracts in 2022. At December 31, 2023, contracts with a value of $5,336 (2022: $66,291) remained outstanding and are included in the balance of other assets. The remaining balance at December 31, 2023 is due to settle in the first quarter of 2024. Refer to notes 6, 10 and 27 for additional details.

17. RESTRICTED CASH

	2023	2022
Non-current	387	5,875
Current	1,064	1,045
Total	1,451	6,920

Restricted cash at December 31, 2023, was $1,451 (2022: $6,920). The restricted cash primarily relates to proceeds from the Company's municipal bond offering issued by AMG Vanadium LLC, which were restricted for use in the construction of a new catalyst recycling facility in Ohio, which was completed in 2022. Refer to note 22 for details regarding these proceeds. Additionally, several balances are also held by financial institutions to provide financial assurance to banks, vendors and regulatory agencies to whom the Company is obligated.

18. CASH AND CASH EQUIVALENTS

	2023	2022
Bank balances	321,048	338,242
Money market funds	24,260	7,801
Total cash	345,308	346,043

At December 31, 2023 and 2022, the Company had $24,260 and $7,801 respectively of highly liquid money market funds.

Bank balances earn interest at floating rates based on daily bank deposit rates.

At December 31, 2023, the Company had $194,850 available liquidity (2022: $186,200) on undrawn committed borrowing facilities.

19. CAPITAL AND RESERVES

SHARE CAPITAL

At December 31, 2023, the Company's authorized share capital was comprised of 65,000,000 ordinary shares (2022: 65,000,000) with a nominal share value of €0.02 (2022: €0.02) and 65,000,000 preference shares (2022: 65,000,000) with a nominal share value of €0.02 (2022: €0.02).

At December 31, 2023, the issued and outstanding share capital was comprised of 32,206,914 ordinary shares (2022: 31,951,492), with a nominal value of €0.02 (2022: €0.02) which were fully paid. No preference shares were outstanding at December 31, 2023 (2022: nil). The nominal value of the outstanding shares as of December 31, 2023, was $712 (2022: $682) as compared to the value using historical exchange rates which was $853 (2022: $853).

The preference shares carry equal voting rights as ordinary shares and are entitled, if distribution to shareholders is permitted, to a fixed dividend equal to EURIBOR for deposit loans of one year increased with maximum of 400 basis points as determined by the Management Board of the Company and subject to approval by the Supervisory Board. AMG's dividend policy is to evaluate liquidity needs for alternative uses including funding growth opportunities and funding dividend payments to shareholders. Payment of future dividends to shareholders will be at the discretion of the Management Board subject to the approval of the Supervisory Board after taking into account various factors and is subject to limitations based on the Company's revolving credit facility.

Additionally, payment of future dividends or other distributions to shareholders may be made only if the Company's shareholders' equity exceeds the sum of the issued share capital plus the reserves required to be maintained by law.

A roll forward of the total shares outstanding is noted below:

Balance at January 1, 2022	31,878,334
Shares repurchased	(41,953)
Treasury shares delivered for share-based compensation	107,737
Treasury shares delivered to Supervisory Board	7,374
Balance at December 31, 2022	31,951,492
Shares repurchased	(165,899)
Treasury shares delivered for share-based compensation	415,116
Treasury shares delivered to Supervisory Board	6,205
Balance at December 31, 2023	32,206,914

SHARES ISSUED OR DELIVERED FOR SHARE-BASED COMPENSATION

During the year ended December 31, 2023, 415,116 (2022: 107,737) shares were issued or delivered related to share-based compensation to management. Refer to note 25 for details regarding these plans.

TREASURY SHARES

The Company repurchased shares which are held in treasury for the delivery upon exercise of options and performance share programs and are accounted for as a reduction of shareholders' equity. On August 11, 2021, the Company retired 2,000,000 treasury shares in accordance with the terms of the share repurchase program.

A roll forward of the treasury share balance is noted below:

Balance at January 1, 2022	625,830
Shares repurchased	41,953
Treasury shares delivered for share-based compensation	(107,737)
Treasury shares delivered to Supervisory Board	(7,374)
Balance at December 31, 2022	552,672
Shares repurchased	165,899
Treasury shares delivered for share-based compensation	(415,116)
Treasury shares delivered to Supervisory Board	(6,205)
Balance at December 31, 2023	297,250

SUPERVISORY BOARD REMUNERATION

During the years ended December 31, 2023 and 2022, 6,205 and 7,374 shares were delivered, respectively, as compensation to its Supervisory Board members for services provided in 2023 and 2022. These shares were awarded as part of the remuneration policy approved by the Annual General Meeting.

OTHER RESERVES

	Foreign currency translation reserve	Hedging reserve	Cost of hedging reserve	Capitalized development expenditures reserve	Defined benefit obligation reserve	Fair value reserve	Total
Balance at January 1, 2022	(27,862)	(962)	383	1,146	(71,134)	2,008	(96,421)
Currency translation differences	(4,284)	—	—	—	2,653	—	(1,631)
Loss on FVOCI investments	—	—	—	—	—	(267)	(267)
Movement on cash flow hedges	—	29,332	520	—	—	—	29,852
Tax effect on net movement on cash flow hedges	—	(1,135)	(169)	—	—	—	(1,304)
Actuarial gains on defined benefit plans	—	—	—	—	35,969	—	35,969
Tax effect on net movement on defined benefit plans	—	—	—	—	(10,851)	—	(10,851)
Transfer to retained deficit	—	—	—	(216)	—	—	(216)
Balance at December 31, 2022	(32,146)	27,235	734	930	(43,363)	1,741	(44,869)
Balance at January 1, 2023	(32,146)	27,235	734	930	(43,363)	1,741	(44,869)
Currency translation differences	6,882	—	—	—	(1,207)		5,675
Gain on FVOCI investments	—	—	—	—	—	2,397	2,397
Movement on cash flow hedges	—	(7,832)	758	—	—	—	(7,074)
Tax effect on net movement on cash flow hedges	—	60	(150)	—	—	—	(90)
Actuarial loss on defined benefit plans	—	—	—	—	(11,739)	—	(11,739)
Tax effect on net movement on defined benefit plans	—	—	—	—	3,240	—	3,240
Transfer to retained deficit	—	—	—	191	—	—	191
Balance at December 31, 2023	(25,264)	19,463	1,342	1,121	(53,069)	4,138	(52,269)

RESTRICTIONS ON DISTRIBUTIONS

Certain restrictions apply on equity of the Company due to Dutch legal requirements. Please see note 12 in the parent company financial statements for additional details.

DIVIDENDS

During AMG's 2021 Annual General Meeting, the Company amended the dividend policy. Given that AMG has cyclical elements in its product mix and that it desires to have a relatively consistent dividend pay-out, the Company revised its policy to allow for stable dividend pay-outs that will target gradual increases to historic dividend levels, provided that such pay-outs and possible increases are supported by AMG's liquidity and cash flow generation, and subject to prevailing statutory requirements.

The Company intends to propose a full year dividend for 2023 of €0.60 (2022: €0.70) to the General Meeting of Shareholders for approval as part of the adoption of the 2023 Annual Accounts.

The interim dividend of €0.40 (2022: €0.30) per ordinary AMG share, paid on August 9, 2023, will be deducted from this amount. The proposed final dividend per ordinary share therefore amounts to €0.20 (2022: €0.40). This dividend payment was determined appropriate by the Management and Supervisory Boards based on current liquidity and long-term prospects. Dividend payments to shareholders will be at the discretion of the Management Board subject to the approval of the Supervisory Board after taking into account various factors, including business prospects, cash requirements, financial performance, expansion plans, the terms of the Company's financing facilities and the compliance with applicable statutory and regulatory requirements. Additionally, any payment of dividends (whether interim or after adoption of the annual accounts) or other distributions to shareholders may be made only if the Company's shareholders' equity exceeds the sum of the issued share capital plus the reserves required to be maintained by law.

Dividends of $28,212, or €0.80 per share, were paid during the year ended December 31, 2023. Dividends of $19,885, or €0.60 per share, were paid during the year ended December 31, 2022.

20. EARNINGS PER SHARE

BASIC EARNINGS PER SHARE

Basic earnings per share amounts are calculated by dividing net profits for the year attributable to ordinary equity holders of the parent by the weighted average of ordinary shares outstanding during the year. As of December 31, 2023 and 2022, the calculation of basic earnings per share is performed using the weighted average shares outstanding for 2023 and 2022, respectively.

DILUTED EARNINGS PER SHARE

Diluted earnings per share are calculated by dividing the net profit attributable to the ordinary equity holders of the parent by the weighted average number of ordinary shares outstanding during the year plus the weighted average number of ordinary shares that would be issued on the conversion of all the dilutive potential ordinary shares into ordinary shares. The only category of potentially dilutive shares at December 31, 2023 and 2022 are AMG's share options and AMG's restricted share unit and performance share unit plans. The diluted earnings per share calculation includes the number of shares that could have been acquired at fair value given the exercise price attached to the outstanding options. The calculated number of shares is then compared with the number of shares that would have been issued assuming the exercise of the share options.

For the year ended December 31, 2023, there were 9 (2022: 13) shares related to outstanding stock options that could potentially further dilute basic EPS in future periods but were anti-dilutive in 2023 due to the strike price of the options relative to the average price of the Company's shares for the year.

Earnings	**2023**	**2022**
Net profit attributable to equity holders for basic and diluted earnings per share	101,320	187,589
Number of shares (in 000's)		
Weighted average number of ordinary shares for basic earnings per share	32,155	31,932
Dilutive effect of stock options and other share-based compensation	86	65
Dilutive effect of performance share units	229	725
Weighted average number of ordinary shares adjusted for effect of dilution	32,470	32,722
Basic earnings per share	3.15	5.87
Diluted earnings per share	3.12	5.73

21. NON-CONTROLLING INTERESTS

As of December 31, 2023, non-controlling interests totaled $44,220 (2022: $27,296).

On March 30, 2015, the Company sold a 40% equity interest in a German subsidiary, Graphit Kropfmühl GmbH ("AMG Graphite"). This sale resulted in the Company owning 60% of this subsidiary and a non-controlling interest of 40%. The Company has maintained control of the subsidiary and continues to consolidate the financial results. The non-controlling interest has rights to the financial position and results of AMG Graphite in proportion with their ownership. The non-controlling interest also has protective rights which prevent fundamental changes to AMG Graphite as well as restrictions on the ability to transfer cash out of the subsidiary.

The summarized financial information of this subsidiary is provided below. This information is based on amounts before intercompany eliminations:

Summarized financial information as of December 31:	**2023**	**2022**
Revenues	64,571	74,503
Current assets	91,586	67,140
Non-current assets	27,307	35,054
Current liabilities	22,309	26,303
Non-current liabilities	13,903	12,613
Total equity	82,681	63,278
Attributable to:		
Equity holders of parent	50,175	38,946
Non-controlling interest	32,506	24,332

The Company has additional non-controlling interests as of December 31, 2023, included in equity attributable to non-controlling interest of $11,714 (2022: $2,964). The Company's additional non-controlling interest for 2023 includes the SCP with JX Metals Corporation (JXM) totaling $6,586. JXM made a total of $25,000 cash contributions which was received in two payments of $11,000 as of December 31, 2022 and $14,000 as of December 31, 2023. JXM invested in the expansion of the Company's tantalum concentrate production that is occurring in combination with AMG's expansion of spodumene capacity. As part of the SCP partnership, AMG Brazil is the ostensible partner holding 55% ownership but has complete control on the SCP operations.

22. LOANS AND BORROWINGS

This note provides information about the contractual terms of the Company's interest-bearing loans and borrowings. For more information about the Company's exposure to interest rate and foreign currency risk, see note 29.

Non-current	**Interest rate**	**Maturity**	**2023**	**2022**
Term Loan B[1]	SOFR[2] +3.5%	11/30/2028	333,902	336,121
Municipal bond	5.0%	7/1/2049	319,002	319,244
Subsidiary debt	2.2% - 8.5%	1/2023 - 11/2028	3,361	5,905
Total			656,265	661,270

Current	**Interest rate**	**Maturity**	**2023**	**2022**
Term Loan B[1]	SOFR[2] +3.5%	11/30/2028	3,500	3,500
Subsidiary debt	2.2% - 8.5%	1/2023 - 11/2028	2,066	11,664
Total			5,566	15,164

1 The interest rate is subject to a 0.50% SOFR floor. As of December 31, 2023, the effective floating interest rate, including credit spread adjustment, was 9.0% (2022: 7.9%).

2 Effective April 2023, the LIBOR benchmark interest rate on the Term Loan B was converted to Term SOFR as a result of the global reforms for interest rate benchmarks. See additional discussion below.

TERM LOAN AND REVOLVING CREDIT FACILITY

On November 30, 2021, the Company entered into a $350,000, 7-year senior secured term loan B facility ("term loan") and a $200,000 5-year senior secured revolving credit facility ("revolver"). The total facility amount of $550,000 replaced AMG's previous credit facility and extended the term loan maturity from 2025 to 2028 and revolver maturity from 2023 to 2026. Proceeds from the facility were used to repay AMG's previous credit facility in 2021.

In July 2017, the United Kingdom's Financial Conduct Authority, which regulates the London Interbank Offered Rate (LIBOR), announced it intends to phase out LIBOR by June 30, 2023. The Alternative Reference Rates Committee ('ARRC'), a group of private-market participants convened by the Federal Reserve Board and the Federal Reserve Bank of New York to help ensure a successful transition from U.S. dollar LIBOR ('USD-LIBOR') to a more robust reference rate, has proposed that the Secured Overnight Financing Rate ('SOFR') represents the best alternative to USD-LIBOR for use in derivatives and other financial contracts that are currently indexed to USD-LIBOR. The Company's Credit Agreement and interest rate swaps included a hardwired transition process from LIBOR to SOFR, as the successor benchmark reference rate. The Company elected to adopt the conversion to the Term SOFR rate, including a credit spread adjustment, in April 2023 as permitted by the credit agreement.

As of December 31, 2023, the total outstanding principal on the term loan was $343,000 (2022: $346,500). As of December 31, 2023, available revolver capacity was $194,850 (2022: $186,200). As noted above, interest on the revolver is based on current SOFR (or in the case of any loans denominated in euros, EURIBOR) plus a margin that is dependent on AMG's corporate credit rating. Additionally, the revolver, as a sustainability-linked loan, is subject to a margin adjustment based on annual CO_2 intensity reduction targets. At December 31, 2023 the margin on the revolver was 2.50% (2022: 2.70%). As part of obtaining the revolver the Company is responsible for maintaining Net Debt to EBITDA not to exceed 3.5:1.0. Interest on the term loan is based on current SOFR plus a margin of 3.5% and is subject to a SOFR floor of 0.50% as of December 31, 2023.

To mitigate interest rate risk, on November 30, 2021 the Company entered into interest rate swaps totaling $350,000 in connection with the execution of the term loan and revolver. This determination was made as part of the ongoing risk management process as these instruments mitigate the interest rate risk on the Company's credit facility. The interest rate swaps had similar fallback features that contemplated the phaseout of the LIBOR rate. See note 30 for additional information on the interest rate hedging activities.

The credit facility is subject to several affirmative and negative covenants including, but not limited to, the following: Net Debt to EBITDA not to exceed 3.5:1.0. EBITDA and Net Debt are defined in the credit facility agreement. The definitions per the credit facility agreement may be different from management definitions. The credit facility limits the amount of cash that can be included in the calculation of Net Debt. AMG's current cash balance is significantly in excess of the credit facility limit. As a result, the Net Debt to EBITDA ratio as defined by the credit facility as of December 31, 2023 was 0.5:1.0 (2022: 0.6:1.0). As of December 31, 2023, the Company was in compliance with all of its debt covenants.

Mandatory repayment of the credit facility is required upon the occurrence of (i) a change of control or (ii) the sale of all or substantially all of the business and/or assets of the Company whether in a single transaction or a series of related transactions. If the Company were not in compliance with all covenants under the credit facility, the loan could become due in full or the Company could be subject to significant amendment fees.

Debt issuance costs

In connection with the term loan and revolver that were refinanced in 2021, the Company incurred issuance costs of $7,240, which were deducted from the proceeds of the debt from the term loan or paid by the Company. The amounts have been allocated to the term loans and revolver based on the amount which would have been incurred if the facilities were obtained separately.

The amount allocated to the term loans of $4,703 is shown net against the outstanding term loan balance and are amortized using the effective interest method. The Company recorded amortization expense of $740 (2022: $710) during the year ended December 31, 2023 related to these costs. The balance of unamortized costs net against the book value of the term loan was $3,195 (2022: $3,935) as of December 31, 2023.

The amount allocated to the revolver of $2,537 is included in other assets because there were no borrowings outstanding. This amount is being amortized on a straight-line basis over the life of the facility. The Company has recorded amortization expense of $634 during 2023 (2022: $634) related to these costs. The balance of unamortized costs recorded in other assets related to the revolving credit facility was $1,216 (2022: $1,850) as of December 31, 2023.

Original issuance discount

The term loan included an original issue discount (OID) of 100 basis points, or $3,500 which is shown net against the outstanding term loan balance and is amortized using the effective interest method. The Company has recorded amortization expense of $541 (2022: $514) during the year ended December 31, 2023 related to this original issuance discount. The balance of unamortized costs recorded was $2,403 (2022: $2,944) as of December 31, 2023.

MUNICIPAL BOND

On July 11, 2019, the Company entered into a $307,200 municipal bond in the US tax-exempt bond market generating proceeds of $325,000 as the bond was issued by AMG Vanadium LLC at a premium. The bond was issued through the Ohio Air Quality Development Authority for the purpose of constructing a new catalyst recycling facility in Ohio. The bonds have a coupon rate of 5.0% and mature on July 1, 2049. The bonds are fully guaranteed by the Company. There are no financial covenants related to the bonds. The bonds are unsecured and subordinated to the term loan and revolver.

