ENABLING A GREENER FUTURE

AMG ADVANCED METALLURGICAL GROUP N.V.
ANNUAL REPORT 2017

GLOBAL TRENDS
CO_2 emission reduction, population growth, increasing affluence, and energy efficiency

SUPPLY
AMG sources, processes and supplies the critical materials that the market demands

DEMAND
Innovative new products that are lighter, stronger, and resistant to higher temperatures

CRITICAL MATERIALS COMPANY

AT A GLANCE

AMG is a global critical materials company at the forefront of CO_2 reduction trends. AMG produces highly engineered specialty metals and mineral products and provides vacuum furnace systems and services to the transportation, infrastructure, energy and specialty metals & chemicals end markets.

_Transportation

Innovation is driving demand for critical materials in the transportation industry. Highly engineered metallurgical solutions are needed to increase operating efficiency, lower aircraft weight and improve economics. AMG's gamma titanium aluminide is a lightweight aerospace alloy which enables aircraft engines to operate at higher temperatures, reducing carbon emissions and improving fuel consumption.

_Energy

Global energy demand growth is driven by two opposing factors—increased energy usage and improvements in energy efficiency. AMG provides metallurgical technologies to improve energy efficiency and increase energy supply, like silicon metal used for the production of polysilicon by the solar energy industry.

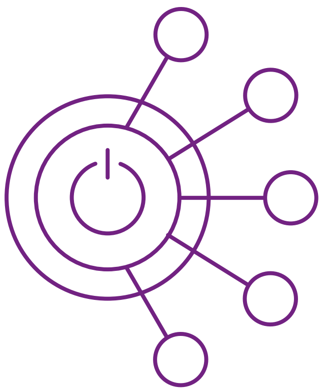
_Infrastructure

Improvements in infrastructure are essential to growing global GDP and reducing carbon emissions. AMG provides critical materials such as ferrovanadium for high-strength steels, and graphite that is used to improve the insulating performance of homes and buildings. These technologies are deployed in infrastructure projects that are critical to addressing global urbanization trends.

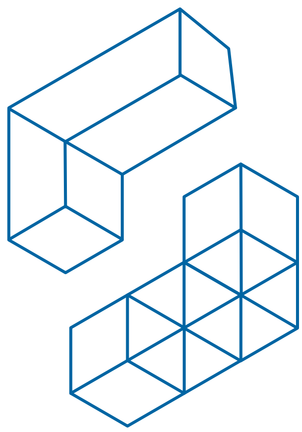
_Specialty Metals & Chemicals

Specialty metals and chemicals are used to create products that improve global living standards. AMG produces customized metallurgical 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.

OUR SEGMENTS



— AMG Critical Materials



— AMG Engineering

GLOBAL CRITICAL MATERIALS FOOTPRINT

USA
V Ni Mo Al
- Aluminum Master Alloys
- Nickel, Ferrovanadium
- Molybdenum

Brazil
Ta Al Nb Li
- Tantalum
- Aluminum Master Alloys
- Niobium
- Lithium

Czech Republic
C
- Natural Graphite

United Kingdom
Al Cr
- Aluminum Master Alloys
- Aluminum Powders
- Chrome Metal

France
Sb
- Antimony

Germany
Ti Si C
- Titanium Alloys and Coatings
- Natural Graphite
- Silicon Metal

China
Al C
- Aluminum Master Alloys
- Natural Graphite

Sri Lanka
C
- Natural Graphite

Mozambique
C
- Natural Graphite

Mexico
Al
- Aluminum Master Alloys

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 re-appointed for a term of four years on May 7, 2015. 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 re-appointed to the AMG Management Board for a term of four years on May 4, 2017. 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. He 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 and a member of the AMG Management Board on May 4, 2016. 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

1,059.7 9%

REVENUE $M

214.6 15%

GROSS PROFIT $M

125.5 25%

EBITDA $M

78.5 40%

CASH FROM OPERATING ACTIVITIES $M

16 7%

WORKING CAPITAL DAYS

10.3 41%

NET DEBT $M

0.82 (21%)

LOST TIME INCIDENT RATE

1.31 (22%)

TOTAL INCIDENT RATE

1.80 36%

DILUTED EARNINGS PER SHARE $

AMG CRITICAL MATERIALS

814.4

REVENUE $M

100.0

EBITDA $M

AMG ENGINEERING

245.2

REVENUE $M

25.5

EBITDA $M

AMG GROUP

1,059.7

REVENUE $M

125.5

EBITDA $M

REVENUE BY END MARKET

22% SPECIALTY METALS AND CHEMICALS

11% ENERGY

42% TRANSPORTATION

25% INFRASTRUCTURE

AMG CRITICAL MATERIALS

- Increased EBITDA by 36%, from $73.6 million in 2016 to $100.0 million in 2017
- Updated the mineral resource estimates for the Mibra mine in Brazil to 20.3 million metric tons of measured and indicated resources, an increase of approximately 38% compared to the previous Mineral Resource Statement completed in 2013
- Signed a multi-year contract to supply 90,000 metric tons per year of lithium concentrate at a price in excess of $800 per metric ton, with deliveries commencing in the second half of 2018
- Approved the construction of a second lithium concentrate plant at the Mibra mine in Brazil which, once completed, will double lithium concentrate production capacity from 90,000 metric tons to 180,000 metric tons per year
- Continued to expand the titanium aluminides product line via the installation of three new furnaces
- Completed the commissioning process at the Ancuabe graphite mine in the Cabo Delgado province of Mozambique, with a projected annual production capacity of 9,000 metric tons

AMG ENGINEERING

- Increased year-end order backlog by 53%, from $135.5 million in 2016 to $207.0 million in 2017
- Developed an innovative casting machine ("FastCast") which allows high-speed single-mold casting of high performance metals into turbochargers for the automotive industry and airfoils for the aerospace industry
- Launched new coating equipment for the production of Ceramic Matrix Composite Fiber based on Chemical Vapor Deposition technology

AMG GROUP

- Awarded 'All Round Best Performer of 2017' by Euronext Amsterdam, following an increase in market capitalization of 201% during the year
- Entered into a new $350,000, 7-year senior secured term loan B facility and a $200,000 5-year senior secured revolving credit facility on February 1, 2018, which replaces AMG's existing credit facility; in addition, AMG Engineering entered into €85,000 of bilateral letter of credit facilities. AMG will use the excess proceeds of the new term loan to provide capital to fund strategic expansion projects

FROM THE CEO

LETTER TO SHAREHOLDERS

In 2017, AMG's market capitalization increased by 201%, driven by the continuing development of the lithium project, communication of the Company's new strategic framework and strong financial performance.

AMG's extraordinary value creation in 2017 was complemented by excellent operating results, as we again exceeded expectations in terms of EBITDA, net income, earnings per share ("EPS") and cash from operating activities. On a full year basis, EBITDA increased 25% to $125.5 million; net income attributable to shareholders increased 40% to $57.0 million; EPS, on a fully diluted basis, increased by 36% to $1.80; and cash from operating activities increased 40% to $78.5 million. The strong financial result, driven by a combination of higher vanadium prices, improved product mix and strong sales volumes, resulted in the highest annual net income and earnings per share in the Company's history. Furthermore, robust demand for our industry-leading vacuum furnace products resulted in the highest level of order backlog in over 8 years in AMG Engineering.

As a result of strong financial performance, the continuing development of the lithium project and the communication of the Company's new strategic framework, AMG's market capitalization increased by 201% in 2017. In recognition of this achievement, AMG received the award for the "All Round Best Performer of 2017" from Euronext Amsterdam. According to the calculations of the Exchange, AMG's market capitalization increased from €417 million to €1,254 million in 2017. We appreciated the very dignified ceremony in the Exchange building in Amsterdam and the additional exposure to the financial community in the city.

AMG'S BUSINESS MODEL—THE BASICS

The Award ceremony in the seat of the Exchange in Amsterdam was a good moment to remind ourselves that a little more than 10 years ago we completed our Initial Public Offering on the Exchange. Our concept was to take advantage of the growth trends which made critical materials critical. In a recent report analyzing AMG, Citigroup called the Company a "Metallic Theme Machine". We like that term. As a company, we align with many major trends. The umbrella trend is the race for cleaner energy and for greater energy efficiency. Essentially, our core products and technologies are responding to the need to promote energy efficiency in the three big CO_2 emission areas; transportation, buildings and industry. When we founded AMG, our basic belief was that the need to increase energy efficiency would demand new materials science-based solutions, which in turn would drive the demand for a variety of niche metals and materials.

LONG TERM VALUE CREATION AND THE STAKEHOLDER APPROACH

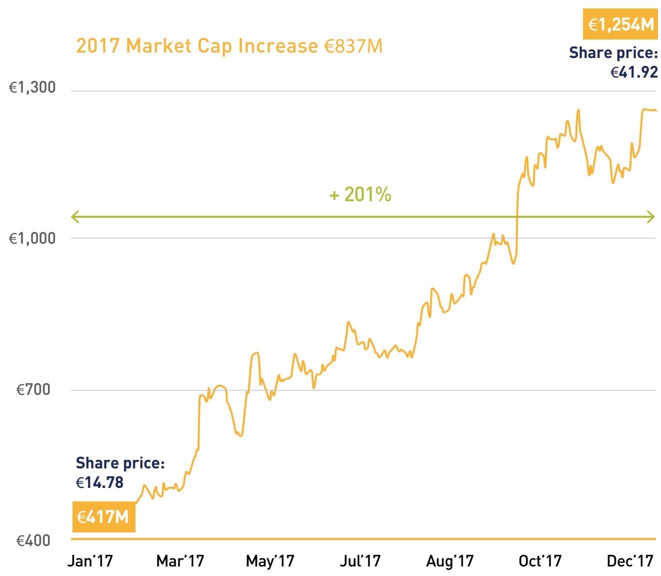
Larry Fink, Chairman and CEO of Blackrock, in his recent letter titled "Sense of Purpose," reminded his fellow CEOs around the world that "shareholder value" is too limited a metric to serve as the sole driver for management behavior. Shareholders are only one category of stakeholders, of which there are many others: employees, customers, and the communities in which they operate. Today, management must navigate business operations with the interests of all stakeholders in mind. Mr. Fink also asks for "a statement of long term strategy...essential to understanding the company's actions and policies." Thirdly, he points to the importance of management to comprehend the societal impact of a company's business and the structural trends affecting its growth potential, including climate change. The Board of Directors needs to actively interact with management on these issues.

These principles appear to align very well with the new Dutch Corporate Governance Code. This Code guides management to pay attention to the interests of stakeholders when designing the long term value creation strategy: "The Management Board is responsible for the continuity of the company...focuses on long term value creation...and takes into account the stakeholder interests that are relevant in this context. The Supervisory Board monitors the Management Board on this."

At the Annual General Meeting in May 2017, we introduced and committed to a quantified strategic framework providing multi-year guidance to our shareholders and stakeholders. This statement symbolizes our commitment to long term growth and value creation. In that context, I have already mentioned the award we received from the Exchange in Amsterdam recognizing AMG's number one performance in financial value creation in 2017. In the 2016 Annual Report, I detailed our thinking about the stakeholder concept. The very basic tenets of AMG's strategy are to be at the forefront of technologies that are based on materials science, and "critical" metals and materials, which target clean energy and energy efficiency. Through these technologies, we are enabling our customers (as stakeholders) to offer energy-efficient solutions and products to the markets

AMG MARKET CAPITALIZATION

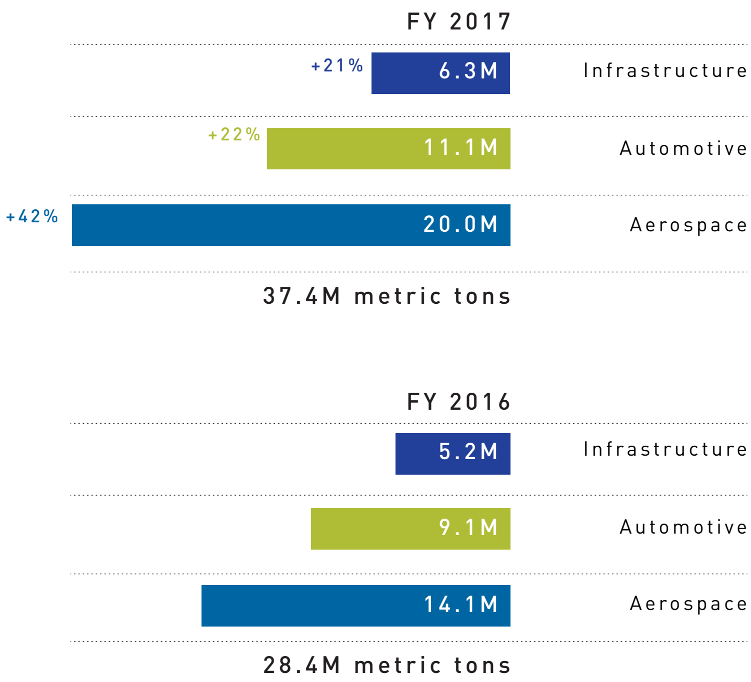
12/31/16 to 12/31/17 (€) Millions



Note: AMG market capitalization comprises historical data per Yahoo Finance from December 31, 2016 through December 31, 2017, calculated using the 28.2m shares outstanding at the end of 2016, and 29.9m shares outstanding at the end of 2017.

TOTAL AMG ENABLING TECHNOLOGIES CUMULATIVE CO_2 REDUCTIONS

Metric tons



LITHIUM AND TANTALUM

PHASES I & II

Lithium Concentrate Production

Lithium Concentrate Plant I

_Production of 90,000 MT of spodumene per year

_Timing: Mid 2018

Lithium Concentrate Plant II

_Production capacity expansion from 90,000 MT to 180,000 MT per year

_Timing: H2 2019

PHASE III

Lithium Chemical Production

Lithium Chemical Plant

_Downstream conversion of lithium concentrate into lithium carbonate

_Investment decision: H1 2018

* Phase II capex includes investments related to the expansion of the existing tantalum operations in addition to the development and expansion of the existing mining infrastructure

VANADIUM: FIVE "THEMES" IN ONE

they serve; providing our suppliers (as stakeholders) with stable access to the global market; and securing for our employees (as stakeholders) safe workplaces and long term incentive programs.

As stated repeatedly, we perceive the environment to be our most important stakeholder, as environmental health is the basis for universal long term existence. Our business model is constructed around energy-efficient products—this is the common denominator of our offerings. For many years, we have applied a methodology of not only describing what we do in this space, but also measuring the impact of our products on CO_2 emissions. The list of such products and services includes graphite formulations for energy-saving insulation materials; titanium alloys that reduce the weight of aerospace engines; advanced surface treatment of automotive engine parts and thermal treatment of aerospace turbine blades (both enabling higher operating temperatures); and aluminum structures for lightweighting in cars. In 2017, the combined impact of those activities added up to an astonishing 37.4 million metric tons of net CO_2 reduction (enabling CO_2 reductions less total CO_2 emissions of 0.6 million metric tons in our plants) when compared to applying conventional technologies. Measured against total assets of $956.6m, this yields a ratio of 39 metric tons of CO_2 reduction per $1,000 of assets. While far from perfect, this measurement methodology provides excellent guidance in illustrating AMG's enormous progress over time.

ENABLING CO_2 REDUCTIONS

Over time, we have begun to realize that the concept of providing our customers with new material solutions, enabling them to implement fuel efficiency improvements and develop new energy-saving products, would lead to a new, very important metric—namely how we, as a company, impact the global industrial and societal complex around us. We can trace the impact of selected product areas with respect to the

CO_2 reduction these products enable. Based on our estimates, if AMG and its products had not existed in 2017, we would have approximately 37.4 million metric tons (up from 28.4 million metric tons in 2016) of additional CO_2 in the atmosphere. This compares to AMG's CO_2 emissions of roughly 600,000 metric tons.

We are extremely proud of this fact and we track our enabling impact, year by year, to monitor our performance. Of course, we are aware of the imperfections of measuring the enabled CO_2 reduction, but it is a powerful instrument in capital allocation decisions. There will hopefully be a time when awards will also be presented for a company's impact on CO_2 emissions, as well as for financial performance. We would most happily participate in that race.

LITHIUM AND TANTALUM

Within our portfolio of critical materials, different portfolio components are on stage at different times. Presently, lithium & tantalum, vanadium, and titanium alloys demand special mention. On April 18, 2018, we expect to celebrate the "mechanical completion" of our first lithium concentrate plant at the Mibra mine in Brazil. All our efforts are focused on ramping up production smoothly and quickly.

In December 2017, we announced our decision to move forward with the construction of a second lithium concentrate plant, and we have awarded the detailed engineering contract for that plant to Outotec. Once completed, the targeted lithium concentrate ("spodumene") production capacity will be 180,000 metric tons per annum, and correspondingly, our targeted tantalum concentrate production capacity will increase from 300,000 lbs to 600,000 lbs per annum.

The third phase of our lithium strategy involves the downstream conversion of lithium concentrate into lithium carbonate and/or hydroxide. The feasibility work associated with this in-house conversion process has entered a decisive phase. The lithium & tantalum mining and upgrading complex in Brazil promises to be low-cost, partly due to the large amount of lithium material which has already been mined and is contained, on-site, in tailings, and partly because of the lithium & tantalum co-production process.

THE VANADIUM THEMES

Currently, vanadium provides a strong example of AMG's 'Themes', as the vanadium business benefits from multiple themes which are currently driving demand. Vanadium alloys and chemicals are critical materials for the global economy, as evidenced by the U.S. Department of Commerce recently recommending that vanadium be included on the list of minerals deemed critical to U.S. national security.

Theme One: At the Annual General Meeting in May 2017, we highlighted the significant expansion of AMG Vanadium's recycling facilities in Cambridge, Ohio as one key illustration of a "B" project. In line with this statement, and to meet increasing demand for recycling services from both new and existing customers, we announced a $35 million investment in our world class recycling operation which, when complete, will increase our recycling capacity by more than 30%. Vanadium Theme One therefore is fueled by the trend to close industrial loops and the associated CO_2 savings can be measured against CO_2 emissions from the mining of vanadium. AMG Vanadium is the global leader in spent catalyst recycling.

Theme Two: Our main product in Ohio is ferrovanadium, an alloy used to strengthen steel. Demand for this material is especially high in emerging countries for infrastructure and construction projects. Vanadium is an irreplaceable alloy used in the production of high-strength low-alloy (HSLA) steel that, when substituted for plain carbon steel, can satisfy the same engineering needs with 20% to 40% less steel, reducing the structure's CO_2 footprint by the same factor, or more, if fabrication and erection are considered. To this end, China recently issued new guidelines, ruling out the use of sub-standard steel. Following this regulatory change, the vanadium price reacted immediately.

Theme Three: As light fossil fuel reserves are becoming depleted and are being replaced by heavier, more complex and sour oils, refiners require more fresh catalyst, which in turn leads to more spent catalyst waste and a greater demand for recycling services. As a consequence of this trend, expansions are underway to process heavy crude oil in Alberta, Canada, the Middle East and in China that will significantly increase the generation of vanadium-bearing spent catalyst. AMG Vanadium's proprietary technology constitutes a significant barrier to entry.

Theme Four: At AMG Titanium Alloys and Coatings in Nuremberg, Germany, we produce high purity vanadium alloys used for our titanium alloys. The dominant trend here is the use of titanium in aerospace, which has multiplied, as titanium is a good fit with carbon composites, in an effort to reduce weight, and consequently CO_2 emissions, with such light constructional components.

Theme Five: We should be reminded that vanadium chemicals are the critical material for vanadium redox batteries. In AMG Titanium Alloys and Coatings, we recently delivered a vanadium electrolyte material, for a vanadium redox battery, for installation in southern Germany to manage energy supply volatility. Onshore wind availability in Germany is 25% or 2,000 hours per annum. As renewable energy increases its share of total energy production, grid stability is quickly turning into a "Mega Theme".

FINANCING

At the end of 2017, AMG initiated a refinancing process designed to position the Company for the strong organic, capital-intensive growth we envision in our strategic plan. To this end, on February 1, 2018, AMG closed on $650 million of new

AMG'S STRATEGIC FRAMEWORK & OUTLOOK

MISSION STATEMENT
To increase long term value through industry leadership, operational expertise and efficient deployment of capital

STRATEGIC OBJECTIVE
Identifying long term trends and leveraging those trends through technological excellence and innovations in the indispensable areas of critical materials and vacuum technologies

PATHS TO GROWTH

A
Routine organic growth of existing business lines

B
Non-routine expansion of existing business lines

C
Transformational projects

credit facilities, consisting of a $200 million undrawn 5-year Revolving Credit Facility; a 7-year $350 million term loan B; and an €85 million 5-year letter of credit facility for AMG Engineering.

These facilities replaced the $400 million 5-year combined term loan and revolving credit facility AMG had in place and provide AMG with significantly increased liquidity and financial flexibility to support our strategic growth over the coming years. As part of this facility, AMG entered into an interest rate hedging program which caps our total interest rate at 5.2% and allows the rate to float below that figure.

HEALTH, SAFETY AND ENVIRONMENTAL

The safety of AMG employees, contractors, and visitors to our sites is of utmost importance to us. We do not believe that accidents and injuries are inevitable. We recognize that the inherent hazards of our operations mean that understanding and controlling risk is crucial if we are to realize our vision of eliminating injuries and achieving zero incidents. In point of fact, 18 of our 29 operating sites in 2017 had zero incidents.

We continued our progress on the challenging path to zero injuries in 2017. Our lost time incident rate (defined as the number of lost time incidents multiplied by 200,000 divided by the total hours worked) reached 0.82, a 21% reduction from 2016. Our focus on the formal safety management system and proactive safety programs has delivered a 54% overall improvement in the lost time incident rate over the past 5 years.

Earlier in this letter, I gave a quantitative update on our dedication to enable our customers to reduce CO_2 when using a representative selection of our products against conventional base lines. Our customers buy our "enabling" products as they face a powerful trend of tighter regulations on CO_2 reduction, especially in the transportation, automotive, and aerospace sectors, and of subsidies for energy saving in buildings. That benefits our shareholders as we face a growing market for our products, as well as our other stakeholders: our employees, as they have a rewarding workplace; our customers, as we provide innovative solutions; our suppliers, as we show them a link to downstream markets; our communities, as they benefit from profitable and responsible corporate citizens; and the environment, our most important stakeholder.

Finally, a word on AMG's culture and values—safety, value creation, respect and integrity—which form the basis of how we conduct our operations and how we deal with our employees, business partners and stakeholders. Supported by our Code of Business Conduct and Speak Up and Reporting Policy, company-wide communication and training processes have been installed to ensure that these values are better understood, embraced by everyone and applied without exception.

AMG'S STRATEGIC FRAMEWORK & GUIDANCE & OUTLOOK

In our Annual General Meeting in May 2017, we introduced our new 'Strategic Framework', and our long term goal to increase EBITDA to $200 million or more, in 5 years or less, through the execution of a combination of well-developed, highly accretive growth projects, including AMG's entrance into the lithium market. Our goal was to be more transparent with respect to our long term growth strategy and targets and this long term guidance, we felt, was very much in line with the new Dutch Corporate Governance Code which became effective in 2017 and whose principles we continue to embrace going forward in our operations and deployment of our strategy.

We built our long term, strategic planning model from a stationary base, which includes a number of routine "A" projects. These projects require capital expenditure and are executed in the normal course of business. We then add "B" projects, which are material expansions of existing product lines, and "C" projects, which are transformational in nature. The lithium & tantalum development is clearly a transformational "C" project.

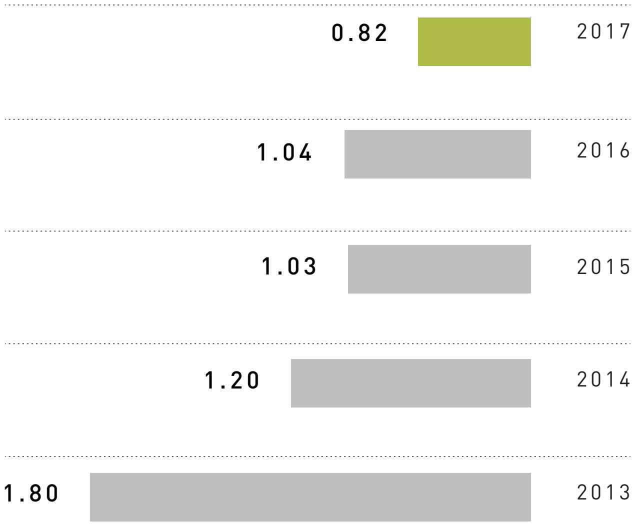
Given what we achieved and learned in 2017, and to date in 2018, we believe we can achieve our goals earlier than previously expected, and can commit to increasing EBITDA to $200 million, or more, in the fiscal year ending December 31, 2020.

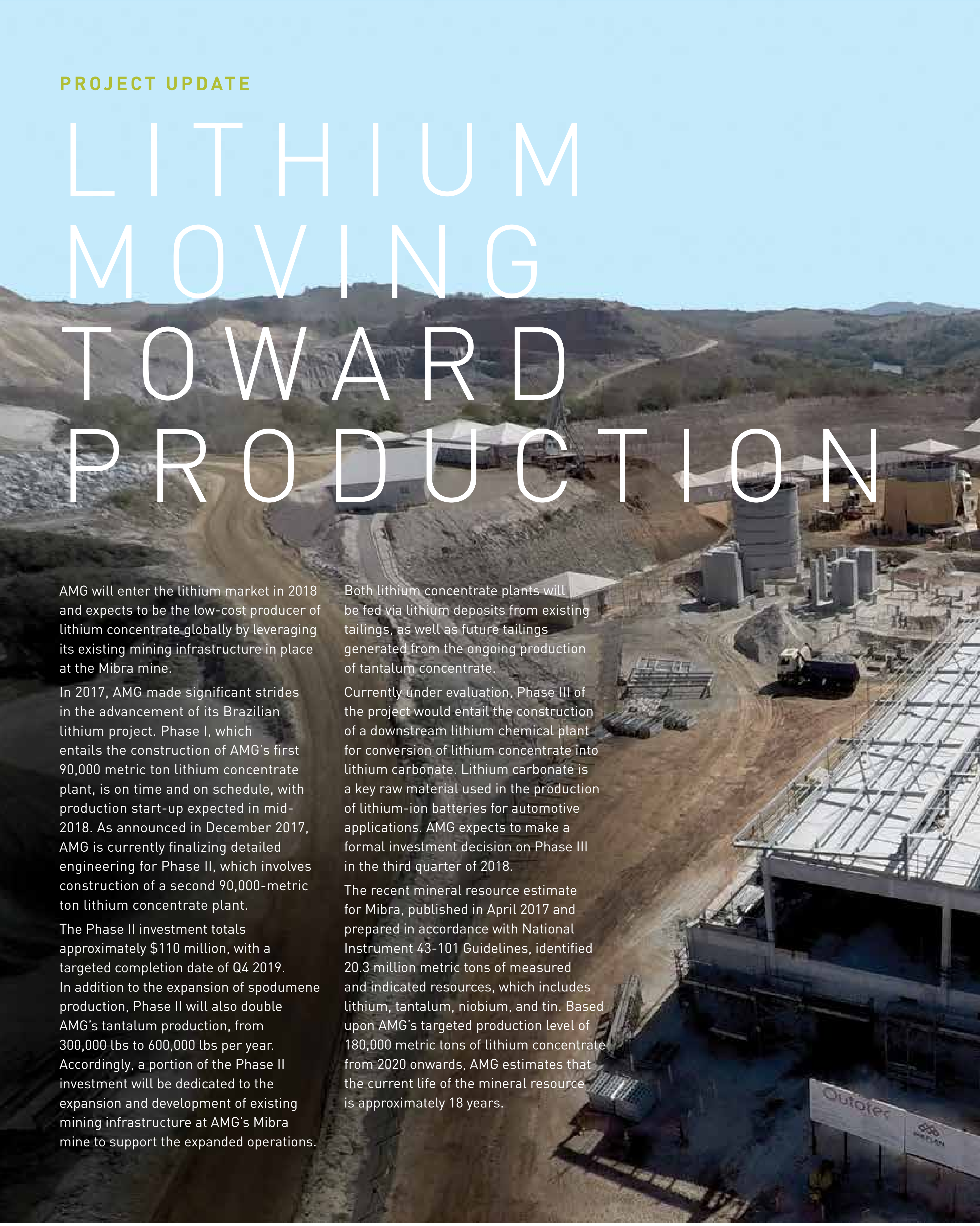
We are obviously aware that this is ambitious, but that is why we are here, and our organization is geared to achieving our target. Every commitment related to our future, of course, is subject to uncertainties, and, in our specific case, to global markets, currencies and commodity volatility. In this regard, our risk management track record supports our confidence.

2018 has started very well. For the year, AMG expects its financial performance to show significant improvement compared to 2017, on route to this long term strategic target.

DR. HEINZ C. SCHIMMELBUSCH
CHIEF EXECUTIVE OFFICER

LOST TIME INCIDENT RATE





PROJECT UPDATE

LITHIUM MOVING TOWARD PRODUCTION

AMG will enter the lithium market in 2018 and expects to be the low-cost producer of lithium concentrate globally by leveraging its existing mining infrastructure in place at the Mibra mine.

In 2017, AMG made significant strides in the advancement of its Brazilian lithium project. Phase I, which entails the construction of AMG's first 90,000 metric ton lithium concentrate plant, is on time and on schedule, with production start-up expected in mid-2018. As announced in December 2017, AMG is currently finalizing detailed engineering for Phase II, which involves construction of a second 90,000-metric ton lithium concentrate plant.

The Phase II investment totals approximately $110 million, with a targeted completion date of Q4 2019. In addition to the expansion of spodumene production, Phase II will also double AMG's tantalum production, from 300,000 lbs to 600,000 lbs per year. Accordingly, a portion of the Phase II investment will be dedicated to the expansion and development of existing mining infrastructure at AMG's Mibra mine to support the expanded operations.

Both lithium concentrate plants will be fed via lithium deposits from existing tailings, as well as future tailings generated from the ongoing production of tantalum concentrate.

Currently under evaluation, Phase III of the project would entail the construction of a downstream lithium chemical plant for conversion of lithium concentrate into lithium carbonate. Lithium carbonate is a key raw material used in the production of lithium-ion batteries for automotive applications. AMG expects to make a formal investment decision on Phase III in the third quarter of 2018.

The recent mineral resource estimate for Mibra, published in April 2017 and prepared in accordance with National Instrument 43-101 Guidelines, identified 20.3 million metric tons of measured and indicated resources, which includes lithium, tantalum, niobium, and tin. Based upon AMG's targeted production level of 180,000 metric tons of lithium concentrate from 2020 onwards, AMG estimates that the current life of the mineral resource is approximately 18 years.

PHASE I

Construction of a lithium concentrate plant to produce 90,000 metric tons of spodumene per year

__H2 2017

Construction Underway

__Mid-2018

Initial Production Capacity of 90,000 Metric Tons

PHASE II

Construction of second lithium concentrate plant, resulting in capacity expansion from 90,000 to 180,000 metric tons of spodumene per year

__Q4 2017

Engineering Started

__Q2 2018

Engineering to be Completed

__Q3 2018

Construction to Start

__Q4 2019

Mechanical Completion

AMG CRITICAL MATERIALS

RISING PRODUCT DEMAND

AMG Critical Materials' revenue increased by 16% in 2017, to $814.4 million, thanks to a combination of improved pricing and higher sales volumes. Within the division, revenue increased in seven of AMG's eight critical materials business units. Revenues generated from AMG's Tantalum and Niobium business decreased by 20% in 2017, primarily due to the fire damage sustained at the Mibra mine in Brazil in the first quarter of 2017. Repairs to the damaged plant were successfully completed, on schedule, in September 2017, restoring full tantalum concentrate production capacity.

Gross profit increased by 15% to $149.9 million in 2017, driven by higher sales volumes across the division, a focus on higher value-added products, and improvements in vanadium prices. Four of the eight Critical Materials businesses delivered improved gross profit, year over year. The substantial improvement in gross profit during the year drove an improvement in EBITDA of 36%, from $73.6 million in 2016 to $100.0 million in 2017.

AMG Critical Materials working capital days reduced by 19%, from 43 days at the end of 2016 to 35 days at the end of 2017.

The division also advanced a number of important strategic and operational initiatives in 2017, the most important being the lithium project in Brazil. Mechanical completion of AMG's first lithium concentrator is expected early May 2018, and work on AMG's second lithium concentrator is underway and due for completion by the end of 2019. In addition, AMG Titanium Alloys and Coatings completed a further expansion of the titanium aluminide business in Nuremberg, Germany, and AMG Graphite successfully commissioned its Ancuabe graphite mine in the Cabo Delgado province of Mozambique.

As demand for our products and services continues to rise due to the associated energy savings and CO_2 reduction trends, AMG Critical Materials is well positioned to deliver improved financial performance in 2018.

AMG'S CRITICAL MATERIALS DIVISION INCREASED REVENUE BY 16%, FROM $701.6 MILLION IN 2016 TO $814.4 MILLION IN 2017, AND DELIVERED A 36% INCREASE IN EBITDA TO $100.0 MILLION.

AMG ENGINEERING

INNOVATING FOR GROWTH

Strong demand from the Asian market as well as increasing demand from the North American market led to a 6% increase in order intake in 2017, compared to 2016. In addition, demand from AMG Engineering's core markets in Europe strengthened in 2017, driven by the ongoing growth in the automotive sector and the continued importance of titanium powder production for 3-D printing applications.

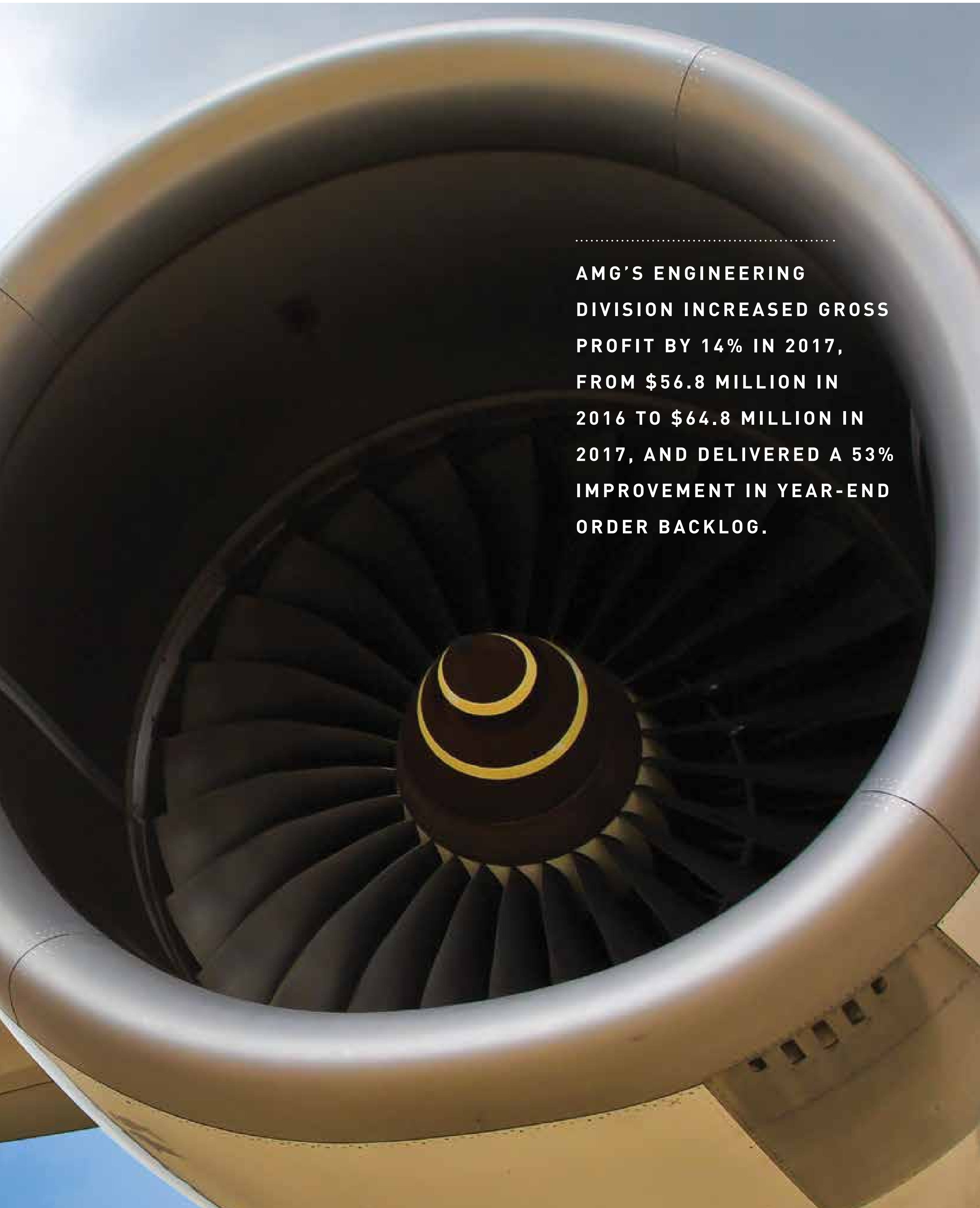
The robust order intake in 2017 resulted in a 53% improvement in year-end order backlog, from $135.5 million as of December 31, 2016, to $207.0 million as of December 31, 2017, the highest level of order backlog since June 30, 2009. Sales in these markets remained robust throughout the year and we expect further growth in 2018.

