AMG Advanced Metallurgical Group N.V. Annual Report 2013

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Annual Report 2013

AMG

| | |
|---|---|
| Highlights | 4 |
| Letter to Shareholders | 6 |
| People of AMG | 10 |
| Report of the Management Board | 18 |
| Report of the Supervisory Board | 38 |
| Sustainable Development | 50 |
| Corporate Governance | 58 |
| Financial Review | 64 |

# Our People

AMG Advanced Metallurgical Group N.V. ("AMG" or "the Company") creates and applies innovative metallurgical solutions to support the global trends of sustainable development of natural resources and $CO_2$ reduction. These trends require the development and application of new material science-based solutions, including advanced metals and alloys. The people of AMG create these solutions using their metallurgical expertise, global presence and technological innovations. AMG's unique combination of specialty metals reduces volatility and enables technology sharing across niche materials.

# At a Glance

AMG is a leader in mining, processing, and upgrading critical materials for the production of high value added specialty metals and alloys.

## AMG Overview

AMG is comprised of three segments, each centered on advanced metallurgical technologies and critical materials. AMG Processing contains AMG's conversion and recycling based businesses. AMG's integrated mine based businesses such as graphite, antimony, tantalum and silicon metal comprise AMG Mining. AMG Engineering is AMG's vacuum furnace systems and services business. Together these segments serve the global aerospace, energy, infrastructure and specialty metals and chemicals markets.

## AMG Processing

### OUR END MARKETS

#### ENERGY

Global energy demand growth is comprised of two factors – the increasing use of energy and improvements in energy efficiency. AMG provides metallurgical technologies to increase energy supply and improve energy efficiency, which reduces energy intensity. These technologies have helped reduce $CO_2$ emissions in the US to 1990's levels.[1]

#### AEROSPACE

Innovation is driving growth in the global aerospace industry. The demand for new technologies to increase operating efficiency, lower aircraft weight and improve economics are the catalysts behind the global increase in commercial aircraft backlog to over 9,000 planes. AMG is developing innovative metallurgical technologies such as gamma titanium aluminides to meet this challenge.

#### 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 used to improve the insulating performance of homes and buildings. These technologies are used in the infrastructure necessary to meet increasing global urbanization.

#### SPECIALTY METALS & CHEMICALS

Aluminum and aluminum alloys are used to reduce weight and increase fuel efficiency in transportation applications by replacing heavier materials with strong, lightweight aluminum products. Industry experts conclude that a 10% reduction in weight leads to a 7% improvement in fuel economy and AMG's aluminum master alloys are a key component for weight reduction.

1 BP Energy Outlook 2035

AMG's strategy is to build critical mass in materials where it possesses a significant market position and potential for long term growth exceeding global GDP.

**GLOBAL OPERATIONS**

# Financial & Operational Highlights

| REVENUE $M | GROSS PROFIT $M | EBITDA $M |
| --- | --- | --- |
| 1,158.4 | 177.7 | 72.6 |
| **CASH FLOW FROM OPERATIONS $M** | **WORKING CAPITAL DAYS** | **NET DEBT $M** |
| 69.7 | 43 | 160.5 |
| **LOST TIME INCIDENT RATE** | **INCIDENT SEVERITY RATE** | **NUMBER OF EMPLOYEES** |
| 1.76 | 0.21 | 3,093 |

**ENERGY $M**

217.2 revenue

15.5% gross margin

**AEROSPACE $M**

467.4 revenue

16.8% gross margin

**INFRASTRUCTURE $M**

143.4 revenue

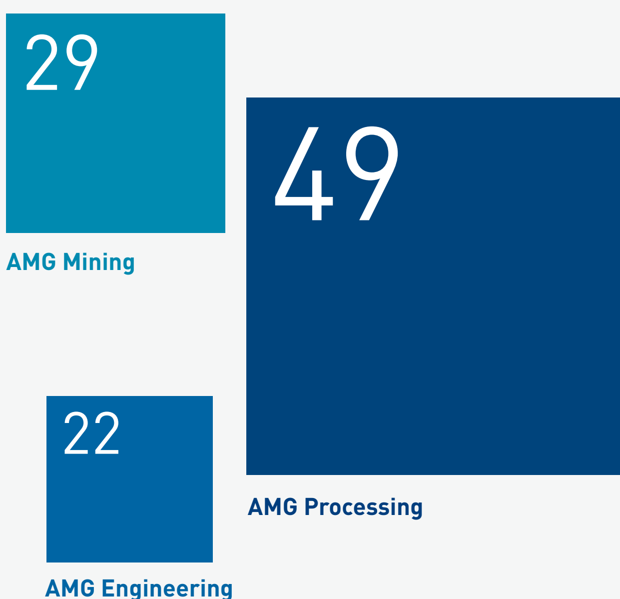
12.7% gross margin

**SPECIALTY METALS & CHEMICALS $M**

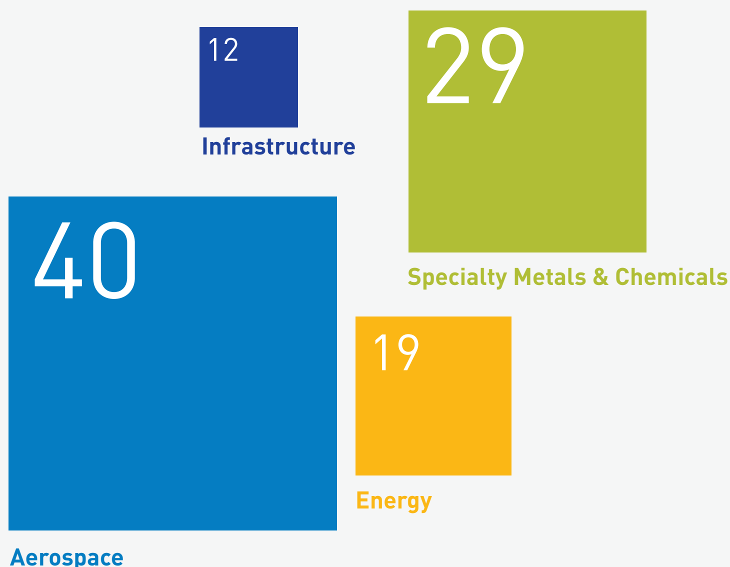
330.4 revenue

14.3% gross margin

**REVENUE BY SEGMENT 2013 (%)**




**REVENUE BY END MARKET 2013 (%)**




## AMG PROCESSING

- Completed the consolidation of its global aluminum operations into one centralized unit, AMG Aluminum, consisting of AMG Aluminum North America LLC, AMG Aluminum UK Limited, and the aluminum activities of LSM Brazil S.A.
- Sold its 45% equity interest in aluminum alloy producer Nanjing Yunhai KB Alloys Co., Ltd., the next step in AMG Aluminum's strategy to streamline its organization and seamlessly support its global customers, particularly in the Asia Pacific region.
- Commissioned a new multiple hearth roaster at AMG Vanadium, increasing ferrovanadium production capacity by approximately 25%.
- Implemented fixed cost reduction programs at AMG Superalloys and AMG Titanium Alloys & Coatings, to improve future profitability and help mitigate lower prices.

## AMG MINING

- Formed a new operating segment, AMG Mining under the leadership of Mr. Hoy Frakes, and integrated Graphit Kropfmühl into this segment.
- Signed an exclusive distribution agreement with Haydale, a subsidiary of Innovative Carbon Limited, for Haydale branded HDPlas™ Graphene Nano Platelets in Germany.
- Updated the mineral resource estimates for AMG Mineração's Volte Grande mine in Brazil. The mine has 14.7 million tons of measured and indicated resources, including tantalum, niobium, tin, and lithium. This study indicates a 20-year life of mine, and a 150% increase in the reserve since the last report completed in 2010.

## AMG ENGINEERING

- Acquired a patented wear and corrosion resistance nitriding technology that utilizes an active screen plasma nitriding process ("ASPN"). This revolutionary technology enables AMG to expand its services to new aerospace and energy applications, and the medical market.
- Streamlined the organizational structure of AMG Engineering by reducing the number of legal entities, with the goal to simplify the reporting structure and improve decision-making.
- Reduced the workforce by 14% and made significant steps towards right sizing the business and improving operational performance.

# Letter to Shareholders

We increased operating cash flow and reduced net debt in 2013, despite a period in which most specialty metal prices were declining and the global industry was extremely cautious with expenditures for new capital equipment.

In 2013, AMG generated operating cash flow of $70 million, the second most in its history. We achieved that result primarily through reductions in working capital, despite a decrease in EBITDA to $73 million. Most importantly, however, we were able to reduce net debt by $34 million or 17%, to $161 million.

### Metal Prices

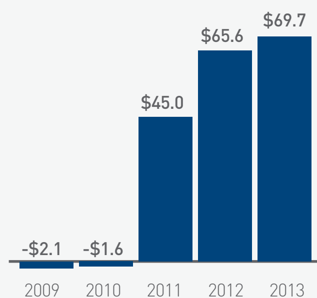
During 2013, the primary management challenge was to convert falling prices for our products and sluggish demand for both alloys and furnaces into increased operating cash flow. In 2013, average prices for natural graphite fell by 31%, chrome metal by 22%, antimony by 20%, molybdenum by 19%, niobium by 16%, ferro-titanium and nickel by 14%, and ferrovanadium by 10%. This unusually persistent slide started in 2011 and it is uncommon in its uniformity across all of our metals.

## Segmental Performance

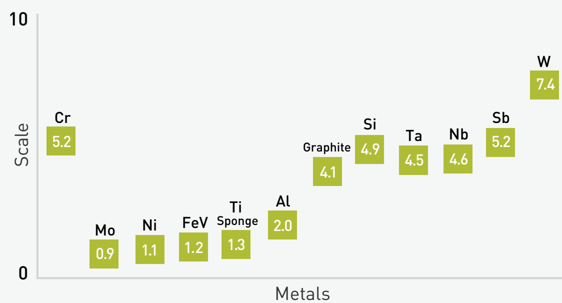
Given these headwinds, AMG's three reporting segments performed differently. AMG Mining performed very well, against the price trend, with operating cash flow of $49 million, up from $10 million in 2012; EBITDA was $31 million, up 56%; and ROCE was 9% in 2013. The intra-year performance was steady. The segment performance was enhanced by long term sales contracts for tantalum concentrates and by an increase in volumes of higher value added products in the natural graphite business.

The 2013 performance of AMG Engineering was consistent with 2012, but it was far from satisfactory. The segment is still suffering from the delay of orders reflecting uncertainty of the global economy. AMG Engineering's operating cash flow increased in 2013 by $8 million to $14 million; EBITDA decreased slightly by 3% to $21 million; ROCE was 11%.

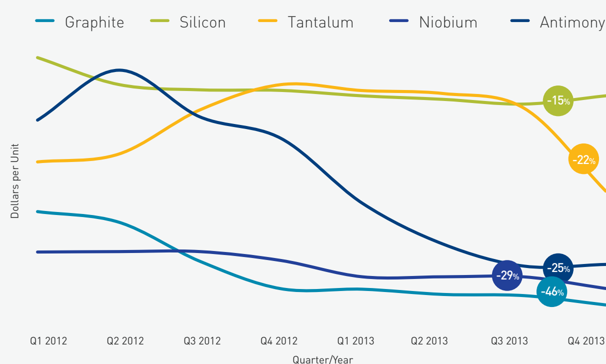
5-Year Operating Cash Flow Performance

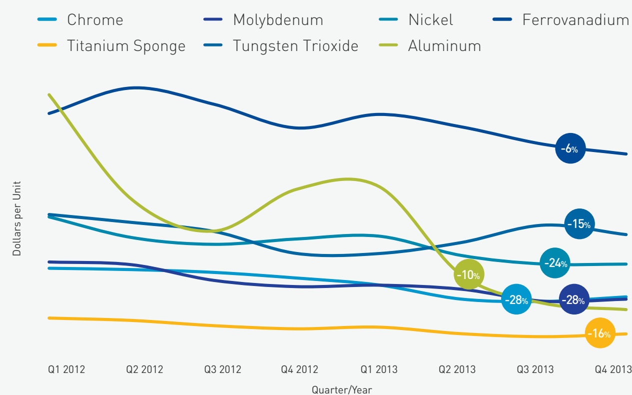



Current Metals Prices Relative to 10 Year Price Fluctuation



### Metals Prices Two Year Development




AMG Processing did not perform well. After a slow start in 2013, the segment experienced further market deterioration in Q3 and Q4. This resulted in a significant decrease in operating cash flow, from $50 million in 2012 to $7 million in 2013; EBITDA declined from $43 million to $22 million, and ROCE was 4%.

## Improving Operational Performance

In addition to the weak prices, a large part of the under-performance of AMG Processing is the result of an unexpected drop in orders from aerospace customers mainly due to restrictive working capital management throughout the aerospace value chain as the large OEM backlog is being reduced slower than expected in the near term. In addition, the thin film coating business eroded under the pressures in the solar market. These market conditions particularly impacted AMG Superalloys and AMG Titanium Alloys & Coatings. Under new operating leadership, restructuring efforts are underway in both operations and these actions will result in a more efficient and responsive management structure and a headcount reduction in 2014 exceeding 10% of the workforce in each business. The restructuring in AMG Superalloys, under new leadership, was completed in December 2013 with full benefit in 2014. These actions to reduce cost, combined with the overall robust backlog in aerospace, will support a return to our historical profitability in the affected areas once the de-stocking comes to an end and our measures have been fully implemented. The recently restructured AMG Aluminum unit performed well and AMG Vanadium met expectations during the ramp up of its production following the large capital investments to expand capacity. In AMG Engineering we are working to turn delayed order intake into firm orders. The amount of orders, which are in a "ready-to-go" mode with conditions, agreed pending final investment decisions or similar situations, is unusually high.

We expect "catch up" bookings to occur in early 2014 and we will continue to report about that in a timely manner. Currently, strong markets are thermal barrier turbine blade coating equipment, vacuum carburizing of engine parts, and in our Own and Operate heat treatment service business in North America.

## Strategy

In times like this, when we have to operate in recessive markets with sliding metal prices, and in light of our dominating short term objective to create free cash flow, it is nevertheless imperative to preserve and continue to push forward our options for growth, preparing for times when markets turn around and improve. AMG's strategy is based on three pillars: First, growth opportunities created from the superior metallurgical know how base fueled both from production and engineering experience. Second, growth opportunities in the form of vertical and horizontal consolidation of the 'niche' markets we are operating in – vertical to improve supply lines, horizontal to gain market share. Third, to complement our management resources to be able to react competitively if such opportunities arise or have to be brought to the finish line.

The 'first' pillar was demonstrated by the following developments:

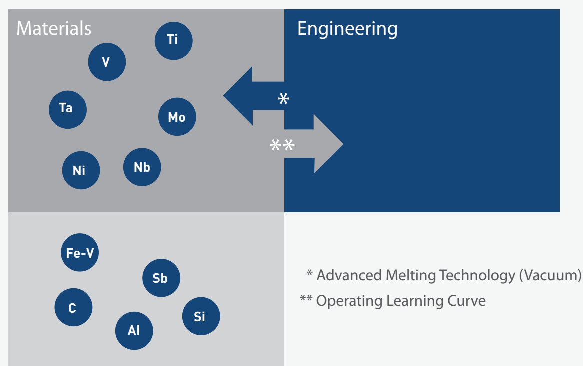
1. spent catalyst recycling as a new business from scratch to world leadership;
2. a new graphite product to meet the specifications of energy saving construction materials, and;
3. gamma titanium aluminides for aerospace engine applications, an advanced alloy with an accelerating growth rate, the result of a multi-year development and commercialization effort.

The titanium aluminides have the potential to grow into a defining AMG product, complementing AMG's offerings for our largest end market, aerospace, and aerospace engines in particular. The collaboration between AMG Engineering and AMG Processing for this innovation and product development was critical. A good example for industry consolidation in our niche markets, the second pillar, is the successful integration of the acquired aluminum master alloy competitor, KB Alloys into AMG Aluminum. AMG now operates five plants on four continents as one unit, providing seamless services to approximately 50% of the global aluminum industry.

Under the new AMG Aluminum leadership, these combined strengths led to significant synergies that resulted in the sharing of best practices, while reducing costs and working capital. Both examples illustrate efforts to improve the quality and lower the cost base of the various units by executing AMG's strategy of building critical mass in critical materials.

The inter-relationships within our business, which can be used to create shareholder value, the so-called synergies, are sometimes difficult to be communicated to outside observers who require ease of assessment on the quality of AMG's strategy.

