CRITICAL MATERIALS FOR

THE NEW MILLENNIUM

AMG Advanced Metallurgical Group N.V.

Annual Report 2016

GLOBAL TRENDS

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

DEMAND

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

SUPPLY: AMG

Sources, processes and supplies the critical materials that the market demands

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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.

OUR SEGMENTS

AMG CRITICAL MATERIALS

AMG ENGINEERING

GLOBAL CRITICAL MATERIALS FOOTPRINT

V Mo Ni Al

Ta Nb Al

C

Cr Al

USA

Aluminum Master Alloys
Nickel
Ferrovanadium
Molybdenum

BRAZIL

Aluminum Master Alloys
Niobium
Tantalum

CZECH REPUBLIC

Natural Graphite

UNITED KINGDOM

Aluminum Master Alloys
Aluminum Powders
Chrome Metal

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 light-weight aerospace alloy which enables aircraft engines to operate at higher temperatures, reducing carbon emissions and improving fuel consumption.

ENERGY

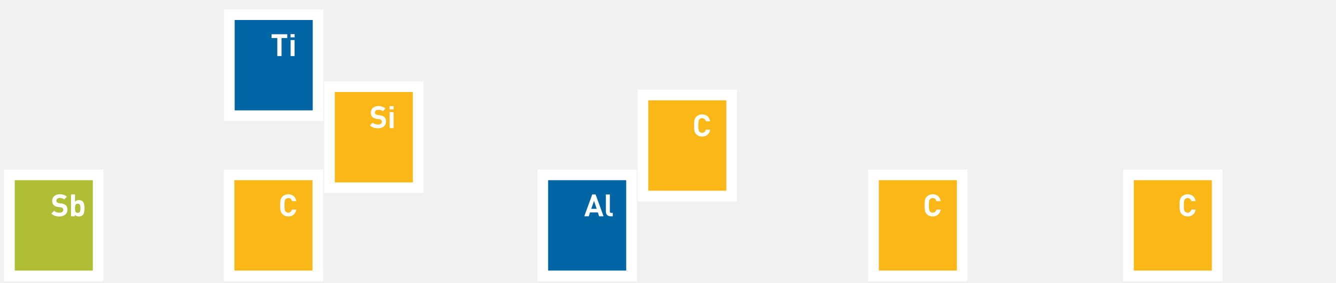
Global energy demand growth is driven by two opposing factors–increased energy usage and improvements in energy efficiency. AMG provides metallurgical technologies to improve energy efficiency and increase energy supply, like silicon metal used for the production of polysilicon by the solar energy industry.

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 AND 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.



FRANCE

Antimony

GERMANY

Natural Graphite
Silicon Metal
Titanium Alloys & Coatings

CHINA

Aluminum Master Alloys
Natural Graphite

SRI LANKA

Natural Graphite

MOZAMBIQUE

Natural Graphite

Report of the Management Board

DR. HEINZ SCHIMMELBUSCH

CHAIRMAN & CHIEF EXECUTIVE 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.

ERIC JACKSON

CHIEF OPERATING OFFICER

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 3, 2013. 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 BS degree in Economics and an MBA, both from the University of Saskatchewan.

JACKSON DUNCKEL

CHIEF FINANCIAL OFFICER

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 U.S. 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 and completed his MBA in International Finance at the Leonard Stern School of Business in 1995.

FINANCIAL & OPERATIONAL HIGHLIGHTS

REVENUE M$	971.1	-1%
GROSS PROFIT M$	186.8	19%
EBITDA M$*	100.7	33%
CASH FROM OPERATING ACTIVITIES M$	56.2	-26%
WORKING CAPITAL DAYS	15	-21%
NET DEBT M$	7.3	N/A
LOST TIME INCIDENT RATE	1.04	1%
INCIDENT SEVERITY RATE	0.11	-35%
EARNINGS PER SHARE $	1.32	230%

Note: Shaded figures denote year-over-year change

	CRITICAL MATERIALS	ENGINEERING	AMG GROUP
REVENUE $M	701.6	269.5	971.1
EBITDA $M	73.6	27.0	100.7

Note: A more complete financial review can be found in the Financials section (page 55).

* EBITDA is defined as EBIT adjusted for depreciation and amortization, where EBIT is defined as earnings before interest and income taxes. EBIT excludes restructuring and equity-settled share-based payments and includes foreign currency gains or losses.

AMG CRITICAL MATERIALS

- Increased EBITDA by 21.1%, from $60.8 million in 2015 to $73.6 million in 2016
- Began construction on a lithium concentrate (spodumene) plant at the Mibra mine in Brazil, with an initial annual production of 90,000 tons, with production expected to commence in the middle of 2018
- Acquired the remaining 49.9% interest in AMG Mineração's unincorporated feldspar partnership from Colorminas, Brazil in order to support AMG Lithium's strategy
- Announced a further expansion of AMG Titanium Alloys and Coatings' growing titanium aluminides ("TiAl") business following the signing of a new long term contract with MTU Aero Engines AG to supply TiAl for the Pratt & Whitney PurePower® PW1100G-JM engine
- Signed a collaboration agreement with Haydale Graphene Industries plc to use graphitic feedstock material for the research and development of new nano-material products using Haydale's patented HDPlas® process on an industrial scale
- Secured a long term, multi-year agreement for AMG Vanadium to process and recycle spent catalysts from a major oil refinery operator in North America

AMG ENGINEERING

- Increased EBITDA by 82.4% from $14.8 million in 2015 to $27.0 million in 2016 through strong sales combined with lower operating costs
- Launched a new plasma hearth melting furnace for the remelting of titanium aluminides for the aerospace engine industry
- Developed new, innovative coating equipment for the production of Ceramic Matrix Composite Fiber based on Chemical Vapor Deposition technology

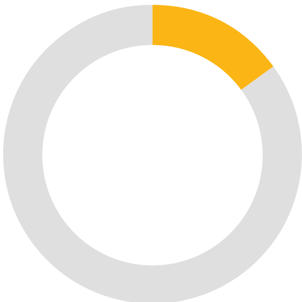
AMG GROUP

- Enlarged and extended its syndicated credit facility, increasing it from $320 million to $400 million and extending the maturity from May 2018 to July 2021, thereby providing additional flexibility and a long term liquidity resource for AMG Group

REVENUE BY END MARKET 2016

22%

SPECIALTY METALS AND CHEMICALS



15%

ENERGY

40%

TRANSPORTATION

23%

INFRASTRUCTURE

AMG's performance in 2016 was especially strong, as we exceeded expectations in terms of EBITDA, cash from operating activities, free cash flow and return on capital employed.

In 2016, each of AMG's nine business units outperformed their EBITDA targets. ROCE of 18.8% was driven by higher earnings and disciplined working capital management. Cash from operating activities was $56.2 million, after deducting a $23 million voluntary pension contribution made during the year. AMG's net debt at the end of the year increased slightly to $7.3 million despite capital expenditures of $44.1 million, an increase of $20.8 million compared to 2015. Going forward, net debt will naturally increase as we continue to grow our portfolio of critical materials through the addition of lithium.

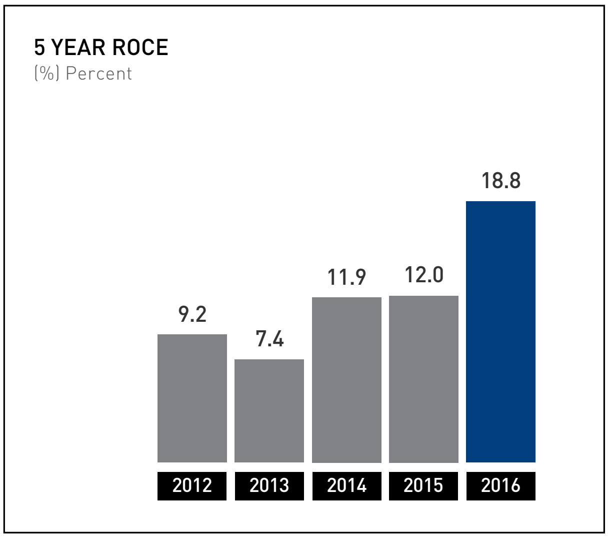
The equity markets took note of our results during 2016, triggering a 64% increase in AMG's share price, from €9.02 at the beginning of the year to €14.78 at the end of December 2016. This significant share price appreciation exceeded 2015's growth of 34%. AMG's market capitalization rose from €187 million at the beginning of 2015 to €417 million at the end of 2016, an appreciation of €230 million over a two-year period. In 2017, our year-to-date share price appreciation (through February 28, 2017) is 36%, and our market capitalization has increased by an incremental €152 million.

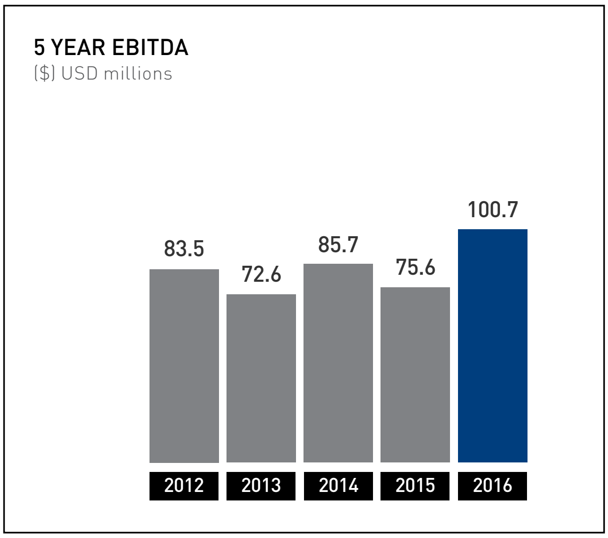
Analyzing these developments in absolute terms is interesting, but has to be complemented by the comparison with our peers and applicable share indices. In short, we have outperformed each member of our carefully selected group of 20 peers by a substantial margin. AMG's share price rose 198% from the beginning of 2015 through February 28, 2017, in comparison to 168% and 22% for our peers in second and third places, respectively. Needless to say, we have also outperformed all applicable indices by substantial margins during this same period. Compared to AMG's gain of 198%, Bloomberg, the AEX and the XME returned 22%, 17% and 5%, respectively.

It seems there is a strong correlation between share prices and free cash flow yield ("FCFY"), as there should be in a rational and informed market. Again, comparing ourselves with the carefully selected group of peers with regard to FCFY, we are in first place with 17.8%. Likewise, AMG exceeds its peers in the group when ranked on ROCE.

THE 2016 DUTCH CORPORATE GOVERNANCE CODE

The Management Board of AMG has studied the 2016 Dutch Corporate Governance Code which became effective on January 1, 2017 ("the Code"). The new Code emphasizes long term value creation as a central theme of a company. We would add to this theme one of entrepreneurship, because at AMG, we believe that only entrepreneurs can balance





short term success with long term value creation. For this reason, as detailed below, we incentivize each of our nine unit CEOs to perform across a variety of long term performance targets.

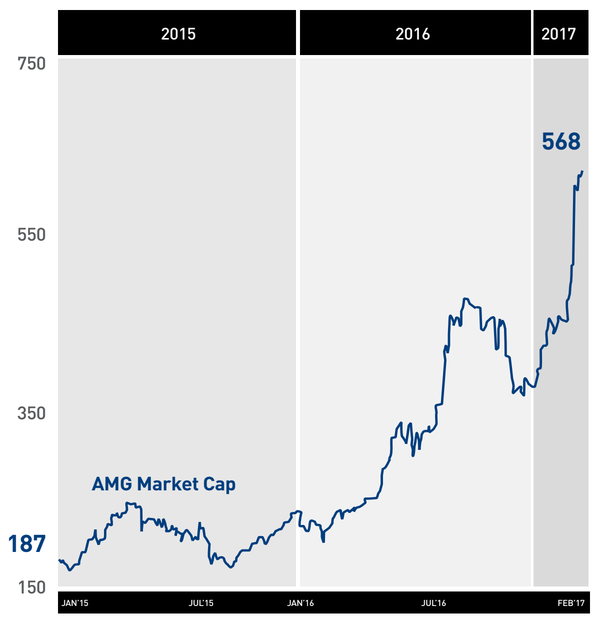
AMG's long term focus is clearly evident when looking at the results of the past few years. Our business model is built on identifying the long term 'big' trends, and on 'hanging on' to those trends through technology excellence and innovations in the indispensable areas of critical materials and vacuum technologies. Because of this long term focus, we are currently in the process of switching from a self-imposed 'austerity period' to a framework for growth. During recent years, we focused on working capital reductions, productivity enhancements and debt reduction as our key priorities. This proved to be a prudent approach in difficult markets, as falling critical materials prices have been the norm for the past few years. Our austerity period is coming to an end, but it proved that we can create superior cash flows from operating activities in a low-price scenario.

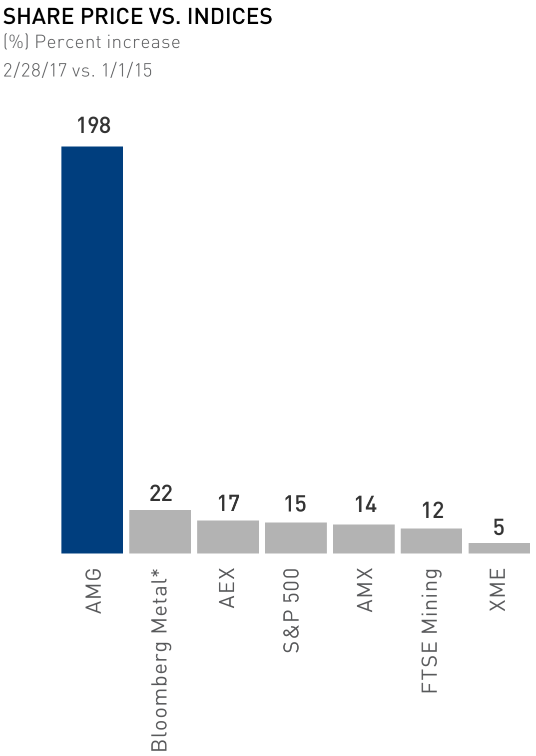
Nevertheless, even as we focused on austerity, our unit CEOs have also focused on preparing a variety of growth projects, running laboratory tests, performing pilot plant work, studying the market and negotiating strategic alliances. We have consolidated these projects into a strategic framework for growth. In 2016, the Management Board of AMG presented its new strategic growth framework to the Supervisory Board. This very carefully designed framework, to a large extent, relies on organic growth opportunities, but also includes a small list of industry consolidation targets should such opportunities present themselves. It is worth noting again that we begin this growth period of our development with a very strong balance sheet to support the growth.

The new Code requires management to report progress on such strategic activities, and for 2017, we will do this in more detail. With regard to the long term value creation, we feel that a comprehensive strategic framework is an appropriate way to give guidance about our forward progress, as compared to a case by case update. The individual growth projects constituting our strategic framework are each difficult to put into a rigid time schedule. Organic projects typically face a number of hurdles and unforeseen problems. Acquisitions bring a degree of uncertainty related to decision-making from non-controlled parties. On the whole, however, the Management Board feels confident that our long term growth strategy is eminently achievable, well within our capabilities, and will deliver significant value creation.

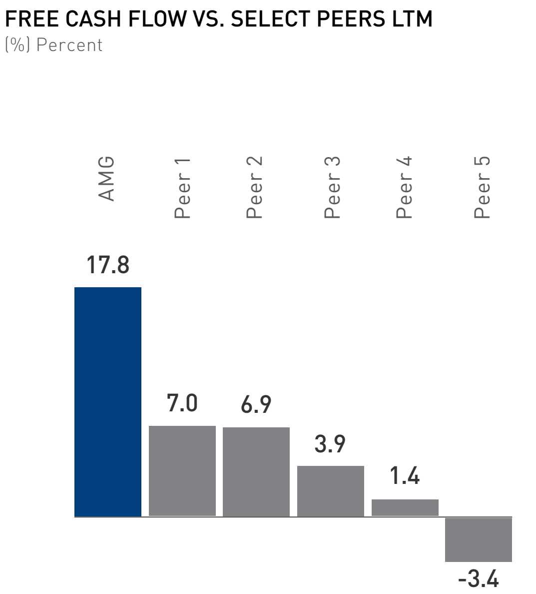
MARKET CAPITALIZATION

2/28/17 vs. 1/1/15 (€) Millions





Note: AMG and peer share price % changes reflect differences between closing prices on January 1, 2015 and closing prices on February 28, 2017 per Thomson One, Google Finance, and Bloomberg World Metal Fabricate/Hardware Index.



Note: Free Cash Flow (FCF) Yield = FCF / Enterprise Value

THE 2016 DUTCH CORPORATE GOVERNANCE CODE AND SPECIAL STAKEHOLDERS

Is it an omission in the Code that we are now talking about 'value creation' instead of 'shareholder value creation'? The answer is clearly "no" of course, as the term embraces all stakeholders.

When one talks about stakeholders other than shareholders, two categories stand out. The first is the health and safety of the employees of AMG and its visitors. The other is the environment. We are pleased to have once again achieved progress in the area of health and safety. Operating furnaces means dealing with high temperatures. Operating mines means dealing with nature. From the outset, we have put maximum attention towards trying to operate at an acceptable safety level. Many of our sites operate with a zero accident record. We have a superior health and safety management system, an effective reporting system and conduct intensive group-wide educational efforts. Our unit CEOs live what they preach. Our biggest challenge is that after 5 years of annually improved accident and severity rates, progress in the quantitative results becomes harder and harder to achieve.

The other stakeholder who needs our special attention is the environment. I will hasten to say that other big stakeholders, such as suppliers and customers, need not be specially referred to here, as they are our daily work, and the basis of our corporate existence. The environment is different. When we initially conceived of AMG, we envisaged a new concept of material science-based, incremental and transformational innovations to create value. We focused on light-weighting of materials, from aluminum and titanium alloys to carbon-reinforced composites; on surface treatment and coating technologies to enable materials to endure higher operating temperatures; on recycling technologies turning metal-containing hazardous waste into a new raw material source (a new 'mine', so to speak); and on energy saving materials for buildings, just to name a few. It is safe to say that our biggest 'client' has been the environment. We began our focus on CO_2 reduction in our IPO documents. We believe that it is necessary to buy an insurance policy against atmospheric CO_2 concentration, and our industrial CO_2 reducing solutions can be seen as such an insurance. When you buy life insurance, you don't prolong your life; you do something for the next generation.

Our contributions to our biggest client, the environment, can be quantified using a fairly straightforward methodology. The selected AMG products and solutions which we regularly measure have enabled our customers to reduce CO_2 emissions in 2016 by a total of 28.4 million tons compared to a CO_2 saving of 23.7 million in 2015. Those are very significant numbers for our planet and for a company our size. This can be put into the context of our direct CO_2 emissions of around 600,000 tons per annum as a result of our production activities in 29 sites around the world. The total CO_2 savings of 28.4 million tons as a percentage of total assets of roughly $900 million gives a ratio of 3.2. This measure of our 'greenness' can be used to draw comparisons. To state the result simply, AMG is a leader in 'greenness', considerably ahead of our competitors. It is clearly visible that our work for the environment, as our most prominent client, has had a significant impact on the motivation of our employees and on the pride that we are contributing to future generations in a material way. This has been particularly important to me in my capacity as the founder of this company.

THE AMG CODE OF BUSINESS CONDUCT

In early 2016, we issued version 3 of the AMG Code of Business Conduct, which was first published in 2009 and is now firmly established throughout the company. We are guided by our value statement: "we act safely, we aim to create value, we respect people, we act with integrity." Company-wide communication processes have been installed to ensure that these values are better understood, embraced by everyone and applied without exception.

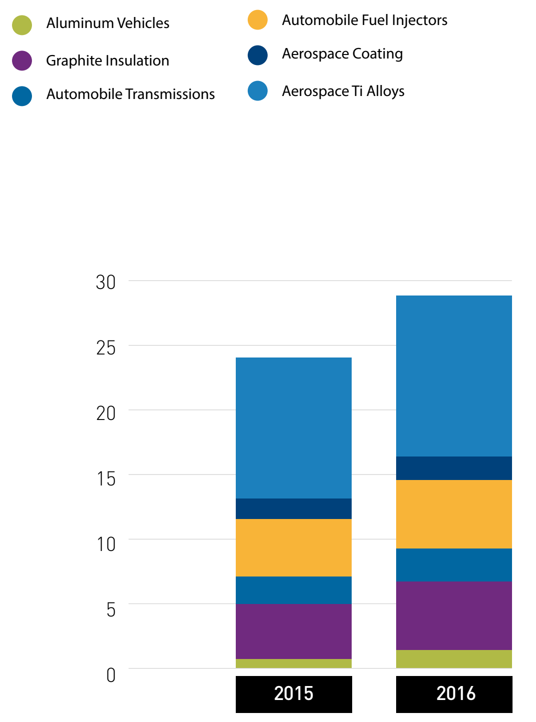
We have supported this thinking in our values and we always strive to maintain a system of awareness, securing a successful implementation and continuous upgrading of our workplace and business conduct.

OUTLOOK

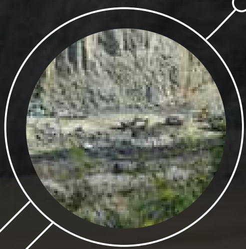
AMG is well positioned to maintain full year 2016 levels of profitability in 2017, subject to a high degree of global uncertainty. AMG's management team is focused on delivering our highly accretive lithium project as the first step of our long term, transformational lithium strategy. In addition, we will pursue other organic growth projects and industry consolidation opportunities in order to continue to generate long term value.

DR. HEINZ C. SCHIMMELBUSCH
CHIEF EXECUTIVE OFFICER

TOTAL AMG ENABLING TECHNOLOGIES CUMULATIVE CO_2 REDUCTIONS
millions of metric tons

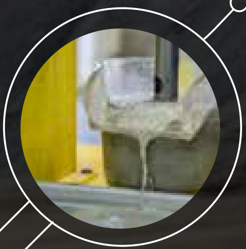


AMG Lithium will commence operations in mid-2018, with an initial annual production capacity of 90,000 tons of lithium concentrate.

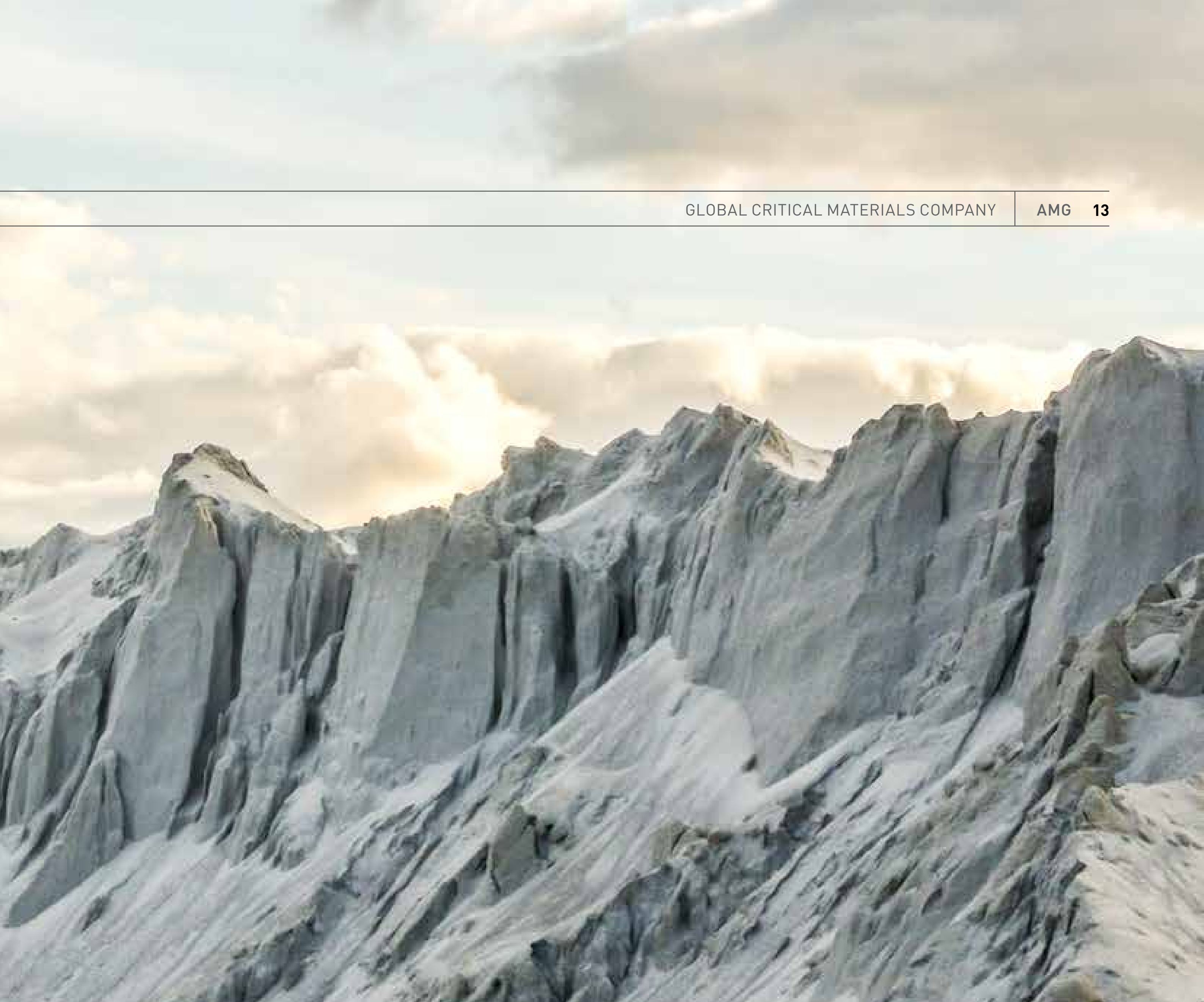


Defined Resource

Existing Infrastructure



Experienced Management



In July 2016, AMG's Supervisory Board approved the construction of a lithium concentrate (spodumene) plant at the Mibra mine in Brazil, with an initial annual production capacity of 90,000 tons.

In October 2016, AMG signed a turn-key EPC contract with Outotec Oyj, Finland, to begin construction of a 90,000 ton capacity lithium concentrate plant. Production is expected to commence mid-2018 and the capital investment is estimated at approximately $50 million.

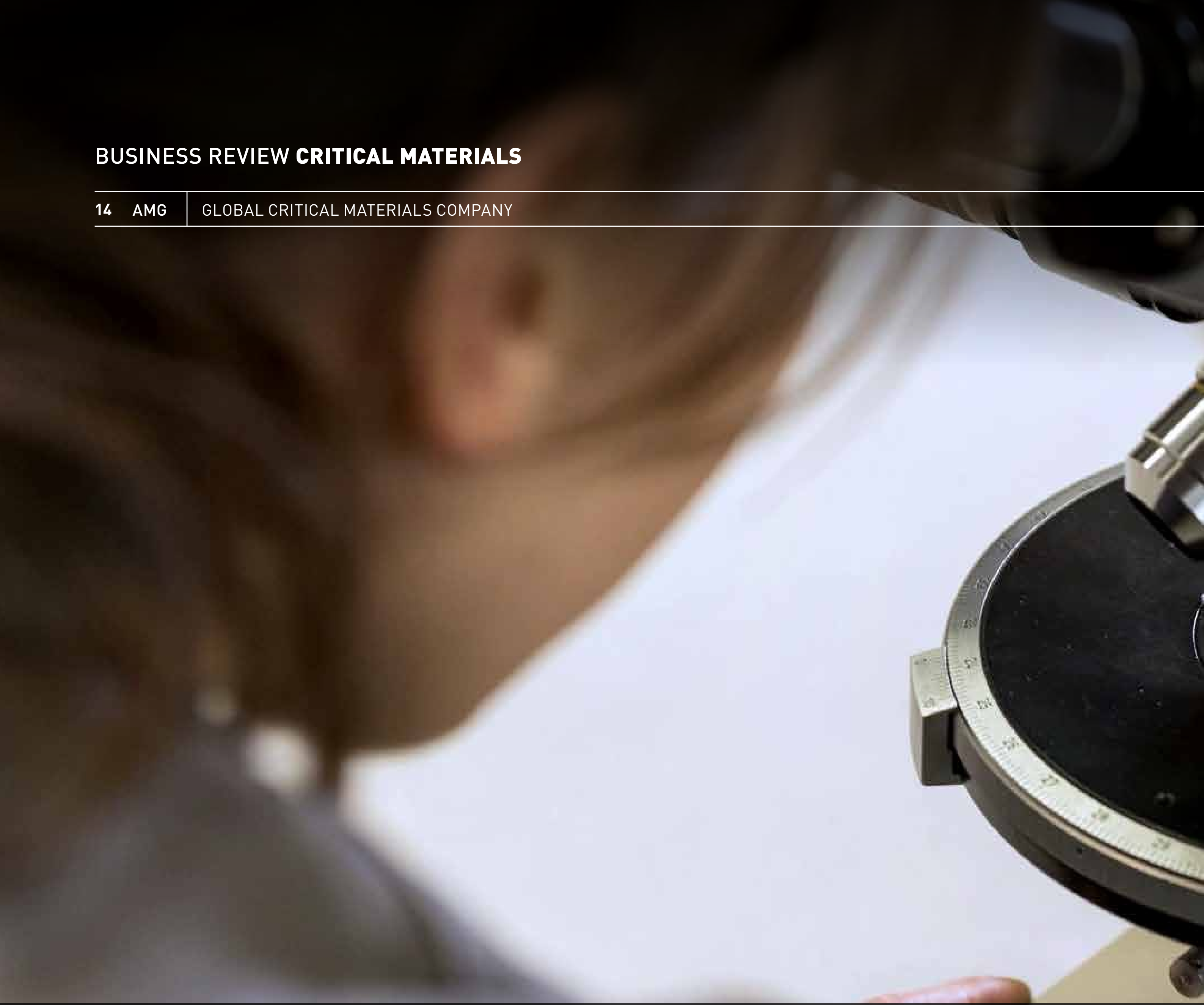
The lithium concentrate plant will be fed via lithium deposits from existing tailings, as well as incremental lithium-bearing tailings generated from the ongoing production of tantalum concentrates. The costs associated with the extraction and crushing of ore are already absorbed by AMG's profitable tantalum operation, and as a result, AMG expects to be the low cost producer of lithium concentrate globally.

AMG Mineração's last mineral resource estimate, published in 2013 and prepared in accordance with National Instrument 43-101 guidelines, and endorsed and signed-off by Coffey, identified 19.3 million tons of measured, indicated and inferred resources, which include tantalum, niobium, tin and lithium.