Under the terms of the loan agreement with the bondholders, the proceeds of the bonds were restricted for the purpose of financing a portion of the cost of the acquisition, construction and equipping of a new spent catalyst recycling facility; paying construction period interest on the bonds; and paying issuance costs of the bond, which are defined as any financial, legal, administrative and other fees incurred by the Company. The funds were held by a third- party trustee and invested in cash and highly liquid money market funds (notes 17 and 29). While the project was under construction, the Company classified the proceeds of the bonds as restricted cash as a non-current asset in the statement of financial position.

The bonds have several redemption provisions. The Company has an optional redemption whereby it can redeem the bonds beginning on July 1, 2029 through the date of maturity for the par value plus accrued interest at the date of redemption. If upon completion of the project there are excess funds, then the loan agreement indicates that a mandatory redemption of the excess funds shall be used to redeem an equivalent amount of the outstanding bonds. Additionally, the Company will also be required to repay a pro rata amount of the original issue premium in the event of a mandatory redemption. The repayment of the premium is calculated as the number of remaining years until the ten-year call date (July 1, 2029) divided by ten years and multiplied by the amount of the original issue premium on the redeemed bonds.

The municipal bond also grants the holders of the bonds the right to tender their bonds for purchase by the Company upon a change in control of the Company at a purchase price of 101% of the principal amount of the bonds plus accrued interest.

Debt issuance costs

In connection with the issuance of the municipal bonds in July 2019, the Company incurred issuance costs of $4,981, which were deducted from the proceeds of the municipal bonds. These issuance costs are presented net against the outstanding municipal bond balance and are amortized using the effective interest method. The Company recorded amortization expense of $86 (2022: $83) during the year ended December 31, 2023 related to these costs. The balance of unamortized costs was $4,625 (2022: $4,711) as of December 31, 2023.

Bond issuance premium

The municipal bond included a premium of $17,800 which is shown with the outstanding municipal bond balance and is amortized using the effective interest method. The Company recorded amortization of $328 (2022: $315) during the year ended December 31, 2023. The balance of unamortized premium recorded was $16,427 (2022: $16,755) as of December 31, 2023.

SUBSIDIARY DEBT

As of December 31, 2023, a Brazilian subsidiary had $2,240 (2022: $13,743) of fixed and floating rate debt facilities outstanding. These arrangements are denominated in US dollar and Brazilian reais and mature from 2023 through 2025. During 2023, the company repaid $11,940 (2022: $24,373) on these loans and the balance was impacted by $437 (2022: $842) due to foreign exchange movements.

During 2020, a local bank approved a loan to a Chinese subsidiary with a borrowing capacity of ¥28,000 for the construction of an aluminum master alloys facility in China. The facility matures in 2028 and has an interest rate of 4.9%. As of December 31, 2023, the outstanding balance for this loan was $3,187 (2022: $3,826).

DEBT REPAYMENTS

The Company made debt repayments of $15,995 (2022: $27,873) during 2023.

RECONCILIATION OF MOVEMENTS OF LIABILITIES TO CASH FLOWS ARISING FROM FINANCING ACTIVITIES

	Total
Balance at January 1, 2022	702,725
Changes from financing cash flows:	
Proceeds from loans and borrowings	82
Repayment of borrowings	(27,873)
Total changes from financing cash flows	(27,791)
The effect of changes in foreign exchange rates	509
Amortization of transaction costs related to loans and borrowings	991
Balance at December 31, 2022	676,434
Balance at January 1, 2023	676,434
Changes from financing cash flows:	
Proceeds from loans and borrowings	—
Repayment of borrowings	(15,995)
Total changes from financing cash flows	(15,995)
The effect of changes in foreign exchange rates	353
Amortization of premiums, discounts and transaction costs related to loans and borrowings	1,039
Balance at December 31, 2023	661,831

23. SHORT-TERM BANK DEBT

As of December 31, 2023, the Company had outstanding short-term bank debt of $7,678 (2022: $6,391). The Company's subsidiaries maintain short-term borrowing arrangements primarily to fund working capital needs with various banks at a weighted-average interest rate of 3.9% (2022: 3.4%). Borrowings under these arrangements are recognized as short-term debt on the consolidated statement of financial position when it is due to be settled within 12 months from inception.

24. EMPLOYEE BENEFITS

DEFINED CONTRIBUTION PLANS

Tax qualified defined contribution plans are offered which cover substantially all of the Company's salaried and hourly employees at US subsidiaries. All contributions, including a portion that represents a company match, are made in cash into mutual fund accounts in accordance with the participants' investment elections. The assets of the plans are held separately, under the control of trustees, from the assets of the subsidiaries. When employees leave the plans prior to vesting fully in the Company contributions, the contributions or fees payable by the Company are reduced by the forfeited contributions.

In Europe, the employees are members of state-managed retirement benefit plans operated by the governments in the countries where the employees work. The subsidiaries are required to contribute a specified percentage of payroll costs to the retirement benefit scheme to fund the benefits. The only obligation of the subsidiaries with respect to the retirement benefit plan is to make the specified contributions.

The total expense as of December 31, 2023, recognized in the consolidated income statement of $4,818 (2022: $4,768) represents contributions paid and payable to these plans.

DEFINED BENEFIT PLANS

North America plans

The Company offers tax-qualified, non-contributory defined benefit pension plans for salaried and hourly employees at US subsidiaries covered under collective bargaining agreements. The plans generally provide benefit payments using a formula based on an employee's compensation and length of service. These plans are funded in amounts at least equal to the minimum funding requirements of the US Employee Retirement Income Security Act.

Non-qualified additional supplemental executive retirement plans (SERPs) also cover four of the Company's current and former executive officers. Pursuant to the terms of the agreements, these officers earn additional retirement benefits for continued service with the Company. The amounts payable under the SERPs are guaranteed by AMG.

Actuarial assumptions

A majority of the North America plans are frozen to new entrants. As a result, the principal actuarial assumptions for these plans are the rate of discount and mortality rates. The rate of discount utilized as of December 31, 2023 (expressed as a weighted average) was 4.83% (2022: 5.03%). The SERP plan assumptions are developed using specific assumptions about the individual participants.

Assumptions regarding future mortality are based on published statistics and the mortality tables developed by the Society of Actuaries for private sector plans in the United States using MP-2021 as published in October 2021. The valuation was prepared on a going-plan basis. The valuation was based on members in the Plan as of the valuation date and did not take future members into account. No provisions for future expenses were made.

Medical cost trend rates are not applicable to these plans.

The best estimate of contributions to be paid to the plans for the year ending December 31, 2024 is $1,680.

European plans

The Company's European plans include qualified defined benefit plans in Germany, the UK and France. The plans in Germany and France are partially funded or unfunded while the UK plan is partially funded. Benefits under these plans are based on years of service and the employee's compensation. Benefits are paid either from plan assets or, in certain instances, directly by AMG. Substantially all plan assets are invested in listed stocks and bonds.

A non-qualified additional supplemental executive retirement plan (SERP) also covers one of the Company's current executive officers. Pursuant to the terms of the agreement, this officer earns additional retirement benefits for continued service with the Company. The amounts payable under the SERP are guaranteed by AMG.

Actuarial assumptions

Principal actuarial assumptions at the reporting date (expressed as weighted averages) are presented below.

	2023	2022
	% per annum	% per annum
Salary increases	1.44	1.40
Rate of discount at December 31	3.84	4.26
Pension payments increases	2.52	2.58

Assumptions regarding future mortality are based on published statistics and mortality tables including the RT 2018G and S3PxA mortality tables.

The best estimate of contributions to be paid to the primary plans for the year ending December 31, 2024 is $10,569.

Presented below are employee benefits disclosures for plans aggregated by geographical location into the North American and European groups.

2023 changes in the defined benefit obligation and fair value of plan assets:

	North America			Europe			Total		
	Fair Value of Plan Asset	Defined Benefit Obligation	Total	Fair Value of Plan Asset	Defined Benefit Obligation	Total	Fair Value of Plan Asset	Defined Benefit Obligation	Total
January 1, 2023	30,393	(43,723)	(13,330)	65,703	(169,533)	(103,830)	96,096	(213,256)	(117,160)
Service costs	—	(5,600)	(5,600)	—	(1,916)	(1,916)	—	(7,516)	(7,516)
Net interest	1,168	(2,116)	(948)	2,770	(7,306)	(4,536)	3,938	(9,422)	(5,484)
Subtotal included in profit or loss	1,168	(7,716)	(6,548)	2,770	(9,222)	(6,452)	3,938	(16,938)	(13,000)
Benefits paid	(2,953)	2,953	—	(7,072)	10,986	3,914	(10,025)	13,939	3,914
Amounts included in OCI (see following table)	847	(1,190)	(343)	(498)	(10,828)	(11,326)	349	(12,018)	(11,669)
Contributions by employer	649	—	649	7,894	—	7,894	8,543	—	8,543
Effect of movements in foreign exchange rates	—	—	—	3,671	(7,738)	(4,067)	3,671	(7,738)	(4,067)
Change in the fair value of defined benefit plans that are in net asset position as of December 31, 2023	113	—	113	(7)	—	(7)	106	—	106
Net liability for defined benefits obligations at December 31, 2023	30,217	(49,676)	(19,459)	72,461	(186,335)	(113,874)	102,678	(236,011)	(133,333)

(a) $180 included in non-current assets in the Statement of Financial Positions.

2023 subtotal included in OCI:

	North America			Europe			Total		
	Fair Value of Plan Asset	Defined Benefit Obligation	Total	Fair Value of Plan Asset	Defined Benefit Obligation	Total	Fair Value of Plan Asset	Defined Benefit Obligation	Total
Return on plan assets (excluding amounts included in net interest expense)	847	—	847	(498)	—	(498)	349	—	349
Assets ceiling			—		(4,774)	(4,774)	—	(4,774)	(4,774)
Actuarial changes arising from changes in demographic assumptions	—	—	—	—	2,968	2,968	—	2,968	2,968
Actuarial changes arising from changes in financial assumptions	—	(994)	(994)	—	(8,982)	(8,982)	—	(9,976)	(9,976)
Experience adjustments	—	(196)	(196)	—	(40)	(40)	—	(236)	(236)
Subtotal included in OCI	847	(1,190)	(343)	(498)	(10,828)	(11,326)	349	(12,018)	(11,669)

2022 changes in the defined benefit obligation and fair value of plan assets:

	North America			Europe			Total		
	Fair Value of Plan Asset	Defined Benefit Obligation	Total	Fair Value of Plan Asset	Defined Benefit Obligation	Total	Fair Value of Plan Asset	Defined Benefit Obligation	Total
January 1, 2022	40,337	(58,188)	(17,851)	112,834	(257,611)	(144,777)	153,171	(315,799)	(162,628)
Service costs	—	(533)	(533)	—	(3,707)	(3,707)	—	(4,240)	(4,240)
Net interest	690	(1,424)	(734)	1,296	(3,718)	(2,422)	1,986	(5,142)	(3,156)
Subtotal included in profit or loss	690	(1,957)	(1,267)	1,296	(7,425)	(6,129)	1,986	(9,382)	(7,396)
Benefits paid	(2,951)	2,951	—	(6,889)	10,525	3,636	(9,840)	13,476	3,636
Amounts included in OCI (see following table)	(8,227)	13,471	5,244	(32,847)	64,848	32,001	(41,074)	78,319	37,245
Contributions by employer	701	—	701	2,830	—	2,830	3,531	—	3,531
Effect of movements in foreign exchange rates	—	—	—	(11,598)	20,130	8,532	(11,598)	20,130	8,532
Change in the fair value of defined benefit plans that are in net asset position as of December 31, 2022 [(a)]	(157)	—	(157)	77	—	77	(80)	—	(80)
Net liability for defined benefits obligations at December 31, 2022	30,393	(43,723)	(13,330)	65,703	(169,533)	(103,830)	96,096	(213,256)	(117,160)

(a) $286 included in non-current assets in the Statement of Financial Positions.

2022 subtotal included in OCI:

	North America			Europe			Total		
	Fair Value of Plan Asset	Defined Benefit Obligation	Total	Fair Value of Plan Asset	Defined Benefit Obligation	Total	Fair Value of Plan Asset	Defined Benefit Obligation	Total
Return on plan assets (excluding amounts included in net interest expense)	(8,227)	—	(8,227)	(32,847)	—	(32,847)	(41,074)	—	(41,074)
Assets ceiling	—	—	—	—	5,318	5,318	—	5,318	5,318
Actuarial changes arising from changes in demographic assumptions	—	1,284	1,284	—	(423)	(423)	—	861	861
Actuarial changes arising from changes in financial assumptions	—	11,409	11,409	—	65,825	65,825	—	77,234	77,234
Experience adjustments	—	778	778	—	(5,872)	(5,872)	—	(5,094)	(5,094)
Subtotal included in OCI	(8,227)	13,471	5,244	(32,847)	64,848	32,001	(41,074)	78,319	37,245

Plan assets consist of the following:

	North America plans		European plans		Total	
	2023	2022	2023	2022	2023	2022
Equity securities and ownership of equity funds	7,707	4,632	39,974	41,296	47,681	45,928
Fixed income	21,814	25,083	—	—	21,814	25,083
Insurance contracts and other	835	930	32,528	24,441	33,363	25,371
Total	30,356	30,645	72,502	65,737	102,858	96,382

The assets of funded plans are generally held in separately administered trusts, either as specific assets or as a proportion of a general fund or insurance contracts. Assets are invested in different classes in order to maintain a balance between risk and return. Investments are diversified to limit the financial effect of the failure on any individual investment. For many of the funded plans, asset- liability matching strategies are not in place, however the fixed income assets are held in investments with varying term lengths.

The assets included in equity securities in the table above consists of securities held at market value. The fixed income assets consist primarily of investment grade and corporate bonds at market value. The insurance contracts and other consist of insurance contracts and other investment vehicles held at market value.

The expense is recognized in the following line items in the income statement:

	North America plans		European plans		Total	
	2023	2022	2023	2022	2023	2022
Cost of sales	325	377	1,956	1,373	2,281	1,750
Selling, general and administrative expenses	6,223	890	4,496	4,756	10,719	5,646
Total	6,548	1,267	6,452	6,129	13,000	7,396

A quantitative sensitivity analysis for significant assumptions as of December 31, 2023 is as shown below:

Assumptions	Discount rate		Future salary increases		Future pension cost increase	
Sensitivity level	1% increase	1% decrease	1% increase	1% decrease	0.5% increase	0.5% decrease
Impact on the net defined benefit obligation North American Plans	(4,010)	4,666	169	(175)	106	(103)
Impact on the net defined benefit obligation European Plans	(20,701)	24,192	2,270	(2,040)	6,794	(6,286)
Total impact on the net defined benefit obligation	(24,711)	28,858	2,439	(2,215)	6,900	(6,389)

The sensitivity analyses above have been determined based on a method that extrapolates the impact on net defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period.

The following payments are expected to be made in the future years out of the defined benefit plan obligation for the year ending December 31:

	North America Plans	European Plans	Total
2024	3,900	10,569	14,469
2025	3,770	10,620	14,390
2026	3,750	10,842	14,592
2027	3,710	11,086	14,796
2028	3,660	11,430	15,090
2029-2033	20,660	55,926	76,586

The average duration of the defined benefit plan obligation at the end of the reporting period is 12 years (2022: 12 years).

These defined benefit plans expose the Company to actuarial risks, such as longevity risk, currency risk, interest rate risk and market (investment) risk.

25. SHARE-BASED PAYMENTS

In May 2021, the shareholders of the Company approved an amendment to the Company's Remuneration Policy and long-term incentive program at the Annual General Meeting. Under the terms of the Remuneration Policy, equity-settled stock options are no longer awarded, and all awards for members of the Management Board will be in the form of performance share units ("PSU's"). The PSU's will continue to feature a three year service period; however, the new PSU plan also requires an additional two year holding period for members of the Management Board subsequent to vesting in line with the Dutch Corporate Governance Code. The PSU's have a market performance vesting condition based upon the Company's total shareholder return relative to a relevant global peer group. However, the performance share units no longer vest for performance below the 50th percentile. The Company established a restricted share unit ("RSU") plan for the Company's employees outside of the AMG Management Board, which is discussed in detail below. These revisions to the Company's Remuneration Policy were effective on May 6, 2021 and did not impact or modify previously issued share-based payment awards.

EQUITY-SETTLED STOCK OPTIONS

As noted above, equity-settled stock options were discontinued as a result of the Company's amended Remuneration Policy. However, all previously issued and outstanding stock options to the Management Board were subject to the 2009 AMG Option Plan ("2009 Plan") approved on May 13, 2009 at the Annual General Meeting. Each option issued under the 2009 Plan entitles the holder to acquire shares at a future date at a price equal to the fair market value of the share at the date on which the option was granted. One half of the options granted to each option holder on any date will vest on each of the third and fourth anniversaries of the grant date. The vesting is subject to a performance condition related to return on capital employed. The options expire on the tenth anniversary of their grant date.

During the year ended December 31, 2023, no options were exercised (2022: nil) under the 2009 Plan. There were no new option grants under the 2009 Plan during the years ended December 31, 2023 and 2022. During the years ended December 31, 2023 and 2022, there were no grants that expired or forfeited.

All options under the 2009 Plan are equity-settled, in accordance with IFRS 2, by award of options to acquire ordinary shares or award of ordinary shares. The fair value of these awards has been calculated at the date of grant of the award. The fair value, adjusted for an estimate of the number of awards that will eventually vest, is expensed using a graded vesting methodology. The fair value of the options granted was calculated using a Black-Scholes model. Changes in the assumptions can affect the fair value estimate of a Black- Scholes model. The assumptions used in the calculation are set out below.

During the year ended December 31, 2023, AMG recorded compensation expense from equity-settled option transactions of $128 (2022: $324) which is included in selling, general and administrative expenses in the income statement.