### Complexity and Synergy

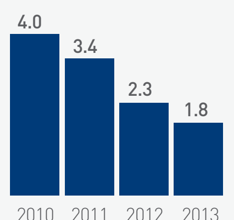



Broadly speaking, these synergies fall into two categories: One, the metallurgical or technical cross-fertilization between operators and engineers as mentioned earlier. The second synergy is the general volatility reducing portfolio effect inherent in our diversified materials spectrum and in addition between that and the typically different cycle times in critical materials and capital goods markets. In 2013, the portfolio effect has once again demonstrated its validity, especially between AMG Mining and AMG Processing, and within AMG Processing. It is apparent that the synergy between certain operations and engineering services does not apply to certain AMG Mining activities, where vacuum furnaces are not utilized. We are continuously evaluating, under capital constraints, which combinations of strategic assets provide the most efficient use of capital and provide the highest returns. That includes whether it might be justified to rearrange the portfolio in order to create internal financial resources to continue increasing critical mass in critical materials and reducing the complexity of evaluating AMG.

## Health, Safety and Sustainability

AMG's sustainable success relies on a broad responsibility covering economic performance, quality of goods and services, our employees wellbeing and skills, our customers, suppliers, and other stakeholders and the environment in the locations in which we operate and beyond. AMG has worked in recent years to instill a strong culture of safety, something that is crucially important to me. Safety performance showed further improvement during 2013, particularly in terms of the lost time incident rate, although the severity rate was little changed. We are pleased by this progress, although we still have much to do as we learn from our best practice areas and share this safety excellence across the company to move closer to our goal of ZERO incidents. In April, at our companywide safety conference, we will share our best practices, but more importantly, we will try to deepen the passion for this subject across our management and again refine our systems of accountability.

Lost Time Incident Rate




In the past year we have also taken steps to strengthen a stable and conflict free supply chain for our customers. AMG's tantalum and niobium production in Brazil is certified conflict free by the Electronic Industry Citizenship Coalition (EICC). Additionally in 2013 we launched a supplier code of conduct to help ensure our partners have the same high social and environmental aspirations that we do as exemplified by our commitments to the Global Reporting Initiative, where we are a stakeholder of the United Nations Global Compact and the Extractive Industries Transparency Initiative.

Environmental performance is another area of continuous improvement. Several of our sites are now certified to the ISO 50001 energy management standard, and others have, or are working toward the ISO 14001 environmental management standard. These systems help us drive improvement to reduce waste, improve energy efficiency and minimize emissions to both air and water and the avoidance of landfills.

A very good example for our environmental endeavors is our advanced technology recycling facility for heavy metal containing spent oil catalysts, the world's largest.

I have mentioned our focus on the environment at our locations, "and beyond". We have introduced and are refining the concept of "enabling technologies", such as fuel saving by the way of vacuum surface hardening for automotive engine parts; or unique thermal barrier coating equipment for aerospace turbine blades enabling higher operating temperatures and less fuel consumption. The impact of these technologies is global and the annual savings in $CO_2$ emissions are to be measured in millions of tons.

## Outlook

2014 has started well. In an uncertain world, our objectives include reducing net debt through cash flow from operations. We target an increase in EBITDA and a significant improvement of the return on capital employed in 2014. Our focus on operating efficiencies will be complemented by strategic initiatives to further optimize our specialty metals and technology portfolio.

Dr. Heinz C. Schimmelbusch
Chief Executive Officer

# Critical Mass in Critical Materials

**AMG is a leader in the sourcing and production of critical raw materials. A critical raw material has a higher risk of supply shortage and more significantly affects the economy compared to most other raw materials. Demand for these raw materials tends to be driven by the growth of developing economies and emerging technologies.**

AMG utilizes its expertise in mining, processing, and upgrading critical materials for the production of high value added specialty metals and alloys. AMG's strategy is to build critical mass in materials where it has, or can attain, a significant market position and potential for long term growth exceeding global GDP. The Company is increasing its focus on businesses with innovative, highly proprietary materials that provide significant value to the market.

These businesses, such as AMG Vanadium's world leading spent catalyst recycling technology, AMG Mineração's conflict free tantalum resources, and AMG Titanium Alloys & Coatings' advanced metallurgical products such as gamma titanium aluminides for the next generation of aerospace engines, are examples of the critical materials and critical technologies that fuel the global economy.

AMG is increasing its presence in its existing critical materials through leveraging current resources and products while identifying complementary services, products and locations to increase market share and improve return on capital.

## Julien Crisnaire, President, AMG Aluminum

AMG's strategy to obtain critical mass in critical materials is exemplified by AMG Aluminum. AMG achieved critical mass in the aluminum master alloy business under the leadership of Julien Crisnaire, AMG Aluminum's President. Mr. Crisnaire is the leader of a team that implemented a seamless global sourcing and servicing model combined with a selective acquisition, divestiture and integration strategy.

AMG Aluminum's five facilities on four continents provide customized solutions for the global aluminum industry. This combination of a global network and local knowledge enable AMG Aluminum to meet the needs of today's multinational businesses.

Since the 2011 acquisition and subsequent integration of KB Alloys into AMG Aluminum, AMG created the world's largest global player, leveraged best practices to increase EBITDA by 180% and reduce SG&A by 12%, all while reducing working capital by 66% and increasing ROCE to 25%.

The people of AMG made this success possible. The leadership and the team members of AMG Aluminum implemented AMG's strategy of critical mass in critical materials enabling the business to exceed expectations.

**We are One AMG.**

# Streamlining Operations

**AMG is addressing the challenging market conditions and declines in metals prices by increasing the focus on cost control and process optimization. AMG has made significant improvements to its operational activities by upgrading the quality of its people and empowering them to succeed. This was critical in reducing SG&A by 3% in 2013. AMG has leveraged its best practices across the organization to benchmark each business and challenged each unit to implement operational strategies to accelerate cost reduction efforts.**

The people of AMG have responded to this challenge by restructuring operations and streamlining decision making, such as in AMG Antimony, where a new procurement process reduced working capital by $18 million in 2013. AMG Graphite realigned their supply chain to reduce working capital, simplify purchasing, and reduce material handling and processing costs. AMG Silicon has worked with one of its key suppliers to install optic sorting equipment, which improved melting efficiencies and quality of the quartz that is critical to reducing cycle time and production costs. AMG Mineração implemented a program to identify and address production constraints, thereby improving workflow and reducing unit costs.

All of these activities have the common goal to lower AMG's cost of production and set the stage for improved margins and ROCE.

# A Team Approach

The people of AMG are a global team of professionals dedicated to improving operational performance, increasing ROCE and generating a return for our stakeholders – our investors, our communities and our fellow employees. The people of AMG share best practices across businesses and units, and work together to achieve success. This team has significant experience in critical materials and that is the strength of AMG.

The people of AMG are a diverse group, and our diversity helps make us stronger.

Different skill sets, points of view, backgrounds, and experiences are essential to helping improve operations, reduce costs, and increase operating cash flow. Collaboration between AMG Processing and AMG Mining has increased each year since AMG was formed. Sharing of metallurgical expertise between AMG Engineering and AMG Processing has led to numerous joint selling and technology development activities. It is the people of AMG that make this possible.

**We are One AMG.**

# Focus on the Balance Sheet

**AMG is improving the quality of its balance sheet and financial reporting. AMG generated over $70 million in operating cash flow in 2013. Better working capital management contributed significantly to this result, with days in working capital decreasing over 30% to 43 days.**

AMG is implementing best practices in working capital management across the Company, with a specific focus on supply chain optimization initiatives. The Company has also implemented a more stringent capital expenditure approval process, with a specific focus to improve ROCE margins going forward. As a resut, 2013 capital spending declined by one third compared to 2012. The progress made in these areas contributed to a $52 million reduction in gross debt and a $34 million reduction in net debt during 2013. The decline in debt enabled the Company to reduce interest expense, particularly in the fourth quarter of 2013. AMG expects further debt reduction in 2014.

In 2013 AMG began reporting three segments: AMG Processing, AMG Engineering, and a new segment, AMG Mining. While each of these segments share common end markets and an emphasis on niche metals and metallurgical technology, they have different operational characteristics. These new segments better reflect AMG's business characteristics and improve the transparency of the financial performance of AMG's critical materials units.

## Amy Ard, Chief Financial Officer

Ms. Amy Ard was appointed AMG's Chief Financial Officer and Member of the Management Board in 2013. In addition to being the first female member of the Management Board, Ms. Ard brings substantial industry experience and financial expertise to the role of CFO.

AMG continues to upgrade the quality of its people and is improving the global coordination of the financial function to be a true partner to operations management.

Whether it is the reporting of KPIs, the education of non-finance colleagues on the benefits of utilizing financial metrics, the management of capital expenditures, the monitoring of the capital structure, or the preparation of the financial reports, the people of AMG's finance team have a common goal to support operational activities and enable AMG to meet its financial and operational objectives.

**We are One AMG.**

"I am securing critical raw materials. I am AMG."
"I am recycling spent oil catalysts to produce ferrovanadium. I am AMG."
"I am creating the next generation titanium alloys for aerospace. I am AMG."
"I am improving the insulating properties of building materials. I am AMG."

"I am developing coatings technologies to improve fuel efficiency. I am AMG."
"I am producing aluminum alloys to decrease weight of automobiles. I am AMG."
"I am enabling more fuel-efficient cars through advanced vacuum metallurgy. I am AMG."
"I am helping reduce global carbon emissions. I am AMG."

# Report of the Management Board

Dr. Heinz Schimmelbusch 69

## Chairman & Chief Executive Officer

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 11, 2011. He has served in a similar capacity for businesses comprising AMG since 1998.

Dr. Schimmelbusch also serves as Non-Executive Chairman of the Board of various companies, including Allied Resource Corporation, United States. Dr. Schimmelbusch served as Chairman of Metallgesellschaft AG from 1989 until he resigned in 1993. His directorships have included Allianz Versicherung AG, Mobil Oil AG, Teck Corporation, Methanex 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.

Amy Ard 40

## Chief Financial Officer

Ms. Ard was appointed Chief Financial Officer of AMG on April 15, 2013 and a member of the Management Board on November 8, 2013. Ms. Ard has served in various senior level financial positions at AMG and predecessor companies since 2005, most recently serving as Senior Vice President and Group Controller. Ms. Ard is a Certified Public Accountant with more than 18 years' experience across a variety of industrial companies. She served as Divisional Controller at Precision Castparts Corporation and held senior finance positions, including Treasurer and Controller, at PQ Corporation. Prior to PQ Corporation, she was a manager at PricewaterhouseCoopers LLP. Ms. Ard received a BS degree in Accountancy and an MBA in Finance, both from Villanova University.

Eric Jackson 61

## Chief Operating Officer & President, AMG Processing

Mr. Jackson was appointed President of the Advanced Materials Division and member of the Management Board on April 1, 2007, and he was re-appointed for a term of four years on May 3, 2013. Mr. Jackson has served in various senior capacities for businesses now owned by AMG since 1996 and was appointed Chief Operating Officer of the Company on November 9, 2011. He previously acted as Director at Phibro, a division of Salomon, Inc, and as Vice President at Louis Dreyfus Corporation. In addition, from 1979 to 1989 Mr. Jackson acted in various roles for Cargill Incorporated in Canada and the United States. Mr. Jackson received a BS in economics and an MBA, both from the University of Saskatchewan, Canada.

# AMG Processing

**1.97**
Lost time incident rate

$M

**568.6**
Revenue

**6.8**
Cash Flow from Operations

**21.5**
EBITDA

**61.1**
Gross Profit

# In the context of declining prices and generally weak markets, AMG Processing continued to focus on cost reduction, productivity improvement, and maximizing operating cash flow.

AMG Processing had a difficult 2013. Revenue decreased to $568.6 million, 7% less than 2012, primarily the result of lower prices, and in the second half of the year, weaker volumes. Ferrovanadium market prices, as an example, declined 10%, from an average of $14.92/lb in 2012 to $13.43/lb in 2013. The market price at December 31, 2013 was at the low end of the year's range, at $12.38. Similar price trends prevailed in chrome metal, molybdenum, nickel, titanium master alloys and coatings. Declining prices and weaker second half volumes resulted in lower capacity utilization and compressed margins. As a result, gross margins fell from 14% in 2012 to 11% in 2013.

AMG Processing continued to reduce SG&A during 2013. SG&A decreased by 5%, or $2.8 million from 2012 through productivity improvements and reductions in headcount. AMG Processing also improved cash flow through working capital management and minimizing capital expenditures. Capital spending decreased 22%, or $5.0 million to $17.3 million. AMG completed the roaster project at AMG Vanadium in the first half of 2013 and limited most other capital expenditures to maintenance investments. In connection with AMG's focus on cash flow, AMG Processing continued to optimize working capital balances in 2013. AMG Processing made steady progress and reduced working capital by 4 days, or $4.7 million, to 51 days. Despite the disappointing EBITDA, AMG Processing did deliver $6.8 million of operating cash flow during 2013. Due to the weaker business climate in the second half of 2013, cost reduction programs were initiated by new unit leadership in AMG Superalloys and AMG Titanium Alloys & Coatings. These programs will reduce personnel levels by approximately 10%, or 100 full time employees, in these units.

AMG Processing targeted ZERO incidents, as we believe that safety is not only the right thing to do, it is a key aspect of improving productivity and profitability. Despite this focus, AMG Processing's Lost Time Incident Rate increased slightly from 1.87 in 2012 to 1.97 in 2013, interrupting a record of steady improvement. This increase was primarily the result of poor performance in one of our business units. AMG Processing has made changes to the management of that unit to address this issue. The Incident Severity Rate was unchanged at 0.25. AMG continues to implement "best practices" training throughout the organization with special programs being enacted in underperforming units.

**" AMG Processing is implementing changes to adapt to current market conditions. Through cost reductions and operational improvements AMG Processing's results should improve in 2014."**

**Eric Jackson,**
**Chief Operating Officer AMG & President, AMG Processing**

## AMG Aluminum

AMG Aluminum, with the completion and integration of KB Alloys, is the world's largest producer of aluminum master alloys. The combination of a global network and local knowledge enables AMG Aluminum to meet the needs of today's multinational businesses. In 2013, AMG Aluminum leveraged this scale to make significant operational improvements. Since the acquisition of KB Alloys, AMG Aluminum has more than doubled EBITDA while reducing SG&A expenses by over 10%. The unit increased return on capital employed and operating cash flow with a sharp focus on rationalizing low margin products and reducing working capital. The improvement in financial performance in AMG Aluminum Brazil was especially significant. This operational focus should enable AMG Aluminum to benefit from market improvements in 2014.

## AMG Vanadium

AMG Vanadium completed the expansion of its roasting capacity for spent catalyst recycling in mid-2013 and by year-end the facility was operating at full capacity. This technologically advanced and environmentally friendly operation removed a production bottleneck, positioning the business for the next phase of growth and margin improvement. AMG Vanadium increased volumes during 2013; however revenue was stable compared to 2012 as these volume gains were offset by a 10% decline in pricing. Demand for AMG Vanadium's products, primarily used in the high strength low alloy North American steel industry, remained strong during 2013 and this trend is expected to continue into 2014. We believe AMG Vanadium's performance will improve in 2014 as it began the year at full capacity and with a full order book.

## AMG Superalloys

AMG Superalloys, a producer of chrome and specialty metals had a very difficult 2013, as chrome metal prices declined over 22% from 2012. This decline, coupled with weak volumes for high purity chrome metal, and a challenging raw material supply chain, resulted in compressed margins and unsatisfactory financial performance. In addition to challenging market conditions, the management team did not meet our operational goals. As noted earlier, new unit leadership is resolutely focused on operational performance and initiated and completed a cost reduction program in the 4th quarter of 2013.

The completion of a 2013 improvement program will also incrementally increase vacuum grade chrome metal capacity. We expect that 2014 financial performance will at a minimum, return to historical levels, which is a substantial improvement over 2013.

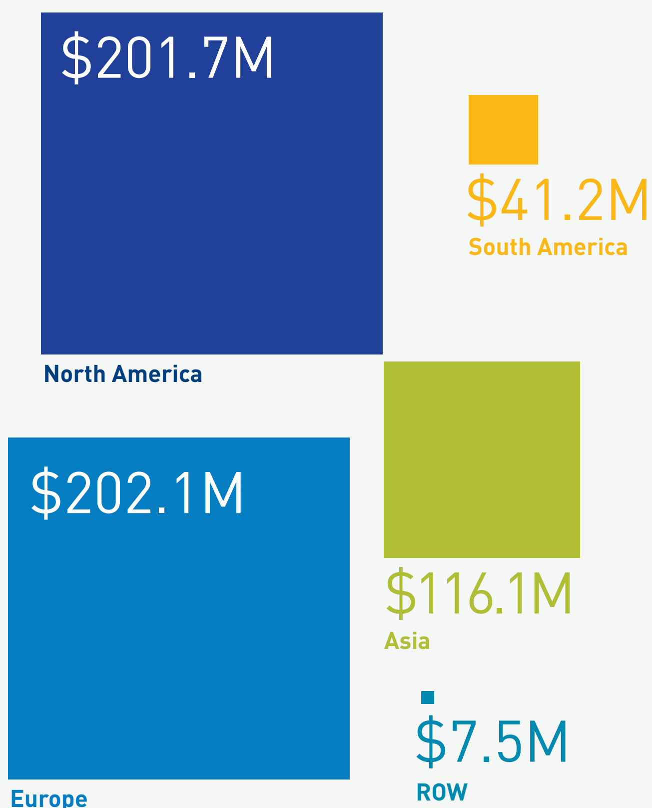
## AMG Titanium Alloys & Coatings

Destocking in the global aerospace market, especially prevalent in the second half of 2013, resulted in weaker prices, lower volumes and lower capacity utilization in AMG Titanium Alloys & Coatings. AMG is taking steps to address these ongoing market conditions. AMG Titanium Alloys & Coatings is implementing a program to reduce headcount and fixed costs to lower its overall cost structure. This process was initiated in the 4th quarter and will be completed during the year. In 2013, AMG Titanium Alloys & Coatings continued to invest in process improvements for its gamma titanium aluminides products. These lightweight, advanced products used in aerospace applications are essential for the strategic growth of the unit, and in early 2014 AMG Titanium Alloys & Coatings signed additional sales contracts through 2016. This is an exciting growth opportunity that is being driven by the major jet engine manufacturers and their requirements for increasingly higher performing materials. AMG's ability to capitalize on this opportunity has been the result of collaboration between AMG Processing and AMG Engineering.