AMG is currently undertaking a drilling program at the Mibra mine in Brazil and expects to publish an updated mineral resource statement in the second quarter of 2017. AMG expects to substantially increase the measured, indicated and inferred resource estimate as a result of this drilling program. An enlarged resource estimate for the Mibra mine would support AMG's target of increasing annual lithium concentrate production capacity to 180,000 tons by the second half of 2019.

AMG has operated the Mibra mine for 39 years and the existing mining infrastructure is well established. AMG began operating a spodumene pilot plant at the Mibra mine in 2010, and has supplied over 43 tons of spodumene to industrial customers.

Photo: Mibra Mine, Brazil



AMG's Critical Materials division increased gross margins from 14.5% in 2015 to 18.5% in 2016 and delivered a 21.1% increase in EBITDA to $73.6 million.

701.6
Revenue ($M)

25.0
Cash from Operating Activities

73.6
EBITDA

130.0
Gross Profit

AMG's Critical Materials revenue decreased by 7% in 2016, to $702 million, as prices remained weak across most of our markets. Despite this decline, the business units successfully focused on operating efficiencies, cost reductions, price risk and working capital management to deliver substantially improved year-over-year results.

Gross profit increased by 19% to $130 million in 2016. This was an exceptional result in a year that was marked by volatility and uncertainty, with a number of our direct competitors becoming insolvent during the year as low prices continued to take a toll on high cost producers.

Seven of the eight business units in AMG Critical Materials delivered improved year-over-year results and working capital was maintained at historically low levels. Tantalum and Niobium delivered a 78% improvement in gross profit, driven by cost reductions and yield improvement. Titanium Alloys and Coatings experienced an 11% year-over-year increase in gross profit, driven by increased titanium aluminide volumes and margins. Vanadium profitability increased by 50% as prices began to improve and a major competitor in North America declared bankruptcy. Chrome metal gross profit grew by 37% due to improved yields and product mix effects.

The division also advanced a number of important strategic and operational initiatives, the most important being the lithium project in Brazil, which we believe to be transformational. Additionally, progress was made at our Ancuabe graphite mine in Mozambique, which is expected to be operational in the second quarter of 2017. We continued to expand titanium aluminide capacity and completed the upgrade of the last of our four silicon metal furnaces in Pocking, Germany.

2017 promises to be a year of continuing uncertainty, however we believe that our businesses are positioned to continue to deliver strong results.

AMG Engineering profitability increased by 82% in 2016 due to strong end market demand, new product offerings and lower operating costs.

269.5	31.2	27.0	56.8
Revenue ($M)	Cash from Operating Activities	EBITDA	Gross Profit

Growth in AMG Engineering's capital goods, after sales service and heat treatment service businesses contributed to a 23% year-over-year increase in revenue, to $269.5 million in 2016.

This growth was partly due to higher demand from the Asian market, where AMG Engineering has developed a strong technical support network in recent years. In addition, demand from AMG Engineering's core markets in Europe strengthened in 2016, driven by the ongoing growth in the automotive industry and the emergence of titanium powder production for 3D printing applications. Sales in the NAFTA market remained robust throughout the year and we expect further growth in 2017.

Strong end market demand also resulted in an improvement in order intake, which increased from $249.1 million in 2015 to $273.1 million in 2016.

Strong sales combined with lower operating costs, due largely to the extensive cost reduction program implemented in 2015, resulted in an increase in EBITDA from $14.8 million in 2015 to $27.0 million in 2016.

AMG Engineering successfully launched 2 new product lines in 2016:

- A plasma hearth melting furnace for the remelting of titanium aluminides for the aerospace engine industry
- New innovative coating equipment for the production of Ceramic Matrix Composite Fiber based on Chemical Vapor Deposition technology

AMG Engineering continues to benefit from a ramp up in sales of new product lines launched in 2014 and 2015, including SyncroTherm®, a one-piece flow heat treatment furnace system with a high degree of automatization for the automotive market and a new generation of powder production equipment for the 3D printed components industry.

Based on the strong order backlog at the end of 2016, the ongoing further development of new product lines and AMG Engineering's improved cost position, management expects the business to continue its strong financial performance in 2017.

Risk Management & 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 meets on a quarterly basis. This committee consists of Guy de Selliers (Chairman) and Steve H. Hanke, and 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 in detail by AMG's Risk Manager and Chief Financial Officer 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 a quarterly basis, the Risk Management Committee of the Supervisory Board formally reviews the consolidated risk package provided by the Risk Manager. The Audit Committee and Risk Management Committee of the Supervisory Board jointly supervise, monitor, and report on the Company's internal control and risk management programs. During 2016, special attention was given to:

- expansion and extension of the Company's syndicated credit facility;
- 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 2016 and will continue to be in 2017.

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

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 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 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 on a monthly basis. 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. As a result of the collection of prepayments from many of its customers, AMG Engineering is able to 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's Critical Materials segment is dependent on supplies of metals and metal-containing raw materials for the production of 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 as a result 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. In order 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 exist. 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 35 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 have pre-registered all required materials and also 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 effecting 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 in order 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. Changes in the euro rate have had an adverse impact on the US dollar operational results of the Company in 2016 due to financial statement translation. 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 typically 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. AMG's 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. The primary components of competition for AMG's products are 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. Additional mitigation of this risk is provided by 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. The Company's primary bank facility matures in July 2021. AMG's financing risk was mitigated in 2016 with its expansion and extension. It is further mitigated by the year-end 2016 liquidity of $343 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, 2016, 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 Risk Manager 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 2016, 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 best-practice provision III.1.8 of the 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 2016.

On the basis of, and with reference to, the preceding sections and in accordance with best practice II.1.5 of the 2008 Code, the Management Board confirms that internal controls over financial reporting provide a reasonable level of assurance that the financial reporting does not contain any material inaccuracies, and confirms that these controls functioned properly in the year under review and that there are no indications that they will not continue to do so.

The financial statements fairly represent the Company's financial condition and the results of the Company's operations and provide the required disclosures. 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.

In view of all of the above and in accordance with Article 5:25c(2) of the Financial Markets Supervision Act, the Management Board and its members confirm that, to the best of their knowledge:

- The financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the companies consolidated in the financial statements.
- The Annual Report gives a true and fair review of the financial position at the balance sheet date, an explanation of the development and performance of the business during the financial year, and a description of 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 23, 2017

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: 2017

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

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

PROF. DR. STEVE H. 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, and 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: 2017

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: Solvay 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)

MARTIN HOYOS

Nationality: Austrian

Born: 1947

Date of initial appointment:
May 13, 2009

Date of end of term: 2017

Current board positions: Koenig & Bauer AG (Chairman), Korian S.A.

Former positions: Active within KPMG from 1971 until 2007: KPMG Austria (member of the executive team), KPMG Germany (member of the Management Board), KPMG EMEA (CEO)

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)

PETTERI SOININEN

Nationality: Finnish

Born: 1974

Date of initial appointment:
May 7, 2015

Date of end of term: 2019

Current board positions: Co-Head RWC European Focus Fund, Electromagnetic Geoservices ASA

Report of the Supervisory Board

The Supervisory Board oversees both the policies pursued by the Management Board as well as the general course of AMG's business.

It also provides advice to the Management Board. In performing its duties, the Supervisory Board is required to act in the interests of the AMG Group and its businesses as a whole.

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

The Supervisory Board further supervises the systems and management of the internal business controls and financial reporting processes and it determines the remuneration of the individual members of the Management Board within the remuneration policy adopted by the General Meeting of Shareholders.

INTRODUCTION OF NEW DUTCH CORPORATE GOVERNANCE CODE

The Supervisory Board is mindful of the introduction of the new Corporate Governance Code on December 8, 2016, which came into effect on January 1, 2017 ("the 2016 Code"). The Supervisory Board will extensively discuss the impact of the new 2016 Code on AMG and AMG's compliance with the principles and best practice provisions thereof in the 2017 Annual Report. AMG will review in the course of 2017 if and to what extent amendments will be made to the governance framework of the Company in view of 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 Messman (Vice Chairman), Steve Hanke, Herb Depp, Guy de Selliers, Martin Hoyos, Donatella Ceccarelli, Robert Meuter and Petteri Soininen (the personal details of each member are included at the beginning of this chapter). During the financial year 2016, there were no changes to the composition of the Supervisory Board.

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. All Supervisory Board members qualify as independent, as defined in the Dutch Corporate Governance Code, except for Mr. Soininen who qualifies as a non-independent member as he is a Co-Head of AMG's largest shareholder RWC European Focus Master Inc., which owns approximately 10.7% of AMG's share capital as of December 31, 2016. All members of the Supervisory Board completed and signed a questionnaire to verify compliance in 2016 with the applicable corporate governance rules and the rules governing the principles and practices of the Supervisory Board.

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

Norbert Quinkert	2018
Jack Messman	2017
Steve Hanke	2019
Herb Depp	2017
Guy de Selliers	2018
Martin Hoyos	2017
Donatella Ceccarelli	2018
Robert Meuter	2019
Petteri Soininen	2019

At the Annual General Meeting in May 2017, Mr. Messman, Mr. Depp and Mr. Hoyos will be up for re-appointment under the Rotation Schedule. Mr. Messman has indicated that he wishes to continue as a member of the Supervisory Board and be nominated for a term of two years (until the AGM in 2019). Mr. Depp has indicated that he wishes to continue as a member of the Supervisory Board for the full term of four years (until the AGM in 2021). Mr. Hoyos has indicated that he wishes to step down in order to prioritize his other engagements after the Annual General Meeting in May 2017. The Supervisory Board would like to thank Mr. Hoyos for his dedication, services and leadership of the Audit Committee during the past four years, and wishes him well in his future endeavors.

In addition, Mr. Soininen has requested to step down after having served on the Supervisory Board since 2015. Mr. Soininen joined the Supervisory Board as a non-independent nominee of AMG's largest shareholder, RWC European Focus Master Inc. (RWC), after RWC had entered into a Relationship Agreement with the Company. The Relationship Agreement comes to an end after the General Meeting of Shareholders on May 4, 2017 and Mr. Soininen wishes to retire as a member of the Supervisory Board on that date. The Supervisory Board would like to thank Mr. Soininen for his dedication and services and wishes him well in his future endeavors.

During the period that Messrs. Hoyos and Soininen were members of the Supervisory Board, AMG has made important strategic decisions which have been positively reflected in AMG's share price. The Supervisory Board is grateful for the services of Messrs. Hoyos and Soininen as members of the Supervisory Board and wishes to thank them for their valuable insights and contributions.

Given these two vacancies, the Supervisory Board is pleased to present and nominate Mrs. Suzanne Rich Folsom and Mr. Willem van Hassel as independent Supervisory Board members for appointment by the General Meeting of Shareholders on May 4, 2017. Each of these two new candidates brings highly relevant experience in terms of industry (Mrs. Folsom is a member of the Executive Team of United States Steel Corporation) and corporate governance (Mr. van Hassel is a senior Dutch lawyer and a corporate governance expert). The full curriculum vitae of the nominees is available for inspection at the offices of the Company and is published at the Company's website.

Upon (re-)appointment of all nominees mentioned above, the Supervisory Board continues to be comprised of nine (9) members.

The Supervisory Board furthermore intends to reposition the committees of the Supervisory Board if the General Meeting of Shareholders resolves to appoint the nominees referenced above. It is also intended by the Supervisory Board that upon appointment of the four nominees, it will merge the Audit committee and Risk Management Committee to create more efficiency and combined expertise into one new committee, called the Audit & Risk Management Committee.

GENDER DIVERSITY

The Supervisory Board recognizes the importance of a diverse composition of the Supervisory Board and the Management Board in terms of gender. Dutch regulations require the Company to pursue a policy of having at least 30% of the seats on the Supervisory Board and the Management Board be held by men and at least 30% of the seats be held by women. The company will, with increased focus, continue to take this allocation of seats into account in connection with the following actions: (1) the appointment or nomination for the appointment of the new members for the Supervisory Board and the Management Board; and (2) drafting the criteria for the size and composition of the Supervisory Board and the Management Board. At the end of 2016, AMG did not comply with the diversity criteria with regard to the composition of the Management Board and the Supervisory Board. The Supervisory Board will continue to look for suitable female candidates for both the Management Board and the Supervisory and in particular, is pleased to announce the nomination of Mrs. S. Rich Folsom as member of the Supervisory Board at the Annual General Meeting on May 4, 2017.

SUPERVISORY BOARD MEETINGS

The Supervisory Board held twenty meetings over the course of 2016, including eleven by telephone conference. Sixteen of these meetings were held in the presence of the Management Board. Almost all meetings were attended by all members. None of the members of the Supervisory Board were frequently absent from Supervisory Board meetings. 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 include 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, as well as any significant changes thereto. 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.

On March 7, 2016, the Board met in a special plenary session to discuss and approve the strategy of AMG for the 2016-2020 timeframe and to consider the various financing alternatives to execute the strategy. The strategy of AMG as approved by the Supervisory Board is explained in this report in the letter of the Chairman of the Management Board (see pages 8-11). In addition, on July 19, 2016 the Supervisory Board reconvened in a plenary session in Amsterdam to discuss and approve the lithium project, which is one of the cornerstones of AMG's strategy to grow the company organically.

A recurring item of discussion throughout 2016 concerned the relationship and ongoing dialogue with the Company's largest shareholder, RWC, which is represented in the Supervisory Board by the non-independent board member Mr. Soininen (also acting as Co-Head of RWC European Focus Master Inc.) since May 2015. Mr. Soininen joined the Supervisory Board of the Company on May 7, 2015, following the execution of a Relationship Agreement between the Company and RWC on March 7, 2015. RWC continued its exchanges with respect to the Company's corporate governance, Supervisory Board composition and remuneration practices in 2016.

FOR THE YEAR ENDED DECEMBER 31, 2016	ROLE	CASH REMUNERATION	SHARE REMUNERATION	# OF SHARES GRANTED
Norbert Quinkert	Chairman & Selection and Appointment Committee Chair	$115	$66	4,960
Jack Messman	Vice Chairman & Remuneration Committee Chair	$90	$44	3,313
Steve Hanke	Member & Risk Management Committee Member	$60	$43	3,221
Herb Depp	Member & Remuneration Committee Member	$60	$43	3,221
Guy de Selliers	Member & Risk Management Committee Chair	$80	$39	2,899
Martin Hoyos	Member & Audit Committee Chair	$80	$39	2,899
Donatella Ceccarelli	Member & Selection & Appointment Committee Member	$60	$43	3,221
Robert Meuter	Member & Audit Committee Member	$60	$43	3,221
Petteri Soininen*	Member & Remuneration Committee Member	—	—	—

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

The Supervisory Board unanimously resolved to accelerate its annual self evaluation process under the guidance and leadership of Professor Jaap van Manen, who acted as external facilitator. Professor van Manen is a highly reputable corporate governance expert in the Netherlands and the Supervisory Board wishes to extend its gratitude for his services in this matter. The self evaluation process took place from March to May 2016 and included extensive interviews by Professor van Manen with each Supervisory Board member as well as a workshop led by Professor van Manen with all Supervisory Board members attending to discuss Professor van Manen's initial findings. In addition, members of the Management Board were interviewed to discuss their views on cooperation with, and within, the Supervisory Board. On May 31, 2016 Professor van Manen issued his report with findings and recommendations to the Chairman of the Supervisory Board. This report, and Professor van Manen's recommendations, were discussed by the Supervisory Board during an executive session on July 19, 2016 in Amsterdam.

On November 2, 2016, the Supervisory Board (without the presence of the Management Board) met and reviewed the performance of the Management Board and its members. During this meeting, the Supervisory Board concluded that the performance of the Management Board and its individual members was very positive, particularly given the excellent performance of the Company in 2016 compared to its peers, resulting in a dramatically improved share price, and that no changes in its composition were merited. The Management Board was specifically recognized for its continued drive and focus on operating cash flow and its efforts to design a comprehensive lithium strategy as well as its risk management skills. The Supervisory Board also debated during this review whether the review process in future should be structured differently (with more emphasis on specific objectives) and the Chairman promised to take this into account at the next evaluation cycle.

REMUNERATION OF THE SUPERVISORY BOARD IN 2016

In 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.

Cash remuneration: The cash remuneration of the Supervisory Board members was set for 2016 (in thousands) at $95 for the Chairman, $70 for the Vice Chairman and $60 for the other members. Chairpersons of the Remuneration Committee, the Audit Committee, the Selection and Appointment Committee and the 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 theron 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 amount of Euros for each member. The table above specifies the number of shares issued to each Supervisory Board member in 2016. 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. The 2008 Dutch Corporate Governance Code requires that the remuneration of a Supervisory Board member not be dependent on the results of the Company.

Best practice provision III.7.1 states that a Supervisory Board member may not be granted any shares and/or rights to shares by way of remuneration. AMG does not comply with best practice provisions III.7.1 and III.7.2 for reasons further explained in the Corporate Governance chapter (page 48) of this report and at the Company's website under the heading "Corporate Governance at AMG."

The table on page 29 shows the total remuneration of each member of the Supervisory Board for 2016 (in thousands, except number of shares granted).

SHARES HELD BY MEMBERS OF THE SUPERVISORY BOARD

As of December 31, 2016, the members of the Supervisory Board held 197,625 shares in the Company. Out of that number, 191,645 shares were awarded to them between 2007 and 2016 as part of their annual remuneration.

REMUNERATION OF THE SUPERVISORY BOARD IN 2017

The remuneration of the Supervisory Board will not change in 2017 as compared to 2016.

COMMITTEES

The Supervisory Board has four standing committees: the Audit Committee, the Selection and Appointment Committee, the Remuneration Committee and the Risk Management Committee.

AUDIT COMMITTEE

COMPOSITION: MARTIN HOYOS (CHAIR) AND ROBERT MEUTER

The Audit 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 Committee met four times during 2016, 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. One of these meetings was held jointly with the Risk Management Committee as per the charter of both Committees to review the structure, process and effectiveness of the Company's internal risk management and control systems.

Topics of discussion at the Audit Committee meetings included the Internal Audit plan and the External Audit plan; audit reports of the various units within the group; 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 NV ("KPMG") also provided the Audit Committee with agreed-upon midyear procedures and a year-end audit of the Company's accounting policies and procedures. Furthermore, the Company's Internal Audit Director maintained regular contact with the Audit Committee and the external auditors of the Company. The Audit 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 Committee reviewed the contents of the 2016 Management Letter of the external accountant and reported on this matter to the plenary meeting of the Supervisory Board. 2016 external audit fees were $1,400,000, which includes the cost of the midyear procedures. Present at all non-executive session meetings of the Audit Committee were the Chief Financial Officer, Chief Controller and the Internal Audit Director. AMG's auditor KPMG, was present at all of these meetings, while at certain meetings, General Counsel was present.

The Internal Audit Director at AMG reports to the Audit Committee and to the Management Board and operates on the basis of an Internal Audit plan approved by the Audit Committee and Management 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 Committee and the Risk Management Committee of the Supervisory Board.

On May 4, 2016, KPMG was appointed for the first time by the General Meeting of Shareholders as external auditor of the Company, succeeding EY. The Supervisory Board wishes to express its gratitude for the efficient, professional and smooth transition and handover process from EY to KPMG of the audit tasks and activities during the beginning of 2016.

SELECTION AND APPOINTMENT COMMITTEE

COMPOSITION: NORBERT QUINKERT (CHAIR) AND DONATELLA CECCARELLI

The Selection and 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 and Appointment Committee held three regular meetings during 2016, 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.

As Ms. Amy Ard indicated to the Chairman of the Supervisory Board and the Chairman of the Management Board in December 2015 that she was considering resigning as Chief Financial Officer and member of the Management Board during the first months of 2016 to pursue other professional opportunities, the Selection & Appointment Committee immediately began the search for a replacement for Ms. Ard as Chief Financial Officer. In January 2016, the Company was able to present Mr. Jackson Dunckel (a former investment banker and US citizen) as successor to Ms. Ard. Mr. Dunckel started his employment with AMG as Chief Financial Officer on January 25, 2016 and was appointed by the General Meeting of Shareholders on May 4, 2016 as member of the Management Board. The Supervisory Board was very pleased with the arrival of Mr. Dunckel, particularly given his wide experience in banking, financing and treasury operations.

Further, the Committee continued in 2016 the search process for a successor to Dr. Schimmelbusch as CEO of the Company, which was initiated in 2015, following the signing of the Relationship Agreement by the Company and RWC European Focus Master Inc. in March 2015 (see further pages 53-54). During 2016, the Committee, with the assistance of a highly reputable executive search consultant, started the review of both internal and external candidates which were identified.

As the Supervisory Board had no vacancies at the Annual Meeting in May 2016, no changes to the composition of the Supervisory Board were effected during 2016. The Committee did a review during 2016 of the Supervisory Board profile, and the amended profile was unanimously adopted by the Supervisory Board during its meeting on November 2, 2016 for inclusion in the Rules of Procedure of the Supervisory Board. In addition, the Selection & Appointment Committee continued its search for candidates for future appointments, in particular with a view to the vacancies and nominations for the Annual Meeting in May 2017, as further discussed above.

DIVERSITY

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 on pages 27-28, bearing in mind the need to have in place at all times the right skills set and (international) experience on the Board.

REMUNERATION COMMITTEE

COMPOSITION: JACK MESSMAN (CHAIR), HERB DEPP AND PETTERI SOININEN

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 four meetings in 2016, 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.

Particular attention was given to the review process of the Remuneration Policy of the Management Board (last amended in 2013) and the remuneration of the Supervisory Board (as amended in 2013), which was initiated in 2015 following the agreement reached with RWC European Focus Master Inc. in the Relationship Agreement of March 2015 (see pages 53-54). The Committee met three times in 2016 for this purpose, including an extensive meeting in Chicago with the new remuneration consultant (Willis Towers Watson) who had been hired in 2016 to lead the review process about the compensation for the Management Board and Supervisory Board and to advise the Remuneration Committee and Supervisory Board accordingly. Currently the Remuneration Policy for the Management Board has been in place since it was amended in 2013, which was adopted with almost unanimous consent by the General Meeting of Shareholders in May 2013. The current Remuneration Policy of the Company is published on the Company's website (amg-nv.com).

The review process by Willis Towers Watson (WTW) of the current Remuneration Policy for the Management Board and the compensation of the Supervisory Board was completed in October 2016 and WTW's report was presented in person to the Supervisory Board in its plenary session on November 2, 2016 in Amsterdam. In May 2016, the Supervisory Board had already approved the recommendation of WTW for an amended executive compensation peer group as the basis for evaluating AMG's Remuneration Policy. The new peer group partly resembles the 2015 peer group (as published in the Annual report) and continues to apply a US-centric approach which has been followed since AMG's inception in 2006. The revised peer group is shown on page 32. One of the main conclusions of WTW was that the current policy and structure of the remuneration of the Management Board is in line with current practice as exercised by AMG's peers and that although no urgent changes are in need of adoption, the current policy could be adapted with incremental changes concerning (a) target setting process for short term incentives and (b) the option to introduce time vested restricted share units in addition to the current stock option and performance share unit programs. Similarly, WTW has concluded 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.

The Supervisory Board, upon review of the recommendations of WTW and further internal discussions, and particularly since no material issues in the current Remuneration Policy were identified in WTW's report, has concluded in its meeting of March 8, 2017 not to proceed with proposing an amended new Remuneration Policy for the Management Board, or proposing any changes to the remuneration of the Supervisory Board, to the General Meeting of Shareholders on May 4, 2017. As a new Corporate Governance Code just recently became effective in the Netherlands as of January 1, 2017, the Supervisory Board wishes to spend more time reviewing the impact of the new code's principles and provisions on remuneration prior to considering whether to propose a new amended Remuneration Policy for the Management Board to the General Meeting of Shareholders in 2018.

RISK MANAGEMENT COMMITTEE

COMPOSITION: GUY DE SELLIERS (CHAIR) AND PROFESSOR STEVE HANKE

The Risk Management Committee has been in existence since May 3, 2013. The Risk Management Committee's main responsibility is monitoring and advising the Supervisory Board on the risk environment of AMG with specific focus on material risks relating to AMG's (i) strategy; (ii) operations and execution (production, IT, HSE developments); (iii) external factors relating to global and regional economic conditions (metal price developments, supply, competitors, etc.); (iv) financing requirements; and (v) legal and regulatory exposure.

The Risk Management Committee met three times during 2016 and reported its findings periodically to the plenary meeting of the Supervisory Board. Particular attention was given to the implementation of the new risk reporting structure and process which was introduced in 2015. One of its meetings was held jointly with the Audit Committee. The charters of both the Audit and Risk Management Committees call for at least one joint meeting per annum in order to, amongst other things, advise the Management Board and Supervisory Board on the structure, process, and effect of the Company's internal risk management and control systems.

REPORT ON REMUNERATION OF THE MANAGEMENT BOARD IN 2016

The remuneration of AMG's Management Board for 2016 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 2016, with the assistance of Willis Towers Watson, the peer group was reviewed and consisted of the following companies:

1. Allegheny Technologies Incorporated
2. Ametek, Inc.
3. Albemarle Corporation
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 would honor the existing contractual agreements of the current Management Board members and therefore would continue to accept the dual employment contract system as basis for the remuneration 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 2016 remuneration, the Supervisory Board considered multiple scenarios on 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 2016

The remuneration contracts of certain members of the Management Board were with companies that are part of the AMG Group. The remuneration levels in the table on the next page show the aggregate amounts of the contracts per Management Board member. A detailed explanation of the remuneration paid in 2016 is provided in note 36 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.

(in thousands)

FOR THE YEAR ENDED DECEMBER 31, 2016	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, 2016
Heinz Schimmelbusch	1,027	2,408	361	3,241	260	103	4,165
Eric Jackson	611	1,095	109	953	108	57	1,589
Jackson Dunckel*	633	1,636	22	501	191	33	—

* Annual bonus includes a signing bonus of $500k.
Note: These amounts represent the expense recorded by AMG for each component.

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 2016 were significantly above the annual targets set by the Supervisory Board. The table below shows the target and paid-out annual bonus for the year 2016 as a percentage of base salary per Management Board member. The base salary for annual bonus calculation purposes corresponds to full-year base salary.

Mr. Dunckel received a cash bonus of USD 500k (paid in full when he started with AMG in 2016) and a restricted share package valued at USD 400k (payable in tranches over a three year period).

	AS A % OF BASE SALARY	
FOR THE YEAR ENDED DECEMBER 31, 2016	TARGET	PAYOUT
Dr. Heinz Schimmelbusch	85%	235%
Eric Jackson	65%	179%
Jackson Dunckel	65%	179%

LONG TERM INCENTIVES – STOCK OPTIONS

Both Dr. Schimmelbusch and Mr. Jackson participate in the AMG Option Plan introduced in 2007 and in the AMG Management Board Option Plan adopted as per the Remuneration Policy first adopted in 2009. Mr. Dunckel only participates in the 2009 Management Board Option Plan. In addition, each member of the Management Board participates in the AMG Performance Share Unit Plan adopted as part of the Remuneration Policy since 2009. The table on page 35 provides an overview of the options granted under the AMG Option Plan between 2007 and 2012. All options granted between 2007 and 2012 are fully vested. In May 2016, 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 2016, 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 2016 was as follows (in thousands):

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

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

For the 2013 PSU grants, the three year vesting period was completed in 2016 and the minimum ROCE over the performance period (2013-2015) met the target set by the Supervisory Board. The relative TSR for the Company resulted in a multiplier of 115% which accordingly allowed the entire 2013 PSU award to vest. The Supervisory Board had 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 2016 the following shares were issued to the following Management Board members as settlement of the 2013 PSU awards:

Dr. Heinz Schimmelbusch	238,187 shares AMG
Mr. Eric Jackson	79,396 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

AMG OPTION PLAN		NON-VESTED OPTIONS UNDER THE PLAN				VESTED OPTIONS UNDER THE PLAN		
FOR THE YEAR ENDED DECEMBER 31, 2015	YEAR	DATE OF GRANT	NUMBER OF OPTIONS	PRESENT VALUE AT DATE OF GRANT (€)	VESTING SCHEME	EXERCISE PRICE (€)	NUMBER OF OPTIONS	MARKET VALUE AT 12/31/2016 (€)
Dr. Heinz Schimmelbusch	2007	07-11-07	—	2,700,000	25% each year over 4 years	24.00	225,000	—
	2008	11-12-08	—	846,665	25% each year over 4 years	12.70	133,333	322,666
	2009	5-13-09	—	661,852	100% vested on 1/1/10	8.00	165,463	1,178,097
	2009	11-10-09	—	500,000	50% vested after 3 years, 50% vested after 4 years	9.84	101,626	536,585
	2010	5-12-10	—	249,999	50% vested after 3 years, 50% vested after 4 years	7.99	62,578	446,181
	2011	5-11-11	—	500,000	50% vested after 3 years, 50% vested after 4 year	15.08	66,313	2,653
	2012	5-15-12	—	500,233	50% vested after 3 years, 50% vested after 4 years	6.44	155,352	1,348,455
	2013	5-3-13	39,700	270,000	50% vested after 3 years, 50% vested after 4 years	6.80	39,700	330,304
	2014	5-8-14	78,865	340,000	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
EricJackson	2007	7-11-7	—	1,200,000	25% each yr over 4 years	24.00	100,000	—
	2008	11-12-08	—	254,000	25% each year over 4 years	12.70	40,000	96,800
	2009	5-13-09	—	383,116	100% vested on 1/1/10	8.00	95,779	681,946
	2009	11-10-09	—	150,001	50% vested after 3 years, 50% vested after 4 years	9.84	30,488	160,977
	2010	5-12-10	—	74,998	50% vested after 3 years, 50% vested after 4 years	7.99	18,773	133,851
	2011	5-11-11	—	150,001	50% vested after 3 years, 50% vested after 4 years	15.08	19,894	796
	2012	5-15-12	—	150,071	50% vested after 3 years, 50% vested after 4 years	6.44	46,606	404,540
	2013	5-3-13	13,234	90,000	50% vested after 3 years, 50% vested after 4 years	6.80	13,234	110,103
	2014	5-8-14	23,196	100,000	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
Jackson Dunckel	2016	5-4-16	38,168	100,000	50% vested after 3 years, 50% vested after 4 years	9.78	—	n/a

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). Both Eric Jackson's and Jackson Dunckel's benefits will be reduced if their 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 2016 are provided in the table on page 35, which sets forth total expenses incurred in 2016 for Management Board remuneration.