Favorable product mix resulted in an improvement in gross margin from 21% in 2016 to 26% in 2017, driven by an increase in orders for large, highly technical furnaces for the aerospace market, such as AMG's turbine blade coating furnaces. AMG Engineering's focus on product development in recent years has strengthened and broadened the division's product offerings, improved gross margins, increased orders and reduced the division's dependency on certain key product lines and end markets.

EBITDA in 2017 fell by 6% from $27.0 million in 2016 to $25.5 million. However, EBITDA in 2016 benefited from the sale of an unused production facility in Berlin during the third quarter, which contributed $4.3 million in EBITDA.

AMG Engineering successfully launched a new product line in 2017, an innovative casting solution ("FastCast") which allows high-speed, single-mold casting of high performance metals for the automotive and aerospace industries. In addition, AMG Engineering continues to implement digital tools and applications ("Industry 4.0") in its engineered products and services to enable the highest degree of automated fabrication.

Based on the strong order backlog at the end of 2017 and the ongoing development of new product lines and technology solutions, management expects the business to continue its strong financial performance in 2018.



AMG'S ENGINEERING DIVISION INCREASED GROSS PROFIT BY 14% IN 2017, FROM $56.8 MILLION IN 2016 TO $64.8 MILLION IN 2017, AND DELIVERED A 53% IMPROVEMENT IN YEAR-END ORDER BACKLOG.

AMG'S

RISK MANAGEMENT AND INTERNAL CONTROLS

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

The Risk Management Committee of the Supervisory Board was officially merged with the Audit Committee on May 4, 2017, but met in March 2017 as a combined committee. The Audit & Risk Management Committee is comprised of Steve Hanke (Chairman), Guy de Selliers, and Robert Meuter, 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 process of AMG.

RISK MANAGEMENT APPROACH

The Company analyzes risks in formal settings such as scheduled Management Board and Supervisory Board meetings as well as everyday operational situations experienced by its global employee base. AMG has implemented a comprehensive risk management program 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:

- identify potential risks and quantify the impact of such risks;
- prioritize the risks using a ranking system to estimate the financial impact, probability, and mitigation delay of these risks;
- describe the risk mitigation or transfer procedures in place;
- document the periodic monitoring of the risks;
- review the trends of the risks identified by the business units; and
- 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 with the AMG Corporate Risk Committee in coordination with the operating managers of the business units. Key risks from all business units are then summarized and presented to the AMG Management Board. Individual risks of special note are discussed at the Management Board's bi-weekly meeting. On a quarterly basis, the Risk Management Committee of the Supervisory Board formally reviews the consolidated risk package provided by the AMG Corporate Risk Committee. The Audit & Risk Management Committee of the Supervisory Board jointly supervise, monitor, and report on the Company's internal control and risk management programs. During 2017, special attention was given to:

- expansion and extension of the Company's syndicated credit facilities;
- managing price and volume risk associated with the volatility of commodities;
- understanding global environmental risks; and
- evaluating risks associated with long term contracts.

Appropriate and diverse lines of property and liability insurance coverage are also an integral part of AMG's risk management program. The globalization of AMG's insurance program has been a focus in 2017 and will continue to be in 2018.

There were no major changes to the Risk Management Process. Improvements to the process included integrating our health, safety and security reporting into the RAP as well as integrating our balance sheet and working capital reporting into the RAP. Both risks were previously discussed informally at the Management Board and Supervisory Board levels, but were added to our formal risk reporting process to give a more integrated overview of the AMG risks to the Risk Committee.

RISKS

Risks faced by AMG can be broadly categorized as:

Strategic: includes risks related to marketing and sales strategy, product innovation, technology innovation, raw material sourcing, capacity utilization, and acquisitions or divestitures

Operational: includes risks related to executing the strategic direction, production, maintenance of production equipment, distribution of products, labor relations, human resources, IT infrastructure and security, 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

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

AMG is subject to a broad array of risks which are inherent to 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.

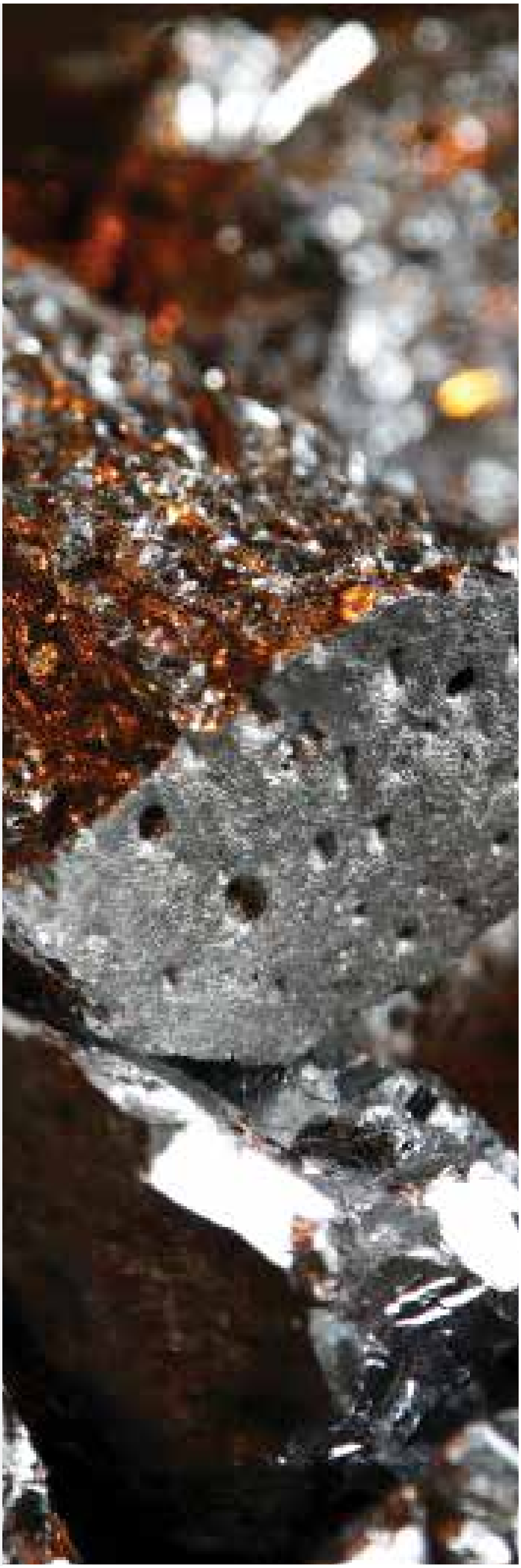
METAL PRICE VOLATILITY RISK

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. Most metals, alloys and chemicals that AMG processes and sells, such as chrome metal, tantalum, graphite, niobium, and antimony trioxide, cannot be hedged on an exchange.

To mitigate price risk, 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 cost.

Success of the mitigation plan is dependent on the severity of metal price volatility and on the stability of counterparties performing under their contracts. Despite the mitigation strategies noted above, AMG retains some exposure to price volatility which could have an impact on financial results. 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. 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 somewhat 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, entering into long term contracts, maintaining a diversified product 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 5% of AMG's revenues, and therefore, while the impact of a customer failure is manageable, it may have an adverse impact on results. Due to the collection of prepayments from many of its customers, AMG Engineering can mitigate a portion of customer payment and performance risk. 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

AMG Critical Materials is dependent on supplies of metals and metal-containing raw materials to produce its 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.

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. AMG carefully monitors new and upcoming changes in governmental regulations. 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 34) 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, and corporate governance. For example, in addressing possible conflicts of interest affecting its Management or Supervisory Board members, AMG follows strict rules of procedure, 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 Corporate Code of Business Conduct and AMG's Values have been distributed to all employees, and is displayed in all workplace locations in local languages. A Speak Up and Reporting policy is widely available to employees, who are advised to report situations that do not comply with AMG's guidelines and policies on how to deal with its employees, business partners and stakeholders. 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.

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 United States 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. 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.

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 early 2018 with its expansion and extension of the Company's syndicated credit facilities. It is further mitigated by the year-end 2017 liquidity of $329.4 million. 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, 2017, 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.

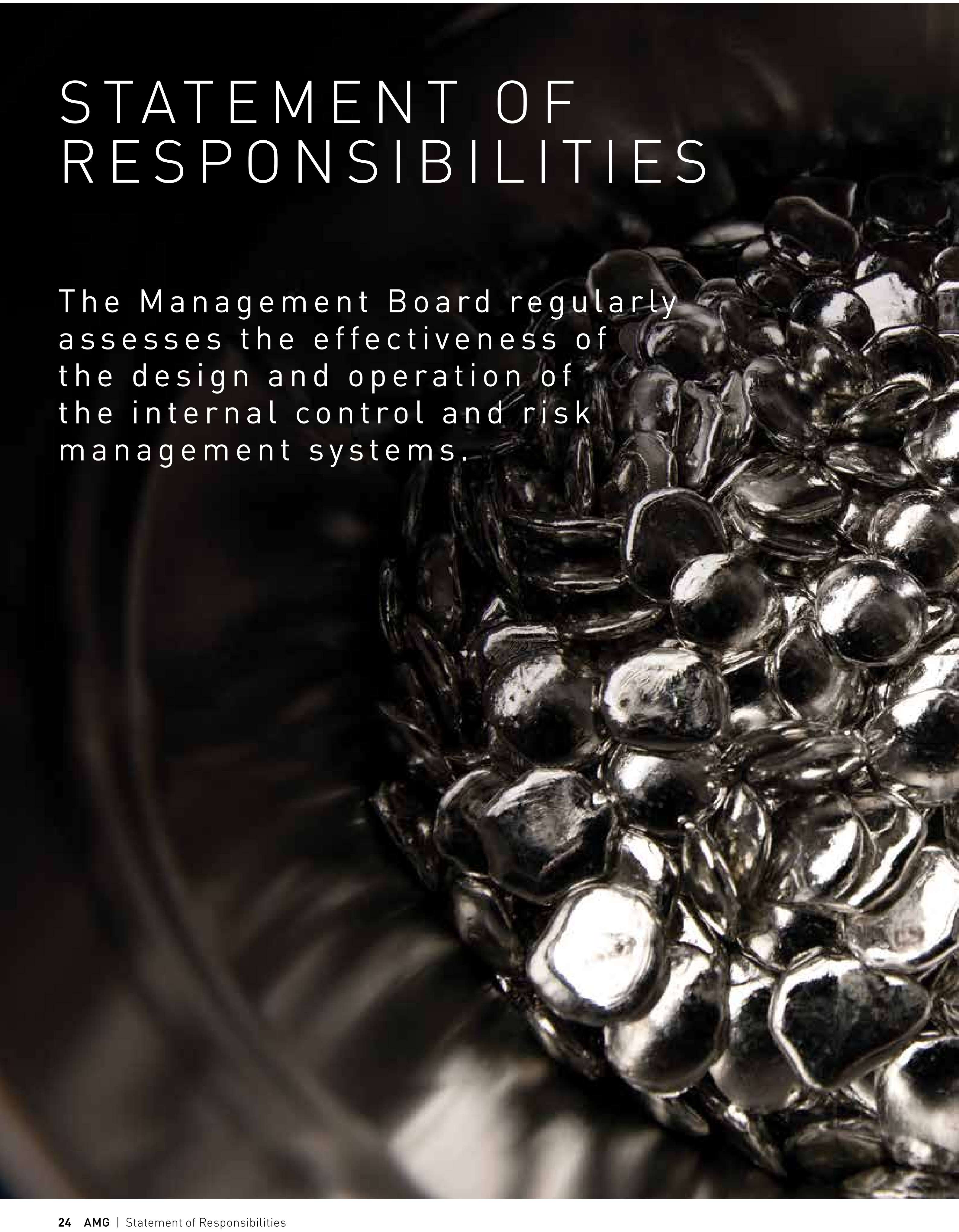
RISK MONITORING AND PROCEDURES

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 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.

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 2017, 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 2016 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 2017.

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 1.4.3 of the Dutch corporate governance code as adopted on December 8, 2016, 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;
- there are no material 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-compliances 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
- the management report describes the principal risks and uncertainties that the Company faces.

—DR. HEINZ SCHIMMELBUSCH

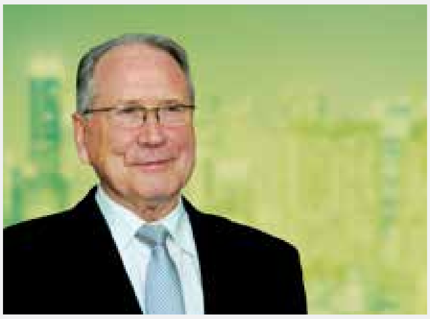
—ERIC JACKSON

—JACKSON DUNCKEL

Management Board
AMG Advanced Metallurgical Group N.V.
March 21, 2018

REPORT OF THE

SUPERVISORY BOARD



NORBERT QUINKERT

CHAIRMAN

Nationality: German

Born: 1943

Date of initial appointment: June 6, 2007

Date of end of term: 2018

Current board positions: VTION Wireless Technology AG (Vice Chairman), BOGEN Electronics GmbH (Chairman), Quinkert & Esser Executive Search GmbH (founder)

Former positions: Motorola GmbH (Germany, Austria, the Netherlands, and Switzerland) (Chairman), General Electric Deutschland (President), QSC AG, Cologne, Germany (member of Supervisory Board), American Chamber of Commerce in Germany (Executive Vice President)

JACK L. MESSMAN

VICE CHAIRMAN

Nationality: American

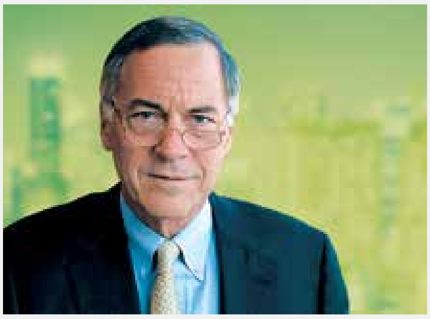
Born: 1940

Date of initial appointment: June 6, 2007

Date of end of term: 2019

Current board position: Lavoro Technologies, Inc. (Non-executive Chairman)

Former positions: Chief Executive Officer, Novell, Inc. and Union Pacific Resources Corporation



STEVE HANKE

Nationality: American

Born: 1942

Date of initial appointment: May 3, 2013

Date of end of term: 2019

Professor of Applied Economics and 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)



HERB D. DEPP

Nationality: American

Born: 1944

Date of initial appointment: November 8, 2013

Date of end of term: 2021

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)

GUY DE SELLIERS

Nationality: Belgian

Born: 1952

Date of initial appointment: June 6, 2007

Date of end of term: 2018

President, HCF International Advisers Ltd.

Current board positions: Solvac SA, Ageas Group SA (Vice Chairman), AG Insurance Belgium (Chairman), Ivanhoe Mines Ltd., Ipulse Ltd., Cranemere plc (UK)

Former position: Robert Fleming and Co. Limited, Eastern Europe (Chairman)

DONATELLA CECCARELLI

Nationality: Italian

Born: 1959

Date of initial appointment: May 8, 2014

Date of end of term: 2018

Current board position: Executive Board of the Flick Foundation (Chairwoman)

Former positions: Global Wealth Management Director at Merrill Lynch International Bank Ltd. (Milan, Italy), Executive Director at Lehman Brothers International Europe (Frankfurt, Germany)



ROBERT MEUTER

Nationality: Dutch

Born: 1947

Date of initial appointment: May 7, 2015

Date of end of term: 2019

Current board position: TD Bank N.V.

Former positions: ABN AMRO Bank NV (Vice Chairman Wholesale Bank), Kempen & Co (Executive Director), Citibank, J.P. Morgan (various positions)

SUZANNE RICH FOLSOM

Nationality: American

Born: 1961

Date of initial appointment: May 4, 2017

Date of end of term: 2021

Consultant

Current Board Positions: Veluxe, ClearForce

Former Positions: US Steel (General Counsel & Chief Compliance Officer), Academi LLC (General Counsel and Chief Compliance Officer); American International Group (AIG), Inc. (Chief Regulatory & Compliance Officer and Deputy General Counsel); The World Bank Group (Counselor to the President and Director, Department of Institutional Integrity)

WILLEM VAN HASSEL

Nationality: Dutch

Born: 1946

Date of initial appointment: May 4, 2017

Date of end of term: 2021

Current Board positions: Brack Capital Properties NV, Dutch National Register for Non-executive and Supervisory Directors (Chairman), 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

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

The Supervisory Board supervises the actions taken by the Management Board 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 is also responsible for determining the remuneration of the individual members of the Management Board within the context of the Remuneration Policy as adopted by the General Meeting of Shareholders.

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

INTRODUCTION OF NEW DUTCH CORPORATE GOVERNANCE CODE

The Supervisory Board has welcomed the new Corporate Governance Code which was issued on December 8, 2016, and which came into effect on January 1, 2017 ("the 2016 Code"). In this Annual Report (pages 33 and 52), the Supervisory Board will discuss the impact of the new 2016 Code on AMG and AMG's compliance with the principles and best practice provisions thereof. The Rules of Procedure of the Supervisory Board and the committees of the Supervisory Board as well as the Rules of Procedure of the Management Board have all been amended to reflect the new principles and best practice provisions of the 2016 Code and, where applicable, internal procedures and systems have been updated to comply with the 2016 Code.

COMPOSITION OF THE SUPERVISORY BOARD

The Supervisory Board was first established on June 6, 2007, and currently consists of nine members, as follows: Norbert Quinkert (Chairman), Jack L. Messman (Vice Chairman), Steve Hanke, Herb Depp, Guy de Selliers, Donatella Ceccarelli, Robert Meuter, Suzanne Folsom and Willem van Hassel (the personal details of each member are included at the beginning of this chapter). During the financial year 2017, Suzanne Folsom and Willem van Hassel were elected as Board members while the Board said farewell to Martin Hoyos and Petteri Soininen.

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 skill set in place to take on the challenges of 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 2017, all Supervisory Board members qualified as independent, as defined in the Dutch Corporate Governance Code, except for Mr. Soininen who, until May 4, 2017 when he retired, qualified as a non-independent member as he was Co-Head of RWC European Focus Master Inc. (AMG's largest shareholder at the time). All current members of the Supervisory Board completed and signed a questionnaire to verify compliance in 2017 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:

Norbert Quinkert	2018
Jack L. Messman	2019
Steve Hanke	2019
Herb Depp	2021
Guy de Selliers	2018
Donatella Ceccarelli	2018
Robert Meuter	2019
Suzanne Folsom	2021
Willem van Hassel	2021

At the Annual General Meeting ("AGM") in May 2018, Mr. Norbert Quinkert and Mr. Guy de Selliers will have both served eleven years on the Supervisory Board of AMG when their current terms end. Both gentlemen have indicated that they wish to retire from the Supervisory Board in May 2018, given other priorities and the term limits for Supervisory Directors of the new Code. The Supervisory Board is deeply grateful for the long service and dedication to AMG by Messrs. Quinkert and de Selliers. Before becoming Chairman in 2015, Mr. Quinkert was a long-serving member of AMG's Selection & Appointment Committee and has been a major contributor to the excellent quality of AMG's current leadership team. As Chairman, Mr. Quinkert successfully guided AMG through a challenging period during the past three years. Mr. de Selliers has served throughout his tenure at AMG as a highly respected member of AMG's Audit & Risk Management Committee and has been an important force in establishing AMG's state of the art risk management system.

The Supervisory Board thanks both gentlemen for their valuable insights and contributions and wishes them well in their future endeavors.

Mr. Robert Meuter has also indicated that he wishes to step down at the AGM 2018 after having served three years. Mr. Meuter feels that his mandate has ended and wishes to prioritize other engagements. The Supervisory Board respects and accepts Mr. Meuter's decision and thanks him for his valuable insights and contributions and wishes him well in his future endeavors. Mr. Meuter will continue to advise the Company on specific banking & finance matters in the forthcoming year, if so requested.

Dr. Donatella Ceccarelli will have served four years on the Supervisory Board in May 2018 and AMG is very pleased to announce that Dr. Ceccarelli will make herself available for re-appointment for a term of four years at the AGM in May of this year.

Given the retirement of Mr. Quinkert as member and Chairman of the Supervisory Board in May 2018, the Supervisory Board has appointed Mr. Jack L. Messman, currently Vice-Chairman, as successor to Mr. Quinkert as Chairman of the Supervisory Board as of May 2, 2018 after the AGM. Mr. Messman's term as member of the Supervisory Board ends in 2019. The Supervisory Board has further resolved to appoint Mr. Willem van Hassel as Vice-Chairman, as of May 2, 2018 after the AGM, succeeding Mr. Messman. Mr. van Hassel's term as member of the Supervisory Board ends in 2021.

The Supervisory Board has further resolved that it will reduce the size of the Supervisory Board from nine to six members, effective May 2, 2018. The Supervisory Board believes that with its new composition, it will continue to cover the necessary areas of expertise as set forth in AMG's Supervisory Board profile.

DIVERSITY

The Supervisory Board recognizes the importance of a diverse composition of the Supervisory Board and the Management Board in general, and in terms of gender in particular. In line with the Diversity Policy of the Company which was adopted in 2017, AMG pursues a policy of having at least 30% of the seats on the Supervisory Board and the Management Board be held by each gender. The company will continue to take its key diversity objectives, including maintaining a proper balance of nationalities to reflect the transatlantic structure of AMG, and

the gender allocation of seats as outlined above, into account in connection with recruitment, retention of employees and succession planning for both the Management Board and the Supervisory Board. In 2017, the Management Board deployed measures to attract and maintain a diverse workforce at its units, including linking incentive payments for unit managers to meaningful progress toward diversity targets. At the end of 2017, AMG did not meet its diversity objectives in terms of gender as outlined above, although with regard to the composition of the Supervisory Board after May 2, 2018, its composition will meet the diversity targets regarding gender, as outlined above. The Supervisory Board will continue to look for suitable female candidates for both the Management Board and the Supervisory Board in order to meet all of its diversity objectives as outlined in its Diversity Policy as soon as reasonably possible.

SUPERVISORY BOARD MEETINGS

The Supervisory Board held fourteen (14) meetings over the course of 2017, including eleven (11) by telephone conference. Seven (7) of these meetings were held in the presence of the Management Board. All meetings were attended by all members, with the exception of Ms. Folsom, who missed two (2) meetings, and Mr. Meuter, who missed one (1) meeting.

The items discussed in the meetings included recurring subjects, such as AMG's financial position, objectives, results, and more specifically, the operating cash flow development as well as the net debt situation of the Company; potential acquisitions and divestments; review of plans of third parties to invest in the Company; the business plans of AMG Critical Materials and AMG Engineering; capital expenditure programs; succession planning; 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 corporate social responsibility. Financial metrics presented to the Supervisory Board to measure the performance of AMG included net income, earnings per share, EBITDA, financial leverage (net debt to EBITDA), working capital, liquidity, operating cash flow and return on capital employed. 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. 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 2017, 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 approved by the Supervisory Board in July 2016. This review took place on a continual basis, headed by the Chairman of the Management Board, in order to keep the Supervisory Board fully informed on the financing of the strategy, as well as the principal risks related to the strategy. This strategy focuses on bringing AMG's transformational lithium project to fruition, and commits to doubling AMG's annual EBITDA to a minimum of USD 200 million by 2020. Please refer to the Chairman of the Management Board's Letter to Shareholders for a detailed overview of AMG's strategy and its implementation thereof (pages 12-13).

On August 2nd, 2017, the Supervisory Board met at the headquarters of AMG Engineering in Hanau, Germany to learn, as part of the Supervisory Board's regular meeting, about the strategy and operations of AMG Engineering. On that occasion, new Board members were also given induction training to familiarize themselves with AMG's culture, corporate governance, and the operational and financial affairs of the AMG Group.

In 2016, the Supervisory Board completed a comprehensive self-evaluation process under the guidance and leadership of Professor Jaap van Manen, who acted as external facilitator. In 2017, the annual self-evaluation process took place without 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 (3) years. The Chairman of the Supervisory Board distributed a comprehensive questionnaire to all Supervisory Board members (all of whom responded) 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 the executive session of the Supervisory Board meeting on November 1, 2017, the Chairman shared and discussed the results with the Board members, and the Supervisory Board resolved to finalize its discussions during the next available plenary session with specific focus on (a) expertise brought by the individual Board members and (b) the structure of the annual agenda of Board meetings, off-site sessions and strategy discussions.

Also on November 1, 2017, the Supervisory Board (without the presence of the Management Board) met and reviewed the performance of the Management Board and its members during the past 12 months. During this meeting, the Supervisory Board discussed 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 Committee concluded that the performance of the Management Board and its individual members has been very good, evidenced by, among other things, the excellent performance by the Company in 2017 compared to its peers, the launch of the lithium project, and the continuing rise of AMG's share price during 2017, and that no changes in its composition were merited. In particular, the Supervisory Board was impressed by the meticulous implementation and monitoring by the Management Board members of the strategic objectives which form the basis of AMG's long term value-creation strategy.

REMUNERATION OF THE SUPERVISORY BOARD IN 2017

At the Annual Meeting of 2013, the General Meeting of Shareholders approved an amendment to the remuneration of the members of the Supervisory Board with effect from January 1, 2013.

The members of the Supervisory Board receive remuneration in the form of a cash component and a share component. No loans, guarantees or the like have been granted to any of the Supervisory Board members.

FOR THE YEAR ENDED DECEMBER 31, 2017	ROLE	CASH REMUNERATION	SHARE REMUNERATION	# OF SHARES GRANTED
Norbert Quinkert	Chairman & Selection & Appointment Committee Chair	$115	$63	2,155
Jack L. Messman	Vice Chairman & Remuneration Committee Chair	$90	$45	1,539
Steve Hanke	Member & Audit & Risk Management Committee Chair	$60	$41	1,404
Herb Depp	Member & Remuneration Committee Member	$60	$44	1,497
Guy de Selliers	Member & Audit & Risk Management Committee member	$80	$43	1,458
Donatella Ceccarelli	Member & Selection & Appointment Committee Member	$60	$44	1,497
Robert Meuter	Member & Audit & Risk Management Committee Member	$60	$44	1,497
Suzanne Folsom	Member & Remuneration Committee member	$40	$29	988
Willem van Hassel	Member & Selection & Appointment Committee member	$40	$29	988
Martin Hoyos	Member & Audit Committee Chair (through May 4, 2017)	$28	—	—
Petteri Soininen*	Member & Remuneration Committee Member (through May 4, 2017)	—	—	—

* Petteri Soininen waived all remuneration given his non-independent director status.

Cash remuneration: The cash remuneration of the Supervisory Board members was set for 2017 (in thousands) at $95 for the Chairman, $70 for the Vice Chairman and $60 for the other members. Chairpersons of the Remuneration Committee, the Selection & Appointment Committee and the Audit & Risk Management Committee are each paid an additional $20 annually.

Share remuneration: The members of the Supervisory Board do not participate in any of AMG's incentive plans. The allotment of shares to the Supervisory Board as part of their remuneration may either take place by way of (i) an issue of shares with the exclusion of any pre-emptive rights thereon or (ii) the Company purchasing shares on the open market in order to provide the requisite share remuneration amounts. The Management Board, with the approval of the Supervisory Board, may decide in its discretion which method will be used.

The number of shares given to each member is computed with respect to a specified number of euros for each member. The table above specifies the number of shares issued to each Supervisory Board member in 2017. Issued shares may not be disposed of by the relevant member of the Supervisory Board until the earlier of the third anniversary of the grant or the first anniversary of the date on which they cease to be a member of the Supervisory Board.

Best practice provision 3.3.2 of the Corporate Governance Code states that a Supervisory Board member may not be awarded any shares and/or rights to shares in the Company on whose supervisory board they serve. AMG does not comply with best practice provision 3.3.2 for reasons further explained in the Corporate Governance chapter (page 46) of this report and at the Company's website under the heading "Corporate Governance at AMG."

The table above shows the total remuneration of each member of the Supervisory Board for 2017 (in thousands, except number of shares granted).

SHARES HELD BY MEMBERS OF THE SUPERVISORY BOARD

As of December 31, 2017, the members of the Supervisory Board held 173,520 shares in the Company. Out of that number, 161,115 shares were awarded to them between 2007 and 2017 as part of their annual remuneration.

REMUNERATION OF THE SUPERVISORY BOARD IN 2018

The remuneration of the Supervisory Board will not change in 2018 as compared to 2017.

COMMITTEES

The Supervisory Board has three standing committees: the Audit & Risk Management Committee, the Selection & Appointment Committee and the Remuneration Committee. Until May 4, 2017, the Supervisory Board had four standing Committees; it was resolved by the Supervisory Board that effective as of that date, the Audit Committee and Risk Management Committee would be combined into one new Audit & Risk Management Committee.

AUDIT & RISK MANAGEMENT COMMITTEE

COMPOSITION: PROF. STEVE HANKE (CHAIR), MR. GUY DE SELLIERS AND MR. ROBERT MEUTER

The Audit & Risk Management Committee is responsible for, among other things, considering 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 four times during 2017, in addition to its meetings to review and approve annual and interim financial reports and statements of the Company, and reported its findings periodically to the plenary meeting of the Supervisory Board. 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 a regular topic of discussion by the Audit & Risk Management Committee.Topics of discussion at the Audit & Risk Management Committee meetings also included the Internal Audit plan and the External Audit plan, both as prepared by the Internal Auditor of AMG (see further Chapter on Corporate Governance) and the Management Board together with KPMG Accountants NV ("KPMG"), the Company's external auditor; 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; the Management Letter issued by the external auditor; liquidity and cash situation; credit facility and arrangement with the Company's major banks; insurance; environmental risk; status of the IT environment 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; and litigation reports. KPMG also provided the Audit & Risk Management Committee with agreed-upon mid-year procedures and a year-end audit of the Company's accounting policies and procedures. Furthermore, the Company's Internal Auditor maintained regular contact with the Audit & Risk Management Committee and the external auditors of the Company. The Audit & Risk Management Committee held regular meetings with the external auditors without any member of the Company's Management Board or financial and accounting staff present.

The Audit & Risk Management Committee reviewed the contents of the 2017 Management Letter of the external accountant and reported on this matter to the plenary meeting of the Supervisory Board. In 2017, external audit fees were $1.697 million, which includes the cost of the mid-year procedures. Present at all non-executive session 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 certain meetings, the General Counsel was also present.

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 all units and subsidiaries of the AMG Group with a focus on operational, financial, strategic and IT risks.

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.

During the Annual Meeting on May 2, 2018, the Supervisory Board will propose to re-appoint KPMG as external auditors of the Company for a period of two years (2018 and 2019). The Audit & Risk Management Committee has reviewed the performance of KPMG during 2016 and 2017 and has issued its report on the performance of the external auditor and its recommendation on the renewal of the engagement of KPMG to the Supervisory Board, which has discussed this matter as basis for its proposal to reappoint KPMG as external auditor of the Company.

SELECTION & APPOINTMENT COMMITTEE

COMPOSITION: NORBERT QUINKERT (CHAIR), DONATELLA CECCARELLI AND WILLEM VAN HASSEL (AS OF MAY 4, 2017)

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 2017, in addition to various informal meetings between the Committee members and 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 above (pages 29-30), bearing in mind the need to have in place at all times the right skill set and experience on the Board. During 2017, the Committee continued its succession planning process to find adequate candidates for the Supervisory Board, based on the profile which was approved in 2016.

Mr. Hoyos had indicated early in 2017 that he considered retiring from the Supervisory Board at the AGM in May 2017, when his term ended. Also Mr. Soininen had offered to resign at the AGM since the Relationship Agreement between AMG and RWC would come to an end the day after the AGM in May 2017 and RWC had initiated the process to sell down its stake in AMG. As a result, the Committee identified Ms. Suzanne Folsom and Mr. Willem van Hassel as two excellent new candidates to fill the vacancies created by Messrs. Hoyos and Soininen. These new candidates fit the new profile for the Supervisory Board very well, as they bring with them industry, legal and Dutch corporate governance expertise. These qualities were all welcomed, particularly as they were identified as highly valued during the Supervisory Board's self-evaluation process.

Further, the Committee recommended that Mr. Eric Jackson, Chief Operating Officer of AMG and a Management Board member since 2007, be re-appointed for a term of four years at the Annual Meeting in May 2017, given his excellent performance in driving strong operational results of the units, underscored by highly skilled working capital management and maintenance of strong operating cash flow results.

MANAGEMENT BOARD COMPOSITION

The Supervisory Board has reviewed the respective terms of the three Management Board members who all received high praise at their annual evaluation by the Supervisory Board in November of last year. The term of the CEO and Chairman of the Management Board (Dr. Schimmelbusch) will expire in 2019. The term of the CFO (Mr. Dunckel) will expire in 2020, and the term of the COO (Mr. Jackson) will expire in 2021.

AMG is in a critical phase of its development. The expansion of lithium and tantalum operations in Brazil, as well as the related new credit facilities and continued recognition of AMG as investment opportunity or strategic partner, demand a stable corporate atmosphere with clear continuity in leadership and strategy.

The Supervisory Board evaluates on an ongoing basis the scope and composition of the Management Board and the succession of the members of the Management Board. The Supervisory Board recognizes that in meetings with investors and banks relating to strategic issues for AMG and its business, questions were asked about the leadership continuity.

AMG's current CEO, Dr. Heinz Schimmelbusch, is one of the founders of AMG and the intellectual designer of AMG's successful strategy. His appraisals have all been excellent and, where needed, he has demonstrated ample and continuous innovation and agility. The Supervisory Board has therefore concluded that it is of utmost importance that AMG secure his leadership for the coming years as CEO and Chairman of the Management Board, given the transformational change the Company is currently executing by implementing the Company's long term strategy.

As a result, the Supervisory Board will nominate Dr. Heinz Schimmelbusch for re-appointment at the AGM in May of this year as CEO and Chairman of the Management Board for an additional two-year term, covering 2020 and 2021, after his current term expires in 2019, to secure AMG's leadership for the next three years and to provide ample time to decide on succession as well as a reasonable induction period for a new incoming CEO.

REMUNERATION COMMITTEE AND REMUNERATION REPORT 2017

COMPOSITION: JACK L. MESSMAN (CHAIR), HERB DEPP AND SUZANNE FOLSOM (AS OF MAY 4, 2017)

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 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 held two regular meetings in 2017, 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.

Topics of discussion at the meetings included the regular items such as the review of the base salary and short term incentives for members of the Management Board and the review of the performance-related compensation of the Management Board members, as well as the review of the peer group selected for executive remuneration. In addition, the Remuneration Committee met with the members of the Management Board regarding the amount and structure of the Management Board's own compensation in view of best practice provision 3.1.2.

THE NEW DUTCH CORPORATE GOVERNANCE CODE

An important topic in 2017 included the review of the impact of the 2016 Code's principles and provisions on remuneration for the Management Board and Supervisory Board as indicated in 2016. AMG's outside executive compensation consultant, Willis Towers Watson (WTW), concluded in 2016 that based on its review of the remuneration of the Supervisory Board, that such remuneration is generally comparable and in line with that of the Company's peers. Also, in 2016, WTW identified no material issues in the current Remuneration Policy of the Management Board, as stated in the 2016 Annual Report. Review of the impact of the 2016 Code on the Management Board's remuneration made the Remuneration Committee focus on the following matters:

Long term value creation: The implementation of the Remuneration Policy contributes to the long term value-creation objective of AMG as it strikes a balance between the relatively modest base salary level of the Management Board (which has not changed since 2008) and the short term incentives on the one hand, and the financial reward which can be gained under the applicable stock option and performance share unit plans on the other hand (which carry vesting terms of three to four years). Shares obtained under the PSU plan have a further holding period of two years upon vesting. The short term incentive cash remuneration is calculated and payable on an annual basis and is based on operating cash flow and return on capital employed (ROCE) targets, which are set annually by the Supervisory Board. The long term incentive (LTI) remuneration factors in an ROCE hurdle rate set by the Supervisory Board as well as AMG's relative share price performance against its peers, which are important measurements for long term value creation. The Supervisory Board establishes challenging but realistic targets every year for the short term incentive remuneration, which includes personal objectives for each Management Board member, along with longer term elements like improvements in safety, organizational excellence and growth.

Pay ratios: As required under the new Governance Code, the Remuneration Committee has initiated the review of the applicable pay ratio within AMG and its group companies. 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. Also, it should be noted that pay-ratios can be quite volatile over time, as they can vary with stock market movements (impacting the LTI part of the Management Board compensation), exchange rate movements and actual performance by the Company. AMG's pay ratios for 2016 and 2017 were 71 and 72, respectively. These ratios were impacted by the high Management Board incentive awards which were driven by AMG's strong value creation in 2016 and 2017. The development of this ratio will be monitored and disclosed going forward. If the long term incentive payments to the Management Board were removed from the calculation, the ratios would be 44 and 42 for 2016 and 2017, respectively. The Remuneration Committee has taken into account these pay ratios in establishing the Management Board compensation for 2017 and believes that these ratios are fair and adequate for this purpose.

REPORT ON REMUNERATION OF THE MANAGEMENT BOARD IN 2017

The remuneration of AMG's Management Board for 2017 was based on the Remuneration Policy of the Company. Under the Remuneration Policy, each year the Supervisory Board reviews, confirms and uses an executive compensation peer group for benchmarking purposes. For 2017, the Supervisory Board utilized the peer group established in 2016 with the assistance of Willis Towers Watson.