Movements

	2023		2022	
	Number of options (in 000s)	Weighted average exercise price (in €)	Number of options (in 000s)	Weighted average exercise price (in €)
Outstanding at January 1	305	25.37	305	25.37
Granted during the year	—	—	—	—
Exercised during the year	—	—	—	—
Forfeited or expired during the year	—	—	—	—
Outstanding at December 31	305	25.37	305	25.37
Exercisable at December 31	233	27.24	132	30.66

At December 31, 2023, the number of common shares subject to options outstanding and exercisable was as follows:

Price range	Outstanding options	Weighted average exercise price (in €)	Weighted average remaining life (in years)	Exercisable options	Weighted average exercise price (in €)
€19.31 to €25.50	220,152	21.44	5.22	147,931	14.26
€31.43 to €44.24	85,251	35.51	4.93	85,251	12.98

At December 31, 2022, the number of common shares subject to options outstanding and exercisable was as follows:

Price range	Outstanding options	Weighted average exercise price (in €)	Weighted average remaining life (in years)	Exercisable options	Weighted average exercise price (in €)
€19.31 to €25.50	220,152	21.44	6.22	75,707	25.50
€31.43 to €44.24	85,251	35.51	5.93	56,194	37.61

The maximum number of options that can be granted is 10% of total shares outstanding up to a maximum of 50,000,000. As of December 31, 2023, the total options outstanding under the 2009 Plan were 305,403 (2022: 305,403).

ASSUMPTIONS

Under IFRS 2, the return on capital employed vesting condition is deemed to be a non-market performance condition. In accounting for non-market performance conditions, the Company recognizes expense based on the number of equity instruments that are expected to vest at the grant date. The Company revises that estimate, if necessary, if subsequent information indicates that the number of equity instruments expected to vest differs from previous estimates.

PERFORMANCE SHARE UNITS

In May 2009, the Annual General Meeting approved a remuneration policy that utilizes share-based payments as a part of compensation. This policy was subsequently amended by the May 2021 Annual General Meeting as discussed previously. In the year ended December 31, 2023, the Company issued 158,834 (2022: 83,357) PSU's under the 2021 Plan to members of the Company's management which are share-settled. The PSU's granted to each employee on any date will vest on the third anniversary of the grant date. As these awards will be equity-settled, the balance is recorded in equity rather than as a liability in accordance with IFRS 2.

AMG utilized a Monte Carlo simulation to develop a valuation of the PSU awards. This calculation was performed on the date of issuance. The following table lists the inputs into the model used to calculate the fair value of the equity-settled performance share units that were granted 2021 through 2023:

	2023 Grant	2022 Grant	2021 Grant
Fair value at grant date	€35.22	€35.98	€32.49
Share price at date of grant	€38.92	€32.74	€31.61
Contractual life at issuance (years)	2.8	3.0	3.0
Expected volatility	45.60%	50.20%	50.30%
Discount for lack of marketability[1]	14.00%	14.00%	14.00%
Expected departures at grant	8%	—	—

1 Discount for lack of marketability applies only to members of the AMG Management Board.

The expected volatility was calculated using the average share volatility of the Company (over a period equal to the expected term of the shares). The expected life is the time at which shares will vest. For the risk-free rate, the Company utilized the relevant central bank rate curve for the currency of its peer group's respective share prices for the 2023 grants. The risk free rate does not have a significant impact on the valuation of the awards. The discount for lack of marketability is a factor that is specifically relevant and applicable in the context of the management board.

The Company recorded expense of $3,609 (2022: $3,659) related to these awards during the year, which is net of $12 (2022: $73) of expense that was allocated to non-controlling interests. AMG's expense related to equity-settled awards is recorded in equity.

In the year ended December 31, 2023, 1,218 PSUs were forfeited (2022: 4,467). The total number of equity-settled PSUs outstanding as of December 31, 2023 was 331,134 (2022: 399,199).

During the year ended December 31, 2023, the Company again awarded PSU's to employees of the Company as well as to the members of the Management Board. As such, the 2023 awards assume an 8% forfeiture rate, which approximates the Company's historical rate of departures. Since the 2022 and 2021 awards were only granted to members of the Management Board, the Company assumed no forfeitures for those awards given the historical rate of departures for members of the Management Board.

The PSU awards include a performance multiplier which can range from 0x – 1.75x the target award based on the Company's share price performance relative to its peers.

The Company achieved 1.75x for the 2020 grant which was settled in 2023 (2022: 0.75x). During the year ended December 31, 2023, 415,116 shares (2022: 107,288) were paid out with respect to the vesting of equity-settled performance share units granted in 2020.

Under the 2021 PSU plan, PSU awards now vest on December 31st. Based on AMG's total shareholder return relative to its peer group, the 2021 awards achieved 0.0x multiplier.

RESTRICTED SHARE UNITS

In May 2021, the AMG Management Board approved an RSU plan that provides share-based payments as a component of compensation to employees of the Company. In the year ended December 31, 2023, the Company issued nil (2022: 79,888) RSU's to employees which are share-settled under the new plan. The RSU's granted to each employee will vest on the third anniversary of the grant date. The vesting is subject only to service conditions provided that the employee has remained continuously in the employment of the Company or a Group Company until the vesting date. In the event that the Supervisory Board has approved to pay-out any dividends to shareholders of the Company, the equivalent of the cash amount of the dividend will be converted to incremental RSU's to be awarded upon the vesting date to employees. As these awards will be equity-settled, the balance is recorded in equity rather than as a liability in accordance with IFRS 2. There were no RSU's granted during the year ended December 31, 2023. The fair value of the RSU's granted during the year ended December 31, 2022 was €32.74 based on the closing price of AMG's shares on the date of grant. The Company recorded expense of $2,062 (2022: $1,569) related to the outstanding RSU's in the year ended December 31, 2023, which is net of an 8% forfeiture rate based on the expected departures at the grant date.

In the year ended December 31, 2023, 2,230 RSUs were forfeited (2022: 5,252). The total number of equity-settled RSUs outstanding as of December 31, 2023 was 151,039 (2022: 153,269).

26. PROVISIONS

	Environmental remediation costs and recoveries	Restructuring	Warranty	Cost estimates	Partial retirement	Restoration costs	Other	Total
Balance at January 1, 2022	6,726	1,737	5,222	7,371	564	8,903	1,372	31,895
Provisions made during the period	133	1,270	1,328	1,060	4	—	299	4,094
Provisions reversals during the period	—	(583)	(2,824)	(3,652)	—	(32)	(90)	(7,181)
Provisions used during the period	(462)	(1,256)	(616)	(1,039)	—	(17)	(215)	(3,605)
Decrease due to discounting	(1,427)	—	—	—	—	(462)	—	(1,889)
Currency and transfers	(147)	(62)	(349)	(482)	(33)	505	(84)	(652)
Balance at December 31, 2022	4,823	1,106	2,761	3,258	535	8,897	1,282	22,662
Balance at January 1, 2023	4,823	1,106	2,761	3,258	535	8,897	1,282	22,662
Provisions made during the period	313	9,817	3,985	4,569	—	1	1,263	19,948
Provisions reversals during the period	—	(324)	(2,144)	(2,418)	(64)	—	(153)	(5,103)
Provisions used during the period	(570)	(5,552)	(223)	(628)	—	—	(102)	(7,075)
Increase due to discounting	9	—	—	—	—	1,070	—	1,079
Currency and transfers	150	(1,357)	82	150	18	3,530	71	2,644
Balance at December 31, 2023	4,725	3,690	4,461	4,931	489	13,498	2,361	34,155
Non-current	2,430	—	—	—	535	8,610	786	12,361
Current	2,393	1,106	2,761	3,258	—	287	496	10,301
Balance at December 31, 2022	4,823	1,106	2,761	3,258	535	8,897	1,282	22,662
Non-current	2,666	—	—	—	489	13,090	1,706	17,951
Current	2,059	3,690	4,461	4,931	—	408	655	16,204
Balance at December 31, 2023	4,725	3,690	4,461	4,931	489	13,498	2,361	34,155

ENVIRONMENTAL REMEDIATION COSTS AND RECOVERIES

The Company makes provisions for environmental clean-up requirements, largely resulting from historical solid and hazardous waste handling and disposal practices at its facilities. Environmental remediation provisions exist at the following sites and are discounted according to the timeline of expected payments. Due to timing and low interest rates, the undiscounted and discounted liability amounts do not differ significantly, except with respect to the liabilities in the US.

Cambridge, OH USA

The most significant items at the Cambridge, Ohio site relate to a 1997 permanent injunction consent order ("PICO") entered into with the State of Ohio and Cyprus Foote Mineral Company, the former owner of the site. While AMG's US subsidiary and Cyprus Foote are jointly liable, the Company has agreed to perform and be liable for the remedial obligations. The site contains two on-site slag piles that are the result of many years of production. These slag piles were capped in 2009, in accordance with the PICO requirements, thereby lowering the radioactive emissions from the piles.

The PICO also required 1,000 years of operations and maintenance expenses ("O&M") through the year 3009 at the site. The Company has reserved for ongoing O&M which is expected to cost $43,668 on an undiscounted basis and $1,270 (2022: $1,291) on a discounted basis. Annual payments for O&M are expected to be $59 for the next 13 years, declining from that point on. These amounts will be paid out of an environmental trust and annuity which have already been established by the Company. The total value of these trust and annuity assets is $5,146 (2022: $4,862) of which $3,876 (2022: $3,571) has not been recognized due to the liability amount recorded being less than the value of the assets. One additional provision relates to groundwater monitoring. This project is expected to create cash outflows of $46 ($65 on an undiscounted basis), and is expected to be completed within the next 12 years. Discount rates of 4.79% - 4.04% (depending on the expected timing of payments) were used in determining the liabilities recorded.

There were no environmental expenses recorded in the year ended December 31, 2023 (2022: nil) and payments of $26 (2022: $58) related to the Cambridge site.

Newfield, NJ USA

The Newfield, NJ site is a former manufacturing facility of the Company that ceased operations in 2007. The United States Environmental Protection Agency (the "US EPA") and the New Jersey Department of Environmental Protection ("NJDEP") are the regulating authorities in regards to remediation of environmental liabilities identified at the site. The US EPA identified three environmental issues requiring remediation pertaining to contaminants in groundwater, contaminants in soil and sediment and perchlorate in groundwater. The liability associated with the non-perchlorate contaminants was transferred to a third-party in 2006. Refer to note 33 for additional details. The Company maintains responsibility for the remediation activities related to the perchlorate in groundwater.

The NJDEP maintains oversight for the remediation of low-level radioactive materials residing at the site. Newfield conducted operations that created a substantial slag pile with low-level radioactive materials. AMG completed negotiations with the NJDEP regarding a removal plan for the Newfield Site in 2016. The remedy consisted of the removal of low level radioactive material for transportation and disposal at an approved licensed disposal facility. During the year ended December 31, 2023, the Company recorded an environmental expense of nil (2022: nil) in relation to these activities. As of December 31, 2023, the Company has completed a majority of the requirements under the Decommissioning Plan and made payments of $6,907 (2022:$5,707). Once the final steps are completed, the Company can file for termination of the license to possess low level radioactive materials with the NJDEP. Final license termination is subject to the approval of the NJDEP, and the Company could be required to perform additional activities by the NJDEP before final approval is granted.

A balance of $865 (2022: $1,058) ($906 on an undiscounted basis) remains in the provision at December 31, 2023. These costs are expected to be paid over the next year, subject to negotiations with the regulatory agencies, and primarily relate to activities associated with perchlorate in groundwater. The Company will perform analysis of perchlorate in groundwater over that timeframe, and based on the results of those studies, the Company will submit final reports to the US EPA for remedy selection.

The remaining accrual represents Management's best estimate given the information available. Given the nature of the activities to be performed, there remains potential uncertainty with respect to the ultimate costs for which currently no reliable estimate can be made and which could be material.

The Company had previously entered into a Transportation and Disposal Agreement with one of its major contractors as part of the cost removal for all covered material on our facility in Newfield, NJ. Under the terms of the agreement, the Company entered into a loan agreement which deferred the payment of costs over several years. The Company made payments of $6,640 as of December 31, 2023 (2022: $5,500). At December 31, 2023, the loan was fully paid.

In addition to the removal of the slag pile the Company has agreed to an operations and maintenance agreement (O&M) which resulted in a provision balance of $97 at December 31, 2023 (2022: $155).

Remediation trust funds

The Company's US subsidiaries have established trust funds for future environmental remediation payments. The amounts are kept by commercial banks, which are responsible for making investments in equity and money market instruments. The trust funds are to be used according to the terms of the trust deed which require that these funds be used for O&M at the two US sites. Amounts are paid out following completion and approval of rehabilitation work. The assets are not available for general use. The trust funds are discounted and are shown within other non-current assets in the consolidated statement of financial position. The recognized values of the trust funds at December 31, 2023 were $1,930 (2022: $1,924). The total amount of the trusts as of December 31, 2023 were $5,806 (2022: $5,495).

Pocking, Germany

An environmental remediation liability exists with respect to the silicon metal operation and its waste storage. As of December 31, 2023, the liability for the remediation of this site is valued at $553 (2022: $491). There was an expense of nil (2022: $43) and payments of $21 (2022: $60) made during 2023. There are expected payments in 2024 of $541. There was no discount rate used to determine the liability recorded.

Nuremberg, Germany

Over time, damage to the sewer lines from the plant in Nuremberg, Germany has occurred. Management is working with German authorities in order to repair the sewer lines. In the year ended December 31, 2023, there was an expense of $313 (2022: $90) and payments of $256 (2022: $137). The expected liability for continued work on the sewer rehabilitation project is $1,894 (2022: $1,772). Payments for this project are expected to occur over the next 6 years with spending taking place in a relatively consistent pattern over those years. Discount rates of 0.00% - 1.18% (depending on the expected timing of payments) were used in determining the liabilities recorded.

RESTRUCTURING

During the year ended December 31, 2023, the Company recorded restructuring expenses of $9,547 in cost of good sold and $270 on selling, general and administrative expenses, totaling $9,817 (2022: $1,270) which was offset by a reversal of ($324) (2022: ($583)). The current year net expense was largely driven by restructuring expenses in our production facilities and severance payments on two of our European operations. These expenses were due to efficiency improvement measures in one of our Germany facilities and the closure of one of our mines in Mozambique resulting in a headcount reduction of 114.

WARRANTY

The Company's Engineering business offers warranties related to their furnace construction contracts. These warranties are only provided on select contracts and the provisions are made on a contract by contract basis. Each contractual warranty is expected to be utilized or derecognized within twelve months. The provisions for these warranties are based on the historical return percentages. Warranty payments of $223 (2022: $363) were made and warranty provisions included an expense of $3,800 (2022: $1,328) and reversal of ($2,144) (2022: ($2,731)) recorded in the year ended December 31, 2023. The additional provisions were primarily related to projects in the turbine blade coating field and plasma melting technologies as well as several special furnaces for various heat treatment and metallurgy applications that were finalized during 2023. Reversal related to expired warranties periods.

Two other German subsidiaries provide warranties for a limited number of products. The provisions are based on actual claims made by customers. There were $185 additional expenses (2022: $nil), a reversal of nil (2022: ($93)) and there were payments of nil recorded during 2023 (2022: $253).

COST ESTIMATES

AMG Engineering builds a project cost provision for long-term contracts that are completed. The provision is developed on a contract by contract basis and is based on contractor estimates. The provision is utilized or derecognized depending on actual performance of the contracts and expected total of project costs. A provision made of an additional expense of $4,569 (2022: $1,060) and reversal of ($2,418) (2022: ($3,652)) was recorded in 2023 related to projects in the turbine blade coating field and plasma melting technologies as well as several special furnaces for various heat treatment and metallurgy applications while $628 (2022: $1,039) of provisions were used.

PARTIAL RETIREMENT

The collective agreements for retirement indemnities on our French subsidiary and the corresponding commitments have been valued as of December 31, 2023. There was an expense of nil (2022: $4), reversal of ($64) (2022: nil) and there were no payments (2022: nil) recorded as of December 31, 2023. Additional payments of approximately $163 are expected to occur over the next 5 years. Discount rate of 3.7% was used by the Company's French subsidiary to determine the liabilities recorded. Furthermore, there were no partial retirement obligations expired during 2023.

RESTORATION, REHABILITATION AND DECOMMISSIONING COSTS

Decommissioning provisions represent the accrued cost required to provide adequate restoration and rehabilitation upon the completion of extraction activities. These amounts will be settled when rehabilitation is undertaken, generally at the end of the project's life.

Hauzenberg, Germany

The Company maintains a recultivation provision related to its graphite mine in Germany. There were no additional expense (2022: nil) and reversal of nil (2022: ($4)) recorded as of December 31, 2023. The total restoration liability for this mine was $5,368 as of December 31, 2023 (2022: $4,600). A discount rate of 2.2% was used to determine the liability recorded.

Nazareno, Brazil

During the year ended December 31, 2023, there was an increase in the liability of $3,833, which totaled $8,130 as of December 31, 2023 (2022: $4,297). A discount rate of 9.45% was used to determine the liability recorded. The following table summarizes the activity as of December 31, 2023:

	Brazil restoration costs
Balance at January 1, 2022	3,163
Provisions reversed during the period	(28)
Provisions used during the periods	(17)
Increase in fixed assets	622
Increase due to discounting	336
Translation gain	221
Balance at December 31, 2022	4,297
Balance at January 1, 2023	4,297
Provisions made during the period	1
Increase in fixed assets	2,871
Increase due to discounting	486
Translation gain	475
Balance at December 31, 2023	8,130
Non-current	4,010
Current	287
Balance at December 31, 2022	4,297
Non-current	7,722
Current	408
Balance at December 31, 2023	8,130

OTHER

Other is comprised of additional accruals including guarantees made to various customers. As of December 31, 2023, the other liability is valued at $2,361 (2022: $1,282) which mainly relates to one of our German subsidiaries.