OTHER BENEFITS

All Management Board members receive benefits, which 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 is provided in the table in note 36 to the consolidated financial statements, which sets forth total costs incurred in 2016 for Management Board remuneration.

CONTRACTS

Dr. Schimmelbsuch and Mr. Jackson have a management agreement with AMG and an employment agreement 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 II.2.8 of the Dutch Corporate Governance Code, which is further explained in the Chapter on Corporate Governance (page 48), but we believe they are necessary to attract and retain 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 II.2.8 of the existing 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 2017

The Remuneration Committee has set up the size and structure of the Management Board's remuneration for 2017. 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 has used the executive compensation peer group (listed on page 32) in establishing the compensation for 2017. As noted previously, the Company appointed a new executive remuneration consultant (WTW) in 2016 who has reviewed the existing executive compensation peer group used in 2016.

BASE SALARY

The Supervisory Board has decided that the base salary of the Management Board members for 2017 will not change as compared to the base salary levels of 2016. The table below shows the base salaries (on full annual basis) for 2016 and 2017 (in thousands):

	2016	2017
Dr. Heinz Schimmelbusch	$1,027	$1,027
Eric Jackson	$611	$611
Jackson Dunckel	$633	$633

ANNUAL BONUS

Each year, a variable cash bonus can be earned based on achievement of challenging targets. 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 2017 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 case 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

In the Remuneration Policy, the long term incentives for the Management Board for 2017 consist of two programs: the Performance Share Unit Plan and the Stock Option Plan.

This year's grant (2017) will be the ninth grant under the Plan, and vesting will, depending on performance, occur after completion of the performance period that covers the calendar years 2017, 2018 and 2019. Vesting of the Performance Share Units under the 2017 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 2017 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 2017 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 after the third anniversary and half after the fourth anniversary. The present values of the stock options under the SOP to be granted in 2017 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 will not change compared to 2016.

CONTRACTS

The current contractual agreements will not change compared to 2016. 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, 2016, Heinz Schimmelbusch held 505,709 AMG shares, Eric Jackson held 147,638 AMG shares and Jackson Dunckel was entitled to 44,523 restricted 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 through what was another very difficult year in very challenging economic circumstances, specifically for the critical materials and metals industries and markets in which AMG is operating. The Management Board has continued to successfully focus on the course it set out in the beginning of 2013, which was to improve operating cash flow and reduce net debt. During 2016, there appeared to be a beginning of a mild recovery of the depressed prices for critical materials and metals, and a modest increase in demand due to a global economy which seems to be slowly returning to growth. 2016 also saw the initiation of AMG's lithium project as one of the cornerstones of AMG's strategy. The Management Board did an excellent job in 2016 of keeping the Company focused on its operations and financial performance despite a challenging economic and financial environment and political uncertainty. The Supervisory Board would also like to thank all the employees of AMG for their continued commitment to the Company's success.

ANNUAL REPORT 2016

The Annual Report and the 2016 Annual Accounts, audited by KPMG NV, have been presented to the Supervisory Board. The 2016 Annual Accounts and the report of the external auditor with respect to the audit of the annual accounts were discussed with the Audit 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 2016 Annual Accounts.

SUPERVISORY BOARD AMG ADVANCED METALLURGICAL GROUP N.V.

Norbert Quinkert, Chairman

Jack Messman, Vice Chairman

Steve Hanke

Herb Depp

Guy de Selliers

Martin Hoyos

Donatella Ceccarelli

Robert Meuter

Petteri Soininen

March 23, 2017

Sustainable Development

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

The reporting boundaries have not changed significantly since 2015; one operational site has been divested. The 29 locations reporting in 2016 (in which AMG has a 51% or greater stakeholding) are detailed in the table below.

They include mining and manufacturing operations and sales and administrative offices in 13 countries across 4 continents. This report covers the same two segments as described in 2015: AMG Critical Materials and AMG Engineering. 2015 data are included so that comparisons can be made and trends can be identified. AMG will continue to assess the boundaries of this report based on the corporate ownership structure on an ongoing basis.

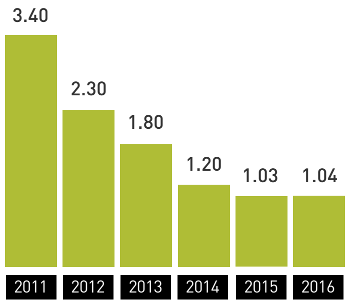
SITE NAME[1]	LOCATION	COUNTRY	DIVISION
AMG Headquarters	Amsterdam	Netherlands	AMG Corporate
AMG USA Headquarters	Pennsylvania	USA	AMG Corporate
ALD USA[3]	Connecticut	USA	AMG Engineering
ALD France	Grenoble	France	AMG Engineering
ALD Vacuum Technologies[2]	Hanau	Germany	AMG Engineering
ALD Vacuheat[2]	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.

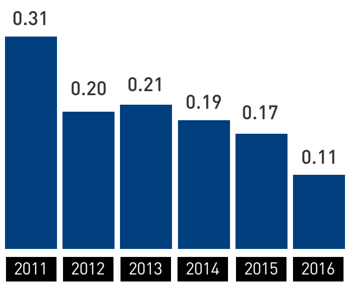
2 2016 remote externally audited data.

3 Minor or office facilities with estimated data.

LOST TIME INCIDENT RATE



INCIDENT SEVERITY



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 less than 10 employees or with environmental impacts <1% in all aspects) have been determined to be non-material to the report, and therefore estimated data have been used for these in 2016. Those sites utilizing estimated data are indicated in the table on page 39.

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:

- Reflect the organization's significant economic, environmental and social impacts; or
- Substantively influence the assessments and decisions of stakeholders.†

AMG utilizes a standard template, which sites use to report their data in order 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 47.

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

Contact: **global.sustainability@amg-nv.com**

AMG PEOPLE

GRI INDICATORS LA1, LA4, LA6, LA7, LA10, LA13 AND MM4

The size of AMG's workforce has been relatively stable over the last year and at year-end 2016, AMG Critical Materials had 2,110 employees and AMG Engineering had 778. For the facilities covered by this report, the total AMG workforce was 2,888 (other facilities not yet covered in this section employ a further 165 people). Geographically, these were located in Asia (301), Europe (1,589), North America (545) and South America (453).

In addition to direct employees, a further 238 directly supervised contract workers were employed at AMG sites in 2016. 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 employees in such an environment . Of the total employees, 16% are female; 19% are under 30 years of age, 54% are between 30 and 50, and 27% are over 50.

The Management Board is 100% male. The Supervisory Board is 89% male and 11% female. One Supervisory Board member is aged 30-50 while 8 are over 50.

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, 1,924 employees (67%) were covered by

† GRI, G4 Sustainability Reporting Guidelines, Reporting Principles and Standard Disclosures, 2013, p.17.

such collective bargaining agreements. 72% of AMG Critical Materials are covered by these arrangements, while AMG Engineering, which includes a higher proportion of professional salaried staff, has 52% of its employees covered. Once again in 2016, AMG facilities had no strikes or lockouts.

AMG is pleased to report that no fatal incidents occurred to its workforce in 2016. AMG's medium-term 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, although this trend slowed in 2016. For AMG as a whole, the Lost Time Incident Rate[1] was relatively unchanged at 1.04 (1.03 in 2015). The incident severity[2] was, however, significantly lower at 0.11 compared to 0.17 in 2015 (a 35% improvement). Of the 29 locations included in this report, 17 achieved zero lost-time incidents in 2016. While lost time incident rate improvement slowed, total incident rates (including all medically treated injuries) improved 16% from 2.00 in 2015 to 1.68 in 2016. No specific occupational diseases were reported in 2016.

Formal safety management systems continue to be important to achieving zero harm to employees and fifteen of AMG's larger sites are OHSAS 18001 certified. In 2016, 86% of the AMG workforce was represented in formal health and safety committees and they 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 facilities. The average absenteeism rate across AMG was 2.75%.

AMG also collects data on the hours we invest in our people to develop their skills, categorized into management; professional, technical, sales and administration; and production and maintenance employees. The categories of training tracked included technical and professional development, quality, anti-corruption policies, human rights policies and health and safety.

This is important to our safety, environmental and ethics programs, and in maintaining our technical competitive advantage. In 2016, the training provided was: management (158 employees trained, averaging 28.3 hours per person), professional, technical, sales and administration (958 employees trained, averaging 32.3 hours) and production and maintenance (1,722 employees trained, averaging 35.5 hours).

Across all the reporting sites, AMG employees received an average of 32.3 hours of training time in 2016 (approximately 1.75% of total hours worked).

1 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.

2 Incident severity is defined as the number of scheduled work days lost as a result of disabling injuries per thousand hours worked. In some locations, calendar days are counted by local regulators and these data are used here if scheduled work days are unavailable.

HUMAN RIGHTS AND ETHICS

GRI INDICATORS HR 3, HR 5, HR 6 AND SO 3

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 2016, it was found that no sites were at risk, with the exception of 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 Company Code of Business Conduct and Ethics and detailed in the Company's human rights policy; all are available on the AMG website.

Refresher human rights and ethics training was performed in 2016, and employees were given refresher training in ethical businesses practices, including 1,568 in human rights and anti-bribery based materials. Compliance officers at the major sites monitor and implement the Code of Business Conduct and Ethics.

RESOURCE EFFICIENCY AND RECYCLING

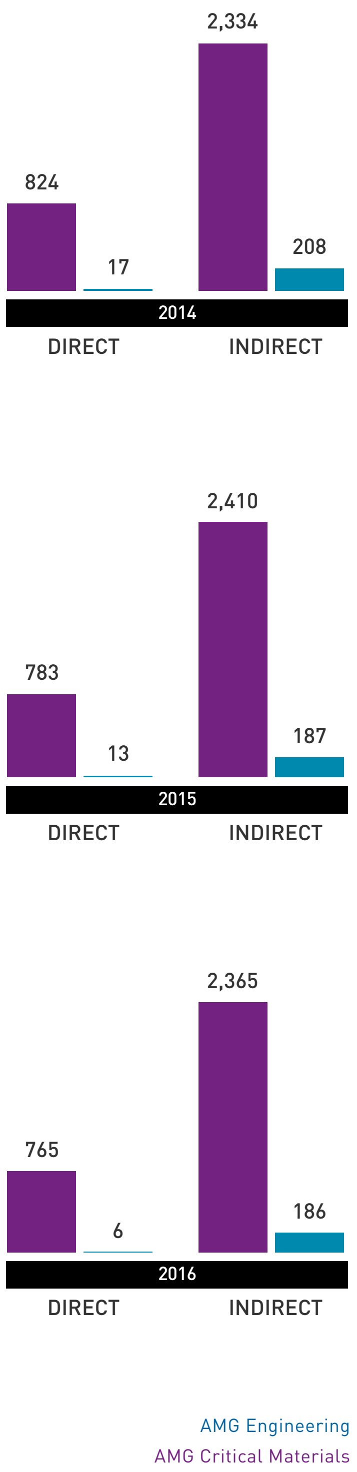
GRI INDICATORS EN 1 AND EN 2

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.

The predominantly furnace technology and engineering services provided by AMG Engineering, including furnace assembly operations and heat treatment services means this segment utilizes 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 2016, AMG Engineering reported using 3,370 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 for the production of 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 1,099,980 mt of resources in 2016, of which 40,650 mt were secondary or recycled materials. In 2016,

ENERGY USAGE (TJ)



the primary utilization of resources was by AMG Mineração (711,400 mt of mined ore) and AMG Silicon (190,900 mt of quartz, coal and other raw materials) with the remaining AMG Critical Materials sites using 157,100 mt.

ENERGY CONSUMPTION

GRI INDICATORS EN 3 AND EN 4

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.[3]

The reported energy usage for AMG Critical Materials was marginally lower in 2016 compared to 2015, decreasing from 3,193 terajoules (TJ) in 2015 to 3,130 TJ in 2016. Direct energy usage was 765 TJ and indirect was 2,365 TJ.

The energy used by low-energy heat treatment processes utilized by AMG Engineering remains low in comparison.

The segment used 192 TJ in 2016, 4.5% lower than in 2015 (199 TJ). Indirect energy, in the form of electricity, accounted for 186 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 (with some exceptions; e.g. CEMIG in Brazil now produces this data).

However, AMG does generate its own renewable energy. In 2016, AMG's hydroelectric generating facility near São João del Rei, Brazil generated 55,530 gigajoules (15,425 MWh). This supplied AMG's local requirements at its São João del Rei, Brazil plant. Additionally, AMG Vanadium's solar power system generated 911 gigajoules (253 MWh) in 2016.

WATER CONSUMPTION

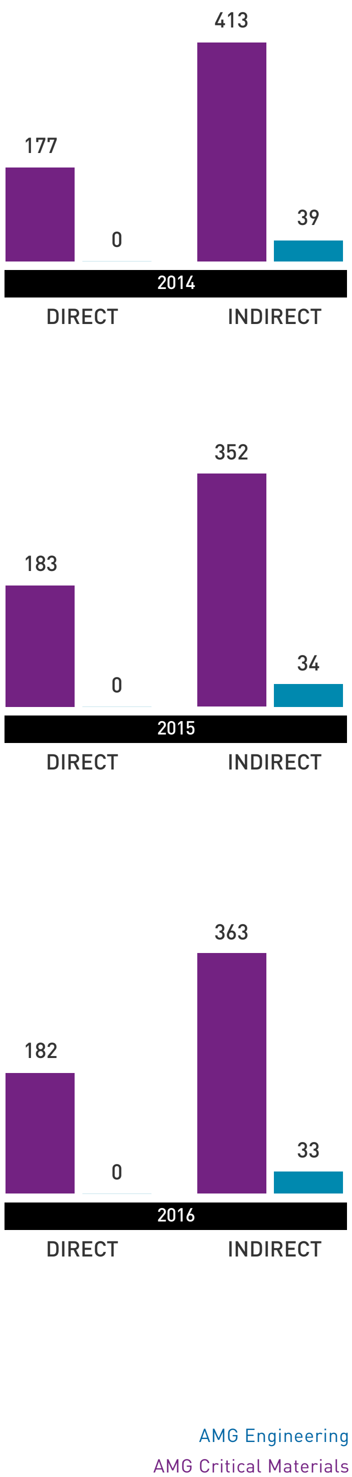
GRI INDICATOR EN 8

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 for the production of 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 2016 at 4,220,000 cubic meters (a 10% decrease). AMG Engineering's water consumption was 100,800 cubic meters during 2016, also similar to that of 2015 (99,600 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,

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

GHG EMISSIONS ('000 MT)



Brazil remains the largest user with 2,495,000 cubic meters in 2016, a 15% decrease 2015, and a result of process water recycling and improved measurement. Full data are provided in the table on page 47.

BIODIVERSITY

GRI INDICATOR EN 11

Of the 29 locations reporting for 2016, 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 INDICATOR EN 16

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 marginally higher in 2016 at 546,000 mt of CO_2e (2015, 535,000 mt). 67% of these emissions are attributed to indirect sources (electricity) while 33% are attributed to direct sources. Emissions remain dominated by the silicon metal production activities which account for 390,000 mt of CO_2e (approximately 6.62 kg CO_2e per kg silicon metal produced). This activity also dominates AMG's overall GHG emissions, accounting for 67% of total group emissions. Further, changes in supply mix, including reduction of nuclear and variations in renewable energy in Germany, resulted in lower emission factors for this electricity and accounted for some of this increase. These factors, outside of AMG's control, outweighed additional reductions achieved elsewhere.

AMG Engineering GHG emissions in 2016 were 33,000 mt, a decrease from 33,000 mt in 2015. 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 546,000 mt CO_2e, with revenue of $702 million, equivalent to 778 mt CO_2e per million $ revenue. AMG Engineering generated 32,900 mt CO_2e and $270 million in revenue, or 122 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 2016, GHG emissions were 579,000 mt, up 2% from 569,000 mt in 2015. Revenue was $971 million, giving a GHG intensity of 596 mt per million $ revenue, again an increase of 2% from 2015.

EMISSIONS TO AIR

GRI INDICATORS EN 19 AND EN 20

The emissions of ozone-depleting substances remain de minimis for AMG. AMG Engineering also has de minimis air emissions for other pollutants, resulting from only small sources such as heating and hot water boilers. AMG Critical Materials' production facilities do have some other air emissions, including SOx (777 mt), NOx (627 mt) and particulate materials (74 mt). Data are only available for regulated sources where measurements have been made. The largest particulate emissions come from silicon metal production activities.

EMISSIONS TO WATER AND SPILLS

GRI INDICATORS EN 21 AND EN 23

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 2016, the total water disposed to water courses by AMG Critical Materials equaled 3,257,000 cubic meters compared to 3,629,000 cubic meters in 2015. This decrease is attributed to improvements in efficiencies at the AMG Mineração mine, production levels and product mix. Of the total amount, 1,970,000 million cubic meters of water were discharged to the same water body from which it is withdrawn at the mine site in Brazil, a 15% reduction from 2015.

After mining activities, most of AMG Critical Material's 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. For the 8 production sites reporting industrial process water disposal, the major constituents were metals (712 kg), fluoride (6,180 kg), sulfate (1,039 mt) and total suspended solids (36 mt).

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 (37,000 cubic meters in 2016).

In 2016, there were no significant spills (defined as one which would affect the Company's financial statements as a result of the ensuing liability, or is recorded as a spill) of tailings or other process materials at any AMG site.

WASTE DISPOSAL

GRI INDICATOR EN 22

Detailed information was collected in 2016 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 19,356 mt, a decrease of 19% over 2015 (24,000 mt). 46% of these materials (8,970 mt) were non-hazardous, with the remaining 10,380 mt disposed to licensed hazardous waste landfills.

The waste produced by AMG Engineering is much different in composition, and much smaller in volume. Just 193 mt were disposed to landfills in 2016 (109 mt in 2015), 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 19,550 mt of waste to landfills or incineration in 2016 compared to 24,500 mt in 2015. Hazardous waste accounted for 46% of the total.

SIGNIFICANT FINES FOR NON-COMPLIANCE WITH ENVIRONMENTAL AND OTHER LAWS

GRI INDICATOR EN 28

AMG Mineração received a fine of thirty-two thousand dollars as a result of a routine environmental inspection. No other facility received any significant fine or equivalent penalty for non-compliance with environmental laws in 2016.

GRI INDICATOR SO8

In 2016, AMG Engineering and AMG Critical Materials did not receive any fines.

PRODUCT RESPONSIBILITY

GRI INDICATOR MM 11

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, which is overseen by the United Nations, is a strategic policy initiative for businesses that, like AMG, are committed to aligning their operations and strategies with ten 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 ten principles of the Global Compact. AMG will reaffirm its support and submit its fifth Communication on Progress in April 2017.

THE GLOBAL COMPACT
WE SUPPORT

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 in order 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**).

EITI Extractive Industries Transparency Initiative

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* 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 our assurance activities is to the management of AMG only and in accordance with the terms of reference agreed with them. 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 12 facilities (see table on page 39) identified by AMG, representing approximately 41% 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 2016. In our 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

* LA1, LA4, LA7, LA13, EN1, EN2, EN3, EN4, EN8, EN16, EN20, EN21, and EN22

SOCIAL AND ENVIRONMENTAL KEY PERFORMANCE INDICATORS AND GRI CONTENT INDEX

SELECTED SOCIAL AND ENVIRONMENTAL KEY PERFORMANCE INDICATORS*

GRI INDICATOR	DESCRIPTION	UNITS	AMG CRITICAL MATERIALS		AMG ENGINEERING		AMG GROUP	
			2015	2016	2015	2016	2015	2016
LA1	Total workforce		2,055	**2,110**	789	**778**	2,844	**2,888**
LA4	% of employees covered by collective bargaining agreements		71	**72**	49	**52**	65	**67**
LA7	Accident Rates	Total	1.22	**1.19**	0.46	**0.58**	1.03	**1.04**
LA7	Accident Severity Rate	Total	0.22	**0.13**	0.02	**0.03**	0.17	**0.11**
LA10	Average Hours of Training Per Year	Per person	25.1	**26.3**	69	**49.2**	37.1	**32.3**
EN2	% Recycled Raw Materials	%	10	**10**	0	**0**	3.2	**3.7**
EN3	Direct Energy Consumption	TJ	783	**765**	12	**6**	796	**771**
EN4	Indirect Energy Consumption	TJ	2,410	**2,365**	187	**186**	2,596	**2,550**
EN8	Water consumption (manufacturing)	'000 cubic meters	1,247	**1,133**	100	**101**	1,343	**1,234**
EN8	Water consumption (mining)	'000 cubic meters	3,497	**3,092**	NA	**NA**	3,497	**3,092**
EN16	CO_2 equivalent emissions	mt	535,000	**546,000**	34,000	**33,000**	569,000	**579,000**
EN20	SOx emissions	mt	628	**627**	0	**0**	628	**627**
EN20	NOx emissions	mt	780	**777**	0	**0**	780	**777**
EN20	Particulates discharged to air	mt	81	**73**	0	**0**	81	**74**
EN21	Metals discharged	kg	807	**712**	0	**0**	807	**712**
EN22	Hazardous waste (including recycled)	mt	5,480	**5,730**	63	**153**	5,543	**5,884**
EN22	Non-hazardous waste (including recycled)	mt	26,130	**27,600**	114	**217**	26,245	**27,800**
EN22	Percent of waste recycled	%	23	**38**	39	**23**	23	**37**
EN22	Waste disposed to landfill	mt	24,406	**19,356**	109	**193**	24,514	**19,500**
EN23	Spills	L	0	**0**	0	**0**	0	**0**
EN28	Environmental Fines	$	32,000	**0**	0	**0**	0	**32,000**
SO8	Fines for non-compliance with laws	$	0	**0**	0	**0**	0	**0**

* For a full list see pages 40-46.

GRI CONTENT INDEX

PART	SECTION	REFERENCE	PAGES
Part I: Profile Disclosures	Strategy and Analysis	1.1, 1.2	1-54
	Organizational Profile	2.1 to 2.10	2-3, 6-7
	Report Parameters	3.1 to 3.13	47
	Governance, Commitments, and Engagement	4.1 to 4.17	1-47
Part II: Disclosures on Management Approach (DMA)	Economic, Environment, Labor, Human Resources, Society, Product Responsibility	DMA EC, EN, LA, HR, SO, PR	1-47
Part III: Performance Indicators	Economic: Economic Performance	EC1	6-7
	Environmental: Materials	EN1, EN2	41, 43
	Environmental: Energy	EN3, EN4	43
	Environmental: Water	EN8	43-44
	Environmental: Emissions, Effluents, Wastes	EN16, 19, 20, 21, 22, 23	44-45
	Environmental: Other	EN11, EN28	44-45
	Social: Labor Practices and Decent Work	LA1, 4, 6, 7, 10, 13	40-41
	Social: Human Rights	HR3, 5, 6	41
	Social: Society	SO3, SO8	41, 45
	Social: Product Responsibility	MM11	45-46

Corporate Governance

AMG Advanced Metallurgical Group N.V. is a company organized under Dutch law and was established in 2006 as the holding company for the AMG group companies, and 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 amended and issued on December 10, 2008 (the "2008 Code"). The Dutch Corporate Governance Code can be downloaded at corpgov.nl. As of January 1, 2017, a new revised Corporate Governance Code is effective in the Netherlands, replacing the 2008 Code. In the 2017 annual report, the Company will report extensively on the compliance by the Company with, and impact of, the 2017 Corporate Governance Code. This chapter will report on compliance by the Company with the 2008 Code.

The Supervisory Board and the Management Board, which are responsible for the corporate governance structure of the Company, hold the view that the vast majority of principles set forth in the 2008 Code as applicable during 2016 are being applied, while certain deviations are discussed and explained hereafter. A full and detailed description of AMG's Corporate Governance structure and AMG's compliance with the Dutch Corporate Governance Code can be found on AMG's website (amg-nv.com).

AMG Advanced Metallurgical Group N.V., located in the Netherlands, has various subsidiaries in multiple jurisdictions to enable efficient business operations and optimal tax structuring, to the benefit of the company.

ANNUAL ACCOUNTS AND DIVIDENDS

The Management Board and the Supervisory Board have approved AMG's audited consolidated financial statements for 2016. KPMG Accountants N.V. audited these financial statements. The audited financial statements will be submitted for adoption to the General Meeting of Shareholders in May 2017.

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 about reserves only on 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 and, following the approval by the Supervisory Board, the change in dividend policy led to the payment of an interim dividend of EUR 0.10 per ordinary AMG share in September 2015 and a full year dividend of EUR 0.22 per ordinary AMG share in May 2016. In August 2016, the Company paid an interim dividend for 2016 of EUR 0.13 per ordinary AMG share. The Company will discuss the dividend policy in greater detail during the Annual General Meeting in May 2017. The Company intends to propose a full year dividend for 2016 of EUR 0.27 to the General Meeting of Shareholders for approval as part of the adoption of the 2016 Annual Accounts. The interim dividend of EUR 0.13 per ordinary AMG share paid in August 2016 will be deducted from this amount. Payment of 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, 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, 2016, the total issued share capital of AMG amounted to EUR 565,048.38, consisting of 28,252,419 ordinary shares of EUR 0.02 each. Each ordinary share carries one vote. The ordinary shares are listed on Euronext Amsterdam. The ordinary shares 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 20, 2017 (unless otherwise annotated) and therefore may not necessarily reflect the actual holdings as of that date.

AS OF MARCH 20	2017
RWC European Focus Master Inc.	**10.7%**
Norges Bank	**5.3%**
Delta Lloyd	**4.9%**
Belgravia Capital SGIIC	**3.1%**
Acadian Asset Management	**3.1%**

SHAREHOLDING	2016	2015
Number of ordinary shares issued	28,252,419	27,641,956
Average daily turnover	117,897	125,196
Highest Closing Price	€19.13	€9.50
Lowest Closing Price	€7.40	€6.20

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 million ordinary shares and 65 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 as members. Mr. W. van Hassel was a member of the Board until March 10, 2017 when he resigned. The Board is expected to appoint a new third board member in a timely manner. 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 other than as set out below regarding the relationship agreement with RWC European Focus Master Inc. ("RWC"). Shareholders who hold shares on April 6, 2017 (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.

On March 7, 2015, AMG entered into a relationship agreement with RWC, which is AMG's largest shareholder, currently owning 10.7% of the issued share capital of AMG (as of March 20, 2017 according to the AFM register). As per the terms of this agreement, RWC had committed itself to support the Management Board of AMG until one day after the day of the Annual Meeting in May 2017. Please refer to pages 52-53 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.

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 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 the procedures for 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 Management Board and its policies and the general course of affairs of the AMG Group. Under the two-tier corporate structure under 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 an employee of the Company. The Supervisory Board, in discharging its duties, will act in the interests of the Company and AMG Group, taking into account the interests of all of the Company's stakeholders.

The Supervisory Board discusses and approves major management decisions and 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 and Appointment Committee, the Audit Committee and the 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.

Members of the Supervisory Board shall be appointed for a maximum term of four years and may be re-appointed for additional terms not to exceed four years. Unless the General Meeting of Shareholders provides otherwise, a member of the Supervisory Board cannot be re-appointed for more than three terms of four years.

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 record meeting 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 2008 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.

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 of 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, 2016, the General Meeting of Shareholders resolved to authorize the Management Board for a period of 18 months from that date (until November 3, 2017) 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, 2015, 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, 2015 for general corporate purposes. Both authorizations also include the power to restrict or exclude preemptive rights. On May 4, 2016, the General Meeting of Shareholders resolved to authorize the Management Board for a period of 18 months from that date (until November 3, 2017) 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, 2015, 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 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.

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 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's Credit Facility Agreement, which was amended and renewed on July 19, 2016, has a provision that requires the Company to repay the entire outstanding amount under its Credit Facility 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 50.

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

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The Company is a party to the following agreement that contains restrictions on voting rights attached to shares. A relationship agreement has been signed with RWC European Focus Master Inc. ("RWC") on March 7, 2015 (see also page 50) which is effective until the day after the Annual Meeting in May 2017 with the exception of certain provisions which have a shorter term, and can be summarized as follows ("Relationship Agreement"):

a) RWC endorses the strategy of AMG as published on its website in December 2013 and as updated in January 2015;
b) The Supervisory Board of AMG is properly constituted with nine members, given the nature and activities of AMG; the parties agree to discuss the composition of the Supervisory Board prior to, and in view of, AMG's Annual General Meeting in 2016;
c) AMG's Supervisory Board will nominate RWC's managing director Mr. Petteri Soininen for appointment as a member of the Supervisory Board at AMG's Annual General Meeting in May 2015 (the "AGM 2015"). If appointed, Mr. Soininen will serve as a non-independent Supervisory Board member as described under Dutch corporate governance rules and practices. This right of RWC is effective as long as RWC holds 10% or more of AMG's share capital;
d) AMG's Supervisory Board will nominate Mr. Robert Meuter for appointment as member of the Supervisory Board at the AGM 2015. If appointed, Mr. Meuter will serve as an independent Supervisory Board member as described under Dutch corporate governance rules and practices;
e) RWC will support the nomination for re-appointment of Dr. Heinz Schimmelbusch as CEO and Chairman of the Management Board at the AGM 2015;
f) RWC will propose for the agenda of the AGM 2015 to amend the Articles of Association of AMG with respect to the procedures for the appointment and dismissal of Management Board and Supervisory Board members; and
g) AMG will initiate the review of its prevailing remuneration policy for the Management Board as well as of the prevailing remuneration for the Supervisory Board, by another reputable internationally recognized compensation consultant of similar standing as AMG's current compensation consultant. If a renewal of the current remuneration would be appropriate as a result of this review, the shareholders will be asked to approve an amendment thereto during AMG's Annual General Meeting in 2016.

As a result of the Relationship Agreement, during the Annual Meeting on May 7, 2015, Messrs. Soininen and Meuter have been appointed as Supervisory Board members as per items (c) and (d) above, and Dr. Heinz Schimmelbusch has been appointed as Chief Executive Officer and Chairman of the Management Board for a term of four (4) years as per item (e) above. Also on May 7, 2015, the General Meeting of Shareholders approved the proposal made by RWC as per item (f) above. The agreement with respect to the review of the remuneration of the Management Board and Supervisory Board as per item (g) above has been amended in mutual agreement by AMG and RWC on November 18, 2015, meaning that shareholders will be asked to approve an amendment to the remuneration policy at the latest during the Annual General Meeting of AMG in 2017, if the review by the compensation consultant would indicate that renewal of the compensation is appropriate.