The selected peer group consisted of the following companies:

1. Albemarle Corporation
2. Allegheny Technologies Inc.
3. Ametek, Inc.
4. AMAG Austria Metall AG
5. Bodycote plc
6. Cabot Corporation
7. Carpenter Technology Corporation
8. Commercial Metals Company
9. Chemtura Corporation
10. Elementis plc
11. Ferroglobe plc (formerly Globe Specialty Metals Inc.)
12. Hill & Smith Holdings plc
13. Imerys SA
14. Materion Corporation
15. Minerals Technology Inc.
16. Quaker Chemicals Corporation
17. Worthington Industries Inc.

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. In addition, pursuant to the Remuneration Policy, the Remuneration Committee has agreed to honor the existing contractual agreements of the current Management Board members and therefore continues to accept the dual employment contract system as the basis for the remuneration of two of the Management Board members. The main terms and conditions of the employment contracts of the Management Board members are published on the Company's website under the heading "Corporate Governance." In establishing the 2017 remuneration, the Supervisory Board considered multiple scenarios with regards to how the remuneration components would be affected given different sets of circumstances (which related in this year particularly to the level of growth by the Company resulting from the global economy, volatility levels of the financial markets and the USD-EUR exchange rate).

MANAGEMENT BOARD REMUNERATION IN 2017

Certain members of the Management Board have entered into remuneration contracts with companies that are part of the AMG Group. The remuneration levels in the table on the next page show the aggregate values of the contracts per Management Board member. A detailed explanation of the remuneration paid in 2017 is provided in note 35 to the consolidated financial statements.

BASE SALARY

The base salaries of the Management Board members were determined by the Supervisory Board in line with the Remuneration Policy of the Company.

ANNUAL BONUS

In line with the Remuneration Policy, the short term incentive plan provides for an annual cash bonus, which depends on three key performance metrics:

- 40%: Return on capital employed (ROCE)
- 40%: Operating cash flow
- 20%: Individual performance

The Company's ROCE and operating cash flow in 2017 were significantly above the annual targets set by the Supervisory Board, and therefore the financial bonus targets set by the Supervisory Board were exceeded by the Management Board. The individual performance targets set by the Supervisory Board for each Management Board member were also met in 2017. The table below shows the target and paid-out annual bonus for the year 2017 as a percentage of base salary per Management Board member. The base salary for annual bonus calculation purposes corresponds to full-year base salary.

ANNUAL BONUS AS A % OF BASE SALARY

FOR THE YEAR ENDED DECEMBER 31, 2017	TARGET	PAYOUT
Dr. Heinz Schimmelbusch	85%	238%
Eric Jackson	65%	182%
Jackson Dunckel	65%	182%

LONG TERM INCENTIVES—STOCK OPTIONS

Dr. Schimmelbusch, Mr. Jackson, and Mr. Dunckel participate in the AMG Management Board Option Plan per the Remuneration Policy. In addition, each member of the Management Board participates in the AMG Performance Share Unit Plan adopted as part of the Remuneration Policy in 2009. The table on page 36 provides an overview of the options granted under the AMG Management Board Option Plan that are outstanding as of the end of 2017. In May 2017, options were granted to the Management Board members pursuant to the Remuneration Policy as part of the long term incentive plan. These options are all conditional and follow the conditions set forth in the Remuneration Policy and are governed by the AMG Management Board Option Plan adopted in 2009.

LONG TERM INCENTIVES—PERFORMANCE SHARE UNITS

In 2017, the Supervisory Board awarded Performance Share Units to the Management Board pursuant to the Remuneration Policy. The present value of the Performance Share Units (PSU) award for the Management Board members in 2017 is as follows (in thousands):

Heinz Schimmelbusch	€1,360
Eric Jackson	€400
Jackson Dunckel	€400

(in thousands) FOR THE YEAR ENDED DECEMBER 31, 2017	BASE SALARY	ANNUAL BONUS	OPTION COMPENSATION	PERFORMANCE SHARE UNITS	RETIREMENT BENEFITS & PENSIONS	OTHER REMUNER-ATION	VALUE OF VESTED OPTIONS "IN THE MONEY" AT DEC. 31, 2017
Heinz Schimmelbusch	$1,032	$2,458	$346	$3,836	$318	$145	—
Eric Jackson	$636	$1,157	$102	$1,129	$185	$48	—
Jackson Dunckel	$636	$1,157	$55	$620	$242	$49	—

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

The present value of the PSUs is calculated as 100% of the fair market value at the grant-date. These PSU awards will vest after three years, in accordance with the Remuneration Policy. Vesting of the PSU is subject to:

- A three-year vesting period
- A minimum average ROCE over the performance period as established by the Supervisory Board
- The relative Total Shareholder Return (TSR) compared to the Bloomberg World Metal Fabricate/Hardware Index

During 2017, Dr. Heinz Schimmelbusch exercised 1,028,432 vested stock options and Eric Jackson exercised 389,585 vested stock options. For the 2014 PSU grants, the three-year vesting period was completed in 2017 and the minimum ROCE over the performance period (2014-2016) met the target set by the Supervisory Board. The relative TSR for the Company resulted in a multiplier of 175% which accordingly allowed the entire 2013 PSU award to vest. The Supervisory Board resolved in May 2015, pursuant to the authority granted under the Remuneration Policy, that the PSU awards granted in 2013 and 2014 would be settled in AMG shares rather than cash, subject to vesting of the awards. As a result, in 2017 the following shares were issued to the following Management Board members as settlement of the 2014 PSU awards:

Dr. Heinz Schimmelbusch	347,665 shares AMG
Mr. Eric Jackson	102,254 shares AMG

PENSIONS AND RETIREMENT BENEFITS

The members of the Management Board are members of a defined contribution plan maintained in the United States. All of them receive additional retirement benefits from Metallurg's Supplemental Executive Retirement Plan (SERP). With respect to Heinz Schimmelbusch, the supplemental benefits are payable commencing at the end of his employment with AMG. The benefit to be paid under the AMG retirement plan will be reduced by the amounts received under the normal retirement benefit under the Pension Plan of Metallurg Inc. Pursuant to Eric Jackson's and Jackson Dunckel's SERP, it is provided that if one is employed by AMG or remains in AMG's employment until he is 65, he is entitled, whether or not he has terminated his employment, to receive AMG retirement benefits (reduced by amounts received under Metallurg's other pension plans). As Eric Jackson has reached age 65 and remains in AMG's employment, he has begun receiving AMG retirement benefits. Jackson Dunckel's benefits will be reduced if his employment with AMG ends prior to reaching age 65.

Total costs to AMG with respect to the pension and retirement benefits of the Management Board in 2017 are provided in the table on page 36, which sets forth total expenses incurred in 2017 for Management Board remuneration.

OTHER BENEFITS

All Management Board members receive benefits that are in line with industry and individual country practice. No loans 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 in note 35 to the consolidated financial statements, which sets forth total costs incurred in 2017 for Management Board remuneration.

CONTRACTS

Dr. Schimmelbusch and Mr. Jackson have management agreements with AMG and employment agreements with one of AMG's US subsidiaries. These employment contracts were entered into before January 1, 2013 for an indefinite period of time. In case AMG terminates the contract(s) of employment without cause, the maximum severance payment is limited to two years' base salary and two years of target annual bonus. Mr. Dunckel has a management agreement with AMG and an employment agreement with one of AMG's US subsidiaries for an indefinite period of time. In case Mr. Dunckel's employment agreement is terminated without cause, the maximum severance payment is limited to two years' base salary. Current agreements with respect to severance payments do not comply with best practice provision 3.2.3 of the Dutch Corporate Governance Code, which is further explained in the Chapter on Corporate Governance (page 46), but we believe they are necessary to attract and retain key senior executives in the countries in which we operate.

As part of the Company's Remuneration Policy, AMG will honor existing contractual agreements for its Management Board members and adapt to individual country practices that differ from best practice provision 3.2.3 of the Dutch Corporate Governance Code. Key terms of the employment contracts of the Management Board members are provided on the Company's website under the "Corporate Governance" section.

MANAGEMENT BOARD REMUNERATION FOR 2018

The Remuneration Committee has set up the size and structure of the Management Board's remuneration for 2018. The Remuneration Committee has analyzed the possible outcomes of the different remuneration components in view of various economic scenarios and how these may affect the remuneration of Management Board members. The Remuneration Committee

AMG OPTION PLAN		NON-VESTED OPTIONS UNDER THE PLAN				VESTED OPTIONS UNDER THE PLAN		
FOR THE YEAR ENDED DECEMBER 31, 2017	YEAR	DATE OF GRANT	NUMBER OF OPTIONS	PRESENT VALUE AT DATE OF GRANT (€)	VESTING SCHEME	EXERCISE PRICE (€)	NUMBER OF OPTIONS	MARKET VALUE AT 12/31/2017 (€)
Dr. Heinz Schimmelbusch								
	2014	5-8-14	39,433	170,000	50% vested after 3 years, 50% vested after 4 years	7.82	—	n/a
	2015	5-7-15	76,341	340,000	50% vested after 3 years, 50% vested after 4 years	8.08	—	n/a
	2016	5-4-16	129,771	340,000	50% vested after 3 years, 50% vested after 4 years	9.78	—	n/a
	2017	5-4-17	47,668	340,000	50% vested after 3 years, 50% vested after 4 years	25.50	—	n/a
Eric Jackson								
	2014	5-8-14	11,598	50,000	50% vested after 3 years, 50% vested after 4 years	7.82	—	n/a
	2015	5-7-15	22,453	100,000	50% vested after 3 years, 50% vested after 4 years	8.08	—	n/a
	2016	5-4-16	38,168	100,000	50% vested after 3 years, 50% vested after 4 years	9.78	—	n/a
	2017	5-4-17	14,020	100,000	50% vested after 3 years, 50% vested after 4 years	25.50	—	n/a
Jackson Dunckel								
	2016	5-4-16	38,168	100,000	50% vested after 3 years, 50% vested after 4 years	9.78	—	n/a
	2017	5-4-17	14,020	100,000	50% vested after 3 years, 50% vested after 4 years	25.50	—	n/a

has reviewed the executive compensation peer group (listed on page 34) in establishing the compensation for 2018 and has decided no changes are merited to the peer group. As noted in the 2016 annual report, the Company appointed a new executive remuneration consultant (WTW) in 2016, who proposed the revised executive compensation peer group, which is being used as of 2017.

BASE SALARY

The Supervisory Board has decided that the base salary of the Management Board members for 2018 will not change as compared to the base salary levels of 2017. The table below shows the base salaries (on an annual basis) for 2017 and 2018 (in thousands):

	2017	2018
Dr. Heinz Schimmelbusch	$1,032	$1,032
Eric Jackson	$636	$636
Jackson Dunckel	$636	$636

ANNUAL BONUS

Each year, a variable cash bonus can be earned based on achievement of challenging targets which, as has been established by the Remuneration Committee, contribute to the long term value-creation objectives of the Company. The annual bonus criteria are set forth below and relate 80% to financial indicators of the Company and 20% to the individual performance of Management Board members. The Supervisory Board determines ambitious target ranges with respect to each performance metric and with respect to the threshold, target, and maximum payout, and determines whether performance targets have been met. The annual bonus payout in any year relates to achievements realized during the preceding year against the agreed targets. The 2018 annual bonus will be determined as follows:

- 40% from ROCE (against agreed target ranges) realized
- 40% from operating cash flow (against agreed target ranges) realized
- 20% from individual performance—at the discretion of the Supervisory Board

The table below shows the annual bonus for each member of the Management Board as a percentage of base salary, in the case that threshold and target performance levels are reached. Below threshold level, the payout will be 0%. The annual bonus can vary based on actual performance and can range from zero up to three times target in case of superior performance.

The Supervisory Board has the discretion to adjust the bonuses upward or downward if the predetermined performance criteria would produce an unfair result due to incorrect financial data or extraordinary circumstances.

MANAGEMENT BOARD POSITION	TARGET PAYOUT[1]
Chairman and Chief Executive Officer	85%
Chief Operating Officer	65%
Chief Financial Officer	65%

1 Expressed as % of base salary.

LONG TERM INCENTIVES

Pursuant to the Remuneration Policy, the long term incentives for the Management Board for 2018 consist of two programs: the Performance Share Unit Plan and the Stock Option Plan.

This year's grant (2018) will be the tenth grant under the Plan, and vesting will, depending on performance, occur after completion of the performance period that covers the calendar years 2018, 2019 and 2020. Vesting of the Performance Share Units under the 2018 grant is subject to:

- A minimum average ROCE over the performance period
- The relative TSR compared to the Bloomberg World Metal Fabricate/Hardware Index

Each year the Supervisory Board determines the target range with respect to the ROCE performance metric, which sets the threshold and maximum payouts and determines whether such targets have been achieved. In addition, it monitors and establishes the applicable TSR ranking for the relevant PSU period. The TSR ranking used applies the Bloomberg World Metal Fabricate/Hardware Index, as further explained in the Company's Remuneration Policy, which is available in the "Corporate Governance" section of the Company's website. The Supervisory Board has the ability to adjust the value upward or downward if the predetermined performance criteria would produce an unfair result due to incorrect financial data or in case of extraordinary circumstances.

The present values of the PSUs to be granted in 2018 are €1,360,000 for the Chief Executive Officer, €400,000 for the Chief Operating Officer and €400,000 for the Chief Financial Officer. With regard to the Stock Option Plan (SOP), each member of the Management Board will be granted stock options in 2018 in accordance with the Remuneration Policy. Vesting of the stock options is subject to a minimum three-year average ROCE requirement. The stock options will vest half (50%) after the third anniversary and half (50%) after the fourth anniversary. The present values of the stock options under the SOP to be granted in 2018 are €340,000 for the Chief Executive Officer, €100,000 for the Chief Operating Officer and €100,000 for the Chief Financial Officer.

Based on the defined long term incentive value, the number of share options granted annually will be determined by an option pricing model with appropriate input assumptions.

The input assumptions are reviewed annually. The aggregate number of stock options to be granted under the Remuneration Policy to members of the Management Board shall not exceed 10% of the outstanding share capital of the Company at any time.

PENSION AND OTHER BENEFITS

The pension and other benefits of the members of the Management Board in 2018 will not change compared to 2017.

CONTRACTS

The current contractual agreements will not change compared to 2017. Main elements of the contracts with the Management Board members are published under the "Corporate Governance" section of the Company's website.

SHARES HELD BY MEMBERS OF THE MANAGEMENT BOARD

As of December 31, 2017, Heinz Schimmelbusch held 765,533 AMG shares, Eric Jackson held 244,021 AMG shares and Jackson Dunckel held 8,905 shares.

APPRECIATION FOR THE MANAGEMENT BOARD AND THE EMPLOYEES OF AMG

The Supervisory Board would like to thank the Management Board for its dedication and extraordinary efforts in leading the Company. The Management Board has continued to focus on implementation of its long term strategy, having achieved its goals of improving operating cash flow and reducing net debt. 2017 saw a rapid positive change in the world economy which has returned to growth with rising price levels of nearly all of the materials AMG is producing or processing, resulting in very good financial performance by the Company. 2017 was also the beginning of AMG's transformational lithium project as one of the cornerstones of AMG's strategy. The Management Board did an excellent job in 2017 in keeping the Company focused on not only its operations and financial performance, but also on long term value creation. The Supervisory Board would also like to thank all the employees of AMG for their continued commitment to the Company's success.

ANNUAL REPORT 2017

The Annual Report and the 2017 Annual Accounts, audited by KPMG, have been presented to the Supervisory Board. The 2017 Annual Accounts and the report of the external auditor with respect to the audit of the annual accounts were discussed with the Audit & Risk Management Committee in the presence of the Management Board and the external auditor. The Supervisory Board endorses the Annual Report and recommends that the General Meeting of Shareholders adopt the 2017 Annual Accounts.

SUPERVISORY BOARD
AMG ADVANCED METALLURGICAL GROUP N.V.

— Norbert Quinkert, Chairman

— Jack L. Messman, Vice Chairman

— Steve Hanke

— Herb Depp

— Guy de Selliers

— Donatella Ceccarelli

— Robert Meuter

— Suzanne Folsom

— Willem van Hassel

March 21, 2018

SUSTAINABLE DEVELOPMENT

This section provides our tenth annual sustainability report, which evaluates and compares AMG's social and environmental performance to previous years.

SITE NAME[1]	LOCATION	COUNTRY	DIVISION
AMG Headquarters[3]	Amsterdam	Netherlands	AMG Corporate
AMG USA Headquarters[3]	Pennsylvania	USA	AMG Corporate
ALD USA[3]	Connecticut	USA	AMG Engineering
ALD France	Grenoble	France	AMG Engineering
ALD Vacuum Technologies[2]	Hanau	Germany	AMG Engineering
ALD Vacuheat[2]	Limbach	Germany	AMG Engineering
ALD TT USA[2]	Michigan	USA	AMG Engineering
ALD Dynatech[3]	Mumbai	India	AMG Engineering
ALD TT Mexico[2]	Ramos Arizpe	Mexico	AMG Engineering
ALD Japan[3]	Shinjuku-ku	Japan	AMG Engineering
ALD C&K[3]	Suzho	China	AMG Engineering
AMG Antimony	Chauny	France	AMG Critical Materials
Bogala Graphite Lanka[2]	Colombo	Sri Lanka	AMG Critical Materials
AMG Graphite[2]	Kropfmühl	Germany	AMG Critical Materials
AMG Antimony	Lucette	France	AMG Critical Materials
AMG Mineração[2]	Nazareno	Brazil	AMG Critical Materials
AMG Silicon[2]	Pocking	Germany	AMG Critical Materials
AMG Graphite	Qingdao	China	AMG Critical Materials
AMG Graphite Tyn	Tyn	Czech Republic	AMG Critical Materials
AMG Alpoco	Anglesey	UK	AMG Critical Materials
AMG Titanium Alloys and Coatings[2]	Brand Erbisdorf	Germany	AMG Critical Materials
AMG Aluminum[3]	Jiaxing	China	AMG Critical Materials
AMG Aluminum	Kentucky	USA	AMG Critical Materials
AMG Alpoco	Minworth	UK	AMG Critical Materials
AMG Titanium Alloys and Coatings[2]	Nürnberg	Germany	AMG Critical Materials
AMG Vanadium[2]	Ohio	USA	AMG Critical Materials
AMG Superalloys and AMG Aluminum[2]	Rotherham	UK	AMG Critical Materials
AMG Superalloys[2]	São João del Rei	Brazil	AMG Critical Materials
AMG Aluminum	Washington	USA	AMG Critical Materials

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.

2 2017 remote externally audited data.

3 Minor or office facilities with estimated data.

The reporting boundaries have not changed significantly since 2016. The 29 locations reporting in 2017 (in which AMG has a 51% or greater stockholding) are detailed in the table to the left.

They include mining and manufacturing operations and sales and administrative offices in 12 countries across 4 continents. This report covers the same two segments as described in 2016: AMG Critical Materials and AMG Engineering. 2016 data are included so that comparisons can be made. AMG will continue to assess the boundaries of this report based on the corporate ownership structure on an ongoing basis.

All locations report their performance at the end of the fourth quarter and no forecast data are used. However, sales and administrative offices and some smaller engineering sites (typically with fewer than 10 employees or with environmental impacts <1% in all aspects) have been determined to be immaterial to the report, and therefore estimated data have been used for these in 2017. Those sites utilizing estimated data are indicated in the table on page 38.

SCOPE OF THIS REPORT

AMG utilizes some of the Global Reporting Initiative (GRI), Mining and Metals Sector Supplement aspects as a basis for this report but includes only those which are material to its business units. The report covers aspects that are material based on the following two dimensions:

- The significance of the organization's economic, environmental, and social impacts;
- Their substantive influence on the assessments and decisions of stakeholders.[4]

AMG utilizes a standard template that sites use to report their data to ensure consistency in the interpretation of definitions of the key indicators. The report is independently verified by GHD. The environmental key performance data for both segments are summarized in the table on page 45.

AMG Advanced Metallurgical Group N.V. amg-nv.com

Contact: globalsustainability@amg-nv.com

AMG PEOPLE AND DIVERSITY

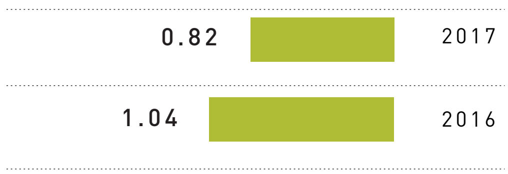
GRI STANDARDS 102-8, 102-41, 403-1, 403-2, 404-1, AND MM4

The size of AMG's workforce has been relatively stable over the last year, and at year-end 2017, AMG Critical Materials had 2,210 employees and AMG Engineering had 772. For the facilities covered by this report, the total AMG workforce was 2,982 (other facilities not yet covered in this section employ a further 151 people). Geographically, these employees were located in Asia (299), Europe (1,695), North America (425) and South America (563).

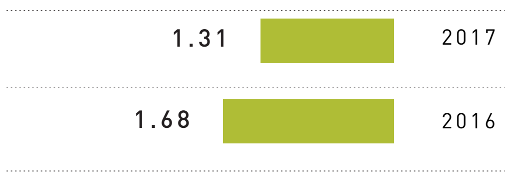
In addition to direct employees, a further 270 directly-supervised contract workers were employed at AMG sites in 2017. AMG assesses the diversity of its workforce in terms of gender and age, but not ethnicity. The multinational, and therefore multicultural, nature of AMG's business means that ethnic diversity is significant, but it is not possible to define minority

4 GRI, GRI Standards, GRI 101: Foundation 2016, 2016, p.18.

LOST TIME INCIDENT RATE



TOTAL INCIDENT RATE



employees in such an environment. Of the total employees, 16% are female; 18% are under thirty years of age, 54% are between thirty and fifty, and 28% are over fifty.

The Management Board's composition is 100% male. The Supervisory Board's composition is 78% male and 22% female as of the end of 2017 but is expected to change after the Annual General Meeting in May 2018, when the Supervisory Board will have at least 30% male members and at least 30% female members.

AMG has adopted a Diversity Policy in relation to the composition of its Management Board and Supervisory Board [see pages 29-30]. AMG will continue to take its key diversity objectives, including maintaining a proper balance of nationalities and the gender allocation of seats, into account in connection with recruitment, retention of employees and succession planning.

In 2017, the Management Board deployed measures to attract and maintain a diverse workforce at its units by, among other things, linking incentives for unit managers to meaningful results in diversity targets. We believe in promoting and growing our leaders internally. The promotion of Ms. Michele Fischer to President of AMG Aluminum expanded the diversity of our top leadership.

The rights and freedoms for individual employees to join, or choose not to join, unions, as described in Article 23 of the Universal Declaration of Human Rights, are fully respected by AMG. Across AMG, 1,981 employees (66%) were covered by such collective bargaining agreements. 72% of AMG Critical Materials employees are covered by these arrangements, while AMG Engineering, which includes a higher proportion of professional salaried staff, has 51% of its employees covered. Once again, in 2017, AMG facilities had no strikes or lockouts.

AMG regrets to report that in 2017, a male employee suffered a fatal injury at the Sri Lanka graphite mine while in the organization's employ. AMG's aspirational goal is to become a zero lost time incidents workplace—we cannot accept that any incident is inevitable. Since 2008, there has been year-over-year safety improvement across AMG. For AMG, the total lost time incident rate[5] improved 21% from 1.04 in 2016 to 0.82 in 2017. Of the 29 locations included in this report, 18 achieved zero lost-time incidents in 2017. The total incident rate[6] improved 22% from 1.68 in 2016 to 1.31 in 2017. No specific occupational diseases were reported in 2017.

Formal safety management systems continue to play an important role in achieving zero harm to employees, and 15 of AMG's larger sites are OHSAS 18001 certified. In 2017, 88% of the AMG workforce was represented in formal health and safety committees, which are in place at every major production facility and many of the smaller facilities. In these committees, representatives from all levels of the organization become pivotal decision makers regarding safety at their respective facilities. Given the high level of engagement within the labor force, the average absenteeism rate across AMG was 2.97%.

AMG also collects data on the hours we invest in our people to develop their skills. The categories of training include technical and professional development, quality, anti-corruption policies, human rights policies, and health and safety. This is important for our safety, environmental, and ethics programs, and for maintaining our technical competitive advantage. In 2017, AMG provided training to the following labor groups: management (147 employees trained, averaging 22.8 hours per person), professional, technical, sales, administration (1,059 employees trained, averaging 52.3 hours per person), and production and maintenance (1,727 employees trained, averaging 44.8 hours).

Across all the reporting sites in 2017, AMG employees received an average of 45.8 hours of training time (approximately 2.7% of total hours worked).

HUMAN RIGHTS AND ETHICS

GRI STANDARDS 205-2, 407-1, 408-1, AND 412-2

Protection of internationally proclaimed human rights is an area in which AMG is both highly aware and fully committed, and the Company strives to make sure it is not complicit in human rights abuses. Each AMG site is assessed during site visits and internal audits to identify if there is the possibility of freedom of association or collective bargaining being put at risk because of political or business factors. In 2017, it was found that no sites were at risk, except for China, where the formation of unions remains restricted. Similarly, the Company has reviewed sites to ensure that they are not at risk for employing child labor or exposing young workers to hazards. No sites have been identified that pose a risk at this time. AMG also aims to ensure rights are protected in our supply chain through its Supplier Code of Conduct. Our policy on human rights is included in the AMG Code of Business Conduct and Ethics and detailed in the Company's human rights policy; all are available on the AMG website.

THE AMG VALUES AND THE AMG CODE OF BUSINESS CONDUCT

We act Safely

We aim to create Value

We respect People

We act with Integrity

These are AMG's Values and they enable AMG's ambition of being a leader in the field of critical materials and engineering services. These values apply to how AMG conducts its operations and how it deals with its employees, business partners, and stakeholders. The AMG Code of Business Conduct and the Speak Up and Reporting Policy, which reference the AMG Values, are prominently displayed in the local language at each place where the AMG companies carry out their operations and where AMG staff are employed.

In 2017, AMG completed its mandatory online general ethics training for all employees who are not involved in manual labor activities. A general ethics training program for employees who are involved in manual labor activities was updated in 2017 (after its first deployment in 2015) and will be deployed in 2018. In 2017, AMG also completed its online anti-bribery training for designated staff. In 2018, AMG will launch its general antitrust and competition law principles training for designated staff. The general ethics training, anti-bribery training, and general antitrust and competition law trainings are repeated in three-year cycles.

5 Lost time incident frequency rate equals the number of lost time incidents multiplied by 200,000 divided by the total hours worked. Lost time injury was defined using local regulations.

6 Total incident frequency rate equals the number of incidents (including all medically treated injuries) multiplied by 200,000 divided by the total hours worked.

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. In October 2017, AMG's Chief Compliance Officer reported to the Management Board and senior management of AMG, and more recently in 2018 to the Supervisory Board, about applicable compliance and incident trends at AMG.

During the 2016-2017 period, the number of complaints received under AMG's Speak Up and Reporting policy was well below the available benchmark as published by NAVEX Global (2017 Ethics & Compliance Hotline & Incident Management Benchmark report). No incidents or complaints have been reported to AMG or any public authorities to date which would implicate AMG or any of its staff in any bribery scheme involving public officials or agencies.

RESOURCE EFFICIENCY AND RECYCLING

GRI STANDARDS 301-1 AND 301-2

The use of resources varies between AMG business units, ranging from those that locally mine or purchase primary raw materials to produce metals, alloys, and inorganic chemicals, through those that produce metals and alloys from secondary, recycled resources, to those that provide technology and engineering services. AMG resource usage data comprise raw materials, associated process materials, semi-manufactured goods and parts and packaging, by weight.

Given that AMG Engineering predominantly provides furnace technology and engineering services, including furnace assembly operations and heat treatment services, this segment utilizes relatively limited amounts of resources. Resources used are mainly complex component parts for furnaces, which are routinely measured in units rather than by mass. Unlike the chemicals and alloys business units, this means only limited data are available on resource mass. In 2017, AMG Engineering reported using 4,160 mt of resources, all of which were classified as primary.

AMG Critical Materials uses a much more diverse range of resources, including mined ores for tantalum, lithium and graphite production, power plant wastes and spent refinery catalysts to produce vanadium alloys, and metal salts for aluminum alloy production. The segment uses recycled iron, steel, aluminum and titanium in processes when possible. The segment utilized 842,150 mt of resources in 2017, of which 47,410 mt were secondary or recycled materials.

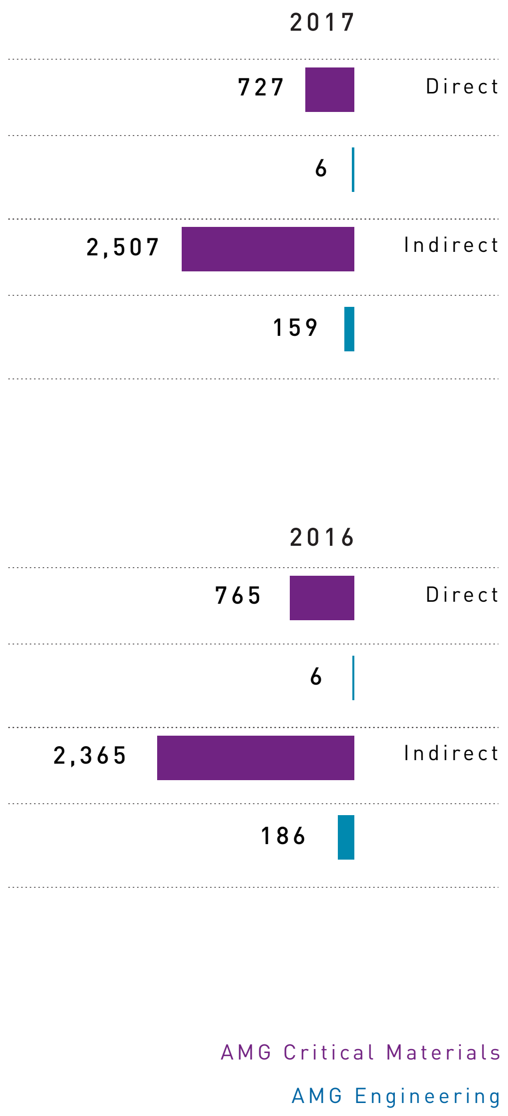
ENERGY CONSUMPTION

GRI STANDARDS 302-1 AND 302-2

Energy remains a major area of focus for AMG for both environmental and economic reasons. In particular, high-temperature metallurgical processes and mining operations utilized in AMG Critical Materials are energy-intensive.

The two most significant energy carriers are electricity and natural gas, although other fuels and energy sources are captured in the data discussed here.[7]

ENERGY USAGE (TJ)



7 Indirect energy consumption does not include the energy consumed by electricity producers to generate the electricity or transmission losses.

The reported energy usage for AMG Critical Materials was marginally higher in 2017 compared to 2016, increasing from 3,130 terajoules (TJ) in 2016 to 3,234 TJ in 2017. Direct energy usage was 727 TJ and indirect was 2,507 TJ.

In comparison to the above, the energy used by low-energy heat treatment processes utilized by AMG Engineering remains low. The segment used 159 TJ in 2017, 20% lower than in 2016 (192 TJ). Indirect energy, in the form of electricity, accounted for 153 TJ, while direct energy use, primarily through natural gas, totaled 6 TJ.

Across AMG, the split between renewable and non-renewable indirect energy sources is difficult to determine since utilities do not generally publish this information.

However, AMG does generate its own renewable energy. In 2017, AMG's hydroelectric generating facility near São João del Rei, Brazil generated 18,315 gigajoules (5,088 MWh). Additionally, AMG Vanadium's solar power system generated 635 gigajoules (176 MWh) in 2017.

WATER CONSUMPTION

GRI STANDARD 303-1

Water is essential to many manufacturing processes and is used by AMG primarily for non-contact, evaporative or single-pass cooling purposes, although a small number of AMG facilities do use wet chemical processes to produce metal oxides and other chemicals. In addition, mining operations can utilize water from mine dewatering or for ore processing. Water utilized for cooling, processing and sanitation is reported by AMG facilities. Reported water use for AMG Critical Materials was lower in 2017 at 4,291,000 cubic meters (a 2% decrease). AMG Engineering's water consumption was 90,742 cubic meters during 2017, far below that of 2016 (100,800 cubic meters).

AMG Critical Materials has its largest water use at the mine sites in Brazil, Germany and Sri Lanka, and the silicon metal production plant in Germany. Of these, the mine in Nazareno, Brazil remains the largest user with 2,321,000 cubic meters consumed in 2017, a 7% decrease from 2016, resulting from process water recycling and improved measurement. Full data are provided in the table on page 45.

BIODIVERSITY

GRI STANDARD 304-1

Of the 29 locations reporting for 2017, there were three reported land areas on or adjacent to AMG's properties which had high biodiversity value, sensitive habitats or were protected. These areas are: native forest in São João del Rei, Brazil; river frontage and setback areas in Nazareno, Brazil; and wetlands in Ohio, United States. AMG remains very aware of the need to be responsible stewards of these important areas.

CLIMATE CHANGE

GRI STANDARDS 305-1 AND 305-2

AMG facilities utilize processes that are associated with both direct and indirect greenhouse gas (GHG) emissions, and both types are reported here. Electricity used for the generation of heat for metallurgical processing has been, and remains, the most significant source of GHG emissions for AMG. This electricity use gives rise to indirect GHG emissions of carbon dioxide equivalent (CO_2e), which are dependent on the nature of its generation. Whenever possible, emissions have been calculated using up-to-date emission factors available from the electricity supplier, the local environmental agency, or the GHG protocol. Indirect emissions are defined as those emissions generated by sources outside of AMG's control, but where AMG ultimately uses the energy.

Direct GHG emissions result primarily from the combustion of carbon-containing materials often as part of the metallurgical process, such as using coke as a reductant, but also for the generation of heat, such as burning natural gas in a boiler. Other GHGs occurring from processes other than combustion, such as hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride, are minimal for the AMG business units, but are included if relevant.

AMG Critical Materials' GHG emissions were higher in 2017 at 612,000 mt of CO_2e (546,000 mt in 2016). 60% of these emissions are attributed to indirect sources (electricity). Emissions remain dominated by the silicon metal production activities which account for 388,000 mt of CO_2e (approximately 6.34 kg CO_2e per kg silicon metal produced). This activity also dominates AMG's overall GHG emissions, accounting for 68% of total group emissions.

AMG Engineering GHG emissions in 2017 were 27,000 mt, a decrease from 33,000 mt in 2016. 99% of these emissions are indirect and associated with electricity usage.

AMG provides a complex mix of products and services, and it has become clear that year-on-year comparisons are difficult, as product mix varies. GHG intensity is therefore defined on the basis of revenue rather than, for example, mt of product. Normalized to a revenue basis, AMG Critical Materials emitted 612,000 mt CO_2e, with revenue of $814.0 million, equivalent to 751 mt CO_2e per million $ revenue. AMG Engineering generated 26,000 mt CO_2e and $245.0 million in revenue, or 102 mt CO_2e per million $ revenue. This wide range reflects the diversity of AMG but also guides focus on reduction opportunities.

For AMG as a whole in 2017, GHG emissions were 639,000 mt, up 10% from 579,000 mt in 2016. Revenue was $1,059 million, giving a GHG intensity of 604 mt per million $ revenue, an increase of 1% from 2016.

EMISSIONS TO AIR

GRI STANDARDS 305-6 AND 305-7

The emissions of ozone-depleting substances remain de minimis for AMG. AMG Engineering also has de minimis air emissions for other pollutants, resulting from small sources such as heating and hot water boilers. AMG Critical Materials' production facilities do have some other air emissions, including SOx (629 mt), NOx (123 mt) and particulate materials (911 mt). Data are only available for regulated sources where measurements have been made.

EMISSIONS TO WATER AND SPILLS

GRI STANDARDS 306-1 AND 306-3

AMG facilities continue to maintain records of the volume of aqueous effluents, including process water and non-sanitary sewer discharges to local water courses. Clean water (typically freshwater used for cooling purposes that has not been affected in the process) is included in the figures given below. Chemical analysis of the effluent is utilized to determine the total mass of primary constituents of the water emissions.

In 2017, the total water disposed to water courses by AMG Critical Materials equaled 2,984,000 cubic meters, compared to 3,257,000 cubic meters, in 2016. This decrease is attributed to improvements in efficiencies at the AMG Mineração mine, production levels and product mix. Of the total amount, 1,629,000 cubic meters of water were discharged to the same water body from which it was drawn at the mine site in Brazil, a 17% reduction from 2016.

After mining activities, most of AMG Critical Materials' water is used for cooling purposes and therefore produces clean water discharges, and some of the wet chemical processes generate aqueous waste streams. This included cooling water used by the silicon metal furnaces as well as mine water from dewatering pumps. In several locations, mine water is utilized for process water before final discharge.

AMG Engineering utilizes minimal water for non-contact, closed-cycle cooling purposes, and the discharges are therefore clean water and not considered material to this report. The only significant water discharge of non-contact cooling water takes place at the site in Michigan, USA (30,000 cubic meters in 2017).

In 2017, there were no significant spills (defined as one which would affect the Company's financial statements because of the ensuing liability or would be recorded as a spill) of tailings or other process materials at any AMG site.