27. OTHER LIABILITIES

Other liabilities are comprised of the following:

	2023	2022
Accrued bonus	14,736	13,600
Accrued operation costs	9,692	6,146
Other benefits and compensation	8,502	7,599
Accrued interest	8,369	8,596
Taxes, other than income	7,550	6,999
Accrued employee payroll expenses	6,986	7,354
Accrued professional fees	6,749	6,460
Fiscal contingency	5,690	4,970
Non-controlling interest dividend	4,170	2,684
Government grants	2,954	—
Acquisition earn-out liability	1,886	2,293
Claims	1,409	701
Sales commission	327	325
Construction retainage	227	3,407
Advanced contributions	—	11,000
Other miscellaneous liabilities	2,589	2,792
Total	81,836	84,926
Thereof:		
Non-current	4,784	15,009
Current	77,052	69,917

During the year ended December 31,2023 the Company received $2,954 of government grants mainly driven by the Energy Cost Reduction Act and Research Allowance for R&D projects in two of our operations in Germany.

During the year ended December 31,2022 the Company agreed to a strategic partnership with JX Metals Corporation ("JXM") for the production and supply of tantalum concentrate. Per the terms of the agreement, JXM made a total of $25,000 cash contribution which was received in two payments of $11,000 as of December 31, 2022 and $14,000 as of December 31, 2023. Since the SCP agreement went into effect on January 1, 2023, the $11,000 was recorded a deferred charge under advanced contributions as of December 31, 2022.

See notes 30 for additional information on acquisition earn-out liability.

28. TRADE AND OTHER PAYABLES

	2023	2022
Trade payables	228,373	215,652
Trade payables – contract work	30,966	24,449
Total	259,339	240,101

The Company has limited exposure to payables denominated in currencies other than the functional currency, and where significant exposure exists enters into appropriate foreign exchange contracts.

- Trade payables are generally non-interest bearing and are normally settled on 30 or 60 day terms except for payables related to furnace construction contracts as well as retainage payables for our expansion project in Zanesville (note 10 and 27) that settle between one month and twelve months. Other payables are non- interest bearing and have an average term of six months.
- Interest payable is normally settled quarterly or semi-annually throughout the financial year.
- For terms and conditions relating to related parties, refer to note 34.

As of December 31, 2023, the Company has outstanding supply chain financing of $53,925 (2022: $48,199).

29. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Company's principal financial liabilities, other than derivatives, are comprised of loans and borrowings, short-term bank debt and trade and other payables. The main purpose of these financial instruments is to provide capital for the Company's operations, including funding working capital, capital maintenance and expansion. The Company has various financial assets such as trade and other receivables, cash and cash equivalents and restricted cash, which arise directly from its operations.

The Company enters into derivative financial instruments, primarily interest rate swaps, interest rate caps, cross-currency interest rate swaps, foreign exchange forward contracts, energy forward contracts and commodity forward contracts. The purpose of these instruments is to manage interest rate, currency, energy and commodity price risks. The Company does not enter into any contracts for speculative purposes.

The Supervisory Board has overall responsibility for the establishment of the Company's risk management framework while the Management Board is responsible for oversight and compliance within this framework. The Company's risk management policies are established to identify and analyze the risks faced by the Company, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Company's activities.

The main risks arising from the Company's financial instruments are: credit, liquidity and market risks.

CREDIT RISK

The Company's exposure to credit risk with respect to trade and other receivables is influenced mainly by the individual characteristics of each customer. The demographics of the Company's customer base, including the default risk of the industry and country in which customers operate, has less of an influence on credit risk. No single customer accounts for more than 12% of the Company's revenue. There are no geographic concentrations of credit risk. It is the Company's policy that all customers who wish to trade on credit terms are subject to credit verification procedures which ensure their creditworthiness. In addition, receivable balances are monitored on an ongoing basis to ensure that the Company's exposure to impairment losses is not significant. Collateral is generally not required for trade receivables, although the Company's furnace construction contracts do often require advance payments. The Company's maximum exposure is the carrying amount as discussed in note 15.

With respect to credit risk arising from the other financial assets of the Company, which comprises cash and cash equivalents, restricted cash and derivative instruments, the Company's exposure to credit risk arises from the default of the counterparty, with a maximum exposure equal to the carrying amount of the instruments. The Company's treasury function monitors the location of cash and cash equivalents, restricted cash and the counterparties to hedges and monitors the strength of those banks. The Company's financial assets are held with bank and financial institution counterparties, which all carry investment-grade credit ratings. Impairment on cash and cash equivalents has been measured on a 12-month expected loss basis and reflects the short maturities of the exposures. The Company considers that its cash and cash equivalents have low credit risk based on the external credit ratings of the counterparties. The amount of impairment allowance at December 31, 2023 is $1 (2022: $1). The Company's maximum exposure is the carrying amounts as discussed in notes 17, 18 and 30.

LIQUIDITY RISK

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company's approach to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Company's reputation.

The Company monitors cash flows at varying levels. At the Company level, this monitoring is done on a bi-weekly basis. However, at several subsidiaries, this type of monitoring is done daily. Typically, the Company ensures that it has sufficient cash on demand to meet expected operational expenses for a period of eight weeks, including the servicing of financial obligations. In addition, the Company maintains various borrowing facilities for working capital and general corporate purposes. The Company's primary facility includes the following:

- $350,000 term loan B facility and a $200,000 revolving credit facility with a syndicate of banks that is secured by certain assets of the material subsidiaries of the Company. Interest is payable at a base rate plus a spread based on a leverage ratio.

The table below summarizes the maturity profile of the Company's financial liabilities at December 31, 2023, based on contractual undiscounted payments. The financial derivatives obligations are presented on a net basis for balances where it is appropriate to net the obligation position within a subsidiary for the respective period.

2023	Contractual cash flows	< 3 months	3-12 months	2025	2026	2027	2028	> 2028
Term loan / revolver	343,000	875	2,625	3,500	3,500	3,500	329,000	—
Cash interest on term loan	97,050	4,286	13,169	17,135	17,508	23,387	21,565	—
Municipal bond	307,200	—	—	—	—	—	—	307,200
Cash interest on municipal bond	399,360	2,560	12,800	15,360	15,360	15,360	15,360	322,560
Other loans and borrowings	5,427	522	2,098	728	679	679	721	—
Cash interest on other loans and borrowings	671	126	379	164	2	—	—	—
Financial derivatives	2,855	949	1,484	308	114	—	—	—
Lease payments	74,360	1,667	5,639	5,069	5,084	4,901	4,277	47,723
Trade and other payables	259,339	207,859	51,480	—	—	—	—	—
Short-term bank debt	7,678	812	6,866	—	—	—	—	—
Total	1,496,940	219,656	96,540	42,264	42,247	47,827	370,923	677,483

The table below summarizes the maturity profile of the Company's financial liabilities at December 31, 2022 based on contractual undiscounted payments.

2022	Contractual cash flows	< 3 months	3-12 months	2024	2025	2026	2027	> 2027
Term loan / revolver	346,500	—	3,500	3,500	3,500	3,500	3,500	329,000
Cash interest on term loan	110,407	2,832	14,288	17,133	16,820	17,119	22,041	20,174
Municipal bond	307,200	—	—	—	—	—	—	307,200
Cash interest on municipal bond	414,720	7,680	7,680	15,360	15,360	15,360	15,360	337,920
Other loans and borrowings	17,569	10,227	2,005	2,483	728	694	694	738
Cash interest on other loans and borrowings	671	126	379	164	2	—	—	—
Financial derivatives	8,030	3,499	4,246	244	41	—	—	—
Lease payments	71,085	1,450	4,772	4,917	4,089	3,834	3,635	48,388
Trade and other payables	240,101	203,314	36,787	—	—	—	—	—
Short-term bank debt	6,391	5,860	531	—	—	—	—	—
Total	1,522,674	234,988	74,188	43,801	40,540	40,507	45,230	1,043,420

The difference between the contractual cash flows and the carrying amount of the term loan noted above is attributable to issuance costs and an original issue discount in the amount of $5,598 and $6,879 as of December 31, 2023 and 2022, respectively, which are offset against the carrying amount of the debt.

The difference between the contractual cash flows and the carrying amount of the municipal bond noted above is attributable to issuance costs and a premium in the amount of $11,802 as of December 31, 2023 (2022: $12,044), which are included in the carrying amount of the debt.

The lease payments noted above include both principal and interest for the lease liabilities.

MARKET RISK

Market risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market prices. Market prices comprise three types of risk: interest rate, foreign currency, and commodity price risk. Financial instruments affected by market risk include loans and borrowings, derivative financial instruments, trade and other receivables, and trade and other payables.

The sensitivity analyses in the following sections relate to the positions as of December 31, 2023 and 2022.

The sensitivity analyses have been prepared on the basis that the amount of net debt, the ratio of fixed to floating interest rates of the debt and derivatives and the proportion of financial instruments in foreign currencies are all constant and on the basis of the hedge designations in place at December 31, 2023.

The analyses exclude the impact of movements in market variables on the carrying value of pension and other post-retirement obligations, provisions and on the non-financial assets and liabilities of foreign operations.

The following assumptions have been made in calculating the sensitivity analyses:

- The statement of financial position sensitivity relates to derivatives.
- The sensitivity of the relevant income statement item is the effect of the assumed changes in respective market risks.

This is based on the financial assets and financial liabilities held at December 31, 2023 and 2022, including the effect of hedge accounting.

INTEREST RATE RISK

Interest rate risk is the risk that changes in interest rates will affect the Company's income or the value of its holdings of financial instruments. The Company's fixed rate borrowings are exposed to a risk of change in their fair value due to changes in interest rates. The Company's floating rate borrowings are exposed to a risk of change in cash flows due to changes in interest rates. Short-term receivables and payables are not exposed to interest rate risk.

The Company's policy is to maintain at least 75% of its borrowings as fixed or capped rate borrowings. The Company either enters into fixed rate debt or strives to limit the variability of floating rate instruments through the use of interest rate swaps or caps. These are designed to hedge underlying debt obligations. At December 31, 2023 and 2022, after considering the effect of interest rate hedges, all of the Company's loans and borrowings are at a fixed or capped rate of interest.

The following table demonstrates the sensitivity to a reasonably possible change in interest rates adjusting for multiple interest rate caps and swaps effective as of December 31, 2023 and 2022, with all other variables held constant, of the Company's profit before tax (through the impact on floating rate borrowings).

2023	Increase/ decrease in basis points	Effect on profit before tax	Effect on equity before tax
US dollar	+50	—	4,118
Brazilian real	+50	(11)	—
US dollar	-50	—	(4,118)
Brazilian real	-50	11	—

2022	Increase/ decrease in basis points	Effect on profit before tax	Effect on equity before tax
US dollar	+50	—	5,273
Brazilian real	+50	(24)	—
US dollar	-50	—	(5,273)
Brazilian real	-50	24	—

See note 22 for loans and borrowings explanations.

At December 31, 2023, the Company's interest rate derivatives had a fair value of $22,851 (2022: $31,959). In November 2021, the Company entered into interest rate swaps with two financial institutions in connection with the execution of its new credit facility and unwound its prior interest rate caps. The original notional value of the swaps was $350,000, and the notional decreases over the term of the contract to align with the outstanding balance on the Company's term loan B. The objective of the hedge is to eliminate the variability of cash flows in the interest payments associated with the 1-month SOFR benchmark interest rate of the term loan B. The contract swaps the variable 1-month SOFR rate to a fixed rate of 1.50% over the expected life of the term loan B. The Company's Credit Agreement and interest rate swap included a hardwired transition process from LIBOR to SOFR, as the successor benchmark reference rate as referenced in note 22. Mechanically the transition was executed as an amendment, but the original loan agreement contemplated this option, so the transition to SOFR does not represent a modification of the original agreements.

FOREIGN CURRENCY RISK

Foreign currency risk is the risk that changes in foreign exchange rates will affect the Company's income or the value of its holdings of financial instruments. Many of the Company's subsidiaries are located outside the US. Individual subsidiaries execute their operating activities in their respective functional currencies which are primarily comprised of the US dollar and euro. Since the financial reporting currency of the Company is the US dollar, the financial statements of those non-US dollar operating subsidiaries are translated so that the financial results can be presented in the Company's consolidated financial statements.

Each subsidiary conducting business with third parties that leads to future cash flows denominated in a currency other than its functional currency is exposed to the risk from changes in foreign exchange rates. It is the Company's policy to use forward currency contracts to minimize the currency exposures on net cash flows. For several subsidiaries, this includes managing balance sheet positions in addition to forecast and committed transactions. For these contracts, maturity dates are established at the end of each month matching the net cash flows expected for that month. Another subsidiary hedges all sales transactions in excess of a certain threshold. For this subsidiary, the contracts mature at the anticipated cash requirement date. Most forward exchange contracts mature within twelve months and are predominantly denominated in US dollars, euros, British pound sterling and Brazilian reais. When established, the forward currency contract must be in the same currency as the hedged item. It is the Company's policy to negotiate the terms of the hedge derivatives to closely match the terms of the hedged item to maximize hedge effectiveness. The Company seeks to mitigate this risk by hedging a range of 60% to 90% of transactions that occur in a currency other than the functional currency. The Company does not hedge its intergroup balance sheet exposures as well as long-term operating costs in Brazil.

The Company deems its primary currency exposures to be in US dollars and euros. The following table demonstrates the sensitivity to a reasonably possible change in the two primary functional currencies of the Company: US dollar and euro exchange rates with all other variables held constant, of the Company's profit before tax (due to changes in the fair value of monetary assets and liabilities) and the Company's equity (due to changes in the fair value of forward exchange contracts). Changes in sensitivity rates reflect various changes in the economy year-over-year.

2023	Strengthening/ weakening in functional rate	Effect on profit before tax	Effect on equity before tax
US dollar	+10%	(6,311)	357
Euro	+10%	2,288	(1,988)
US dollar	–10%	6,311	(357)
Euro	–10%	(2,288)	1,988

2022	Strengthening/ weakening in functional rate	Effect on profit before tax	Effect on equity before tax
US dollar	+10%	(1,838)	498
Euro	+10%	1,142	(2,519)
US dollar	–10%	1,838	(498)
Euro	–10%	(1,142)	(2,519)

COMMODITY PRICE RISK

Commodity price risk is the risk that raw materials prices will increase and negatively impact the gross margins and operating results of the Company. The Company is exposed to volatility in the prices of raw materials used in some products and uses forward contracts to manage these exposures for exchange-traded metals when possible. For these exchange-traded metals, the Company aims to maintain a greater than 50% hedged position in order to avoid undue volatility in the sales prices and purchase costs attained in the normal course of business. Commodity forward contracts are generally settled within twelve months of the reporting date. However, most of the metals, alloys and chemicals that the Company processes and sells such as lithium, vanadium, chrome metal, tantalum, graphite, niobium, and antimony trioxide, cannot be hedged on an exchange or there is insufficient liquidity on the exchange. For these materials, the Company mitigates its price exposure by aligning raw materials purchases with sales orders and ensuring that it is managing working capital in a manner that minimizes commodity price exposure.

CAPITAL MANAGEMENT

With regard to its capital structure the primary objective of the Company is to maintain strong capital ratios in order to support its business and maximize shareholder value.

The Company manages its capital structure and makes adjustments to it, in light of economic conditions. Its policy is to ensure that the debt levels are manageable to the Company and that they are not increasing at a level that is in excess of the increases that occur within equity. During the planning process, the expected cash flows of the Company are evaluated and the debt to equity and debt to total capital ratios are evaluated in order to ensure that levels are improving year-over-year. Debt to total capital is a more appropriate measure for the Company due to its initial equity values of the subsidiaries from the combination in 2007. Management deems total capital to include all debt (including short-term and long-term) as well as the total of the equity of the Company, including non-controlling interests.

	2023	2022
Loans and borrowings	661,831	676,434
Short-term bank debt	7,678	6,391
Less: cash and cash equivalents and restricted cash	346,759	352,963
Net debt	322,750	329,862
Total equity	606,003	517,849
Total capital	928,753	847,711
Debt to total capital ratio	34.8%	38.9%

30. FINANCIAL INSTRUMENTS

FAIR VALUES

The carrying amounts presented in the financial statements approximate the fair values for all of the Company's financial instruments, other than as discussed below.

The fair value of the financial assets and liabilities are included at the price that would be received to sell the instrument in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions.

- Current assets and liabilities approximate their carrying amounts largely due to the short-term maturities of these instruments and as such are not included in the following tables.
- The calculation of fair value for derivative financial instruments depends on the type of instruments: Derivative interest rate contracts are estimated by discounting expected future cash flows using current market interest rates and yield curves over the remaining term of the instrument; Derivative currency and commodity contracts are based on quoted forward exchange rates and commodity prices, respectively.
- The Company's term loan B is a floating rate borrowing and is carried at amortized cost. The fair value of the term loan B was $341,714 (2022: $334,373) at December 31, 2023. The Company's municipal bonds are fixed rate borrowings and are carried at amortized cost. The fair value of those bonds was $277,380 (2022: $272,627) at December 31, 2023. The fair value of the term loan and municipal bonds is based on quoted prices for similar securities adjusted for the prevailing market-based yields and are deemed to be Level 2 inputs. The remainder of the Company's borrowings and notes receivable maintain a floating interest rate and approximate fair value. Fair value of the Company's floating rate loans and borrowings are estimated by discounting expected future cash flows using a discount rate that reflects the Company's borrowing rate at December 31, 2023.
- The consideration of non-performance risk did not significantly impact the fair values for fixed and floating rate loans and borrowings.
- Contingent consideration is calculated using a valuation model that considers the present value of the expected future payments, discounted using a risk-adjusted discount rate.