UPDATE ON RELATIONSHIP

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, at a price of €16.50 per ordinary share in an accelerated placement. As a result, RWC currently owns 10.7% of the Company's issued share capital.

Mr. Petteri Soininen has requested to step down as member of the Supervisory Board the day after the Annual General Meeting on May 4, 2017, as further explained above on page 27.

COMPLIANCE WITH THE DUTCH CORPORATE GOVERNANCE CODE

As stated above, AMG is subject to the 2008 Code for the 2016 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 2008 Code.

As a general statement the Company fully endorses the Code's principles and believes that virtually all best practice provisions as included in the 2008 Code are complied with. On certain matters involving the remuneration policy of the Company, 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, 2016, up to and including March 23, 2017.

During the period starting January 1, 2016 up to and including March 23, 2017, 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 III.6.4 of the 2008 Code.

CORPORATE GOVERNANCE STATEMENT

The Decree of December 23, 2004, adopting further rules regarding the contents of the annual report, as amended and extended by the Decree of March 20, 2009 ("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	2016	2015
Revenue and expenses		
AMG Critical Materials revenue	701,634	757,492
AMG Engineering revenue	269,514	219,651
Total revenue	971,148	977,143
Cost of sales	784,340	820,286
Gross profit	186,808	156,857
Selling, general and administrative expenses	130,750	122,331
Environmental	1,873	(757)
Other income, net	(5,683)	(880)
Operating profit	59,868	36,163

REVENUE

Full year 2016 revenue decreased 1% to $971.1 million, from $977.1 million in 2015. AMG Critical Materials' 2016 revenue decreased by $55.9 million, or 7%, from 2015, to $701.6 million. The decline in average metal prices significantly impacted revenues for aluminum, antimony and vanadium products during the period. AMG Engineering's 2016 revenue increased as a result of an increase in the demand for plasma remelting, induction and turbine blade coating furnaces for the aerospace market. The order backlog as of December 31, 2016 was $135.5 million. This is a 4% decrease from an order backlog of $140.9 million as of December 31, 2015.

GROSS PROFIT

AMG's gross profit improved by $30.0 million to $186.8 million in the year ended December 31, 2016, a 19% increase. As a percentage of revenue, gross margin increased from 16% to 19%.

AMG Critical Materials' 2016 gross margin increased to 19% from 14% in 2015. The increase in gross margin was partially the result of inventory adjustments made in 2015 that were not repeated in 2016. Gross margin also improved due to higher volumes and lower costs for tantalum sales. The 2016 gross margin for AMG Engineering declined slightly from 2015, moving from 22% to 21%. Increased demand for plasma remelting, induction and turbine blade coating furnaces for the aerospace market resulted in higher revenue and gross profit while product mix resulted in a similar gross margin compared to the prior period.

SELLING, GENERAL AND ADMINISTRATIVE EXPENSES

Selling, general and administrative costs were $130.8 million in the year ended December 31, 2016 as compared to $122.3 million in the year ended December 31, 2015, an increase of 7%.

Personnel expenses increased to $78.7 million in the year ended December 31, 2016 from $71.8 million in the year ended December 31, 2015. Salary and bonus increased to $53.2 million in 2016 from $49.1 million in 2015 as a result of increased discretionary bonuses related to improved performance across AMG. Other employee benefit expense declined slightly to $11.9 million in 2016 from $12.9 million in 2015. The Company incurs professional fees from global service providers for services including audit, tax planning and compliance and legal consultation. Professional fees were $20.5 million in 2016 as compared to $16.2 million in 2015. Outside consulting remains a large expense to the Company and is impacted by costs associated with specific strategic initiatives. Research and development expense declined slightly to $3.8 million in the year ended December 31, 2016 as compared to $3.9 million in the year ended December 31, 2015. All other SG&A expenses, such as travel and entertainment, insurance, occupancy, communication and bank fees declined to $27.8 million in the year ended December 31, 2016 from $30.4 million in the year ended December 31, 2015. This decline was driven by cost cutting efforts across the businesses.

OTHER INCOME, NET

Other income of $5.7 million for the year ended December 31, 2016 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. In the year ended December 31, 2015, other income of $0.9 million was primarily comprised of $0.4 million associated with a gain on the sale of a subsidiary and insurance proceeds of $0.2 million.

NON-RECURRING ITEMS

A summary of non-recurring items affecting the 2016 and 2015 results is presented below:

For the year ended December 31	2016	2015
Non-recurring items included in operating profit:		
Restructuring expense	4,222	3,103
Asset impairment expense	1,976	—
Environmental	1,277	1,529
Total non-recurring items included in operating profit	7,475	4,632

Restructuring expense in 2016 primarily related to restructuring expenses incurred in both the AMG Critical Materials segment as well as AMG Engineering in France and Germany. The asset impairment expense is primarily related to the impairment of a building due to restructuring at a subsidiary in France. The environmental expenses in 2016 are the result of a revision to estimated restoration costs related to removal of a slag pile at a closed facility in the US.

OPERATING PROFIT

AMG's operating profit of $59.9 million for the year ended December 31, 2016 was an increase of $23.7 million from the operating profit of $36.2 million reported for the year ended December 31, 2015. 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 COSTS, NET

The table below sets forth AMG's net finance costs for the years ended December 31, 2016 and 2015. Finance expense increased 46% over the prior year, mainly as the result of higher average borrowings and borrowing rates on the Company's main credit facility as well as higher amortization of loan issuance costs from the prior year. The higher borrowing rates were a result of increased credit limits and borrowing capacity associated with new loan agreements established in 2016.

For the year ended December 31	2016	2015
Finance income	(1,267)	(1,328)
Finance expense	13,667	11,267
Foreign exchange gain	(395)	(1,712)
Net finance costs	12,005	8,227

INCOME TAXES

The Company recorded an income tax expense of $8.1 million for the year ended December 31, 2016, compared to an income tax expense of $18.7 million for the year ended December 31, 2015. The tax expense in the current year is driven by profitability along with impacts from previously unrecognized tax losses. The tax expense in 2015 was driven by profitability along with impacts from changes in the valuation of the Brazilian currency. The effective tax rate for 2016 was 16%, as compared to the 65% effective tax rate for 2015.

NET INCOME

The Company recorded net income attributable to shareholders of $40.6 million in the year ended December 31, 2016 as compared to $11.1 million in the year ended December 31, 2015.

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, 2016, the Company had $160.7 million in cash and cash equivalents and $182.6 million available on its revolving credit facility.

Changes in the Company's liquidity were due primarily to new debt instruments and changes in cash from operations during the year.

	2016	2015
Non-current loans and borrowings	150,959	112,217
Current loans and borrowings	17,121	14,526
Total debt	168,080	126,743
Cash and cash equivalents	160,744	127,778
Net debt (cash)	7,336	(1,035)

The Company is subject to two debt covenants in its 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, 2016 and 2015.

For the year ended December 31	2016	2015
Net cash from operating activities	56,225	76,308
Net cash used in investing activities	(42,143)	(20,526)
Net cash from (used in) financing activities	23,279	(29,109)

Cash from operating activities were $56.2 million for the year ended December 31, 2016 compared to cash from operating activities of $76.3 million in 2015. The decline is primarily attributable to voluntary pension funding during 2016.

Cash used in investing activities were $42.1 million for the year ended December 31, 2016. The largest growth capital expenditures were related to the lithium project in Brazil and the Ancuabe graphite mine project. The largest growth capital expenditure in 2015 was the continuation of the AMG Titanium Alloys and Coatings' titanium aluminides project.

Cash from financing activities were $23.3 million for the year ended December 31, 2016 as the Company had net debt proceeds of $40.6 million associated with new loan agreement established in 2016. The Company had net debt repayments of $59.6 million in 2015.

OUTLOOK

AMG is well positioned to maintain full year 2016 levels of profitability in 2017, subject to a high degree of global uncertainty.

AMG's management team is focused on delivering our highly accretive lithium project and executing our long term, transformational lithium strategy. In addition, we will continue to pursue other acquisition opportunities and organic growth projects in order to continue to generate long term value.

CONSOLIDATED INCOME STATEMENT

For the year ended December 31	Note	2016	2015
In thousands of US Dollars			
Continuing operations			
Revenue	6	971,148	977,143
Cost of sales		784,340	820,286
Gross profit		186,808	156,857
Selling, general and administrative expenses		130,750	122,331
Environmental	26	1,873	(757)
Other expenses	7	320	53
Other income	7	(6,003)	(933)
Net other operating (income) expense		(3,810)	(1,637)
Operating profit		59,868	36,163
Finance income	9	(1,267)	(1,328)
Finance expense	9, 22	13,667	11,267
Foreign exchange gain	9	(395)	(1,712)
Net finance costs	9	12,005	8,227
Share of gain of associates and joint ventures, net of tax	13	1,804	632
Profit before income tax		49,667	28,568
Income tax expense	10	8,096	18,651
Profit for the year		41,571	9,917
Attributable to:			
Shareholders of the Company		40,558	11,080
Non-controlling interests		1,013	(1,163)
Profit for the year		41,571	9,917
Earnings per share			
Basic earnings per share	20	1.45	0.40
Diluted earnings per share	20	1.32	0.40

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

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

For the year ended December 31	Note	2016	2015
In thousands of US Dollars			
Profit for the year		41,571	9,917
Other comprehensive income			
Other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods:			
Exchange differences on translation of foreign operations	19	(851)	(6,358)
Gain (loss) on cash flow hedges	19	9,079	(15,993)
Cash flow hedges reclassified to profit or loss	19	2,558	15,604
Income tax on cash flow hedges	10, 19	(3,912)	880
Net increase on cash flow hedges		7,725	491
Change in fair value of available for sale investments	13, 19	47	200
Net other comprehensive income (loss) to be reclassified to profit or loss in subsequent periods		6,921	(5,667)
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		(1,182)	(480)
Actuarial (losses) gains on defined benefit plans	19, 24	(16,531)	8,938
Income tax on actuarial losses	10	14,026	923
Net (loss) gain on defined benefits plans		(2,505)	9,861
Net other comprehensive (loss) income not being reclassified to profit or loss in subsequent periods		(3,687)	9,381
Other comprehensive income for the year, net of tax		3,234	3,714
Total comprehensive income for the year, net of tax		44,805	13,631
Attributable to:			
Shareholders of the Company		45,148	15,274
Non-controlling interest		(343)	(1,643)

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

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at December 31	Note	2016	2015
In thousands of US Dollars			
Assets			
Property, plant and equipment	11	226,098	215,833
Goodwill	12	22,729	18,676
Intangible assets	12	10,486	10,246
Investments in associates and joint ventures	13	—	2,230
Derivative financial instruments	32	740	—
Other investments	13	29,930	14,000
Deferred tax assets	10	41,285	31,551
Restricted cash	17	2,526	2,527
Other assets	16	17,207	19,883
Total non-current assets		351,001	314,946
Inventories	14	143,593	126,389
Derivative financial instruments	32	4,007	978
Trade and other receivables	15	129,220	124,270
Other assets	16	31,598	27,648
Cash and cash equivalents	18	160,744	127,778
Assets held for sale	5	149	673
Total current assets		469,311	407,736
Total assets		820,312	722,682
Equity			
Issued capital		760	745
Share premium		389,066	382,978
Treasury shares		(570)	—
Other reserves	19	(35,950)	(49,500)
Retained earnings (deficit)		(177,592)	(205,662)
Equity attributable to shareholders of the Company		175,714	128,561
Non-controlling interests		22,073	25,006
Total equity		197,787	153,567
Liabilities			
Loans and borrowings	22	150,959	112,217
Employee benefits	24	141,588	137,853
Provisions	26	30,854	29,617
Deferred revenue	28	2,822	13,539
Government grants	27	390	536
Other liabilities	29	6,484	8,821
Derivative financial instruments	32	887	5,642
Deferred tax liabilities	10	8,435	11,691
Total non-current liabilities		342,419	319,916
Loans and borrowings	22	9,621	3,222
Short term bank debt	23	7,500	11,304
Government grants	27	97	99
Liabilities associated with assets held for sale	5	—	423
Other liabilities	29	57,431	42,872
Trade and other payables	30	133,328	108,019
Derivative financial instruments	32	4,661	8,379
Advance payments	6	29,404	44,184
Deferred revenue	28	10,198	16,124
Current taxes payable	10	7,065	3,093
Provisions	26	20,801	11,480
Total current liabilities		280,106	249,199
Total liabilities		622,525	569,115
Total equity and liabilities		820,312	722,682

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

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

	Equity attributable to shareholders of the parent							
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, 2015	745	382,978	—	(59,728)	(225,843)	98,152	2,825	100,977
Foreign currency translation	—	—	—	(6,358)	—	(6,358)	(480)	(6,838)
Change in fair value of available for sale investments	—	—	—	200	—	200	—	200
Gain on cash flow hedges, net of tax	—	—	—	491	—	491	—	491
Actuarial gains, net of tax	—	—	—	9,861	—	9,861	—	9,861
Net profit (loss) recognized through other comprehensive income	—	—	—	4,194	—	4,194	(480)	3,714
Profit (loss) for the year	—	—	—	—	11,080	11,080	(1,163)	9,917
Total comprehensive income (loss) for the year	—	—	—	4,194	11,080	15,274	(1,643)	13,631
Transfer to retained deficit (note 19)	—	—	—	1,097	(1,097)	—	—	—
Change in non-controlling interest (note 5)	—	—	—	(104)	13,332	13,228	24,485	37,713
Equity-settled share-based payments	—	—	—	5,041	—	5,041	—	5,041
Dividend	—	—	—	—	(3,134)	(3,134)	(661)	(3,795)
Balance at December 31, 2015	745	382,978	—	(49,500)	(205,662)	128,561	25,006	153,567
Balance at January 1, 2016	745	382,978	—	(49,500)	(205,662)	128,561	25,006	153,567
Foreign currency translation	—	—	—	(851)	—	(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	—	—	—	4,590	—	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	—	—	—	4,590	40,558	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	10,682	(3,658)	8,147	—	8,147
Dividend	—	—	—	—	(7,558)	(7,558)	(3,114)	(10,672)
Balance at December 31, 2016	760	389,066	(570)	(35,950)	(177,592)	175,714	22,073	197,787

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

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended December 31	Note	2016	2015
In thousands of US Dollars			
Cash from operating activities			
Profit for the year		41,571	9,917
Adjustments to reconcile profit to net cash flows:			
Non-cash:			
Income tax expense	10	8,096	18,651
Depreciation and amortization	11, 12	29,841	29,590
Asset impairment expense	11, 14	1,976	—
Net finance costs	9	12,005	8,227
Share of profit of associates and joint ventures	13	(1,804)	(632)
(Gain) loss on sale or disposal of property, plant and equipment	5, 11	(4,501)	2
Equity-settled share-based payment transactions	25	3,073	5,041
Movement in provisions, pensions and government grants	24, 26, 27	(13,000)	1,062
Working capital and deferred revenue adjustments			
Change in inventories		(20,099)	20,563
Change in trade and other receivables		(6,636)	5,393
Change in prepayments		555	8,784
Change in trade payables and other liabilities		29,912	(18,944)
Change in deferred revenue	28	(16,643)	5,991
Other		5,174	(236)
Cash generated from operating activities		69,520	93,409
Finance costs paid	9	(7,164)	(12,570)
Finance costs received	9	457	1,176
Income tax paid, net	10	(6,588)	(5,707)
Net cash from operating activities		56,225	76,308
Cash used in investing activities			
Proceeds from sale of property, plant and equipment	11	1,546	709
Proceeds from sale of subsidiaries (net of cash divested $1,820 (2015: $1,384))	5	6,512	(1,567)
Acquisition of property, plant and equipment and intangibles	11, 12	(44,086)	(23,264)
Acquisition of subsidiaries (net of cash acquired of $35)	5	(4,961)	—
Change in restricted cash	17	(93)	4,812
Acquisition of other non-current asset investments	13	(1,000)	(1,200)
Other		(61)	(16)
Net cash used in investing activities		(42,143)	(20,526)
Cash from (used in) financing activities			
Proceeds from issuance of debt	22, 23	163,190	188,890
Payment of transaction costs related to the issuance of debt		(3,978)	(5,081)
Repayment of borrowings	22, 23	(122,607)	(248,490)
Change of non-controlling interests	5	(5,600)	38,740
Net repurchase of common shares		(259)	—
Dividends paid		(7,558)	(3,134)
Other		91	(34)
Net cash from (used in) financing activities		23,279	(29,109)
Net increase in cash and cash equivalents		37,361	26,673
Cash and cash equivalents at January 1		127,778	108,029
Effect of exchange rate fluctuations on cash held		(4,395)	(6,924)
Cash and cash equivalents at December 31	18	160,744	127,778

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, 2016 were authorized for issuance in accordance with a resolution of the Supervisory Board on March 22, 2017.

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 at and for the year ended December 31, 2016 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 issued shares are listed on Euronext, Amsterdam, the Netherlands.

These financial statements represent the consolidated financial statements of the Company. These consolidated financial statements as of December 31, 2016 present the consolidated financial position, results of operations and cash flows of the Company and its subsidiaries.

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, 2016	December 31, 2015
ALD Own & Operate GmbH	Germany	100	100
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 AG	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 AG, Graphit Kropfmühl GmbH, Edelgraphit GmbH, GK Bergbau GmbH, RW Silicium GmbH, AMG Invest GmbH, ALD Vacuum Technologies GmbH, ALD Own & Operate GmbH, VACUHEAT GmbH and VACUHEAT Verwaltungs GmbH exercise the exemption of Sec. 264 (3) HGB "Handelsgesetzbuch".

As of December 31, 2016 there were 3,053 employees at the Company (2015: 2,940). There were 3 employees located in the Netherlands as of December 31, 2016 (2015: 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, 2016 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, 2016 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
Investment property	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) 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.

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).

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 32 – measurement of financial instruments

Key sources of estimation uncertainty

Critical judgments, key assumptions concerning the future and other key sources of estimation uncertainty at the reporting date are discussed below or in the relevant notes. These are identified as the judgments and assumptions that could have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

- note 6 – determination of furnace construction contract revenue
- note 10 – income tax
- note 12 – measurement of the recoverable amounts of assets and cash-generating units
- note 24 – measurement of defined benefit obligations
- note 25 – measurement of share-based payments
- note 26 – measurement of provisions
- note 32 – measurement of financial instruments

Determination of furnace construction contract revenue

Revenue related to furnace construction contracts is recorded based on the estimated percentage of completion of contracts as determined by management. Revenue is recognized based on an overall engineering design plan and 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 requires significant judgment by management. Total percentage of completion revenue for the year ended December 31, 2016 was $210,584 (2015: $149,232).

Income tax

Uncertainties exist with respect to the interpretation of complex tax regulations and the amount and timing of future taxable income. Given the wide range of international business relationships and the long term nature and complexity of existing contractual agreements, differences arising between the actual results and the assumptions made, or future changes to such assumptions, could necessitate future adjustments to taxable income and expense already recorded. The Company establishes provisions, based on reasonable estimates, for possible consequences of audits by the tax authorities of the respective countries in which it operates. The amount of such provisions is based on various factors such as experience of previous tax audits and differing interpretations of tax regulations by the taxable entity and the responsible tax authority. Such differences of interpretation may arise on a wide variety of issues depending on the conditions prevailing in the respective subsidiary's domicile.

Deferred tax assets are recognized for all unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Significant management judgment is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and level of future taxable profits, together with future tax planning strategies. The carrying value of recognized tax losses at December 31, 2016 was $10,923 (2015: $17,145). There are significant unrecognized tax losses as described in more detail in note 10.

Measurement of the recoverable amounts of assets and cash-generating units

The determination of whether goodwill or 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 goodwill or 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 goodwill or 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. The carrying amount of goodwill at December 31, 2016 was $22,729 (2015: $18,676).

Measurement of defined benefit obligations

The cost of defined benefit pension plans is determined using actuarial valuations. The actuarial valuations involve making assumptions about discount rates, future salary increases, mortality rates and future pension increases. Assumptions are reviewed at each reporting date. Due to the long term nature of these plans and the complexity of the valuations, such estimates are subject to significant uncertainty.
The employee liability at December 31, 2016 was $141,588 (2015: $137,853).

In determining the appropriate discount rate, management considers the interest rates of corporate bonds in the respective currency with at least a rating of AA, with extrapolated maturities corresponding to the expected duration of the defined benefit obligation.

The mortality rate is based on publicly available mortality tables for the specific country. Future salary increases and pension increases are based on expected future inflation rates for the respective country.

Further details about the assumptions used are given in note 24.

Measurement of share-based payments

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-based compensation, 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-based compensation rights. Any changes in the liability are recognized in profit or loss.

The assumptions and model used in determining the fair value of share-based payments are disclosed in note 25.

Measurement of provisions

Provisions have been recorded with respect to environmental costs and recoveries, restructuring, warranties, cost estimates and partial retirement. The Company also has certain responsibilities related to its mining locations. A provision for future restoration, rehabilitation and decommissioning costs requires estimates and assumptions to be made around the relevant regulatory framework, the magnitude of the possible disturbance and the timing of mining, extent and costs of the required closure and rehabilitation activities. All provisions require management's judgment with respect to the amounts recorded and the expected timing of payments. Amounts or timing of payments may change due to changes in circumstances or execution of plans related to these liabilities. To the extent that the actual future costs differ from these estimates or that management assumptions change, adjustments will be recorded at each reporting date. As at December 31, 2016, the provisions balance was $51,655 (2015: $41,097).

Measurement of financial instruments

Fair value of non-derivative financial instruments, which is determined for disclosure purposes, is calculated based on the present value of future principal and interest cash flows, discounted at the market rate of interest at the reporting date except in the case of designated investments available for sale. Management's judgment is used to determine the appropriate discount rates used for these calculations. Investments designated as available for sale are valued using alternative valuation methods which are detailed in note 13.

3. SIGNIFICANT ACCOUNTING POLICIES

(A) BASIS OF CONSOLIDATION

(i) Consolidation principles

The consolidated financial statements comprise the financial statements of the Company and its subsidiaries as at December 31, 2016. Subsidiaries are entities controlled by the Company and their financial statements are prepared for the same reporting period using consistent accounting policies. Control of an entity occurs 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. Subsidiaries are included in the consolidated financial statements from the date on which control commences until the date on which control ceases. All intra-group balances are eliminated in consolidation.

Non-controlling interests are measured at their proportionate share of the acquiree's identifiable net assets as the date of acquisition. Losses within a subsidiary are attributed to the non-controlling interest even if that results in a deficit balance.

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

(ii) Investment in associates and joint ventures

An associate is an entity over which the Company has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but is not control or joint control over those 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 venture, rather than rights to its assets and obligations for its liabilities.

The Company's investments in its associates and joint ventures are accounted for using the equity method. Under the equity method, the investment in an associate or a joint venture is initially recognized at cost, including transaction costs. The carrying amount of the investment is adjusted to recognize changes in the Company's share of net assets of the associate or joint venture since the acquisition date. Goodwill relating to the associate or joint venture is included in the carrying amount of the investment and is neither amortized nor individually tested for impairment. The income statement reflects the Company's share of the results of operations of the associate or joint venture. Any change in OCI of those investees is presented as part of the Company's OCI. In addition, when there has been a change recognized directly in the equity of the associate or joint venture, the Company recognizes its share of any changes, when applicable, in the statement of changes in equity. Unrealized gains and losses resulting from transactions between the Company and the associate or joint venture are eliminated to the extent of the interest in the associate or joint venture. The aggregate of the Company's share of profit or loss of an associate and a joint venture is shown on the face of the income statement outside operating profit and represents profit or loss after tax and non-controlling interests in the subsidiaries of the associate or joint venture. The financial statements of the associate or joint venture are prepared for the same reporting period as the Company. When necessary, adjustments are made to bring the accounting policies in line with those of the Company.

(B) FOREIGN CURRENCY

(i) Functional and presentation currency

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.

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.

(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. All differences are taken to profit or loss. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as at the dates of the initial transactions. Non-monetary assets and liabilities denominated in foreign currencies that are measured at fair value are retranslated to the functional currency at the exchange rate at the date that the fair value was determined. Foreign currency differences arising on retranslation are recognized in profit or loss. Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition are treated as assets and liabilities of the foreign operation and translated at the closing rate.

(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. On consolidation, exchange differences arising from the translation of the net investments in foreign operations are taken directly to other comprehensive income.

Since January 1, 2005, the Company's date of transition to IFRS, such differences have been recognized in the foreign currency translation reserve. When a foreign operation is disposed of, in part or in full, the relevant amount in the foreign currency translation reserve is transferred to profit or loss.

The Company treats certain intra-group loan balances, which are not intended to be repaid in the foreseeable future, as part of its net investment. When a foreign entity is sold, such exchange differences are recognized in the income statement as a part of gain or loss on the sale.

The Company has no foreign operations in hyperinflationary economies. The Company does not hedge its net investments in foreign operations.

(C) 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 or 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 at 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 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 at 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 views derivative instruments as risk management tools and does not use them for trading or speculative purposes. The Company uses derivative instruments, primarily forward contracts, interest rate caps, and interest rate swaps to manage certain foreign currency, commodity price and interest rate exposures. Such derivative financial instruments are initially recognized at fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value, with gains or losses that do not qualify for hedge accounting taken directly to profit or loss. Such derivative financial instruments are carried as assets when the fair value is positive and as liabilities when the fair value is negative.

The fair value of commodity purchase contracts that meet the definition of a derivative under IAS 39 are recognized in the income statement in cost of sales. Commodity contracts that are entered into and continue to be held for the purpose of the receipt or delivery of a non-financial item in accordance with the Company's expected purchase, sale or usage requirements are held at fair value.

Any gains or losses arising from changes in the fair value of derivatives are taken directly to the income statement, except for the effective portion of cash flow hedges, which is recognized in other comprehensive income.

For the purpose of hedge accounting, all hedges are classified as:

- cash flow hedges when hedging exposure to variability in cash flows that is either attributable to a particular risk associated with a recognized asset or liability or a highly probable forecast transaction or the foreign currency risk in an unrecognized firm commitment; or
- fair value hedges when hedging the exposure to changes in the fair value of a recognized asset or liability or an unrecognized firm commitment (except for foreign currency risk).

At the inception of a cash flow hedge relationship, the Company formally designates and documents the hedge relationship to which the Company wishes to apply hedge accounting and the risk management objective and strategy for undertaking the hedge. The documentation includes the identification of the hedging instrument, the hedged item or transaction, the nature of the risk being hedged and how the Company will assess the hedge effectiveness in offsetting the exposure to changes in the hedged item's fair value or cash flows attributable to the hedged risk. Such hedges are expected to be highly effective in achieving offsetting changes in fair value or cash flows and are assessed on an ongoing basis to determine that they actually have been highly effective throughout the financial periods for which they were designated.

For cash flow hedges, the effective portion of the gain or loss on the hedging instrument is recognized directly in other comprehensive income, while any ineffective portion is recognized immediately in the income statement. Amounts taken to other comprehensive income are transferred to the income statement when the hedged transaction affects the income statement.

For fair value hedges, the change in value of the hedging derivative is recognized immediately in the income statement. The change in the fair value of the hedged item attributable to the risk hedged is recorded as part of the carrying value of the hedged item and is also recorded in the income statement.

The fair value of forward exchange contracts is calculated by reference to current forward exchange rates for contracts with similar maturity profiles. The fair value of interest rate swaps and caps is determined by reference to market values for similar instruments. The fair value of forward commodity contracts is calculated by reference to current forward prices on relevant commodity exchanges for commodity contracts with similar maturity profiles.

If the hedging instrument expires or is sold, terminated or exercised, then hedge accounting is discontinued prospectively. The cumulative gain or loss previously recognized in other comprehensive income remains there until the forecast transaction or firm commitment occurs. If the forecast transaction or firm commitment is no longer expected to occur, amounts previously recognized in other comprehensive income are transferred to the income statement.

The Company enters into certain derivatives that economically hedge monetary assets and liabilities that do not qualify for hedge accounting. Any gains or losses arising from changes in fair value of derivatives during the year that do not qualify for hedge accounting are taken directly to the income statement. They are categorized as financial assets or financial liabilities at fair value through profit or loss.

Derivative instruments that are not designated as effective hedging instruments are classified as current or non-current or separated into a current and non-current portion based on an assessment of the facts and circumstances (i.e., the underlying contracted cash flows):

- When the Company will hold a derivative as a fair value hedge (and does not apply hedge accounting) for a period beyond 12 months after the reporting date, the derivative is classified as non-current (or separated into current and non-current portions) consistent with the classification of the underlying item.
- Embedded derivatives that are not closely related to the host contract are classified consistent with the cash flows of the host contract.
- Derivative instruments that are designated as, and are effective hedging instruments, are classified consistently with the classification of the underlying hedged item. The derivative instrument is separated into a current portion and a non-current portion only if a reliable allocation can be made.

(D) PROPERTY, PLANT AND EQUIPMENT

(i) Recognition and measurement

Items of property, plant and equipment are measured at cost less accumulated depreciation and impairment losses.

Cost includes expenditures that are directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labor, any other costs directly attributable to bringing the asset to a working condition for its intended use, and the costs of dismantling and removing the items and restoring the site on which they are located.

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.

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

(ii) Subsequent costs

The cost of replacing part of an item of property, plant and equipment and the costs of major inspections are recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Company and its cost can be measured reliably. The costs of the day-to-day servicing of property, plant and equipment are recognized in profit or loss as incurred.

(iii) Depreciation

Depreciation is generally recognized in profit or loss on a straight-line basis over the estimated useful lives of each part of an item of property, plant and equipment. Land and construction in progress are not depreciated. Mining costs are depreciated on a units-of-production basis and are discussed below.

The estimated useful lives for the current period are as follows:

• mining costs	3-14 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 reassessed at the reporting date.

The depreciation of certain mining costs is linked to the 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.

An item of property, plant and equipment is derecognized upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the income statement in the year the asset is derecognized.

(E) BUSINESS COMBINATIONS AND GOODWILL

Goodwill may arise on the acquisition of subsidiaries, associates and joint ventures.

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date fair value and the amount of any non-controlling interest in the acquiree. For each business combination, the Company measures the non-controlling interest in the acquiree either at fair value or at the proportionate share of the acquiree's net identifiable assets.

Acquisition costs incurred are expensed and included in administrative expenses.

When the Company acquires a business, it assesses the financial assets and liabilities assumed for appropriate classification and designation in accordance with the contractual terms, economic circumstances and pertinent conditions as at the acquisition date.