WASTE DISPOSAL

GRI STANDARD 306-2

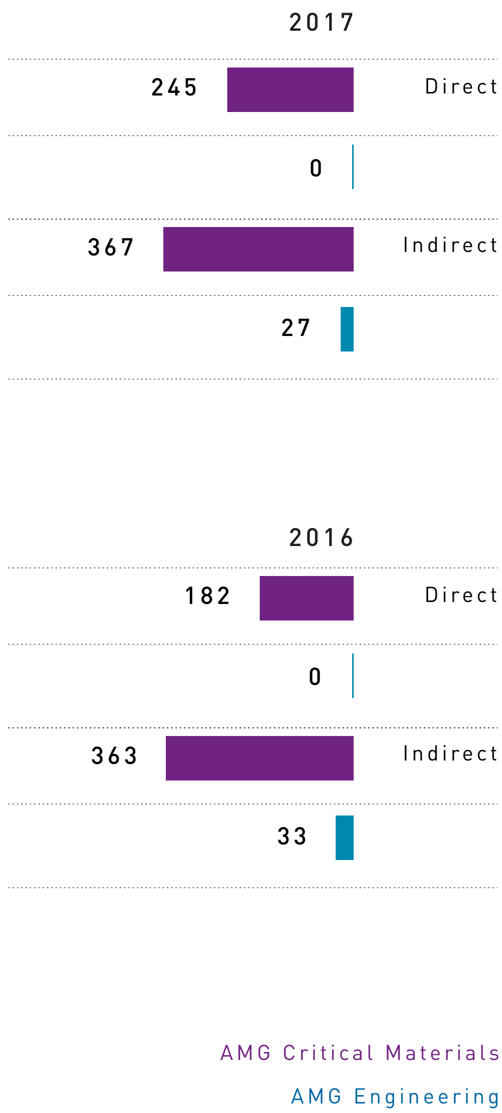
Detailed information was collected in 2017 for waste streams generated by AMG, along with documentation of their recycling or disposal method. AMG continues to minimize waste streams by avoiding generation, increasing reuse and recycling and minimizing landfill disposal. Landfill is a last resort. Wastes as defined here encompass materials not purposefully produced for sale and with no commercial value.

The total landfill or incineration disposal for AMG Critical Materials was 25,987 mt, an increase of 34% over 2016 (19,356 mt). 93% of these materials (24,240 mt) were non-hazardous, with the remaining 1,793 mt disposed to licensed hazardous waste landfills.

The waste produced by AMG Engineering is much different in composition, and much smaller in volume. Just 128 mt were disposed to landfills in 2017 (193 mt in 2016), composed mainly of general waste, contaminated oil and metals that could not readily be recycled, and almost no hazardous waste.

Overall, the Company disposed of 26,370 mt of waste to landfills or incineration in 2017 compared to 19,550 mt in 2016. Hazardous waste accounted for 16% of the total.

GHG EMISSSIONS ('000 MT)



SIGNIFICANT FINES FOR NON-COMPLIANCE WITH ENVIRONMENTAL AND OTHER LAWS

GRI STANDARDS 307-1

No facility received any significant fine or equivalent penalty for non-compliance with environmental laws in 2017.

MATERIAL STEWARDSHIP

GRI STANDARD G4-DMA

AMG continues its progress regarding its responsibilities under the REACH regulations in Europe and is continuing to prepare for its 2018 registrations for products with volumes greater than 1 mt. European operations are working with consortia in developing the health, safety and environmental data required for these registrations and have taken on the role as lead registrant in several cases. Industry groups continue to focus on developing health and safety knowledge of their products as the regulatory framework grows and expands across the world. AMG units are involved in, among others, the Vanadium International Technical Committee and the International Antimony Association.

GRI CONTENTS

This section provides an overview of how AMG's Annual Report correlates with the GRI guidelines for the voluntary reporting of sustainable development indices. The table on the next page serves as a reference guide to the sections of the report where information about each item can be found. The GRI guidelines facilitate measurement of economic, environmental, and social dimensions of company performance. Third-party verification has been conducted relative to determining consistency with the GRI reporting principles. For brevity, only the most pertinent data are included in this report.

UNITED NATIONS GLOBAL COMPACT

AMG commits its support to the principles of the United Nations Global Compact. The Global Compact is a strategic policy 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. In 2009, the AMG Management Board approved its commitment to the Global Compact and the intent of AMG to support the 10 principles. AMG will reaffirm its support and submit its sixth Communication on Progress in April 2018.

EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE

AMG continues its support of the Extractive Industries Transparency Initiative (EITI, eiti.org), 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 30 countries have now committed to the EITI principles and criteria. As of today, AMG does not have any extractive operations in an EITI-implementing country, although it does have exploration and development activities in Mozambique.

Further information on AMG Sustainable Development and our commitments to these organizations, including our United Nations Global Compact Communication on Progress, can be found on the AMG website (amg-nv.com).

ENVIRONMENTAL, HEALTH, SAFETY AND SOCIAL REPORTING STATEMENT OF ASSURANCE

SCOPE, OBJECTIVES & RESPONSIBILITIES

AMG's environmental, health, safety and social performance reporting has been prepared by the management of AMG, who are responsible for the collection and presentation of the information. GHD was retained by AMG to conduct an independent review and assurance of the key information[8] and data reported in the Sustainable Development section of this report. The objective of the assurance process is to check the materiality of the issues included in the report and the completeness of reporting. Any claims relating to financial information contained within the report are excluded from the scope of this assurance process. GHD's responsibility in performing its assurance activities is to the management of AMG only, in accordance with the terms of reference agreed with AMG. GHD does not accept or assume any responsibility for any other purpose or to any other person or organization. Any reliance that any third party may place on the report is entirely at its own risk.

APPROACH AND LIMITATIONS

GHD's assurance engagement has been planned and performed in accordance with AMG's internal guidance and definitions for the reported indices. The assurance approach was developed to be consistent with the GRI guidelines and international standards for assurance appointments. Remote audits utilizing telephone and web-based methods were carried out for 13 facilities (see table on page 38) identified by AMG, representing approximately 45% of the total number of AMG facilities. Stakeholder engagement was not within the scope of the assurance activities.

CONCLUSIONS/RECOMMENDATIONS

Based on the method and scope of work undertaken, and the information provided to GHD by AMG, the process undertaken by AMG provides a balanced representation of the issues concerning AMG's sustainability performance and is an appropriate presentation of AMG's environmental, safety, health and social performance in 2017. In GHD's opinion, the processes for collecting and reporting sustainability-related data that AMG introduced in 2007 continue to be enhanced through better communication and awareness, and more consistent application of the environmental indices. Some challenges remain, related to providing consistent and complete data in an efficient manner.

It is recommended that AMG continue to focus on these challenges to improve reporting, but they do not materially affect the conclusions presented herein.

—JULIAN HAYWARD, P. ENG. GHD

—ASHLEY VALENTINE, P.E. GHD

8 102-8, 102-41, 301-1, 301-2, 302-1, 302-2, 303-1, 305-1, 305-7, 306-1, 306-2, and 403-2

SELECT SOCIAL AND ENVIRONMENTAL KEY PERFORMANCE INDICATORS

GRI INDICATOR	DESCRIPTION	UNITS	AMG CRITICAL MATERIALS		AMG ENGINEERING		AMG GROUP	
			2016	2017	2016	2017	2016	2017
102-8	Total workforce		2,110	**2,210**	778	**772**	2,888	**2,982**
102-41	% of employees covered by collective bargaining agreements		72	**72**	52	**51**	67	**66**
403-2	Lost Time Accident Rates	Total	1.19	**0.85**	0.58	**0.74**	1.04	**0.82**
403-2	Total Incident Rates	Total	1.72	**1.42**	1.64	**1.04**	1.68	**1.31**
404-1	Average Hours of Training Per Year	Per person	25.1	**45.8**	49.2	**45.6**	32.3	**45.8**
301-2	% Recycled Raw Materials	%	10	**6**	0	**0**	10	**6**
302-1	Direct Energy Consumption	TJ	765	**727**	6	**6**	771	**733**
302-2	Indirect Energy Consumption	TJ	2,365	**2,507**	192	**159**	2,557	**2,666**
303-1	Water consumption	'000 cubic meters	4,225	**4,291**	NA	**NA**	4,225	**4,291**
305-1	CO_2 equivalent emissions	mt	546,000	**612,000**	33,000	**27,000**	579,000	**639,000**
305-7	SOx emissions	mt	735	**629**	0	**0**	735	**629**
305-7	NOx emissions	mt	119	**123**	0	**0**	119	**123**
305-7	Particulates discharged to air	mt	802	**911**	0	**0**	802	**911**
306-1	Metals discharged	kg	712	**838**	0	**0**	712	**838**
306-2	Hazardous waste (including recycled)	mt	5,730	**4,023**	153	**96**	5,884	**4,119**
306-2	Non-hazardous waste (including recycled)	mt	27,591	**39,579**	217	**265**	27,808	**39,845**
306-2	Percent of waste recycled	%	38	**30**	23	**29**	37	**30**
306-2	Waste disposed to landfill	mt	19,356	**25,994**	193	**377**	19,549	**26,371**
306-3	Spills	L	0	**0**	0	**0**	0	**0**
307-1	Environmental Fines	'000 US dollars	32	**0**	0	**0**	32	**0**
205-2	Fines for non-compliance with laws	'000 US dollars	0	**0**	0	**0**	0	**0**

GRI CONTENT INDEX

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AMG'S

CORPORATE GOVERNANCE

AMG Advanced Metallurgical Group 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, as recently amended and issued on December 8, 2016 (the "2016 Code"). The Dutch Corporate Governance Code, can be downloaded at www.mccg.nl. As of January 1, 2017, the 2016 Code is effective in the Netherlands, replacing the 2008 Code. As provided under the 2016 Code, the Company reviewed and updated its procedures and documentation as necessary in 2017 in order to be compliant with the principles and best practice provisions set forth in the 2016 Code. In this annual report, the Company will report on the compliance by the Company with the 2016 Corporate Governance Code, as further elaborated in this chapter on Corporate Governance.

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 2016 Code, as applicable during 2017, are being applied, while certain deviations are discussed and explained hereunder. A full and detailed description of AMG's Corporate Governance structure and AMG's compliance with the Dutch Corporate Governance Code can further be found on AMG's website (amg-nv.com).

AMG Advanced Metallurgical Group 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 long term value creation, as further explained in this chapter.

ANNUAL ACCOUNTS AND DIVIDENDS

The Management Board and the Supervisory Board have approved AMG's audited consolidated financial statements for 2017. KPMG audited these financial statements, which will be submitted for adoption to the General Meeting of Shareholders in May 2018.

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.

AMG's dividend policy was revised by the Management Board in 2015 when AMG started paying dividends to its shareholders. In 2016, a dividend was paid in the amount of EUR 0.27 per ordinary AMG share which was resolved by the General Meeting of Shareholders in May 2017. Following approval by the Supervisory Board, an interim dividend for 2017 of EUR 0.14 per ordinary AMG share was paid in August 2017. The Company will discuss the dividend policy in greater detail during the Annual General Meeting in May 2018. The Company intends to propose a full year dividend for 2017 of EUR 0.28 to the General Meeting of Shareholders for approval as part of the adoption of the 2017 Annual Accounts. The interim dividend of EUR 0.14 per ordinary AMG share paid in August 2017 will be deducted from this amount. Future 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.

SHARES AND SHAREHOLDERS' RIGHTS

As of December 31, 2017, the total issued share capital of AMG amounted to EUR 598,160.94, consisting of 29,908,047 ordinary shares of EUR 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) has informed the Company that it was notified of the following substantial holdings (>3%) in ordinary shares of AMG. The information below is based on publications registered with the AFM register before March 16, 2018 (unless otherwise annotated) and therefore may not necessarily reflect the actual holdings as of that date.

AS OF MARCH 16	2018
OMAM Inc.	7.3%
JP Morgan Asset Management U.K. Limited	4.9%
Norges Bank Investment Management	3.1%
KBC Asset Management	3.0%
Belgravia Capital SGIIC	3.0%

Source: Nasdaq IR Insight

SHAREHOLDING	2017	2016
Number of ordinary shares issued	29,908,047	28,252,419
Average daily turnover	218,809	117,897
Highest Closing Price	€42.01	€19.13
Lowest Closing Price	€15.24	€7.40

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 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, the 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, and Mr. H. Borggreve and Mr. H. Reumkens 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 4, 2018 (mandated as the 28th day prior to the day of the General Meeting of Shareholders) are entitled to attend and vote at the General Meeting of Shareholders regardless of a sale of shares after such date.

The relationship agreement with RWC European Focus Master Inc. (RWC), which was AMG's largest shareholder until recently, was terminated the day after the Annual Meeting in May 2017. Until that time, RWC had committed itself to support the Management Board of AMG. RWC currently owns less than 3% of the share capital of AMG. Please refer to page 51 concerning the Decree on Article 10 of the Takeover Directive where a more detailed description is provided of the terms of this relationship agreement between AMG and RWC, which was effective until May 5, 2017.

MANAGEMENT BOARD

The executive management of AMG 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 re-appointed 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 long term value creation. Each Management Board member shall serve the best interests of the Company with a view to creating 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 a code of business conduct, monitors its effectiveness and has established a procedure for reporting actual or suspected irregularities within the Company or its group companies. 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 is in keeping with 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. See pages 40-41 of the Sustainability Report 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 2017.

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 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 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 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 Company's strategy. The Supervisory Board has adopted its own rules of procedure concerning its own governance, committees, conflicts of interest, etcetera. 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 and the Audit & Risk Management Committee. The Supervisory Board shall be assisted by the 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.

A Supervisory Director is appointed for a maximum period of four (4) years and may then be re-appointed once for another maximum four-year period. The Supervisory Director may then subsequently be reappointed again for a period of two (2) years, after which point the appointment may be extended by at most two (2) 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 2016 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 is included in the Report of the Supervisory Board (pages 26-37).

Each of the current members of the Supervisory Board is obliged not to transfer or otherwise dispose of any shares granted as part of their annual remuneration until the earlier of the third anniversary of the date of grant 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 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.

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. 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, 2017, the General Meeting of Shareholders resolved to authorize the Management Board for a period of 18 months from that date (until November 3, 2018) as the corporate body, which, subject to approval by the Supervisory Board, is authorized (i) 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, 2016, for the purpose of mergers and acquisitions and financial support arrangements relating to the Company and/or participations (deelnemingen) of the Company and (ii) 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, 2016 for general corporate purposes. Both authorizations also include the power to restrict or exclude preemptive rights. On May 4, 2017, the General Meeting of Shareholders resolved to authorize the Management Board for a period of 18 months from that date (until November 3, 2018) 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, 2016, 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 June 24, 2015 following approval by the General Meeting of Shareholders in its Extraordinary General Meeting held on June 18, 2015 and are published on the Company's website (amg-nv.com).

CORPORATE SOCIAL RESPONSIBILITY

AMG's Values (safety, value creation, integrity, and respect for people) 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, being: "...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 translates into three 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: to provide safe working conditions for our employees and to be responsible stewards of the environment; to meet or exceed regulatory standards by engaging in ethical business practices; and 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. 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 section in this Annual Report further elaborates on the application of AMG's Code of Business Conduct and its Speak Up and Reporting Policy.

DECREE ON ARTICLE 10 OF THE TAKEOVER DIRECTIVE

The information required by the Decree on Article 10 of the Takeover Directive is included in this Corporate Governance section and the Report of the Supervisory Board, whose information is incorporated by reference in this Corporate Governance 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 agreements that will be terminated under the condition of a change of control over the Company as a result of a public takeover offer.

The Company has entered into a new credit agreement dated February 1, 2018, which has a provision that requires the Company to repay the entire outstanding amount under its Credit Agreement upon a change of control, as defined therein.The Company is also a party to the following agreements that will come into force upon a change of control pursuant to a public offer. All members of the Management Board have provisions in their contracts that pertain to a change of control. Additionally, the AMG Option Plan and the AMG Performance Share Unit Plan have provisions that permit the Supervisory Board to cancel or modify the options granted or performance share units awarded to Management Board members and other employees, upon a change of control.

The Company is a party to an option agreement entered into with the Stichting Continuïteit AMG as further explained on page 48.

Other than the above-mentioned agreements, the Company is not party to any other important agreements that will come into force or be amended or terminated upon a change of control pursuant to a public takeover offer.

RELATIONSHIP AGREEMENT WITH RWC

Until May 5, 2017, the Company was a party to a relationship agreement that had been signed with RWC European Focus Master Inc. ("RWC") on March 7, 2015, with the exception of certain provisions which had a shorter term. The contents of and developments relating to this relationship agreement have been described in the Annual Reports for the years 2015 and 2016, of which certain sections are incorporated herein by reference to the extent necessary.

On November 17, 2016, RWC announced that it had sold 2.8 million existing ordinary shares in AMG to institutional investors, corresponding to approximately 10% of the Company's issued share capital. Subsequently, RWC has reduced its shareholding in AMG to less than 3% of AMG's share capital as per its notification to the AFM on December 20, 2017.

Mr. Petteri Soininen stepped down as member of the Supervisory Board at the Annual General Meeting on May 4, 2017, as mentioned above (pages 28 and 32).

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). 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 in detail by AMG's Risk Management Committee in coordination with the operating managers of the business units. Key risks from all business units are then summarized and presented to the Management Board. Individual risks of special note are discussed at the Management Board's bi-weekly meeting. On at least a semi-annual basis, the Audit & Risk Management Committee of the Supervisory Board formally reviews the consolidated risk package provided by AMG's Risk Management Committee. The Audit & Risk Management Committee of the Supervisory Board supervise, monitor, and report on the Company's internal control and risk management programs.

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 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. 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 2016

As stated above, AMG is subject to the 2016 Code for the 2017 financial year. Reference is made to the Company's website (amg-nv.com) under the heading Corporate Governance, where the Company has published an extensive discussion on its compliance with the principles and provisions set forth in the 2016 Code, as these became effective on January 1, 2017.

As a general statement, the Company fully endorses the new Code's principles and believes that virtually all best practice provisions as included in the 2016 Code are complied with. On certain matters involving the remuneration policy of the Company, specifically b.p.p. 3.2.3 concerning severance payments and b.p.p. 3.3.2 concerning remuneration of the Supervisory Board members in the form of AMG shares, the Company does not comply with the best practice provisions and it believes that it has sound reasons for doing so, which are explained on the Company's website as referred to above.

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, 2017, up to and including March 21, 2018.

During the period starting January 1, 2017 up to and including March 21, 2018, 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 provision 2.7.3 and 2.7.4 of the 2016 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 that a statement is 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 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 as required by the Decree.

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FINANCIAL REVIEW

Amounts in tables in thousands of US Dollars

For the year ended December 31	2017	2016
Revenue and expenses		
AMG Critical Materials revenue	814,446	701,634
AMG Engineering revenue	245,205	269,514
Total revenue	1,059,651	971,148
Cost of sales	845,024	784,340
Gross profit	214,627	186,808
Selling, general and administrative expenses	132,294	130,750
Environmental	3,092	1,873
Other income, net	(511)	(5,683)
Operating profit	79,752	59,868

REVENUE

Full year 2017 revenue increased 9% to $1,059.7 million, from $971.1 million in 2016. AMG Critical Materials' 2017 revenue increased by $112.8 million, or 16%, from 2016, to $814.4 million. The increase in Critical Materials' revenue was driven by improved vanadium, aluminum, titanium master alloys, antimony, chrome and graphite prices, and higher sales volumes of silicon, chrome, antimony, and titanium products. AMG Engineering's 2017 revenue decreased due to lower revenue from plasma remelting furnaces for the aerospace market and heat treatment services for the automotive market. The order backlog as of December 31, 2017 was $207.0 million. This is a 53% increase from an order backlog of $135.5 million as of December 31, 2016.

GROSS PROFIT

AMG's gross profit improved by $27.8 million to $214.6 million in the year ended December 31, 2017, a 15% increase. As a percentage of revenue, gross margin increased slightly from 19% to 20%.

AMG Critical Materials' 2017 gross margin was 18% as of December 31, 2017, consistent with 2016. The 2017 gross margin was driven by strong financial performance in vanadium and titanium master alloys. The 2017 gross margin for AMG Engineering improved from 2016, increasing from 21% to 26% due to a greater proportion of revenue being generated from high margin, aerospace market facing products in the year.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Selling, general and administrative costs were $132.3 million in the year ended December 31, 2017, as compared to $130.8 million in the year ended December 31, 2016, an increase of 1%.

Personnel expenses increased to $79.8 million in the year ended December 31, 2017, from $78.7 million in the year ended December 31, 2016. Salary and bonus increased to $56.8 million in 2017 from $53.2 million in 2016 as a result of increased headcount and exchange rate impacts. Other employee benefit expense declined to $11.3 million in 2017 from $11.9 million in 2016. The Company incurs professional fees from global service providers for services including audit, tax planning and compliance and legal consultation. Professional fees were $21.6 million in 2017 as compared to $20.5 million in 2016. Research and development expense increased to $4.8 million in the year ended December 31, 2017, as compared to $3.8 million in the year ended December 31, 2016. Other SG&A expenses, such as travel and entertainment, insurance, occupancy, communication and bank fees decreased to $26.1 million in the year ended December 31, 2017, from $27.8 million in the year ended December 31, 2016.

OTHER INCOME, NET

Net other income of $0.5 million for the year ended December 31, 2017, was primarily comprised of scrap sales of $0.2 million, government grants, and insurance proceeds. In the year ended December 31, 2016, other income of $5.7 million was primarily comprised of gain on the sale of subsidiaries of $4.6 million and income from the sale of assets of $0.7 million.

NON-RECURRING ITEMS

A summary of non-recurring items affecting the 2017 and 2016 results is presented below:

For the year ended December 31	2017	2016
Non-recurring items included in operating profit:		
Restructuring expense	2,547	4,222
Asset impairment expense	1,160	1,976
Environmental	3,092	1,277
Total non-recurring items included in operating profit	6,799	7,475

Restructuring in 2017 was primarily related to expenses incurred at the AMG Critical Materials segment as well as AMG Engineering from the reorganization of operations in Germany, France and China. The asset impairment expense was primarily related to the fire at the Company's mine in Brazil. Environmental expenses in 2017 and 2016 were from revisions to the estimated restoration costs related to removal of a slag pile at a closed facility in the US.

OPERATING PROFIT

AMG's operating profit of $79.8 million for the year ended December 31, 2017, was an increase of $19.9 million from the operating profit of $59.9 million reported for the year ended December 31, 2016. The increase in operating profit was the result of the increase in gross profit which was partially offset by increased selling general and administrative expenses.

FINANCE COST, NET

The table below sets forth AMG's net finance cost for the years ended December 31, 2017 and 2016. Finance cost decreased over the prior year, mainly as the result of higher amortization of loan issuance costs in the prior year. The higher loan issuance cost amortization was associated with the refinancing of loan agreements in 2016.

For the year ended December 31	2017	2016
Finance income	(1,766)	(1,662)
Finance cost	10,160	13,667
Net finance cost	8,394	12,005

INCOME TAXES

The Company recorded an income tax expense of $13.9 million for the year ended December 31, 2017, compared to an income tax expense of $8.1 million for the year ended December 31, 2016. The tax expense in the current year is driven by higher levels of profitability along with impact of the reduced US corporate income tax rate on deferred tax assets partially offset by previously unrecognized tax losses recognized during the year. The effective tax rate for 2017 was 19%, as compared to the 16% effective tax rate for 2016.

NET INCOME

The Company recorded net income attributable to shareholders of $57.0 million in the year ended December 31, 2017, as compared to $40.6 million in the year ended December 31, 2016.

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, 2017, the Company had $178.8 million in cash and cash equivalents and $150.6 million available on its revolving credit facility. Changes in the Company's liquidity were due primarily to changes in cash from operations during the year and capital investments in Brazil for the lithium project.

	2017	2016
Non-current loans and borrowings	164,788	150,959
Current loans and borrowings	24,320	17,121
Total debt	189,108	168,080
Cash and cash equivalents	178,800	160,744
Net debt	10,308	7,336

The Company was subject to two debt covenants in the credit facility. Violating any covenants would limit the Company's access to liquidity. See notes 22 and 23 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, 2017 and 2016.

For the year ended December 31	2017	2016
Net cash from operating activities	78,525	56,225
Net cash used in investing activities	(77,220)	(42,143)
Net cash from financing activities	5,490	23,279

Cash from operating activities was $78.5 million for the year ended December 31, 2017, compared to cash from operating activities of $56.2 million in 2016. The increase is primarily attributable to higher profitability in 2017 and voluntary pension funding during 2016.

Cash used in investing activities was $77.2 million for the year ended December 31, 2017. The largest growth capital expenditures were related to the lithium project in Brazil.

Cash from financing activities was $5.5 million for the year ended December 31, 2017 as the Company had net proceeds from debt of $12.8 million associated with the loan agreements established in 2016 offset partially by dividends paid during the year.

OUTLOOK

As regards to guidance, in our annual general meeting in May 2017, we introduced our new 'Strategic Framework', and our long term goal to increase EBITDA to $200 million or more, in 5 years or less, through the execution of a combination of well-developed, highly accretive growth projects, including AMG's entrance into the lithium market.

This statement of long term strategy has to be amended in light of what we achieved and learned in 2017, and to date in 2018. We now believe we can achieve our goals earlier than previously expected, and can commit to turning the present EBITDA level, into $200 million, or more, in the fiscal year ending December 31, 2020.

2018 has started very well. For the year, we expect our financial performance to show significant improvement compared to 2017, on route to this long term strategic guidance.

CONSOLIDATED INCOME STATEMENT

For the year ended December 31	Note	2017	2016
In thousands of US Dollars			
Continuing operations			
Revenue	6	1,059,651	971,148
Cost of sales		845,024	784,340
Gross profit		214,627	186,808
Selling, general and administrative expenses		132,294	130,750
Environmental	7, 26	3,092	1,873
Other expenses	7	45	320
Other income	7	(556)	(6,003)
Net other operating expense (income)		2,581	(3,810)
Operating profit		79,752	59,868
Finance income	9	(1,766)	(1,662)
Finance cost	9, 22	10,160	13,667
Net finance cost	9	8,394	12,005
Share of profit of associates and joint ventures, net of tax	13	—	1,804
Profit before income tax		71,358	49,667
Income tax expense	10	13,905	8,096
Profit for the year		57,453	41,571
Profit attributable to:			
Shareholders of the Company		56,965	40,558
Non-controlling interests		488	1,013
Profit for the year		57,453	41,571
Earnings per share			
Basic earnings per share	20	1.95	1.45
Diluted earnings per share	20	1.80	1.32

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

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31	Note	2017	2016
In thousands of US Dollars			
Profit for the year		57,453	41,571
Other comprehensive income			
Items of other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods:			
Exchange differences on translation of foreign operations		8,243	(851)
Cash flow hedges, effective portion of changes in fair value		12,887	9,079
Cash flow hedges reclassified to profit or loss		(4,359)	2,558
Income tax on cash flow hedges	10	(2,024)	(3,912)
Net increase on cash flow hedges		6,504	7,725
Change in fair value of available for sale investments	13, 19	1,141	47
Net other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods		15,888	6,921
Items of other comprehensive income (loss) not to be reclassified to profit or loss in subsequent periods:			
Exchange difference on translation of foreign operations – non-controlling interest		2,744	(1,182)
Actuarial gains (losses) on defined benefit plans	24	5,341	(16,531)
Income tax on actuarial gains (losses)	10	2,968	14,026
Net gain (loss) on defined benefit plans		8,309	(2,505)
Net other comprehensive income (loss) not being reclassified to profit or loss in subsequent periods		11,053	(3,687)
Other comprehensive income for the year, net of tax		26,941	3,234
Total comprehensive income for the year, net of tax		84,394	44,805
Total comprehensive income attributable to:			
Shareholders of the Company		81,925	45,148
Non-controlling interest		2,469	(343)

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

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As of December 31	Note	2017	2016
In thousands of US Dollars			
Assets			
Property, plant and equipment	11	298,540	226,098
Goodwill and other intangible assets	12	38,110	33,215
Derivative financial instruments	31	636	740
Other investments	13	30,562	29,930
Deferred tax assets	10	40,108	41,285
Restricted cash	17	829	2,526
Non-current tax asset	10	2,488	–
Other assets	16	17,729	17,207
Total non-current assets		429,002	351,001
Inventories	14	162,505	143,593
Derivative financial instruments	31	6,372	4,007
Trade and other receivables	15	137,174	129,220
Other assets	16	37,547	26,341
Current tax assets	10	3,147	5,257
Cash and cash equivalents	18	178,800	160,744
Assets held for sale	5	2,056	149
Total current assets		527,601	469,311
Total assets		956,603	820,312
Equity			
Issued capital		796	760
Share premium		432,844	389,066
Treasury shares		(3,461)	(570)
Other reserves	19	(72,880)	(97,085)
Retained earnings (deficit)		(99,343)	(116,457)
Equity attributable to shareholders of the Company		257,956	175,714
Non-controlling interests		24,633	22,073
Total equity		282,589	197,787
Liabilities			
Loans and borrowings	22	164,788	150,959
Employee benefits	24	156,193	141,588
Provisions	26	35,887	30,854
Deferred revenue	27	—	2,822
Other liabilities	28	4,011	6,874
Derivative financial instruments	31	—	887
Deferred tax liabilities	10	7,888	8,435
Total non-current liabilities		368,767	342,419
Loans and borrowings	22	8,820	9,621
Short term bank debt	23	15,500	7,500
Other liabilities	28	60,212	57,528
Trade and other payables	29	155,115	133,328
Derivative financial instruments	31	1,415	4,661
Advance payments from customers	6	33,025	29,404
Deferred revenue	27	1,624	10,198
Current tax liability	10	9,155	7,065
Provisions	26	20,381	20,801
Total current liabilities		305,247	280,106
Total liabilities		674,014	622,525
Total equity and liabilities		956,603	820,312

*Reclassified share reserves from other reserves to retained earnings (deficit) for December 31, 2016.

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)				
Balance at January 1, 2016	745	382,978	—	(100,426)	(154,736)	128,561	25,006	153,567
Foreign currency translation	—	—	—	(378)	(473)	(851)	(1,182)	(2,033)
Change in fair value of available for sale investments	—	—	—	47	—	47	—	47
Gain on cash flow hedges, net of tax	—	—	—	7,716	—	7,716	9	7,725
Actuarial losses, net of tax	—	—	—	(2,322)	—	(2,322)	(183)	(2,505)
Net profit (loss) recognized through other comprehensive income	—	—	—	5,063	(473)	4,590	(1,356)	3,234
Profit for the year	—	—	—	—	40,558	40,558	1,013	41,571
Total comprehensive income (loss) for the year	—	—	—	5,063	40,085	45,148	(343)	44,805
Issuance of common shares	15	6,088	—	—	—	6,103	—	6,103
Purchase of common shares	—	—	(2,456)	—	—	(2,456)	—	(2,456)
Re-issuance of treasury shares	—	—	763	—	683	1,446	—	1,446
Transfer to retained deficit (note 19)	—	—	—	(1,722)	1,722	—	—	—
Change in non-controlling interest (note 5)	—	—	—	—	(3,677)	(3,677)	524	(3,153)
Equity-settled share-based payments, net of tax	—	—	1,123	—	7,024	8,147	—	8,147
Dividend	—	—	—	—	(7,558)	(7,558)	(3,114)	(10,672)
Balance at December 31, 2016	760	389,066	(570)	(97,085)	(116,457)	175,714	22,073	197,787
Balance at January 1, 2017	760	389,066	(570)	(97,085)	(116,457)	175,714	22,073	197,787
Foreign currency translation	—	—	—	6,708	1,535	8,243	2,744	10,987
Change in fair value of available for sale investments	—	—	—	1,141	—	1,141	—	1,141
Gain on cash flow hedges, net of tax	—	—	—	6,510	—	6,510	(6)	6,504
Actuarial gains, net of tax	—	—	—	9,066	—	9,066	(757)	8,309
Net profit recognized through other comprehensive income	—	—	—	23,425	1,535	24,960	1,981	26,941
Profit for the year	—	—	—	—	56,965	56,965	488	57,453
Total comprehensive income for the year	—	—	—	23,425	58,500	81,925	2,469	84,394
Issuance of common shares	36	43,778	—	—	—	43,814	—	43,814
Purchase of common shares	—	—	(12,190)	—	—	(12,190)	—	(12,190)
Re-issuance of treasury shares	—	—	—	—	1,830	1,830	—	1,830
Transfer to retained deficit (note 19)	—	—	—	780	(780)	—	—	—
Change in non-controlling interest	—	—	—	—	(1,350)	(1,350)	91	(1,259)
Equity-settled share-based payments, net of tax	—	—	9,299	—	(31,793)	(22,494)	—	(22,494)
Dividend	—	—	—	—	(9,293)	(9,293)	—	(9,293)
Balance at December 31, 2017	796	432,844	(3,461)	(72,880)	(99,343)	257,956	24,633	282,589

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

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended December 31	Note	2017	2016
In thousands of US Dollars			
Cash from operating activities			
Profit for the year		57,453	41,571
Adjustments to reconcile profit to net cash flows:			
Non-cash:			
Income tax expense	10	13,905	8,096
Depreciation and amortization	11, 12	30,899	29,841
Asset impairment expense	11, 14	1,160	1,976
Net finance cost	9	8,394	12,005
Share of profit of associates and joint ventures	13	—	(1,804)
Loss (gain) on sale or disposal of property, plant and equipment	5, 11	75	(4,501)
Equity-settled share-based payment transactions	25	8,697	3,073
Movement in provisions, pensions and government grants	24, 26	(3,016)	(13,000)
Working capital and deferred revenue adjustments			
Change in inventories		(8,504)	(20,099)
Change in trade and other receivables		5,988	(6,636)
Change in prepayments		(12,798)	555
Change in trade payables and other liabilities		4,680	29,912
Change in deferred revenue	27	(11,396)	(16,643)
Other		722	5,174
Cash generated from operating activities		96,259	69,520
Interest paid	9	(8,103)	(7,164)
Interest received	9	660	457
Income tax paid, net	10	(10,291)	(6,588)
Net cash from operating activities		78,525	56,225
Cash used in investing activities			
Proceeds from sale of property, plant and equipment	11	254	1,546
Insurance proceeds on property, plant and equipment	11	1,516	—
Proceeds from sale of subsidiaries (net of cash divested of $1,820 in 2016)	5	—	6,512
Acquisition of property, plant and equipment and intangibles	11, 12	(80,904)	(44,086)
Acquisition of subsidiaries (net of cash acquired of $35 in 2016)	5	—	(4,961)
Change in restricted cash	17	1,911	(93)
Acquisition of other non-current asset investments	13	—	(1,000)
Other		3	(61)
Net cash used in investing activities		(77,220)	(42,143)
Cash from financing activities			
Proceeds from issuance of debt	22, 23	30,000	163,190
Transaction costs related to the issuance of debt		—	(3,978)
Repayment of borrowings	22, 23	(17,153)	(122,607)
Change of non-controlling interests	5	—	(5,600)
Proceeds from issuance of common shares	19	14,370	—
Net repurchase of common shares	19	(12,434)	(259)
Dividends paid	19	(9,293)	(7,558)
Other		—	91
Net cash from financing activities		5,490	23,279
Net increase in cash and cash equivalents		6,795	37,361
Cash and cash equivalents at January 1		160,744	127,778
Effect of exchange rate fluctuations on cash held		11,261	(4,395)
Cash and cash equivalents at December 31	18	178,800	160,744

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 Advanced Metallurgical Group N.V. (herein referred to as "the Company", "AMG NV" or "AMG") for the year ended December 31, 2017, were authorized for issuance in accordance with a resolution of the Supervisory Board on March 21, 2018.

AMG is domiciled in the Netherlands. The address of the Company's registered office is WTC Amsterdam, Toren C, Strawinskylaan 1343, 1077 XX Amsterdam. The consolidated financial statements of the Company as of and for the year ended December 31, 2017, 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.

The parent company financial statements are prepared in accordance with part 9, Book 2, article 362.8 of the Netherlands Civil Code.

The consolidated financial statements of the Company include the accounts of all entities in which a direct or indirect controlling interest exists through voting rights or qualifying joint ventures and associates at the reporting dates. 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 a complete list of entities in which AMG has an ownership interest, with the Dutch Chamber of Commerce.

		Percentage held (directly or indirectly) by the Company	
Name	Country of incorporation	**December 31, 2017**	December 31, 2016
ALD Thermal Treatment, Inc.	United States	100	100
ALD Tratamientos Termicos S.A.	Mexico	100	100
ALD Vacuum Technologies GmbH	Germany	100	100
AMG Aluminum UK Limited	United Kingdom	100	100
AMG Mining GmbH	Germany	100	100
AMG Vanadium, LLC	United States	100	100
AMG Mineracao S.A.	Brazil	100	100
GfE Gesellschaft für Elektrometallurgie GmbH	Germany	100	100
GfE Metalle und Materialien GmbH	Germany	100	100
AMG Graphit Kropfmühl GmbH	Germany	60	60
AMG Aluminum North America, LLC	United States	100	100
AMG Superalloys UK Limited	United Kingdom	100	100
LSM Brasil S.A.	Brazil	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

AMG Mining GmbH, Graphit Kropfmühl GmbH, GK Bergbau GmbH, RW Silicium GmbH, AMG Invest GmbH, ALD Vacuum Technologies GmbH, VACUHEAT GmbH and VACUHEAT Verwaltungs GmbH exercise the exemption of Sec. 264 (3) HGB "Handelsgesetzbuch".