FAIR VALUE HIERARCHY

The Company uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities

Level 2: other techniques for which all inputs which have a significant effect on the recorded fair value are observable, either directly or indirectly

Level 3: techniques which use inputs which have a significant effect on the recorded fair value that are not based on observable market data

As of December 31, 2023, the Company held the following financial instruments measured at fair value:

Assets measured at fair value

December 31, 2023	Total	Level 1	Level 2	Level 3
Non-current financial assets				
Restricted cash	387	387	—	—
Equity investments classified as FVOCI (note 12)	14,557	—	—	14,557
Other investments (note 12)	23,603	15,079	—	8,524
Forward contracts – hedged	54	—	54	—
Interest rate derivatives	22,793	—	22,793	—
Current financial assets				
Restricted cash	1,064	1,064	—	—
Forward contracts - hedged	3,321	—	3,321	—
Interest rate derivatives	63	—	63	—
Energy forward contracts	13	—	13	—

Liabilities measured at fair value

December 31, 2023	Total	Level 1	Level 2	Level 3
Non-current financial liabilities				
Forward contracts – hedged	26	—	26	—
Interest rate derivatives	1	—	1	—
Contingent consideration	1,886	—	—	1,886
Current financial liabilities				
Forward contracts - hedged	1,495	—	1,495	—
Interest rate derivatives	4	—	4	—
Energy forward contracts	1,329	—	1,329	—
Contingent consideration	—	—	—	—

As of December 31, 2022, the Company held the following financial instruments measured at fair value:

Assets measured at fair value

December 31, 2022	Total	Level 1	Level 2	Level 3
Non-current financial assets				
Restricted cash	5,875	5,875	—	—
Equity investments classified as FVOCI (note 12)	13,629	—	—	13,629
Other investments (note 12)	15,695	8,222	—	7,473
Forward contracts – hedged	682	—	682	—
Interest rate derivatives	32,360	—	32,360	—
Current financial assets				
Restricted cash	1,045	1,045	—	—
Forward contracts – hedged	2,502	—	2,502	—
Interest rate derivatives	70	—	70	—
Energy forward contracts	944	—	944	—

Liabilities measured at fair value

December 31, 2022	Total	Level 1	Level 2	Level 3
Non-current financial liabilities				
Forward contracts – hedged	97	—	97	—
Interest rate derivatives	187	—	187	—
Contingent consideration	1,658	—	—	1,658
Current financial liabilities				
Forward contracts – hedged	6,837	—	6,837	—
Interest rate derivatives	284	—	284	—
Energy forward contracts	625	—	625	—
Contingent consideration	635	—	—	635

During the years ended December 31, 2023 and 2022, there were no transfers between Level 1, Level 2, and Level 3 fair value measurements.

The following table shows a reconciliation from the opening balances to the closing balances for Level 3 fair values.

	Equity Securities	Contingent Consideration
Balance at January 1, 2022	18,751	2,673
Purchase of other investments	990	—
Change in fair value	1,361	(223)
Foreign currency adjustments	—	(157)
Balance at December 31, 2022	21,102	2,293
Purchase of other investments	990	—
Change in fair value	989	(495)
Foreign currency adjustments	—	88
Balance at December 31, 2023	23,081	1,886

HEDGING ACTIVITIES

Interest rate hedges

The Company entered into interest rate swap contracts with two financial institutions in connection with the execution of its credit facility. The contracts have a notional value equivalent to the total balance of the term loan B. The contracts swap the variable interest payments on the term loan B to fixed payments of interest. The interest rate swaps were executed so that the Company could hedge its exposure to changes in the benchmark interest rate on the term loan B facility. The Company has matched the critical terms of the swaps to the term loan B and consequently has designated the interest rate swaps as effective cash flow hedges. The amount of gains (losses) related to the interest rate hedges included in equity was $21,273 and $30,245 in the years ended December 31, 2023 and 2022, respectively. The amount included in equity is anticipated to impact the income statement through November 2026, which is the term of the contracts. During the years ended December 31, 2023 and 2022, ($12,682) and $(1,324) was transferred from equity to the income statement as a decrease to finance costs. There was no ineffectiveness for contracts designated as cash flow hedges during the years ended December 31, 2023 and 2022, respectively.

The Company also continues to maintain derivative contracts with a financial institution to mitigate its exposure to changes in the benchmark interest rate on portions of its Brazilian subsidiary debt. The contracts include interest rate swaps and cross-currency interest rate swaps, which the Company has not designated for hedge accounting. All gains and losses are recognized in profit and loss. During the year ended December 31, 2023, $550 (2022: $1,456) of gains (losses) related to these outstanding interest rate derivatives were recorded to finance costs in the income statement.

Commodity forward contracts

The Company is exposed to volatility in the prices of raw materials used in some products and uses commodity forward contracts to manage these exposures. Such contracts generally mature within twelve months. Commodity forward contracts have been designated as cash flow hedges and contracts not designated as cash flow hedges are immediately recognized in cost of sales.

The open US dollar denominated forward contracts to purchase commodities contracts as of December 31, 2023 are as follows:

	Metric tons	Average price	Fair value assets	Fair value liabilities
Aluminum forwards	3,210	2,196	325	(172)

The open US dollar denominated forward contracts to purchase commodities contracts as of December 31, 2022 are as follows:

	Metric tons	Average price	Fair value assets	Fair value liabilities
Aluminum forwards	1,475	2,388	3	(28)

The amount from the commodity cash flow hedges included in equity was $667 and $80 in the years ended December 31, 2023 and 2022, respectively. The amount included in equity is anticipated to impact the income statement over the next 12 months. During the years ended December 31, 2023 and 2022, $217 and $666, respectively, were transferred from equity to the income statement as increases to cost of sales. There was no ineffectiveness for contracts designated as cash flow hedges during the years ended December 31, 2023 and 2022.

Foreign currency forward contracts

At any point in time, the Company also uses foreign exchange forward contracts to hedge a portion of its estimated foreign currency exposure in respect of forecasted sales and purchases. These contracts are negotiated to match the terms of the commitments and generally mature within two years. When necessary, these contracts are rolled over at maturity. Foreign exchange forward contracts that are not part of a hedge relationship are held at fair value with fair value changes recognized through profit or loss.

The open foreign exchange forward sales contracts as of December 31, 2023 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
Cash Flow Hedges				
EUR (versus USD)	€5.6 million	0.92	26	(155)
USD (versus EUR)	$36.0 million	1.10	1,150	(555)

The open foreign exchange forward sales contracts as of December 31, 2022 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
Cash Flow Hedges				
EUR (versus USD)	€19.1 million	0.96	21	(459)
USD (versus EUR)	$65.0 million	1.08	1,765	(1,802)

The open foreign exchange forward purchase contracts as of December 31, 2023 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
Cash Flow Hedges				
USD (versus EUR)	$39.8 million	1.089	124	(586)
EUR (versus USD)	€25.2 million	0.922	624	—
GBP (versus USD)	£24.9 million	1.256	496	(14)
CNY (versus EUR)	¥65.2 million	0.129	630	(39)

The open foreign exchange forward purchase contracts as of December 31, 2022 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
Cash Flow Hedges				
USD (versus EUR)	$52.7 million	1.037	263	(2,372)
EUR (versus USD)	€36.4 million	0.956	1,046	(39)
GBP (versus USD)	£27.1 million	1.290	—	(2,090)
CNY (versus USD)	¥26.3 million	0.140	86	(144)

The amounts from the foreign currency cash flow hedges included in equity were $259 and ($2,475) in the years ended December 31, 2023 and 2022, respectively. The amount included in equity is anticipated to impact the income statement over the next two years. During the years ended December 31, 2023 and 2022, ($1,530) and $5,944, respectively, were transferred from equity to the income statement as (decreases) increases to cost of sales and selling, general, and administrative expenses. There was nil (2022: nil) recognized in profit or loss during the year ended December 31, 2023 due to ineffectiveness.

Energy forward contracts

The Company is exposed to volatility in the prices of energy that it consumes as part of its operations. The Company enters into fixed price energy forward contracts to manage this exposure. In most cases, the Company enters into forward energy contracts with the expectation that the contract will result in the physical delivery of the underlying gas or electricity in accordance with the Company's operational usage requirements. As such, the energy forward contracts generally qualify for the scope exemption under IFRS 9 and are not recognized as financial instruments. However, for a German subsidiary, a portion of the contracts will be settled in cash rather than through physical delivery of the underlying energy and do not qualify under the scope exemption of IFRS 9 as a result. Consequently, these specific contracts are recorded as derivative instruments. These contracts generally mature within twelve months. The energy forward contracts have been designated as cash flow hedges.

The open energy forward contracts as of December 31, 2023 are as follows:

	Megawatt hours	Average price	Fair value assets	Fair value liabilities
Energy forward contracts	48,398	€91.91	13	(1,329)

The open energy forward contracts as of December 31, 2022 are as follows:

	Megawatt hours	Average price	Fair value assets	Fair value liabilities
Energy forward contracts	25,313	€129.73	944	(625)

31. LEASES

LEASES AS LESSEE

The Company has entered into leases for office space, facilities and equipment. The leases generally provide that the Company pays the tax, insurance and maintenance expenses related to the leased assets. These leases have an average original term of 5-7 years with renewal terms at the option of the lessee and lease payments based on market prices at the time of renewal. There are no restrictions placed upon the lessee by entering into these leases.

Set out below are the carrying amounts of the Company's right-of-use assets, which are included in property, plant and equipment in the statement of financial position, and lease liabilities as well as the movements during the period:

	Right-of-use assets				
	Land, buildings and improvements	Machinery and equipment	Furniture and fixtures	Total	Lease liabilities
January 1, 2022	46,130	2,795	870	49,795	50,549
Additions	4,840	1,453	180	6,473	6,473
Retirements and transfers	(482)	(14)	(6)	(502)	(509)
Depreciation expense	(4,125)	(1,127)	(434)	(5,686)	—
Interest expense	—	—	—	—	1,663
Payments	—	—	—	—	(6,764)
Foreign currency translation	(2,316)	(122)	(60)	(2,498)	(2,478)
December 31, 2022	44,047	2,985	550	47,582	48,934
January 1, 2023	44,047	2,985	550	47,582	48,934
Additions	5,030	2,369	341	7,740	7,740
Retirements and transfers	—	33	(43)	(10)	(46)
Depreciation expense	(4,810)	(1,349)	(345)	(6,504)	—
Interest expense	—	—	—	—	1,821
Payments	—	—	—	—	(7,585)
Foreign currency translation	1,286	62	15	1,363	1,490
December 31, 2023	45,553	4,100	518	50,171	52,354

The Company recognized rent expense from short-term leases of $839 (2022: $1,241) and leases of low-value assets of $255 (2022: $370) for the year ended December 31, 2023.

32. CAPITAL COMMITMENTS

The Company's capital expenditures include projects to improve the Company's operations and productivity, replacement projects and ongoing environmental requirements (which are in addition to expenditures discussed in note 26). As of December 31, 2023, the Company had committed to capital requirements in the amount of $30,847 (2022: $115,237). These capital commitments related primarily to the expansion on the lithium concentrate plant in Brazil, the lithium hydroxide refinery in Bitterfeld, Germany and the vanadium electrolyte plant at AMG Titanium in Nuremberg, Germany.

33. CONTINGENCIES

GUARANTEES

The following table outlines the Company's off-balance sheet guarantees and letters of credit for the benefit of third parties as of December 31, 2023 and 2022:

	Guarantees	Letters of credit	Total
2023			
Total amounts committed:	160,620	36,893	197,513
Less than 1 year	87,829	36,893	124,722
2–5 years	71,373	—	71,373
After 5 years	1,418	—	1,418

	Guarantees	Letters of credit	Total
2022			
Total amounts committed:	128,231	32,608	160,839
Less than 1 year	45,584	32,608	78,192
2–5 years	75,123	—	75,123
After 5 years	7,524	—	7,524

In the normal course of business, the Company has provided indemnifications in various commercial agreements which may require payment by the Company for breach of contractual terms of the agreement. Counterparties to these agreements provide the Company with comparable indemnifications. The indemnification period generally covers, at maximum, the period of the applicable agreement plus the applicable limitations period under the law. The maximum potential amount of future payments that the Company would be required to make under these indemnification agreements is not reasonably quantifiable as some indemnifications are not subject to limitation. However, the Company enters into indemnification agreements only when an assessment of the business circumstances would indicate that the risk of loss is remote.

The Company has agreed to indemnify its current and former directors and officers to the extent permitted by law against any and all charges, costs, expenses, amounts paid in settlement and damages incurred by the directors and officers as a result of any lawsuit or any other judicial administrative or investigative proceeding in which the directors and officers are sued as a result of their service. These indemnification claims will be subject to any statutory or other legal limitation period. The nature of such indemnification prevents the Company from making a reasonable estimate of the maximum potential amount it could be required to pay to counterparties. The Company has $100,000 in directors' and officers' liability insurance coverage.

ENVIRONMENTAL

In 2006, a US subsidiary of the Company entered into a fixed price remediation contract with an environmental consultant, whereby that consultant became primarily responsible for aspects of the environmental remediation. This subsidiary of the Company is still a secondary obligor for this remediation, in the event that the consultant does not perform.

The Company has other contingent liabilities related to environmental regulations at several locations. Environmental regulations in France require monitoring of wastewater and potential clean-up to be performed at one of the French subsidiary's plant sites in Chauny. Although the extent of these issues is not yet known, there is a possibility that the Company could incur remediation costs.

As discussed in note 26, a German subsidiary of the Company has a sewer system liability, which is in the process of being resolved via a sewer replacement project. Based on the liability associated with the sewer, it is also believed that there may be a groundwater contamination issue. This German subsidiary has performed remediation feasibility trials but has not received a demand from the government with respect to any potential wider groundwater treatment and it has recorded no provision for this, but it is possible that some remediation will eventually be required. The Company believes that the maximum exposure related to this contamination is $10,000.

TAXATION

The Brazilian subsidiary has established provisions related to potential tax exposure matters such as: (i) income tax on previous years calculations and on interests on intergroup loans; (ii) taxes over other revenues; (iii) federal and state VAT credits disallowances and; (iv) mining royalties. Not all of these matters are pending legal action, and some of these matters are maintained pending applicable statute of limitations. The accrued amounts include potential penalties and interest exposure and are based upon the input of the Company's advisors as to probability evaluation and payable nature to such matters. The amount accrued for all such matters was $5,690 as of December 31, 2023.

LITIGATION

We are party to various pending or threatened legal actions and other proceedings that arise in the ordinary course of our business, including matters arising under provisions relating to the protection of the environment. These types of matters could result in compensatory damages, cost reimbursements or contributions, penalties, non-monetary sanctions, or other relief. We believe the probability is remote that the outcome of each of these matters will have a material adverse effect on the Company as a whole. We cannot predict the outcome of legal or other proceedings with certainty.

OTHER

One of the Company's subsidiaries closed a pension plan in 2005, prior to becoming part of AMG. The Company has been made aware that there are potential flaws in the paperwork which substantiates the closure, which could make this closure invalid. If a claim was made on this basis, the potential liability could approximate $10,000. Due to the length of time since the closure, the Company does not believe that any claim is likely, and no provision has been made for this contingency.

34. RELATED PARTIES

TRANSACTIONS WITH KEY MANAGEMENT PERSONNEL

Key management personnel compensation

The Company considers the members of the Management Board and the Supervisory Board to be the key management personnel as defined in IAS 24 Related parties. Refer to note 25 for further details.

For remuneration details of the Management Board and the Supervisory Board, see below.

The compensation of the Management Board of the Company comprised:

For the year ended December 31, 2023	Salaries and bonus	Share-based compensation	Post-employment benefits including contributions to defined contribution plans	Other remuneration [a]	Total
Heinz Schimmelbusch	3,096	1,875	1,231	809	7,011
Eric Jackson	1,996	717	2,437	76	5,226
Jackson Dunckel	1,608	552	2,310	92	4,562
Total	6,700	3,144	5,978	977	16,799

[a] Other remuneration includes car expenses and insurance paid for by the Company.

For the year ended December 31, 2022	Salaries and bonus	Share-based compensation	Post-employment benefits including contributions to defined contribution plans	Other remuneration [a]	Total
Heinz Schimmelbusch	2,710	2,024	210	196	5,140
Eric Jackson	1,889	775	116	54	2,834
Jackson Dunckel	1,433	597	406	38	2,474
Total	6,032	3,396	732	288	10,448

[a] Other remuneration includes car expenses and insurance paid for by the Company.

Each member of the Management Board has an employment contract with the Company which provides for severance in the event of termination without cause. The maximum severance payout is limited to two years base salary and two years of target annual bonus.

The compensation of the Supervisory Board of the Company comprised:

For the year ended December 31, 2023	Cash remuneration	Share-based remuneration	Total compensation
Steve Hanke	110	64	174
Willem van Hassel	83	42	125
Herb Depp	80	37	117
Donatella Ceccarelli	80	37	117
Warmolt Prins	65	37	102
Anne Roby	52	25	77
Dagmar Bottenbruch	23	13	36
Total	493	255	748

For the year ended December 31, 2022	Cash remuneration	Share-based remuneration	Total compensation
Steve Hanke	110	63	173
Willem van Hassel	75	42	117
Herb Depp	80	37	117
Donatella Ceccarelli	80	37	117
Dagmar Bottenbruch	65	37	102
Warmolt Prins	65	37	102
Total	475	253	728

Total Management Board and Supervisory Board Compensation for the year ended:	Cash remuneration	Share-based compensation	Post-employment benefits including contributions to defined contribution plans	Other remuneration [a]	Total
December 31, 2023	7,208	3,400	5,978	977	17,563
December 31, 2022	6,507	3,649	732	288	11,176

[a] Other remuneration includes car expenses and insurance paid for by the Company.