If the business combination is achieved in stages, the acquisition date fair value of the acquirer's previously held equity interest in the acquiree is remeasured to fair value at the acquisition date through profit or loss. Any contingent consideration to be transferred by the acquirer will be recognized at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration which is deemed to be an asset or liability will be recognized in accordance with IAS 39 in profit or loss. If the contingent consideration is classified as equity, it should not be remeasured until it is finally settled within equity.

Goodwill is initially measured at cost being the excess of the aggregate of the consideration transferred and the amount recognized for non-controlling interest over the net identifiable assets acquired and liabilities assumed. If this consideration is lower than the fair value of the net assets of the subsidiary acquired, the difference is recognized in profit or loss.

After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination, from the acquisition date, is allocated to each of the Company's cash-generating units that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units. Where goodwill forms part of a cash-generating unit and part of the operation within that unit is disposed, the goodwill associated with the operation disposed of is included in the carrying amount of the operation when determining the gain or loss on disposal of the operation. Goodwill disposed of in this circumstance is measured based on the relative values of the operation disposed of and the portion of the cash-generating unit retained.

Subsequent measurement

Goodwill is measured at cost less accumulated impairment losses. In respect of equity accounted investees, the carrying amount of goodwill is included in the carrying amount of the investment.

If the Company completes a transaction that does not meet the definition of a business combination due to the acquiree not meeting the definition of a business, the Company:

- identifies and recognizes the individual identifiable assets acquired and liabilities assumed; and
- allocates the cost of the group of assets and liabilities to the individual identifiable assets and liabilities on the basis of their relative fair values at the date of purchase

Fair value of identifiable assets in a business combination is determined as follows:

(i) Property, plant and equipment

The fair value of property, plant and equipment recognized as a result of a business combination is based on market values. The market value of property is the estimated price that would be received to sell the assets in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions.

(ii) Intangible assets

The fair value of intangible assets acquired in a business combination is the price that would be received to sell the assets in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions.

(iii) Inventory

The fair value of work in process and finished goods inventory acquired in a business combination is determined based on its estimated selling price in the ordinary course of business less the estimated costs of completion and sale, and a reasonable profit margin based on the effort required to complete and sell the inventory.

(iv) Trade and other receivables

The fair value of trade and other receivables is estimated as the present value of future cash flows, discounted at the market rate of interest at the acquisition date. For short term trade and other receivables, discounting is not required.

(F) INTANGIBLE ASSETS

(i) Patents and technology

The Company has patents for certain manufacturing processes. Patents and technology are carried at cost less any amortization and impairment losses. The patents are being amortized over a life of 10 years.

(ii) Development costs

Expenditure on research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, is recognized in profit or loss when incurred.

Development costs are capitalized if and only if the Company can meet the following criteria:

- the intangible asset is clearly identified and the related costs are individualized and reliably monitored;
- the technical feasibility of completing the intangible asset so that it will be available for use or sale;

- there is a clear intention to complete the intangible asset and use or sell it;
- its ability to use or sell the intangible asset arising from the project;
- how the intangible asset will generate probable future economic benefits;
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset

Research and development costs which do not qualify as assets are shown within selling, general and administrative expenses in the consolidated income statement.

Following initial recognition of the development costs as an asset, the asset is carried at cost less accumulated amortization and accumulated impairment losses. Every cost recognized as an asset is amortized on the basis of the expected life of the sales related to the project. The amortization period is reviewed at least annually and amortization expense is recorded in cost of sales.

(iii) Customer Relationships

Customer relationships that are acquired by the Company are measured at cost less accumulated amortization and accumulated impairment losses. Amortization is recognized in profit or loss on a straight-line basis over the estimated useful lives of the relationships from the date that they are acquired. These intangible assets are amortized over useful lives of 5-20 years depending on expected future sales from the related customer.

(iv) Mining assets

Mining assets which are included in intangible assets include exploration, evaluation and development expenditures. See significant accounting policies section (i) for additional information on the accounting for mining assets.

(v) Other intangible assets

Other intangible assets that are acquired by the Company, which have finite useful lives, are measured at cost less accumulated amortization and accumulated impairment losses. Amortization is recognized in profit or loss on a straight-line basis over the estimated useful lives from the date that they are available for use. These intangible assets have useful lives of 3–5 years or rights of use that have lives of 5 years.

A summary of the policies applied to the Company's intangible assets is as follows:

	Patents and technology	Development costs	Customer relationships	Other intangible assets
Useful lives	Finite	Finite	Finite	Finite
Amortization method used	Amortized on a straight-line basis over the period of the patent or technology	Amortized on a straight-line basis over the period of expected future sales from the related project	Amortized on a straight-line basis over the period of expected future sales from the related customer	Amortized on a straight-line basis over the estimated useful lives of intangible assets, other than goodwill, from the date that they are available for use
Internally generated or acquired	Acquired	Internally generated	Acquired	Acquired/Internally generated

(G) LEASED ASSETS

Leases for which the Company assumes substantially all the risks and rewards of ownership are classified as finance leases. Upon initial recognition, the leased asset is measured at an amount equal to the lower of its fair value and the present value of the minimum lease payments. Subsequent to initial recognition, capitalized lease assets are depreciated over the shorter of the estimated useful life of the asset and the lease term if there is no reasonable certainty that the Company will obtain ownership by the end of the lease term.

Minimum lease payments made under finance leases are apportioned between finance expense and the reduction of the outstanding liability. The finance expense 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.

The Company also enters into operating leases under which the leased assets are not recognized in the Company's statement of financial position. Payments made under operating leases are recognized in profit or loss 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.

(H) 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.

Net realizable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and necessary selling expenses. The Company estimates the net realizable value of its inventories at least quarterly and adjusts the carrying amount of these inventories as necessary.

Cost of inventories includes the transfer from other comprehensive income of gains and losses on qualifying cash flow hedges in respect of purchases of raw materials and production costs, as applicable.

(I) 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.

(J) ASSETS HELD FOR SALE

The Company classifies assets held for sale if their carrying amounts will be recovered principally through a sale rather than through continuing use. Such assets held for sale are measured at the lower of their carrying amount and fair value less costs to sell. Costs to sell are the incremental costs directly attributable to the sale, excluding finance costs and income tax expense.

The criteria of held for sale classification is regarded as met only when the sale is highly probable and the asset or disposal group is available for immediate sale in its present condition. Actions required to complete the sale should indicate that it is unlikely that significant changes to the sale will be made or that the sale will be withdrawn. Management must be committed to the sale expected within one year from the date of the classification.

(K) IMPAIRMENT

(i) Financial assets

The Company assesses at each reporting date whether there is any objective evidence that a financial asset or a group of financial assets is impaired. Financial assets are assessed collectively in groups that share similar credit risk characteristics. A financial asset or a group of financial assets is deemed to be impaired if, and only if, there is objective evidence of impairment as a result of one or more events that has occurred after the initial recognition of the asset (an incurred "loss event") and that loss event has an impact on the estimated future cash flows of the financial asset or the group of financial assets that can be reliably estimated. Evidence of impairment may include indications that the debtors or a group of debtors is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganization and when observable data indicates that there is a measurable decrease in the estimated future cash flows.

For financial assets carried at amortized cost, the Company first assesses whether objective evidence of impairment exists individually for financial assets that are individually significant, or collectively for financial assets that are not individually significant. If management determines that no objective evidence of impairment exists for an individually assessed financial asset, whether significant or not, it includes the asset in a group of financial assets with similar credit risk characteristics and collectively assesses them for impairment. Assets that are individually assessed for impairment and for which an impairment loss is, or continues to be, recognized are not included in a collective assessment of impairment.

If there is objective evidence that an impairment loss has been incurred, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows (excluding future expected credit losses that have not yet been incurred). The present value of the estimated future cash flows is discounted at the financial asset's original effective interest rate. If a loan has a variable interest rate, the discount rate for measuring any impairment loss is the current effective interest rate.

The carrying amount of the asset is reduced through the use of an allowance account and the amount of the loss is recognized in the income statement. Loans together with the associated allowance are written-off when there is no realistic prospect of future recovery and all collateral has been realized or has been transferred to the Company. If, in a subsequent year, the amount of the estimated impairment loss increases or decreases because of an event occurring after the impairment was recognized, the previously recognized impairment loss is increased or reduced by adjusting the allowance account. If a future write-off is later recovered, the recovery is credited to the account in the income statement where the original impairment was recorded.

(ii) Non-financial assets

The Company assesses at each reporting date whether there is an indication that an asset may be impaired. If any indication exists, or when annual impairment testing for an asset is required, management estimates the asset's recoverable amount. An asset's recoverable amount is the higher of an asset's or cash-generating unit's ("CGU") fair value less costs of disposal and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. When the carrying amount of an asset or CGU exceeds its recoverable amount, the asset is considered impaired and is written-down to its recoverable amount. In assessing value in use, the estimated future cash flows are discounted to their present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. In determining fair value less costs of disposal, recent market transactions are taken into account, if available.

The Company bases its impairment calculation on detailed budgets and forecast calculations which are prepared separately for each of the Company's CGUs to which the individual assets are allocated. These budgets and forecast calculations generally cover a period of three years. For longer periods, a long term growth rate is calculated and applied to project future cash flows after the third year.

Impairment losses of continuing operations are recognized in the income statement in expense categories consistent with the function of the impaired asset.

For assets excluding goodwill, an assessment is made at each reporting date whether there is any indication that previously recognized impairment losses may no longer exist or may have decreased. If such indication exists, the Company estimates the asset's or CGU's recoverable amount. A previously recognized impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognized. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceeds the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior years. Such reversal is recognized in the income statement.

Goodwill is tested for impairment annually (as at December 31) and when circumstances indicate that the carrying value may be impaired. Impairment is determined for goodwill by assessing the recoverable amount of each CGU (or group of CGUs) to which the goodwill relates. When the recoverable amount of the CGU is less than its carrying amount, an impairment loss is recognized. Impairment losses relating to goodwill cannot be reversed in future periods.

(iii) Associates and joint ventures

The Company's investments in its associates and joint ventures are accounted for using the equity method, as noted further in note 3.a.(ii).

After application of the equity method, the Company determines whether it is necessary to recognize an additional impairment loss on the Company's investment in its associates and joint ventures. The Company determines at each reporting date whether there is any objective evidence that an investment in any associate or joint venture is impaired. If this is the case, the Company calculates the amount of impairment as being the difference between the higher of fair value less cost of disposal and value in use of the associate or joint venture and its carrying amount and recognizes the amount in the income statement.

Upon loss of significant influence over the associate or joint control over the joint venture, the Company measures and recognizes any retained investment at its fair value. Any difference between the carrying amount of the associate or joint venture upon loss of significant influence or joint control and the fair value of the retained investment and proceeds from disposal is recognized in profit or loss.

(L) EMPLOYEE BENEFITS

(i) Defined contribution plans

Certain subsidiaries provide defined contribution pension plans for their employees. Obligations for contributions to defined contribution pension plans are recognized as an expense in profit or loss in the period in which the obligation was incurred.

(ii) Defined benefit plans

The Company maintains defined benefit plans for its employees in the US, Germany, France, and the UK.

The cost of providing benefits under the defined benefit plan is determined using the projected unit credit method.

Remeasurements, comprising of actuarial gains and losses, the effect of the asset ceiling, excluding net interest and the return on plan assets excluding net interest, are recognized immediately in the statement of financial position with a corresponding debit or credit to retained earnings through OCI in the period in which they occur. Remeasurements are not reclassified to profit or loss in subsequent periods.

Past service costs are recognized in profit or loss on the earlier of:

- The date of the plan amendment or curtailment, and
- The date that the Company recognizes restructuring-related costs

Net interest is calculated 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 the contributions and benefit payments. The Company recognizes the following changes in the net defined benefit obligation under "cost of sales" and "selling, general, and administrative" expenses in consolidated income statement:

- Service costs comprising current service costs, past-service costs, gains and losses on curtailments and non-routine settlements
- Net interest expense or income

The Company also has supplemental executive retirement plans ("SERPs") with four current and former officers of the Company (see note 24). The liability for these plans is accounted for using the same methodology as other defined benefit plans, with more specific assumptions related to the people who are the beneficiaries of each SERP.

(iii) Short term benefits

Short term employee benefit obligations are measured on an undiscounted basis and are expensed as the related service is provided.

A liability is recognized for the amount expected to be paid under short term cash bonuses or profit-sharing plans if the Company has a present legal or constructive expectation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

(iv) Share-based payment transactions

AMG has share-based compensation plans, which are described in note 25.

Equity-settled plans

The cost of equity-settled transactions, related to these share-based compensation plans, is measured by reference to the fair value at the date on which they are granted. Estimating the fair value requires determining the most appropriate valuation model for a grant of equity instruments, which is dependent on the terms and conditions of the grant. This also requires determining the most appropriate inputs to the valuation model including the expected life of the award, volatility and dividend yield, and other assumptions. The assumptions and models used are described in note 25.

The cost of these equity-settled transactions is recognized, together with a corresponding increase in equity, over the period in which the service conditions are fulfilled using a graded vesting methodology, ending on the date on which the relevant employees (or other benefactors) become fully entitled to the award ("vesting date"). The cumulative expense recognized for equity-settled transactions at each reporting date until the vesting date reflects the extent to which the vesting period has expired and the Company's best estimate of the number of equity instruments that will ultimately vest. The income statement charge for the period represents the movement in cumulative expense recognized as at the beginning and end of the period.

No expense is recognized for awards that do not ultimately vest, except for equity-settled transactions where vesting is conditional upon a market or non-vesting condition, which are treated as vesting irrespective of whether or not the market or non-vesting condition is satisfied, provided that all other performance and/or service conditions are satisfied.

Where the terms of an equity-settled transaction award are modified, the minimum expense recognized is the expense as if the terms had not been modified, if the original terms of the award are met. An additional expense is recognized for any modification that increases the total fair value of the share-based payment transaction, or is otherwise beneficial to the employee as measured at the date of modification.

Where an equity-settled award is cancelled, it is treated as if it vested on the date of cancelation, and any expense not yet recognized for the award is recognized immediately. This includes any award where non-vesting conditions within the control of either the entity or the employee are not met. However, if a new award is substituted for the cancelled award, and designated as a replacement award on the date that it is granted, the cancelled and new awards are treated as if they were a modification of the original award, as described in the previous paragraph. All cancelations of equity-settled transaction awards are treated equally.

The dilutive effect of outstanding options is reflected as additional share dilution in the computation of earnings per share, when appropriate (further details are provided in note 20).

(M) 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, where appropriate, the risks specific to the liability. Where discounting is used, the change in the provision due to the passage of time is recognized as a finance cost.

(i) Environmental remediation costs and recoveries

Certain subsidiaries of the Company are faced with a number of issues relating to environmental cleanup 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 costs. 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.

(N) REVENUE

(i) Goods sold

Revenue from the sale of goods is measured at the fair value of the consideration received or receivable. Revenue from product sales to the Company's customers is recognized when the significant risks and rewards of ownership have been transferred to the buyer, recovery of the consideration is probable, the associated costs and possible return of goods can be estimated reliably, and there is no continuing management involvement with the goods.

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 not pass until the product reaches a foreign port.

(ii) Furnace construction contracts

Certain furnace construction contracts are reported using the percentage of completion ("POC") method. Cumulative work and services performed to date, including the Company's share of profit, is reported on a pro rata basis according to the percentage completed. The percentage of completion is measured as the ratio of contract costs incurred for work performed so far to total contract costs (cost-to-cost method). Contracts are reported in trade receivables and advance payments, as "gross amount due to / from customers for/from contract work (POC)". If cumulative work performed to date (contract costs plus contract net profit) of contracts in progress exceeds progress payments received, the difference is recognized as an asset and included in trade and other receivables in the consolidated statement of financial position. If the net amount after deduction of progress payments received is negative, the difference is recognized as a liability and included in advance payments in the consolidated statement of financial position. Anticipated losses on specific contracts are estimated taking account of all identifiable risks and are recognized immediately in profit or loss. Contract income is recognized according to the income stipulated in the contract and/or any change orders confirmed in writing by the client.

(iii) Commissions

In certain instances, the Company arranges sales for which the supplier invoices the customer directly. In such cases, the Company receives commission income, in its role as agent, which is recognized when the supplier passes title to the customer. The Company assumes no significant credit or other risk with such transactions. When the Company acts in the capacity of an agent rather than as the principal in a transaction, the revenue recognized is the net amount of commission made by the Company.

(O) FINANCE INCOME AND EXPENSES

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 expenses 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.

(P) GOVERNMENT GRANTS

Certain subsidiaries receive government grants related to early retirement provisions and workforce creation. Government grants are recognized when there is reasonable assurance that the grant will be received and all attached conditions will be complied with. There are two types of grants. For grants that relate to expense items, they are recognized as income over the period necessary to match the grant on a systematic basis to the costs for which they are intended to compensate. For grants that relate to investment in property, they are recognized as a liability and the liability is then reduced as money is spent on capital expansion.

(Q) INCOME TAX EXPENSE

Income tax expense comprises current and deferred tax. Income tax expense is recognized in profit or loss except to the extent that it relates to items recognized through other comprehensive income, in which case it is recognized in equity.

Current income tax assets and liabilities for the current and prior periods are measured at the amount expected to be recovered from or paid to the taxation authorities. These amounts are calculated using tax rates enacted or substantively enacted at the reporting date, in the countries where the Company generates taxable income. Current income tax relating to items recognized through other comprehensive income is recognized in equity and not in the income statement.

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. 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.

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.

(R) SEGMENT REPORTING

IFRS 8 defines an operating segment as: a component of an entity (a) that engages in business activities from which it may earn revenues and incur expenses (including revenues and expenses relating to transactions with other components of the same entity), (b) whose operating results are regularly reviewed by the entity's chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance, and (c) for which discrete financial information is available.

(S) 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, 2016.

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

Annual Improvements 2012–2014 Cycle

The IASB issued the 2012-2014 cycle improvements to its standards and interpretations, primarily with a view to removing inconsistencies and clarifying wording. These improvements cover the following standards and subjects.

IFRS 5 *Non-Current Assets Held for Sale and Discontinued Operations – Changes in methods of disposal*: Assets (or disposal groups) are generally disposed of either through sale or distribution to owners. This improvement is applied prospectively and clarifies that changing from one of these disposal methods to the other would not be considered a new plan of disposal, rather it is a continuation of the original plan. There is, therefore, no interruption of the application of the requirements in IFRS 5. This amendment must be applied prospectively.

IFRS 7 *Financial Instruments*: These improvements are applied retrospectively and clarify that:

- Disclosures – Servicing contracts: A servicing contract that includes a fee can constitute continuing involvement in a financial asset. An entity must assess the nature of the fee and the arrangement against the guidance for continuing involvement in IFRS 7 to assess whether the disclosures are required. The assessment of which servicing contracts constitute continuing involvement must be done retrospectively. However, the required disclosures would not need to be provided for any period beginning before the financial year in which the entity first applies the amendments.
- Disclosures – Applicability of the amendments to IFRS 7 to condensed interim financial statements: The offsetting disclosure requirements do not apply to condensed interim financial statements, unless such disclosures provide a significant update to the information reported in the most recent annual report. This amendment must be applied retrospectively.

IAS 19 *Employee Benefits Regional Market Issue*: This improvement is applied prospectively and clarifies that market depth of high quality corporate bonds is assessed based on the currency in which the obligation is denominated, rather than the country where the obligation is located. When there is no deep market for high quality corporate bonds in that currency, government bond rates must be used. This amendment must be applied prospectively.

IAS 34 *Interim Financial Reporting – Disclosure of information "elsewhere in the interim financial report"*: This improvement is applied retrospectively and clarifies that the required interim disclosures must either be in the interim financial statements or incorporated by cross-reference between the interim financial statements and wherever they are included within the interim financial report (e.g., in the management commentary or risk report). The other information within the interim financial report must be available to users on the same terms as the interim financial statements and at the same time. This amendment must be applied retrospectively.

These improvements did not have a material impact on the Company's financial position and performance. The improvements are effective for financial years beginning on or after January 1, 2016.

Amendments to IAS 1 *Presentation of Financial Statements – Disclosure Initiative*

The amendments to IAS 1 clarify, rather than significantly change, existing IAS 1 requirements. The amendments clarify:

- The materiality requirements in IAS 1
- That specific line items in the statement(s) of profit or loss and OCI and the statement of financial position may be disaggregated
- That entities have flexibility as to the order in which they present the notes to financial statements
- That the share of OCI of associates and joint ventures accounted for using the equity method must be presented in aggregate as a single line item, and classified between those items that will or will not be subsequently reclassified to profit or loss

Furthermore, the amendments clarify the requirements that apply when additional subtotals are presented in the statements of financial position and the statements of profit or loss and other comprehensive income. These amendments are effective for financial years beginning on or after January 1, 2016.

These policies have been consistently applied to all the years presented, except for the following change in the presentation of the income statement: the Company decided to modify its income statement presentation in order to take into consideration the ESMA's latest recommendations. This new presentation resulted in a reclassification of the asset impairment expense and restructuring expense into expenses by function. Accordingly, the comparative figures of the 2016 consolidated financial statements have been restated to comply with IAS1 requirements.

Amendments to IAS 16 *Property, Plant and Equipment and IAS 38 Intangible Assets – Clarification of Acceptable Methods of Depreciation and Amortization*

The amendments are applied prospectively and clarify the principle in IAS 16 and IAS 38 that revenue reflects a pattern of economic benefits that are generated from operating a business (of which the asset is part) rather than the economic benefits that are consumed through use of the asset. As a result, revenue-based methods cannot be used to depreciate property, plant and equipment and may only be used in very limited circumstances to amortize intangible assets. The amendments did not have an impact on the Company's financial position and performance. The amendments are effective for financial years beginning on or after January 1, 2016.

(T) STANDARDS ISSUED BUT NOT YET EFFECTIVE

A number of new standards and amendments to standards are effective for annual periods beginning after January 1, 2016 and earlier application is permitted; however, the Company has not early adopted the following new or amended standards in preparing these consolidated financial statements.

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. The amendments are effective for financial years beginning on or after January 1, 2017. Early application is permitted.

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. Early adoption is permitted.

IFRS 9 *Financial Instruments*

The final version of IFRS 9 Financial Instruments replaces IAS 39 Financial Instruments: Recognition and Measurement and all previous versions of IFRS 9. IFRS 9 brings together all three aspects of the accounting for financial instruments project: classification and measurement, impairment and hedge accounting. IFRS 9 is effective for financial years beginning on or after January 1, 2018, with early application permitted. Except for hedge accounting, retrospective application is required but providing comparative information is not compulsory. For hedge accounting, the requirements are generally applied prospectively, with some limited exceptions. 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 2017.

IFRS 15 *Revenue from Contracts with Customers*

IFRS 15 establishes a five-step model to account for revenue arising from contracts with customers. Under IFRS 15, revenue is recognized at an amount that reflects the consideration to which an entity expects to be entitled in exchange for transferring goods or services to a customer.

The new revenue standard will supersede all current revenue recognition requirements under IFRS. Either a full retrospective application or a modified retrospective application is required for financial years beginning on or after January 1, 2018. Early adoption is permitted. The Company has engaged in a full analysis of this standard across all segments and expects to have this completed in 2017. 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 2017.

IFRS 16 *Leases*

IFRS 16 requires lessees to account for all leases under a single on-balance sheet model (subject to certain exemptions) 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 (e.g., lease term, variable rents based on an index or rate, discount rate) by the lessee is required upon certain events. Lessor accounting is substantially the same as today's lessor accounting, using IAS 17's dual classification approach. 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. Early application is permitted, but not before an entity applies IFRS 15 'Revenue from Contract with Customers'. Entities that are lessees are allowed to choose either a full retrospective or a modified retrospective transition approach. The Company has engaged in a full analysis of this standard across all segments and expects to have this completed in 2017. The Company plans to adopt the new standard on the required effective date. The new standard is expected to have an impact related to operational leases. See note 33 for additional details of operational leases as of December 31, 2016.

Other Amendments

The following new or amended standards have also been considered:

- Classification and Measurement of Share-based Payment Transactions (Amendments to IFRS 2).
- Sales or Contribution of Assets between an Investor and its Associate or Joint Venture (Amendments to IFRS 10 and IAS 28).

The Company has engaged in a full analysis of these standards across all segments and expects to have this completed in 2017. 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 2017.

4. SEGMENT REPORTING

For management purposes, the Company is organized under two reportable segments: AMG Critical Materials and AMG Engineering. AMG Critical Materials develops and produces specialty metals, alloys and chemicals, as well as high performance materials and has major production facilities in the UK, the US, Germany, France, Czech Republic, China, and Brazil. AMG Engineering provides specialty engineering services through its development and manufacturing of vacuum furnace systems and has production facilities that are located in Germany, France, Singapore, Mexico, India, China and the US.

The management reporting format is determined by segments as the operating results for each operating segment are organized and managed separately according to the nature of the products and services provided. Each operating segment offers different products and serves different markets.

AMG Critical Materials develops and produces specialty metals, alloys 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 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 Corporate headquarters costs and assets are allocated seventy percent to AMG Critical Materials and thirty percent to AMG Engineering in 2016 and 2015 based on an estimation of services provided to the operating segments.

Management monitors the operating results of its operating 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 costs and finance income) and assets are managed on a group basis and are allocated to operating segments. Transfer prices between reportable segments are on an arm's length basis in a manner similar to transactions with third parties.

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

Year ended December 31, 2015	AMG Critical Materials	AMG Engineering	Eliminations[a]	Total
Revenue				
Revenue from external customers	757,492	219,651	—	977,143
Intersegment revenue	22	2,497	(2,519)	—
Total revenue	757,514	222,148	(2,519)	977,143
Segment results				
Depreciation and amortization	22,936	6,654	—	29,590
Restructuring	1,614	1,489	—	3,103
Environmental	(757)	—	—	(757)
Operating profit	31,630	4,533	—	36,163
Statement of financial position				
Segment assets	546,286	160,166	—	706,452
Investments in associates and joint ventures	—	2,230	—	2,230
Other investments	14,000	—	—	14,000
Total assets	560,286	162,396	—	722,682
Segment liabilities	221,376	168,789	—	390,165
Employee benefits	83,271	54,582	—	137,853
Provisions	32,924	8,173	—	41,097
Total liabilities	337,571	231,544	—	569,115
Other information				
Capital expenditures for expansion – tangible assets	8,375	1,830	—	10,205
Capital expenditures for maintenance – tangible assets	10,481	748	—	11,229
Capital expenditures – intangible assets	1,603	227	—	1,830

(a) Eliminations column includes intersegment trade eliminations.

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, 2016		Year ended December 31, 2015	
	Revenues	Non-current assets	Revenues	Non-current assets
United States	288,100	63,984	302,708	60,457
Germany	202,508	102,426	200,307	103,566
China	72,869	1,884	53,933	1,049
France	50,562	17,383	43,506	18,178
Japan	47,562	18	25,938	16
United Kingdom	41,154	14,943	44,378	15,784
Brazil	29,834	53,984	33,508	45,347
Austria	28,784	—	25,355	—
South Korea	25,529	—	23,225	—
Italy	23,640	—	28,763	—
Mexico	18,207	6,903	25,308	9,087
India	14,268	466	8,520	1,569
Belgium	12,355	3	13,432	2
Canada	10,373	—	11,706	—
Spain	8,447	—	10,050	—
Sweden	8,240	—	9,443	—
Turkey	7,376	—	11,887	—
Taiwan	6,887	—	14,176	—
Czech Republic	5,660	1,667	3,869	1,297
Russia	5,422	20	9,067	11
Poland	4,933	—	5,825	—
Netherlands	4,406	—	6,592	—
Kaszakhstan	2,511	—	3,935	—
Thailand	2,217	—	2,524	—
Singapore	2,032	—	3,770	—
Other	47,272	12,839	55,418	8,275
Total	971,148	276,520	977,143	264,638

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

5. ACQUISITIONS AND DISPOSALS

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. The Company recorded a gain on the sale of $316 which is included in other income, net in the consolidated income statement. The assets and liabilities of Intellifast were classified as held for sale as of December 31, 2015. The total assets and total liabilities classified as held for sale as of December 31, 2015 are $673 and $423, respectively. These assets and liabilities were reported within the AMG Engineering segment.

ALD INDUSTRIE-UND MONTAGEPARK STAAKEN GMBH

In August 2016, the Company sold its 100% ownership interest in ALD Industrie-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. 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. 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. This is expected to be 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.

SALE OF INTEREST IN AMG GRAPHIT KROPFMÜHL GMBH

During the year ended December 31, 2015, the Company completed the sale of a 40% equity interest in AMG Graphit Kropfmühl GmbH ("AMG Graphite") by way of a capital increase. The sale price for the minority interest stake was $38,000 and there were related transaction costs of $470. There was no gain or loss recorded in the income statement as a result of this transaction as the Company records these transactions through equity. As a result of the transaction, retained earnings increased by $13,332 and non-controlling interest increased by $24,485. There were also minor impacts to other reserves. The financial results of AMG Graphite continue to be consolidated in the financial statements.

SALE OF SUDA MADEN

During the year ended December 31, 2015, the company disposed of its mining assets in Turkey. The loss taken on the disposal of these assets was $2,602 including additional costs incurred to bring the assets to the necessary condition to sell. This is recognized in restructuring expense in the consolidated income statement for the year ended December 31, 2015.

SALE OF MG INDIA

During the year ended December 31, 2015, the company sold its 100% ownership in MG Trade Services (India) Pvt. Ltd (MG India). MG India is a metals trading company operating in New Delhi.

ACQUISITION OF DYNATECH FURNACES PRIVATE LTD.

In 2010, ALD GmbH entered into a share purchase contract to make an investment of $419 to purchase 30% ownership in Dynatech Furnaces Private Ltd. ("Dynatech") from its previous ownership. The Company acquired an additional 40% interest in Dynatech in 2012 for $299. Effective August 20, 2012, Dynatech's results of operations were consolidated into AMG's financial statements. In the year ended December 31, 2015, the Company received the additional 30% ownership in Dynatech under this agreement. The effect of the receipt of this ownership in 2015 was a $648 impact to minority interest. The Company continues to consolidate the results of Dynatech in the financial statements.

MACHINERY AND EQUIPMENT

In 2015, the Company sold a boring machine in Germany that had previously been reclassified to assets held for sale. The equipment had previously been used in the furnace production process. The asset was carried at fair value less cost of disposal of $629.

SALE OF ASSOCIATE – BOSTLAN S.A.