## Outlook

AMG Processing and its management team are resolutely focused on driving substantially improved operating and financial performance in 2014, which will again be a challenging year to grow revenue organically. Through our continued and increasing focus on cost reductions, operational improvements, return on capital employed, and more aggressive risk management, we expect to deliver substantially improved results in 2014.

Regional Breakdown of Revenue



## 2013 Overview

Revenue decreased 7% to $568.6 million

Gross margin decreased to 11% from 14%

EBITDA decreased 50% to $21.5 million

Generated $6.8 million cash flow from operations

Reduced working capital days by 4 days

Lost Time Incident Rate increased by 2%

## Market Uses

- ENERGY

Superalloys for industrial gas turbines

Coating materials for thin film solar applications

Energy storage technologies

- AEROSPACE

Titanium alloys

Superalloys and aluminum masteralloys

Turbine blade coatings

- INFRASTRUCTURE

Ferrovanadium for building materials (structural steel)

- SPECIALTY METALS & CHEMICALS

Aluminum powders for paints and pigments

Coatings for glass, tools and optics

# AMG Mining

**1.46**
Lost time incident rate

$M

| 329.6 | 49.0 | 30.5 | 53.6 |
|---|---|---|---|
| Revenue | Cash Flow from Operations | EBITDA | Gross Profit |

# Improved operational performance and a shift to higher value products resulted in an increase in profitability, despite lower market prices.

The AMG Mining segment was formed effective January 1, 2013, under the leadership of Mr. Hoy Frakes. This segment is focused on securing, mining and processing AMG's mine based critical minerals. AMG Mining includes AMG's mine-based rare metal and material value chains, such as antimony, graphite, silicon, and tantalum. 2013 was a year of change for the segment, and AMG Mining leadership have made significant changes to the operational management team, creating a more transparent reporting structure, and consolidating exploration and mine management expertise into one unit. AMG Mining is now a vertically integrated producer focused on reducing value chain disruptions, minimizing volatility and optimizing synergies and operating cash flows.

AMG Mining was significantly impacted by lower market prices for most products during 2013. These lower prices were primarily the result of inventory destocking and the continued sluggish global economy, particularly in Europe. Despite these market price declines, AMG Mining's revenue increased 1% to $329.6 million in 2013. A 31% decline in average graphite prices and a 20% decline in average antimony prices were offset by a focus on higher value added products, which improved the product mix. AMG Graphite expanded its high purity graphite for energy efficiency applications and AMG Antimony increased the mix of value added master batches and granular products. AMG Mineração optimized production levels in 2013 and began deliveries on its long term contract in mid-year, both of which positively affected revenue. The product mix improvement and better pricing at AMG Mineracão combined with ongoing cost reduction efforts, resulted in a 9% increase in gross profit and a 16% gross margin in 2013.

AMG Mining also made progress streamlining operations, resulting in an 8% reduction in SG&A. This $2.9 million reduction in SG&A was primarily achieved through a decrease in professional fees and other costs related to the squeeze out of Graphit Kropfmühl in 2012. The improved product mix and operational performance combined with the SG&A cost reductions generated EBITDA of $30.5 million, a 56% increase compared to 2012. The increase in EBITDA and a reduction in working capital enabled AMG Mining to exceed its operating cash flow goals in 2013. AMG Mining generated $49.0 million of operating cash flow in 2013 and reduced working capital by $25.0 million, or 31% during 2013 to $55.2 million. In addition to the increase in operating cash flow, AMG Mining limited capital expenditures to the most strategically important projects, resulting in a $7.8 million or 38% reduction in spending.

AMG Mining also improved upon its safety metrics during 2013, reaffirming the correlation between strong operational, financial and safety performance. AMG Mining's Lost Time Incident Rate decreased significantly to 1.46, from 2.47 in 2012. Incident Severity was 0.21, consistent with 0.20 in 2012. The segment increased the amount of safety training hours per employee during 2013 and the accountability and reporting requirements, which positively impacted the overall safety performance. AMG Mining is expanding its "best practices" training throughout the organization with the goal to further improve safety metrics in 2014.

" AMG Mining performed well in its first year of operation. Despite lower market prices, reductions in SG&A expenses and working capital enabled the segment to increase EBITDA, ROCE and Operating Cash Flow."

**Hoy Frakes**
**President, AMG Mining**

## AMG Antimony

2013 was the first full year for the new operational management team at AMG Antimony, led by Raymond Devaux. His team's primary focus was improving the operational performance at its trioxide processing facilities. Through optimizing the production workflow, reducing SG&A and working capital, AMG Antimony substantially improved profitability and operating cash flow in 2013. AMG Antimony increased the production of value added antimony trioxide based products, which enable clients to reduce production costs while providing the required chemical characteristics. These products, developed in close coordination with customers, are an example of AMG's market focused metallurgical research and development. Amidst declines in global raw material prices and weakened supply constraints, however, AMG Antimony delayed the investment decision on its mine, while making further progress on it's geological study.

## AMG Mineração

In the second quarter 2013 AMG Mineração completed an updated NI 43-101 mineral resource classification estimate. Compared to the previous study, which was completed in 2010, the measured and indicated mineral resources increased by 8.9 million tons, to 14.7 million tons, an increase of approximately 150%. AMG estimates that the current life of the mineral resource is approximately 20 years, based upon current tantalum concentrate production levels, extraction and processing costs, and current economic conditions. In 2013, AMG Mineração began deliveries under a long term contract that provided additional production visibility and stability, enabling the business to optimize volumes and delivery schedules, and which resulted in increased profitability. Fabiano Costa's team made significant improvements in production output by addressing constraints in the mineral processing circuit, which increased overall plant capacity and throughput.

## AMG Silicon

AMG Silicon, formerly part of Graphit Kropfmühl, produces high purity metallurgical grade silicon and silicon metal by products primarily for the energy, electronics, and mobility industries. AMG Silicon sold over 30,000 metric tons of metallurgical-grade silicon metal and 35,000 metric tons of silicon metal by-products in 2013. Overall, this was a 13% increase in volumes compared to 2012. The increase in volumes was offset by a 9% decline in average prices, resulting from an unfavorable change in product mix and lower average market prices. A major conversion project on the third of its four silicon metal furnaces in 2012 enabled AMG Silicon to improve capacity and optimize the cost structure of the silicon metal operations.

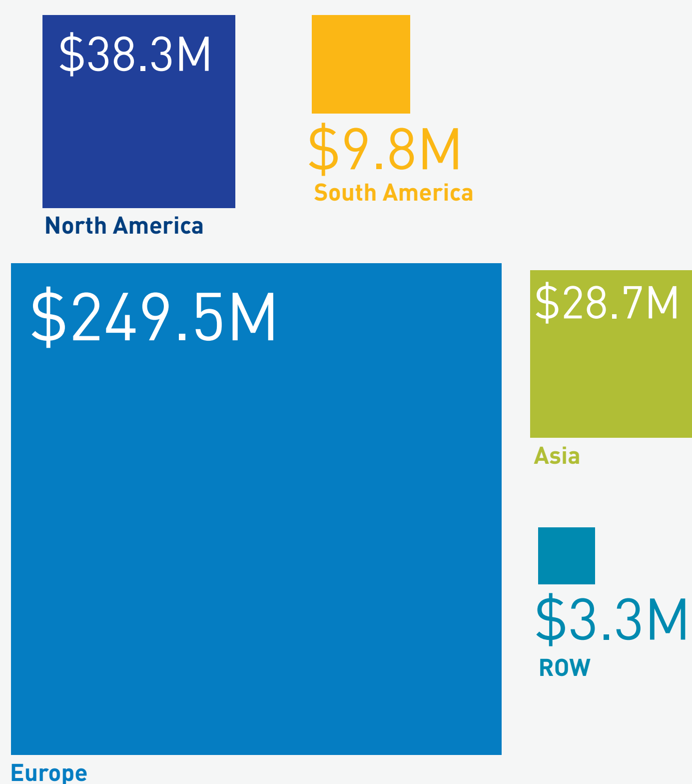
## AMG Graphite

AMG Graphite produces high purity natural graphite used in the infrastructure industry for heat resistance and in the chemical and transportation industries for electrical conductivity. In 2013, demand for energy efficient insulation doped with natural graphite drove a 9% increase in product volumes. These volume increases combined with a focus on a higher value added product mix, resulted in improved revenues and margins during 2013. AMG Graphite is continuing the geological and feasibility studies of the mine and processing project in Mozambique. AMG is evaluating further investment in the mine in combination with AMG's long term goals and the global raw material supply situation.

## Outlook

Demand for AMG Mining's critical materials are being driven by further improvements in the global economy. Volumes for products used in "green technologies" such as energy efficient insulation, solar and lightweight aluminum materials should continue to improve. AMG Mining is optimizing its product mix, with a focus to increase volumes of higher value added products while limiting sales of lower margin products. Through the significant management and operational changes made over the prior year, AMG Mining is empowering its people to improve return on capital employed, increase profitability, and generate significant operating cash flow in 2014.

Regional Breakdown of Revenue



## 2013 Overview

Revenue increased 1% to $329.6 million

Gross margin increased to 16% from 15%

EBITDA increased 56% to $30.5 million

Generated $49.0 cash flow from operations

Reduced working capital days by 41 days

Lost Time Incident Rate increased by 2%

## Market Uses

- ENERGY

Silicon metal for solar cells

Graphite for energy saving lithium batteries

- AEROSPACE

Tantalum for aerospace alloys

- INFRASTRUCTURE

Graphite for energy efficient building insulation

- SPECIALTY METALS & CHEMICALS

Antimony trioxide for fire suppression materials

Tantalum for capacitors

# AMG Engineering

**1.76**
Lost time incident rate

$M

| 260.2 | 13.9 | 20.6 | 62.9 |
|---|---|---|---|
| Revenue | Cash Flow from Operations | EBITDA | Gross Profit |

# AMG Engineering further streamlined operations in 2013 and improved margins in a challenging global capital goods market.

The 2013 market for capital goods was characterized by a lack of confidence and continued delays in investment decisions. In this environment, AMG Engineering's revenue decreased to $260.2 million, 5% less than 2012. The decrease was primarily the result of a 42% decline in heat treatment furnace revenue and 33% decline in remelting furnace revenue, partially offset by 384% and 23% increases in revenue from turbine blade coating furnaces and nuclear furnaces, respectively. AMG Engineering's diversified and comprehensive product portfolio, and continuous innovation tailored to customers' demands shielded it from major swings in individual end markets.

2013 order intake declined 29% to $195.3 million, resulting an order backlog of $109.7 million at year end 2013, a 34% decline from $165.3 million at year end 2012. Most segments experienced a decline in order intake, in line with the macro trend in the global capital goods market. A number of customers postponed orders in the fourth quarter 2013, particularly in the aerospace and mobility markets, leading to a book to bill ratio of 0.75x in 2013.

Despite the challenging top line, AMG Engineering, under the leadership of Dr. Markus Holz, reorganized the senior management team and aligned the segment's initiatives to AMG's goals of streamlining operations through cost control and process optimization. This activity was the critical step in increasing margins in 2013. AMG Engineering's 2013 gross margin improved to 24%, 2% higher than 2012. The improvement was attributed to certain large projects and favorable product mix. 2013 EBITDA was $20.6 million, consistent with 2012 EBITDA. AMG Engineering incurred $22.4 million one-time charges, primarily non-cash, in restructuring the solar business and reorganization of management. These right-sizing initiatives will enable AMG Engineering to further reduce costs in 2014.

In addition to the process optimization program in 2013, AMG Engineering improved its working capital by $18.2 million, or 25 days, and generated a 131% increase in cash flow from operations. The segment also limited capital spending to maintenance activities, therefore reducing capital expenditures by $3.4 million.

The operational improvements contributed to the safety and sustainability factors for the segment. The Lost Time Incident Rate (LTI) reduced to 1.76 in 2013 from 2.82 in 2012, a 38% improvement. This was the first time that the segment achieved a ratio below 2.00. The Incident Severity Rate decreased to 0.13 in 2013 from 0.15 in 2012. The safety of the people of AMG Engineering is an inherent part of the metrics upon which success is measured.

"AMG Engineering aligned the segment's initiatives to AMG's corporate-wide goals, including streamlining operations through cost control and process optimization. AMG Engineering is now better positioned to capitalize on growth in the Aerospace and Automotive markets."

**Markus Holz,**
**President, AMG Engineering**

## Operations

AMG Engineering reorganized its senior management, reducing the size of the leadership team from five to three, with the goal to improve decision-making and empower employees. In the second quarter 2013, the segment right sized its solar operations to align them with the significant slowdown in the global solar market. The restructuring reduced the workforce by 14%, and incurred a $15.5 million non-cash impairment of solar assets. This put the decline in the solar capital goods market behind AMG Engineering and enabled the management to adjust its production process and reduce personnel costs. AMG Engineering also expanded and upgraded its Indian operations by appointing a new managing director and expanding operations to meet market demand.

In line with AMG's goal of improving productivity, AMG Engineering implemented a number of process optimization initiatives that reduced production cost overruns by 92% in 2013. AMG Engineering rationalized its supply chain, resulting in new sourcing approaches and a reduction in procurement costs during 2013.

The segment initiated the merger of its two nuclear technology oriented subsidiaries in France, as part of a simplification of its corporate structure. AMG Engineering is in the process of consolidating these operations, including moving to a new facility, and providing nuclear solutions to global customers from an integrated unit.

AMG Engineering has begun to strategically expand its after-sales services, including spare parts sales. These businesses strengthen customer relationships and generate more consistent and recurring revenue streams. The segment consolidated its previously separate spare parts and services organizations into a centralized unit, and launched an "Around the World, Around the Clock" program serving its customers 24 hours a day, 7 days a week. In order to get closer to its customers, AMG Engineering opened new sales offices in Thailand, Russia, and Poland. Each of these geographic areas are sources of increased demand for advanced metallurgical vacuum systems.

## Innovation

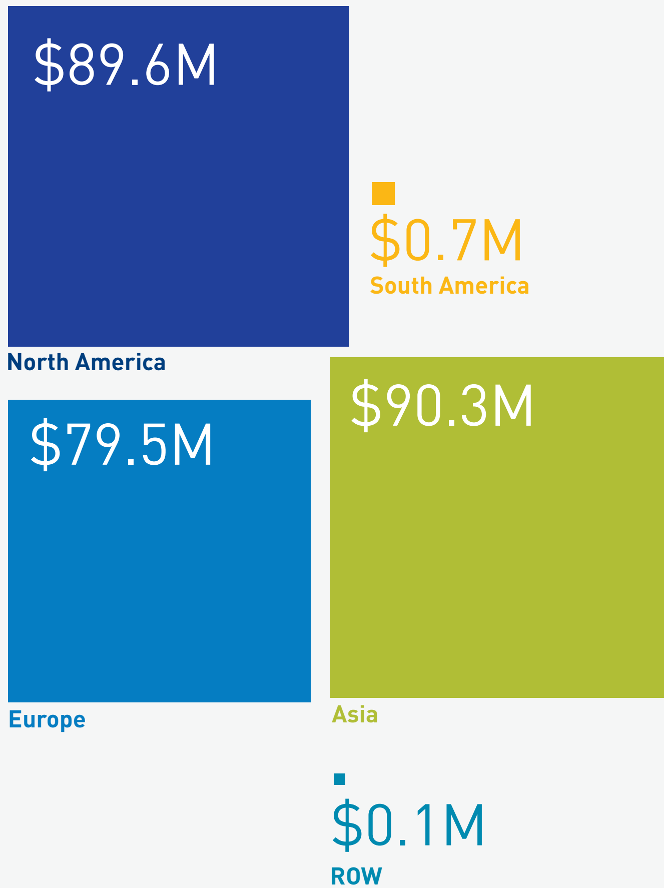
AMG Engineering continued its legacy of innovation through internal initiatives and acquisition of disruptive technologies during 2013. The segment acquired a patented wear and corrosion resistance nitriding technology that utilizes an active screen plasma nitriding process ("ASPN"), which modifies a component's surface by adding nitrogen to create a specific nitride layer. The ASPN technology enables the nitriding process to occur in low temperatures and for non-conductive materials, which is not possible with any other technology commercially available today. It can be used for the surface treatment of biocompatible materials such as austenitic stainless steels, titanium alloys and polymer components to achieve improved anti-bacterial and biocompatible surfaces for medical implants. This technology enables AMG Engineering to expand its services to new aerospace and energy applications and the medical market. The market opportunity for this technology is estimated to be in excess of $500 million and with growth rates above 10%. AMG Engineering is also developing innovations for emerging applications in additive manufacturing and titanium alloys production. These innovations are the cornerstone of AMG's world leading technologies and are actively encouraged and rewarded under a newly launched program, the AMG Engineering Innovation Award.