ENTITIES WITH SIGNIFICANT INFLUENCE OVER THE COMPANY

Foundation

In July 2010, the foundation “Stichting Continuiteit AMG” (“Foundation”) was established following the resolution adopted at its Annual Meeting on May 12, 2010. The board of the Foundation consists of three members, all of whom are independent of AMG. The purpose of the Foundation is to safeguard the interests of the parent company, the enterprise connected therewith and all the parties having an interest therein and to exclude as much as possible influences which could threaten, amongst other things, the continuity, independence and identity of the parent company contrary to such interests.

By agreement on December 22, 2010, between the parent company and the Foundation, the Foundation has been granted a call option pursuant to which it may purchase a number of preference shares up to a maximum of the number of ordinary shares issued and outstanding with third parties at the time of exercise of the option. The agreement cannot be terminated by the Company as long as the Company has not cancelled, or repurchased preferences shares acquired by the Foundation.

The Company entered into a cost compensation agreement with the Foundation dated December 22, 2010. As per the agreement, the Company is required to provide funds to the Foundation for the costs incurred in connection with the fulfillment of the objectives of the Foundation. These costs include costs for establishing the Foundation, remuneration and out of pocket expenses for the members of the board of the Foundation, commitment fees, advisory fees and certain other costs. During the year ended December 31, 2023, the amounts paid by the Company to or on behalf of the Foundation were $158 (2022: $65).

35. SUBSEQUENT EVENTS

Effective January 1, 2024, the Company will change its organizational structure. This change will result in three corporate entities: AMG Lithium, AMG Vanadium, and AMG Technologies. Each entity will have its own leadership team and operating management. The three new 100% owned subsidiaries have very specific trends and business models, and require very different management skill sets. These three businesses are world leaders in their respective areas: integrated low-cost lithium production, global vanadium recycling, and advanced metallurgy. They will each be managed by newly installed Management Boards practicing the corporate governance principles of AMG Critical Materials N.V., which will exercise its control through respective Supervisory Boards. This updated structure will enable AMG to realize strategic, operational, and risk management synergies that will improve decision making, as well as strengthen the resiliency of the organization. This new structure will decrease the potential for overreliance on individual executives, improve succession planning, and improve collaboration throughout the organization. Additionally, the new structure will create strategic flexibility for various forms of equity diversification.

PARENT COMPANY FINANCIAL STATEMENTS

AMG CRITICAL MATERIALS, N.V. — PARENT COMPANY STATEMENT OF FINANCIAL POSITION (AFTER PROFIT APPROPRIATION)

For the year ended December 31	Note	2023	2022
In thousands of US dollars			
Fixed assets			
Goodwill and other intangible assets	6	9,755	9,758
Tangible fixed assets	5	1,281	1,004
Financial fixed assets			
Investments in subsidiaries	7	478,543	506,399
Equity-accounted investees	7	3,703	—
Dividends declared due from subsidiaries	7	—	27,192
Loans due from subsidiaries	7	260,290	149,289
Deposits and other assets	8	931	1,382
Derivative financial instruments	17	16,254	23,112
Financial fixed assets		759,721	707,374
Total fixed assets		770,757	718,136
Related party receivables	9	12,168	8,841
Loans due from subsidiaries	7	—	13,710
Prepayments and other assets	10	2,139	1,327
Cash and cash equivalents	11	23,807	20,649
Total current assets		38,114	44,527
Total assets		808,871	762,663
Equity			
Issued capital	12	853	853
Share premium	12	553,715	553,715
Foreign currency translation reserve	12	(25,264)	(32,146)
Hedging reserve	12	19,463	27,235
Capitalized development expenditures reserve	12	1,121	930
Defined benefit obligation reserve	12	(53,069)	(43,363)
Fair value reserve	12	4,138	1,741
Cost of hedging reserve	12	1,342	734
Treasury shares	12	(10,593)	(14,685)
Retained earnings (deficit)	12	70,077	(4,461)
Total equity attributable to shareholders of the Company		561,783	490,553
Long-term liabilities			
Long-term debt	13	238,502	240,087
Lease liabilities	17	635	394
Advanced contributions	14	—	11,000
Long-term liabilities		239,137	251,481
Short-term liabilities			
Current portion long-term debt	13	2,500	2,500
Lease liabilities	17	586	528
Amounts due to subsidiaries	15	343	13,599
Other payables	14	4,522	4,002
Short-term liabilities		7,951	20,629
Total liabilities		247,088	272,110
Total equity and liabilities		808,871	762,663

The notes are an integral part of these financial statements.

AMG CRITICAL MATERIALS, N.V. — PARENT COMPANY INCOME STATEMENT

For the year ended December 31	Note	2023	2022
In thousands of US dollars			
Continuing operations			
Revenue		—	—
Restructuring expense		(1,496)	—
Gross loss		(1,496)	—
General and administrative expenses		(33,775)	(29,799)
Other income	2	22,384	25,840
Net other operating income		22,384	25,840
Operating loss		(12,887)	(3,959)
Finance income	3	36,768	11,842
Finance cost	3	(30,046)	(16,188)
Net finance income (cost)		6,722	(4,346)
Share of loss of associates		(3,097)	(1,250)
Loss before income tax		(9,262)	(9,555)
Income tax expense	4	—	—
Loss after tax		(9,262)	(9,555)
Profit from subsidiaries		110,582	197,144
Net profit		101,320	187,589

The notes are an integral part of these financial statements.

NOTES TO PARENT COMPANY FINANCIAL STATEMENTS

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

For details of the Company and its principal activities, reference is made to the consolidated financial statements.

The parent company financial statements have been prepared in accordance with Part 9 of Book 2 of the Netherlands Civil Code, as generally accepted in the Netherlands. In accordance with the provisions of article 362-8 of Book 2 of the Netherlands Civil Code, the accounting policies used in the financial statements are the same as the accounting policies used in the notes to the consolidated financial statements, prepared under IFRS as endorsed by the European Union. Investments in subsidiaries are valued at their net equity value including allocated goodwill.

For a listing of all material operating entities in which the Company has an ownership interest, please refer to note 1 in the consolidated financial statements. The Company has filed a complete list of entities in which AMG has an ownership interest, with the Dutch Chamber of Commerce.

PARTICIPATING INTERESTS IN GROUP COMPANIES

Group companies are all entities in which the Company has direct or indirect control. The Company controls an entity when it is exposed, or has rights, to variable returns from its involvement with the group company and has the ability to affect those returns through its power over the group company. Group companies are recognized from the date on which control is obtained by the Company and derecognized from the date that control by the Company over the group company ceases. Participating interests in group companies are accounted for in the separate financial statements according to the equity method with the principles for the recognition and measurement of assets and liabilities and determination of results as set out in the notes to the consolidated financial statements.

Participating interests with a negative net asset value are valued at nil. This measurement also covers any receivables provided to the participating interests that are, in substance, an extension of the net investment. In particular, this relates to loans for which settlement is neither planned nor likely to occur in the foreseeable future. A share in the profits of the participating interest in subsequent years will only be recognized if and to the extent that the cumulative unrecognized share of loss has been absorbed. If the Company fully or partially guarantees the debts of the relevant participating interest, or if it has the constructive obligation to enable the participating interest to pay its debts (for its share therein), then a provision is recognized accordingly to the amount of the estimated payments by the Company on behalf of the participating interest.

SHARE OF RESULT OF PARTICIPATING INTERESTS

The share in the result of participating interests consists of the share of the Company in the result of these participating interests. Results on transactions involving the transfer of assets and liabilities between the Company and its participating interests and mutually between participating interests themselves, are eliminated to the extent that they can be considered as not realized.

The Company makes use of the option to eliminate intragroup expected credit losses against the book value of loans and receivables from the Company to participating interests, instead of elimination against the equity value / net asset value of the participating interests.

As of December 31, 2023, non-monetary assets and liabilities have been converted to USD using a conversion rate of EUR:USD of 1.1059 (2022: 1.0675).

2. OTHER INCOME

Other income during the year ended December 31, 2023, includes income from management fees charged to subsidiaries of $22,384 (2022: $25,840). The services provided for these fees include general management services and other professional services.

3. FINANCE INCOME AND COST

Finance income during the year ended December 31, 2023, includes interest income from loans to subsidiaries of $17,585 (2022: $6,646) and interest income from bank deposits of $12,196 (2022: $2,319) and other items of $6,987 (2022: $2,877). See note 7 of the consolidated financial statements for additional details. Finance cost during the year ended December 31, 2023, includes interest expense on loans due to subsidiaries of $5,393 (2022: nil), interest expense on external debt of $24,590 (2022: $16,127) and other items of cost $63 (2022: $61). See note 8 in the consolidated financial statements for additional details.

4. INCOME TAXES

AMG Critical Materials N.V. is the head of the fiscal unity that exists for Dutch corporate income tax purposes. As such, the total deferred and current tax assets (liabilities) as well as tax expense (benefit) for all members of the fiscal unity are recorded on the books and records of AMG NV. In the income statement in 2023 and 2022, the Company reported an income tax expense of nil (2022: nil). The taxable loss to be carried forward is reduced by non-deductible expenses and tax-exempt income of $14,308 and $8,548 in 2023 and 2022 respectively, and is primarily related to taxable distributions from Brazil, non-deductible transaction costs, non-deductible share-based compensation expenses as well as stewardship expenses.

During the years ended December 31, 2023 and 2022, the income tax benefits related to the current year losses and other tax attributes of the fiscal unity were not recognized. In total, $1 and $1,297 were not recognized in 2023 and 2022, respectively, as it is not probable that these amounts will be realized.

Deferred tax assets are recognized to the extent it is probable that the temporary differences, unused tax losses and unused tax credits will be realized. The realization of deferred tax assets is reviewed each reporting period and includes the consideration of historical operating results, projected future taxable income and potential tax planning strategies. At December 31, 2023, net operating loss and tax credit carryforwards for which no deferred tax assets have been recognized in the balance sheet amount to $130,063 (2022: $124,768).

5. TANGIBLE FIXED ASSETS

Tangible fixed assets of $1,281 (2022: $1,004) consists primarily of leasehold improvements, leases and office furniture and fixtures. See note 17 for additional details. These are carried at cost less accumulated depreciation and are depreciated over their anticipated useful life. The depreciation during the year ended December 31, 2023, was $722 (2022: $643). All tangible fixed assets are pledged as collateral under the AMG Credit Facility. Refer to note 10 of the consolidated financial statements for additional information.

6. GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill and intangible assets of $9,755 (2022: $9,758) primarily related to the merger of Sudamin Holding SPRL of which $9,702 and $53 includes computer and software licenses. They are carried at cost less accumulated amortization and are amortized over their anticipated useful life. The amortization during the year ended December 31, 2023 was $33 (2022: $34).

7. FINANCIAL FIXED ASSETS

INVESTMENTS IN SUBSIDIARIES

The movement in subsidiaries was as follows:

	Investment in subsidiaries
Balance at January 1, 2022	351,045
Dividend to parent	(49,596)
Investments in companies	647
Loan conversion to equity	—
Intergroup cash pooling conversion to equity	—
Profit for the period	197,144
Change in non-controlling interest	(1,341)
Changes in hedges and fair value hedges	5,226
Loss on FVOCI investments	(267)
Actuarial gains	27,771
Effect of movements in exchange rates	(4,284)
Equity-settled share-based payments	227
Movement of negative participation to loans	(20,173)
Balance at December 31, 2022	506,399
Balance at January 1, 2023	506,399
Dividend to parent	(56,067)
Dividend to parent conversion loan	(95,862)
Investments in companies	16,000
Gain on sale of non-controlling interest	7,867
Profit for the period	110,582
Change in non-controlling interest	(12,361)
Changes in hedges and fair value hedges	(306)
Gain on FVOCI investments	2,397
Actuarial losses	(9,706)
Effect of movements in exchange rates	6,882
Equity-settled share-based payments	(3,744)
Movement of negative participation to loans	6,462
Balance at December 31, 2023	478,543

On March 23, 2023, Zinnwald Lithium Plc (“Zinnwald”) (ZNWD, AIM) issued 118,996,738 of newly issued ordinary shares to the Company for a total subscription amount of $15,189 resulting in a 25.13% shareholding.

In order to streamline and consolidate intercompany lending within the Group, certain transactions were executed in 2023. In addition, in order to align ownership of the Brazil subsidiaries with AMG’s re-segmentation, ownership within the AMG Lithium segment was consolidated.

In terms of intercompany lending transactions, a French subsidiary of the Company distributed its receivable with the cash pool leader (a Germany subsidiary), to the Parent in the amount of $49,402. This transaction resulted in a newly created loan between the Company (Lender) and the German cash pool Leader in the amount of $49,402. In addition, two United Kingdom subsidiaries distributed their cash pool receivables in the amounts of $45,000 and $4,000 to their direct parent, AMG Metallurgical Investment

BV who further distributed those same amounts to the Company. This property distribution transaction resulted in additional loan amounts between the Parent (lender) and the cash pool leader (a Germany subsidiary) in the total amount of $49,000. These transactions totaled $98,402 as of December 31, 2023.

During 2023, our Brazilian subsidiary declared dividends to the Company and AMG Lithium B.V., a subsidiary of the Company, in the amount of $101,213 (2022: $76,340) of which $82,257 were based on their ownership percentage of 65.13% and 34.87%, respectively and $18,956 were based on the new ownership percentage of 99.99% to AMG Lithium BV. As a result, the Company recorded dividends of $56,067 (2022: $49,596) and received payments of $82,559 (2022: $22,404) which resulted in a receivable balance of nil (2022: $27,192). With the goal to better align the Brazilian activities within the Lithium segment, effective October 10, 2023, the Company contributed all but 1 share of its 65.13% ownership in the Brazil operations to is direct subsidiary, AMG Lithium B.V. totaling $48,156. This transaction renders AMG Lithium B.V. the primary owner of the Brazilian operations, with a nominal interest ownership remaining with the Company. Additionally, the Company reimbursed its subsidiary company, AMG Lithium B.V. for dividends paid by Brazil to the Company on behalf of AMG Lithium B.V. This amount totaled $76,042 which included $2,540 of the remaining Brazil dividend included on investment in affiliates and was made available by means of an intercompany loan between AMG Lithium BV (Lender) and the Company (Borrower). The intercompany loans between the Company and AMG Lithium B.V. were further consolidated in a transaction whereby the cash pool leader (a German subsidiary), assigned its loan receivable from AMG Lithium B.V. against its loan payable to the Company. The set-off of these loans resulted in a net position of $15,701 in outstanding loans between the Company (Lender) and AMG Lithium B.V. (Borrower).

The Company and AMG Lithium B.V. entity have two equity accounted investments with a total carrying value of $18,266 related to Shell and AMG Recycling B.V. and Zinnwald totaling $3,703 and $14,563, respectively at the year ended December 31, 2023. Please refer to note 13 in the consolidated financial statements for more information on equity- accounted investees.

CHANGES IN HEDGES AND FAIR VALUE HEDGES

This represents the effect of the Company's subsidiaries recording the changes in their equity from the effective portion of the cumulative net change in the fair value of cash flow hedging instruments related to hedged transactions that have not yet occurred.

EQUITY-SETTLED SHARE-BASED PAYMENTS

Subsidiaries are locally recording the effect of share-based payments for their employees in their equity. The equity balance of the subsidiaries is comprised of the value of equity-settled share based payments provided to employees, including key management personnel, as part of their remuneration. The change in the Company's investment in subsidiary balance is equal to the change recognized in retained earnings at the subsidiaries.

LOANS DUE FROM SUBSIDIARIES

	Non-current loans due from subsidiaries	Current loan due from subsidiaries	Total
Balance at January 1, 2022	61,901	—	61,901
Loans	111,160	—	111,160
Repayments	(33,647)	—	(33,647)
Loan reclassification	(13,710)	13,710	—
Currency translation adjustment	3,412	—	3,412
Movement of negative participation	20,173	—	20,173
Balance at December 31, 2022	149,289	13,710	162,999
Balance at January 1, 2023	149,289	13,710	162,999
Loans	162,317	—	162,317
Repayments	(76,036)	(13,710)	(89,746)
Dividend to parent conversion loan	22,360	—	22,360
Interest conversion to loans	2,723		2,723
Currency translation adjustment	6,099	—	6,099
Movement of negative participation	(6,462)	—	(6,462)
Balance at December 31, 2023	260,290	—	260,290

Loans due from subsidiaries

	Interest rate	Maturity	2023	2022
German subsidiary	9.18%	11/30/2027	130,042	—
German subsidiary	6.00%	12/21/2028	49,000	—
US subsidiary	9.05%	8/10/2027	38,520	45,520
German subsidiary	5.38%	11/30/2026	33,489	93,235
Netherlands subsidiary	9.18%	12/1/2027	15,701	10,534
Brazil subsidiary	5.50%	1/24/2023	—	13,710

During the year ended December 31, 2023, two of the three German non-current loans are euro denominated by the amounts of €117,590 and €30,282 using a conversion rate of EUR:USD of 1.1059 (2022: 1.0675).

8. DEPOSITS AND OTHER ASSETS

The deposit and other assets account include debt issuance costs related to the undrawn amounts on the revolving credit facility and security deposits for the Amsterdam and Frankfurt office locations of the Company. See note 13 for additional information.

9. RELATED PARTY RECEIVABLES

Related party receivables of $12,168 (2022: $8,841) primarily represents management fees owed to the Company of $7,290 (2022: $6,014), interest owed on loans due from subsidiaries of $4,120 (2022: $1,581), and amounts owed by subsidiaries that represent expenses paid for by AMG and billed back to the subsidiaries of $758 (2022: $1,246).

10. PREPAYMENTS AND OTHER ASSETS

At December 31, 2023 and 2022, prepayments primarily represent prepaid insurance for the Company of $2,139 (2022: $1,327).

11. CASH AND CASH EQUIVALENTS

Bank balances earn interest at floating rates based on daily bank deposit rates.