As of December 31, 2017, there were 3,133 employees at the Company (2016: 3,053). There were 3 employees located in the Netherlands as of December 31, 2017 (2016: 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, 2017, 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, 2017, 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
Available-for-sale financial assets	Fair value
Contingent consideration assumed in a business combination	Fair value
Liabilities for cash-settled share-based payment arrangements	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 13 – measurement of other investments
- note 31 – 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 judgements

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:

- note 6 – Contract revenue: determination of revenue recognition from furnace construction contracts
- note 32 – Leases: classification of lease as capital or operating

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 10 – Income tax: recognition of income taxes and deferred tax assets
- note 11 – Property, plant and equipment: determination of useful lives of mining related assets
- note 12 – Impairment testing: measurement of the recoverable amounts of assets and cash-generating units
- note 13 – Other investments: the assumptions and model used to determine fair value
- note 24 – Defined benefit plans: measurement of 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 31 – Financial instruments: fair value determination based on present value of future cash flows and multiples

3. SIGNIFICANT ACCOUNTING POLICIES

These consolidated financial statements as of December 31, 2017, 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 profit or loss 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.

If share-based payment awards are required to be exchanged for awards held by the acquiree's employees, then all or a portion of the amount of the acquirer's replacement awards is included in measuring the consideration transferred in the business combination. This determination is based on the market-based measure of replacement awards compared with the market-based measure of the acquiree's awards and the extent to which the replacement awards relate to pre-combination service.

(ii) 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.

(iii) 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.

(iv) 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.

(v) 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, until the date on which significant influence or joint control ceases.

(vi) 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 certain 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 are generally recognized in profit or loss.

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

- Available-for-sale equity investments (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 are recognized in other comprehensive income and accumulated in the 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

(i) Goods sold

Revenue is recognized when the significant risks and rewards of ownership have been transferred to the customer, recovery of the consideration is probable, the associated costs and possible returns of goods can be estimated reliably, there is no continuing management involvement with the goods and the amount of revenue can be measured reliably. Revenue is measured net of returns, trade discounts and volume rebates.

The timing of the transfer of risks and rewards varies depending on the individual terms of the sales agreement. Transfer of risks and rewards usually occurs when title and risk of loss pass to the customer. In the case of export sales, title may pass when the product reaches a foreign port.

(ii) Furnace construction contracts

Construction contract revenue recognized results from the development of a number of furnaces for some of the Company's customers in the Engineering segment. These furnaces are constructed based on specifically negotiated contracts with customers. Contract revenue 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.

If the outcome of a construction contract can be estimated reliably, then contract revenue is recognized in profit or loss 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.

(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.

(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 comprise interest expense on borrowings and interest rate caps and swaps, amendment fees on borrowings, amortization of loan issuance costs, finance charges on finance leases, 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 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 certain criteria are met.

(ii) 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. For this purpose, the carrying amount of investment property measured at fair value is presumed to be recovered through sale, and the Company has not rebutted this presumption.

Deferred tax assets and liabilities are offset only if certain criteria are met.

(iii) Sales tax

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) FINANCIAL INSTRUMENTS

The Company classifies non-derivative financial assets into the following categories: financial assets at fair value through profit or loss, held-to-maturity financial assets, loans and receivables and available-for-sale financial assets.

The Company classifies non-derivative financial liabilities into the following categories: financial liabilities at fair value through profit or loss and other financial liabilities.

(i) Non-derivative financial assets and financial liabilities – Recognition and derecognition

The Company initially recognizes loans and receivables and debt securities issued on the date when they are originated. All other financial assets and financial liabilities are initially recognized on the trade date when the entity becomes a party to the contractual provisions of the instrument.

The Company derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred, or it neither transfers nor retains substantially all of the risks and rewards of ownership and does not retain control over the transferred asset. Any interest in such derecognized financial assets that is created or retained by the Company is recognized as a separate asset or liability.

The Company derecognizes a financial liability when its contractual obligations are discharged, cancelled, or expire.

Financial assets and financial liabilities are offset, and the net amount presented in the statement of financial position when, and only when, the Company currently has a legally enforceable right to offset the amounts and intends either to settle them on a net basis or to realize the asset and settle the liability simultaneously.

(ii) Non-derivative financial assets – Measurement

- Financial assets at fair value through profit or loss: A financial asset is classified as fair value through profit or loss if it is classified as held-for-trading or is designated as such on initial recognition. Directly attributable transaction costs are recognized in profit or loss as incurred. Financial assets at fair value through profit or loss are measured at fair value and changes therein, including any interest or dividend income, are recognized in profit or loss.
- Held-to-maturity financial assets: These assets are initially measured at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, they are measured at amortized cost using the effective interest method.
- Loans and receivables: These assets are initially measured at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, they are measured at amortized cost using the effective interest method.
- Available-for-sale financial assets: These assets are initially measured at fair value plus any directly attributable transaction costs. Subsequent to initial recognition, they are measured at fair value and changes therein, other than impairment losses, interest income and foreign currency difference on debt instruments, are recognized in OCI and accumulated in the fair value reserve. When these assets are derecognized, the gain or loss accumulated in equity is reclassified to profit or loss.

(iii) Non-derivative financial liabilities – Measurement

A financial liability is classified as fair value through profit or loss if it is classified as held-for-trading or is designated as such on initial recognition. Directly attributable transaction costs are recognized in profit or loss as incurred. Financial liabilities at fair value through profit or loss are measured at fair value and changes therein, including any interest expense, are recognized in profit or loss.

Other non-derivative financial liabilities are initially measured at fair value less any directly attributable transaction costs. Subsequent to initial recognition, these liabilities are measured at amortized cost using the effective interest method.

(iv) Derivative financial instruments and hedge accounting

The Company holds derivative financial instruments to hedge its foreign currency, commodity price, and interest rate risk exposures. Embedded derivatives are separated from the host contract and accounted for separately if certain criteria are met.

Derivatives are initially measured at fair value; any directly attributable transaction costs are recognized in profit or loss as incurred. Subsequent to initial recognition, derivatives are measured at fair value, and changes therein are generally recognized in profit or loss.

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. Any ineffective portion of changes in the fair value of the derivative is recognized immediately in the income statement.

The amount accumulated in equity is retained in other comprehensive income and reclassified to the income statement in the same period or periods during which the hedged forecast cash flow affect the income statement or the hedged item affects the income statement.

If the forecast transaction is no longer expected to occur, the hedge no longer meets the criteria for hedge accounting, the hedging instrument expires or is sold, terminated, or exercised, or the designation is revoked, then hedge accounting is discontinued prospectively. If the forecast transaction is no longer expected to occur, then the amount accumulated in equity is reclassified to profit or loss.

(G) 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 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.

The fair value of the amount payable to employees in respect of share appreciation rights, which are settled in cash, is recognized as an expense with a corresponding increase in liabilities, over the period during which the employees become unconditionally entitled to payment. The liability is remeasured at each reporting date and at settlement date based on the fair value of the share appreciation rights. Any changes in the liability are recognized in the income statement.

(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.

(v) 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.

(vi) 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.

(H) 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.

(ii) 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.

(iii) 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. Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that the Company will obtain ownership by the end of the lease term. Land is not depreciated.

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

- mining costs 3-18 years
- land, buildings and improvements 2-50 years
- machinery and equipment 2-20 years
- furniture and fixtures 2-15 years
- finance leases 4-20 years

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

The depreciation of certain 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 an 18-year remaining life of the mine based on updated geology studies. Other mining assets are depreciated on a straight-line basis ranging from 3-14 years, depending on useful life.

(I) 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;
- 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 consolidated income statement. Subsequent to initial recognition, development expenditure is measured at cost less accumulated amortization and any accumulated impairment losses.

(iii) 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.

(iv) Other intangible assets

Other intangible assets, including 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.

(v) 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.

(vi) 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 5-20 years
- development costs 5-20 years
- mining assets 3-14 years
- other intangibles 3-10 years

(J) 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.

(K) 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 using the units of production method.

(ii) Mineral rights

Mineral reserves, resources and rights (together mineral rights) which can be reasonably valued, are recognized in the assessment of fair values on acquisition. Mineral rights for which values cannot be reasonably determined are not recognized. Exploitable mineral rights are amortized using the units of production method over the commercially recoverable reserves.

(iii) 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 – the production of inventory in the current period and/or 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 to 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.

(L) LEASES

(i) Determining whether an arrangement contains a lease

At inception of an arrangement, the Company determines whether the arrangement is or contains a lease.

At inceptions or on reassessment of an arrangement that contains a lease, the Company separates payments and other consideration required by the arrangement into those for the lease and those for other elements on the basis of their relative fair values. If the Company concludes for a finance lease that it is impracticable to separate the payments reliably, then an asset and a liability are recognized at an amount equal to the fair value of the underlying asset; subsequently, the liability is reduced as payments are made and an imputed finance cost on the liability is recognized using the Company's incremental borrowing rate.

(ii) Leased assets

Leases of property, plant and equipment that transfer to the Company substantially all of the risks and rewards of ownership are classified as finance leases. The leased assets are measured initially at an amount equal to the lower of their fair value and the present value of the minimum lease payments. Subsequent to initial recognition, the assets are accounted for in accordance with the accounting policy applicable to that asset.

Assets held under other leases are classified as operating leases and are not recognized in the Company's statement of financial position.

(iii) Lease payments

Payments made under operating leases are recognized in the income statement on a straight-line basis over the term of the lease. Lease incentives received are recognized as an integral part of the total lease expense, over the term of the lease.

Minimum lease payments made under finance leases are apportioned between the finance cost and the reduction of the outstanding liability. The finance cost is allocated to each period during the lease term so as to produce a constant periodic rate of interest on the remaining balance of the liability.

(M) 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 rate 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.

(N) IMPAIRMENT

(i) Non-derivative financial assets

Financial assets not classified as fair value through profit and loss, including an interest in an equity-accounted investee, are assessed at each reporting date to determine whether there is objective evidence of impairment.

Objective evidence that financial assets are impaired includes:

- default or delinquency by a debtor;
- restructuring of an amount due to the Company on terms that the Company would not consider otherwise;
- indications that a debtor or issuer will enter bankruptcy;
- adverse changes in the payment status of borrowers or issuers;
- the disappearance of an active market for a security because of financial difficulties; or
- observable data indicating that there is a measurable decrease in the expected cash flows from a group of financial assets.

Financial assets measured at amortized cost

The Company considers evidence of impairment for these assets at both an individual asset and a collective level. All individually significant assets are individually assessed for impairment. Those found not to be impaired are then collectively assessed for any impairment that had been incurred but not yet individually identified. Assets that are not individually significant are collectively assessed for impairment. Collective assessment is carried out by grouping together assets with similar risk characteristics.

In assessing collective impairment, the Company uses historical information on the timing of recoveries and the amount of loss incurred, and makes an adjustment if current economic and credit conditions are such that the actual losses are likely to be greater or lesser than suggested by historical trends.

An impairment loss is calculated as the difference between an asset's carrying amount and the present value of the estimated future cash flows discounted at the asset's original effective interest rate. Losses are recognized in the income statement and reflected in an allowance account. When the Company considers that there are no realistic prospects of recovery of the asset, the relevant amounts are written-off. If the amount of impairment loss subsequently decreases and the decrease can be related objectively to an event occurring after the impairment was recognized, then the previously recognized impairment loss is reversed through the income statement.

Available-for-sale financial assets

Impairment losses on available-for-sale financial assets are recognized by reclassifying the losses accumulated in the fair value reserve to the income statement. The amount reclassified is the difference between the acquisition cost (net of any principal repayment and amortization) and the current fair value, less any impairment loss previously recognized in the income statement. If the fair value of an impaired available-for-sale debt security subsequently increases and the increase can be related objectively to an event occurring after the impairment loss was recognized, then the impairment loss is reversed through the income statement. Impairment losses recognized in the income statement for an investment in an equity instrument classified as available-for-sale are not reversed through the income statement.

Equity-accounted investees

An impairment loss in respect of an equity-accounted investee is measured by comparing the recoverable amount of the investment with its carrying amount. An impairment loss is recognized in the income statement, and is reversed if there has been a favorable change in the estimates used to determine the recoverable amount.

(ii) Non-financial assets

At each reporting date, the Company reviews the carrying amounts of its non-financial assets (other than inventories 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 generated 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 generated 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.

(O) 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

Certain 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 certain 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 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 certain of its sites. Certain 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.

(ii) Restructuring

A provision for restructuring is recognized when the Company or a subsidiary of 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 in certain jurisdictions. Changes in the estimate of costs related to restructuring plans are included in profit or loss in the period when the change is identified.

(iii) Warranty

A provision for warranty is recognized when the Company or a subsidiary of 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.

(iv) Partial retirement

In an effort to reduce unemployment and create jobs for younger job-seekers, Germany implemented certain regulations in 1996 to enable employees to take early retirement. Although the law is no longer in effect, the Company's German subsidiaries have made provisions for those employees who are eligible per their employment contracts. According to German law, the Company is required to pay a deposit for partial retirements to secure payments to the employees in the case of insolvency. The Company records the related deposits and provisions on a net basis.

(v) 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.

(vi) 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.

(P) NEW AND AMENDED STANDARDS AND INTERPRETATIONS

The Company applied for the first time certain standards and amendments, which are effective for annual periods beginning on or after January 1, 2017.

The nature and the impact of each new standard and amendment is described below:

Amendments to IAS 7 *Statement of Cash Flows – Disclosure Initiative*

The amendments require a reconciliation of the amounts in the opening and closing statements of financial position for each item classified as financing in the statement of cash flows. The reconciliations will be included in the notes to the financial statements once the amendments become effective. We refer to notes 22 and 23. The amendments are effective for financial years beginning on or after January 1, 2017.

Amendments to IAS 12 *Income Taxes – Recognition of Deferred Tax Assets for Unrealized Losses*

The narrow-scope amendments to IAS 12 clarify how to account for deferred tax assets related to debt instruments measured at fair value. As the Company does not have any material debt instruments measured at fair value, the amendments will have no impact on the Company's financial position and performance. These amendments are effective for financial years beginning on or after January 1, 2017.

Annual Improvements 2014 – 2016 Cycle

The IASB issued the 2014-2016 cycle improvements to its standards and interpretations, primarily with a view to clarifying wording. These improvements cover the following standards and subjects.

IFRS 12 Disclosure of Interests in Other Entities

The amendment clarified that the disclosure requirement of IFRS 12 are applicable to interest in entities classified as held for sale except for summarized financial information. The objective of IFRS 12 is to provide information about the nature of interests in other entities, risks associated with those interests, and the effect of those interests on the financial statements. This amendment is effective for annual periods beginning on or after January 1, 2017 and did not have a material impact on the Company's financial statements.

(Q) STANDARDS ISSUED BUT NOT YET EFFECTIVE

Several new standards and amendments to standards are effective for annual periods beginning after January 1, 2018 and earlier application is permitted; however, the Company has not early adopted the following new or amended standards in preparing these consolidated financial statements.

IFRS 9 *Financial Instruments*

IFRS 9 *Financial Instruments* sets out requirements for recognizing and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items. This standard replaces IAS 39 *Financial Instruments: Recognition and Measurement*.

The Company has completed the assessment of the impact of the adoption of IFRS 9 on its consolidated financial statements.

The main aspects of the assessed impact are mentioned below:

Classification — Financial assets

IFRS 9 contains a new classification and measurement approach for financial assets that reflects the business model in which assets are managed and their cash flow characteristics. IFRS 9 contains three principal classification categories for financial assets: measured at amortized cost, fair value through other comprehensive income, and fair value through profit and loss. The standard eliminates the existing IAS 39 categories of held to maturity, loans and receivables and available for sale.

Under IFRS 9, derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never bifurcated. Instead, the hybrid financial instrument as a whole is assessed for classification.

Based on its assessment, it appears that the new classification requirements will have no material impact on its accounting for financial assets.

Impairment

IFRS 9 requires the Company to record expected credit losses on all of its financial instruments, amongst others, debts securities, loans and trade receivables, either on a 12-month or lifetime basis. Based on its assessment, it appears that the new requirements for impairments will have no material impact on its accounting for financial assets.

Hedge accounting

Under IFRS 9 the Company should ensure that hedge accounting relationships are aligned with the Company's risk management objectives and strategy including a more qualitative and forward-looking approach to assessing hedge effectiveness.

Based on its assessment, it appears the new requirements of IFRS 9 on hedge accounting will have no material impact of the accounting for its hedging relationships.

Disclosure

IFRS 9 will require extensive new disclosures, in particular hedge accounting, credit risk and the expected credit losses. The Company's assessment included an analysis to identify data gaps against current processes and the Company is in the process of implementing the system changes that it believes will be necessary to capture the required data.

Transition

Changes in accounting policies resulting from the adoption of IFRS 9 will generally be applied retrospectively, except as described below.

- The Company will take advantage of the exemption allowing it not to restate comparative information for prior periods with respect to classification and measurement (including impairment) changes. Differences in the carrying amounts of financial assets and financial liabilities resulting from the adoption of IFRS 9 will generally be recognized in retained earnings and reserves as of January 1, 2018; and
- The new hedge accounting requirements should generally be applied prospectively. However, the Company has decided to apply the accounting for the forward element of forward contracts retrospectively.

IFRS 15 *Revenue from Contracts with Customers*

IFRS 15 established a comprehensive framework for determining whether, how much and when revenue is recognized. It replaces existing revenue recognition guidance, including IAS 18 Revenue, IAS 11 Construction Contracts and several related interpretations. The new standard provides a single, principle-based five-step model to be applied to all contracts with customers. Furthermore, it provides new guidance on whether revenue should be recognized at a point in time or over time.

The Company has completed the assessment of the impact of the adoption of IFRS 15 on its consolidated financial statements. The main aspects of the assessed impact are mentioned below:

Goods Sold

For the sale of goods, revenue is currently recognized when the significant risks and rewards of ownership have been transferred to the customer, as explained in note 3 (Ci). Provided that the revenue and costs can be measured reliably, the recovery of the consideration is probable and there is no continuing management involvement with the goods.

Under IFRS 15, revenue will be recognized when a customer obtains control of the goods. For sale of most goods the point in time at which revenue will be recognized is similar to the current standard. The Company's assessment indicates that the adoption of IFRS 15 will not have a material impact on revenue recognition for the majority of goods sold.

Furnace construction contracts

Contract revenue currently 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. When a claim or variation is recognized, the measure of contract progress or contract price is revised, and the cumulative contract position is reassessed at the reporting date, as explained in note 3 (Cii).

Under IFRS 15, claims and variations will be included in the contract accounting when they are approved.

Based on its assessment, it appears the application of IFRS 15, on furnace construction contracts, has no material impact on its consolidated financial statements.

Commissions

For commissions earned by the Company, the Company has determined that it acts in the capacity of an agent for certain transactions, as explained in note 3 (Ciii).

Under IFRS 15, the assessment will be based on whether the Company controls the specific goods before transferring them to the end customer, rather than whether it has exposure to significant risks and rewards associated with the sale of goods.

Based on its assessment, the Company does not expect the application of IFRS 15 to result in a significant impact on its consolidated financial statements.

Transition

The Company plans to adopt IFRS 15 using the cumulative effect method, with the effect of initially applying this standard recognized at the date of initial application (i.e. January 1, 2018). As a result, the Company will not apply the requirements of IFRS 15 to the comparative period presented.

Annual Improvements 2014 – 2016 Cycle

The IASB issued the 2014-2016 cycle improvements to its standards and interpretations, primarily with a view to clarifying wording. These improvements cover the following standards and subjects.

IFRS 1 Retirements of short term exemptions

The amendments deleted short term exemptions covering transition provisions of IFRS 7, IAS 19, and IFRS 10. These transition provisions were available to entities for passed reporting periods and are therefore no longer applicable. The amendments are effective for annual periods beginning on or after January 1, 2018.

IAS 28 Investments in Associates and Joint Ventures

The amendment allows venture capital organizations, mutual funds, unit trusts and similar entities to elect measuring their investment in associates or joint ventures at fair value through profit or loss. The board clarified that this election should be made separately for each associate or joint venture at initial recognition. The amendments are effective for annual periods beginning on or after January 1, 2018.

It is expected that these amendments will not have a material impact on the consolidated financial statements.

IFRS 16 *Leases*

IFRS 16 requires lessees to account for all leases under a single on-balance sheet model in a similar way to finance leases under IAS 17 with recognition exemptions for leases of 'low-value' assets and short term leases. Lessees recognize a liability to pay rentals with a corresponding asset and recognize interest expense and depreciation separately. Reassessment of certain key considerations (i.e. lease term, variable rents based on an index or rate, discount rate) by the lessee is required upon certain events. IFRS 16 also requires lessees and lessors to make more extensive disclosures than under IAS 17.

The new standard is effective for financial years beginning on or after January 1, 2019, with certain transition reliefs permitted. Entities that are lessees are allowed to choose either a full retrospective or a modified retrospective transition approach.

The Company has engaged in a detailed analysis of this standard across all segments and expects to have this completed in 2018. The Company plans to adopt the new standard on the required effective date. The Company will provide an update on the expected impact at the mid-year 2018.

Other Amendments

In addition to the above, the adoption of the following new or amended standards have also been considered:

- Classification and Measurement of Share-based Payment Transactions (Amendments to IFRS 2).
- Transfers of Investment Property (Amendments to IAS 40).
- Sales or Contribution of Assets between an Investor and its Associate or Joint Venture (Amendments to IFRS 10 and IAS 28).
- IFRIC 22 Foreign Currency Transactions and Advance Consideration.
- IFRIC 23 Uncertainty over Income Tax Treatments.

The Company has engaged in a full analysis of these standards across all segments and expects to have this completed in 2018. The Company plans to adopt the new standards on the required effective date. The Company will provide an update on the expected impact at the mid-year 2018.

4. SEGMENT REPORTING

For management purposes, the Company is organized under two operating segments: AMG Critical Materials and AMG Engineering. Each segment offers different products and services, and are managed separately due to different technology and marketing requirements.

Management 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 Critical Materials

AMG Critical Materials develops and produces specialty metals, alloys, chemicals and high performance materials. AMG Critical Materials is a significant producer of specialty metals, such as ferrovanadium, ferronickel-molybdenum, aluminum master alloys and additives, chromium metal, tantalum, antimony, natural graphite, silicon metal and titanium master alloys for energy, aerospace, infrastructure and specialty metal and chemicals applications. Other key products include specialty alloys, coating materials and vanadium chemicals. AMG Critical Materials has major production facilities in the UK, the US, Germany, France, China, and Brazil.

AMG Engineering

AMG Engineering designs, engineers and produces advanced vacuum furnace systems and operates vacuum heat treatment facilities, primarily for the aerospace and energy (including solar and nuclear) industries. Furnace systems produced by AMG Engineering include vacuum remelting, vacuum induction melting, vacuum heat treatment and high pressure gas quenching, turbine blade coating and sintering. AMG Engineering also provides vacuum case-hardening heat treatment services on a tolling basis. AMG Engineering has production facilities that are located in Germany, France, Mexico, India, China and the US.

AMG Corporate headquarters costs and assets are allocated seventy percent to AMG Critical Materials and thirty percent to AMG Engineering in 2017 and 2016 based on an estimation of services provided to the operating segments.

Year ended December 31, 2017	AMG Critical Materials	AMG Engineering	Eliminations[a]	Total
Revenue				
Revenue from external customers	814,446	245,205	—	1,059,651
Intersegment revenue	—	3,070	(3,070)	—
Total revenue	814,446	248,275	(3,070)	1,059,651
Segment results				
Depreciation and amortization	25,745	5,154	—	30,899
Restructuring	1,906	641	—	2,547
Asset impairment	1,048	112	—	1,160
Environmental	3,092	—	—	3,092
Operating profit	62,608	17,144	—	79,752
Statement of financial position				
Segment assets	753,344	172,697	—	926,041
Other investments	30,562	—	—	30,562
Total assets	783,906	172,697	—	956,603
Segment liabilities	326,112	135,441	—	461,553
Employee benefits	89,732	66,461	—	156,193
Provisions	40,129	16,139	—	56,268
Total liabilities	455,973	218,041	—	674,014
Other information				
Capital expenditures for expansion – tangible assets	45,348	3,551	—	48,899
Capital expenditures for maintenance – tangible assets	27,425	2,087	—	29,512
Capital expenditures – intangible assets	2,092	401	—	2,493

Year ended December 31, 2016	AMG Critical Materials	AMG Engineering	Eliminations[a]	Total
Revenue				
Revenue from external customers	701,634	269,514	—	971,148
Intersegment revenue	—	2,545	(2,545)	—
Total revenue	701,634	272,059	(2,545)	971,148
Segment results				
Depreciation and amortization	23,821	6,020	—	29,841
Restructuring	2,542	1,680	—	4,222
Asset impairment	—	1,976	—	1,976
Environmental	1,873	—	—	1,873
Operating profit	44,362	15,506	—	59,868
Statement of financial position				
Segment assets	625,611	164,771	—	790,382
Other investments	29,930	—	—	29,930
Total assets	655,541	164,771	—	820,312
Segment liabilities	296,482	132,800	—	429,282
Employee benefits	81,720	59,868	—	141,588
Provisions	34,960	16,695	—	51,655
Total liabilities	413,162	209,363	—	622,525
Other information				
Capital expenditures for expansion – tangible assets	23,611	2,046	—	25,657
Capital expenditures for maintenance – tangible assets	13,232	2,607	—	15,839
Capital expenditures – intangible assets	1,796	794	—	2,590

[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, 2017		Year ended December 31, 2016	
	Revenues	Non-current assets	Revenues	Non-current assets
United States	324,527	63,824	288,100	63,984
Germany	221,517	122,378	202,508	102,426
China	70,684	1,051	72,869	1,884
France	53,136	19,077	50,562	17,383
United Kingdom	49,204	17,711	41,154	14,943
Italy	38,042	—	23,640	—
Japan	36,987	18	47,562	18
Brazil	33,547	107,018	29,834	53,984
South Korea	28,352	—	25,529	—
Austria	25,721	—	28,784	—
Belgium	15,475	—	12,355	3
Mexico	15,315	4,758	18,207	6,903
India	12,343	96	14,268	466
Canada	11,774	—	10,373	—
Spain	10,783	—	8,447	—
Turkey	10,260	—	7,376	—
Sweden	8,698	—	8,240	—
Netherlands	7,138	—	4,406	—
Australia	6,194	—	4,991	—
Czech Republic	5,711	1,903	5,660	1,667
Kazakhstan	5,584	—	2,511	—
Poland	5,016	—	4,933	—
Switzerland	4,244	—	3,949	—
Thailand	3,984	—	2,217	—
Taiwan	3,590	—	6,887	—
Russia	3,002	—	5,422	20
Singapore	2,773	—	2,032	—
Argentina	1,391	—	1,012	—
Mozambique	—	14,942	—	8,603
Other	44,659	4,091	37,320	4,236
Total	1,059,651	356,867	971,148	276,520

Non-current assets for this purpose consist of property, plant and equipment; goodwill and other intangible assets; other assets; and non-current tax assets.

5. ACQUISITIONS AND DISPOSALS

The Company did not have any acquisitions or disposals during the year ending December 31, 2017.

During the year ending December 31, 2016, the following transactions occurred:

INTELLIFAST, GMBH

In February 2016, the Company sold its 100% ownership interest in Intellifast, GmbH ("Intellifast"). The negotiated sale price was $710 and the total proceeds from the sale net of cash sold were $675. During 2016, the Company recorded a gain on the sale of $316 which is included in other income, net in the consolidated income statement.

ALD INDUSTRIE-UND MONTAGEPARK STAAKEN GMBH

In August 2016, the Company sold its 100% ownership interest in ALD Indsutrie-und Montagepark Staaken GmbH ("ALD IMP"). The assets of ALD IMP consisted mainly of a building in Berlin, Germany. The negotiated sale price was $7,290 and the total proceeds from the sale net of cash sold and fees incurred were $5,837. During 2016, the Company recorded a gain on the sale of $4,270 which is included in other income, net in the consolidated income statement.

ALD HOLCROFT VACUUM TECHNOLOGIES CO, INC

In February 2016, the Company purchased the remaining 50% of the outstanding shares of ALD Holcroft Vacuum Technologies Co, Inc ("ALD Holcroft"). ALD Holcroft is the sales agent for the Company's heat treatment product lines in the North American region. The purchase has allowed the Company to streamline its heat treatment and metallurgy furnace marketing operations in the US, Canada and Mexico. The total purchase price was $5,154. There was goodwill of $4,527 recorded as a result of this purchase and is related to synergies created in the heat treatment and metallurgy furnace marketing operations in North America. The fair value of the other assets acquired, and liabilities assumed is equal to $1,081 and includes accounts receivable, accounts payable and customer relationships. Prior to this purchase the value of the existing 50% ownership interest was adjusted to fair market value. During 2016, this adjustment resulted in a gain of $1,789 which is recorded in share of profit of associates and joint ventures in the consolidated income statement.

LSM BRAZIL SCP

During the year ended December 31, 2016, the Company purchased the remaining 15% of LSM Brazil SCP. This is an entity which produces aluminum at a site in São João del Rei, Brazil. The purchase has allowed for additional synergies within the Company's global aluminum production. The total purchase price was $559. There were cash payments of $196 and payments settled with inventory of $133. As of December 31, 2016, there is $230 outstanding to be settled with inventory which was settled in 2017.

AMG MINERACAO SCP

During the year ended December 31, 2016, the Company purchased the remaining 49.9% of AMG Mineracao SCP. This is an entity which produces feldspar at the mine in Nazareno, Brazil. The purchase will allow for further expansion of mining activities. The total purchase price was $5,404 and has been settled with cash.

ASSETS HELD FOR SALE

As of December 31, 2017, the Company identified $2,056 of machinery and equipment and a building held for sale. These assets are reported within the AMG Engineering segment.

6. REVENUE

Revenue from sales of goods during the year ended December 31,2017 was $1,059,651 (2016: 971,148). For revenue by segment and by geographical basis, see note 4.

For construction contracts, the following has been recognized using the percentage of completion revenue recognition method:

	2017	2016
Contract revenue recognized	180,201	210,584
Contract expenses recognized	139,803	177,435
Recognized profits	40,398	33,149
Contract costs incurred and recognized profits	239,055	215,795
Progress billings and advances received	243,158	215,460
Net amount due (to) from customers	(4,103)	335
Gross amount due from customers for contract work (note 15)	28,922	29,739
Gross amount due to customers for contract work (shown as advance payments in consolidated statement of financial position)	(33,025)	(29,404)
Net amount due (to) from customers	(4,103)	335

7. OTHER INCOME AND EXPENSE

	Note	2017	2016
Sale of scrap	i	175	398
Insurance proceeds	ii	78	44
Grant income	iii	73	69
Income from sale of asset	iv	29	656
Gain on sale of subsidiary	v	—	4,586
Other miscellaneous income	vi	201	250
Other income		556	6,003
Other expense		45	320
Environmental expenses		3,092	1,873
Net other operating expense (income)		2,581	(3,810)

In 2017, other income of $556 consisted of: (i) income from the sale of scrap $175; (ii) insurance proceeds of $78 related to an insurance claim; (iii) government grant income of $73; (iv) income from sale of asset $29; and (vi) other miscellaneous income of $201.

In 2016, other income of $6,003 consisted of: (i) income from the sale of scrap $398; (ii) insurance proceeds of $44 related to an insurance claim; (iii) government grant income of $69; (iv) income from sale of asset $656; (v) gain on sale of subsidiaries in Germany of $4,586 (see note 5 for additional information); and (vi) other miscellaneous income of $250.

8. PERSONNEL EXPENSES

	Note	2017	2016
Wages and salaries		165,875	152,323
Contributions to defined contribution plans	24	3,831	4,176
Expenses related to defined benefit plans	24	6,711	7,192
Social security and other benefits		34,524	31,654
Performance share units	25	8,068	10,417
Stock options	25	503	495
Restricted stock awards	25	126	207
Total		219,638	206,464
Included in the following lines of the consolidated income statement:			
Cost of sales		139,803	127,746
Selling, general and administrative expenses		79,835	78,718
Total		219,638	206,464

9. FINANCE INCOME AND COST

	2017	2016
Interest income on bank deposits	680	390
Interest income on tax refunds	363	179
Interest income on escrow deposits	85	130
Discounting on provisions	253	—
Foreign exchange gain	—	395
Other	385	568
Finance income	1,766	1,662
Interest expense on loans and borrowings	5,110	3,903
Interest expense on interest rate derivatives	—	948
Amortization of loan issuance costs	802	4,573
Discount on long term assets, provisions and retirement obligations	640	1,623
Guarantees	934	1,295
Commitment/unutilized fees	1,300	984
Accounts receivable factoring	446	322
Other	327	19
Foreign exchange loss	601	—
Finance cost	10,160	13,667
Net finance cost	8,394	12,005

See note 22 for additional information on loans and borrowings as well as related fees. See note 34 for additional information on bank charges for guarantees.

10. INCOME TAX

Significant components of income tax expense for the years ended:

CONSOLIDATED INCOME STATEMENT

	2017	2016
Current tax expense		
Current period	11,859	10,978
Adjustment for prior periods	(958)	—
Total current taxation charges for the year	10,901	10,978
Deferred tax expense		
Origination and reversal of temporary differences	8,610	6,307
Changes in previously unrecognized tax losses, tax credits and unrecognized temporary differences	(9,679)	(4,231)
Changes in previously recognized tax losses, tax credits and recognized temporary differences for changes in enacted tax rates and currency effects	3,860	(5,133)
Derecognition of previously recognized tax losses, tax credits and temporary differences	—	769
Adjustment for prior period	213	(594)
Total deferred taxation for the year	3,004	(2,882)
Total income tax expense reported in consolidated income statement	13,905	8,096
Consolidated statement of comprehensive income		
Deferred tax related to items recognized in OCI in the year:		
Cash flow hedges, effective portion of changes in fair value	(2,024)	(3,912)
Actuarial losses (gains) on defined benefit plans	2,968	14,026
Income tax benefit charged to OCI	944	10,114

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 29.73% (2016: 33.43%) to the Company's effective income tax rate for the years ended is as follows:

	2017	2016
Profit before income tax from continuing operations	71,358	49,667
Income tax using the Company's weighted average tax rate	21,216	16,603
Non-deductible expenses	1,833	3,902
Tax exempt income	(2,563)	(2,877)
Current year losses for which no deferred tax asset was recognized and changes in unrecognized temporary differences	2,527	8,253
Recognition of previously unrecognized tax losses, tax credits and temporary differences of a prior year	(12,466)	(11,252)
Derecognition of previously recognized tax losses, tax credits and temporary differences	—	770
Changes in previously recognized tax losses, tax credits and recognized temporary differences for changes in enacted tax rates	1,199	(350)
Changes in previously recognized tax losses, tax credits and recognized temporary differences for changes in currency effects	267	(4,782)
(Over) under provided in prior periods	(741)	(531)
State and local taxes	640	716
Other	1,993	(2,356)
Income tax expense reported in consolidated income statement	13,905	8,096

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. Some entities have losses for which no deferred tax assets have been recognized.

During the years ended December 31, 2017 and 2016, the income tax benefits related to the current year losses of certain US, Dutch, French, Belgian, and Brazilian entities were not recognized. In total, $2,527 and $8,253 were not recognized in 2017 and 2016, respectively, as it is not probable that these amounts will be realized.

During the years ended December 31, 2017 and 2016, certain income tax benefits related to previously unrecognized tax losses and temporary differences related to certain US, Brazil, French and German entities were recognized. In total, $12,466 and $11,252 were recognized in 2017 and 2016, respectively, through an increase to the net deferred tax asset. Of the total benefit recognized, $10,810 (2016: $8,898) related to the US jurisdictions. These benefits were recognized due to financial performance in recent years and forecasted taxable profits.

The main factors considered in assessing the realizability of deferred tax benefits were improved profitability, higher forecasted taxable profitability and carry forward 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 be realized in the foreseeable future.

On December 22, 2017, the President of the United States signed into law the tax legislation commonly known as the Tax Cuts and Jobs Act (the "Act"). The effects of new legislation are recognized upon enactment, which (for federal legislation) is the date the President signs a bill into law. Accordingly, recognition by AMG of the tax effects of the Act is required in the annual period that includes December 22, 2017.

The change in tax law resulted in one-time deferred tax expense of $1,462 due to the revaluation of the deferred tax asset to reflect the reduction in the maximum US corporate tax rate of 35% to a flat rate of 21%.

Also, during the years ended December 31, 2017, the net recognized deferred tax assets (liabilities) were adjusted for changes in the enacted tax rates in the UK and Germany. The impact of the tax rate changes was a decrease to income tax expense of $263. The net recognized deferred tax assets (liabilities) were also adjusted to reflect changes in currency rates in Brazil. The impact of the tax rate changes and currency rates was an increase to income tax expense of $267 (2016: ($4,782)).

During the year 2017, an income tax expense of $1,993 was recorded to other. Of this total expense, $857 related to the reversal of tax credits received in France for prior years.

There were no income tax consequences attached to the payment of dividends in either 2017 or 2016 by AMG to its shareholders.

DEFERRED TAX ASSETS AND LIABILITIES

Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, as well as tax loss and tax credit carry forwards.

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 exclusive of reversing temporary differences and carry forwards, the scheduled reversal of deferred tax liabilities and potential tax planning strategies.