During the year ended December 31, 2014, the Company sold its 25% ownership in Bostlan S.A. for $740 which was recorded as the sale of an associate. The asset value of the investment had been previously impaired. Prior to the sale, the asset value was adjusted to a net realizable value of $689 through the share of loss of associates and joint ventures line on the consolidated income statement. This value represents the selling price of $740 net of selling costs of $51. The Company received payments for the purchase of this asset in installments. Upon signing the contract a payment in the amount of $206 was received and additional payments in the amount of $148 and $192 were received in December 2014 and June 2015, respectively. Final payment was received in the first half of 2016.

ASSETS HELD FOR SALE

As of December 31, 2016, the company identified $149 of machinery and equipment held for sale. These assets are reported within the AMG Engineering segment.

6. REVENUE

	2016	2015
Sales of goods	971,148	977,138
Rendering of services (commissions)	—	5
Total	971,148	977,143

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

	2016	2015
Contract revenue recognized	210,584	149,232
Contract expenses recognized	177,435	129,222
Recognized profits	33,149	20,010
Contract costs incurred and recognized profits	215,795	216,815
Progress billings and advances received	215,460	225,697
Net amount due from (to) customers	335	(8,882)
Gross amount due from customers for contract work (note 15)	29,739	35,302
Gross amount due to customers for contract work (shown as advance payments in consolidated statement of financial position)	(29,404)	(44,184)
Net amount due from (to) customers	335	(8,882)

7. OTHER INCOME AND EXPENSE

	Note	2016	2015
Gain on sale of subsidiary	i	4,586	375
Income from sale of asset	ii	656	10
Sale of scrap	iii	398	68
Grant income	iv	69	69
Insurance proceeds	v	44	178
Other miscellaneous income	vi	250	233
Other income		6,003	933
Other expense		(320)	(53)
Environmental expenses		(1,873)	757
Other income, net		3,810	1,637

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

In 2015, other income of $933 consisted of: (i) gain on sale of subsidiary $375; (ii) income from sale of asset $10; (iii) income from sale of scrap $68; (iv) government grant income of $69 associated with AMG Mining AG; (v) insurance proceeds of $178 related to a machine breakdown and business interruption insurance claim; and (vi) other miscellaneous income of $233.

8. PERSONNEL EXPENSES

	Note	2016	2015
Wages and salaries		152,323	143,563
Contributions to defined contribution plans	24	4,176	3,896
Expenses related to defined benefit plans	24	7,192	8,392
Social security and other benefits		31,654	29,630
Performance share units	25	10,417	6,284
Stock options	25	495	486
Restricted stock awards	25	207	—
Total		206,464	192,251
Included in the following lines of the consolidated income statement:			
Cost of sales		127,746	120,486
Selling, general and administrative expenses		78,718	71,765
Total		206,464	192,251

9. FINANCE INCOME AND EXPENSE

	2016	2015
Interest income on bank deposits	390	370
Interest income on tax refunds	179	147
Interest income on escrow deposits	130	690
Other	568	121
Finance income	1,267	1,328
Interest expense on loans and borrowings	3,903	2,248
Interest expense on interest rate derivatives	948	4,722
Amortization of loan issuance costs	4,573	3,912
Discount (reversal) on long term assets, provisions and retirement obligations	1,623	(2,091)
Guarantees	1,295	1,227
Commitment/unutilized fees	984	710
Accounts receivable factoring	322	294
Other	19	245
Finance expense	13,667	11,267
Foreign exchange gain	(395)	(1,712)
Net finance costs	12,005	8,227

See note 22 for additional information on loans and borrowings as well as related fees. See note 35 for additional information on bank charges for guarantees.

10. INCOME TAX

Significant components of income tax expense for the years ended:

CONSOLIDATED INCOME STATEMENT

	2016	2015
Current tax expense		
Current period	10,978	9,673
Adjustment for prior periods	—	477
Total current taxation charges for the year	10,978	10,150
Deferred tax expense		
Origination and reversal of temporary differences	6,307	5,823
Changes in previously unrecognized tax losses, tax credits and unrecognized temporary differences	(4,231)	(2,344)
Changes in previously recognized tax losses, tax credits and recognized temporary differences for changes in enacted tax rates and currency effects	(5,133)	4,606
Derecognition of previously recognized tax losses, tax credits and temporary differences	769	190
Adjustment for prior period	(594)	226
Total deferred taxation for the year	(2,882)	8,501
Total income tax expense reported in consolidated income statement	8,096	18,651
Consolidated statement of comprehensive income		
Deferred tax related to items recognized in OCI in the year:		
(Gain) loss on cash flow hedges	(3,912)	880
Actuarial losses on defined benefit plans	14,026	923
Income tax benefit charged to OCI	10,114	1,803

RECONCILIATION OF EFFECTIVE TAX RATE

A reconciliation of income tax expense applicable to accounting profit before income tax at the weighted average statutory income tax rate of 33.43% (2015: 35.19%) to the Company's effective income tax rate for the years ended is as follows:

	2016	2015
Profit before income tax from continuing operations	49,667	28,568
Income tax using the Company's weighted average tax rate	16,603	10,053
Non-deductible expenses	3,902	1,338
Tax exempt income	(2,877)	(1,266)
Current year losses for which no deferred tax asset was recognized and changes in unrecognized temporary differences	8,253	6,728
Recognition of previously unrecognized tax losses, tax credits and temporary differences of a prior year	(11,252)	(3,146)
Derecognition of previously recognized tax losses, tax credits and temporary differences	770	(1,583)
Changes in previously recognized tax losses, tax credits and recognized temporary differences for changes in enacted tax rates	(350)	(55)
Changes in previously recognized tax losses, tax credits and recognized temporary differences for changes in currency effects	(4,782)	5,723
(Over) under provided in prior periods	(531)	426
State and local taxes	716	1,125
Other	(2,356)	(692)
Income tax expense reported in consolidated income statement	8,096	18,651

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, 2016 and 2015, the income tax benefits related to the current year losses of certain US, Dutch, French, Belgian, and Brazilian entities were not recognized. In total, $8,253 and $6,728 were not recognized in 2016 and 2015, respectively, as it is not probable that these amounts will be realized.

During the years ended December 31, 2016 and 2015, 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, $11,252 and $3,146 were recognized in 2016 and 2015, respectively, through an increase to the net deferred tax asset. Of the total benefit recognized, $8,898 (2015: $1,453) 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 carryforward period of the tax losses. After assessing these factors, the Company determined that it is probable that the deferred tax benefit of the tax losses and temporary differences will be realized in the foreseeable future.

As it is no longer probable that the benefits of certain net operating losses and temporary differences would be realized due to decreased profitability, $770 (2015: ($1,583)) of previously recognized net operating losses and temporary differences of certain US and Brazil entities were derecognized in 2016.

Also during the years ended December 31, 2016 and 2015, the net recognized deferred tax assets (liabilities) were adjusted for changes in the enacted tax rates in the UK and the US. The impact of the tax rate changes was a decrease to income tax expense of $350 (2015: $55). 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 a decrease to income tax expense of $4,782 (2015: $5,723).

During the year 2016, an income tax benefit of $2,356 was recorded to other. The majority of this benefit related to tax credits received in France for prior years.

There were no income tax consequences attached to the payment of dividends in either 2016 or 2015 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 carryforwards.

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 carryforwards, 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 items:

	Consolidated statement of financial position				Consolidated income statement	
	Assets		Liabilities			
	2016	2015	**2016**	2015	**2016**	2015
Inventories	761	674	185	280	423	(42)
Percentage of Completion Contracts	—	—	9,693	8,811	1,278	794
Prepaids and other current assets	2	17	—	—	15	(8)
Property, plant and equipment	628	613	13,182	14,143	1,887	2,071
Deferred charges and non-current assets	5,191	3,943	4,194	8,191	(3,405)	(776)
Deferred revenue	3,215	6,932	—	—	3,717	(6,932)
Accruals and reserves	4,189	7,291	126	670	(2,916)	(459)
Environmental liabilities	8,438	632	234	243	(1,110)	381
Retirement benefits	27,117	14,951	—	—	3,287	572
Tax loss and tax credit carryforwards	10,923	17,145	—	—	(6,058)	12,900
Tax assets and liabilities	60,464	52,198	27,614	32,338		
Set off of tax	(19,179)	(20,647)	(19,179)	(20,647)		
Net tax assets and liabilities	41,285	31,551	8,435	11,691		
Deferred tax (benefit) expense					(2,882)	8,501

During the year ended December 31, 2016, the Company recorded an increase to deferred tax assets of $153 and deferred tax liabilities of $18 due to acquisitions.

During the year ended December 31, 2016, the Company recorded income tax (expense) benefit of ($3,912) (2015: $880) related to cash flow hedges and $14,026 (2015: $923) 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 continues to not recognize a portion of tax loss carryforwards; (2) another German entity did not recognize the specific deferred tax asset recorded for the impact of assets impaired for book purposes; (3) a US entity was fully unrecognized for US Federal and state tax purposes with the exception of a portion of their tax loss carryforwards and certain temporary differences in the amount of $19,638; (4) Certain Dutch holding companies and operating companies in the UK, China, India, Belgium and Mexico do not recognize benefits for their loss carryforward 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 carryforwards 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	
	2016	2015
Inventories	—	635
Property, plant and equipment	949	—
Accruals and provisions	—	2,549
Deferred charges and non-current assets	9,369	18,119
Environmental liabilities	—	6,718
Retirement benefits	6,651	23,659
Tax loss and tax credit carryforwards	48,769	39,042
Net tax assets – unrecognized	65,738	90,722

At December 31, 2016, net operating loss and tax credit carryforwards for which no deferred tax assets have been recognized in the balance sheet, expire as follows:

2017	7,282
2018	6,405
2019	7,532
2020	8,855
2021	7,437
2022-2025	65,372
Later	44,049
Unlimited	32,319
Total	179,251

11. PROPERTY, PLANT AND EQUIPMENT

	Mining Costs	Land, buildings and improvements	Machinery and equipment	Furniture and fixtures	Construction in progress	Finance leases	Total
Balance at January 1, 2015	33,688	140,122	358,538	20,720	14,543	2,977	570,588
Additions	45	1,652	5,670	2,046	12,931	—	22,344
Retirements and transfers	(11,547)	1,157	(1,660)	(1,476)	(19,974)	—	(33,500)
Effect of movements in exchange rates	(1,782)	(8,098)	(17,767)	(1,562)	(598)	(144)	(29,951)
Balance at December 31, 2015	20,404	134,833	344,781	19,728	6,902	2,833	529,481
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
DEPRECIATION							
Balance at January 1, 2015	(21,861)	(52,035)	(237,952)	(13,096)	(7,283)	(943)	(333,170)
Depreciation for the year	(1,558)	(3,858)	(20,541)	(1,709)	—	(330)	(27,996)
Retirements and transfers	11,841	577	10,722	1,201	7,140	—	31,481
Effect of movements in exchange rates	1,420	3,022	10,624	905	—	66	16,037
Balance at December 31, 2015	(10,158)	(52,294)	(237,147)	(12,699)	(143)	(1,207)	(313,648)
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)
Carrying amounts							
At January 1, 2015	11,827	88,087	120,586	7,624	7,260	2,034	237,418
At December 31, 2015	10,246	82,539	107,634	7,029	6,759	1,626	215,833
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

MINING COSTS

Mining costs include assets related to the Company's tantalum and graphite mines. During the years ended December 31, 2016 and 2015, $1,772 and $1,558 of these costs have been depreciated, respectively.

PROPERTY, PLANT AND EQUIPMENT UNDER CONSTRUCTION

During the years ended December 31, 2016 and 2015, the subsidiaries of the Company embarked on several different expansion projects as well as certain required maintenance projects. Costs incurred up to December 31, 2016, which are included in construction in progress, totaled $19,413 (2015: $6,759).

BORROWING COSTS

The Company did not capitalize any borrowing costs during 2016 or 2015.

PROPERTY, PLANT AND EQUIPMENT INCLUDED IN PAYABLES

At December 31, 2016, the Company had $3,512 (2015: $2,269) of property, plant and equipment included in payables. This amount is included in additions in the previous table.

FINANCE LEASES

At December 31, 2016, the Company had $1,268 (2015: $1,626) 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, 2016 was $28,695 (2015: $27,996). Depreciation expense is recorded in the following line items in the consolidated income statement:

	2016	2015
Cost of sales	26,966	26,191
Selling, general and administrative expenses	1,729	1,805
Total	28,695	27,996

SALE OF PROPERTY, PLANT AND EQUIPMENT

Certain land and equipment was sold in the years ended December 31, 2016 and 2015. In those years, the Company received proceeds of $1,546 and $709, respectively. In 2016, the proceeds were less than the book value of the assets and a loss of $85 was recognized during the year. In 2015, the proceeds were less than the book value of the assets and a loss of $2 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, 2016 the Company recorded $1,144 of asset impairments related to property, plant and equipment. This was due to restructuring which occurred during the period at a subsidiary in France. See note 26 for additional information on these restructuring expenses.

SECURITY

At December 31, 2016 properties with a carrying amount of $119,472 (2015: $155,681) 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 intangible assets
Balance at January 1, 2015	30,688	15,024	4,789	8,897	24,817	53,527
Additions	—	—	660	410	760	1,830
Disposals, reversals and transfers	—	(4,110)	(783)	(3,639)	(282)	(8,814)
Effect of movements in exchange rates	(2,858)	(1,323)	(361)	(485)	(2,326)	(4,495)
Balance at December 31, 2015	27,830	9,591	4,305	5,183	22,969	42,048
Balance at January 1, 2016	27,830	9,591	4,305	5,183	22,969	42,048
Additions	4,527	267	481	652	1,190	2,590
Disposals, reversals and transfers	—	—	—	—	95	95
Effect of movements in exchange rates	(746)	(265)	(124)	(1,135)	(727)	(2,251)
Balance at December 31, 2016	31,611	9,593	4,662	4,700	23,527	42,482
AMORTIZATION AND IMPAIRMENT						
Balance at January 1, 2015	(10,070)	(12,706)	(3,405)	(5,482)	(20,818)	(42,411)
Amortization	—	(555)	(52)	—	(987)	(1,594)
Disposals, reversals and transfers	—	4,110	783	3,639	278	8,810
Effect of movements in exchange rates	916	1,137	214	9	2,033	3,393
Balance at December 31, 2015	(9,154)	(8,014)	(2,460)	(1,834)	(19,494)	(31,802)
Balance at January 1, 2016	(9,154)	(8,014)	(2,460)	(1,834)	(19,494)	(31,802)
Amortization	—	(203)	(72)	—	(871)	(1,146)
Effect of movements in exchange rates	272	201	40	63	648	952
Balance at December 31, 2016	(8,882)	(8,016)	(2,492)	(1,771)	(19,717)	(31,996)
Carrying amounts						
At January 1, 2015	20,618	2,318	1,384	3,415	3,999	11,116
At December 31, 2015	18,676	1,577	1,845	3,349	3,475	10,246
At January 1, 2016	18,676	1,577	1,845	3,349	3,475	10,246
At December 31, 2016	22,729	1,577	2,170	2,929	3,810	10,486

Intangible assets are comprised of customer relationships, capitalized development costs, mining assets and other intangible assets. For goodwill, there is no amortization recorded and instead impairment tests are performed. The Company performs goodwill impairment tests annually in accordance with IAS 36. The Company transferred no assets from intangible assets to assets held for sale during the year ended December 31, 2016. The Company transferred $4 from intangible assets to assets held for sale during the year ended December 31, 2015. See note 5 for additional information.

The other intangibles amount represents certain licenses and registrations, including software licenses and REACH environmental registrations, as well as patents for certain manufacturing processes.

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 $3,816 and $3,930 in the years ended December 31, 2016 and 2015, respectively.

AMORTIZATION OF INTANGIBLE ASSETS

Amortization expense for the year ended December 31, 2016 was $1,146 (2015: $1,594). Amortization expense is recorded in the following line items in the consolidated income statement:

	2016	2015
Cost of sales	232	159
Selling, general and administrative expenses	914	1,435
Total	1,146	1,594

IMPAIRMENT TESTING FOR INTANGIBLE ASSETS

There were no intangible asset impairments during the years ended December 31, 2016 and 2015.

IMPAIRMENT TESTING FOR CASH-GENERATING UNITS CONTAINING GOODWILL

For the purpose of impairment testing, goodwill and indefinite-lived intangible assets are allocated to the Company's operating divisions that represent the lowest level within the Company at which the goodwill is monitored for internal management purposes. AMG Antimony and AMG Superalloys UK are included in the Critical Materials segment and ALD is included in the Engineering segment.

The aggregate carrying amounts of goodwill allocated to each unit are as follows:

	2016	2015
AMG Antimony cash-generating unit	8,335	8,628
AMG Superalloys UK cash-generating unit	1,510	1,510
ALD cash-generating unit	12,884	8,538
Goodwill at cash-generating units	22,729	18,676

KEY ASSUMPTIONS

The calculations of value in use are most sensitive to the following assumptions:

- Global metals pricing
- Discount rate
- Growth rate used to extrapolate cash flows beyond the business plan period
- Projection of cash flows from operations

Global metals pricing – Estimates are obtained from published indices. The estimates are evaluated and are generally used as a guideline for future pricing.

Discount rates – 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.

Growth rate assumptions – Rates are based on management's interpretation of published industry research. As most businesses follow economic trends, an inflationary factor of 1% was utilized.

It is possible that the key assumptions related to metals pricing that were used in the business plan will differ from actual results. However, management does not believe that any possible change in pricing 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 2016 and 2015, 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 13.12% and 14.33% were applied in determining the recoverable amount of the unit for the years ended December 31, 2016 and 2015, 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 12.04% and 12.54% were applied in determining the recoverable amount of the unit for the years ended December 31, 2016 and 2015, 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 14.29% and 14.75% were applied in determining the recoverable amount of the unit for the years ended December 31, 2016 and 2015, 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.

13. ASSOCIATES AND JOINT VENTURES AND OTHER INVESTMENTS

The Company's share of gain, net of tax, in associates and joint ventures for 2016 was $1,804 (2015: $632).

Summary financial information for associates and joint ventures, adjusted for the percentage ownership held by the Company:

2016	Country	Ownership	Total assets	Total liabilities	Net equity	Revenues	Expense	Recognized profit	Carrying amount
Silmag DA	Norway	50%	312	343	(31)	—	—	—	—
Total								—	—
2015									
ALD Holcroft Vacuum Technologies Co.	US	50%	9,185	6,955	2,230	11,215	10,583	632	2,230
Silmag DA	Norway	50%	324	1,402	(1,078)	—	—	—	—
Total								632	2,230

For the entities which are associates and joint ventures, additional financial information is as follows:

2016	Current assets	Non-current assets	Total assets	Current liabilities	Non-current liabilities	Total liabilities
Silmag DA	312	—	312	343	—	343
2015						
ALD Holcroft Vacuum Technologies Co.	9,173	12	9,185	6,953	2	6,955
Silmag DA	324	—	324	1,402	—	1,402

During the year ended December 31, 2016 the Company acquired the remaining 50% equity interest in ALD Holcroft Vacuum Technologies Company. See note 5 for additional details related to this transaction.

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 13.75% ownership interest.

The investment had a value of $15,047 at December 31, 2016 (2015: $14,000). In 2016 the Company changed the fair value measurement to an income approach. The cost approach was used in 2015 because the Company acquired the investment in 2015 and this was deemed the more appropriate valuation methodology at that time. The fair value of this investment is estimated by management with reference to relevant available information including the discounted cash flows of the underlying net assets. The discount rate used in the valuation was 20%. There was a minority interest discount applied of 10.5% and a lack of marketability discount applied of 17.5%. A terminal growth rate of 2.3% has been assumed. Changes in the valuation methodologies or assumptions could lead to different measurements of fair value. The most significant unobservable inputs are the discount rates applied. The estimated fair value would increase (decrease) if the discount rates were higher or lower. A change of the discount rate by 1% would change the fair value estimate in the amount of $669.

The company recorded investment income of $47 and $200 related to the investment during the years ended December 31, 2016, and 2015, respectively, which is included in other comprehensive income.

Also included in other investments are pension assets of $14,883 (2015: nil) 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 $1,390. 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. See notes 24 and 32 for additional information.

14. INVENTORIES

	2016	2015
Raw materials	53,275	42,810
Work in process	16,981	14,522
Finished goods	66,877	62,416
Other	6,460	6,641
Total	143,593	126,389

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

In 2016 raw materials, changes in finished goods and work in process contributed to cost of sales by $541,275 (2015: $556,339). In the year ended December 31, 2016, the net adjustment to net realizable value amounted to a write-up of $6,036 (2015: $7,546 write-down) 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 $832 of asset impairment expense on inventory during the year ended December 31, 2016 (2015: nil).

Inventory in the amount of $65,485 (2015: $81,336) is pledged as collateral to secure the bank loans of certain subsidiaries (see note 22).

15. TRADE AND OTHER RECEIVABLES

	2016	2015
Trade receivables, net of allowance for doubtful accounts	99,481	88,968
Gross amount due from customers for contract work	175,254	177,929
Less: progress payments received	(145,515)	(142,627)
Net receivable from contract work	29,739	35,302
Total	129,220	124,270

At December 31, 2016 and 2015, 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, 2016, receivables in the amount of $49,841 (2015: $97,554) are pledged as collateral to secure the term loan and multicurrency credit facility of the Company (see note 22).

As at December 31, the analysis of trade receivables that were past due but not impaired is as follows:

	Total	Neither past due nor impaired	Past due but not impaired				
			< 30 days	30-60 days	60-90 days	90-120 days	> 120 days
2016	129,220	110,506	14,700	1,497	1,028	855	634
2015	124,270	106,168	13,089	2,190	678	337	1,808

At December 31, 2016, trade receivables are shown net of an allowance for doubtful accounts of $2,083 (2015: $2,471) arising from customer unwillingness or inability to pay. Bad debt charges in the amount of $346 and $707 were recorded in the years ended December 31, 2016 and December 31, 2015, 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:

	2016	2015
At January 1	2,471	2,592
Charge for the year	346	707
Amounts written-off	(372)	(594)
Amounts recovered/collected	(315)	(154)
Foreign currency adjustments	(47)	(80)
At December 31	2,083	2,471

FACTORING OF RECEIVABLES

As of December 31, 2016 and 2015, the Company had total receivables factored and outstanding of $13,152 and $11,515, 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 $71,032 throughout the year which includes security deposits of $653 and cash proceeds of $70,379 which are included in cash from operating activities during the year ended December 31, 2016. During 2016, the Company incurred costs of $471 in conjunction with the sale of these receivables of which $322 were included in finance expense and $149 were recorded to selling, general and administrative expenses on the consolidated income statement. In 2015 the Company sold receivables in the amount of $31,159 which included security deposits of $740 and cash proceeds of $30,419, which are included in cash flows from operating activities. During 2015, the Company incurred expense of $77 in conjunction with the sale of these receivables of which $289 were included in finance expense and $77 were recorded to selling, general and administrative expenses on the consolidated income statement.

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:

	2016	2015
Prepaid taxes (income and indirect)	21,661	20,567
Prepaid inventory	8,811	6,719
Insurance	4,072	3,739
Environmental trusts	4,576	4,612
Deposits	1,963	2,141
Deferred issuance cost	2,224	—
NCI contribution receivable	1,324	—
MG India receivable	750	1,126
Supplier prepayments	277	218
Deferred stripping costs	—	5,195
Other miscellaneous assets	3,147	3,214
Total	48,805	47,531
Thereof:		
Current	31,598	27,648
Non-current	17,207	19,883

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

As of December 31, 2016 the company has a contribution receivable of $1,324 related to dividends to non-controlling interest, see note 21.

In the year ended December 31, 2016, $653 (2015: $740) was included in deposits related to factoring agreements as discussed in note 15.

The company reclassified $5,195 of deferred stripping costs from other non-current assets to property plant and equipment and decreased costs of sales by $928 in 2016 in accordance with IFRIC 20.

17. RESTRICTED CASH

Restricted cash at December 31, 2016 is $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. The restricted cash at December 31, 2015 was $2,527 which provides security to financial institutions as noted above.

18. CASH AND CASH EQUIVALENTS

	2016	2015
Bank balances	160,744	127,745
Call deposits	—	33
Total	160,744	127,778

Bank balances earn interest at floating rates based on daily bank deposit rates. Call deposits 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, 2016, the Company had $182,645 available liquidity (2015: $154,920) on undrawn committed borrowing facilities.

19. CAPITAL AND RESERVES

SHARE CAPITAL

At December 31, 2016, the Company's authorized share capital was comprised of 65,000,000 ordinary shares (2015: 65,000,000) with a nominal share value of €0.02 (2015: €0.02) and 65,000,000 preference shares (2015: 65,000,000) with a nominal share value of €0.02 (2015: €0.02).

At December 31, 2016, the issued and outstanding share capital was comprised of 28,195,363 ordinary shares (2015: 27,641,956), with a nominal value of €0.02 (2015: €0.02) which were fully paid. No preference shares were outstanding at December 31, 2016 (2015: nil). The nominal value of the outstanding shares as of December 31, 2016 was $594 (2015: $603) as compared to the value using historical exchange rates which was $760 (2015: $745).

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 rollforward of the total shares outstanding is noted below:

Balance at January 1, 2015	27,641,956
Shares repurchased	(46,607)
Treasury shares delivered to Supervisory Board	46,607
Balance at December 31, 2015	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 DELIVERED FOR SHARE-BASED COMPENSATION

During the year ended December 31, 2016, 610,463 shares were 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, 2015	—
Shares repurchased	46,607
Treasury shares delivered to Supervisory Board	(46,607)
Balance at December 31, 2015	—
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

SUPERVISORY BOARD REMUNERATION

During the years ended December 31, 2016 and 2015, 26,633 and 46,607 shares were delivered, respectively, as compensation to its Supervisory Board members for services provided in 2016 and 2015. These shares were awarded as part of the remuneration policy approved by the Annual General Meeting.

OTHER RESERVES

	Share-based payment reserve	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, 2015	47,108	(21,918)	(10,659)	1,589	1,384	(77,232)	—	(59,728)
Currency translation differences	(1,223)	(8,494)	—	—	—	3,359	—	(6,358)
Gain on available-for-sale investment	—	—	—	—	—	—	200	200
Movement on cash flow hedges	—	—	(389)	—	—	—	—	(389)
Tax effect on net movement on cash flow hedges	—	—	880	—	—	—	—	880
Actuarial gains on defined benefit plans	—	—	—	—	—	8,938	—	8,938
Tax effect on net movement on defined benefit plans	—	—	—	—	—	923	—	923
Transfer to retained deficit	—	—	—	641	456	—	—	1,097
Sale of non-controlling interest in AMG Graphit Kropfmühl GmbH	—	(739)	(129)	—	—	764	—	(104)
Equity-settled share-based payments	5,041	—	—	—	—	—	—	5,041
Balance at December 31, 2015	50,926	(31,151)	(10,297)	2,230	1,840	(63,248)	200	(49,500)
Balance at January 1, 2016	50,926	(31,151)	(10,297)	2,230	1,840	(63,248)	200	(49,500)
Currency translation differences	(473)	(2,234)	—	—	—	1,856	—	(851)
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)
Equity-settled share-based payments	10,447	—	—	—	—	—	—	10,447
Tax effect on equity-settled share-based payments	235	—	—	—	—	—	—	235
Balance at December 31, 2016	61,135	(33,385)	(2,581)	—	2,348	(63,714)	247	(35,950)

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. 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, 2016 and 2015.

The significant movement in the foreign currency translation reserve was largely driven by the strengthening of the USD in relation to the Euro over the year. The Euro to USD exchange rate decreased 3% from 1.0906 at December 31, 2015 to 1.0536 at December 31, 2016.

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 32.

DEFINED BENEFIT OBLIGATION RESERVE

The obligation reserve for defined benefit plans for the year ended December 31, 2016 decreased other reserves $466 while the obligation reserve for defined benefit plans increased other reserves $13,984 in the year ended December 31, 2015.

FAIR VALUE RESERVE

The fair value reserve for the year ended December 31, 2016 increased $47 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 9 in the parent company financial statements for additional details.

DIVIDENDS

Dividends of $7,558, or $0.27 per share, were declared and paid during the year ended December 31, 2016. Dividends of $3,134, or $0.11 per share, were declared and paid during the year ended December 31, 2015.

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, 2016 and 2015, the calculation of basic earnings per share is performed using the weighted average shares outstanding for 2016 and 2015, 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, 2016 and 2015 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.

	2016	2015
Earnings		
Net profit attributable to equity holders for basic and diluted earnings per share	40,558	11,080
Number of shares (in 000's)		
Weighted average number of ordinary shares for basic earnings per share	27,972	27,642
Dilutive effect of stock options and other share based compensation	489	58
Dilutive effect of performance share units	2,350	—
Weighted average number of ordinary shares adjusted for effect of dilution	30,811	27,700

In 2016 and 2015, respectively 1,166 and 2,727 shares that could potentially dilute basic EPS were not included in the computation of dilutive EPS because the effect would have been antidilutive 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"), as described in note 5. 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. The summarized profit and loss activity represents a full year and the minority interest was sold on March 30, 2015. This information is based on amounts before intercompany eliminations:

Summarized statement of profit and loss:	2016	2015
Revenue	58,820	58,641
Cost of sales	45,278	44,751
Administrative expenses	10,915	9,886
Other expense	765	536
Finance costs	427	411
Foreign exchange (loss) gain	(713)	47
Intergroup tax pooling arrangement	(1,351)	2,907
Profit before tax	2,073	197
Income tax expense	675	654
Profit (loss) for the year from continuing operations	1,398	(457)
Attributable to non-controlling interests	528	(1,403)

Summarized statement of financial position as of December 31:	2016	2015
Inventories, cash and bank balances and other current assets (current)	54,924	58,286
Property, plant and equipment and other non-current assets (non-current)	28,789	22,730
Trade and other payables (current)	12,270	14,030
Interest-bearing loans and borrowing and other non-current liabilities (non-current)	17,569	15,640
Total equity	53,874	51,346
Attributable to:		
Equity holders of parent	31,460	29,171
Non-controlling interest	22,414	22,175

Other non-controlling interest as of December 31, 2016 includes profit from continuing operations attributable to non-controlling interest of $485 (2015: $240) and equity attributable to non-controlling interest of $341 (2015: $2,831). These primarily relate to the SCP arrangements in Brazil which have been purchased during the period. See note 5 for additional information. Dividends to non-controlling interest totaled $3,114 during the year ended December 31, 2016 (2015: $661).