12. SHAREHOLDERS' EQUITY AND OTHER CAPITAL RESERVES

	Equity attributable to shareholders of the parent					
In thousands for US dollars	Issued capital	Share premium	Treasury shares	Other reserves	Retained deficit	Total
Balance at January 1, 2022	853	553,715	(16,596)	(96,421)	(173,117)	268,434
Foreign currency translation	—	—	—	(1,631)	—	(1,631)
Change in fair value of equity investments classified as fair value through other comprehensive income	—	—	—	(267)	—	(267)
Gain on cash flow hedges, net of tax	—	—	—	28,548	—	28,548
Actuarial gain, net of tax	—	—	—	25,118	—	25,118
Net gain recognized through other comprehensive income	—	—	—	51,768	—	51,768
Profit for the year	—	—	—	—	187,589	187,589
Total comprehensive gain for the year	—	—	—	51,768	187,589	239,357
Purchase of common shares	—	—	(1,504)	—	—	(1,504)
Equity-settled share-based payments	—	—	—	—	5,552	5,552
Settlement of share-based payment awards	—	—	3,415	—	(3,475)	(60)
Transfer to retained deficit	—	—	—	(216)	216	—
Change in non-controlling interests	—	—	—	—	(1,341)	(1,341)
Dividend	—	—	—	—	(19,885)	(19,885)
Balance at December 31, 2022	853	553,715	(14,685)	(44,869)	(4,461)	490,553
Balance at January 1, 2023	853	553,715	(14,685)	(44,869)	(4,461)	490,553
Foreign currency translation	—	—	—	5,675	—	5,675
Change in fair value of equity investments classified as fair value through other comprehensive income	—	—	—	2,397	—	2,397
Loss on cash flow hedges, net of tax	—	—	—	(7,164)	—	(7,164)
Actuarial loss, net of tax	—	—	—	(8,499)	—	(8,499)
Net loss recognized through other comprehensive income	—	—	—	(7,591)	—	(7,591)
Profit for the year	—	—	—	—	101,320	101,320
Total comprehensive (loss) gain for the year	—	—	—	(7,591)	101,320	93,729
Purchase of common shares	—	—	(6,960)	—	—	(6,960)
Equity-settled share-based payments	—	—	—	—	5,799	5,799
Settlement of share-based payment awards	—	—	11,052	—	(10,684)	368
Transfer to retained deficit	—	—	—	191	(191)	—
Gain on sale of non-controlling interest	—	—	—	—	18,867	18,867
Change in non-controlling interests	—	—	—	—	(12,361)	(12,361)
Dividend	—	—	—	—	(28,212)	(28,212)
Balance at December 31, 2023	853	553,715	(10,593)	(52,269)	70,077	561,783

OTHER RESERVES

	Legal reserves						
	Foreign currency translation reserve	Hedging reserve	Cost of hedging reserve	Capitalized development expenditures reserve	Fair value reserve	Defined benefit obligation reserve	Total
Balance at January 1, 2022	(27,862)	(962)	383	1,146	2,008	(71,134)	(96,421)
Currency translation differences	(4,284)	—	—	—	—	2,653	(1,631)
Loss on FVOCI investments	—	—	—	—	(267)	—	(267)
Movement on cash flow hedges	—	29,332	520	—	—	—	29,852
Tax effect on net movement on cash flow hedges	—	(1,135)	(169)	—	—	—	(1,304)
Actuarial gains on defined benefit plans	—	—	—	—	—	35,969	35,969
Tax effect on net movement on defined benefit plans	—	—	—	—	—	(10,851)	(10,851)
Transfer to retained deficit	—	—	—	(216)	—	—	(216)
Balance at December 31, 2022	(32,146)	27,235	734	930	1,741	(43,363)	(44,869)
Balance at January 1, 2023	(32,146)	27,235	734	930	1,741	(43,363)	(44,869)
Currency translation differences	6,882	—	—	—	—	(1,207)	5,675
Gain on FVOCI investments	—	—	—	—	2,397	—	2,397
Movement on cash flow hedges	—	(7,832)	758	—	—	—	(7,074)
Tax effect on net movement on cash flow hedges	—	60	(150)	—	—	—	(90)
Actuarial loss on defined benefit plans	—	—	—	—	—	(11,739)	(11,739)
Tax effect on net movement on defined benefit plans	—	—	—	—	—	3,240	3,240
Transfer to retained deficit	—	—	—	191	—	—	191
Balance at December 31, 2023	(25,264)	19,463	1,342	1,121	4,138	(53,069)	(52,269)

EQUITY-SETTLED SHARE-BASED PAYMENTS

The value of equity-settled share-based payments provided to employees, including key management personnel, as part of their remuneration is recognized in equity. The amount reserved for share-based payments is recorded within retained earnings.

LEGAL RESERVES

AMG is a company incorporated under Dutch law. In accordance with the Dutch Civil Code, legal reserves have to be established in certain circumstances. The legal reserves consisted of the cumulative translation adjustment reserve, the unrealized losses on derivatives reserve, the legal participation reserve, the investment reserve and the capitalized development expenditures reserve. Legal reserves are non-distributable to the Company's shareholders.

DIVIDENDS

Dividends of $28,212 have been declared and paid during the year ended December 31, 2023. Dividends of $19,885 have been declared and paid during the year ended December 31, 2022.

APPROPRIATION OF NET PROFIT

Pursuant to section 26 of the Articles of Association, the Management Board shall, subject to the approval of the Supervisory Board, be authorized to reserve the profits in whole or in part. The General Meeting is authorized to distribute and/or reserve any remaining part of the profits.

AMG's Supervisory Board continues to follow its previously adopted dividend policy. While AMG has cyclical elements in its product mix, the goal of the policy is to achieve a relatively consistent dividend pay-out. The policy allows for stable dividend pay-outs and targets gradual increases to historic dividend level, provided that such pay-outs and possible increases are supported by AMG's liquidity and cash flow generation, and is subject to prevailing statutory requirements. AMG intends to declare a dividend of €0.60 per ordinary share over the financial year 2023. The interim dividend of €0.40, paid on August 9, 2023, will be deducted from the amount to be distributed to shareholders. The proposed final dividend per ordinary share therefore amounts to €0.20.

Preference shares

In July 2010, the foundation "Stichting Continuiteit AMG" ("Foundation") was established following the resolution adopted at its Annual Meeting on May 12, 2010. The board of the Foundation consists of three members, all of whom are independent of AMG. The purpose of the Foundation is to safeguard the interests of the parent company, the enterprise connected therewith and all the parties having an interest therein and to exclude as much as possible influences which could threaten, amongst other things, the continuity, independence and identity of the parent company contrary to such interests.

By agreement on December 22, 2010, between the parent company and the Foundation, the Foundation has been granted a call option pursuant to which it may purchase a number of preference shares up to a maximum of the number of ordinary shares issued and outstanding with third parties at the time of exercise of the option. The agreement cannot be terminated by the Company as long as the Company has not cancelled, or repurchased preferences shares acquired by the Foundation.

13. LONG-TERM DEBT

On November 30, 2021, the Company, Metallurg, Inc. and AMG Invest GmbH entered into a new $350,000, 7-year senior secured term loan B facility ("term loan") and a $200,000 5-year senior secured revolving credit facility ("revolver"). The Company directly borrowed $250,000 of the $350,000 senior secured term loan B facility. As of December 31, 2023, the total carrying value of the term loan was $241,002 (2022: $242,587).

AMG Critical Materials N.V. is one of the borrowers under the revolving credit facility. Refer to note 22 in the consolidated financial statements for additional information relating to the long-term debt.

As of December 31, 2023, there was an asset of $868 (2022: $1,321) related to debt issuance costs incurred on the undrawn portion of the revolving credit facility. This is included in deposits and other assets on the statement of financial position. See note 8 for additional details.

To mitigate interest rate risk, the Company entered into interest rate swaps totaling $250,000 in connection with the execution of the Term Loan B and revolving credit facility. This determination was made as part of the ongoing risk management process as these instruments mitigate the interest rate risk on the Company's credit facility. See note 30 in the consolidated financial statements for additional information on the interest rate hedging activities.

14. OTHER PAYABLES

Trade and other payables represent amounts owed to professional service firms, accrued employee costs and accrued interest. There was $124 payable to Dutch tax authorities for wage taxes as of December 31, 2023 (2022: $189).

During the year ended December 31,2022 the Company agreed to a strategic partnership with JX Metals Corporation ("JXM") for the production and supply of tantalum concentrate. Per the terms of the agreement, JXM made a total of $25,000 cash contribution which were received in two payments of $11,000 as of December 31, 2022 and $14,000 as of December 31, 2023. See note 27 in the consolidated financial statements for additional information.

15. AMOUNTS DUE TO SUBSIDIARIES

Certain payroll, travel and entertainment and other expenses, are paid directly by one subsidiary and billed to the Company at cost as well as dividend payments received on behalf of a subsidiary.

As of December 31, 2023 and 2022, these amounted to $343 and $13,599, respectively. The decrease was mainly driven by dividend payments from our Brazil subsidiary that were held by the Company on behalf of our Lithium B.V. subsidiary and converted to loans as of December 31, 2023.

16. DERIVATIVE FINANCIAL INSTRUMENTS

Please refer to notes 29 and 30 in the consolidated financial statements for more information on financial instruments and risk management policies.

INTEREST RATE HEDGES

The Company entered into interest rate swap contracts with two financial institutions in connection with the execution of its credit facility. The contracts have a notional value equivalent to the total balance of the term loan B. The contracts swap the variable interest payments on the term loan B to fixed payments of interest. The interest rate caps related to the prior credit facility were unwound and replaced by these contracts. The interest rate swaps were executed so that the Company could hedge its exposure to changes in the benchmark interest rate on the term loan B facility. The Company has matched the critical terms of the swaps to the term loan B and consequently has designated the interest rate swaps as effective cash flow hedges. The amount of gains related to the interest rate hedges included in equity was $16,254 and $23,112 in the years ended December 31, 2023 and 2022, respectively. The amount included in equity is anticipated to impact the income statement through November 2026, which is the term of the contracts. During the years ended December 31, 2023 and 2022, ($9,059) and ($946) was transferred from equity to the income statement as a decrease to finance costs. There was no ineffectiveness for contracts designated as cash flow hedges during the years ended December 31, 2023 and 2022, respectively.

At December 31, 2023, a balance of $16,254 (2022: $23,112) related to the interest rate swaps was recorded as a non-current derivative asset.

17. LEASES

The Company has entered into leases for office space in Amsterdam and Frankfurt. The Amsterdam lease term originally had a termination date of March 31, 2013, but it has since been extended through March 2024. The Frankfurt lease term has an unlimited term but can be cancelled with six months' notice beginning December 31, 2012. See note 31 in the consolidated financial statements for additional information on leases.

Set out below are the carrying amounts of the Company's right-of-use assets, which are included in property plant and equipment in the statement of financial position, and lease liabilities as well as the movements during the year:

	Right-of-use assets				
	Land, buildings and improvements	Machinery and equipment	Furniture and fixtures	Total	Lease liabilities
Balance at January 1, 2022	1,228	153	30	1,411	1,489
Additions	—	48	—	48	48
Depreciation expense	(521)	(71)	(16)	(608)	—
Interest expense	—	—	—	—	62
Payments	—	—	—	—	(677)
Foreign currency translation	—	—	—	—	—
Balance at December 31, 2022	707	130	14	851	922
Balance at January 1, 2023	707	130	14	851	922
Additions	828	102	6	936	936
Retirements and transfers	—	4	—	4	4
Depreciation expense	(593)	(75)	(22)	(690)	—
Interest expense	—	—	—	—	63
Payments	—	—	—	—	(704)
Foreign currency translation	—	—	—	—	—
Balance at December 31, 2023	942	161	(2)	1,101	1,221

18. RELATED PARTIES

Key management compensation data is disclosed in note 34 of the consolidated financial statements.

The Company entered into a cost compensation agreement with the Foundation dated December 22, 2010 (see note 12). As per the agreement, the Company is required to provide funds to the Foundation for the costs incurred in connection with the fulfillment of the objectives of the Foundation.These costs include costs for establishing the Foundation, remuneration and out-of-pocket expenses for the members of the board of the Foundation, commitment fees, advisory fees and other costs. During the year ended December 31, 2023, the Company funded $158 (2022: $65).

19. EMPLOYEES BENEFITS AND NUMBER OF EMPLOYEES

During the year ended December 31, 2023, the Company recorded wages and salaries of $18,851 (2022: $18,552), social security charges of $934 (2022: $650) and pension charges of $746 (2022: $653) related to the employees of the Company which is included in general and administrative expenses in the income statement. During the year ended December 31, 2023, the average number of staff employed by the Company, converted into a full-time equivalents, amounted to 29 employees (2022: 27), of which 26 (2022: 24) were employed outside the Netherlands.

20. AUDIT FEES

KPMG has served as our independent auditor for the year ending December 31, 2023 and 2022. The following table sets out the aggregate fees for professional audit services and other services rendered by KPMG and their member firms and/or affiliates in 2023:

	2023			2022		
	KPMG Accountants N.V USD' 000	**KPMG Network USD' 000**	**Total**	KPMG Accountants N.V USD' 000	KPMG Network USD' 000	Total
Group financial statements	852	1,550	2,402	790	1,266	2,056
Audit of statutory financial statements	—	320	320	—	325	325
Other assurance services*	299	47	346	486	15	501
Other non-assurance services	—	26	26	—	32	32
Total	1,151	1,943	3,094	1,276	1,638	2,914

*The other assurance services in 2023 by the amount of $346 (2022: $501) mainly related to the audit of AMG Lithium's carve-out financial statements.

AMSTERDAM, MARCH 13, 2024

MANAGEMENT BOARD

AMG CRITICAL MATERIALS N.V.

AMSTERDAM, MARCH 13, 2024

Dr. Heinz Schimmelbusch

Eric Jackson

Jackson Dunckel

AMSTERDAM, MARCH 13, 2024

SUPERVISORY BOARD

AMG CRITICAL MATERIALS N.V.

AMSTERDAM, MARCH 13, 2024

Steve Hanke, Chairman

Willem van Hassel, Vice Chairman

Herb Depp

Donatella Ceccarelli

Warmolt Prins

Anne Roby

OTHER INFORMATION

Article 25 and 26 of the Articles of Association

25. Adoption of Annual Accounts

25.1 The annual accounts shall be adopted by the general meeting.

25.2 Without prejudice to the provisions of article 23.2, the company shall ensure that the annual accounts, the annual report and the additional information that should be made generally available together with the annual accounts pursuant to or in accordance with the law, are made generally available from the day of the convocation of the general meeting at which they are to be dealt with.

25.3 The annual accounts cannot be adopted if the general meeting has not been able to take notice of the auditor's report, unless a valid ground for the absence of the auditor's report is given under the other additional information referred to in article 25.2.

26.1 The management board shall, subject to the approval of the supervisory board, be authorized to reserve the profits wholly or partly.

KPMG

INDEPENDENT AUDITOR'S REPORT

To: the General Meeting of Shareholders and the Supervisory Board of AMG Critical Materials N.V.

Report on the audit of the financial statements 2023 included in the annual report

Our opinion

In our opinion:

- the accompanying consolidated financial statements give a true and fair view of the financial position of AMG Critical Materials N.V. (herein referred to as "the Company", "AMG") as at 31 December 2023 and of its result and its cash flows for the year then ended, in accordance with IFRS Accounting Standards as endorsed by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code.
- the accompanying parent company financial statements give a true and fair view of the financial position of AMG as at 31 December 2023 and of its result for the year then ended in accordance with Part 9 of Book 2 of the Dutch Civil Code.

What we have audited

We have audited the financial statements 2023 of AMG based in Amsterdam. The financial statements include the consolidated financial statements and the parent company financial statements.

The consolidated financial statements comprise:

1 the consolidated statement of financial position as at 31 December 2023;

2 the following consolidated statements for the year 2023: the income statement, the statements of other comprehensive income, changes in equity and cash flows; and

3 the notes comprising material accounting policy information and other explanatory information.

The parent company financial statements comprise:

1 the parent company statement of financial position as at 31 December 2023;

2 the parent company income statement for the year 2023; and

3 the notes comprising a summary of the accounting policies and other explanatory information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the ‘Our responsibilities for the audit of the financial statements’ section of our report.

We are independent of AMG in accordance with the ‘Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten’ (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the ‘Verordening gedrags- en beroepsregels accountants’ (VGBA, Dutch Code of Ethics).

We designed our audit procedures in the context of our audit of the financial statements as a whole and in forming our opinion thereon. The information in respect of going concern, fraud and non-compliance with laws and regulations, climate and the key audit matters was addressed in this context, and we do not provide a separate opinion or conclusion on these matters.

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Information in support of our opinion

Summary

Materiality
• Materiality of USD 10 million
• 4.1% of 3 years' average EBITDA
Group audit
• Audit coverage of 89% of total assets
• Audit coverage of 89% of revenue
Risk of material misstatements related to Fraud, NOCLAR, Going concern and Climate risks
• Fraud risks: presumed risk of management override of controls and presumed risk of fraudulent revenue recognition identified and further described in the section 'Audit response to the risk of fraud and non-compliance with laws and regulations'.
• Non-compliance with laws and regulations ('NOCLAR') risks: risk of material misstatement related to NOCLAR risks identified for certain contracts entered into by AMG during 2023 with a counterparty based in a country with a relatively low score in the Corruption Perceptions Index. This has been further described in the section 'Audit response to the risk of fraud and non-compliance with laws and regulations'.
• Going concern risks: no risk of material misstatement with respect to the use of the going concern assumption identified and described in the section 'Audit response to going concern'.
• Climate risks: We have considered the impact of climate-related risks on the financial statements and described our approach and observations in the section 'Audit response to climate-related risks'.
Key audit matter
• Revenue recognition for the sale of goods and furnace construction contracts.