In 2013, AMG Engineering further capitalized on a number of its recent innovations. The segment achieved order intake for its ModulTherm® heat treatment furnace in the Chinese and Russian markets. Furthermore, its recently launched one-piece flow heat treatment furnace SycroTherm® received orders from repetitive customers. Sales from its turbine blade coating systems reached $24.9 million in 2013, an almost six-fold increase compared to 2012. The induction heated quartz tube furnace, already used by customers in production of ultrapure materials for the semiconductor device industry and fiber-optic data transmission, generated over $10 million in revenue during 2013.

## Outlook

Despite the challenging environment, management expects business to improve slightly in 2014, with a significant improvement in order inflow during the second half of 2014. This will be driven by the ongoing growth of the global aerospace industry and the shift within the automotive industry towards more efficient transmission systems.

Regional Breakdown of Revenue



## 2013 Overview

Revenue decreased 5% to $260.2 million

Gross margin increased to 24% from 22%

EBITDA decreased 3% to $20.6 million

Generated $13.9 million cash flow from operations

Reduced working capital days by 25 days

Lost Time Incident Rate improved by 38%

## Market Uses

- ENERGY

Solar vacuum furnaces

Vacuum furnaces used to produce nuclear fuels

Vacuum melting and precision casting systems for industrial gas turbines

- AEROSPACE

Vacuum furnaces for titanium

Electron beam coating systems for aerospace turbines

- INFRASTRUCTURE

Vacuum furnaces for specialty steel

- SPECIALTY METALS & CHEMICALS

Vacuum systems for high-performance materials such as tantalum, niobium and titanium

Vacuum heat treatment systems for aerospace and automotive parts

# Risk Management and Internal Controls

## Risk Management Committee

The Company added a Risk Management Committee to the Supervisory Board during 2013. This committee consists of Guy de Selliers (Chairman) and Steve H. Hanke and it is responsible for monitoring and advising the Supervisory Board on the risk environment of AMG.

## Risk Management Approach

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

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

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

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

(iv) document the periodic monitoring of the risks;

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

(vi) 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 in coordination with the operating managers of the business units. Key risks from all business units are then summarized and presented to the Management Board. Individual risks of special note are discussed at the Management Board's bi-weekly meeting. On at least a semi-annual basis, the 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 2013, special attention was given to:

(i) monitoring compliance with the Company's credit facility;

(ii) refining policies and procedures related to metals positions; and

(iii) adjusting the cost structure of various business units.

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

## Risks

Risks faced by AMG can broadly be categorized as:

- **Strategic:** includes risks related to marketing and sales strategy, product innovation, technology innovation, raw material sourcing decisions, capacity decisions, and acquisitions
- **Operational:** includes risks related to executing the strategic direction, production, maintenance of production equipment, distribution of products, labor relations, human resources, IT infrastructure, and health, safety and environmental
- **Market and External:** includes risks related to global and regional economic conditions, market supply/demand characteristics, metal prices, product substitution, customer and competitor actions 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, like most industrial companies, faces a combination of risks. The largest risks faced by the Company evolve throughout each calendar year and cannot be viewed as static challenges.

It is not the intention to detail each risk posed to AMG in this report, but the most pertinent risks to the business are described below in no particular order.

## Metal Price Volatility Risk

AMG is exposed to risk in the prices of certain metals. Risk can arise from changes in price between purchase, process, and sale of the metals or from end-price risk for metals when raw materials are purchased under fixed price contracts. 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 for these materials, AMG seeks to enter into complementary raw material supply agreements and sales agreements whereby the price is determined by the same index. AMG also attempts to time its raw material purchases with sales orders from customers. Further mitigation comes from establishing low-cost long positions in key raw materials through, for example, ownership positions in mining activities (antimony, tantalum, niobium, graphite, quartz), through structured long term supply contracts (ferrovanadium and ferronickel-molybdenum), or long term fixed-price sales contracts. Despite the mitigation strategies related to mine ownership, supply contracts, and sales contracts, AMG retains some exposure to price volatility. Success of the mitigation plans is dependent on the severity of metal price volatility and counterparties performing under their contracts. The Company hedges exchange-traded metals, such as aluminum, when possible. In its aluminum business, AMG also sells conversion services with no metal price risk. During 2013, AMG strengthened its policies and procedures related to metals positions, requiring Management Board approval over certain thresholds.

## Financing Risk

A prolonged restriction on AMG's ability to access the capital markets and additional financing may negatively affect AMG's ability to fund future innovations and capital projects. The Company's primary bank facility matures in April 2016, and AMG does not currently have liquidity on hand to repay this facility without a further debt or equity raise. As of December 31, 2013, AMG's senior leverage as calculated by its credit facility was 2.14x, compared to a covenant maximum of 3.00x. AMG's financing risk is also mitigated by its year-end 2013 liquidity of $174.8 million. AMG's future liquidity is dependent on the Company's continued compliance with the terms and conditions of its credit facility. As of June 2013, the Company was not in compliance with the tangible net worth covenant in its credit facility as a result of impairments recognized in the first half of 2013. In August 2013, the Company received a waiver for this covenant and amended its tangible net worth requirement through June 30, 2014. AMG anticipates that it will need to further amend its tangible net worth covenant during 2014 due to the permanent nature of its equity reduction. AMG does have a number of options to address any potential covenant violation, and the Company is confident in its ability to solve this issue prior to a violation. See notes 2.c and 22 to the consolidated financial statements for additional information.

## Mining Risk

AMG is exposed to certain safety, regulatory, geopolitical, 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. AMG's mining businesses are 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. The mining business has certain operational risks related to the ability to extract materials, including weather conditions and the performance of key machinery. AMG also faces a competitive environment for recruiting and retaining mining personnel. During 2013, the Company continued its efforts to synchronize worldwide mining operations, using consistent metrics. A resource statement for its Brazilian mine operation was issued in 2013, and resource statements for other AMG mining sites are expected to be issued in the future. Based upon global metal supply and demand trends as well as the continuing efforts to reduce capital spending, the Company has suspended its short term plans for new mine development in 2013. These plans will be revisited as the global economy stabilizes and metals prices begin to recover.

## Customer Risk

Customer concentrations in particular business units exacerbate the importance of monitoring customer risk. 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 regular basis. AMG has long term contracts with numerous customers that have enabled the Company to solidify relationships and deepen its knowledge of its customer base. As a result of the collection of prepayments from most of its customers, AMG Engineering mitigates a portion of customer payment and performance risk.

## Supply Risk

AMG's Processing and Mining segments are partially dependent on supplies of metals and metal containing raw materials for the production of its products. 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. In order to mitigate the risk of supplies becoming difficult to source,

AMG enters into longer term contracts with its suppliers when practical. 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. This segment has begun a process of diversifying its supplier base in order to increase its competitiveness and decrease its dependence on certain suppliers. If availability of AMG's supplies or 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.

## Legal and Regulatory Risk

AMG must comply with shifting regulatory environments in the countries and regions where it conducts business. Notable changes affecting the Company include adjustments to environmental policy as well as governmental restrictions on the freedom to operate in certain countries and jurisdictions. AMG carefully monitors new and upcoming changes in environmental 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). More stringent regulations may be enacted for the release of 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 freedom to operate in respect of certain countries. The REACH Directive became effective in the European Union in June 2007. REACH requires new operational procedures regarding the registration, evaluation and authorization of chemical substances. AMG's business units have pre-registered all required materials and also made complete registrations for those products required in 2011 and 2013. There will now be a pause with the next deadline in 2018 (see note 35 to the consolidated financial statements for information regarding legal matters affecting the Company). AMG has continuing obligations to comply with international and government regulations and practices concerning corporate organization, business conduct, and corporate governance. For example, in addressing possible conflicts of interest affecting its Management or Supervisory Board members, AMG follows strict rules of procedure. These procedures 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. During 2013, the Company rolled out a global program to create broader awareness of AMG's Code of Business Conduct.

## 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, British pound, and Brazilian real. AMG's subsidiaries use various functional currencies and are subject to foreign exchange risk as they generate sales and operational expenses in nonfunctional currencies. 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 mitigate translation risk to a certain degree. AMG's economic foreign exchange risk is somewhat limited by the natural hedge provided by its portfolio of products. While AMG will continue to monitor foreign exchange risk and hedge exposures where appropriate, fundamental changes in exchange rates could have an adverse impact on the Company.

## Entrepreneurial Risk

The continued growth of AMG's business may require the development of new products and production processes, as well as the personnel needed to manage these changes. Developing and investing in these products and processes involves the acceptance of certain measured entrepreneurial risks. As competitors duplicate successful technologies or develop new methodologies, AMG must continue to innovate in order to maintain leading positions in its strategic niches. It is particularly important to strike an appropriate balance between investments in innovation to secure future growth versus the need to preserve cash to withstand an economic crisis. For this reason, AMG management evaluates more than

the projected internal rate of return or the discounted cash flows of a potential project. AMG also examines the opportunity costs of rejecting certain proposed projects and the possibility of lost cash flows due to the inability to innovate. In addition to assessing the inherent risk on a project-by-project basis, AMG also evaluates the portfolio risk of projects being undertaken or developed in the pipeline. Evaluating a project within a portfolio of opportunities allows AMG to manage liquidity and capital allocation better. While certain projects may be beneficial and profitable in the long run, the timing of cash flows is critically important as AMG always seeks to maintain sufficient liquidity to operate its existing businesses. Managing entrepreneurial risk requires active management. AMG executives stay informed of entrepreneurial projects through regular operations meetings and frequent Management Board meetings, allowing for quick action, further reducing risk. During 2013, AMG Vanadium enacted advanced technology through investment in a new multi-hearth roaster and complementary flue gas desulfurization unit. These capital projects have increased AMG Vanadium's throughput capacity and potential cash flow. Improvements such as this help AMG mitigate entrepreneurial risk. AMG's highly educated and skilled workforce contributes significantly to AMG's entrepreneurial success. High employee turnover or loss to a competitor of key personnel, many of whom possess specific technical and manufacturing knowledge, is a risk to AMG. Many incentives, financial and other, are used to maintain a motivated workforce.

## Risk Monitoring and Procedures

AMG has a strategic risk function that 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 2013, 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.I.8). AMG's Management Board believes 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 2013. On the basis of, and with reference to the preceding sections, and in accordance with best practice II.1.5 of the Dutch Corporate Governance Code of December 2008, and Article 5:25c of the Financial Markets Supervision Act, 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, the Management Board confirms that, to the best of its knowledge, the financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company, and the management report includes a fair review of the position at the balance sheet date and the development and performance of the business during the financial year together with a description of the principal risks and uncertainties that the Company faces.

# Statement of Responsibilities

On the basis of and with reference to the preceding sections and in accordance with best practice II.1.5 of the Dutch Corporate Governance Code of December 2008, and Article 5:25c of the Financial Markets Supervision Act, 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.

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Management Board
AMG Advanced Metallurgical Group N.V.

Dr. Heinz Schimmelbusch
Amy Ard
Eric Jackson

March 27, 2014

# Report of the Supervisory Board

Pedro Pablo Kuczynski
Chairman 75

Male/US and Peru
Date of birth: October 3, 1938
Date of initial appointment: June 6, 2007
Date of end of term: 2015

Economist & Investment Banker, Partner, The Rohatyn Group

Current board positions: Agualimpia NGO (Chairman), Ternium Inc., UCP Bachus Y Johnston S.A.A.,TRG Latin America Private Equity Fund I, L.P. (Chairman)

Former positions: Prime Minister of Peru and Chairman, First Boston International (Credit Suisse)

Martin Hoyos 66

Male/Austria
Date of birth: October 27, 1947
Date of initial appointment: May 13, 2009
Date of end of term: 2017

Corporate Director

Current board positions: Prinzhorn Holding GmbH, CAG Holding GmbH, Curanum AG, Koenig & Bauer AG (Chairman), Korian-Medica S.A.

Former positions: CEO KPMG Europe, Middle East and Africa

Guy de Selliers 61

Male/Belgium
Date of birth: June 14, 1952
Date of initial appointment: June 6, 2007
Date of re-appointment: May 12, 2010
Date of end of term: 2014

President, HCF International Advisers Ltd.

Current board positions: Solvay SA, Wessex Grain, Ageas Group SA (Vice Chairman), Ageas UK, Ltd. (Chairman), Ivanhoe Mines Ltd., Ipulse Ltd.

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

Ute Wolf 45

Female/Germany
Date of birth: March 25, 1968
Date of initial appointment: May 3, 2013
Date of end of term: 2015

Chief Financial Officer of Evonik Industries AG

Current board positions: Degussa Pensionskasse, Evonik Services GmbH, STEAG GmbH

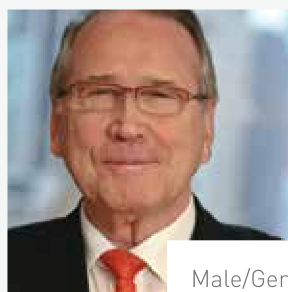
Jack L. Messman
Vice Chairman 74

Male/US
Date of birth: March 13, 1940
Date of initial appointment: June 6, 2007
Date of re-appointment: May 13, 2009
Date of end of term: 2017

Corporate Director

Current board positions: RadioShack Corporation, Safeguard Scientifics, Inc., Telogis, Inc. (Chairman)

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



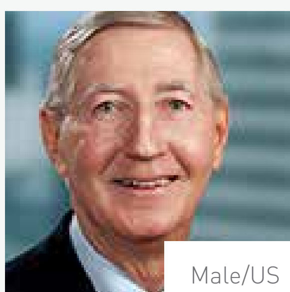
Norbert Quinkert 71

Male/Germany
Date of birth: January 18, 1943
Date of initial appointment: June 6, 2007
Date of re-appointment: May 12, 2010
Date of end of term: 2014

Corporate Director

Current board positions: VTION Wireless Technology AG (Chairman), Bogen Electronics GmbH

Former position: Motorola (Germany, Austria, Switzerland and the Netherlands) (Chairman)



Herb Depp 69

Male/US
Date of birth: November 2, 1944
Date of initial appointment: November 8, 2013
Date of end of term: 2017

Corporate Director

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)

Steve Hanke 71

Male/US
Date of birth: December 29, 1942
Date of initial appointment: May 3, 2013
Date of end of term: 2015

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, Senior Fellow at the Cato Institute, Distinguished Professor at the Universitas Pelita Harapan in Jakarta, Indonesia.

Current board positions: Chairman of Richmond Optimus LLC

# Report of the Supervisory Board

## Powers of the Supervisory Board

The Supervisory Board oversees both the policies pursued by the Management Board and 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.

## Composition of the Supervisory Board

The Supervisory Board was first established on June 6, 2007, and currently consists of eight members. Pedro Pablo Kuczynski (Chairman), Jack Messman (Vice Chairman), Guy de Selliers, Norbert Quinkert, Martin Hoyos, Steve Hanke, Ute Wolf, and Herb Depp. During the Annual General Meeting held on May 3, 2013, in Amsterdam, the General Meeting of Shareholders approved the expansion of the Supervisory Board from six to eight members. Since AMG is active in specialty metals, mining and capital goods and operates in a difficult and unpredictable economic environment, it was determined that diversity in skills and experience were a key prerequisite for the performance of the Supervisory Board going forward. The Supervisory Board strongly believes it has the right skillset in place now 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 and public administration. The composition of the Supervisory Board must be such that the combined experience, expertise, and independence of its members enable the Supervisory Board to carry out its duties. All Supervisory Board members qualify as independent as defined in the Dutch Corporate Governance Code. All members of the Supervisory Board completed a questionnaire to verify compliance in 2013 with the applicable corporate governance rules and the rules governing the principles and practices of the Supervisory Board. As a special word of gratitude, the Supervisory Board, would like to thank Wesley Clark, who decided not to seek re-election as member of the Supervisory Board when his term ended in May of 2013, for his years of dedicated service, expertise, and experience given to the Company as member of the Supervisory Board since 2007.