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 31.

Non-current	Effective interest rate	Maturity	2016	2015
$100,000 Term Loan	LIBOR +2.00%	07/2021	94,080	—
€50,000 Term Loan	EURIBOR +2.00%	07/2021	49,559	—
$243,000 Revolving Credit Facility	LIBOR +2.00%	07/2021	—	—
€50,000 Term Loan	EURIBOR +1.50%	05/2018	—	52,943
$47,000 Term Loan	LIBOR +1.50%	05/2018	—	44,385
$220,000 Revolving Credit Facility	LIBOR +1.50%	05/2018	—	8,180
€3,600 subsidiary debt	2.45%	03/2017	—	231
€4,000 subsidiary debt	2.02%	3/2018	703	2,169
€8,500 subsidiary debt	EURIBOR +3.80%	5/2023	6,569	3,373
€3,466 subsidiary debt	4.70%	03/2023	—	579
Finance lease obligations	4.49% — 12.00%	01/2017—3/2019	48	357
Total			150,959	112,217

Current	Effective interest rate	Maturity	2016	2015
$100,000 Term Loan	LIBOR +2.00%	3/2017—12/2017	5,000	—
€50,000 Term Loan	EURIBOR +2.00%	3/2017—12/2017	2,636	—
€3,600 subsidiary debt	2.45%	03/2017	223	924
€4,000 subsidiary debt	2.02%	3/2018	1,393	1,433
€3,466 subsidiary debt	4.70%	03/2023	—	91
Finance lease obligations	4.49% — 12.00%	01/2017—3/2019	369	774
Total			9,621	3,222

TERM LOAN AND REVOLVING CREDIT FACILITY

On July 19, 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"). As of December 31, 2016 the total balance outstanding on the term loans was $152,680 (2015: $101,530). 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, 2016, there were no borrowings (excluding letters of credit) under the revolving credit facility (2015: $8,180). At December 31, 2016, there was unused availability (including unused letters of credit) of $182,645 (2015: $154,920).

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, 2016, the margin was 2.00 (2015: 1.50). To mitigate interest rate 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 footnote 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
- Net Debt to EBITDA: Not to exceed 3.00:1

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 are as follows as of December 31, 2016:

- EBITDA to Net Finance Charges: 13.51:1
- Net Debt to EBITDA: 0.75:1

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 2.21% for the costs associated with the US Dollar dominated debt and a rate of 2.24% 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 debt was $1,346 as of December 31, 2016 (2015: $4,202). The balance of unamortized costs which is recorded in other assets was $2,224 as of December 31, 2016. The Company has recorded amortization expense of $3,376 during the year ended December 31, 2016 related to the unamortized debt issuance costs which existed prior to the loan commencing in 2016.

AMG MINING AG DEBT

The Company acquired the outstanding minority shares of its previously majority-controlled entity, AMG Mining AG (formerly known as Graphit Kropfmühl), in the fourth quarter of 2012. Certain debt remained after the acquisition of the Company. The remaining debt includes finance lease instruments and limited credit facilities for its operations in Sri Lanka. The weighted average interest rates for the leases and facilities are 7.41% (2015: 5.72%) and 2.45% (2015: 2.45%), respectively.

During the year ended December 31, 2015 AMG Mining AG obtained financing arrangements with two banks in Germany. These arrangements were made on April 21, 2015 and consist of two €2,000 term loans which carry an interest rate of EURIBOR plus 2%. These loans are each payable over six semi-annual instalments of €333. There were payments of $1,474 on these loans during the year ended December 31, 2016. These loans were obtained in conjunction with the sale of the 40% equity stake discussed in note 5. The balance of unamortized debt issuance costs which is net against the book value of this debt was $186 (2015: $212).

On September 24, 2015 AMG Mining AG obtained an additional financing arrangement with a bank in Germany. The arrangement consists of an €8,500 term loan which carries an interest rate of Euribor plus 3.80%. This loan is payable over twelve semi-annual instalments of €708 beginning in October 2017. The amount borrowed under this arrangement during the year ended December 31, 2016 was $3,542 (2015: $3,373). This loan was obtained in conjunction with the expansion of a graphite mine in Mozambique.

FINANCE LEASE OBLIGATIONS

As of December 31, 2016, AMG subsidiaries had four finance leases outstanding to finance machinery. The Company had finance lease obligations of $166 related to this machinery.

As of December 31, 2016, the Company had finance lease obligations of $249 (2015: $659) related to heat treatment modules. See note 33 for additional information.

DEBT REPAYMENTS

The Company made finance lease and debt repayments of $118,774 during 2016. 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.

The Company made finance lease and debt repayments of $237,909 during 2015. The payments included $162,117 repayment of the prior facility. Additional payments of $60,328 were made on the current revolving credit facility and payments of $15,464 were made to various banks related to finance leases and other debt repayments.

23. SHORT TERM BANK DEBT

The Company's Brazilian subsidiaries maintain short term borrowing arrangements with various banks. Borrowings under these arrangements are included in short term debt on the consolidated statement of financial position and aggregated $7,500 at December 31, 2016 (2015: $9,300) at a weighted-average interest rate of 3.99% (2015: 5.1%).

The Company's Indian subsidiaries maintain a short term unsecured borrowing arrangement with ICICI Bank Limited, Mumbai. Borrowings under this arrangement are included in short term debt on the consolidated statement of financial position. There were no borrowing on this facility at December 31, 2016 (2015: $2,004).

During the year ended December 31, 2016, the Company made short term debt repayments in the amount of $3,833 (2015: $10,581).

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, 2016 recognized in the consolidated income statement of $4,176 (2015: $3,896) 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 2015, the Company's former Chief Financial Officer notified the Company of her resignation and as a result a remeasurement and curtailment of the SERP employee benefits liability occurred. See note 36 for additional details. The net impact of the remeasurement and curtailment was a reduction in the employee benefits liability of $703, a change in other comprehensive income of $237 and a net gain in the consolidated income statement of $466 which is included in service costs in the following employee benefits disclosure. As a result of the resignation, the rights to any future payments out of the pension plan have been forfeited.

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, 2016 (expressed as a weighted average) was 3.88% (2015: 4.00%). 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, 2017 is $1,858.

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.

	2016	2015
	% per annum	% per annum
Salary increases	2.20	2.12
Rate of discount at December 31	1.86	2.32
Pension payments increases	1.89	1.84

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, 2017 is $5,527.

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

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
Transfers	—	—	—	—	—	—	—	—	—
December 31, 2016	35,849	(55,117)	(19,268)	96,795	(219,115)	(122,320)	132,644	(274,232)	(141,588)

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)

2015 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, 2015	28,555	(55,328)	(26,773)	113,327	(246,226)	(132,899)	141,882	(301,554)	(159,672)
Service costs	—	(131)	(131)	—	(4,141)	(4,141)	—	(4,272)	(4,272)
Net interest	1,121	(2,161)	(1,040)	3,718	(6,798)	(3,080)	4,839	(8,959)	(4,120)
Subtotal included in profit or loss	1,121	(2,292)	(1,171)	3,718	(10,939)	(7,221)	4,839	(13,231)	(8,392)
Benefits paid	(2,587)	2,587	—	(7,272)	10,718	3,446	(9,859)	13,305	3,446
Amounts included in OCI (see following table)	(2,162)	2,191	29	(2,859)	11,768	8,909	(5,021)	13,959	8,938
Contributions by employer	1,422	—	1,422	2,778	—	2,778	4,200	—	4,200
Effect of movements in foreign exchange rates	—	—	—	(5,507)	19,134	13,627	(5,507)	19,134	13,627
Transfers	—	—	—	—	—	—	—	—	—
December 31, 2015	26,349	(52,842)	(26,493)	104,185	(215,545)	(111,360)	130,534	(268,387)	(137,853)

2015 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)	(2,162)	—	(2,162)	(2,859)	—	(2,859)	(5,021)	—	(5,021)
Actuarial changes arising from changes in demographic assumptions	—	1,007	1,007	—	1,974	1,974	—	2,981	2,981
Actuarial changes arising from changes in financial assumptions	—	1,862	1,862	—	8,461	8,461	—	10,323	10,323
Experience adjustments	—	(678)	(678)	—	1,333	1,333	—	655	655
Subtotal included in OCI	(2,162)	2,191	29	(2,859)	11,768	8,909	(5,021)	13,959	8,938

Plan assets consist of the following:

	North America plans		European plans		Total	
	2016	2015	**2016**	2015	**2016**	2015
Equity securities and ownership of equity funds	17,723	15,136	60,325	27,337	78,048	42,473
Fixed Income	17,763	8,757	4,823	70,567	22,586	79,324
Cash and equivalents	363	287	—	269	363	556
Insurance contracts and other	—	2,169	31,647	6,012	31,647	8,181
Total	35,849	26,349	96,795	104,185	132,644	130,534

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	
	2016	2015	**2016**	2015	**2016**	2015
Cost of sales	341	451	1,824	1,781	2,165	2,232
Selling, general and administrative expenses	1,243	720	3,784	5,440	5,027	6,160
Total	1,584	1,171	5,608	7,221	7,192	8,392

A quantitative sensitivity analysis for significant assumptions as of December 31, 2016 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	(6,417)	5,071	14	(14)	92	(112)
Impact on the net defined benefit obligation European Plans	(32,738)	38,067	4,176	(3,648)	9,173	(8,471)
Total impact on the net defined benefit obligation	(39,155)	43,138	4,190	(3,662)	9,265	(8,583)

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
2017	3,750	8,120	11,870
2018	3,849	7,835	11,684
2019	3,526	8,322	11,848
2020	3,575	8,816	12,391
2021	3,628	9,245	12,873
2022-2026	17,984	48,599	66,583

The average duration of the defined benefit plan obligation at the end of the reporting period is 18 years (2015: 16 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, 2016 options exercised were 87,202 (2015: nil) under the 2007 Plan. Expired or forfeited options under this plan were 264,000 (2015: 10,000). 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.

Total grants under the 2009 Plan during 2016 were 206,107 (2015: 119,002). During the year ended December 31, 2016, there were no grants expired or forfeited (2015: 67,551). 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. The assumptions used in the calculation are set out below.

During the year ended December 31, 2016, AMG recorded compensation expense from equity-settled option transactions of $495 (2015: $486) which is included in selling, general and administrative expenses in the income statement.

Movements

	2016		2015	
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	2,323	19.18	2,281	19.52
Granted during the year	206	9.78	119	8.08
Exercised during the year	(87)	8.00	—	—
Forfeited during the year	(264)	37.29	(78)	12.19
Outstanding at December 31	2,178	15.75	2,323	19.18
Exercisable at December 31	1,718	17.66	1,915	21.71

1,717,879 options were exercisable as of December 31, 2016 (2015: 1,915,140).

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 exercisable 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
€44.00 to €64.31	—	—	—	—	—

At December 31, 2015, 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 exercisable price (in €)
€6.44 to €9.84	983,387	7.79	6.2	575,686	8.15
€12.70 to €24.00	944,454	21.11	2.6	944,454	21.11
€29.45 to €40.50	345,000	39.77	3.0	345,000	39.77
€44.00 to €64.31	50,000	64.31	2.9	50,000	64.31

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, 2016, total shares outstanding under the 2007 Plan were 1,163,373 (2015: 1,514,575) and the total options outstanding under the 2009 Plan were 1,014,373 (2015: 808,266).

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 2016 and 2015 under the 2009 Plan:

	2016	2015
Exercise price	€9.78	€8.08
Share price at date of grant	€9.78	€8.08
Contractual life (years)	10	10
Dividend yield	2.14%	2.14%
Expected volatility	37.33%	42.8%
Risk-free interest rate	(0.36%)	1.1%
Expected life of option (years)	6	6
Weighted average fair value	€2.62	€3.38
Expected departures	10%	10%

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 the share-based payment reserve (refer to note 19).

PERFORMANCE SHARE UNITS

In May 2009, the Annual General Meeting approved a remuneration policy that utilizes cash-settled share-based payments as a part of compensation. In the year ended December 31, 2016, the Company issued 460,196 (2015: 456,851) PSUs to certain employees which are cash-settled. As of November 3, 2016, the Company elected to settle any future amounts paid for the 2015 and 2016 performance share units ("PSUs") award with AMG shares. The same election was made as of April 1, 2015 for the 2013 and 2014 awards. As these awards will be equity settled, the balance is recorded in equity rather than as a liability as previously recorded when there was a cash settlement option in accordance with IFRS 2.

The liability for cash-settled share-based payments has been rolled forward as noted below:

	Value of liability
Balance as at January 1, 2015	—
Current year expense	1,729
Balance as at December 31, 2015	1,729
Balance as at January 1, 2016	1,729
Current year expense	7,993
Current year reclassification to equity	(9,722)
Balance as at December 31, 2016	—

The 2016 awards, along with the 2015 awards, have been converted to share settled awards during the year ended December 31, 2016 as noted above.

AMG utilized a Monte Carlo simulation to develop a valuation of the PSU awards upon modification. This calculation was performed on the date of 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 2014 through 2016:

	2016 Grant	2015 Grant	2014 Grant
Share price at date of grant	€8.95	€8.43	€7.09
Fair value at conversion date	€19.80	€25.55	€4.51
Share price at date of conversion	€16.53	€16.53	€8.89
Contractual life at issuance (years)	3.0	3.0	3.0
Remaining life at conversion (years)	2.16	1.16	1.75
Dividend yield	1.15%	1.15%	1.2%
Expected volatility	34.90%	31.07%	11.2%
Risk-free interest rate	(0.15%)	(0.25%)	0.4%
Expected departures	16.0%	16.0%	10.1%

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. The 2009 Plan options vest 50% each on the third and fourth anniversary of the grant date. For the risk free rate, the company utilizes the Euribor swap-rates.

The Company recorded expense of $2,371 related to these awards during the year. AMG's expense related to equity settled awards is recorded in the share-based payment reserve (refer to note 19). In the year ended December 31, 2016, 155,683 PSUs were forfeited (2015: 71,730). The total number of equity settled PSUs outstanding as of December 31, 2016 was 1,277,714.

During the year ended December 31, 2016 $6,103 was paid out with respect to the vesting of equity settled performance share units granted in 2013. In 2015 there were no payments with respect to the vesting of equity settled performance share units.

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 2016 was $207 (2015: nil).

26. PROVISIONS

	Environmental remediation costs and recoveries	Restructuring	Warranty	Cost estimates	Partial retirement	Restoration costs	Other	Total
Balance at January 1, 2015	22,410	8,329	2,927	2,470	1,508	13,235	1,351	52,230
Provisions made during the period	1,529	4,963	2,650	1,605	116	185	1,814	12,862
Provisions reversed during the period	—	(1,860)	(961)	(459)	(545)	(2,216)	(784)	(6,825)
Provisions used during the period	(314)	(4,255)	(485)	(425)	247	(93)	(304)	(5,629)
(Decrease)/increase due to discounting	155	—	—	—	—	(2,911)	—	(2,756)
Currency and transfers	(507)	(5,044)	(305)	(263)	(129)	(2,396)	(141)	(8,785)
Balance at December 31, 2015	23,273	2,133	3,826	2,928	1,197	5,804	1,936	41,097
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
Non-current	22,096	—	—	—	1,197	5,804	520	29,617
Current	1,177	2,133	3,826	2,928	—	—	1,416	11,480
Balance at December 31, 2015	23,273	2,133	3,826	2,928	1,197	5,804	1,936	41,097
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

ENVIRONMENTAL REMEDIATION COSTS AND RECOVERIES

The Company makes provisions for environmental cleanup 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 $44,203 on an undiscounted basis and $1,760 on a discounted basis. Annual payments for O&M are expected to be $59 for the next 20 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 $3,762 of which $2,002 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 $166, on an undiscounted basis, and is expected to be completed within the next 19 years. Discount rates of 0.85%-2.79% (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, 2016 and 2015 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 $20,254 ($21,358 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 six years, subject to negotiations with the NJDEP. AMG recorded environmental expense of $1,277 related to the Newfield site during the year ended December 31, 2016 (2015: $1,529).

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 $239 was recorded in the year ended December 31, 2016 (2015: nil) 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 discounted values of the trust funds at December 31, 2016 were $4,576 (2015: $4,612). The undiscounted amounts as of December 31, 2016 were $6,671 (2015: $6,494).

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, 2016 was $25 (2015: $87). No additional provision was required in the year ended December 31, 2016 (2015: nil). Payments of $78 were made against this provision and additional payments are expected in 2017.

Pocking, Germany

An environmental remediation liability exists with respect to the silicon metal operation and its waste storage. As of December 31, 2016, the liability for the remediation of this site is valued at $521 (2015: $537). There were no payments made during 2016 and no expected payments in 2017. A discount rate of 1.59% 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, 2016, there was an additional expense recorded of $596 (2015: nil). The expected liability for continued work on the sewer rehabilitation project is $1,115 (2015: $1,028). Payments for this project are expected to occur over the next five years with spending taking place in a relatively consistent pattern over those years. Discount rates of 1.59% – 2.30% (depending on the expected timing of payments) were used in determining the liabilities recorded.

RESTRUCTURING

During the year ended December 31, 2016, the Company recorded a restructuring expense made of an additional provision of $6,080 (2015: 4,963) and reversal of ($1,858) (2015: ($1,860)).

The net impact of the 2016 restructuring expense of $4,222 is noted on the following actions taken by segment:

- AMG Critical Materials – Expense of $2,542 related to an estimated severance payment for social compensation plans, real estate tax transfer from an operation in Germany and relocation of the chemical lab from Lessingstraße to Nuremberg, Germany
- AMG Engineering – Expense of $1,680 for an estimated headcount reduction of 32 and reorganization of operations in France and China

In 2016, the largest portion of the restructuring provision as of December 31, 2016 was related to the reorganization of operations in France and Germany.

The restructuring provision as of December 31, 2015 was mainly comprised of headcount reduction costs in Germany.

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 $749 were made and warranty provisions included an expense of $5,667 and reversal of ($1,759) recorded in 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. Warranty payments of $425 were made and warranty provisions consisted of $2,465 of additional expense and reversal of ($816) recorded during the year ended December 31, 2015. The additional provisions were primarily related to new heat treatment technology where the warranty rate changed during 2015. 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 $17 ($2015: $185), reversal of ($48) (2015: ($145)) recorded during 2016 and payments of $76 (2015: $60).

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 $7,614 (2015: $1,605) and reversal of ($729) (2015: ($459)) was recorded in 2016 related to new projects that are currently in process while $3,621 (2015: $425) 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 2016, there were provisions made of an additional expense of $310 (2015: $116), reversal of ($193) (2015: ($545)) and payments of $190 (2015: $247). Additional payments of approximately $1,045 are expected to occur over the next five years. Discount rate of 0.25% was used by the Company's German subsidiary to determine the liabilities recorded. Furthermore, one of our partial retirement obligations expired during 2016.

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. This mine was previously closed and the Company was in negotiations with the German authorities on a plan to close the site and the timeline. However, in June 2012, this mine was re-opened and $135 of environmental expense was recorded in the consolidated income statement as mining restarted. There was no provision recorded in 2016 (2015: $185). The total restoration liability for this mine was $4,892 as of December 31, 2016 (2015: $4,775). A discount rate of 0.45% was used to determine the liability recorded.

Nazareno, Brazil

In the year ended December 31, 2016 a Brazilian subsidiary recorded an asset retirement obligation at its mine of $11 in property, plant and equipment and a total provision amount of $1,911. The additional provision reflects the ongoing development of the obligation. A discount rate of 11.12% was used to determine the liability recorded. During the year ended December 31, 2015 there was a significant decreased in the liability to $1,029 related to extending the life of the mine and a higher discount rate caused by the uncertainty in the Brazilian economy causing a reversal of restoration costs of ($2,286) and additional expense of $70.

OTHER

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

If the estimated pre-tax discount rate used in the calculations had been 10% higher than management's estimate, the carrying amount of the provisions balance would have been approximately $491 lower.

27. GOVERNMENT GRANTS

	Government grants
Balance at January 1, 2015	754
Grants received during the period	38
Grants used during the period	(69)
Repayments during the period	—
Currency and reversals	(88)
Balance at December 31, 2015	635
Balance at January 1, 2016	635
Grants received during the period	—
Grants used during the period	(69)
Repayments during the period	—
Currency and reversals	(79)
Balance at December 31, 2016	487
Non-current	536
Current	99
Balance at December 31, 2015	635
Non-current	390
Current	97
Balance at December 31, 2016	487

AMG Mining AG has government grant obligations related to retention of personnel and its capital investment in the state of Bavaria, Germany. According to the grants received, AMG Mining AG is expected to create or maintain a certain number of employees over the course of the grant. The liability for the grant is reduced as money is spent on capital expansion. As of December 31, 2016, the current and non-current portions of the grants were $65 and $278, respectively. As of December 31, 2015, the current and non-current portions of the grants were $67 and $392, respectively. During the years ended December 31, 2016 and 2015, AMG Mining AG met the requirements established for government grants.

AMG Superalloys UK has a government grant given by the Welsh Assembly Government for the Anglesey plant to help safeguard jobs in the area. According to the grant received, AMG Superalloys UK is expected to maintain a certain number of employees over the course of the grant and required to produce or improve products, processes or launch a service. The grant funds will be used for a capital project that will introduce a new product. AMG Superalloys UK receives money over the course of the grant period and the liability for the grant is reduced as money is spent on capital expansion. As of December 31, 2016, the current and non-current portions of the grant were $32 and $112, respectively. As of December 31, 2015 the current and non-current portions of the grant were $32 and $144, respectively.

28. DEFERRED REVENUE

In the year ended December 31, 2012, one of the Company's subsidiaries entered into a sales contract with a long term customer with prepayments. The sales contract required the customer to pay $5,000 upon signing of the contract with an additional prepayment due upon shipment of the first contractual quantities. Shipments to this customer began in June 2013 and at this time an additional $15,000 prepayment was made by the customer. This prepayment was classified as an operating cash flow. In July of 2015 this contract was amended and the Company received an additional prepayment of $11,016 along with an ownership interest with a value of $12,600. The additional $11,016 received was classified as an operating cash flow. The deferred revenue liability will be reduced using a prescribed formula over the course of the five-year contract based on the tonnage shipped. The contract is estimated to run until the middle of 2018. The remaining deferred revenue related to this customer as of December 31, 2016 was $10,324 (2015: $25,135).

The Company also received prepayments of $5,822 in the year ended December 31, 2016 (2015: $1,575) which relate to expected future deliveries of products to customers. These prepayments are classified as operating cash flows when received. The deferred revenue liability is recognized over the course of the contracts based on the material shipped. The remaining deferred revenue related to these customers as of December 31, 2016 is $2,696 (2015: $4,528).

	Deferred revenue
Balance at January 1, 2015	17,364
Deferred during the year	25,191
Released to the income statement	(12,282)
Currency translation impact	(610)
Balance at December 31, 2015	29,663
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
Non-current	13,539
Current	16,124
Balance at December 31, 2015	29,663
Non-current	2,822
Current	10,198
Balance at December 31, 2016	13,020

29. OTHER LIABILITIES

Other liabilities are comprised of the following:

	2016	2015
Accrued bonus	15,446	11,394
Accruals for operational costs	11,777	7,327
Other benefits and compensation	7,659	6,915
Accrued professional fees	6,074	4,557
Fiscal contingency	5,528	4,676
Accrued employee payroll expenses	4,637	4,033
Taxes, other than income	4,367	5,287
NCI dividend payable	1,324	—
Sales commission	1,071	864
Accrued interest	1,043	476
Accrual for performance share units	—	1,729
Claims	841	808
Other miscellaneous liabilities	4,148	3,627
Total	63,915	51,693
Thereof:		
Non-current	6,484	8,821
Current	57,431	42,872

30. TRADE AND OTHER PAYABLES

	2016	2015
Trade payables	120,020	94,887
Trade payables – contract work	13,308	13,132
Total	133,328	108,019

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 with the exception of 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 36.

As of December 31, 2016 the Company has outstanding supply chain financing of $16,602 (2015: $1,156).

31. 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 32.

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, 2016 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.

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	—	—	—	—	—
Accruals and other liabilities	73,493	27,094	28,694	4,153	513	716	802	11,521
Total	396,106	146,809	67,980	17,033	11,823	11,669	88,077	52,715

The table below summarizes the maturity profile of the Company's financial liabilities at December 31, 2015 based on contractual undiscounted payments.

2015	Contractual cash flows	< 3 months	3-12 months	2017	2018	2019	2020	>2020
Term loan/revolver	109,710	—	—	—	109,710	—	—	—
Cash interest on term loan	4,279	11	1,548	1,560	1,160	—	—	—
Other loans and borrowings	9,012	958	1,510	2,064	1,396	669	669	1,746
Cash interest on loans and borrowings	211	24	65	55	24	17	13	13
Financial derivatives	14,021	3,251	5,128	3,745	1,897	—	—	—
Financial lease liabilities	1,143	192	585	346	14	6	—	—
Trade and other payables	108,019	89,452	18,567	—	—	—	—	—
Short term bank debt	11,304	1,800	9,504	—	—	—	—	—
Accruals and other liabilities	59,615	23,155	16,101	2,961	2,073	6,838	895	7,592
Total	317,314	118,843	53,008	10,731	116,274	7,530	1,577	9,351

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 $1,405 and $4,202 as of December 31, 2016 and 2015, 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 at December 31, 2016 and 2015.

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, 2016.

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, 2016 and 2015 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, 2016, after taking into account the effect of interest rate swaps, approximately 64% of the Company's borrowings are at a fixed or capped rate of interest (2015: 81%).

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, 2016 and 2015, 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.

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

2015	Increase/decrease in basis points	Effect on profit before tax
US Dollar***		(9)
Euro	+10	(15)
US Dollar***		9
Euro	–10	15

*** 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, 2016, the Company's interest rate caps had a fair value of ($159) (2015: ($273)). 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, 2016 and 2015. A 10 basis point increase or decrease will not have a significant impact on the value of the interest rate cap.

At December 31, 2015, the Company's interest rate swaps had a fair value of ($440). Per the agreements, the Company pays a fixed rate and receives a floating rate based on the three month EURIBOR on the Euro denominated term loan of €50,000. There is no interest rate swap applicable to the new loan facility entered into in 2016. There was no ineffective interest rate swap in the year ended December 31, 2015.

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.

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

2015	Strengthening/ weakening in functional rate	Effect on profit before tax	Effect on equity before tax
US Dollar	+5%	129	829
Euro	+5%	(1,264)	(154)
US Dollar	–5%	(129)	(829)
Euro	–5%	1,264	154

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.

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

2015	Change in price	Effect on profit before tax	Effect on equity before tax
Aluminum	+10%	63	75
Aluminum	–10%	(63)	(75)

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.

The Company's policy is to try to maintain this ratio below 50%.

	2016	2015
Loans and borrowings	160,580	115,439
Short term bank debt	7,500	11,304
Less: cash and cash equivalents	160,744	127,778
Net debt (cash)	7,336	(1,035)
Net debt (cash)	7,336	(1,035)
Total equity	197,787	153,567
Total capital	205,123	152,532
Debt to total capital ratio	4%	—

32. 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, 2016.
- 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, 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	—

As of December 31, 2015, the Company held the following financial instruments measured at fair value:

Assets measured at fair value

	December 31, 2015	Level 1	Level 2	Level 3
Non-current financial assets				
Investments recognized as available for sale (note 13)	14,000	—	—	14,000
Current financial assets				
Forward contracts – hedged	814	—	814	—
Forward contracts – non-hedged	164	—	164	—

Liabilities measured at fair value

	December 31, 2015	Level 1	Level 2	Level 3
Non-current financial liabilities				
Forward contracts – hedged	4,930	—	4,930	—
Interest rate swaps and caps	712	—	712	—
Current financial liabilities				
Forward contracts – hedged	8,200	—	8,200	—
Forward contracts – non-hedged	179	—	179	—

During the years ended December 31, 2016 and 2015, 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, 2015	—	—
Purchase of available for sale investment	—	13,800
Change in fair value of available for sale investment	—	200
Balance at December 31, 2015	—	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

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, 2016 is a liability of $159 (2015: $273). 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, 2016 and 2015. There was ($305) included in equity in the year ended December 31, 2015 related to interest rate swaps.

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, 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 open commodity forward contracts as of December 31, 2015 are as follows:

	Metric tons	Average price	Fair value assets	Fair value liabilities
US Dollar denominated contracts to purchase commodities:				
Aluminum forwards	5,575	1,560	31	(312)
Nickel forwards	6	8,556	—	(36)
Copper forwards	150	4,505	31	—

The amount from the commodity cash flow hedges included in equity was ($2) and ($153) in the years ended December 31, 2016 and 2015, respectively. The amount included in equity is anticipated to impact the income statement over the next 12 months. During the years ended December 31, 2016 and 2015, ($552) and $6,005, 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, 2016 and 2015.

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, 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 sales contracts as of December 31, 2015 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
Cash Flow Hedges				
Euro (versus USD)	€24.3 million	0.894	590	(87)
USD (versus Euro)	$46.2 million	1.157	31	(2,569)
Fair Value Hedges				
Euro (versus USD)	€32.0 million	0.921	75	(109)
USD (versus Mexican Peso)	MXN21.3 million	16.57	50	—

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 open foreign exchange forward purchase contracts as of December 31, 2015 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
Cash Flow Hedges				
USD (versus Euro)	$4.6 million	1.1049	65	(2)
GBP (versus USD)	£18.7 million	1.5078	47	(525)
BRL (versus USD)	R$193.1 million	3.6439	16	(9,581)
CNY (versus USD)	¥5.7 million	0.1416	3	(16)
Fair Value Hedges				
USD (versus Euro)	$3.8 million	1.0909	39	(29)
Euro (versus USD)	€3.0 million	0.9080	—	(43)

The amounts from the foreign currency cash flow hedges included in equity were ($2,579) and ($9,839) in the years ended December 31, 2016 and 2015, respectively. The amount included in equity is anticipated to impact the income statement over the next three years. During the years ended December 31, 2016 and 2015, $3,110 and $9,599, 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 $218 (2015: $127) recognized in profit or loss during the year ended December 31, 2016 due to ineffectiveness.

33. 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:

	2016	2015
Less than one year	6,539	5,420
Between one and five years	17,861	16,035
More than five years	23,504	6,450
Total	47,904	27,905

During the year ended December 31, 2016 $6,242 (2015: $5,002) 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:

	2016	2015
Less than one year	361	781
Between one and five years	59	365
Total minimum lease payments	420	1,146
Less amounts representing finance charges	(3)	(15)
Present value of minimum lease payments	417	1,131

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. The balance related to these leases as of December 31, 2016 was $249 (2015: $659) and was included in the finance lease obligations in the table.