Materiality

Based on our professional judgement we determined the materiality for the financial statements as a whole at USD 10 million (2022: USD 7.5 million). The materiality is determined with reference to a three year's average EBITDA. Compared to the previous year, we have changed the benchmark for determining materiality from a three years' average revenue-based metric to a three years' average EBITDA-based metric. We consider EBITDA a more representative metric to assess the Company's performance compared to revenue, and furthermore our professional standards now also permit the use of EBITDA-based benchmark metrics. The increase in our materiality is due to an increase in the overall performance as a result of which the overall risk profile decreased. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We agreed with the Supervisory Board that unadjusted misstatements identified during our audit in excess of USD 500 thousand would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

Scope of the group audit

AMG is at the head of a group of components. The financial information of this group is included in the financial statements of AMG.

Our group audit mainly focused on significant components. These are components that are (i) of individual financial significance to the group, or (ii) that, due to their specific nature or circumstances, are likely to include significant risks of material misstatement in our audit of the group financial statements. We identified 7 significant components audited by component audit teams and 1 significant component, the parent company, which is audited by the group team.

We requested all component auditors of significant components to perform an audit of the complete reporting package ('full scope'). We instructed 3 component auditors to perform an audit of specific items and/or specified audit procedures ('specific scope') for non-significant components within the group. As group team we audited the parent company, considered to be a significant component and audited certain account balances in non-significant components.

We have:

- performed audit procedures at the group level, to the extent considered required based on our group risk assessment, for certain account balances, such as group share-based payment plans and derivatives entered into at the group level;
- made use of the audit procedures performed by other KPMG component auditors in Germany, the Netherlands, France, the United Kingdom, the United States, China and Brazil.

For the residual population not in scope we performed analytical procedures in order to corroborate that our scoping remained appropriate throughout the audit.

By performing the procedures mentioned above at group components, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about the group's financial information to provide an opinion about the financial statements.

The audit coverage as stated in the section summary can be further specified as follows:

Total assets

79%	9%	1%
Audit of the complete reporting package	Audit of specific items	Specified audit procedures

Revenue

86%	1%	2%
Audit of the complete reporting package	Audit of specific items	Specified audit procedures

Audit response to the risk of fraud and non-compliance with laws and regulations

In chapter 'Risk Management & Internal Controls' of the annual report, the Management Board describes its procedures in respect of the risk of fraud and non-compliance with laws and regulations and the Supervisory Board reflects on this in the chapter 'Report of the Supervisory Board' of the Annual Report.

As part of our audit, we have gained insights into the Company and its business environment and the Company's risk management in relation to fraud and non-compliance. Our procedures included, among other things, assessing AMG's code of conduct, speak up and reporting policy and inspection of the incidents register. Furthermore, we performed relevant inquiries with the Management Board and the Supervisory Board and other relevant functions, such as Internal Audit, Legal Counsel and Chief Compliance Officer. We have also incorporated elements of unpredictability in our audit, as described below.

As a result of our risk assessment, we identified the following laws and regulations as those most likely to have an indirect effect on the financial statements, that could materialize in case of non-compliance: competition legislation, employment legislation, anti-bribery and corruption laws and regulations, environmental and mining legislation and health and safety legislation.

Risks of fraud

Based on the above and on the auditing standards, we identified the following fraud risks that are relevant to our audit, which are the relevant presumed fraud risks laid down in the auditing standards, and responded as follows:

Management override of controls (a presumed risk)

Risk:

- Management is in a unique position to manipulate accounting records and prepare fraudulent financial statements by overriding controls that otherwise appear to be operating effectively.

Responses:

- We evaluate the design and the implementation of internal controls that mitigate fraud risk, such as the internal controls related to journal entries.

- We defined and tested high-risk journal entries based on our risk assessment procedures. We have instructed component audit teams to test at least journal entries for certain unexpected account combinations. These procedures included testing of journal entries back to source information.
- We verified the accuracy of material post-closing entries recorded in the general ledger and in the group consolidation.
- We instructed component auditors to evaluate key estimates and judgments for which the component auditor identified a risk of material misstatement for bias by the Management Board or local management, including retrospective reviews of prior year's estimates with respect to certain provisions related to AMG's production facilities and mining operations; such as the restoration provision and the provision for litigation and claims. We requested component auditors to assess the appropriateness of changes in estimates compared with the prior year regarding the methods applied and underlying assumptions used to prepare accounting estimates.
- We incorporated elements of unpredictability in our audit, such as the inspection of the statutory audit report of an entity which is not in scope for group reporting and performing a site visit at a component which is not material to the group and has not been visited in prior years.

Revenue recognition (a presumed risk)

Our procedures to address the fraud risk related to revenue recognition are included in the key audit matter.

Risk of non-compliance with laws and regulations

Non-compliance with anti-bribery and corruption laws and regulation

Risk:

As described in the annual report under 'Risk Management & Internal Controls, Legal and Regulatory Risk', the Company is required to comply with anti-bribery and corruption laws. In case of possible non-compliance with such regulation, the Company could be subjected to fines and penalties. Consequently, we have identified a risk of material misstatement associated with potential non-compliance with anti-bribery and corruption laws in the situation where the Company entered into a new contract during 2023 with a party in a country with a relatively low score in the Corruption Perceptions Index. Below responses include the work performed at the group level as well as the work performed at the component level based on our specific instructions to component auditors.

Responses:

- We gained insight in the corporate policies in place related to compliance with anti-bribery and corruption laws and regulations.
- We inquired management and relevant representatives about significant new contracts.
- We inspected the significant new contracts and verified these were appropriately authorized and we reviewed whether uncommon conditions outside the normal business practice were included in the contract.
- We inspected minutes of the meetings of the Management Board and Supervisory Board.

Our evaluation of procedures performed related to fraud and non-compliance with laws and regulations did not result, except for the risk of fraudulent revenue recognition, in any other key audit matter.

We communicated our risk assessment, audit responses and results to the Management Board and the Audit Committee of the Supervisory Board.

Our audit procedures did not reveal indications and/or reasonable suspicion of fraud and non-compliance that are considered material for our audit.

Audit response to going concern

The Management Board has performed its going concern assessment and has not identified any going concern risks. To assess the Management Board's assessment, we considered whether the Management Board's assessment of the going concern risks includes all relevant information of which we are aware as a result of our audit. Specifically we:

- considered whether developments within and around AMG indicate a going concern risk;
- inquired with the Management Board on the key assumptions and principles underlying the Management Board's assessment of the going concern risks;
- analyzed AMG's financial position as at year-end and compared it to the previous financial year in terms of indicators that could identify going concern risks;
- analyzed whether the headroom of the ratios included in the financing agreement is sufficient or gives rise to the risk of the covenants in the financing agreement being breached.

The outcome of our risk assessment procedures did not give reason to perform additional audit procedures on management's going concern assessment.

Audit response to climate-related risks

The Company has set out its commitments relating to climate change in the 'Sustainable Development' chapter of the annual report. The commitments relate to a reduction of direct (i.e., Scope 1 and 2) CO2 emissions by 2030 from a baseline of 2019, adjusted for the startup of the Zanesville facility, by 20%, as set out in sub section 'Sustainability Strategy & Governance' in the annual report. The Company has assessed, against the background of its business and operations, how climate-related risks and opportunities and the Company's own commitments could have a significant impact on its business or could impose the need to adapt its strategy and operations.

Management has considered the impact of both transition and physical risks on the financial statements in accordance with the applicable financial reporting framework. In the 'Climate Change Risk and Opportunity' section of the chapter 'Risk Management & Internal Controls', further elaboration is provided on physical risk and transition risk.

Management prepared the financial statements, including considering whether the implications from climate-related risks and commitments have been appropriately accounted for and disclosed. Based on the climate risk analysis and modelling scenarios performed, management has not identified any risks which would have a material effect on amounts and disclosures as included in the financial statements as at December 31, 2023.

As part of our audit we performed a risk assessment of the impact of climate-related risk and the commitments made by the Company in respect of climate change on the financial statements and our audit approach. In doing this we performed the following:

- Understanding management's processes of assessing climate-related risks and opportunities based on enquiries with the Management Board and the Company's in-house sustainability experts.
- Discussing climate risk and related topics with AMG's Safety, Sustainability and Science Committee.
- Inspecting and discussing management's internal documentation of the assessment of physical risk and transitional risk, and inspecting a transition climate risk analysis report that was prepared by a third party under the responsibility of management.
- Evaluating climate-related fraud risk factors, such as for climate-related targets that may cause pressure coming from external stakeholders or from internal factors as certain ratios are included in management compensation plans. We have assessed whether this results in a risk of material misstatement of the financial statements due to fraud.

Based on the procedures performed above we found climate related risks have no material impact on the current financial statements under the requirements of International Financial Reporting Standards as endorsed by the European Union and no material impact on our key audit matters.

Furthermore we have read the 'Other information' with respect to climate-related risks as included in the annual report to assess whether there are any material inconsistencies with the financial statements, our knowledge obtained through the audit, in particular as described above, and our knowledge obtained otherwise.

Our key audit matter

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements. We have communicated the key audit matters to the Supervisory Board. The key audit matters are not a comprehensive reflection of all matters discussed.

Revenue recognition for the sale of goods and furnace construction contracts

Revenue recognition for the sale of goods

Description

As described in note 5 of the financial statements, revenue for sales of goods is recognized at the amount of the consideration to which the Company expects to be entitled at the point in time at which the performance obligation is satisfied. The assessment as to whether the performance obligation has been satisfied requires consideration of incoterms and delivery time. Revenue recognition is significant to our audit and contains a risk of fraud in respect of cut-off at year-end. Revenue from the sale of goods is fully audited by component auditors based on our instructions.

Our response

Our procedures responsive to the identified fraud risk for revenue cut-off included, amongst others:

- assessment of the revenue recognition method, including assessment of the relevant cut-off period;
- gained an understanding over significant customer contracts, understand at which point in time the performance obligation is satisfied and assessed other relevant contract conditions for significant sales contracts, to verify that revenue is appropriately recognized in accordance with the contract and IFRS 15;
- evaluated the design and implementation of the controls set up by management mitigating the risk of inappropriate revenue cut-off;
- performed test of detail audit procedures for a selection of transactions within the relevant cut-off period. For the selected items we inspected various documents, which may include underlying sales contracts, sales orders, shipping documents and sales invoices to determine the revenue for selected items was recognized in the appropriate accounting period;
- performed test of detail in case of material credit notes issued in the subsequent financial year. For the selected items we inspected the credit note and the original sales invoice and journal entries for the original invoice and proof of delivery and verified the appropriate accounting treatment for selected items;
- assessed the adequacy of the disclosures related to revenue in the notes to the financial statements.

Our observation

Based on our procedures performed for revenue recognition we conclude that revenue recognized at a point in time is recorded in the appropriate accounting period and disclosed in accordance with EU-IFRS.

Revenue recognition for furnace construction contracts

Description

Revenue related to furnace construction contracts is recorded over time based on the progress made towards complete satisfaction of the contract as determined by the Management Board. Revenue is recognized based on an overall engineering design plan and a calculation of the progress made over time towards complete satisfaction of the project, based on work performed in-house and by suppliers. Revenue recognition is significant to our audit and contains a risk of fraud in respect of the appropriate revenue recognition (determination of progress and expected project margin) at year-end. This risk is concentrated at one component and we instructed the component auditor to perform the audit procedures described below:

Our response

Our procedures responsive to the identified fraud risk for revenue cut-off included, amongst others:

- assessment of the revenue recognition method, including assessment of the relevant cut-off period;
- gained an understanding over significant customer contracts, obtained an understanding on how the performance obligation is satisfied over time and assessed other relevant contract conditions for significant sales contracts, to verify that revenue has been appropriately recognized in accordance with the contract and IFRS 15;
- evaluated the design and implementation of the controls set up by the Management Board including controls with respect to determining the progress, the cost to complete a contract and the expected project margin as well as cost allocation controls;
- tested the information included in the project administration with underlying source documentation, such as expected project revenues and actual project expenses, for example by requesting third party confirmations for certain significant cost items that have been outsourced to suppliers;
- recalculated the progress for selected projects at the balance sheet date;
- performed test of details over selected construction contracts, which included interviews with financial and technical project managers and inspection of the underlying project administration and project forecasts;
- assessed the adequacy of the disclosures related to revenue in the notes to the financial statements.

Our observation

Based on our procedures performed for revenue recognition we conclude that revenue related to furnace construction contracts is recorded in accordance with the progress of the contract and the estimated margin is considered reasonable, and disclosed in accordance with EU-IFRS.

Report on the other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the annual report contains other information.

Based on the following procedures performed, we conclude that the other information:

- is consistent with the financial statements and does not contain material misstatements; and
- contains the information as required by Part 9 of Book 2 of the Dutch Civil Code for the management report and other information.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is less than the scope of those performed in our audit of the financial statements.

The Management Board is responsible for the preparation of the other information, including the information as required by Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements and ESEF

Engagement

We were firstly engaged by the General Meeting of Shareholders as auditor of AMG on 4 May 2016, as of the audit for the year 2016 and have operated as statutory auditor ever since that financial year.

No prohibited non-audit services

We have not provided prohibited non-audit services as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audits of public-interest entities.

European Single Electronic Format (ESEF)

AMG has prepared its annual report in ESEF. The requirements for this are set out in the Delegated Regulation (EU) 2019/815 with regard to regulatory technical standards on the specification of a single electronic reporting format (hereinafter: the RTS on ESEF).

In our opinion the annual report prepared in XHTML format, including the (partly) marked-up consolidated financial statements as included in the reporting package by AMG, complies in all material respects with the RTS on ESEF.

The Management Board is responsible for preparing the annual report including the financial statements in accordance with the RTS on ESEF, whereby the Management Board combines the various components into one single reporting package.

Our responsibility is to obtain reasonable assurance for our opinion whether the annual report in this reporting package complies with the RTS on ESEF. We performed our examination in accordance with Dutch law, including Dutch Standard 3950N 'Assurance-opdrachten inzake het voldoen aan de criteria voor het opstellen van een digitaal verantwoordingsdocument' (assurance engagements relating to compliance with criteria for digital reporting). Our examination included among others:

- Obtaining an understanding of the entity's financial reporting process, including the preparation of the reporting package;
- Identifying and assessing the risks that the annual report does not comply in all material respects with the RTS on ESEF and designing and performing further assurance procedures responsive to those risks to provide a basis for our opinion, including:
  - Obtaining the reporting package and performing validations to determine whether the reporting package containing the Inline XBRL instance document and the XBRL extension taxonomy files have been prepared in accordance with the technical specifications as included in the RTS on ESEF;
  - Examining the information related to the consolidated financial statements in the reporting package to determine whether all required mark-ups have been applied and whether these are in accordance with the RTS on ESEF.

Description of responsibilities regarding the financial statements

Responsibilities of the Management Board and the Supervisory Board for the financial statements

The Management Board is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code. Furthermore, the Management Board is responsible for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error. In that respect the Management Board, under supervision of the Supervisory Board, is responsible for the prevention and detection of fraud and non-compliance with laws and regulations, including determining measures to resolve the consequences of it and to prevent recurrence.

As part of the preparation of the financial statements, the Management Board is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the Management Board should prepare the financial statements using the going concern basis of accounting unless the Management Board either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so. The Management Board should disclose events and circumstances that may cast significant doubt on the Company's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for overseeing the Company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our objective is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

A further description of our responsibilities for the audit of the financial statements is included in the appendix of this auditor's report. This description forms part of our auditor's report.

Amstelveen, March 13, 2024

KPMG Accountants N.V.

J. Schrumpf RA

Appendix:
Description of our responsibilities for the audit of the financial statements

We have exercised professional judgement and have maintained professional scepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit included among others:

- identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than the risk resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control;
- evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Management Board ;
- concluding on the appropriateness of the Management Board'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 AMG's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a company to cease to continue as a going concern;
- evaluating the overall presentation, structure and content of the financial statements, including the disclosures; and
- evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We are solely responsible for the opinion and therefore responsible to obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the financial statements. In this respect we are also responsible for directing, supervising and performing the group audit.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identify during our audit. In this respect we also submit an additional report to the Audit Committee of the Supervisory Board in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audits of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Supervisory Board, we determine the key audit matters: those matters that were of most significance in the audit of the financial statements. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

SHAREHOLDER INFORMATION

MANAGEMENT BOARD

Dr. Heinz Schimmelbusch

Chairman and Chief Executive Officer

Eric Jackson

Chief Operating Officer

Jackson Dunckel

Chief Financial Officer

SUPERVISORY BOARD

Steve Hanke

Chairman

Selection & Appointment Committee (Chair)

Willem van Hassel

Vice Chairman

Audit & Risk Management Committee

Herb Depp

Remuneration Committee (Chair)

Donatella Ceccarelli

Audit & Risk Management Committee (Chair)

Selection & Appointment Committee

Warmolt Prins

Audit & Risk Management Committee

Safety, Sustainability, and Science (3S) Committee

Anne Roby

Safety, Sustainability, and Science (3S) Committee (Chair)

Remuneration Committee

LISTING AGENT

ABN AMRO

PAYING AGENT

ABN AMRO

EURONEXT: AMG

Trade Register

TRADE REGISTER

AMG Critical Materials N.V. is registered with the trade register in the Netherlands under no. 34261128

COPIES OF THE ANNUAL REPORT

and further information can be obtained from the Investor Relations Department of the Company or by accessing the Company's website:

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info@amg-nv.com

WEBSITE

amg-nv.com

This document is the PDF/printed version of AMG Critical Materials N.V.'s 2023 annual report in the European single electronic reporting format (ESEF) and has been prepared for ease of use. The ESEF reporting package is available on the company's website. In case of any discrepancies between this PDF version and the ESEF reporting package, the latter prevails.

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