The Resignation Schedule of the members of the Supervisory Board is as follows:

| | |
|---|---|
| Pedro Pablo Kuczynski | 2015 |
| Jack Messman | 2017 |
| Martin Hoyos | 2017 |
| Norbert Quinkert | 2014 |
| Guy de Selliers | 2014 |
| Steve Hanke | 2015 |
| Ute Wolf | 2015 |
| Herb Depp | 2017 |

During the Annual General Meeting to be held on May 8, 2014 in Amsterdam the Supervisory Board will propose to the General Meeting of Shareholders to expand the size of the Supervisory Board from eight to nine members. Following the review of the Supervisory Board in 2012 of its competencies and skill sets, the Board considered it was necessary to complete its profile with a candidate with asset management and equity markets experience. The Supervisory Board is pleased to nominate Ms. Donatella Ceccarelli as member of the Supervisory Board. Ms. Ceccarelli is a senior private banker and currently Chairwoman of the Executive Board of the Flick Foundation (FLICK PRIVATSTIFTUNG), based in Vienna, Austria, where she overseas a dedicated team of asset management professionals to protect and manage the private and personal wealth of the Flick family. Before that Ms. Ceccarelli served as senior banker at Merrill Lynch International Bank Ltd., Lehman Brothers International Europe and Deutsche Bank AG, amongst others.

In case Ms. Ceccarelli is appointed the composition of the committees of the Supervisory Board will be adjusted accordingly. During the Annual General Meeting, the Supervisory Board will also propose to re-appoint Mr. Norbert Quinkert and Mr. Guy de Selliers as members of the Supervisory Board, as their term expires on May 8, 2014.

## Gender Diversity

The Supervisory Board recognizes the importance of a diverse composition of the Supervisory Board and the Management Board in terms of gender. The Supervisory Board is pleased that in 2013, Ms. Ute Wolf has joined the Supervisory Board and that Ms. Amy Ard has been appointed as Chief Financial Officer and member of the Management Board.

New Dutch legislation that became effective on January 1, 2013, requires 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 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 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 this moment, the Company does comply with article 2:166 Dutch Civil Code as regards the composition of the Management Board, and does not fully comply with this article as regards the composition of the Supervisory Board where currently only 12.5% of the Supervisory Board seats are held by women which will increase to 22% once the general meeting of shareholders approves the nomination of Ms. Ceccarelli. The Supervisory Board will continue to look for suitable female candidates for the Supervisory Board.

## Supervisory Board Meetings

The Supervisory Board held ten meetings over the course of 2013, including five meetings by telephone conference. Seven 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 and results and more specifically the operating cash flow development as well as the net debt situation of the Company, potential acquisitions and divestments, the business plans of AMG Processing, AMG Engineering and AMG Mining segments, 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 and operating cash flow, return on shareholders' equity and return on capital employed. Furthermore, the Supervisory Board completed its review of the composition of the Supervisory Board and decided to expand the Board from six to eight members and to install a Risk Management Committee. In addition and at the occasion of the creation of the Risk Management Committee, the Supervisory Board discussed the risks of AMG's business 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. Next to the scheduled meetings, the Chairman and other members of the Supervisory Board had regular contact with the Chief Executive Officer and other members of the Management Board as well as senior executives of the Company throughout the year. On November 7, 2013, 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 confirmed its discussions earlier in the year when it had decided to accept the resignation of William Levy as Chief Financial Officer and appoint Amy Ard. The Supervisory Board concluded that its decision made in 2012 to reduce the size of the Management Board to three members; i.e. the Chief Executive Officer (and Chairman of the Management Board), the Chief Operating Officer and the Chief Financial Officer, had been working out very well in practice.

Furthermore, at this meeting, the Supervisory Board also evaluated its own functioning, specifically its new composition, and that of the four committees and their members. In doing so, the Chairman of the Supervisory Board had invited each member of the Supervisory Board to provide his comments on these topics to the Chairman. The Chairman then shared the main conclusions drawn from such comments with his fellow Supervisory Board members in a plenary private session of the Supervisory Board. During that session, the Supervisory Board unanimously concluded that the Supervisory Board was functioning adequately and that the Supervisory Board's (new) composition was in general well balanced in terms of competence, nationality, age, and experience, particularly given the challenges facing the Company in the present economic and social environment, but that it would continue to look for improvement of its profile in terms of gender.

## Remuneration Supervisory Board in 2013

In the Annual Meeting on May 3, 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 last time the remuneration of the Supervisory Board was reviewed and amended was in 2009, so upon review, the Supervisory Board had proposed to the General Meeting of Shareholders a modest increase in its remuneration, which was approved almost unanimously.

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. Under the new remuneration, the share awards to the Supervisory Board had been increased including an additional $5,000 share award for Committee members.

Cash remuneration: The cash remuneration of the Supervisory Board members as determined by the General Meeting of Shareholders was set at $95,000 for the Chairman, $70,000 for the Vice Chairman and $60,000 for the other members. Chairpersons of the Remuneration Committee, the Audit Committee, the Selection and Appointment Committee and Risk Management Committee are each paid an additional $20,000 annually.

Share remuneration: The members of the Supervisory Board do not participate in any of AMG's incentive plans. As part of the Supervisory Board's annual remuneration in 2013, the General Meeting of Shareholders authorized the issue of a number of shares for no cash consideration to each member of the Supervisory Board as part of their remuneration.

The number of shares issued to each member is computed with respect to a specified amount of Euros for each member. The table below specifies the number of shares issued to each Supervisory Board member in 2013. Shares issued 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 he ceases to be a member of the Supervisory Board.

The 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 provision III.7.1 and III.7.2 for reasons further explained in the Corporate Governance chapter (page 58).

The table below shows the total remuneration of each member of the Supervisory board for 2013 (in thousands, except number of shares granted):

| FOR THE YEAR ENDED DECEMBER 31, 2013 | ROLE | CASH REMUNERATION | SHARE REMUNERATION | # OF SHARES GRANTED |
|---|---|---|---|---|
| Pedro Pablo Kuczynski | Chairman & Member Selection & Appointment Committee | $95 | $79 | 9,655 |
| Jack L. Messman | Vice Chairman & Remuneration Committee Chair | $90 | $53 | 6,449 |
| Norbert Quinkert | Member & Selection and Appointment Committee Chair | $80 | $47 | 5,643 |
| Guy de Selliers | Member & Risk Management Committee Chair | $80 | $47 | 5,643 |
| Martin Hoyos | Member & Audit Committee Chair | $80 | $47 | 5,643 |
| Steve Hanke | Member & Member Risk Management Committee | $38 | $32 | 3,919 |
| Ute Wolf | Member & Member Audit Committee | $38 | $32 | 3,919 |
| Herb Depp | Member & Member Remuneration Committee | $9 | $6 | 784 |
| Wesley Clark | Member | $23 | – | – |

### SHARES HELD BY MEMBERS OF THE SUPERVISORY BOARD

As of December 31, 2013, the members of the Supervisory Board held 198,791 shares in the Company. Out of that number, 165,391 shares were awarded to them between 2007 and 2013 as part of their annual remuneration.

### REMUNERATION SUPERVISORY BOARD IN 2014

The remuneration of the Supervisory Board will not change in 2014 as compared to 2013.

## 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 Ute Wolf

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 audit function and, with the involvement of the independent auditor, focuses on compliance with applicable legal and regulatory requirements and accounting standards.

The Audit Committee met six times during 2013 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 that had just been established. That meeting established a proper scope of responsibilities for each of the Committees. The charters of both the Audit Committee and Risk Management Committee 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.

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, 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. Ernst & Young Accountants LLP also provided the Audit Committee with agreed-upon mid-year procedures and a year-end audit of the Company's accounting policies and procedures. Furthermore, the Company's Internal 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 2013 Management Letter of the external accountant and reported on this matter to the plenary meeting of the Supervisory Board. 2013 External audit fees were $2.1 million, which includes the cost of the midyear procedures. Present at all non-executive session meetings of the Audit Committee were the Chief Financial Officer and the Internal Audit Director. AMG's auditors Ernst & Young Accountants LLP were present at most of these meetings while at certain meetings, the Company's Controller, Chief Compliance Officer, General Counsel, Investor Relations Officer, and Treasurer were present.

### SELECTION AND APPOINTMENT COMMITTEE

Composition: Norbert Quinkert (Chair) and Pedro Pablo Kuczynski (successor of Wesley Clark as of May 3, 2013).

The Selection and Appointment Committee is responsible for: (i) preparing the selection criteria, appointment procedures and leading searches for candidate Management Board and Supervisory Board members; (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 2013, 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 2013, particular attention was paid to the position of the Chief Financial Officer of the Company, which led to the appointment of Amy Ard as Chief Financial Officer and member of the Management Board as successor of William Levy. The Supervisory Board wishes to thank Mr. Levy for his valuable contributions and dedication during the years he served on the Company's Management Board. Another important matter in 2013 concerned the composition and expansion of the Supervisory Board with the appointments of Steve Hanke and Ute Wolf during the Annual Meeting on May 3, 2013 and the appointment of Herb Depp to replace Wesley Clark as Supervisory Board member during the Extraordinary General Meeting of Shareholders on November 8, 2013.

### REMUNERATION COMMITTEE

Composition: Jack Messman (Chair) and Herb Depp (successor of Mr. Pedro Pablo Kuczynski as of November 8, 2013).

The Remuneration Committee is responsible for establishing and reviewing material aspects of the Company's policy on compensation of members of the Management Board and preparing decisions for the Supervisory Board in relation thereto. This responsibility includes, but is not limited to, the preparation and ongoing review of: (i) the remuneration policy as adopted by the General Meeting of Shareholders; and (ii) proposals concerning the individual remuneration of the members of the Management Board to be determined by the Supervisory Board. The Remuneration Committee held two regular meetings in 2013, in addition to various informal discussions among its members and the other members of the Supervisory Board and the Chairman of the Management Board. Topics of discussion at the meetings included: (i) a periodic review of the remuneration of the members of the Supervisory Board, (ii) a periodic review of the Remuneration Policy of the Company which has been effective since January 1, 2009, (iii) review of the base salary for members of the Management Board; and (iv) review of the performance related compensation of the Management Board members. In performing its duties and responsibilities, the Remuneration Committee was assisted by external remuneration experts.

In 2013, a major item concerned the completion of the review of the Remuneration Policy of the Management Board and of the remuneration of the Supervisory Board, both of which had not been changed since 2009. This review by the Remuneration Committee resulted in the proposal by the Supervisory Board during the General Meeting of Shareholders on May 3, 2013, to amend the remuneration of the Supervisory Board with effect as of January 1, 2013, and to amend the Remuneration Policy of the Management Board with effect as of January 1, 2013. Both proposals were approved by the General Meeting of Shareholders with almost unanimous consent. The (amended) Remuneration Policy is published on the Company's website (www.amg-nv.com).

#### RISK MANAGEMENT COMMITTEE

Composition: Guy de Selliers (Chair) and Steve Hanke

The Risk Management Committee is in existence since May 3, 2013 when the General Meeting of Shareholders appointed two new Supervisory Directors and expanded the Supervisory Board from six to eight members. The installation of the Risk Management Committee was the result of the review by the Supervisory Board of its own composition and skill sets needed (see discussion above). 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, SHE 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 two times during 2013 and reported its findings periodically to the plenary meeting of the Supervisory Board. One of these meetings was held jointly with the Audit Committee. The charters of both the Audit and Risk Management Committee 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.

## Remuneration Report for 2013

2013 was the first year in which the Supervisory Board implemented the new Remuneration Policy for the Management Board, since this was approved and adopted by the General Meeting of Shareholders in its Annual meeting on May 3, 2013. The Remuneration Policy is posted on the Company's website under the heading Corporate Governance. This Remuneration Report contains the following two sections:

- Report on Remuneration of the Management Board in 2013
- Remuneration of the Management Board in 2014

### Report on Remuneration of the Management Board in 2013

The remuneration of AMG's Management Board for 2013 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 2013, this peer group is largely consistent with prior years and consisted of the following companies:

1. Allegheny Technologies Incorporated
2. Ametek, Inc.
3. A.M. Castle & Co.
4. Bodycote Plc
5. Cabot Corporation
6. Carpenter Technology Corporation
7. First Solar, Inc.
8. Globe Specialty Metals Inc.
9. GT Advanced Technologies Inc.
10. HudBay Minerals Inc.
11. Kemet Corporation
12. Lundin Mining
13. Materion Corporation
14. Morgan Crucible Company Plc
15. OM Group, Inc.
16. Outotec Oyj
17. Pfeiffer Vacuum Technology AG
18. Precision Castparts Corp.
19. PVA Tepla AG
20. RTI International Metals, 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 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 2013 remuneration, the Supervisory Board has 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).

| (in thousands)<br>FOR THE YEAR ENDED DECEMBER 31, 2013 | BASE SALARY | ANNUAL BONUS | OPTION COMPENSATION | VALUE OF VESTED OPTIONS "IN THE MONEY" AT DEC. 31, 2013 | PERFORMANCE SHARE UNITS | RETIREMENT BENEFITS & PENSIONS | OTHER REMUNERATION |
|---|---|---|---|---|---|---|---|
| Heinz Schimmelbusch | $1,082 | $872 | $632 | – | $720 | $269 | $100 |
| Eric Jackson | $633 | $389 | $194 | – | $239 | $349 | $40 |
| Amy Ard* | $433 | $281 | $27 | – | $205 | $154 | $14 |
| William J. Levy* | $226 | – | $3 | – | – | ($424) | $6 |

* Amounts represent salaries paid while employed by the Company. William Levy resigned in May 2013 while Amy Ard was named CFO upon his resignation. See note 36 to the financial statements for details about severance payments made to Mr. Levy.

## Management Board Remuneration in 2013

The remuneration contracts of certain members of the Management Board were with more than one company that is now part of AMG. The remuneration levels in the table above show the aggregate amounts of the contracts per Management Board member. A detailed explanation of the remuneration paid in 2013 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.

### 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) (excluding construction in progress)
- 40%: Operating Cash Flow
- 20%: Individual performance.

Although the Company's EBITDA in 2013 was disappointing and below expectations, the financial performance in terms of operating cash flow, net debt reduction and working capital management was very good. Given the mixed financial results of the Company, the Management Board accepted only 75% of the calculated bonus per the bonus metrics.

The Company's ROCE in 2013 was below target while Operating Cash Flow was above the targets set by the Supervisory Board. The table below shows the target and paid-out annual bonus in 2013 as a percentage of base salary per Management Board member. The base salary for annual bonus calculation purposes corresponds to full-year base salary.

| FOR THE YEAR ENDED DECEMBER 31, 2013 | TARGET (AS A % OF BASE SALARY) | PAYOUT (AS A % OF BASE SALARY) |
|---|---|---|
| Heinz Schimmelbusch | 85% | 80% |
| Eric Jackson | 65% | 61% |
| Amy Ard | 60% | 56% |

### LONG TERM INCENTIVES

Each member of the Management Board participates in the AMG Option Plan introduced in 2007 and in the AMG Management Board Option Plan adopted as per the Remuneration Policy in 2009. 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 47 provides an overview of the options granted under the AMG Option Plan between 2007 and 2013. All options granted between 2007 and 2009 are fully vested. In May 2013, options were granted to the Management Board members pursuant to the Remuneration Policy as long term incentive. 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.

### PERFORMANCE SHARE UNITS

In 2013, the Supervisory Board awarded Performance Share Units for the fifth time to the Management Board members since adoption of the Remuneration Policy. The present value of the Performance Share Units (PSU) award for the Management Board members in 2013 was as follows:

| (in thousands) | |
|---|---|
| Heinz Schimmelbusch | €1,080 |
| Eric Jackson | €360 |
| Amy Ard | €310 |

The present value of the PSUs is calculated as 80% of the fair market value at the grant date. These PSU awards will vest after three years, in accordance with the Remuneration Policy. In 2013, two-thirds of the PSU award granted in 2010 vested (as part of the phased-in vesting scheme adopted as part of the Remuneration Policy). Vesting of the PSUs was subject to:

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

The first threshold (minimum ROCE over the performance period) for vesting in 2013 met the target set by the Supervisory Board. The relative TSR for the Company resulted in a multiplier to reach 25% of the number of initial 2010 performance share units vested. As a result, the following amounts were paid out in cash in 2013:

| (in thousands) | |
|---|---|
| Heinz Schimmelbusch | €85 |
| Eric Jackson | €25 |
| Amy Ard | €6 |
| William Levy | €17 |

### PENSIONS AND RETIREMENT BENEFITS

The members of the Management Board are members of a defined contribution plan maintained in the United States. Heinz Schimmelbusch, Eric Jackson, and Amy Ard receive additional retirement benefits from Metallurg's Supplemental Executive Retirement Plan (SERP). With respect to Heinz Schimmelbusch, the supplemental benefits are payable commencing at the later of age 70 or the end of his employment with AMG. The benefit to be paid will be reduced by the amounts received under the normal retirement benefit under the Metallurg pension plan. Pursuant to Eric Jackson's and Amy Ard's SERP, if Eric Jackson and/or Amy Ard are employed by Metallurg or remain in Metallurg's employment until he or she is 65, he or she is entitled, whether or not he or she has terminated his employment, to receive retirement benefits (reduced by amounts received under Metallurg's other pension plans). Eric Jackson's and Amy Ard's benefits will be reduced if their employment with Metallurg ends prior to reaching age 65.