RECOGNIZED DEFERRED TAX ASSETS AND LIABILITIES

Deferred tax assets and liabilities have been recognized in respect of the following roll forward:

	December 31, 2016 Net tax asset and liability	Deferred benefit (expense)	Other comprehensive income	Currency translation adjustment/ other	December 31, 2017 Net tax asset and liability	Assets	Liabilities
Inventories	576	462	—	108	1,146	1,211	65
Long term contracts	(9,693)	(2,436)	—	(1,475)	(13,604)	—	13,604
Prepaids and other current assets	2	7	—	(11)	(2)	3	5
Property, plant, and equipment	(12,554)	1,928	—	4,805	(5,821)	1,766	7,587
Deferred charges and non-current assets	997	(4,805)	(2,024)	(1,339)	(7,171)	1,206	8,377
Accruals and reserves	4,063	2,508	—	(3,827)	2,744	3,079	335
Deferred revenue	3,215	(3,215)	—	—	—	—	—
Environmental liabilities	8,204	(2,922)	—	52	5,334	5,627	293
Retirement benefits	27,117	(2,746)	2,968	7,061	34,400	34,400	—
Tax loss and tax credit carryforwards	10,923	8,215	—	(3,944)	15,194	15,194	—
Total	32,850	(3,004)	944	1,430	32,220	62,486	30,266
Set off of tax						(22,378)	(22,378)
Net tax assets and liabilities						40,108	7,888

During the year ended December 31, 2017, the Company recorded income tax (expense) of ($2,024) (2016: ($3,912)) related to cash flow hedges and $2,968 (2016: $14,026) related to actuarial gains on defined benefit plans to 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) a US entity did not recognize a portion of their state tax loss carry forwards; (3) Certain Dutch holding companies and operating companies in the UK, France, Belgium and Mexico do not recognize benefits for their loss carry forward deferred tax assets because management has determined that they will not be able to generate future taxable profits in the foreseeable future for these respective entities.

Certain deferred tax assets have not been recognized in respect of tax loss carry forwards and temporary differences as they may not be used to offset taxable profits elsewhere in the Company and they have arisen in subsidiaries that have been loss-making for some time.

Deferred tax assets and liabilities have not been recognized in respect of the following items:

	Assets	
	2017	2016
Property, plant and equipment	—	949
Deferred charges and non-current assets	9,553	9,369
Retirement benefits	—	6,651
Tax loss and tax credit carry forwards	25,941	48,769
Net tax assets – unrecognized	35,494	65,738

At December 31, 2017, net operating loss and tax credit carry forwards for which no deferred tax assets have been recognized in the balance sheet, expire as follows:

2018	6,466
2019	7,591
2020	8,980
2021	7,613
2022	7,288
2023-2026	51,663
Unlimited	21,961
Total	111,562

11. PROPERTY, PLANT AND EQUIPMENT

COST	Mining costs	Land, buildings and improvements	Machinery and equipment	Furniture and fixtures	Construction in progress	Finance leases	Total
Balance at January 1, 2016	20,404	134,833	344,781	19,728	6,902	2,833	529,481
Additions	1,072	981	9,104	3,439	28,143	—	42,739
Retirements and transfers	7,826	(558)	4,008	(2,307)	(14,703)	—	(5,734)
Effect of movements in exchange rates	(271)	(2,865)	(7,151)	(586)	(786)	(41)	(11,700)
Balance at December 31, 2016	29,031	132,391	350,742	20,274	19,556	2,792	554,786
Balance at January 1, 2017	29,031	132,391	350,742	20,274	19,556	2,792	554,786
Additions	5,137	1,941	6,488	3,764	73,091	—	90,421
Retirements and transfers	2,133	6,252	997	65	(22,600)	—	(13,153)
Effect of movements in exchange rates	1,772	9,346	18,815	2,056	1,198	162	33,349
Balance at December 31, 2017	38,073	149,930	377,042	26,159	71,245	2,954	665,403
DEPRECIATION							
Balance at January 1, 2016	(10,158)	(52,294)	(237,147)	(12,699)	(143)	(1,207)	(313,648)
Depreciation for the year	(1,772)	(3,982)	(20,615)	(1,981)	—	(345)	(28,695)
Retirements and transfers	(1,511)	3,795	3,409	2,725	—	—	8,418
Impairments	—	(1,144)	—	—	—	—	(1,144)
Effect of movements in exchange rates	147	1,043	4,915	248	—	28	6,381
Balance at December 31, 2016	(13,294)	(52,582)	(249,438)	(11,707)	(143)	(1,524)	(328,688)
Balance at January 1, 2017	(13,294)	(52,582)	(249,438)	(11,707)	(143)	(1,524)	(328,688)
Depreciation for the year	(1,427)	(4,076)	(20,987)	(2,398)	—	(346)	(29,234)
Retirements and transfers	(5)	550	9,358	676	143	—	10,722
Impairments	—	—	(2,676)	—	—	—	(2,676)
Effect of movements in exchange rates	(566)	(3,492)	(11,916)	(904)	—	(109)	(16,987)
Balance at December 31, 2017	(15,292)	(59,600)	(275,659)	(14,333)	—	(1,979)	(366,863)
Carrying amounts							
At January 1, 2016	10,246	82,539	107,634	7,029	6,759	1,626	215,833
At December 31, 2016	15,737	79,809	101,304	8,567	19,413	1,268	226,098
At January 1, 2017	15,737	79,809	101,304	8,567	19,413	1,268	226,098
At December 31, 2017	22,781	90,330	101,383	11,826	71,245	975	298,540

MINING COSTS

Mining costs include assets related to the Company's mines. During the years ended December 31, 2017, $1,427 (2016: $1,772) of these costs have been depreciated. Refer to note 26 for details regarding the movements in mining costs.

PROPERTY, PLANT AND EQUIPMENT UNDER CONSTRUCTION

During the years ended December 31, 2017 and 2016, the subsidiaries of the Company embarked on several different expansion projects as well as certain required maintenance projects. The largest of these expansion projects currently underway is the Company's lithium expansion in Brazil. Costs incurred up to December 31, 2017, which are included in construction in progress, totaled $71,245 (2016: $19,413).

BORROWING COSTS

The Company did not capitalize any borrowing costs during 2017 or 2016.

PROPERTY, PLANT AND EQUIPMENT ADDITIONS

At December 31, 2017, the Company had $90,421 in additions, including $11,193 (2016: $3,512) in accounts payable and a non-cash transfer of $4,329 (2016: nil) from the provision for restoration costs related to asset retirement obligations. See note 26 for more information.

FINANCE LEASES

At December 31, 2017, the Company had $975 (2016: $1,268) of finance leases for equipment and software. A portion of this balance relates to an asset that was previously leased under an operating lease.

DEPRECIATION OF PROPERTY, PLANT AND EQUIPMENT

Depreciation expense for the year ended December 31, 2017 was $29,234 (2016: $28,695). Depreciation expense is recorded in the following line items in the consolidated income statement:

	2017	2016
Cost of sales	28,192	26,966
Selling, general and administrative expenses	1,042	1,729
Total	29,234	28,695

SALE OF PROPERTY, PLANT AND EQUIPMENT

Certain land and equipment was sold in the years ended December 31, 2017 and 2016. In those years, the Company received proceeds of $254 and $1,546, respectively. In 2017, the proceeds were less than the book value of the assets and a loss of $75 was recognized during the year. In 2016, the proceeds were less than the book value of the assets and a loss of $85 was recognized during the year.

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 and intangible 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, 2017, the Company recorded $2,676 of asset impairments related to property, plant and equipment of which $2,217 were a result of a fire at the Company's Mibra mine in Brazil. Impairment expense was partly offset by insurance proceeds of $1,516. The remaining impairment of $459 was due to restructuring which occurred during the period at subsidiaries in France, Germany, and the United States. See note 26 for additional information on these restructuring expenses.

SECURITY

At December 31, 2017, properties with a carrying amount of $128,778 (2016: $119,472) are pledged as collateral to secure certain bank loans.

12. GOODWILL AND INTANGIBLE ASSETS

COST	Goodwill	Customer relationships	Capitalized development costs	Mining assets	Other intangible assets	Total goodwill and intangible assets
Balance at January 1, 2016	27,830	9,591	4,305	5,183	22,969	69,878
Additions	4,527	267	481	652	1,190	7,117
Disposals, reversals and transfers	—	—	—	—	95	95
Effect of movements in exchange rates	(746)	(265)	(124)	(1,135)	(727)	(2,997)
Balance at December 31, 2016	31,611	9,593	4,662	4,700	23,527	74,093
Balance at January 1, 2017	31,611	9,593	4,662	4,700	23,527	74,093
Additions	—	—	912	711	870	2,493
Disposals, reversals and transfers	—	—	—	461	—	461
Effect of movements in exchange rates	3,367	1,019	511	715	2,839	8,451
Balance at December 31, 2017	34,978	10,612	6,085	6,587	27,236	85,498
AMORTIZATION AND IMPAIRMENT						
Balance at January 1, 2016	(9,154)	(8,014)	(2,460)	(1,834)	(19,494)	(40,956)
Amortization	—	(203)	(72)	—	(871)	(1,146)
Effect of movements in exchange rates	272	201	40	63	648	1,224
Balance at December 31, 2016	(8,882)	(8,016)	(2,492)	(1,771)	(19,717)	(40,878)
Balance at January 1, 2017	(8,882)	(8,016)	(2,492)	(1,771)	(19,717)	(40,878)
Amortization	—	(155)	(286)	(409)	(815)	(1,665)
Effect of movements in exchange rates	(1,059)	(812)	(181)	(268)	(2,525)	(4,845)
Balance at December 31, 2017	(9,941)	(8,983)	(2,959)	(2,448)	(23,057)	(47,388)
Carrying amounts						
At January 1, 2016	18,676	1,577	1,845	3,349	3,475	28,922
At December 31, 2016	22,729	1,577	2,170	2,929	3,810	33,215
At January 1, 2017	22,729	1,577	2,170	2,929	3,810	33,215
At December 31, 2017	25,037	1,629	3,126	4,139	4,179	38,110

AMORTIZATION OF INTANGIBLE ASSETS

Amortization expense for the year ended December 31, 2017 was $1,665 (2016: $1,146). Amortization expense is recorded in the following line items in the consolidated income statement:

	2017	2016
Cost of sales	473	232
Selling, general and administrative expenses	1,192	914
Total	1,665	1,146

RESEARCH COSTS

Research costs are expensed as incurred. Development costs are expensed until they meet the following criteria: technical feasibility; both the intention and ability to complete for internal use or as an external sale; probable generation of future economic benefits; and marketability existence. Research and development expenses are included in selling, general and administrative expenses and were $4,846 and $3,816 in the years ended December 31, 2017 and 2016, 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	2017	2016
AMG Antimony cash-generating unit	Critical Materials	9,476	8,335
AMG Superalloys UK cash-generating unit	Critical Materials	1,510	1,510
ALD cash-generating unit	Engineering	14,051	12,884
Goodwill at cash-generating units		25,037	22,729

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.

It is possible that the key assumptions used in the business plan will differ from actual results. However, management does not believe that any possible changes 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 Superalloys UK and ALD'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 2017 and 2016, the carrying amounts of the AMG Antimony and AMG Superalloys units were determined to be lower than their recoverable amounts and no impairment losses were recognized.

[1] AMG Antimony's value in use was determined by discounting the future cash flows generated from the continuing use of the unit and was based on the following key assumptions:

- Cash flows were projected based on actual operating results and the 3-year business plan, which covers the next three calendar years following the impairment test date. Metal prices used in the projections are generally at current market prices at the time the plan is prepared.
- The growth rate of 1% was used to extrapolate cash flow projections beyond the period covered by the most recent business plans. Management believes that this growth rate does not exceed the long term average growth rate for the metallurgical industry in Europe.
- Revenue projections were based on an internal 3-year business plan.
- Pre-tax discount rates of 14.23% and 13.12% were applied in determining the recoverable amount of the unit for the years ended December 31, 2017 and 2016, respectively. The discount rates were derived from a group of comparable companies (peer group) and have been compared to external advisor reports for reasonableness.

Sensitivities related to the value in use calculation for AMG Antimony would imply that a 1% increase in the discount rate or using a 0% growth rate would not have created an impairment.

[2] AMG Superalloys UK's value in use was determined by discounting the future cash flows generated from the continuing use of the unit and was based on the following key assumptions:

- Cash flows were projected based on actual operating results and the 3-year business plan, which covers the next three calendar years following the impairment test date. Metal prices used in the projections are generally at current market prices at the time the plan is prepared.
- The growth rate of 1% was used to extrapolate cash flow projections beyond the period covered by the most recent business plans. Management believes that this growth rate does not exceed the long term average growth rate for the metallurgical industry in Europe.
- Revenue projections were based on an internal 3-year business plan.
- Pre-tax discount rates of 12.45% and 12.04% were applied in determining the recoverable amount of the unit for the years ended December 31, 2017 and 2016, respectively. The discount rates were derived from a group of comparable companies (peer group) and have been compared to external advisor reports for reasonableness.

Sensitivities related to the value in use calculation for AMG Superalloys UK would imply that a 1% increase in the discount rate or using a 0% growth rate would not have created an impairment.

[3] ALD's value in use was determined by discounting the future cash flows generated from the continuing use of the unit and was based on the following key assumptions:

- Cash flows were projected based on actual operating results and the 3-year business plan, which covers the next three calendar years following the impairment test date.
- The growth rate of 1% was used to extrapolate cash flow projections beyond the period covered by the most recent business plans. Management believes that this growth rate does not exceed the long term average growth rate for the capital equipment sector of the metallurgical industry.
- Revenue projections were based on an internal 3-year business plan.
- Pre-tax discount rates of 14.80% and 14.29% were applied in determining the recoverable amount of the unit for the years ended December 31, 2017 and 2016, respectively. The discount rates were derived from a group of comparable companies

(peer group) and have been compared to external advisor reports for reasonableness.

Sensitivities related to the value in use calculation for ALD 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 were no intangible asset impairments during the years ended December 31, 2017 and 2016.

13. ASSOCIATES AND JOINT VENTURES AND OTHER INVESTMENTS

The Company's share of gain, net of tax, in associates and joint ventures for 2017 was nil (2016: $1,804). The Company owns a 50% share in Silmag DA which is an inactive Norwegian company. AMG does not maintain any balances in its financial statements related to Silmag DA.

OTHER INVESTMENTS

During the year ended December 31, 2015, the Company amended a contract with one of its customers. As part of the amendment, the Company received a 10% ownership interest in the customer. During the year ended December 31, 2016, the Company purchased an additional 4% ownership interest in the customer. The investment is being designated as an available for sale financial instrument because the Company has not gained significant influence over the customer through the 13.5% (2016: 13.75%) ownership interest.

The investment had a value of $15,047 at December 31, 2017 (2016: $15,047). The fair value of this investment is estimated by management with reference to the relevant available information which is limited due to legal disputes between the Companies. 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 income of nil and $47 related to the investment during the years ended December 31, 2017 and 2016, respectively, which is included in other comprehensive income.

Also included in other investments are assets of $15,515 (2016: $14,883) 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 $2,410. 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 income of $1,141 related to the investment during the years ended December 31, 2017, which is included in other comprehensive income. See notes 24 and 31 for additional information.

14. INVENTORIES

	2017	2016
Raw materials	57,876	53,275
Work in process	22,761	16,981
Finished goods	74,666	66,877
Other	7,202	6,460
Total	162,505	143,593

Other inventory primarily includes spare parts that are maintained for operations.

In 2017 raw materials, changes in finished goods and work in process contributed to cost of sales by $584,442 (2016: $541,275). In the year ended December 31, 2017, the net adjustment to net realizable value amounted to a write-down of $864 (2016: $6,036 write-up) and was included in cost of sales. The net realizable value write-ups and write-downs were related to inventory costing adjustments due to variability in metals pricing.

AMG incurred nil asset impairment expense on inventory during the year ended December 31, 2017 (2016: $832). Inventory in the amount of $92,513 (2016: $65,485) is pledged as collateral to secure the bank loans of certain subsidiaries (see note 22).

15. TRADE AND OTHER RECEIVABLES

	2017	2016
Trade receivables, net of allowance for doubtful accounts	108,252	99,481
Gross amount due from customers for contract work (note 6)	222,247	175,254
Less: progress payments received	(193,325)	(145,515)
Net receivable from contract work	28,922	29,739
Total	137,174	129,220

At December 31, 2017 and 2016, 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 percentage of completion 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, 2017, receivables in the amount of $39,978 (2016: $49,841) are pledged as collateral to secure the term loan and multicurrency 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:

		Neither past due nor impaired	Past due but not impaired				
	Total		<30 days	30-60 days	60-90 days	90-120 days	>120 days
2017	137,174	123,534	11,775	939	728	136	62
2016	129,220	110,506	14,700	1,497	1,028	855	634

At December 31, 2017, trade receivables are shown net of an allowance for doubtful accounts of $3,404 (2016: $2,083) arising from customer unwillingness or inability to pay. Bad debt charges in the amount of $1,415 and $346 were recorded in the years ended December 31, 2017 and December 31, 2016, respectively. These charges are recorded in selling, general and administrative expenses in the consolidated income statement.

Movements in the provision for impairment of receivables were as follows:

	2017	2016
At January 1	2,083	2,471
Charge for the year	1,415	346
Amounts written-off	(19)	(372)
Amounts recovered/collected	(282)	(315)
Foreign currency adjustments	207	(47)
At December 31	3,404	2,083

FACTORING OF RECEIVABLES

As of December 31, 2017 and 2016, the Company had total receivables factored and outstanding of $30,122 and $13,152, respectively. The Company maintains accounts receivable facilities with banks and credit insurance companies in Germany, France and the US. The German and French facilities are fixed fee arrangements and the US facility is the equivalent of LIBOR plus 4.75%. The Company sold receivables in the amount of $100,539 throughout the year which includes security deposits of $605 and cash proceeds of $91,406. During 2017, the Company incurred costs of $868 in conjunction with the sale of these receivables of which $446 were included in finance cost, $163 were recorded to selling, general and administrative expenses and $259 were recorded to sales on the consolidated income statement. This activity is included in cash from operating activities during the year ended December 31, 2017. In 2016 the Company sold receivables in the amount $71,032 throughout the year which includes security deposits of $653 and cash proceeds of $70,379. During 2016, the Company incurred costs of $471 in conjunction with the sale of these receivables of which $322 were included in finance cost, $149 were recorded to selling, general and administrative expenses and on the consolidated income statement. This activity is included in cash from operating activities during the year ended December 31, 2016.

Under these facilities, the Company continues to collect the receivables from the customer but retains no interest or risk in the receivables, therefore, the Company has derecognized the receivables. The revolving credit facility (described further in note 22) does not permit the Company to transfer the receivables to any other institution and the Company is not permitted to repurchase the transferred receivables. The accounts receivable facilities provide additional liquidity to the Company.

16. OTHER ASSETS

Other assets are comprised of the following:

	2017	2016
Prepaid taxes (indirect)	21,586	16,404
Prepaid inventory	10,834	8,811
Insurance	4,836	4,072
Pension assets	3,596	-
Environmental trusts	2,494	4,576
Debt issuance cost	2,731	2,224
Deposits	1,868	1,963
NCI contribution receivable	1,506	1,324
MG India receivable	407	750
Other miscellaneous assets	5,418	3,424
Total	55,276	43,548
Thereof:		
Current	37,547	26,341
Non-current	17,729	17,207

Prepaid inventory includes inventory purchased for specific percentage of completion contracts.

As of December 31, 2017, the Company has a contribution receivable of $1,506 (2016: $1,324) related to dividends to non-controlling interest.

In the year ended December 31, 2017, $605 (2016: $653) was included in deposits related to factoring agreements as discussed in note 15.

In January 2017, there was a fire at the Company's Mibra mine in Brazil damaging one of two tantalum production lines. Related to this incident, we recovered $7,439 from business interruption insurance, of which we have received $4,739 of the proceeds and there is an additional outstanding receivable with a balance of $2,700 recorded in other assets as of December 31, 2017.

17. RESTRICTED CASH

Restricted cash at December 31, 2017, is $829 (2016: $2,526) which provides security to financial institutions who issue letters of credit or other forms of credit on behalf of the Company. These letters of credit serve two primary purposes: to provide financial backing for advance payments made by our customers of the Engineering segment and to provide financial assurance to banks, vendors and regulatory agencies to whom the Company is obligated.

18. CASH AND CASH EQUIVALENTS

The Company had bank balances at December 31, 2017 of $178,800 (2016: $160,744). Bank balances earn interest at floating rates based on daily bank deposit rates. The Company periodically utilizes time deposits; they have maturities of approximately three months or less depending on the immediate cash needs of the Company, and earn interest at the respective short term rates. At December 31, 2017, the Company had nil time deposits (2016: nil).

At December 31, 2017, the Company had $150,591 available liquidity (2016: $182,645) on undrawn committed borrowing facilities.

19. CAPITAL AND RESERVES

SHARE CAPITAL

At December 31, 2017, the Company's authorized share capital was comprised of 65,000,000 ordinary shares (2016: 65,000,000) with a nominal share value of €0.02 (2016: €0.02) and 65,000,000 preference shares (2016: 65,000,000) with a nominal share value of €0.02 (2016: €0.02).

At December 31, 2017, the issued and outstanding share capital was comprised of 29,784,516 ordinary shares (2016: 28,195,363), with a nominal value of €0.02 (2016: €0.02) which were fully paid. No preference shares were outstanding at December 31, 2017 (2016: nil). The nominal value of the outstanding shares as of December 31, 2017 was $714 (2016: $594) as compared to the value using historical exchange rates which was $796 (2016: $760).

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, 2016	27,641,956
Shares issued for share-based compensation	610,463
Shares repurchased	(247,965)
Re-issuance of treasury shares	77,074
Treasury shares delivered for share-based compensation	87,202
Treasury shares delivered to Supervisory Board	26,633
Balance at December 31, 2016	28,195,363
Shares issued for share-based compensation	1,655,628
Shares repurchased	(474,708)
Treasury shares delivered for share-based compensation	392,494
Treasury shares delivered to Supervisory Board	15,739
Balance at December 31, 2017	29,784,516

SHARES ISSUED OR DELIVERED FOR SHARE-BASED COMPENSATION

During the year ended December 31, 2017, 2,048,122 (2016: 697,665) 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. Treasury shares are recorded at cost, representing the market price on the acquisition date. When issued, shares are removed from treasury shares on a first-in, first-out (FIFO) basis. When treasury shares are reissued under the Company's option plans, the difference between the cost and the cash received is recorded in retained earnings. When treasury shares are reissued under the Company's share plans, the difference between the market price of the shares issued and the cost is recorded in retained earnings. The following table shows the movements in the outstanding number of shares over the last two years:

A roll forward of the treasury share balance is noted below:

Balance at January 1, 2016	—
Shares repurchased	247,965
Re-issuance of treasury shares	(77,074)
Treasury shares delivered for share-based compensation	(87,202)
Treasury shares delivered to Supervisory Board	(26,633)
Balance at December 31, 2016	57,056
Shares repurchased	474,708
Treasury shares delivered for share-based compensation	(392,494)
Treasury shares delivered to Supervisory Board	(15,739)
Balance at December 31, 2017	123,531

SUPERVISORY BOARD REMUNERATION

During the years ended December 31, 2017 and 2016, 15,739 and 26,633 shares were delivered, respectively, as compensation to its Supervisory Board members for services provided in 2017 and 2016. These shares were awarded as part of the remuneration policy approved by the Annual General Meeting.

OTHER RESERVES

	Foreign currency translation reserve	Hedging reserve	Legal participations reserve	Capitalized development expenditures reserve	Defined benefit obligation reserve	Fair value reserve	Total
Balance at January 1, 2016	(31,151)	(10,297)	2,230	1,840	(63,248)	200	(100,426)
Currency translation differences	(2,234)	—	—	—	1,856	—	(378)
Gain on available-for-sale investment	—	—	—	—	—	47	47
Movement on cash flow hedges	—	11,628	—	—	—	—	11,628
Tax effect on net movement on cash flow hedges	—	(3,912)	—	—	—	—	(3,912)
Actuarial losses on defined benefit plans	—	—	—	—	(16,348)	—	(16,348)
Tax effect on net movement on defined benefit plans	—	—	—	—	14,026	—	14,026
Transfer to retained deficit	—	—	(2,230)	508	—	—	(1,722)
Balance at December 31, 2016	(33,385)	(2,581)	—	2,348	(63,714)	247	(97,085)
Balance at January 1, 2017	(33,385)	(2,581)	—	2,348	(63,714)	247	(97,085)
Currency translation differences	11,998	—	—	—	(5,290)	—	6,708
Gain on available-for-sale investment	—	—	—	—	—	1,141	1,141
Movement on cash flow hedges	—	8,534	—	—	—	—	8,534
Tax effect on net movement on cash flow hedges	—	(2,024)	—	—	—	—	(2,024)
Actuarial gains on defined benefit plans	—	—	—	—	6,098	—	6,098
Tax effect on net movement on defined benefit plans	—	—	—	—	2,968	—	2,968
Transfer from retained deficit	—	—	—	780	—	—	780
Balance at December 31, 2017	(21,387)	3,929	—	3,128	(59,938)	1,388	(72,880)

SHARE-BASED PAYMENT RESERVE

The share-based payment reserve is comprised of the value of equity-settled share-based payments provided to employees, including key management personnel, as part of their remuneration. The reserve for share based payments is now being recorded directly to retained earnings. This was previously recorded in other reserves. The prior period balances have been adjusted to reflect this change. The reason for this change is to align with common practice and to simplify the recording and disclosure of equity compensation transactions. During 2017, retained deficit was impacted by ($31,793) related to the settlement of share-based payments (2016: $7,024). Refer to note 25 for details regarding these plans.

FOREIGN CURRENCY TRANSLATION RESERVE

The translation reserve comprises all foreign currency differences arising from the translation of the financial statements of foreign subsidiaries. There are two primary functional currencies used within the Company: the US Dollar and the Euro.

Resulting translation adjustments were reported in foreign currency translation reserve through other comprehensive income.

The Company did not record any share of comprehensive income related to associates or joint ventures in the years ended December 31, 2017 and 2016.

The significant movement in the foreign currency translation reserve was largely driven by the weakening of the USD in relation to the Euro over the year. The Euro to USD exchange rate increased 14% from 1.0536 at December 31, 2016 to 1.1979 at December 31, 2017.

HEDGING RESERVE

The hedging reserve comprises 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. For further discussion of the cash flow hedges and the amounts that were realized in the income statement, see note 31.

DEFINED BENEFIT OBLIGATION RESERVE

The obligation reserve for defined benefit plans for the year ended December 31, 2017, increased other reserves $3,776 while the obligation reserve for defined benefit plans decreased other reserves $466 in the year ended December 31, 2016.

FAIR VALUE RESERVE

The fair value reserve for the year ended December 31, 2017, increased $1,141 as a result of gains on available-for-sale investments during the year.

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

Dividends of $9,293, or $0.32 per share, were paid during the year ended December 31, 2017. Dividends of $7,558, or $0.27 per share, were paid during the year ended December 31, 2016.

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, 2017 and 2016, the calculation of basic earnings per share is performed using the weighted average shares outstanding for 2017 and 2016, 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, 2017 and 2016 are AMG's share options, AMG's performance share unit plans and other share based compensation 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.

Earnings	2017	2016
Net profit attributable to equity holders for basic and diluted earnings per share	56,965	40,558
Number of shares (in 000's)		
Weighted average number of ordinary shares for basic earnings per share	29,250	27,972
Dilutive effect of stock options and other share based compensation	569	489
Dilutive effect of performance share units	1,895	2,350
Weighted average number of ordinary shares adjusted for effect of dilution	31,714	30,811
Basic earnings per share	1.95	1.45
Diluted earnings per share	1.80	1.32

In 2017 and 2016, respectively 245 and 1,166 shares that could potentially dilute basic EPS were not included in the computation of dilutive EPS because the effect would have been anti-dilutive for the periods presented.

21. NON-CONTROLLING INTERESTS

On March 30, 2015 the Company sold a 40% equity interest in a German subsidiary, AMG 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 certain 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 statement of profit and loss:	2017	2016
Revenue	62,103	58,820
Cost of sales	48,303	45,278
Administrative expenses	9,867	10,915
Other expense	2,104	765
Finance cost	188	427
Foreign exchange loss	209	713
Intergroup tax pooling arrangement	(1,054)	(1,351)
Profit before tax	2,486	2,073
Income tax expense	715	675
Profit for the year from continuing operations	1,771	1,398
Attributable to non-controlling interests	339	528

Summarized statement of financial position as of December 31:	2017	2016
Current assets	54,875	54,924
Non-current assets	34,551	28,789
Current liabilities	15,658	12,270
Non-current liabilities	13,451	17,569
Total equity	60,317	53,874
Attributable to:		
Equity holders of parent	35,443	31,460
Non-controlling interest	24,874	22,414

Other non-controlling interest as of December 31, 2017, includes profit from continuing operations attributable to non-controlling interest of $149 (2016: $485) and equity attributable to non-controlling interest of $241 (2016: $341). See note 5 for additional information. Dividends paid to non-controlling interest totaled $3,114 during the year ended December 31, 2016 and no such dividends were paid during the year ended December 31, 2017.

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 30.

Non-current	Effective interest rate	Maturity	2017	2016
USD Term Loan	LIBOR +2.00%	07/2021	89,284	94,080
EURO Term Loan	EURIBOR +2.00%	07/2021	53,474	49,559
$22,000 subsidiary debt	4.10%	10/2019–11/2020	22,000	—
€4,000 subsidiary debt	2.02%	3/2018	—	703
€8,500 subsidiary debt	EURIBOR +3.80%	5/2023	—	6,569
Finance lease obligations	3.00% - 12.00%	3/2019	30	48
Total			164,788	150,959

Current	Effective interest rate	Maturity	2017	2016
USD Term Loan	LIBOR +2.00%	3/2018–12/2018	5,000	5,000
EURO Term Loan	EURIBOR +2.00%	3/2018–12/2018	2,995	2,636
€3,600 subsidiary debt	2.45%	03/2017	—	223
€4,000 subsidiary debt	2.02%	3/2018	797	1,393
Finance lease obligations	3.00% - 12.00%	3/2019	28	369
Total			8,820	9,621

TERM LOAN AND REVOLVING CREDIT FACILITY

In July 2016, the Company entered a five-year multicurrency term loan and revolving credit facility ("the facility"). The proceeds from this new facility were used to refinance the prior facility in its entirety. The facility was initially composed of a $100,000 term loan, a €50,000 term loan and $243,000 revolving credit facility ("Revolving Credit Facility"). As of December 31, 2017, the total balance outstanding on the term loans was $151,900 (2016: $152,680). During the year ended December 31, 2016, as a result of the refinancing there was interest expense of $3,248 recorded in the consolidated income statement related to the extinguishment of debt due to unamortized debt issuance costs related to the prior facility.

Borrowings under the revolving credit facility may be used for general corporate purposes of the Company. As of December 31, 2017, there was nil of borrowings (excluding letters of credit) under the revolving credit facility (2016: nil). At December 31, 2017, there was unused availability (including unused letters of credit) of $150,591 (2016: $182,645).

Interest on the revolving credit facility is based on current LIBOR (or in the case of any loans denominated in Euros, EURIBOR) plus a margin. The margin is dependent on the leverage ratio. At December 31, 2017, the margin was 2.00% (2016: 2.00%). To mitigate interest rate risk, the Company has entered into interest rate caps totalling $100,000 in order to cap the interest rate on the US Dollar term loan. See notes 30 and 31 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:

- EBITDA to Net Finance Charges: Not to be less than 4.00:1.00
- Net Debt to EBITDA: Not to exceed 3.00:1.00

EBITDA, Net Finance Charges, and Net Debt are defined in the credit facility agreement. The definitions per the credit facility agreement may be different from management definitions.

Actual ratios as defined by the credit facility were as follows as of December 31, 2017:

- EBITDA to Net Finance Charges: 18.3:1.0
- Net Debt to EBITDA: 0.6:1.0

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 revolving credit facility which were refinanced in 2016, the Company incurred issuance costs of $3,978 which were deducted from the proceeds of the debt from the term loan. The amounts have been allocated to the term loans and revolving credit facility based on the amount which would have been incurred if the facilities were obtained separately. The amount allocated to the term loans of $1,552 are shown net against the outstanding term loan balance and are amortized using the effective interest method using a rate of 2.6% for the costs associated with the US Dollar dominated debt and a rate of 2.2% for the costs associated with the Euro denominated debt. The amount allocated to the revolving credit facility of $2,426 is included in other assets because there were no borrowings outstanding. This is being amortized on a straight-line basis over the life of the facility.

The balance of unamortized costs which is net against the book value of this debt was $1,146 as of December 31, 2017 (2016: $1,346). The balance of unamortized costs which is recorded in other assets was $1,740 as of December 31, 2017 (2016: $2,224). The Company has recorded amortization expense of $803 during the year ended December 31, 2017 (2016: $3,376) related to these debt issuance costs.

AMG MINERAÇÃO DEBT

During 2017, AMG Mineração obtained five financing arrangements for a total of $22,000 of debt. These arrangements consist of loans which carry a fixed interest rate of 4.10% and mature in 2019 and 2020. The borrowings under these facilities reduce the Company's borrowing capacity on its revolving credit facility.

AMG MINING GMBH DEBT

On September 24, 2015, AMG Mining GmbH obtained an additional financing arrangement with a bank in Germany. The arrangement consisted of an €8,500 term loan which carried an interest rate of EURIBOR plus 3.80%. This loan was fully repaid in 2017. Additionally, AMG Mining GmbH has two additional loans with a balance of $797 as of December 31, 2017, which carry an interest rate of 2.02%. There were payments of $1,496 on these two loans during the year ended December 31, 2017.

The balance of unamortized debt issuance costs which is net against the book value of this debt was $1 as of December 31, 2017 (2016: $186). The Company has recorded amortization expense of $185 during the year ended December 31, 2017, (2016: $63) related to these debt issuance costs.

FINANCE LEASE OBLIGATIONS

As of December 31, 2017, AMG subsidiaries had finance leases outstanding to finance machinery. The Company had finance lease obligations of $58 (2016: $166) related to this machinery. See note 32 for additional information.

DEBT REPAYMENTS

The Company made finance lease and debt repayments of $17,153 during 2017. The payments included $7,824 for repayment of the term loans. Additional payments of $9,329 were made to various banks related to finance leases and other debt repayments. During 2016, the Company made finance lease and debt repayments of $118,774. The payments included $102,340 repayment of the prior term loans. Additional payments of $16,434 were made on the revolving credit facility and to various banks related to finance leases and other debt repayments.

RECONCILIATION OF MOVEMENTS OF LIABILITIES TO CASH FLOWS ARISING FROM FINANCING ACTIVITIES

	Loans and borrowings	Finance lease liabilities	Total
Balance at January 1, 2016	114,308	1,131	115,439
Changes from financing cash flows:			
Proceeds from loans and borrowings	163,190	60	163,250
Transaction costs related to loans and borrowings	(1,552)	—	(1,552)
Repayment of borrowings	(118,002)	—	(118,002)
Payment of finance lease liabilities	—	(773)	(773)
Total changes from financing cash flows	43,636	(713)	42,923
The effect of changes in foreign exchange rates	(1,157)	(1)	(1,158)
Amortization of transaction costs related to loans and borrowings	3,376	—	3,376
Balance at December 31, 2016	160,163	417	160,580
Balance at January 1, 2017	160,163	417	160,580
Changes from financing cash flows:			
Proceeds from loans and borrowings	22,000	—	22,000
Repayment of borrowings	(16,789)	—	(16,789)
Payment of finance lease liabilities	—	(364)	(364)
Total changes from financing cash flows	5,211	(364)	4,847
The effect of changes in foreign exchange rates	7,673	5	7,678
Amortization of transaction costs related to loans and borrowings	503	—	503
Balance at December 31, 2017	173,550	58	173,608

23. SHORT TERM BANK DEBT

The Company's Brazilian subsidiaries maintain short term borrowing arrangements with various banks. 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 and aggregated $15,500 at December 31, 2017, (2016: $7,500) at a weighted-average interest rate of 4.00% (2016: 3.99%). During the year ended December 31, 2017, the Company borrowed (repaid) short term debt of $8,000 (2016: ($3,833)).

	Short term bank debt
Balance at January 1, 2016	11,304
Changes from financing cash flows:	
Repayment of borrowings	(3,833)
Total changes from financing cash flows	(3,833)
The effect of changes in foreign exchange rates	29
Balance at December 31, 2016	7,500
Balance at January 1, 2017	7,500
Changes from financing cash flows:	
Proceeds from loans and borrowings	8,000
Total changes from financing cash flows	8,000
Balance at December 31, 2017	15,500

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, 2017 recognized in the consolidated income statement of $3,831 (2016: $4,176) 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 certain salaried and hourly employees at US subsidiaries. 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 three of the Company's current 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.

During 2016, the Company entered into an additional Supplemental Executive Retirement Plan with its current Chief Financial Officer. Pursuant to the terms of the plan, the Chief Financial Officer is to earn additional retirement benefits for continued service with the Company.

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, 2017 (expressed as a weighted average) was 3.43% (2016: 4.04%). 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 including RP-2014 Combined Healthy mortality table and the IRS 2014 Generational mortality table. 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, 2018 is $1,920.

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.