34. 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, 2016, the Company had committed to capital requirements in the amount of $54,005 (2015: $3,318). These capital commitments relate primarily to projects in Brazil.

35. 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, 2016 and 2015:

	Business-related guarantees	Credit-related guarantees	Letters of credit	Total
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
2015				
Total amounts committed:	60,973	243	8,485	69,701
Less than 1 year	31,718	243	—	31,961
2–5 years	10,206	—	—	10,206
After 5 years	19,049	—	8,485	27,534

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, which currently has no regulated levels, in the event that regulation is put in place that would require remediation.

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 remediation costs approximating $1,000. 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 six years. In 2016, the Company has reached an agreement on a removal plan with the NJDEP for this removal. The estimated accrual for $20,254 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 three outstanding sales tax cases with a subsidiary in Brazil whereby the authorities allege that $ 7,973 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, 2016 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 $3,654 at December 31, 2016.

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 have been appealed by the respective parties and the appellate court has scheduled a hearing in 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. 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 favor 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, 2016.

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.

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. Former employees of the mine allege unpaid wages of $2,700 from when the mine was operational. Management believes that the claim is without merit and 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.

CONTINGENCIES OF FORMER ASSOCIATES AND JOINT VENTURES

The Company was a shareholder in Timminco Limited, which had a Canadian subsidiary called Becancour Silicon, Inc. In 2009, two proposed class actions were issued in Ontario, each alleging misrepresentations by Timminco as to the value of Becancour Silicon's solar grade production process. Only one of the two class actions named AMG as a defendant, and that action was stayed by the Ontario Court in 2009, in order to allow the other lawsuit ("Pennyfeather") to proceed. In January 2012, Timminco filed for court protection in Ontario while it sought to re-organize its financial affairs, under Canada's federal insolvency legislation (the "CCAA") and as part of that process, all lawsuits were stayed, including the Pennyfeather lawsuit. In 2014, the Plaintiff in the Pennyfeather litigation had the CCAA stay order lifted (as against the Directors and officers in Timminco only). No provision has been made for this matter as the Company is not a named defendant, the Pennyfeather Plaintiff previously took the position that the Company was not a necessary party to the litigation; and the Company has an insurance policy which will provide reimbursement for costs and expenses incurred in connection with the lawsuit, as well as damages awarded, if any, subject to certain policy limits and deductibles.

36. 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, 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

For the year ended December 31, 2015	Salaries and bonus	Share-based compensation	Post-employment benefits including contributions to defined contribution plans	Other remuneration [a]	Total
Heinz Schimmelbusch	2,149	2,927	267	101	5,444
Eric Jackson	1,122	899	338	59	2,418
Amy Ard [c]	887	62	(330)	15	634
Total	4,158	3,888	275	175	8,496

(a) Other remuneration also includes car expenses, country club dues and additional insurance paid for by the Company.

(b) Salaries and bonus include a signing bonus of $500 and share-based compensation includes $207 of expense related to a share-based signing bonus.

(c) Ms. Ard stepped down from her position as CFO and Management Board member effective February 1, 2016. This led to a reversal of a portion of the accrual related to her postretirement benefits.

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, 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

For the year ended December 31, 2015	Cash remuneration	Share-based remuneration	Total compensation
Pedro Pablo Kuczynski [1]	33	23	56
Jack L. Messman	90	44	134
Norbert Quinkert	103	57	160
Guy de Selliers	80	39	119
Martin Hoyos	80	39	119
Ute Wolf [4]	21	15	36
Steve Hanke	60	43	103
Herb Depp	60	43	103
Donatella Ceccarelli	60	43	103
Robert Meuter [2]	39	28	67
Petteri Soininen [3]	—	—	—
Total	626	374	1,000

(1) Pedro Pablo Kuczynski stepped down from the Supervisory Board effective May 7, 2015.
(2) Robert Meuter was appointed to the Supervisory Board effective May 7, 2015.
(3) Petteri Soininen was appointed to the Supervisory Board effective May 7, 2015.
(4) Ute Wolf stepped down from the Supervisory Board effective May 7, 2015.

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, 2016	8,015	5,547	559	193	14,314
December 31, 2015	4,784	4,262	275	175	9,496

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, 2016, the amounts paid by the Company to or on behalf of the Foundation were $67 (2015: $144).

37. SUBSEQUENT EVENTS

In January of 2017 the Company experienced a fire at the Mibra mine in Brazil. The fire occurred in one of two tantalum production lines. There were no injuries to employees as a result of this fire. The Company has property insurance and business interruption insurance in place in Brazil.

PARENT COMPANY STATEMENT OF FINANCIAL POSITION

AMG ADVANCED METALLURGICAL GROUP, N.V. — PARENT COMPANY STATEMENT OF FINANCIAL POSITION

(AFTER PROFIT APPROPRIATION)

As at December 31	Note	2016	2015
In thousands of US Dollars			
Fixed assets			
Intangible assets	6	151	18
Tangible fixed assets	5	213	290
Financial fixed assets			
Investments in subsidiaries	7	135,070	123,866
Loans due from subsidiaries	7	5,500	5,500
Deposits and other assets	8	2,308	84
Financial fixed assets		142,878	129,450
Total fixed assets		143,242	129,758
Related party receivables	9	54,283	2,475
Loans due from subsidiaries	7	69,200	48,547
Derivative financial instruments	16	10	10
Prepayments and other assets	10	260	458
Cash and cash equivalents	11	24,521	2,074
Total current assets		148,274	53,564
Total assets		291,516	183,322
Equity			
Issued capital	12	760	745
Share premium	12	389,066	382,978
Share based payment reserve	12	61,135	50,926
Foreign currency translation reserve	12	(33,385)	(31,151)
Unrealized losses reserve	12	(2,581)	(10,297)
Legal participations reserve	12	-	2,230
Capitalized development expenditures reserve	12	2,348	1,840
Defined benefit obligation reserve	12	(63,714)	(63,248)
Investment reserve	12	247	200
Treasury shares		(570)	-
Retained earnings (deficit)		(177,592)	(205,662)
Total equity attributable to shareholders of the Company		175,714	128,561
Long term liabilities			
Long term debt	13	94,080	44,385
Loans due to subsidiaries	13	6,655	—
Other liabilities		38	1,144
Derivative financial instruments	16	159	273
Long term liabilities		100,932	45,802
Short term liabilities			
Current portion long term debt	13	5,000	—
Amounts due to subsidiaries	15	—	3,594
Taxes and premium		—	78
Other payables	14	9,870	5,287
Short term liabilities		14,870	8,959
Total liabilities		115,802	54,761
Total equity and liabilities		291,516	183,322

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	2016	2015
In thousands of US Dollars			
General and administrative expenses		33,413	22,942
Other expenses		—	50
Other income	2	(13,956)	(6,923)
Net other operating (income) expense		(13,956)	(6,873)
Operating loss		(19,457)	(16,069)
Finance income	3	(6,679)	(11,635)
Finance expense	3	6,017	7,923
Foreign exchange loss (gain)		134	(724)
Net finance income		(528)	(4,436)
Loss before income tax		(18,929)	(11,633)
Income tax expense	4	—	—
Loss after tax		(18,929)	(11,633)
Income from subsidiaries		59,487	22,713
Net income	4	40,558	11,080

The notes are an integral part of these financial statements.

NOTES TO THE 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, 2016, the statement of financial position has been converted to USD from Euros using a conversion rate of EUR:USD of 1.0536 (2015: 1.0906).

2. OTHER INCOME AND EXPENSES

Other income during the year ended December 31, 2016 includes income from management fees charged to subsidiaries of $13,956 (2015: $6,923). The services provided for these fees include general management services and other professional services.

3. FINANCE INCOME AND EXPENSES

Finance income during the year ended December 31, 2016 includes interest income from loans to subsidiaries of $6,679 (2015: $11,635). See note 7 for additional details. Finance expense during the year ended December 31, 2016 includes interest expense on loans due to subsidiaries of $8 (2015: $979) and interest expense on external debt of $6,009 (2015: $6,944). 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 2016 and 2015 the Company reported an income tax expense of nil. The taxable loss is reduced by non-deductible expenses of $7,818 and $5,454 in 2016 and 2015, respectively and is primarily related to share based compensation expenses.

During the years ended December 31, 2016 and 2015, the income tax benefits related to the current year losses of the fiscal unity were not recognized. In total, $11,118 and $4,151 were not recognized in 2016 and 2015, 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, 2016, net operating loss and tax credit carryforwards for which no deferred tax assets have been recognized in the balance sheet amount to $88,190 (2015: $67,435).

5. TANGIBLE FIXED ASSETS

Tangible fixed assets of $213 (2015: $290) 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, 2016 was $56 (2015: $52). 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 $151 (2015: $18) 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, 2016 was $19 (2015: $40).

7. FINANCIAL FIXED ASSETS

INVESTMENTS IN SUBSIDIARIES

The movement in subsidiaries was as follows:

	Investment in subsidiaries
Balance at January 1, 2015	46,820
Investment in companies	9,700
Profit for the period	22,713
Change in non-controlling interest	13,228
Changes in hedges and fair value hedges	(1,316)
Gain on available-for-sale investments	200
Actuarial gains (losses)	9,861
Effect of movements in exchange rates	7,280
Movement in share based payment reserve	1,347
Reclassification of negative participation from loans	14,033
Balance at December 31, 2015	123,866
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 gains (losses)	(466)
Effect of movements in exchange rates	(1,243)
Movement in share based payment reserve	2,071
Reclassification of negative participation to loans	(62,089)
Balance at December 31, 2016	135,070

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, 2015	81,797	94,376	176,173
Loans	—	1,000	1,000
Repayments	(68,728)	(26,536)	(95,264)
Accrual of interest	113	—	113
Reclassification of negative participation	6,260	(20,293)	(14,033)
Currency translation adjustment	(13,942)	—	(13,942)
Balance at December 31, 2015	5,500	48,547	54,047
Balance at January 1, 2016	5,500	48,547	54,047
Loans	—	24,825	24,825
Repayments	(56,853)	(8,416)	(65,269)
Accrual of interest	—	—	—
Reclassification 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

There was a non-current loan due from a German subsidiary, which is a holding company for several German companies within the group, and two loans due from subsidiaries in Brazil totaling $5,500. The first loan to the German holding company had a fixed interest rate of 4.65% and was paid in full in 2016. The loan to the Brazilian subsidiaries has terms through April 2017 with interest rates from 4.5% to 8.8%. Current loans are due from several subsidiaries in Europe and the United States. Loans in the amount of $69,200 (2015: $48,547) 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 4.65 – 6.85% at December 31, 2016 (4.65 – 6.85% at December 31, 2015).

8. DEPOSITS

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 $54,283 (2015: $2,475) primarily represents interest owed to the Company on loans due from subsidiaries $395 (2015: $916), amounts prepaid on behalf of subsidiaries for future capital contributions of $50,192 (2015: nil), and management fees owed of $2,627 (2015: $1,234). The remainder of the balance is comprised of amounts owed by subsidiaries that represent expenses paid for by AMG and billed back to the subsidiaries.

10. PREPAYMENTS

At December 31, 2016 and 2015, prepayments primarily represent prepaid insurance for the Company.

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, 2015	745	382,978	—	(59,728)	(225,843)	98,152
Foreign currency translation	—	—	—	(6,358)	—	(6,358)
Change in fair value of available for sale investments	—	—	—	200	—	200
Gain on cash flow hedges, net of tax	—	—	—	491	—	491
Actuarial gains, net of tax	—	—	—	9,861	—	9,861
Net profit (loss) recognized through other comprehensive income	—	—	—	4,194	—	4,194
Profit (loss) for the year	—	—	—	—	11,080	11,080
Total comprehensive income (loss) for the year	—	—	—	4,194	11,080	15,274
Transfer to retained deficit	—	—	—	1,097	(1,097)	—
Change in non-controlling interest	—	—	—	(104)	13,332	13,228
Equity-settled share-based payments	—	—	—	5,041	—	5,041
Dividend	—	—	—	—	(3,134)	(3,134)
Balance at December 31, 2015	745	382,978	—	(49,500)	(205,662)	128,561
Balance at January 1, 2016	745	382,978	—	(49,500)	(205,662)	128,561
Foreign currency translation	—	—	—	(851)	—	(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	—	—	—	4,590	—	4,590
Profit for the year	—	—	—	—	40,558	40,558
Total comprehensive income (loss) for the year	—	—	—	4,590	40,558	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	—	—	—	—	(3,671)	(3,671)
Equity-settled share-based payments, net of tax	—	—	1,123	10,682	(3,664)	8,141
Dividend	—	—	—	—	(7,558)	(7,558)
Balance at December 31, 2016	760	389,066	(570)	(35,950)	(177,592)	175,714

OTHER RESERVES

		Legal reserves					
	Share-based payment reserve	Foreign currency translation reserve	Unrealized (losses) gains reserve	Legal participations reserve	Capitalized development expenditures reserve	Investment reserve	Defined benefit obligation reserve
Balance at January 1, 2015	47,108	(21,918)	(10,659)	1,589	1,384	—	(77,232)
Currency translation differences	(1,223)	(8,494)	—	—	—	—	3,359
Gain on available-for-sale investment						200	
Movement on cash flow hedges	—	—	(389)	—	—	—	—
Tax effect on net movement on cash flow hedges	—	—	880	—	—	—	—
Transfer to retained deficit	—	—	—	641	456	—	—
Actuarial losses on defined benefit plans	—	—	—	—	—	—	8,938
Tax effect on net movement on defined benefit plans	—	—	—	—	—	—	923
Sale of non-controlling interest in AMG Graphit Kropfmühl GmbH	—	(739)	(129)	—	—	—	764
Equity-settled share-based payments	5,041	—	—	—	—	—	—
Balance at December 31, 2015	50,926	(31,151)	(10,297)	2,230	1,840	200	(63,248)
Balance at January 1, 2016	50,926	(31,151)	(10,297)	2,230	1,840	200	(63,248)
Currency translation differences	(473)	(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)	—	—	—	—
Transfer to retained deficit	—	—	—	(2,230)	508	—	—
Actuarial losses on defined benefit plans	—	—	—	—	—	—	(16,348)
Tax effect on net movement on defined benefit plans	—	—	—	—	—	—	14,026
Equity-settled share-based payments	10,447	—	—	—	—	—	—
Tax effect on equity –settled share based payments	235	—	—	—	—	—	—
Balance at December 31, 2016	61,135	(33,385)	(2,581)	—	2,348	247	(63,714)

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.

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 in 2015 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, 2016 decreased other reserves $466 while the obligation reserve for defined benefit plans for the year ended December 31, 2015 increased other reserves $13,984.

DIVIDENDS

Dividends of $7,558 have been declared and paid during the year ended December 31, 2016. Dividends of $3,134 have been declared and paid during the year ended December 31, 2015.

Preference shares

In July 2010, the foundation "Stichting Continuiteit AMG" ("Foundation") was established following the resolution adopted at its Annual Meeting on May 12, 2010. The board of the Foundation consists of three members, all of whom are independent of AMG. The purpose of the Foundation is to safeguard the interests of the parent company, the enterprise connected therewith and all the parties having an interest therein and to exclude as much as possible influences which could threaten, amongst other things, the continuity, independence and identity of the parent company contrary to such interests.

By agreement on December 22, 2010 between the parent company and the Foundation, the Foundation has been granted a call option pursuant to which it may purchase a number of preference shares up to a maximum of the number of ordinary shares issued and outstanding with third parties at the time of exercise of the option. The agreement cannot be terminated by the Company as long as the Company has not cancelled or repurchased preferences shares acquired by the Foundation.

13. LONG TERM DEBT

On July 27, 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, 2016 the total balance on the term loans was $99,080 (2015: $44,385). There was interest expense of $2,089 recorded in the income statement related to the extinguishment of debt. This was due to unamortized debt issuance costs related to the prior facility.

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, 2016 there was an asset of $2,224 (2015: nil) 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 31 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, 2015	—	16,000	—
Loans	—	—	—
Repayments	—	(16,000)	—
Accrual of interest	—	—	—
Currency translation adjustment	—	—	—
Balance at December 31, 2015	—	—	—
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

During 2014, a UK subsidiary of the Company loaned it $16,000. The loan from the UK subsidiary had a fixed interest rate of 6.35%. During the year ended December 31, 2015 the Company paid this loan in full to the subsidiary.

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, 2016. This loan has an interest rate of 5.45%.

14. OTHER PAYABLES

Trade and other payables represent amounts owed to professional service firms, accrued employee costs and accrued interest. There was $59 payable to Dutch tax authorities for wage taxes as of December 31, 2016 (2015: $78).

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, 2016 and 2015, these amounted to nil and $3,545, respectively. There was also interest due to a subsidiary of nil as of December 31, 2016 (2015: $49).

16. DERIVATIVE FINANCIAL INSTRUMENTS

Please refer to notes 31 and 32 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, 2016, the Company had outstanding foreign currency forward contracts with a fair value of $10 (2015: $10).

INTEREST RATE CAP AND INTEREST RATE SWAP

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, 2016 is $159 (2015: $273). There were no amounts included in equity through other comprehensive income in the years ended December 31, 2016 and 2015.

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 2018. 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 at December 31 are payable as follows:

	2016	2015
Less than one year	625	601
Between one and five years	1,421	1,208
More than five years	—	—
Total	2,046	1,809

18. RELATED PARTIES

Key management compensation data is disclosed in note 36 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, 2016, the Company funded $67 into an account for the expenses of the Foundation. During the year ended December 31, 2015, the amounts paid by the Company on behalf of the Foundation were $144.

19. EMPLOYEES

At December 31, 2016 the Company had 24 employees (2015: 21), of which 3 are employed in the Netherlands.

20. AUDIT FEES

KPMG has served as our independent auditor for the year ending December 31, 2016. For the year ending December 31, 2015 Ernst and Young served as our independent auditor. 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 2016:

	KPMG Accountants N.V. USD' 000	KPMG Network USD' 000	Total
Group financial statements	475	—	475
Audit of subsidiary financial statements	90	835	925
Other Service	—	—	—
Total	565	835	1,400

AMSTERDAM, MARCH 23, 2017

MANAGEMENT BOARD
AMG ADVANCED METALLURGICAL
MARCH 23, 2017

Dr. Heinz Schimmelbusch
Eric Jackson
Jackson Dunckel

AMSTERDAM, MARCH 23, 2017

SUPERVISORY BOARD
AMG ADVANCED METALLURGICAL
MARCH 23, 2017

Norbert Quinkert, Chairman
Jack Messman, Vice Chairman
Guy de Selliers
Martin Hoyos
Steve Hanke
Herb Depp
Donatella Ceccarelli
Robert Meuter
Petteri Soininen

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.

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.

Dividends of $7,558 have been declared and paid during the year ended December 31, 2016 (2015: $3,134).

INDEPENDENT AUDITOR'S REPORT

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

REPORT ON THE ACCOMPANYING FINANCIAL STATEMENTS 2016

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 31 December 2016, and of its result and its cash flows for 2016 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Netherlands 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 31 December 2016, and of its result for 2016 in accordance with Part 9 of Book 2 of the Netherlands Civil Code.

WHAT WE HAVE AUDITED

We have audited the financial statements 2016 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 31 December 2016;
2. the following consolidated statements for 2016: the income statement, the statement 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 statement of financial position as at 31 December 2016;
2. the parent company income statement; and
3. the notes comprising a summary of the accounting policies and other explanatory information.

BASIS FOR OUR OPINION

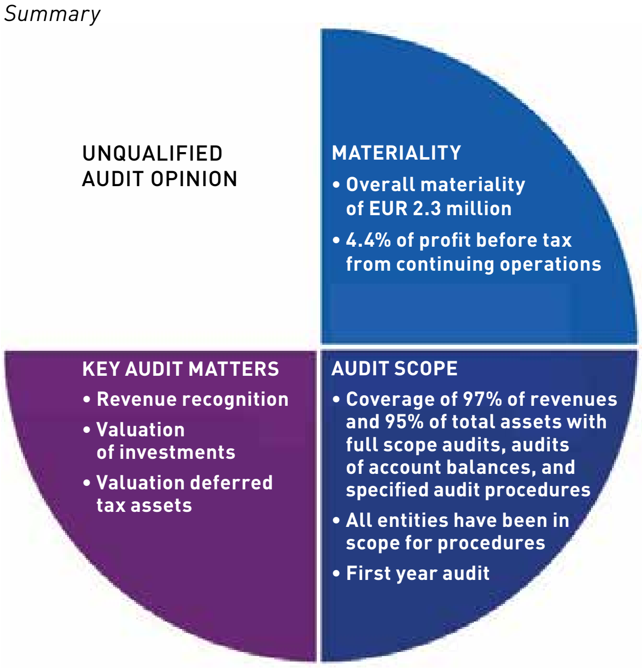
We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the 'Our responsibilities for the audit of the financial statements' section of our report.

We are independent of AMG in accordance with the Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore, we have complied with the Verordening gedrags- en beroepsregels accountants (VGBA, Dutch Code of Ethics).

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

AUDIT APPROACH

Summary



Materiality

Based on our professional judgment we determined the materiality for the financial statements as a whole at EUR 2.3 million. The materiality is determined with reference to profit before tax from continuing operations, of which it represents 4.4%. We consider profit before tax from continuing operations as the most appropriate benchmark as the main stakeholders are primarily focussed on profit before tax. We have also taken into account misstatements and/or possible misstatements that in our opinion are material for qualitative reasons for the users of the financial statements.

We agreed with the Audit Committee that misstatements in excess of EUR 115 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 head of a group of entities. The financial information of this group is included in the financial statements of AMG.

Our group audit mainly focused on significant group entities 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 16 group entities where we performed procedures (full scope procedures for 11 group entities, audit of account balances for 3 group entities and specified audit procedures on significant account balances for 2 group entities).

We have:

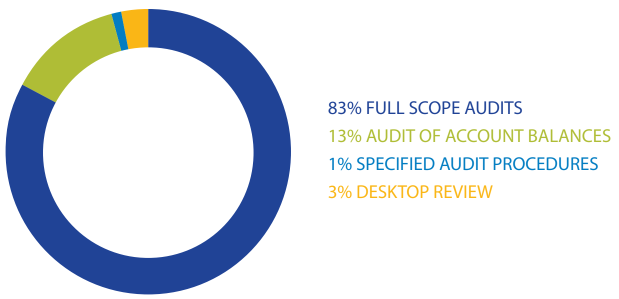
- performed audit procedures ourselves at group entities in respect of areas such as the annual goodwill impairment tests, valuation of deferred tax assets, valuation of investments, environmental provisions, sharebased payments, and refinancing;
- used the work of local KPMG auditors when auditing local entities. These entities are located in Germany, France, the United Kingdom, the United States of America, and Brazil. We performed file reviews at entities in Germany, United Kingdom and the United States.
- performed audit of account balances, specified audit procedures, or desktop reviews at other group entities.

By performing the procedures mentioned above at group and local entities, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about the group's financial information to provide an opinion about the financial statements.

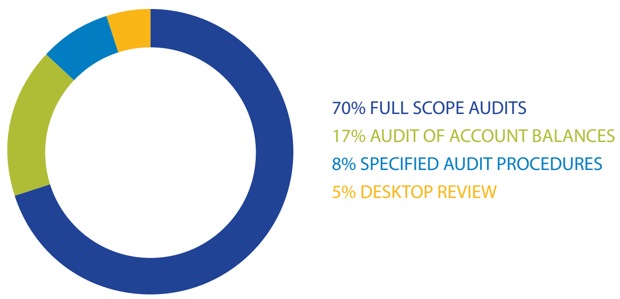
Coverage

The depth of our audit procedures and our actual coverage varies per account balance depending on our risk assessment. This resulted in a coverage of 97% of revenues and 95% of total assets through full scope audits, audit of account balances, and specified audit procedures.

REVENUES



TOTAL ASSETS



Initial audit

Initial audit engagements involve considerations in addition to those applied in recurring audits. During initial audit engagements we need to gain sufficient knowledge about the Company, its business, control environment and application of accounting principles in order to perform our initial audit risk assessment and planning of audit activities.

A transition plan, including independence clearance, was prepared prior to the start of the audit. We started our transitional procedures to gain an understanding of AMG and its business including its control environment and accounting policies. We have been in close contact with the predecessor auditor and have performed reviews on their audit files at all levels throughout the group. During 2016 we have had regular meetings with management, performed limited half-year procedures, performed site visits in all countries, and assessed key audit matters at an early stage.

OUR KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgment, 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 project sales, sale of goods, and non-standard sale agreements	
Description	Revenue related to furnace construction contracts of USD 211 million is recorded based on the estimated percentage of completion of contracts as determined by management. Revenue is recognized based on an overall engineering design plan and 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 requires significant judgement. Other revenue from the sale of goods is measured at the fair value of the consideration received or receivable. Revenue from goods sold is recognized when the significant risks and rewards of ownership have been transferred to the customer. In certain circumstances sales agreements may include non-standard terms based on their nature, size or specific conditions attached to the contract. Due to an amended contract with one of its customers in 2015 deferred revenue was recognized in 2015 and 2016 related to prepayments received from a customer. The relating revenues are recognized over the course of the contract based on the tonnage shipped as further explained in note 28 in the financial statements. Considering the above, revenue recognition is significant to our audit.
Our response	With involvement of our component auditors, our procedures for revenue related to furnace construction contracts and the sale of goods included amongst other, assessment of the revenue recognition method. We have tested the design and the effectiveness of the controls set up by management surrounding the determination of the progress made and the level of percentage of completion. We performed detailed procedures, including testing on a sample basis underlying evidence of revenue recognized in relation to furnace construction contracts and goods sold. For both furnace contracts and goods sold we have reviewed contracts and other documentation (amongst others sales orders, shipping documents, third party confirmations) to determine accurate and complete revenue recognition For both furnace contracts and goods sold we performed detailed procedures, including testing on a sample basis of contractual terms and conditions of sales transactions for non-standard terms and the appropriate accounting thereof. We assessed sales transactions taking place before and after year-end to ensure that revenues were recognized in the appropriate period.
Our observation	Based on our procedures performed for revenue recognition project sales, sale of goods, and non standard sale agreements, we consider that the accounting for revenue is appropriate and in accordance with EU-IFRS.

Assumptions valuation of investments	
Description	Company's investments in available-for-sale financial assets are initially recognized at fair value plus any directly attributable transaction cost and amount to USD 30 million. Subsequent to initial recognition, they are measured at fair value and changes therein are recognized in other comprehensive income and presented in the fair value reserve as explained in note 2 of the financial statements. The value of one investment is recognized at USD 15 million as at 31 December 2016. The fair value is determined using a discounted cash flow model. The valuation is significant to our audit due to the complexity for the assessment process and judgements and assumptions involved.
Our response	We challenged the cash flow projections included in the valuation model prepared by management. Furthermore we critically assessed and tested management's key assumptions, methodologies, the weighted average cost of capital and other data used by comparing them to external and historical data, such as external market growth expectations. 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 13 in the financial statements.
Our observation	Based on our procedures performed we consider the assumptions to be within a reasonable range and determined that the Company's disclosures meet the requirements of EU-IFRS.

Valuation deferred tax assets	
Description	The group has deferred tax assets, including those resulting from operating losses in various countries amounting to USD 41 million. For the deferred tax assets the risk exists that future (fiscal) profits will not be sufficient to fully recover the amount recognized. 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 regulations may affect these projections as explained in note 10 of the financial statements. Management exercises judgment in determining its tax position. The future actual outcome of decisions concerning the tax exposures may result in significantly higher or lower amounts than currently recognized in the financial statements. Considering the above, valuation of deferred tax assets is significant to our audit.
Our response	We have assessed the appropriateness of management's assumptions and estimates in relation to the deferred tax assets, by challenging those assumptions. In this area, our audit procedures included, among others, using our own tax specialists to assist us in assessing the appropriateness of the level of deferred tax asset balances recognized in the balance sheet. 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 note 10 in the financial statements.
Our observation	Based on our procedures performed we consider management's assumptions and judgments to be within a reasonable range and determined that the tax disclosures 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 Netherlands Civil Code
- Report of the Supervisory Board
- Statement of responsibilities
- Corporate governance report
- Risk Management & Internal Controls
- Financial Review

Based on the below 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 Netherlands 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 Netherlands 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.

Management is responsible for the preparation of the other information, including the management board's report in accordance with Part 9 of Book 2 of the Netherlands Civil Code and other information pursuant to Part 9 of Book 2 of the Netherlands 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 4 May 2016 for the financial years 2016 and 2017.

DESCRIPTION OF THE RESPONSIBILITIES FOR THE FINANCIAL STATEMENTS

Responsibilities of the Board for the financial statements

The Board is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and with Part 9 of Book 2 of the Netherlands Civil Code. Furthermore, the Board is responsible for such internal control as the Board determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to errors or fraud.

As part of the preparation of the financial statements, the Board is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting framework mentioned, the Board should prepare the financial statements using the going concern basis of accounting unless the Board either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so. The Board should disclose events and circumstances that may cast significant doubt on the Company's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for overseeing the Company's financial reporting process.

OUR RESPONSIBILITIES FOR THE AUDIT OF FINANCIAL STATEMENTS

Our objective is to plan and perform the audit 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 have detected all material errors and fraud during the audit.

Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these 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.

For a further description of our responsibilities in respect of an audit of financial statements we refer to the Appendix.

Amstelveen, 23 March 2017

KPMG Accountants N.V.

T. van der Heijden RA

APPENDIX

We have exercised professional judgment and have maintained professional skepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit included e.g.:

- 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 for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Board.
- Concluding on the appropriateness of the Board's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company'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 entities. Decisive were the size and/or the risk profile of the group entities or operations. On this basis, we selected group entities 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.

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 safegards.

From the matters communicated with the Audit Committee, we determine 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 and Appointment Committee (Chair)

JACK L. MESSMAN
Vice Chairman
Remuneration Committee (Chair)

MARTIN HOYOS
Audit Committee (Chair)

GUY DE SELLIERS
Risk Management Committee (Chair)

HERB DEPP
Remuneration Committee

STEVE HANKE
Risk Management Committee

DONATELLA CECCARELLI
Selection and Appointment Committee

ROBERT MEUTER
Audit Committee

PETTERI SOININEN
Remuneration 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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