Total costs to AMG with respect to the pension and retirement benefits of the Management Board in 2013 are provided in the table on page 128 which sets forth total expenses incurred in 2013 for Management Board remuneration.

### OTHER BENEFITS

All Management Board members receive benefits, which are in line with industry and individual country practice. No loans and 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 on page 128, which sets forth total costs incurred in 2013 for Management Board remuneration.

### CONTRACTS

Each member of the Management Board, except for Amy Ard, has a contract of employment with AMG. 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. Current agreements with respect to severance payments do not comply with best practice provision II.2.7 of the Dutch Corporate Governance Code. Amy Ard has an employment contract with AMG's subsidiary Metallurg Inc. Ms. Ard already had an employment contract with Metallurg Inc. before becoming a member of the Management Board. In case Metallurg, at the instruction of AMG, terminates the contract of employment without cause, the maximum severance payment is limited to two years' base salary and two years of target annual bonus.

As part of the Company's approved and adopted Remuneration Policy, AMG will honor existing contractual agreements for its Management Board members and adapts to individual country practices, which differ from best practice provision II.2.7 of the existing Dutch Corporate Governance Code. In addition to the employment contracts with AMG, Heinz Schimmelbusch and Eric Jackson, have a contract with one of AMG's subsidiaries. Details of (all of) the employment contracts of the Management Board members with AMG and its subsidiaries are provided on the Company's website under the Corporate Governance section.

| AMG OPTION PLAN | | | NON-VESTED OPTIONS UNDER THE PLAN | | | VESTED OPTIONS UNDER THE PLAN | | |
|---|---|---|---|---|---|---|---|---|
| FOR THE YEAR ENDED DECEMBER 31, 2013 | YEAR | DATE OF GRANT | NUMBER OF OPTIONS | PRESENT VALUE AT DATE OF GRANT | VESTING SCHEME | EXERCISE PRICE | NUMBER OF OPTIONS | MARKET VALUE AT 12/31/2013 |
| Dr. Heinz Schimmelbusch | 2007 | 7/11/2007 | — | €2,700,000 | 25% each yr over 4 years | €24.00 | 225,000 | — |
| | 2008 | 11/12/2008 | — | €846,665 | 25% each yr over 4 years | €12.70 | 133,333 | — |
| | 2009 | 5/13/2009 | — | €661,852 | 100% vested on 1/1/10 | €8.00 | 165,463 | — |
| | 2009 | 11/10/2009 | — | €500,000 | 50% vested after 3 years, 50% vested after 4 years | €9.84 | 101,626 | — |
| | 2010 | 5/12/2010 | 31,289 | €250,000 | 50% vested after 3 years, 50% vested after 4 years | €7.99 | 31,289 | — |
| | 2011 | 5/11/2011 | 66,313 | €500,000 | 50% vested after 3 years, 50% vested after 4 years | €15.08 | — | n/a |
| | 2012 | 5/15/2012 | 155,352 | €500,233 | 50% vested after 3 years, 50% vested after 4 years | €6.44 | — | n/a |
| | 2013 | 5/3/2013 | 79,400 | €270,000 | 50% vested after 3 years, 50% vested after 4 years | €6.80 | — | n/a |
| Eric Jackson | 2007 | 7/11/2007 | — | €1,200,000 | 25% each yr over 4 years | €24.00 | 100,000 | — |
| | 2008 | 11/12/2008 | — | €254,000 | 25% each yr over 4 years | €12.70 | 40,000 | — |
| | 2009 | 5/13/2009 | — | €383,116 | 100% vested on 1/1/10 | €8.00 | 95,779 | |
| | 2009 | 11/10/2009 | — | €150,000 | 50% vested after 3 years, 50% vested after 4 years | €9.84 | 30,488 | — |
| | 2010 | 5/12/2010 | 9,387 | €75,000 | 50% vested after 3 years, 50% vested after 4 years | €7.99 | 9,387 | — |
| | 2011 | 5/11/2011 | 19,894 | €150,000 | 50% vested after 3 years, 50% vested after 4 years | €15.08 | — | n/a |
| | 2012 | 5/15/2012 | 46,606 | €150,000 | 50% vested after 3 years, 50% vested after 4 years | €6.44 | — | n/a |
| | 2013 | 5/3/2013 | 26,467 | €90,000 | 50% vested after 3 years, 50% vested after 4 years | €6.80 | — | n/a |
| Amy Ard | 2007 | 7/11/2007 | — | €450,000 | 25% each yr over 4 years | €24.00 | 37,500 | — |
| | 2013 | 5/3/2013 | 26,467 | €90,000 | 50% vested after 3 years, 50% vested after 4 years | €6.80 | — | n/a |

## Management Board Remuneration for 2014

The Remuneration Committee has set up the size and structure of the Management Board's remuneration for 2014. 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 also reviewed the composition of the executive compensation peer group as listed on page 44 and made no substantial changes thereto for application in 2014.

### BASE SALARY

The Supervisory Board has decided that the base salary of the Management Board members for 2014 will not change as compared to the base salary levels of 2013. The table below shows the base salaries for 2013 and 2014.

| (in thousands) | | |
|---|---|---|
| BASE SALARY | 2013 | 2014 |
| Heinz Schimmelbusch | $1,080 | $1,080 |
| Eric Jackson | $632 | $632 |
| Amy Ard | $433* | $500 |

* Annual salary shown – actual salary for 2013 is lower due to appointment in May

### 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 are met. It 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 extraordinary circumstances.

The annual bonus payout in any year relates to achievements realized during the preceding year in relation to the agreed targets. The 2014 annual bonus will be determined as follows:

- 40% from ROCE (excluding construction in progress)
- 40% from operating cash flow (against agreed target ranges) realized
- 20% from individual performance — discretionary by 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 reached and can range from zero up to three times target in case of superior performance. The Supervisory Board further 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 extraordinary circumstances.

| MANAGEMENT BOARD POSITION | TARGET PAYOUT |
|---|---|
| Chairman and Chief Executive Officer | 85% |
| Chief Operating Officer | 65% |
| Chief Financial Officer | 60% |

### LONG TERM INCENTIVES

In line with the Remuneration Policy, the long term incentives for the Management Board for 2014 consist of two programs: the Performance Share Unit Plan and the Stock Option Plan.

This year's grant (2014) will be the sixth grant under the Plan, and vesting will, depending on performance, occur after completion of the performance period that covers the calendar years 2014, 2015 and 2016. Vesting of the Performance Share Units under the 2014 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 serves as threshold and determines whether such threshold has 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 extraordinary circumstances.

The present value of the PSUs to be granted in 2014 is €1,360,000 for Heinz Schimmelbusch, €400,000 for Eric Jackson and €360,000 for Amy Ard. With regard to the Stock Option Plan (SOP), each member of the Management Board will be granted stock options in 2014 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 value of the stock options under the SOP to be granted in 2014 is €340,000 for Heinz Schimmelbusch, €100,000 for Eric Jackson and €90,000 for Amy Ard.

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 from time to time.

#### PENSION AND OTHER BENEFITS

The pension and other benefits of the members of the Management Board will not change compared to 2013.

#### CONTRACTS

The current contractual agreements will not change compared to 2013. 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, 2013, Heinz Schimmelbusch held 337,797 AMG shares, Eric Jackson held 70,000 AMG shares. Amy Ard held no shares. Heinz Schimmelbusch controls in total 1,428,437 votes as a result of voting agreements entered into by him with certain individual shareholders in AMG.

#### APPRECIATION FOR THE MANAGEMENT BOARD AND THE EMPLOYEES OF AMG

The Supervisory Board would like to thank the Management Board for its continued dedication and extraordinary efforts in leading the Company through what has been a difficult year in very challenging economic circumstances. The Management Board has focused on the course it set out in the beginning of 2013, which was to improve operating cash flow and reduce net debt. 2013 has seen a continuation of low metal prices and lagging demand due to a reluctant global economy. We expect that this picture will continue to cloud the outlook of the Company in 2014. The Management Board did an excellent job of keeping the Company focused on its operations despite the challenging economic and financial environment. The Supervisory Board would also like to thank all the employees of AMG for their commitment to the Company's success.

## Annual Report 2013

The Annual Report and the 2013 Annual Accounts, audited by Ernst & Young Accountants LLP, have been presented to the Supervisory Board. The 2013 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 2013 Annual Accounts.

## Supervisory Board AMG
## Advanced Metallurgical Group N.V.

Pedro Pablo Kuczynski, Chairman
Jack Messman, Vice Chairman
Norbert Quinkert
Guy de Selliers
Martin Hoyos
Steve Hanke
Ute Wolf
Herb Depp

March 27, 2014

# Sustainable Development

| SITE NAME | LOCATION | COUNTRY | DIVISION |
|---|---|---|---|
| AMG Headquarters | Amsterdam | Netherlands | AMG Corporate |
| AMG USA Headquarters | Pennsylvania | USA | AMG Corporate |
| ALD IMP | Berlin | Germany | AMG Engineering |
| AMG Intellifast | Speyer | Germany | AMG Engineering |
| ALD USA | Connecticut | USA | AMG Engineering |
| ALD TIV | Grenoble | France | AMG Engineering |
| ALD UK | Guildford | UK | AMG Engineering |
| ALD FNAG | Hanau | Germany | AMG Engineering |
| ALD Vacuum Technologies[1] | Hanau | Germany | AMG Engineering |
| ALD Vacuheat[1] | Limbach | Germany | AMG Engineering |
| ALD TT USA[1] | Michigan | USA | AMG Engineering |
| ALD Dynatech | Mumbai | India | AMG Engineering |
| ALD TT Mexico[1] | Ramos Arizpe | Mexico | AMG Engineering |
| ALD Japan | Shinjuku-ku | Japan | AMG Engineering |
| ALD Singapore | Singapore | Singapore | AMG Engineering |
| ALD C&K | Suzhou | China | AMG Engineering |
| AMG Mining Edelgraphit | Bonn | Germany | AMG Mining |
| AMG Antimony | Chauny | France | AMG Mining |
| Bogala Graphite Lanka[1] | Colombo | Sri Lanka | AMG Mining |
| AMG Mining[1] | Kropfmuhl | Germany | AMG Mining |
| AMG Antimony | Lucette | France | AMG Mining |
| AMG Mineração[1] | Nazareno | Brazil | AMG Mining |
| AMG Silicon[1] | Pocking | Germany | AMG Mining |
| AMG Graphite | Qingdao | China | AMG Mining |
| AMG Graphite Tyn | Tyn | Czech Republic | AMG Mining |
| AMG Alpoco | Anglesey | UK | AMG Processing |
| AMG Titanium Alloys and Coatings[1] | Brand Erbisdorf | Germany | AMG Processing |
| AMG Aluminum | Jiaxing | China | AMG Processing |
| AMG Aluminum | Kentucky | USA | AMG Processing |
| AMG Alpoco | Minworth | UK | AMG Processing |
| AMG Titanium Alloys and Coatings[1] | Nürnberg | Germany | AMG Processing |
| AMG Vanadium[1] | Ohio | USA | AMG Processing |
| AMG Aluminum | Pennsylvania | USA | AMG Processing |
| AMG Superalloys and AMG Aluminum[1] | Rotherham | UK | AMG Processing |
| AMG Superalloys[1] | Sao Joao del Rei | Brazil | AMG Processing |
| AMG Aluminum | Washington | USA | AMG Processing |

**Notes:**

The chart indicates which facilities were included in the scope of the sustainable development data. Only data from these facilities is included in this section which may therefore show inconsistency with other sections of this annual report covering all facilities.

[1]Remote externally audited data 2013.

## Report Boundaries

This section provides our seventh annual sustainability report, which evaluates and compares AMG's social and environmental performance to previous years. The reporting boundaries have not changed significantly since 2012; three additional operational sites are included while one office location has been closed. The 36 locations reporting in 2013 (in which AMG has a 51% or greater stake holding) are detailed in the table on page 50. They include mining and manufacturing operations and sales and administrative offices in 13 countries across 4 continents. The report considers the three segments, AMG Processing, AMG Engineering, and AMG Mining, and where possible, 2012 data have been restated in this form to allow comparison. AMG continues to assess the boundaries of this report based on the corporate ownership structure. All locations report their performance at the end of the fourth quarter, and no forecast data is used.

## Scope of This Report

AMG utilizes the Global Reporting Initiative (GRI) G3, Mining and Metals Sector Supplement aspects. The GRI is a network-based organization that publishes the world's leading sustainability reporting framework. Additionally, AMG has applied GRI's principal of materiality to the report, which states: "Information in this report should cover issues and indicators that would substantively influence the decisions of stakeholders using this report."

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 Conestoga-Rovers & Associates. The environmental key performance data for the three segments are summarized in the table on page 57.

**AMG Advanced Metallurgical Group N.V.**
**www.amg-nv.com**
**Contact: global.sustainability@amg-nv.com**

## AMG People

GRI INDICATORS LA 1, LA 4, LA 6, LA 7, LA 10, LA 13 AND MM 4

At year-end 2013, AMG Processing had a workforce of 1,301, AMG Engineering had 879 employees, and AMG Mining had 854 employees. For those facilities reporting here, including corporate staff (39), the total AMG workforce was 3,073 (facilities not yet covered in this section employ a further 20 people). Geographically, these were located in Asia (10%), Europe (57%), North America (17%) and South America (16%).

A further 327 directly supervised contract workers were employed at AMG sites. AMG assesses the diversity of its workforce in terms of gender and age. The multinational, and therefore multicultural, nature of the business means that ethnic diversity is significant, but because of the difficulty in defining minority employees in such an environment, the Company does not collect data on this aspect. Of the total employees, 19% are female; 19% are under 30 years of age, 53% between 30 and 50, and 28% over 50. The Management Board is 66% male and 33% female. The Supervisory Board is 87% male and 13% female. One Supervisory Board member is aged 30-50 while seven are over 50.

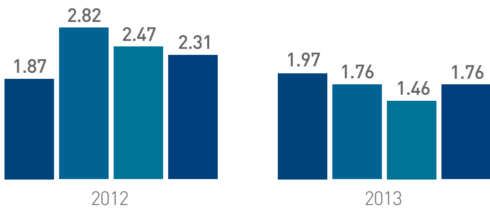
AMG respects the freedom of its individual employees and their rights to join, or to choose not to join, unions. Across the Company, 2,098 AMG employees (68%) were covered by collective bargaining agreements. 72% of AMG Processing and 86% of AMG Mining employees are covered by such arrangements. AMG Engineering, which includes a higher proportion of professional salaried staff, has 45% of its employees covered by collective bargaining agreements. There were no strikes or lockouts reported at any of AMG's facilities in 2013.

### ZERO ACCIDENTS IS OUR GOAL

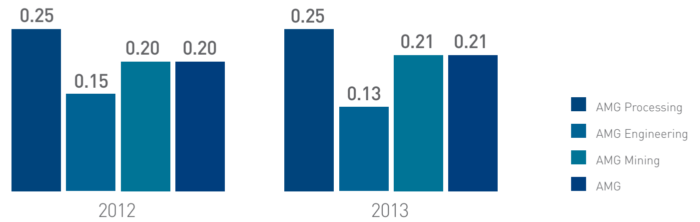
AMG is pleased to report that no fatal incidents occurred at any of our sites in 2013. Since our first Annual Report on safety in 2008, our safety performance has improved significantly. Our medium term goal is zero lost-time incidents – we cannot accept that any incident is inevitable. In 2013, we saw our best safety performance yet, extending the improving trend. For AMG as a whole, the Lost Time Incident Rate[1] dropped from 2.31 in 2012 to 1.76. However, the incident severity[2] was marginally higher at 0.21 compared 0.20 in 2012. Of the 36 locations included in this report, 17 achieved zero lost time incidents in 2013. No specific occupational diseases were reported in 2013. The average absenteeism rate across AMG was 3.0%. The Company continues towards its ultimate goal of zero harm to any employee. Ten sites are OHSAS 18001 certified, while formal health and safety committees with representatives from all levels of the organization and which lead and are intimately involved in decisions regarding safety,

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 worker hours of exposure. In some locations calendar days are counted by local regulators and this data is used here if scheduled work days are unavailable.

Lost Time Incident Rate




Incident Severity




are in place at every major production facility and many of the smaller facilities. In 2013, 85% of the AMG workforce was represented in these committees.

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. Training data on corporate employees is not fully available. In 2013, the training provided was: management (159 employees trained, averaging 16 hours per person), professional, technical, sales and administration (871 employees trained, averaging 18 hours) and Production and Maintenance (1,620 employees trained, averaging 27 hours). Across all the reporting sites, AMG employees received an average of 17 hours of training time in 2013 (approximately 1% of total hours worked).