Actuarial assumptions

Principal actuarial assumptions at the reporting date (expressed as weighted averages) are presented below.

	2017	2016
	% per annum	% per annum
Salary increases	1.19	2.20
Rate of discount at December 31	2.10	1.86
Pension payments increases	2.46	1.89

Assumptions regarding future mortality are based on published statistics and mortality tables including the RT 2005G and S2PxA mortality tables.

The best estimate of contributions to be paid to the primary plans for the year ending December 31, 2018 is $6,193.

Presented below are employee benefits disclosures for plans aggregated by geographical location into the North American and European groups.

2017 changes in the defined benefit obligation and fair value of plan assets:

	North America			Europe			Total		
	Fair Value of Plan Assets	Defined Benefit Obligation	Total	Fair Value of Plan Assets	Defined Benefit Obligation	Total	Fair Value of Plan Assets	Defined Benefit Obligation	Total
January 1, 2017	35,849	(55,117)	(19,268)	96,795	(219,115)	(122,320)	132,644	(274,232)	(141,588)
Service costs	—	(454)	(454)	—	(2,282)	(2,282)	—	(2,736)	(2,736)
Net interest	1,283	(2,155)	(872)	2,378	(5,481)	(3,103)	3,661	(7,636)	(3,975)
Subtotal included in profit or loss	1,283	(2,609)	(1,326)	2,378	(7,763)	(5,385)	3,661	(10,372)	(6,711)
Benefits paid	(3,044)	3,044	—	(6,474)	10,110	3,636	(9,518)	13,154	3,636
Amounts included in OCI (see following table)	3,906	(2,773)	1,133	4,238	(30)	4,208	8,144	(2,803)	5,341
Contributions by employer	905	—	905	2,008	—	2,008	2,913	—	2,913
Effect of movements in foreign exchange rates	—	—	—	9,482	(25,831)	(16,349)	9,482	(25,831)	(16,349)
Net liability for defined benefits obligations at December 31, 2017	38,899	(57,455)	(18,556)	108,427	(242,629)	(134,202)	147,326	(300,084)	(152,758)
Asset for defined benefit obligations at December 31, 2017 [a]	(1,025)	—	(1,025)	(2,410)	—	(2,410)	(3,435)	—	(3,435)
December 31, 2017	37,874	(57,455)	(19,581)	106,017	(242,629)	(136,612)	143,891	(300,084)	(156,193)

(a) Included in non-currrent assets in the Statement of Financial Positions.

2017 subtotal included in OCI:

	North America			Europe			Total		
	Fair Value of Plan Assets	Defined Benefit Obligation	Total	Fair Value of Plan Assets	Defined Benefit Obligation	Total	Fair Value of Plan Assets	Defined Benefit Obligation	Total
Return on plan assets (excluding amounts included in net interest expense)	3,906	—	3,906	4,238	—	4,238	8,144	—	8,144
Actuarial changes arising from changes in demographic assumptions	—	(239)	(239)	—	260	260	—	21	21
Actuarial changes arising from changes in financial assumptions	—	(3,476)	(3,476)	—	(183)	(183)	—	(3,659)	(3,659)
Experience adjustments	—	942	942	—	(107)	(107)	—	835	835
Subtotal included in OCI	3,906	(2,773)	1,133	4,238	(30)	4,208	8,144	(2,803)	5,341

2016 changes in the defined benefit obligation and fair value of plan assets:

	North America			Europe			Total		
	Fair Value of Plan Assets	Defined Benefit Obligation	Total	Fair Value of Plan Assets	Defined Benefit Obligation	Total	Fair Value of Plan Assets	Defined Benefit Obligation	Total
January 1, 2016	26,349	(52,842)	(26,493)	104,185	(215,545)	(111,360)	130,534	(268,387)	(137,853)
Service costs	—	(764)	(764)	—	(2,383)	(2,383)	—	(3,147)	(3,147)
Net interest	1,331	(2,151)	(820)	3,817	(7,042)	(3,225)	5,148	(9,193)	(4,045)
Subtotal included in profit or loss	1,331	(2,915)	(1,584)	3,817	(9,425)	(5,608)	5,148	(12,340)	(7,192)
Benefits paid	(2,596)	2,596	—	(6,932)	10,457	3,525	(9,528)	13,053	3,525
Amounts included in OCI (see following table)	1,126	(1,956)	(830)	10,709	(26,410)	(15,701)	11,835	(28,366)	(16,531)
Contributions by employer	9,639	—	9,639	2,176	—	2,176	11,815	—	11,815
Effect of movements in foreign exchange rates	—	—	—	(17,160)	21,808	4,648	(17,160)	21,808	4,648
Net liability for defined benefits obligations at December 31, 2016	35,849	(55,117)	(19,268)	96,795	(219,115)	(122,320)	132,644	(274,232)	(141,588)
Asset for defined benefit obligations at December 31, 2016 [a]	—	—	—	—	—	—	—	—	—
December 31, 2016	35,849	(55,117)	(19,268)	96,795	(219,115)	(122,320)	132,644	(274,232)	(141,588)

(a) Included in non-currrent assets in the Statement of Financial Positions.

2016 subtotal included in OCI:

	North America			Europe			Total		
	Fair Value of Plan Assets	Defined Benefit Obligation	Total	Fair Value of Plan Assets	Defined Benefit Obligation	Total	Fair Value of Plan Assets	Defined Benefit Obligation	Total
Return on plan assets (excluding amounts included in net interest expense)	1,126	—	1,126	10,709	—	10,709	11,835	—	11,835
Actuarial changes arising from changes in demographic assumptions	—	832	832	—	—	—	—	832	832
Actuarial changes arising from changes in financial assumptions	—	(931)	(931)	—	(25,520)	(25,520)	—	(26,451)	(26,451)
Experience adjustments	—	(1,857)	(1,857)	—	(890)	(890)	—	(2,747)	(2,747)
Subtotal included in OCI	1,126	(1,956)	(830)	10,709	(26,410)	(15,701)	11,835	(28,366)	(16,531)

Plan assets consist of the following:

	North America plans		European plans		Total	
	2017	2016	2017	2016	2017	2016
Equity securities and ownership of equity funds	8,775	17,723	66,500	60,325	75,275	78,048
Fixed Income	27,736	17,763	5,661	4,823	33,397	33,397
Cash and equivalents	—	363	273	—	273	363
Insurance contracts and other	2,388	—	35,993	31,647	38,381	31,647
Total	38,899	35,849	108,427	96,795	147,326	132,644

The assets of funded plans are generally held in separately administered trusts, either as specific assets or as 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	
	2017	2016	2017	2016	2017	2016
Cost of sales	423	341	1,878	1,824	2,301	2,165
Selling, general and administrative expenses	903	1,243	3,507	3,784	4,410	5,027
Total	1,326	1,584	5,385	5,608	6,711	7,192

A quantitative sensitivity analysis for significant assumptions as of December 31, 2017 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	(5,748)	6,282	14	(14)	158	(111)
Impact on the net defined benefit obligation European Plans	(34,926)	40,615	4,199	(3,694)	9,654	(8,904)
Total impact on the net defined benefit obligation	(40,674)	46,897	4,213	(3,708)	9,812	(9,015)

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
2018	3,920	9,496	13,416
2019	3,580	9,547	13,127
2020	3,600	9,756	13,356
2021	3,660	10,589	14,249
2022	3,650	10,750	14,400
2023-2027	18,080	49,650	67,730

The average duration of the defined benefit plan obligation at the end of the reporting period is 16 years (2016: 18 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

EQUITY-SETTLED STOCK OPTIONS

On June 26, 2007, the Management Board established the AMG Option Plan ("2007 Plan"), which is eligible to members of the Management Board, Supervisory Board, employees, and consultants of the Company. Each option issued under the 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. All outstanding options granted under this plan are fully vested. This vesting is not subject to any performance conditions. The options expire on the tenth anniversary of their grant-date.

During the year ended December 31, 2017, options exercised were 902,976 (2016: 87,202) under the 2007 Plan. Expired or forfeited options under this plan were 25,425 (2016: 264,000) including 5,425 expirations and 20,000 forfeitures. All options under the 2007 Plan are equity-settled, in accordance with IFRS 2, by award of options to acquire ordinary shares or award of ordinary shares.

On May 13, 2009, the Annual General Meeting approved an option plan for the Management Board, the 2009 AMG Option Plan ("2009 Plan"). 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 performance conditions related to return on capital employed and share price appreciation. The options expire on the tenth anniversary of their grant-date.

During the year ended December 31, 2017, options exercised were 658,442 (2016: nil) under the 2009 Plan. Total grants under the 2009 Plan during 2017 were 75,707 (2016: 206,107). During the year ended December 31, 2017, there were no grants expired or forfeited (2016: nil). 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 effect 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, 2017, AMG recorded compensation expense from equity-settled option transactions of $503 (2016: $495) which is included in selling, general and administrative expenses in the income statement.

Movements

	2017		2016	
In thousands of options	Number of options (in 000s)	Weighted average exercise price (in €)	Number of options (in 000s)	Weighted average exercise price (in €)
Outstanding at January 1	2,178	15.75	2,323	19.18
Granted during the year	76	25.50	206	9.78
Exercised during the year	(1,561)	13.43	(87)	8.00
Forfeited during the year	(25)	25.16	(264)	37.29
Outstanding at December 31	667	21.95	2,178	15.75
Exercisable at December 31	235	40.37	1,718	17.66

235,000 options were exercisable as of December 31, 2017 (2016: 1,717,879).

At December 31, 2017, 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 €)
€7.82 to €9.78	355,931	9.03	7.76	—	—
€25.50	75,707	25.50	9.34	—	—
€40.00 to €40.50	235,000	40.37	0.55	235,000	40.37

At December 31, 2016, 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 €)
€6.44 to €9.84	1,205,820	6.46	5.43	745,925	7.82
€12.70 to €24.00	726,954	20.25	1.30	726,954	20.25
€29.45 to €40.50	245,000	39.93	1.51	245,000	39.93

The maximum number of options that can be granted under either the 2007 Plan or the 2009 Plan is 10% of total shares outstanding up to a maximum of 50,000,000. As of December 31, 2017, total options outstanding under the 2007 Plan were 235,000 (2016: 1,163,373) and the total options outstanding under the 2009 Plan were 431,638 (2016: 1,014,373).

Assumptions

The following table lists the inputs into the model used to calculate the fair value of the share-based payment options that were granted in 2017 and 2016 under the 2009 Plan:

	2017	2016
Exercise price	€25.50	€9.78
Share price at date of grant	€25.50	€9.78
Contractual life (years)	10	10
Dividend yield	2.00%	2.14%
Expected volatility	37.93%	37.33%
Risk-free interest rate	(0.23%)	(0.36%)
Expected life of option (years)	6	6
Weighted average fair value	€7.13	€2.62

The expected volatility was calculated using the average share volatility of the Company (over a period equal to the expected term of the options). The expected life is the time at which options are expected to vest, however this also may not be indicative of exercise patterns that may occur. The 2009 Plan options vest 50% each on the third and fourth anniversary of the grant-date. There are performance requirements for vesting of these options. The risk-free rate of return is the yield on zero coupon two and five-year Dutch government bonds.

AMG's option expense is recorded in equity (refer to note 19).

Performance share units

In May 2009, the Annual General Meeting approved a remuneration policy that utilizes share-based payments as a part of compensation. As of November 3, 2016, the Company elected to settle any future amounts paid for the performance share units ("PSUs") awards with AMG shares. In the year ended December 31, 2017, the Company issued 165,131 (2016: 460,196) PSUs to certain employees which are share-settled. 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 upon modification. This calculation was performed on the date of issuance or conversion from cash-settled to equity-settled. 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 2015 through 2017:

	2017 Grant	2016 Grant	2015 Grant
Share price at date of grant	€24.70	€8.95	€8.43
Fair value at conversion date	—	€19.80	€25.55
Share price at date of conversion	—	€16.53	€16.53
Contractual life at issuance (years)	3.0	3.0	3.0
Remaining life at conversion (years)	—	2.16	1.16
Dividend yield	0.93%	1.15%	1.15%
Expected volatility	35.57%	34.90%	31.07%
Risk-free interest rate	(0.01%)	(0.15%)	(0.25%)
Expected departures at grant	16%	16%	16%

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 utilizes the Netherlands corporate bond rates as of the valuation date.

The Company recorded expense of $8,068 (2016: $2,371) related to these awards during the year. AMG's expense related to equity-settled awards is recorded in equity (refer to note 19). In the year ended December 31, 2017, 44,677 PSUs were forfeited (2016: 155,683). The total number of equity-settled PSUs outstanding as of December 31, 2017 was 963,765 (2016: 1,277,714).

The actual departures for the 2015 grant were 20% and the stock-based compensation expense was adjusted for the forfeitures in excess of the expected departures of 16%. The expected departures for the 2017 and 2016 grant were adjusted from 16% to 12% as of December 31, 2017, as a result of actual departures less than the expectation to date. The impact on the income statement as a result of these adjustments was a reduction in stock-based compensation expense of $141 during the year ended December 31, 2017.

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 2014 grant which was settled in 2017 (2016: 1.15x). During the year ended December 31, 2017, 787,678 shares (2016: 610,463) were paid out with respect to the vesting of equity-settled performance share units granted in 2014.

Other share-based compensation

During the year ended December 31, 2016, the Company awarded the Chief Financial Officer restricted share based compensation as part of his initial compensation package. These shares are expensed using a graded vesting methodology. The total expense recognized in 2017 was $126 (2016: $207).

26. PROVISIONS

	Environmental remediation costs and recoveries	Restructuring	Warranty	Cost estimates	Partial retirement	Restoration costs	Other	Total
Balance at January 1, 2016	23,273	2,133	3,826	2,928	1,197	5,804	1,936	41,097
Provisions made during the period	1,873	6,080	5,684	7,614	310	—	2,123	23,684
Provisions reversed during the period	—	(1,858)	(1,807)	(729)	(193)	—	(438)	(5,025)
Provisions used during the period	(805)	(2,744)	(749)	(3,621)	(190)	—	(625)	(8,734)
(Decrease)/increase due to discounting	(215)	—	—	—	—	453	—	238
Currency and transfers	(82)	519	(280)	(257)	82	546	(133)	395
Balance at December 31, 2016	24,044	4,130	6,674	5,935	1,206	6,803	2,863	51,655
Balance at January 1, 2017	24,044	4,130	6,674	5,935	1,206	6,803	2,863	51,655
Provisions made during the period	3,092	2,547	4,703	3,431	—	4,329	502	18,604
Provisions reversed during the period	—	—	(2,604)	(2,040)	—	(1,420)	(2,466)	(8,530)
Provisions used during the period	(751)	(4,882)	(921)	(2,275)	(106)	—	(202)	(9,137)
(Decrease)/ increase due to discounting	(48)	—	—	—	—	318	—	270
Currency and transfers	205	439	985	762	159	598	258	3,406
Balance at December 31, 2017	26,542	2,234	8,837	5,813	1,259	10,628	955	56,268
Non-current	22,357	—	—	—	1,206	6,803	488	30,854
Current	1,687	4,130	6,674	5,935	—	—	2,375	20,801
Balance at December 31, 2016	24,044	4,130	6,674	5,935	1,206	6,803	2,863	51,655
Non-current	23,499	—	—	—	1,259	10,628	501	35,887
Current	3,043	2,234	8,837	5,813	—	—	454	20,381
Balance at December 31, 2017	26,542	2,234	8,837	5,813	1,259	10,628	955	56,268

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 for 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 $44,025 on an undiscounted basis and $1,889 on a discounted basis. Annual payments for O&M are expected to be $59 for the next 19 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 $3,936 of which $2,047 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 $149, on an undiscounted basis, and is expected to be completed within the next 18 years. Discount rates of 1.76% – 2.58% (depending on the expected timing of payments) were used in determining the liabilities recorded.

There were no environmental expenses recorded in the years ended December 31, 2017 and 2016 related to the Cambridge site.

Newfield, NJ USA

Another one of the Company's US subsidiaries has entered into administrative consent orders with the New Jersey Department of Environmental Protection ("NJDEP") under which the US subsidiary must conduct remediation activities at its Newfield facility. Since the initial administrative consent order was signed in 1997, many of the obligations have been completed.

Similar to the Cambridge, Ohio facility, Newfield conducted operations that created a substantial slag pile with low-level radioactive materials. AMG has completed negotiations with the NJDEP regarding a removal plan for the Newfield Site. The plan consists of both the removal and transportation of the material to a proper disposal site. Management has recorded an accrual for $22,569 ($23,937 on an undiscounted basis) which represents its best estimate of the cost of removal, at this stage. The estimated amounts have also been reviewed and approved by the NJDEP. These costs would be paid over the next five years, subject to negotiations with the NJDEP. AMG recorded environmental expense of $3,092 related to the Newfield site during the year ended December 31, 2017 (2016: $1,277).

In addition to the removal of the slag pile the Company has agreed to an operations and maintenance agreement. An additional provision for O&M of $150 was recorded in the year ended December 31, 2017 (2016: $239) related to this agreement.

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, 2017 were $2,494 (2016: $4,576). The total amounts of the trusts as of December 31, 2017 were $4,541 (2016: $6,671).

Nazareno, Brazil

Brazilian authorities have made certain demands with respect to the operations and the related environmental impacts of the tantalum mine in Brazil. The total provision for meeting the Brazilian authorities' demands as of December 31, 2017 was nil (2016: $25). No additional provision was required in the year ended December 31, 2017 (2016: nil). Payments of $25 (2016: $78) were made against this provision and no additional provision is expected in 2018.

Pocking, Germany

An environmental remediation liability exists with respect to the silicon metal operation and its waste storage. As of December 31, 2017, the liability for the remediation of this site is valued at $594 (2016: $521). There were no payments made during 2017, however there are expected payments in 2018 of $141. A discount rate of 1.26% was 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 clean up the leakage from the sewer and repair the sewer lines to eliminate any future leakage. In the year ended December 31, 2017, there was an expense of nil (2016: $596). The expected liability for continued work on the sewer rehabilitation project is $1,221 (2016: $1,115). Payments for this project are expected to occur over the next four years with spending taking place in a relatively consistent pattern over those years. Discount rates of 1.26% - 1.58% (depending on the expected timing of payments) were used in determining the liabilities recorded.

RESTRUCTURING

During the year ended December 31, 2017, the Company recorded a restructuring expense made of an additional provision of $2,547 (2016: $6,080) and reversal of nil (2016: ($1,858)).

The net impact of the 2017 restructuring expense of $2,547 is noted on the following actions taken by segment:

- AMG Critical Materials – Expense of $1,906 mainly relates to the shutdown and reorganization of two plants to Germany to have centralized production operations during the next two years with an estimated headcount reduction of 45 and continued relocation of a chemical lab from Lessingstraße to Nuremberg, Germany with a headcount reduction of 15. In addition, we reduced headcount in our US operations by 4.
- AMG Engineering – Expense of $641 for an estimated headcount reduction of 9 related to the continued reorganization of operations in France and China.

In 2017, the largest portion of the restructuring provision as of December 31, 2017, was related to the reorganization of operations in Czech Republic, Germany and France.

WARRANTY

The Company's Engineering segment offers certain warranties related to their furnace operations. These warranties are only provided on certain 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 $906 were made and warranty provisions included an expense of $4,606 and reversal of ($2,604) recorded in the year ended December 31, 2017. The additional provisions were primarily related to the new projects for heat treatment technology on power supply, induction and melting furnaces projects. Warranty payments of $749 were made and warranty provisions included an expense of $5,667 and reversal of ($1,759) recorded during the year ended December 31, 2016. The additional provisions were primarily related to the new projects for electronic beam gun technology in the turbine blade coating field as well as several special furnaces for various heat treatment and metallurgy applications. The Company has limited warranties for certain other products.

Two other German subsidiaries provide for warranties for certain products. The provisions are based on actual claims made by customers. There were provisions made of an additional expense of $97 (2016: $17), reversal of nil (2016: ($48)) recorded during 2017 and payments of $15 (2016: $76).

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 $3,431 (2016: $7,614) and reversal of ($2,040) (2016: ($729)) was recorded in 2017 related to new projects that are currently in process while $2,275 (2016: $3,621) of provisions were used.

PARTIAL RETIREMENT

In an effort to reduce unemployment and create jobs for younger job-seekers, Germany implemented certain regulations in 1996 to enable employees to take early retirement. Although the law is no longer in effect, the Company's German subsidiaries have made provisions for those employees who are eligible per their employment contracts. During 2017, there was no additional expense recorded (2016: $310), reversal of nil (2016: ($193)) and payments of $106 (2016: $190). Additional payments of approximately $1,567 are expected to occur over the next seven years. Discount rate of (0.10%) was used by the Company's German subsidiary to determine the liabilities recorded. Furthermore, two of our partial retirement obligations expired during 2017.

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 provisions recorded in 2017 (2016: nil). The total restoration liability for this mine was $5,592 as of December 31, 2017 (2016: $4,892). A discount rate of 0.45% was used to determine the liability recorded.

Nazareno, Brazil

During the year ended December 31, 2017, there was a net increase in the liability of $3,125, which totaled to $5,036 as of December 31,2017 (2016: $1,911). A discount rate of 8.0% was used to determine the liability recorded. The following table summarizes the activity as of December 31, 2017:

	Brazil restoration costs
Balance at January 1,2016	1,029
Provisions made during the period	11
Provisions reversed during the period	—
Increase in fixed assets	498
Increase due to discounting	160
Translation gain (loss)	213
Balance at December 31,2016	1,911
Balance at January 1,2017	1,911
Provisions made during the period	—
Provisions reversed during the period	(1,420)
Increase in fixed assets	4,329
Increase due to discounting	294
Translation (loss) gain	(78)
Balance at December 31,2017	5,036
Non-current	1,911
Current	—
Balance at December 31,2016	1,911
Non-current	5,036
Current	—
Balance at December 31,2017	5,036

OTHER

Other is comprised of additional accruals including certain guarantees made to various customers.

27. DEFERRED REVENUE

During 2017 a customer cancelled a contract and the Company has recognized the remaining deferred revenue balance as revenue as there are no remaining performance obligations outstanding.

The Company has other deferred revenue balances outstanding in relation to prepayments on customer orders received. These amounted to $1,624 at December 31, 2017 (2016: $2,696). The deferred revenue liability will be reduced using a prescribed formula over the course of the contract based on the tonnage shipped.

	Deferred revenue
Balance at January 1, 2016	29,663
Deferred during the year	5,822
Released to the income statement	(22,397)
Currency translation impact	(68)
Balance at December 31, 2016	13,020
Balance at January 1, 2017	13,020
Deferred during the year	7,295
Released to the income statement	(18,978)
Currency translation impact	287
Balance at December 31, 2017	1,624
Non-current	2,822
Current	10,198
Balance at December 31, 2016	13,020
Non-current	—
Current	1,624
Balance at December 31, 2017	1,624

28. OTHER LIABILITIES

Other liabilities are comprised of the following:

	2017	2016
Accrued bonus	13,201	15,446
Accruals for operational costs	11,242	11,777
Other benefits and compensation	8,686	7,659
Accrued employee payroll expenses	6,992	4,637
Accrued professional fees	6,911	6,074
Taxes, other than income	4,216	4,367
Fiscal contingency	3,016	5,528
Alterna dividend	1,506	1,324
Sales commission	1,146	1,071
Claims	1,105	841
Accrued debt issuance cost	992	—
Accrued interest	614	1,043
Government grants	428	487
Other miscellaneous liabilities	4,168	4,148
Total	64,223	64,402
Thereof:		
Non-current	4,011	6,874
Current	60,212	57,528

29. TRADE AND OTHER PAYABLES

	2017	2016
Trade payables	140,763	120,020
Trade payables – contract work	14,352	13,308
Total	155,115	133,328

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 percentage of completion contracts 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 35.

As of December 31, 2017, the Company has outstanding supply chain financing of $5,123 (2016: $16,602).

30. 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 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, and (restricted) cash, which arise directly from its operations.

The Company enters into derivative financial instruments, primarily interest rate swaps, interest rate caps, foreign exchange forward contracts and commodity forward contracts. The purpose of these instruments is to manage interest rate, currency 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

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the Company's receivables from customers.

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 5% 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 percentage of completion 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 comprise cash and cash equivalents and certain 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 and the counterparties to hedges and monitors the strength of those banks.

The Company's maximum exposure is the carrying amounts as discussed in notes 17, 18 and 31.

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 certain 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:

- $243,000 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, 2017, 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.

2017	Contractual cash flows	< 3 months	3-12 months	2019	2020	2021	2022	>2022
Term loan/revolver	151,900	749	6,908	7,428	7,210	129,605	—	—
Cash interest on term loan	14,664	—	4,225	4,136	4,071	2,232	—	—
Other loans and borrowings	22,797	797	—	5,000	17,000	—	—	—
Cash interest on loans and borrowings	425	10	188	42	185	—	—	—
Financial derivatives	1,415	725	678	—	—	12	—	—
Financial lease liabilities	58	7	22	19	10	—	—	—
Trade and other payables	155,115	132,700	22,415	—	—	—	—	—
Short term bank debt	15,500	—	15,500	—	—	—	—	—
Total	361,874	134,988	49,936	16,625	28,476	131,849	—	—

The table below summarizes the maturity profile of the Company's financial liabilities at December 31, 2016 based on contractual undiscounted payments.

2016	Contractual cash flows	< 3 months	3-12 months	2018	2019	2020	2021	>2021
Term loan/revolver	152,678	—	7,634	7,207	7,071	6,853	84,404	39,509
Cash interest on term loan	13,881	—	3,188	3,109	3,031	2,966	1,587	—
Other loans and borrowings	9,073	702	1,487	1,827	1,124	1,124	1,124	1,685
Cash interest on loans and borrowings	162	142	17	3	—	—	—	—
Financial derivatives	5,572	1,495	3,147	707	63	—	160	—
Financial lease liabilities	419	197	164	27	21	10	—	—
Trade and other payables	133,328	117,179	16,149	—	—	—	—	—
Short term bank debt	7,500	—	7,500	—	—	—	—	—
Total	322,613	119,715	39,286	12,880	11,310	10,953	87,275	41,194

Interest on financial instruments classified as floating rate is generally repriced at intervals of less than one year. Interest on financial instruments classified as fixed rate is fixed until the maturity of the instrument.

The difference between the contractual cash flows and the carrying amount of the term loan noted above is attributable to issuance costs in the amount of $1,146 and $1,346 as of December 31, 2017 and 2016, respectively, which are offset against the carrying amount of the debt.

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, 2017 and 2016.

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, 2017.

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, 2017 and 2016 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 approximately 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 certain floating rate instruments through the use of interest rate swaps or caps. These are designed to hedge underlying debt obligations. At December 31, 2017, after considering the effect of interest rate swaps and caps, approximately 70% of the Company's borrowings are at a fixed or capped rate of interest (2016: 64%).

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, 2017 and 2016, with all other variables held constant, of the Company's profit before tax (through the impact on floating rate borrowings). Changes in sensitivity rates reflect various changes in the economy year-over-year. There is no impact on the Company's equity.

2017	Increase/decrease in basis points	Effect on profit before tax
US Dollar ***		(95)
Euro	+10	(57)
US Dollar ***		95
Euro	–10	57

2016	Increase/decrease in basis points	Effect on profit before tax
US Dollar ***		(100)
Euro	+10	(61)
US Dollar ***		100
Euro	–10	61

*** Historic volatility on certain USD short term debt varies across a wide range from +25 basis points to -25 basis points. Sensitivities are calculated on the actual volatility for each debt instrument.

See note 22 for loans and borrowings explanations.

At December 31, 2017, the Company's interest rate caps had a fair value of $44 (2016: ($159)). Per the interest rate cap agreements, the Company's interest rate is capped at 2% on the US Dollar term loan of $100,000. There were no ineffective interest rate caps in the years ended December 31, 2017 and 2016. A 10-basis point increase or decrease will not have a significant impact on the value of the interest rate cap.

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 certain 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.

In respect of monetary assets and liabilities denominated in foreign currencies, the Company ensures that its net exposure is kept to an acceptable level by buying or selling foreign currencies at spot rates when necessary to address short term imbalances.

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.

2017	Strengthening/ weakening in functional rate	Effect on profit before tax	Effect on equity before tax
US Dollar	+5%	983	804
Euro	+5%	(2,051)	(232)
US Dollar	–5%	(983)	(804)
Euro	–5%	2,051	232

2016	Strengthening/ weakening in functional rate	Effect on profit before tax	Effect on equity before tax
US Dollar	+5%	232	1,121
Euro	+5%	(1,329)	(441)
US Dollar	–5%	(232)	(1,121)
Euro	–5%	1,329	441

COMMODITY PRICE RISK

Commodity price risk is the risk that certain 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 certain 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. Changes in sensitivity rates reflect various changes in the economy year-over-year.

2017	Change in price	Effect on profit before tax	Effect on equity before tax
Aluminum	+10%	168	317
Aluminum	–10%	(168)	(317)

2016	Change in price	Effect on profit before tax	Effect on equity before tax
Aluminum	+10%	156	667
Aluminum	–10%	(156)	(667)

CAPITAL MANAGEMENT

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.

	2017	2016
Loans and borrowings	173,608	160,580
Short term bank debt	15,500	7,500
Less: cash and cash equivalents	178,800	160,744
Net debt	10,308	7,336
Net debt	10,308	7,336
Total equity	282,589	197,787
Total capital	292,897	205,123
Debt to total capital ratio	4%	4%

31. FINANCIAL INSTRUMENTS

FAIR VALUES

Fixed rate loans and borrowings includes long term finance leases. Excluding fixed rate loans and borrowings, the carrying amounts presented in the financial statements approximate the fair values for all of the Company's financial instruments.

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.

- Short term assets and liabilities approximate their carrying amounts largely due to the short term maturities of these instruments.
- 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.
- Floating and fixed rate loans and 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, 2017.

- The consideration of non-performance risk did not significantly impact the fair values for fixed and floating rate loans and borrowings.

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, 2017, the Company held the following financial instruments measured at fair value:

Assets measured at fair value

December 31, 2017		Level 1	Level 2	Level 3
Non-current financial assets				
Forward contracts – hedged	592	—	592	—
Investments recognized as available for sale (note 13)	15,047	—	—	15,047
Other investments (note 13)	15,515	13,105	—	2,410
Interest rate caps	44	—	44	—
Current financial assets				
Forward contracts - hedged	6,372	—	6,372	—

Liabilities measured at fair value

December 31, 2017		Level 1	Level 2	Level 3
Current financial liabilities				
Forward contracts – hedged	1,404	—	1,404	—
Forward contracts – non-hedged	11	—	11	—

As of December 31, 2016, the Company held the following financial instruments measured at fair value:

Assets measured at fair value

December 31, 2016		Level 1	Level 2	Level 3
Non-current financial assets				
Forward contracts – hedged	740	—	740	—
Investments recognized as available for sale (note 13)	15,047	—	—	15,047
Other investments (note 13)	14,883	13,493	—	1,390
Current financial assets				
Forward contracts - hedged	3,782	—	3,782	—
Forward contracts – non-hedged	225	—	225	—

Liabilities measured at fair value

December 31, 2016		Level 1	Level 2	Level 3
Non-current financial liabilities				
Forward contracts – hedged	728	—	728	—
Interest rate swaps and caps	159	—	159	—
Current financial liabilities				
Forward contracts – hedged	4,661	—	4,661	—

During the years ended December 31, 2017 and 2016, 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.

	Other investments	Available for sale investments
Balance at January 1, 2016	—	14,000
Purchase of available for sale investment	1,390	1,000
Change in fair value of available for sale investment	—	47
Balance at December 31, 2016	1,390	15,047
Purchase of available for sale investment	1,020	—
Change in fair value of available for sale investment	—	—
Balance at December 31, 2017	2,410	15,047

HEDGING ACTIVITIES

Interest rate hedges

In July 2016, the Company entered into three interest rate cap agreements for the drawdown of the term loan of $100,000. These interest rate caps were executed so that the Company could hedge its exposure to changes in the benchmark interest rate on the term loan. During the year the Company unwound the prior interest rate swap and cap transactions as part of the refinancing of the credit facility and the execution of the new interest rate hedging instruments. The fair value of the interest rate cap agreements is being recorded through interest expense while the benchmark interest rate is below the cap rate of 2%. The fair value of the interest rate cap at December 31, 2017 is an asset of $44 (2016: ($159)). The Company has designated the interest rate caps as an effective cash flow hedge. There were no amounts included in equity through other comprehensive income in the years ended December 31, 2017 and 2016.

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. Certain 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 commodity forward contracts as of December 31, 2017 are as follows:

	Metric tons	Average price	Fair value assets	Fair value liabilities
US Dollar denominated contracts to purchase commodities:				
Aluminum forwards	5,025	2,081	815	(5)

The open commodity forward contracts as of December 31, 2016 are as follows:

	Metric tons	Average price	Fair value assets	Fair value liabilities
US Dollar denominated contracts to purchase commodities:				
Aluminum forwards	2,500	1,679	108	(54)

The amount from the commodity cash flow hedges included in equity was $603 and ($2) in the years ended December 31, 2017 and 2016, respectively. The amount included in equity is anticipated to impact the income statement over the next 12 months. During the years ended December 31, 2017 and 2016, ($629) and ($552), respectively, were transferred from equity to the income statement as decreases to cost of sales. There was no ineffectiveness for contracts designated as cash flow hedges during the years ended December 31, 2017 and 2016.

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, and intergroup loans that will be repaid in different functional currencies. The Company has also hedged significant capital expenditure projects in Brazil which will be settled in different functional currencies. These contracts are negotiated to match the terms of the commitments and generally mature within one year. 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 and loss.

The open foreign exchange forward sales contracts as of December 31, 2017 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
Cash Flow Hedges				
Euro (versus USD)	€22.5 million	0.850	—	(702)
USD (versus Euro)	$51 million	1.111	3,508	—
Fair Value Hedges				
Euro (versus USD)	€1.0 million	0.833	—	(10)

The open foreign exchange forward sales contracts as of December 31, 2016 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
Cash Flow Hedges				
Euro (versus USD)	€17.1 million	0.913	732	(145)
USD (versus Euro)	$69.6 million	1.106	48	(2,358)
Fair Value Hedges				
Euro (versus USD)	€1.0 million	0.942	10	—

The open foreign exchange forward purchase contracts as of December 31, 2017 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
Cash Flow Hedges				
USD (versus Euro)	$18.7 million	1.181	12	(309)
GBP (versus USD)	£19.3 million	1.326	655	(29)
BRL (versus USD)	R$138.1 million	3.515	1,974	(359)

The open foreign exchange forward purchase contracts as of December 31, 2016 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
Cash Flow Hedges				
USD (versus Euro)	$9.6 million	1.098	389	(2)
GBP (versus USD)	£15.8 million	1.344	2	(1,688)
BRL (versus USD)	R$264.5 million	3.545	3,242	(1,142)
Fair Value Hedges				
USD (versus Euro)	$27.0 million	1.061	216	—

The amounts from the foreign currency cash flow hedges included in equity were $3,326 and ($2,579) in the years ended December 31, 2017 and 2016, respectively. The amount included in equity is anticipated to impact the income statement over the next three years. During the years ended December 31, 2017 and 2016, ($3,730) and $3,110, respectively, were transferred from equity to the income statement as increases to cost of sales and selling, general, and administrative expenses. There was additional expense of $310 (2016: $218) recognized in profit or loss during the year ended December 31, 2017 due to ineffectiveness.

32. LEASES

OPERATING 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 life 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.

Future minimum lease payments under non-cancellable operating leases as of December 31 are as follows:

	2017	2016
Less than one year	7,025	6,539
Between one and five years	18,661	17,861
More than five years	22,820	23,504
Total	48,506	47,904

During the year ended December 31, 2017 $6,621 (2016: $6,242) was recognized as an expense in the income statement in respect of operating leases.

FINANCE LEASES AS LESSEE

Certain subsidiaries of the Company have finance leases for equipment and software. These non-cancellable leases have remaining terms between one and five years. Future minimum lease payments under finance leases are as follows:

	2017	2016
Less than one year	28	361
Between one and five years	30	59
Total minimum lease payments	58	420
Less amounts representing finance charges	—	(3)
Present value of minimum lease payments	58	417

The Company built and sold heat treatment modules to a financial institution. Subsequently, the financial institution and the Company entered leasing agreements according to which the financial institution leased the modules to the Company, which ended on June 30, 2017. Therefore, the balance related to these leases as of December 31, 2017 was nil (2016: $249).

33. 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, 2017, the Company had committed to capital requirements in the amount of $60,504 (2016: $54,005). These capital commitments relate primarily to projects in Brazil.

34. CONTINGENCIES

GUARANTEES

The following table outlines the Company's off-balance sheet credit-related guarantees and business-related guarantees for the benefit of third parties as of December 31, 2017 and 2016:

	Business-related guarantees	Credit-related guarantees	Letters of credit	Total
2017				
Total amounts committed:	67,006	134	4,365	71,505
Less than 1 year	46,904	134	—	47,038
2–5 years	6,111	—	—	6,111
After 5 years	13,991	—	4,365	18,356
2016				
Total amounts committed:	66,776	327	5,125	72,228
Less than 1 year	47,719	327	45	48,091
2–5 years	8,607	—	—	8,607
After 5 years	10,450	—	5,080	15,530

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 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 certain 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 counter parties. 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 certain 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 US subsidiary is also still subject to remediate any contamination associated with perchlorate.

The Company has other contingent liabilities related to certain environmental regulations at certain 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 in remediation costs. At a US subsidiary, a provision has been recorded for the low-level radioactive slag pile (see note 26) which we expect will be removed within the next five years. In 2016, the Company has reached an agreement on a removal plan with the NJDEP for this removal. The estimated accrual for $22,569 represents the discounted amount of anticipated remediation costs, and has been approved by the NJDEP.

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

There are four outstanding sales tax cases with a subsidiary in Brazil whereby the authorities allege that $7,760 is due based on certain administrative requirements. The Company does not believe that there is any merit with respect to these cases and has not accrued any amount as of December 31, 2017, as the probability to pay these amounts is remote. In the one case, as is required in matters such as these in Brazil, the subsidiary changed the former letter of credit to an insurance guarantee in 2016 to post as collateral while the appeal is being adjudicated. The amount of this insurance guarantee was $3,143 at December 31, 2017.

LITIGATION

One of Company's subsidiaries in Germany entered into a joint venture in 1999 for the purpose of extracting vanadium from the residues of oil refineries in Italy. The project has never been realized, but the former partner in this joint venture has made a claim for a commission fee of $770 and $54,717 for unrealized estimated earnings with respect to the former joint venture. The claim for commission was admitted and the claim for unrealized estimated earnings was dismissed by the Italian court of first instance. Both decisions were appealed by the respective parties and the appellate court scheduled a hearing on October 27, 2017.

On January 14, 2014, the German subsidiary received an Italian court ruling in the matter to pay the amount of $770 as a preliminary execution of the first instance judgment. Upon the objection filed by the German subsidiary such execution was set aside. Based on the confirmation of legal counsel, the requested commission fee would only have been payable if public funding for the project would have been obtained and the plant for the project would have been built. As neither condition was met, the subsidiary would have no legal or contractual obligation to pay the commission fee. Following the appellate court hearing on October 27, 2017 our legal counsel has determined a likelihood of more than 50% that the German subsidiary will succeed in the appeal and believes that the claim is without merit which is indicated as well by the fact that the preliminary execution was stopped.

Since, for reasons outside of the responsibility of the German subsidiary, the project has never been started and therefore has not been realized by the subsidiary, they would have no legal or contractual obligation to compensate for unrealized estimated earnings. Therefore, the first instance judgment in favour of the subsidiary is correct and our legal counsel has determined a likelihood of more than 50% that this judgment will be upheld by the appellate court. Therefore, the Company has not recognized a provision related to this claim as of December 31, 2017.

In addition to the environmental matters, which are discussed previously and in note 26, the Company and its subsidiaries defend, from time to time, various claims and legal actions arising in the normal course of business. Management believes, based on the advice of counsel, that the outcome of such matters will not have a material adverse effect on the Company's consolidated financial position, results of operations or cash flows. However, there can be no assurance that existing or future litigation will not result in an adverse judgment against the Company that could have a material adverse effect on the future results of operations or cash flows.

On March 28, 2017, AMG Vanadium LLC filed a complaint for breach of contract against Global Advanced Metals U.S.A., Inc. ("GAM") in the Complex Commercial Division of the Delaware Superior Court, alleging that GAM breached a multi-year contract by which GAM agreed to purchase from AMG Vanadium 100% of the tantalum concentrate output produced from a mine in Brazil operated by AMG Mineração S.A. ("AMG Mineração"), an affiliate of AMG Vanadium (the "Supply Agreement").

GAM has filed an answer and four counterclaims (the "Counterclaims") against AMG Vanadium, the Company and AMG Mineração (collectively "AMG"). The first counterclaim seeks a declaratory judgment that AMG breached the Supply Agreement by failing to provide adequate assurances of future performance following a fire at one of the tantalum processing plants operated by AMG Mineração. The second counterclaim alleges that GAM is owed unspecified damages as a result of AMG's purported failure to provide adequate assurances of future performance and repudiation of the Supply Agreement. The third counterclaim alleges that GAM is owed a portion ($14,847) of the consideration it provided to AMG in connection with the Third Amendment to the Supply Agreement, and that AMG has been unjustly enriched by retaining the same portion of the cash and equity transfers. The fourth counterclaim alleges that AMG overcharged GAM for tantalum concentrate sold under the Supply Agreement, and that GAM is entitled to recover such amounts ($1,399).

Our counsel has advised that, based on evidence reviewed to date, it appears more likely than not that GAM will fail to show that it had the right to terminate the Supply Agreement. The Company has not recognized a provision related to GAM's counterclaims as of December 31, 2017.

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.

The Company has an interest in the Somikivu mine in the Democratic Republic of the Congo which has not been operated by the Company since the 1990s as a result of political instability in the country. The former mining license has expired effective April 30, 2017 and the Company is dormant. Claims, if any, of former employees have been settled.

35. 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'. 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, 2017	Salaries and bonus	Share-based compensation	Post-employment benefits including contributions to defined contribution plans	Other remuneration [a]	Total
Heinz Schimmelbusch	3,490	4,182	318	145	8,135
Eric Jackson	1,793	1,231	185	48	3,257
Jackson Dunckel[b]	1,793	675	242	49	2,759
Total	7,076	6,088	745	242	14,151

[a] Other remuneration also includes car expenses, country club dues and additional insurance paid for by the Company.
[b] Share based compensation includes $127 of expense related to a share based signing bonus.

For the year ended December 31, 2016	Salaries and bonus	Share-based compensation	Post-employment benefits including contributions to defined contribution plans	Other remuneration [a]	Total
Heinz Schimmelbusch	3,435	3,602	260	103	7,400
Eric Jackson	1,706	1,062	108	57	2,933
Jackson Dunckel[b]	2,269	523	191	33	3,016
Total	7,410	5,187	559	193	13,349

[a] Other remuneration also includes car expenses, country club dues and additional insurance paid for by the Company.
[b] Salaries and bonus includes a cash signing bonus of $500 and share based compensation includes $206 of expense related to a share based signing bonus.

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, 2017	Cash remuneration	Share-based remuneration	Total compensation
Jack L. Messman	90	45	135
Norbert Quinkert	115	63	178
Guy de Selliers	80	43	123
Martin Hoyos [1]	28	—	28
Steve Hanke	60	41	101
Herb Depp	60	44	104
Donatella Ceccarelli	60	44	104
Robert Meuter	60	44	104
Suzanne Folsom [2]	40	29	69
Willem van Hassel [3]	40	29	69
Petteri Soininen [4]	—	—	—
Total	633	382	1,015

For the year ended December 31, 2016	Cash remuneration	Share-based remuneration	Total compensation
Jack L. Messman	90	44	134
Norbert Quinkert	115	66	181
Guy de Selliers	80	39	119
Martin Hoyos	80	39	119
Steve Hanke	60	43	103
Herb Depp	60	43	103
Donatella Ceccarelli	60	43	103
Robert Meuter	60	43	103
Petteri Soininen	—	—	—
Total	605	360	965

[1] Martin Hoyos stepped down from the Supervisory Board effective May 4, 2017.
[2] Suzanne Folsom was appointed to the Supervisory Board effective May 4, 2017.
[3] Willem van Hassel was appointed to the Supervisory Board effective May 4, 2017.
[4] Petteri Soininen stepped down from the Supervisory Board effective May 4, 2017.

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, 2017	7,709	6,470	745	242	15,166
December 31, 2016	8,015	5,547	559	193	14,314

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 fulfilment 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, 2017, the amounts paid by the Company to or on behalf of the Foundation were $109 (2016: $67).

36. SUBSEQUENT EVENTS

As of February 1, 2018, AMG entered into a new $350,000, 7-year senior secured term loan B facility and a $200,000 5-year senior secured revolving credit facility. This facility replaces AMG's existing credit facility. In addition, AMG Engineering entered into €85,000 of bilateral letter of credit facilities. AMG will use the excess proceeds of the new term loan to provide capital to fund strategic expansion projects.

AMG ADVANCED METALLURGICAL GROUP, N.V. — PARENT COMPANY STATEMENT OF FINANCIAL POSITION
(AFTER PROFIT APPROPRIATION)

As of December 31	Note	2017	2016
In thousands of US Dollars			
Fixed assets			
Intangible assets	6	142	151
Tangible fixed assets	5	273	213
Financial fixed assets			
Investments in subsidiaries	7	268,613	135,070
Loans due from subsidiaries	7	3,000	5,500
Deposits and other assets	8	1,823	2,308
Derivative financial instruments	16	44	—
Financial fixed assets		273,480	142,878
Total fixed assets		273,895	143,242
Related party receivables	9	6,770	54,283
Loans due from subsidiaries	7	97,895	69,200
Derivative financial instruments	16	—	10
Prepayments and other assets	10	2,047	260
Cash and cash equivalents	11	8,896	24,521
Total current assets		115,608	148,274
Total assets		389,503	291,516
Equity			
Issued capital	12	796	760
Share premium	12	432,844	389,066
Foreign currency translation reserve	12	(21,387)	(33,385)
Unrealized losses reserve	12	3,929	(2,581)
Capitalized development expenditures reserve	12	3,128	2,348
Defined benefit obligation reserve	12	(59,938)	(63,714)
Investment reserve	12	1,388	247
Treasury shares	12	(3,461)	(570)
Retained earnings (deficit)	12	(99,343)	(116,457)
Total equity attributable to shareholders of the Company		257,956	175,714
Long term liabilities			
Long term debt	13	89,284	94,080
Loans due to subsidiaries	13	16,330	6,655
Other liabilities		—	38
Derivative financial instruments	16	—	159
Long term liabilities		105,614	100,932
Short term liabilities			
Current portion long term debt	13	5,000	5,000
Amounts due to subsidiaries	15	13,749	—
Other payables	14	7,173	9,870
Derivative financial instruments	16	11	—
Short term liabilities		25,933	14,870
Total liabilities		131,547	115,802
Total equity and liabilities		389,503	291,516

*Reclassified share reserves from other reserves to retained earnings (deficit) for December 31, 2016.

The notes are an integral part of these financial statements.

AMG ADVANCED METALLURGICAL GROUP, N.V. — PARENT COMPANY INCOME STATEMENT

For the year ended December 31	Note	2017	2016
In thousands of US Dollars			
General and administrative expenses		29,239	33,413
Other income	2	(19,810)	(13,956)
Net other operating income		(19,810)	(13,956)
Operating loss		(9,429)	(19,457)
Finance income	3	(5,871)	(6,679)
Finance cost	3	5,632	6,151
Net finance income		(239)	(528)
Loss before income tax		(9,190)	(18,929)
Income tax expense	4	—	—
Loss after tax		(9,190)	(18,929)
Income from subsidiaries		66,155	59,487
Net income		56,965	40,558

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.

As of December 31, 2017, the statement of financial position has been converted to USD from Euros using a conversion rate of EUR:USD of 1.1979 (2016: 1.0536).

2. OTHER INCOME AND EXPENSES

Other income during the year ended December 31, 2017 includes income from management fees charged to subsidiaries of $19,810 (2016: $13,956). 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, 2017, includes interest income from loans to subsidiaries of $5,420 (2016: $6,671) and other items of $451 (2016: $8). See note 7 for additional details. Finance cost during the year ended December 31, 2017, includes interest expense on loans due to subsidiaries of $597 (2016: $8), interest expense on external debt of $5,035 (2016: $6,009) and other items of nil (2016: $134). See note 13 for additional details.

4. INCOME TAXES

AMG Advanced Metallurgical Group N.V. is head of the fiscal unity that exists for Dutch corporate income tax purposes. In the income statement in 2017 and 2016, the Company reported an income tax expense of nil. The taxable loss is reduced by non-deductible expenses of $6,316 and $7,818 in 2017 and 2016, respectively and is primarily related to share based compensation expenses.

During the years ended December 31, 2017 and 2016, the income tax benefits related to the current year losses of the fiscal unity were not recognized. In total, $2,467 and $11,118 were not recognized in 2017 and 2016, 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, 2017, net operating loss and tax credit carry forwards for which no deferred tax assets have been recognized in the balance sheet amount to $83,752 (2016: $88,190).

5. TANGIBLE FIXED ASSETS

Tangible fixed assets of $273 (2016: $213) consists primarily of leasehold improvements and office furniture and fixtures. These are carried at cost less accumulated depreciation and are depreciated over their anticipated useful life. The depreciation during the year ended December 31, 2017 was $67 (2016: $56). All tangible fixed assets are pledged as collateral under the AMG Credit Facility. Refer to note 11 of the consolidated financial statements for additional information.

6. INTANGIBLE ASSETS

Intangible assets of $142 (2016: $151) 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, 2017 was $16 (2016: $19).

7. FINANCIAL FIXED ASSETS

INVESTMENTS IN SUBSIDIARIES

The movement in subsidiaries was as follows:

	Investment in subsidiaries
Balance at January 1, 2016	123,866
Investment in companies	9,352
Profit for the period	59,487
Change in non-controlling interest	(3,671)
Changes in hedges and fair value hedges	7,716
Gain on available-for-sale investments	47
Actuarial (losses) gains	(466)
Effect of movements in exchange rates	(1,243)
Movement in share based payment reserve	2,071
Movement of negative participation from loans	(62,089)
Balance at December 31, 2016	135,070
Balance at January 1, 2017	135,070
Investment in companies	71,459
Profit for the period	66,155
Change in non-controlling interest	(1,350)
Changes in hedges and fair value hedges	6,510
Gain on available-for-sale investments	1,141
Actuarial gains (losses)	3,776
Effect of movements in exchange rates	11,998
Movement in share based payment reserve	(2,451)
Movement of negative participation to loans	(23,695)
Balance at December 31, 2017	268,613

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.

MOVEMENT IN SHARE BASED PAYMENT RESERVE

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 (and outside consultants), 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 the share-based payment reserves at the subsidiaries.

LOANS DUE FROM SUBSIDIARIES

	Non-current loans due from subsidiaries	Current loans due from subsidiaries	Total
Balance at January 1, 2016	5,500	48,547	54,047
Loans	—	24,825	24,825
Repayments	(56,853)	(8,416)	(65,269)
Movement of negative participation	57,855	4,234	62,089
Currency translation adjustment	(1,002)	10	(992)
Balance at December 31, 2016	5,500	69,200	74,700
Balance at January 1, 2017	5,500	69,200	74,700
Loans	—	5,000	5,000
Repayments	(1,000)	—	(1,000)
Reclassification to investment in subsidiaries	(1,500)	—	(1,500)
Movement of negative participation	—	23,695	23,695
Currency translation adjustment	—	—	—
Balance at December 31, 2017	3,000	97,895	100,895

There were two non-current loans due from a subsidiary in Brazil, which one of them totaled $3,000 as of December 31,2017. The second loan had terms through April 2017 and was reclassified as an investment in subsidiaries during 2017. There was a current loan due in the United States with an interest rate of 5.45%. Loans in the amount of $97,895 (2016: $69,200) are due in one year but can be extended by both parties upon request. All current loans have an interest rate in the range of 4.5% – 5.45% at December 31, 2017 (4.65% – 6.85% at December 31, 2016).

8. DEPOSITS AND OTHER ASSETS

The deposit and other assets account includes 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 $6,770 (2016: $54,283) primarily represents interest owed to the Company on loans due from subsidiaries $104 (2016: $395), amounts prepaid on behalf of subsidiaries for future capital contributions of nil (2016: $50,192), management fees owed of $3,795 (2016: $2,627) and amounts owed by subsidiaries that represent expenses paid for by AMG and billed back to the subsidiaries of $2,871 (2016 $1,069).

10. PREPAYMENTS AND OTHER ASSETS

At December 31, 2017 and 2016, prepayments primarily represent prepaid insurance for the Company. At December 31, 2017, the Company had a Dutch tax receivable of $687 and other receivables of $86 (2016: nil).

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					
	Issued capital	Share premium	Treasury shares	Other reserves	Retained deficit	Total
Balance at January 1, 2016	745	382,978	—	(100,426)	(154,736)	128,561
Foreign currency translation	—	—	—	(378)	(473)	(851)
Change in fair value of available for sale investments	—	—	—	47	—	47
Gain on cash flow hedges, net of tax	—	—	—	7,716	—	7,716
Actuarial losses, net of tax	—	—	—	(2,322)	—	(2,322)
Net profit (loss) recognized through other comprehensive income	—	—	—	5,063	(473)	4,590
Profit for the year	—	—	—	—	40,558	40,558
Total comprehensive income for the year	—	—	—	5,063	40,085	45,148
Issuance of common shares	15	6,088	—	—	—	6,103
Purchase of common shares	—	—	(2,456)	—	—	(2,456)
Re-issuance of treasury shares	—	—	763	—	683	1,446
Transfer to retained deficit	—	—	—	(1,722)	1,722	—
Change in non-controlling interest	—	—	—	—	(3,677)	(3,677)
Equity-settled share-based payments	—	—	1,123	—	7,024	8,147
Dividend	—	—	—	—	(7,558)	(7,558)
Balance at December 31, 2016	760	389,066	(570)	(97,085)	(116,457)	175,714
Balance at January 1, 2017	760	389,066	(570)	(35,950)	(177,592)	175,714
Foreign currency translation	—	—	—	6,708	1,535	8,243
Change in fair value of available for sale investments	—	—	—	1,141	—	1,141
Gain on cash flow hedges, net of tax	—	—	—	6,510	—	6,510
Actuarial gains, net of tax	—	—	—	9,066	—	9,066
Net profit recognized through other comprehensive income	—	—	—	23,425	1,535	24,960
Profit for the year	—	—	—	—	56,965	56,965
Total comprehensive income for the year	—	—	—	23,425	58,500	81,925
Issuance of common shares	36	43,778	—	—	—	43,814
Purchase of common shares	—	—	(12,190)	—	—	(12,190)
Re-issuance of treasury shares	—	—	—	—	1,830	1,830
Transfer to retained deficit	—	—	—	780	(780)	—
Change in non-controlling interest	—	—	—	—	(1,350)	(1,350)
Equity-settled share-based payments, net of tax	—	—	9,299	—	(31,793)	(22,494)
Dividend	—	—	—	—	(9,293)	(9,293)
Balance at December 31, 2017	796	432,844	(3,461)	(72,880)	(99,343)	257,956

OTHER RESERVES

	Legal reserves					
	Foreign currency translation reserve	Hedging reserve	Legal participations reserve	Capitalized development expenditures reserve	Fair value reserve	Defined benefit obligation reserve
Balance at January 1, 2016	(31,151)	(10,297)	2,230	1,840	200	(63,248)
Currency translation differences	(2,234)	—	—	—	—	1,856
Gain on available-for-sale investment	—	—	—	—	47	—
Movement on cash flow hedges	—	11,628	—	—	—	—
Tax effect on net movement on cash flow hedges	—	(3,912)	—	—	—	—
Actuarial losses on defined benefit plans	—	—	—	—	—	(16,348)
Tax effect on net movement on defined benefit plans	—	—	—	—	—	14,026
Transfer to retained deficit	—	—	(2,230)	508	—	—
Balance at December 31, 2016	(33,385)	(2,581)	—	2,348	247	(63,714)
Balance at January 1, 2017	(33,385)	(2,581)	—	2,348	247	(63,714)
Currency translation differences	11,998	—	—	—	—	(5,290)
Gain on available-for-sale investment	—	—	—	—	1,141	—
Movement on cash flow hedges	—	8,534	—	—	—	—
Tax effect on net movement on cash flow hedges	—	(2,024)	—	—	—	—
Actuarial gains on defined benefit plans	—	—	—	—	—	6,098
Tax effect on net movement on defined benefit plans	—	—	—	—	—	2,968
Transfer from retained deficit	—	—	—	780	—	—
Balance at December 31, 2017	(21,387)	3,929	—	3,128	1,388	(59,938)

SHARE-BASED PAYMENT RESERVE

The share-based payment reserve is comprised of the value of equity-settled share-based payments provided to employees (and outside consultants), including key management personnel, as part of their remuneration. The reserve for share based payments is now being recorded directly to retained earnings. This was previously recorded in other reserves. The prior period balances have been adjusted to reflect this change. The reason for this change is to align with common practice and to simplify the recording and disclosure of equity compensation transactions.

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 expenditure reserve. Legal reserves are non-distributable to the Company's shareholders.

DEFINED BENEFIT OBLIGATION RESERVE

The obligation reserve for defined benefit plans for the year ended December 31, 2017 decreased other reserves $3,776 while the obligation reserve for defined benefit plans for the year ended December 31, 2016 decreased other reserves $466.

DIVIDENDS

Dividends of $9,293 have been declared and paid during the year ended December 31, 2017. Dividends of $7,558 have been declared and paid during the year ended December 31, 2016.

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.

A proposal will be submitted to the 2018 Annual General Meeting of Shareholders to pay a dividend of $0.28 per common share. The interim dividend of €0.14 per common AMG share paid in August 2017 will be deducted from this amount.

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

In July 2016, the Company entered into a five-year multicurrency term loan and revolving credit facility ("the facility"). The proceeds from this new facility were used to refinance the prior facility in its entirety. The new facility is composed of a $100,000 term loan, a €50,000 term loan and $243,000 revolving credit facility ("Revolving Credit Facility"). The $100,000 term loan is the only loan recorded in AMG Advanced Metallurgical Group N.V. The facility also included a term of five years. As of December 31, 2017, the total balance on the term loans was $94,284 (2016: $99,080).

AMG Advanced Metallurgical Group N.V is a borrower under the revolver facility. Refer to note 22 in the consolidated financial statements for additional information relating to the long term debt.

As of December 31, 2017, there was an asset of $1,738 (2016: $2,224) related to debt issuance costs incurred on the undrawn portion of the revolving credit facility. This is included deposits and other assets on the statement of financial position. See note 8 for additional details.

To mitigate risk, the Company has entered into interest rate caps totaling $100,000 in order to cap the interest rate on the US Dollar term loan. See note 30 in the consolidated financial statements for additional information on the interest rate swaps and interest rate caps.

LOANS DUE TO SUBSIDIARIES

	Non-current loans due to subsidiaries	Current loans due to subsidiaries	Total
Balance at January 1, 2016	—	—	—
Loans	6,596	—	6,596
Repayments	—	—	—
Accrual of interest	—	—	—
Currency translation adjustment	59	—	59
Balance at December 31, 2016	6,655	—	6,655
Balance at January 1, 2017	6,655	—	6,655
Loans	9,711	—	9,711
Repayments	—	—	—
Accrual of interest	—	—	—
Currency translation adjustment	(36)	—	(36)
Balance at December 31, 2017	16,630	—	16,630

The non-current loan is due to a German subsidiary, which is a holding company for several German companies within the group as of the year ended December 31, 2017 and 2016. This loan has an interest rate of 4.65%.

14. OTHER PAYABLES

Trade and other payables represent amounts owed to professional service firms, accrued employee costs and accrued interest. There was $587 payable to Dutch tax authorities for wage taxes as of December 31, 2017 (2016: $59).

15. AMOUNTS DUE TO SUBSIDIARIES

Certain payroll, travel and entertainment and other expenses are paid directly by three subsidiaries and billed to the Company at cost. As of December 31, 2017 and 2016, these amounted to $13,253 and nil, respectively. There was also interest due to a subsidiary of $496 as of December 31, 2017 (2016: nil).

16. DERIVATIVE FINANCIAL INSTRUMENTS

Please refer to notes 30 and 31 in the consolidated financial statements for more information on financial instruments and risk management policies.

FOREIGN CURRENCY FORWARD CONTRACTS

At any point in time, the Company uses foreign exchange forward contracts to hedge intergroup loans that will be repaid in different functional currencies. These contracts are negotiated to match the expected terms of the commitments and generally mature within one year. 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 through profit and loss. The fair value of these contracts is recorded in the statement of financial position. As of December 31, 2017, the Company had an outstanding foreign currency forward contract with a fair value of ($11) (2016: $10).

INTEREST RATE CAP

The Company entered into three interest rate cap agreements during 2016. These interest rate caps were executed in order to hedge the interest rate exposure on the $100,000 term loan. The fair value of the interest rate cap is being recorded through interest expense while the benchmark interest rate is below the cap rate of 2%. The fair value of the interest rate caps at December 31, 2017 is an asset of $44 (2016: ($159)). There were no amounts included in equity through other comprehensive income in the years ended December 31, 2017 and 2016.

17. COMMITMENTS AND CONTINGENCIES

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 2023. The Frankfurt lease term has an unlimited term but can be cancelled with six months' notice beginning December 31, 2012.

Future minimum lease payments under these leases as of December 31 are payable as follows:

	2017	2016
Less than one year	659	625
Between one and five years	1,888	1,421
More than five years	—	—
Total	2,547	2,046

18. RELATED PARTIES

Key management compensation data is disclosed in note 35 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 fulfilment 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, 2017, the Company funded $109 (2016: $67).

19. EMPLOYEES

At December 31, 2017, the Company had 26 employees (2016: 24), of which 3 are employed in the Netherlands.

20. AUDIT FEES

KPMG has served as our independent auditor for the year ending December 31, 2017 and 2016. 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 2017 and 2016:

			2017			2016
	KPMG Accountants N.V USD (in 000s)	KPMG Network USD (in 000s)	Total	KPMG Accountants N.V USD (in 000s)	KPMG Network USD (in 000s)	Total
Group financial statements	667	725	1,392	565	835	1,400
Audit of subsidiary financial statements	—	288	288	—	—	—
Other service	17	—	17	—	—	—
Total	684	1,013	1,697	565	835	1,400

AMSTERDAM, MARCH 21, 2018

MANAGEMENT BOARD
AMG ADVANCED METALLURGICAL
MARCH 21, 2018

Dr. Heinz Schimmelbusch
Eric Jackson
Jackson Dunckel

AMSTERDAM, MARCH 21, 2018

SUPERVISORY BOARD
AMG ADVANCED METALLURGICAL
MARCH 21, 2018

Norbert Quinkert, Chairman
Jack L. Messman, Vice Chairman
Guy de Selliers
Steve Hanke
Herb Depp
Donatella Ceccarelli
Robert Meuter
Suzanne Folsom
Willem van Hassel

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.

INDEPENDENT AUDITOR'S REPORT

TO: THE GENERAL MEETING OF SHAREHOLDERS AND THE SUPERVISORY BOARD OF AMG ADVANCED METALLURGICAL GROUP N.V.

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS 2017 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 Advanced Metallurgical Group N.V. as at December 31, 2017 and of its result and its cash flows for the year then ended, in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code.
- the accompanying company financial statements give a true and fair view of the financial position of AMG Advanced Metallurgical Group N.V. as at 2017 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 2017 of AMG Advanced Metallurgical Group N.V. ("AMG") based in Amsterdam. The financial statements include the consolidated financial statements and the company financial statements.

The consolidated financial statements comprise:

1. the consolidated statement of financial position as at December 31, 2017;
2. the following consolidated statements for the year 2017: the income statement, the statements of comprehensive income, changes in equity and cash flows; and
3. the notes comprising a summary of the significant accounting policies and other explanatory information.

The company financial statements comprise:

1. the parent company statements of financial position as at December 31, 2017;
2. the parent company income statement for the year 2017; 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 EU Regulation on specific requirements regarding statutory audits of public-interest entities, the Wet toezicht accountantsorganisaties (Wta, Audit firms supervision act), 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 believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

AUDIT APPROACH

Summary

MATERIALITY
- Materiality of $3.0 million
- 4.2% of profit before tax

GROUP AUDIT
- 96% coverage of revenue with full scope audits, audits of account balances, and specified audit procedures
- 94% coverage of assets with full scope audits, audits of account balances, and specified audit procedures

KEY AUDIT MATTERS
- Revenue recognition for sale of goods and projects
- Valuation of investments
- Valuation of deferred tax assets
- Business interruption

UNQUALIFIED AUDIT OPINION

Materiality

Based on our professional judgement we determined the materiality for the financial statements as a whole at $3.0 million (2016: $2.4 million). The materiality is determined with reference to profit before tax, of which it represents 4.2% (2016: 4.4%). We consider profit before tax as the most appropriate benchmark because the main stakeholders are primarily focused on profit before tax. 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 Audit Committee that unadjusted misstatements in excess of $125 thousand (2016: $95 thousand) which are identified during the audit, 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 entities. The financial information of this group is included in the consolidated financial statements of AMG.

Our group audit mainly focused on significant 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 of the group financial statements. We have considered in this respect AMG's business volatility and geographical presence. Our group audit covered both AMG's business segments AMG Critical Materials, AMG Engineering, and the corporate entities.

We have selected 14 components where we performed procedures (full scope audits for 11 group entities (84% of the revenue and 73% of the total assets), audit of account balances for 2 group entities (11% of the revenue and 15% of the total assets) and specified audit procedures for 1 group entity (1% of the revenue and 6% of the total assets).

We have:

- performed audit procedures at components in respect of areas such as the goodwill impairment tests, valuation of deferred tax assets, valuation of investments, environmental provisions, share-based payments and financing;
- made use of the work of local KPMG auditors when auditing group entities. These entities are located in Germany, France, the United Kingdom, the United States of America and Brazil. We sent detailed instructions to all component auditors, covering significant areas including the relevant risks of material misstatement and set out the information required to be reported to the group audit team. For all components in scope of the group audit, we held conference calls and/or physical meetings with the auditors of the components. We visited component locations in Germany, France, the US and Brazil and we performed reviews of the audit files of certain local KPMG auditors. During these meetings and calls, the planning, risk assessment, procedures performed, findings and observations reported to the group auditor were discussed in more detail and any further work deemed necessary by the group audit team was then performed.
- for the remaining components, we performed analytical procedures at the aggregated group level in order to corroborate our assessment that there are no risks of material misstatements within these remaining group entities.

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 consolidated financial statements.

The audit coverage can be further specified as follows:

REVENUES

84%	11%	1%
Full scope audit	Audit of account balances	Specified audit procedures

TOTAL ASSETS

73%	15%	6%
Full scope audit	Audit of account balances	Specified audit procedures

OUR KEY AUDIT MATTERS

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 Audit Committee. The key audit matters are not a comprehensive reflection of all matters discussed.

These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Revenue recognition for sale of goods and projects	
Description	Revenue for sales of goods is recognized at the fair value of the consideration received or receivable when the risk and rewards of the underlying products have been transferred to the customer. Revenue related to furnace construction contracts is recorded based on the estimated percentage of completion of contracts as determined by the management. Revenue is recognized based on an overall engineering design plan and the management's estimate of the percentage of the project that has been completed, based on work performed in-house and by sub-suppliers. The determination of the progress made and the level of percentage of completion or whether the risk and rewards have been transferred to the customer requires additional judgement. Revenue recognition, including cut-off, is significant to our audit.
Our response	With involvement of our local KPMG auditors, our procedures for revenue included, amongst others, assessment of the revenue recognition method per revenue category. The effectiveness of the controls set up by management surrounding the determination of the progress made and the level of percentage of completion or the transfer of the risk and rewards, including cut-off. Moreover detailed procedures were performed, including testing on a sample basis underlying evidence of revenue recognized in relation to furnace construction contracts and goods sold. Both furnace contracts and goods sold contracts and other documentation (amongst others sales orders, shipping documents, third party confirmations) was reviewed to determine accurate revenue recognition. Sales transactions taking place before and after year-end were assessed to ensure that revenue were recognized in the appropriate period. Furthermore, the manual journal entries posted to revenue were critically assessed to identify unusual or irregular items.
Our observation	Based on our procedures performed for revenue recognition we consider that the accounting for revenue is satisfactory and in accordance with EU-IFRS.

Valuation of investments	
Description	Company's investments in available-for-sale financial assets are recognized at fair value and amounts to $30 million. Changes in fair value are recognized in other comprehensive income and presented in the fair value reserve as explained in note 2 of the financial statements. The fair value of one investment is determined using a market approach (2016: income approach) including the use of multiples and is valued at $15 million as at December 31, 2017. The valuation is significant to our audit due to the change of the methodology used and the management judgements of assumptions therein.
Our response	We challenged the change in the valuation methodology used and prepared by the management by evaluating the assumptions used, in particular those relevant for the change in the valuation methodology. Furthermore, we critically assessed and tested management's key assumptions, the market multiples and other data used by, amongst others, comparing them to comparable market data. We included valuation specialists in our team to assist us with these procedures. We also assessed the adequacy of the Company's disclosures included in note 2 and 13 in the financial statements.
Our observation	Based on our procedures performed we consider the management's assumptions and estimates to be satisfactory and determined that the Company's disclosures (note 13) meet the requirements of EU-IFRS.

Valuation of deferred tax assets	
Description	The Group has recognized deferred tax assets for deductible temporary differences and unused net operating losses in various countries amounting to $41 million. The risk exists that future (fiscal) profits will not be sufficient to fully recover all or part of these deferred tax assets. The management supports the recoverability of the deferred tax assets mainly with fiscal profit projections which contain estimates of future taxable income. Changes in for example the business and its markets and changes in interpretation of regulations, such as the US tax reform, may affect these projections as explained in note 10 of the financial statements. Considering the above, valuation of deferred tax assets is significant to our audit.
Our response	The appropriateness of management's assumptions and estimates in relation to the deferred tax assets were assessed by challenging those assumptions. In this area, our audit procedures included, among others, using our tax specialists to assist us in assessing the appropriateness of the level of deferred tax asset balances recognized and implications of the US tax reform. We mainly focused on the forecasts and critically assessed the assumptions and judgments included in these forecasts by evaluating the historical accuracy of forecasts and the sensitivities of the profit forecasts. We also assessed the adequacy of the tax disclosures included in the financial statements.
Our observation	Based on our procedures performed we consider management's assumptions and estimates to be satisfactory and determined that the tax disclosures (note 10) meet the requirements of EU-IFRS.

Business interruption	
Description	The Group experienced a partial business interruption of its operations in Brazil due to a fire at the mine in the beginning of 2017. As a result of the fire, assets were impaired for $2.2 million and production was impacted resulting in incurred losses. These are partly offset by insurance proceeds of $9 million of which $6.3 million was received as at 31 December 2017. The assessment of the expected settlement and recoverability of insurance proceeds require management's judgement. Considering the above, the business interruption is significant to our audit.
Our response	With involvement of our local KPMG auditors, our procedures mainly comprised of substantive audit procedures. We challenged management's assumptions that were most sensitive including the expected recoverability of insurance proceeds under the insurance policy and impairment of assets. We critically reviewed the insurance contracts and other documentation, such as cash receipts and third party confirmations, to determine the recognition of the insurance proceeds. With regards to the impaired assets, we determined the existence and accuracy, amongst others, by a site visit of the mine. As part of our audit, we paid specific attention to the appropriate disclosure in the related notes (notes 11 and 16) in the financial statements.
Our observation	Based on our procedures performed we consider that the accounting treatment for the business interruption to be satisfactory and determined that that the related disclosures (note 11 and 16) meet the requirements of 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 that consists of:

- Report of the Management Board;
- Other information pursuant to Part 9 of Book 2 of the Dutch Civil Code;
- Report of the Supervisory Board;
- Statement of Responsibilities;
- Corporate Governance Report;
- Risk management & Internal Controls;
- Financial Review

Based on the following procedures performed, we conclude that the other information:

- is consistent with the financial statements and does not contain material misstatements;
- contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

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 substantially less than the scope of those performed in our audit of the financial statements.

The Board of Management 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

Engagement

We were engaged by the Annual General Meeting of Shareholders as auditor of AMG Advanced Metallurgical Group N.V. on May 4, 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.

Services rendered

For the period to which our statutory audit relates, in addition to this audit, we have provided agreed-upon procedures regarding covenant reporting related to 2016 as a service rendered to the AMG Advanced Metallurgical Group N.V.

DESCRIPTION OF RESPONSIBILITIES REGARDING THE FINANCIAL STATEMENTS

Responsibilities of the Board of Management and the Supervisory Board for the financial statements

The Board of Management 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 Board of Management is responsible for such internal control as the Board of Management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, the Board of Management is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the Board of Management should prepare the financial statements using the going concern basis of accounting unless the Board of Management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

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 21, 2018

KPMG Accountants N.V.

T. van der Heijden RA

APPENDIX: DESCRIPTION OF OUR RESPONSIBILITIES FOR THE AUDIT OF THE ANNUAL ACCOUNTS

APPENDIX

We have exercised professional judgement and have maintained professional skepticism 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 AMG's internal control;
- evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board of Management;
- concluding on the appropriateness of AMG's Board of Management 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.

Because we are ultimately responsible for the opinion, we are also responsible for directing, supervising and performing the group audit. In this respect we have determined the nature and extent of the audit procedures to be carried out for group components. Decisive were the size and/or the risk profile of the group components or operations. On this basis, we selected group components for which an audit or review had to be carried out on the complete set of financial information or specific items.

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 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

Norbert Quinkert

Chairman

Selection & Appointment Committee (Chair)

Jack L. Messman

Vice Chairman

Remuneration Committee (Chair)

Guy de Selliers

Audit & Risk Management Committee

Steve Hanke

Audit & Risk Management Committee (Chair)

Herb Depp

Remuneration Committee

Donatella Ceccarelli

Selection & Appointment Committee

Robert Meuter

Audit & Risk Management Committee

Suzanne Folsom

Remuneration Committee

Willem van Hassel

Selection & Appointment Committee

LISTING AGENT

ING Bank N.V.

PAYING AGENT

ING Bank N.V.

EURONEXT: AMG

Trade Register

TRADE REGISTER

AMG Advanced Metallurgical Group 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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WEBSITE

amg-nv.com

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