## Human Rights and Ethics

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

AMG remains fully committed to the protection of internationally proclaimed human rights and works 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 2013, 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. It was found that no sites posed a risk at this time. Our policy on human rights is included in the Company Code of Business Conduct and Ethics, which was revised and updated in 2012, and detailed in the Company's human rights policy, both available on the AMG website.

Although significant human rights and ethics training was not performed in 2013, with 17% of employees given refresher training in ethical businesses practices, including some human rights-based materials, preparations were made for significant training in the first half of 2014. 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 which produce metals and alloys from secondary, recycled resources, to those which provide technology and engineering services. AMG resource usage data comprises raw materials, associated process materials, semi manufactured goods and parts and packaging, by weight.

AMG Engineering provides predominantly furnace technology and engineering services, including furnace assembly operations and heat treatment services. The segment utilizes limited amounts of resources in these activities, mainly complex component parts for furnaces, which are routinely measured in units rather than by mass. Therefore, unlike the chemicals and alloys business units, only limited data is available on resource mass. In 2013, AMG Engineering reported using 3,722 mt of resources, all of which were classified as primary.

AMG Processing uses a much more diverse range of resources including 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 174,000 mt of resources in 2013, of which 26,000 mt (15%) were secondary or recycled materials.

AMG Mining uses non-renewable resources such as graphite rich ores, for the manufacture of natural graphite, and quartz, in its silicon metal operations. In 2013, the primary utilization of resources was by AMG Mineração (830,000 mt) and AMG Silicon (190,000 mt) with the remaining AMG Mining sites using 54,000 mt.

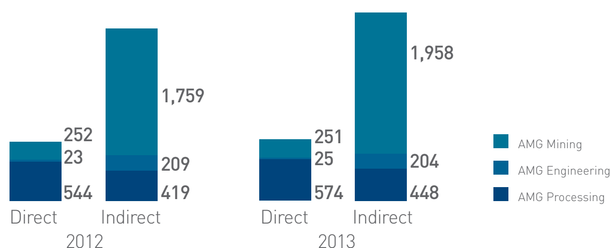
## Energy Consumption

### 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 Processing and AMG Mining 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]

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

Energy Usage (TJ)




The reported energy usage for AMG Processing is almost unchanged in 2013 compared to 2012, decreasing from 963 terajoules (TJ) in 2012 to 962 TJ in 2013. Direct energy usage was 574 TJ and indirect 448 TJ.

The energy usage for AMG Mining was 2210 TJ, split between direct (251 TJ) and indirect (1,958 TJ). The largest user, accounting for 80% of this usage was the silicon metal production in Germany – an inherently energy intensive process.

The energy used by low-energy heat treatment processes utilized by AMG Engineering remains low in comparison. The segment used 229 TJ, almost unchanged from 2012 (231 TJ). Indirect energy, in the form of electricity, accounted for 204 TJ, while direct energy use, primarily natural gas, was 25 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 2013, AMG's upgraded hydroelectric generating facility near São João del Rei, Brazil operated for the full year and generated 48,500 GJ (13,500 MWh). This supplied AMG's local requirements at its São João del Rei, Brazil plant and provided a surplus that was fed back into the power grid. Additionally, AMG Vanadium's recently installed solar power system generated 921 GJ (255 MWh) in 2013 and the AMG Mineração mine now utilizes biodiesel in its truck fleet, contributing 140,000 GJ of renewable energy.

## 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, process and sanitary usage is reported by AMG facilities. Reported water use for AMG Processing rose to 718,000 cubic meters in 2013, primarily because of increased production of vanadium. AMG Engineering was similar to 2012 at 80,000 cubic meters.

AMG Mining has its largest water use at the mine sites in Germany and Sri Lanka, and the silicon metal production plant in Germany. Together these sites used 1.3 million cubic meters of water. Additionally, the mine in Nazareno, Brazil, used 6.0 million cubic meters in 2013, a decrease from prior years, primarily because of improved measurement. Full data is provided in the table on page 57.

## Biodiversity

**GRI INDICATOR EN 11**

Of the 36 locations reporting for 2013, four reported land areas on or adjacent to their property, which had high biodiversity value, sensitive habitats or were protected. These areas are: river frontage in Hanau, Germany, 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

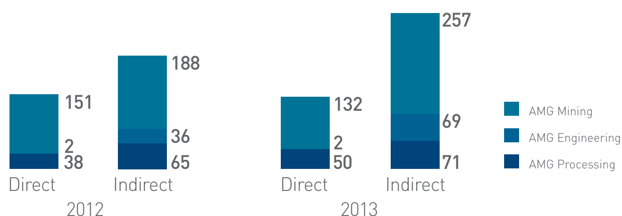
**GRI INDICATOR EN 16**

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 CO2 equivalent (CO2e), 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 Processing GHG emissions rose 17% from 103,000 mt of CO2e in 2012, to 121,000 mt in 2013. 57% of these emissions are attributed to indirect sources and 41% are attributed to direct sources.

AMG Engineering GHG emissions in 2013 were 70,000 mt, an increase from 38,000 mt in 2012. This increase was attributable to greater throughput at the Michigan, USA facility. 95% of these emissions are indirect and associated with electricity usage.

GHG Emissions (MT)




AMG Mining emissions remain dominated by the silicon metal production activities. Of the 389,000 mt of CO2e emissions in 2013, 353,000 mt are attributable to silicon metal manufacture (approximately 5.5 kg CO2e per kg silicon metal produced). This activity also dominates AMG's overall GHG emissions, accounting for 61% of total group emissions. Further, changes in supply mix resulted in higher emission factors for this electricity, accounting for a significant portion of the increased emissions.

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 defined on the basis of revenue rather than, for example, mt of product. Normalized to a revenue basis, AMG Processing emitted 121,000 mt, with revenue of $568.6 million, equivalent to 212 mt CO2e per million $ revenue. AMG Engineering generated 70,500 mt CO2e, $260.2 million in revenue, or 270 mt CO2e per million $ revenue, while AMG Mining is the most carbon-intensive segment with 389,000 mt of CO2e and $329.6 million in revenue, equivalent to 1,180 mt CO2e per million $ revenue. This wide range reflects the diversity of AMG but also guides focus on reduction opportunities. It must also be noted that because of the new business unit structure, year on year comparison is not possible. For AMG as a whole in 2013, GHG intensity was 501 mt per million $ revenue.

## 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's production facilities do have some other air emissions, including SOx (661 mt), NOx (56 mt) and particulate materials (18 mt). Data is only available for regulated sources where measurements have been made. AMG Mining's largest emissions come mainly from the silicon metal production activities. In total AMG Mining's facilities emitted SOx (356 mt), NOx (723 mt), and particulates (11 mt).

## 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 releases, discharged 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 2013, the total water disposed to water courses by AMG Processing totaled 411,000 cubic meters compared to 390,000 cubic meters in 2012. This slight increase is attributed to variations in production volumes.

Although most of AMG Processing's water is used for cooling purposes and therefore produces clean water discharges, some of the wet chemical processes generate aqueous waste streams. For the five production sites reporting industrial process water disposal, the major constituents were metals (1,085 kg), fluoride (182 kg), sulfate (1,488 mt) and total suspended solids (46 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 this type takes place at the site in Michigan, USA (7,750 cubic meters in 2013).

AMG Mining (excluding the mine in Brazil) discharged 898,000 cubic meters in 2013. This included cooling water used by the silicon metal furnaces and mine water from dewatering pumps. In several locations, mine water is utilized for process water before final discharge. Constituents from processing included metals (412 kg), sulfate (1767 mt), fluoride (3,770 kg) and suspended solids (7,000 kg).

Additionally, the 4.7 million cubic meters of water discharged to surface water from the mine site in Brazil contain suspended solids, although accurate data is not yet available.

In 2013, there were no significant spills (defined by GRI as one which would affect the Company's financial statement 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 2013 for waste streams generated by AMG, along with documentation of their recycle 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 Processing was 20,614 mt, an increase of 10% over 2013 (18,671 mt). This increase is primarily related to remediation projects, partially

offset by ongoing and increasing recycling efforts. 69% of these materials (14,172 mt) were non-hazardous, with the remaining 6,438 mt disposed to licensed hazardous waste landfills.

The waste produced by AMG Engineering is much different in composition, and much smaller in volume. Just 138 mt were disposed to landfill in 2013 (2012, 153 mt), composed mainly of general waste, contaminated oil and metals that could not readily be recycled.

AMG Mining disposed of 8,649 mt of waste in 2013, of which just 141 mt were hazardous waste. The graphite mine in Sri Lanka, the silicon metal manufacturing and graphite mine sites in Germany together generated 95% of this waste.

Overall, the Company disposed of 29,400 mt of waste to landfill or incineration in 2013, of which 22% was hazardous waste.

## Significant Fines for Non-Compliance with Environmental and Other Laws

### GRI INDICATOR EN 28

No segment received any significant fine or equivalent penalty for non-compliance with environmental laws in 2013.

## GRI Indicator SO8

In 2013, AMG Engineering and AMG Processing did not receive any fines. Within AMG Mining, the mine in Nazareno, Brazil, was fined $195,000 relating to labor issues in 2011.

## Product Responsibility

### GRI INDICATOR MM 11

AMG continues its progress regarding its responsibilities under the REACH regulations in Europe, and completed its 2013 registrations for products with volumes greater than 100 mt. European operations are involved with Consortia 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 G3 guidelines for the voluntary reporting of sustainable development indices. The table below serves as a reference guide to the sections of the report where information about each item can be found. The GRI G3 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 is included in this report. A detailed GRI content index can be found under the sustainable development section of the AMG website (www.amg-nv.com).

## 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 second Communication on Progress in April 2014.

## Extractive Industries Transparency Initiative

AMG continues its support of the Extractive Industries Transparency Initiative (EITI, www.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 activities in Mozambique.

## Global Reporting Initiative

AMG supports the GRI, and is an Organizational Stakeholder (OS). GRI is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. In order to ensure the highest degree of technical quality, credibility, and relevance, the reporting framework is developed through a consensus seeking process with participants drawn globally from business, civil society, labor and professional institutions.

This framework sets out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. The cornerstone of

the framework is the Sustainability Reporting Guidelines. AMG utilizes the third version of the Guidelines, known as the G3 Guidelines, which were published in 2006. Other components of the framework include Sector Supplements (unique indicators for industry sectors) and National Annexes (unique country level information). AMG has utilized the Metals and Mining Sector Supplement 2010 as a guide in preparing this report. GRI has recently published a fourth-generation of guidelines, G4. As an OS in the GRI Program, AMG is monitoring the implementation of this revision and will modify its data collection processes to match, although this will take several reporting cycles. OSs put their name to the GRI mission, products and processes, and promote broadening participation around sustainability and transparency. The OSs provide a key basis for legitimacy to GRI and reinforce its common commitment as a network to change.

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 (www.amg-nv.com).

## Environmental, Health, Safety and Social Reporting Statement of Assurance

### SCOPE, OBJECTIVES & RESPONSIBILITIES

AMG's environmental, health, safety and social performance reporting has been prepared by the management of AMG who are responsible for the collection and presentation of the information. Conestoga-Rovers & Associates (CRA) was retained by AMG to conduct an independent review and assurance of the 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. CRA'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. CRA 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

CRA'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 G3 Guidelines and international standards for assurance appointments. Remote audits utilizing telephone and web based methods were carried out for 13 facilities (see table page 50) identified by AMG, representing approximately 36% 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 CRA 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 2013. 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 ensuring consistency in the approach related to various performance metrics and 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.
Conestoga-Rovers & Associates

Ashley Valentine, P.E.
Conestoga-Rovers & Associates

AMG hydroelectric plant in Brazil

# Social and Environmental Key Performance Indicators and GRI Content Index

## SELECTED SOCIAL AND ENVIRONMENTAL KEY PERFORMANCE INDICATORS*

| GRI INDICATOR | DESCRIPTION | AMG PROCESSING | | AMG ENGINEERING | | AMG MINING | | AMG |
|---|---|---|---|---|---|---|---|---|
| | | 2012 | 2013 | 2012 | 2013 | 2012 | 2013 | 2013 |
| LA1 | Total workforce | 1,277 | 1,301 | 931 | 879 | 830 | 854 | 3,073 |
| LA4 | Employees covered by collective bargaining agreements **(%)** | 74 | 72 | 35 | 45 | 85 | 86 | 68 |
| LA7 | Accident rates **(Total)** | 1.87 | 1.97 | 2.82 | 1.76 | 2.47 | 1.46 | 1.76 |
| LA7 | Accident severity rate **(Total)** | 0.25 | 0.25 | 0.15 | 0.13 | 0.20 | 0.21 | 0.21 |
| LA10 | Average hours of training per year per person | 26 | 25 | 17 | 14 | 12 | 15 | 17 |
| EN2 | Recycled raw materials (excluding mine) **(%)** | 14 | 15 | 0 | 0 | 0.1 | 0.1 | 2.1 |
| EN3 | Direct energy consumption **(TJ)** | 544 | 574 | 22 | 25 | 252 | 251 | 791 |
| EN4 | Indirect energy consumption **(TJ)** | 419 | 448 | 209 | 204 | 1,759 | 1,958 | 2,610 |
| EN8 | Water consumption—Manufacturing **(cubic meters)** | 629,000 | 718,000 | 66,000 | 80,000 | 608,000 | 596,000 | 1,394,000 |
| EN8 | Water consumption—Mining **(cubic meters)** | NA | NA | NA | NA | 7,657,000 | 6,676,000 | 6,676,000 |
| EN16 | $CO_2$ equivalent emissions **(mt)** | 103,000 | 121,000 | 38,000 | 71,000 | 338,000 | 389,000 | 580,100 |
| EN20 | SOx emissions **(mt)** | 606 | 661 | 0 | 0 | 335 | 356 | 1,017 |
| EN20 | NOx emissions **(mt)** | 127 | 56 | 0 | 0 | 683 | 723 | 779 |
| EN20 | Particulates discharged to air **(mt)** | 18 | 18 | 0 | 0 | 38 | 11 | 28 |
| EN21 | Metals discharged **(kg)** | 1,083 | 1,085 | 0 | 0 | 0 | 412 | 1,497 |
| EN22 | Hazardous waste (including recycled) **(mt)** | 5,733 | 7,637 | 355 | 347 | 237 | 386 | 8,371 |
| EN22 | Non-hazardous waste (including recycled) **(mt)** | 16,017 | 13,483 | 755 | 368 | 13,734 | 11,662 | 25,513 |
| EN22 | Waste recycled **(%)** | 20 | 26 | 62 | 62 | 40 | 28 | 32 |
| EN22 | Waste disposed to landfill **(mt)** | 18,671 | 20,614 | 153 | 138 | 8,195 | 8,648 | 29,400 |
| EN23 | Spills **(L)** | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EN28 | Environmental fines **($)** | 0 | 0 | 0 | 0 | NA | 0 | 0 |
| SO8 | Fines for non compliance with laws **($)** | 0 | 195,000 | 0 | 0 | NA | 0 | 195,000 |

* For a full list see pages 51-54.

## GRI CONTENT INDEX



| PART | SECTION | REFERENCE | PAGES |
|---|---|---|---|
| Part I: Profile Disclosures | Strategy and Analysis | 1.1, 1.2 | 2-9 |
| | Organizational Profile | 2.1 to 2.10 | 1-31 |
| | Report Parameters | 3.1 to 3.13 | 50-57 |
| | Governance, Commitments, and Engagement | 4.1 to 4.17 | 38-49, 58-62 |
| Part II: Disclosures on Management Approach (DMA) | Economic, Environment, Labor, Human Resources,Society, Product Responsibility | DMA EC, EN, LA,HR, SO, PR | 1-61 |
| Part III: Performance Indicators | Economic: Economic Performance | EC1 | 4-5 |
| | Environmental: Materials | EN1, EN2 | 52 |
| | Environmental: Energy | EN3, EN4 | 52-53 |
| | Environmental: Water | EN8 | 53 |
| | Environmental: Emissions, effluents, wastes | EN16, 19, 20, 21, 22, 23 | 53-55 |
| | Environmental: Other | EN11, EN28 | 53, 55 |
| | Social: Labor Practices and Decent Work | LA1, 4, 6, 7, 10, 13 | 51-52 |
| | Social: Human Rights | HR3, 5, 6 | 52 |
| | Social: Society | SO3, SO8 | 52, 55 |
| | Social: Product Responsibility | MM11 | 55 |

# Corporate Governance

## General

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 Dutch Corporate Governance Code can be downloaded at www.corpgov.nl.

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 Dutch Corporate Governance Code as applicable during 2013 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 (www.amg-nv.com) under the Corporate Governance chapter.

## Annual Accounts and Dividends

The Management Board and the Supervisory Board have approved AMG's audited consolidated financial statements for 2013. Ernst & Young Accountants LLP audited these financial statements.

The audited financial statements will be submitted for adoption to the General Meeting of Shareholders.

AMG's dividend policy is to retain future earnings to improve the strength of the balance sheet and finance the development of its business. The dividend policy will, however, be reviewed from time to time. 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, including business prospects, cash requirements, financial performance, new-product development, expansion plans, the terms of the Company's financing facilities and the compliance with applicable statutory and regulatory requirements. 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.

## Shares and Shareholders' Rights

As of December 31, 2013, the total issued share capital of AMG amounts to EUR 551,858 consisting of 27,592,924 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 Authority Financial Markets (Autoriteit Financiële Markten) has notified the Company that it had been notified about the following substantial holdings (>3%) in ordinary shares of AMG. The information below is solely based on publications registered with the AFM register until February 28, 2014 and therefore may not necessarily reflect the actual holdings as of that date.

As of February 28, 2014

| | |
|---|---|
| RWC Partners Ltd. | 10.3% |
| Norges Bank | 5.4% |
| Hunter Hall Investment Management Ltd. | 4.5% |

Shareholding table:

| | 2012 | 2013 |
|---|---|---|
| Number of ordinary shares outstanding | 27,551,269 | 27,592,924 |
| Average daily turnover | 224,225 | 161,416 |
| Highest Closing Price | 9.90 | 8.29 |
| Lowest Closing Price | 5.89 | 6.04 |

## Introduction of 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.

## 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 consists of Mr. H. de Munnik, Chairman and Mr. W. van Hassel and Mr. H. Borggreve as members. The main objective of the Foundation is to represent the interests of the Company and of the enterprises maintained by the Company and the companies affiliated with the Company in a group, in such a way that the interests of the Company and of those enterprises and of all parties involved in this are safeguarded in the best possible way, and that influences which could affect the independence and/or continuity and/or identity of the Company and those enterprises in breach of those interests are deterred to the best of the Foundation's ability.

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

## Voting Rights

There are no restrictions on voting rights of ordinary and preference shares. Shareholders who hold shares on a predetermined record date (mandatory fixed at 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.

As far as is known to AMG, there is no agreement involving a shareholder of AMG that could lead to a restriction of the transferability of shares or of voting rights on shares, except as detailed below.

## 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 exceeding 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. 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 Company 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 exceeding 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 only appoint the nominated person, unless the General Meeting of Shareholders rejects the nomination with an absolute majority (more than 50% of the votes cast) representing at least one-third of the issued share capital. 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 Dutch Corporate Governance 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 38-49). 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 and the first anniversary of the date on which he 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 from 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 3, 2013, the General Meeting of Shareholders resolved to authorize the Management Board for a period of 18 months from that date (until November 2, 2014) as the corporate body, which, subject to approval of the Supervisory Board, is authorized respectively (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, 2012, for general corporate purposes, with the power to exclude or restrict pre-emptive rights and (ii) 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, 2012, for the purpose of mergers and acquisitions and financial support arrangements (relating to the Company and/or participations (deelnemingen) of the Company), with the power to exclude or restrict pre-emptive rights.

On May 3, 2013, the General Meeting of Shareholders resolved to authorize the Management Board for a period of 18 months from that date (until November 2, 2014) as the corporate body, which, subject to approval of 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, 2012, 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 stock exchange price. 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 of 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 of 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 been amended on November 13, 2013, following approval by the General Meeting of Shareholders in its Extraordinary General Meeting held on November 8, 2013, and are published on the Company's website (www.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 of 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.

Ahead is an overview of the significant agreements to which the Company is a party, which are affected, changed or terminated subject to a condition of a change of control.

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 concluded for a period of five years on April 28, 2011, 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. Certain 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 59.

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

## Compliance with the Dutch Corporate Governance Code

Reference is made to the Company's website (www.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 Dutch Corporate Governance Code as amended in 2008 (hereinafter also referred to as "the 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 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' 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, 2013, up to and including March 26, 2014.

During the period starting January 1, 2013, up to and including March 26, 2014, 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 Corporate Governance 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 to the Report of the Management Board, Report of the Supervisory Board, the chapter on Risk Management and Internal Control, the chapter on Sustainable Development and the chapter on 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.

# Financials

## Financial Review


Revenue .... 64
Gross profit .... 64
Selling, general and administrative expenses .... 64
Other income, net .... 64
Non-recurring items .... 64
Operating (loss) profit .... 65
Finance costs, net .... 65
Income taxes .... 65
Net income .... 65
Liquidity and capital resources .... 65
Outlook .... 65


## Financial Statements


Consolidated Income Statement .... 66
Consolidated Statement of Comprehensive Income .... 67
Consolidated Statement of Financial Position .... 68
Consolidated Statement of Changes in Equity .... 69
Consolidated Statement of Cash Flows .... 70


## Notes to the Consolidated Financial Statements


1. Reporting entity .... 71
2. Basis of preparation .... 72
3. Significant accounting policies .... 74
4. Segment reporting .... 90
5. Acquisitions and disposals .... 92
6. Revenue .... 94
7. Other income and expense .... 94
8. Personnel expenses .... 94
9. Finance income and expense .... 94
10. Income tax .... 95
11. Non-recurring items .... 97
12. Property, plant and equipment .... 98
13. Goodwill and intangible assets .... 100
14. Associates and joint ventures .... 103
15. Inventories .... 104
16. Trade and other receivables .... 105
17. Other assets .... 105
18. Restricted cash .... 106
19. Cash and cash equivalents .... 106
20. Capital and reserves .... 106
21. Earnings per share .... 108
22. Loans and borrowings .... 108
23. Short term bank debt .... 110
24. Employee benefits .... 110
25. Share-based payments .... 113
26. Provisions .... 115
27. Government grants .... 118
28. Deferred revenue .... 119
29. Other liabilities .... 119
30. Trade and other payables .... 119
31. Financial risk management objectives and policies .... 119
32. Financial instruments .... 123
33. Leases .... 125
34. Capital commitments .... 126
35. Contingencies .... 126
36. Related parties .... 127
37. Subsequent events .... 129


## Parent Company Financial Statements


Parent Company Statement of Financial Position .... 130
Parent Company Income Statement .... 130


## Notes to Parent Company Financial Statements


1. Summary of significant accounting policies .... 131
2. Property, plant and equipment .... 131
3. Intangible assets .... 131
4. Financial fixed assets .... 132
5. Deposits .... 133
6. Receivables from associates and related parties .... 133
7. Prepayments .... 133
8. Cash and cash equivalents .... 133
9. Shareholders' equity and other capital reserves .... 134
10. Long term debt .... 135
11. Trade and other payables .... 135
12. Amounts due to subsidiaries .... 135
13. Derivative financial instruments .... 135
14. Commitments and contingencies .... 136
15. Related parties .... 136
16. Employees .... 136
17. Audit fees .... 136

**Other Information .... 137**

**Subsequent Events .... 137**

**Independent Auditor's Report .... 138**

**Shareholder Information .... 139**

# Financial Review

| For the year ended December 31 | 2013 | 2012 |
|---|---|---|
| In thousands of US Dollars | | |
| **Revenue and expenses** | | |
| AMG Processing revenue | 568,629 | 614,031 |
| AMG Engineering revenue | 260,200 | 273,924 |
| AMG Mining revenue | 329,615 | 327,647 |
| Total revenue | 1,158,444 | 1,215,602 |
| Cost of sales | 980,742 | 1,019,179 |
| **Gross profit** | 177,702 | 196,423 |
| Selling, general and administrative expenses | 140,856 | 145,053 |
| Restructuring expense | 14,225 | 6,151 |
| Asset impairment expense | 51,024 | 9,891 |
| Environmental | (86) | 1,772 |
| Other income, net | (2,121) | (1,226) |
| **Operating (loss) profit** | (26,196) | 34,782 |

## Revenue

Full year 2013 revenue decreased 5% to $1,158.4 million, from $1,215.6 million in 2012. AMG Processing and AMG Engineering showed weakness due to the general economic slowdown which continued in 2013. This downturn was further exacerbated by the compression in the aerospace supply chain.

AMG Processing's 2013 revenue decreased by $45.4 million, or 7%, from 2012, to $568.6 million. Decreases in prices for chrome, niobium, coatings and vanadium products caused the decline in total revenue.

AMG Engineering's 2013 revenue decreased by $13.7 million, or 5% to $260.2 million. The decrease was the result of declines of 42%, 45% and 33% in heat treatment furnaces, solar silicon and remelting furnace revenues, respectively, offset somewhat by increases of 384% and 23% in revenue from turbine blade coatings furnaces and nuclear furnaces, respectively. 2013 order intake was $195.3 million, down 29% from 2012 order intake of $276.0 million.

AMG Mining's 2013 revenue increased by $2.0 million, or 1%, from 2012, to $329.6 million. The increase in revenue was the result of higher pricing and volume for graphite, in addition to higher volume for silicon metal, offset somewhat by declines of 10% and 3% in tantalum and antimony revenue, respectively.

## Gross profit

AMG's gross profit declined by $18.7 million to $177.7 million in the year ended December 31, 2013, a 10% decline. As a percentage of revenue, gross profit declined marginally from 16% to 15%.

AMG Processing's 2013 gross margin decreased to 11% from 14% in 2012, as the decline in volume and pricing could not be overcome by cost control measures. 2013 gross margin for AMG Engineering increased to 24% from 22% in 2012 due to an increase in higher margin sales of turbine blade coatings and nuclear furnaces. AMG Mining's 2013 gross margin increased to 16% from 15% in 2012. The increase in gross margin is the result of the increased volumes for silicon and graphite, as well as improved product mix related to higher value-added products.

## Selling, general and administrative expenses

Selling, general and administrative costs were $140.9 million in the year ended December 31, 2013 as compared to $145.1 million in the year ended December 31, 2012, a decrease of 3%. As a percentage of sales, SG&A remained consistent at 12%.

Personnel expenses declined to $79.6 million in the year ended December 31, 2013 from $79.7 million in the year ended December 31, 2012. Due to declining performance in the year, salary and bonuses decreased to $57.4 million in 2013 from $57.8 million in 2012. Other employee benefits declined to $16.2 million in 2013 from $16.6 million in 2012. The cash-settled share-based payment expense has increased by $1.6 million due to the improved share performance versus peers while equity-settled option costs declined by $1.2 million. The Company incurs professional fees from global service providers for services including audit, tax planning and compliance and legal consultation. Professional fees were $22.5 million in 2013 as compared to $19.7 million in 2012. Outside consulting remains a large expense to the Company and was impacted by costs associated with specific strategic initiatives. Research and development expense declined to $4.9 million in the year ended December 31, 2013 as compared to $5.7 million in the year ended December 31, 2012. As the economy stagnated, certain projects were put on hold. All other SG&A expenses, such as travel and entertainment, insurance, occupancy, communication and bank fees declined to $33.8 million in the year ended December 31, 2013 from $40.0 million in the year ended December 31, 2012. This decline was due to several reasons including a $1.0 million decline in depreciation expense impacted by the write-off of fixed assets during the year, a decline of $0.4 million in bad debt expense, as well as declines of $1.9 million in the following: travel and entertainment, occupancy, communication and supplies.

## Other income, net

Other income of $2.1 million for the year ended December 31, 2013 was primarily comprised of a $1.5 million gain on sale of land by AMG Mining AG and rental income of $0.2 million. In the year ended December 31, 2012, other income of $1.2 million was comprised of several smaller items including insurance proceeds of $0.2 million, rental income of $0.2 million and sale of scrap of $0.2 million.

## Non-recurring items

A summary of non-recurring items affecting the 2013 and 2012 results is presented below:

| For the year ended December 31 | 2013 | 2012 |
|---|---|---|
| In thousands of US Dollars | | |
| Non-recurring items included in operating (loss) profit: | | |
| Restructuring expense | 14,225 | 6,151 |
| Asset impairment expense | 51,024 | 9,891 |
| Total non-recurring items included in operating (loss) profit | 65,249 | 16,042 |

## Operating (loss) profit

AMG's operating loss of $26.2 million for the year ended December 31, 2013 was a decline of $61.0 million from the operating profit of $34.8 million reported for the year ended December 31, 2012. The decline in operating profit was largely the result of the significant asset impairment and restructuring expenses booked in 2013. However, in our recurring business, the general weakness in gross profit also could not be overcome by the declines in SG&A.

## Finance costs, net

The table below sets forth AMG's net finance costs for the years ended December 31, 2013 and 2012. Finance expense decreased 17% over the prior year, mainly as the result of lower average borrowings for the year, in addition to declines in amendment fees and debt extinguishment fees from the prior year.

| For the year ended December 31<br>In thousands of US dollars | 2013 | 2012 |
|---|---|---|
| Finance income | (810) | (1,051) |
| Finance expense | 21,703 | 26,256 |
| Foreign exchange loss | 175 | 581 |
| Net finance costs | 21,068 | 25,786 |

## Income taxes

The Company recorded an income tax benefit of $4.4 million for the year ended December 31, 2013, compared to income tax expense of $10.8 million for the year ended December 31, 2012. The tax benefit was the result of the Company recording a loss before income tax, compared to profit in the prior year. The effective tax rate for 2013 was 8.86%, as compared to the 95.41% effective tax rate for 2012, neither of which is indicative of an ongoing recurring rate. The tax rate was negatively impacted by the asset impairment expenses of $51.0 million, which are generally not deductible for tax purposes. In addition, restructuring expenses of $14.2 million were generally recorded in jurisdictions where no tax benefit could be booked. Excluding those expenses, the effective tax rate would have been 28%.

## Net income

The Company recorded a net loss attributable to shareholders of $41.5 million in the year ended December 31, 2013 as compared to income of $2.8 million in the year ended December 31, 2012.

## 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, 2013, the Company had $103.1 million in cash and cash equivalents and $71.7 million available on its revolving credit facility. Changes in the Company's liquidity were due primarily to the investments in expansion projects and acquisitions offset by working capital improvements during the year.

| In thousands of US dollars | 2013 | 2012 |
|---|---|---|
| Non-current loans and borrowings | 223,788 | 265,553 |
| Current loans and borrowings | 39,792 | 50,291 |
| Total debt | 263,580 | 315,844 |
| Cash | 103,067 | 121,639 |
| Net debt | 160,513 | 194,205 |

The Company is subject to three debt covenants in its credit facility. One covenant may be breached in the year ended December 31, 2014. Violating any covenants would limit the Company's access to liquidity. See note 2.c to the financial statements.

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, 2013 and 2012.

| For the year ended December 31 | 2013 | 2012 |
|---|---|---|
| In thousands of US Dollars | | |
| Net cash flows from operating activities | 69,707 | 65,637 |
| Capital expenditures | (32,025) | (48,109) |
| Cash flows from (used in) other investing activities | 3,163 | (430) |
| Net cash flows used in investing activities | (28,862) | (48,539) |
| Net cash flows (used in) from financing activities | (62,252) | 21,661 |

Cash flows from operating activities were $69.7 million for the year ended December 31, 2013 compared to cash flows from operating activities of $65.6 million in the same period in 2012. Net cash flows from operating activities are comprised of $72.6 million in EBITDA and $40.2 million decrease in working capital and deferred revenue, offset by $12.1 million in cash tax payments and $18.8 million in cash interest payments.

Cash flows used in investing activities were $28.9 million for the year ended December 31, 2013. The $19.7 million decrease compared to the same period in 2012 is primarily composed of a $16.1 million decrease in capital investments. This reduction in capital investments reflects management's cash control initiatives and more stringent return metrics.

Cash flows used in financing activities were $62.3 million for the year ended December 31, 2013 as the Company repaid $61.7 million of borrowings. In the same period in 2012, AMG generated $21.7 million from financing activities primarily to fund the Brazilian mine expansion and the acquisition of Graphit Kropfmühl shares.

## Outlook

AMG is making progress on improving its operational performance and it is executing on strategy to gain critical mass in critical materials. This is beginning to produce results; however, these improvements are being offset by the weak specialty metals markets. The industry is experiencing destocking in the global aerospace value chain, low demand for high performance steel, and a deceleration of growth in China. These conditions are showing signs of stabilization, however many prices remain low and excess capacity exists. Overall, AMG should produce significant operating cash flow in 2014 and ROCE, EBITDA and net income should improve over 2013 levels.

# Consolidated Income Statement

| For the year ended December 31 | Note | 2013 | 2012 |
|---|---|---|---|
| In thousands of US Dollars | | | Restated* |
| **Continuing operations** | | | |
| Revenue | 6 | 1,158,444 | 1,215,602 |
| Cost of sales | | 980,742 | 1,019,179 |
| Gross profit | | 177,702 | 196,423 |
| | | | |
| Selling, general and administrative expenses | | 140,856 | 145,053 |
| Restructuring expense | 26 | 14,225 | 6,151 |
| Asset impairment expense | 12, 13, 15, 17 | 51,024 | 9,891 |
| Environmental | 26 | (86) | 1,772 |
| Other income, net | 7 | (2,121) | (1,226) |
| Operating (loss) profit | | (26,196) | 34,782 |
| | | | |
| Finance income | 9 | (810) | (1,051) |
| Finance expense | 9, 22 | 21,703 | 26,256 |
| Foreign exchange loss | 9 | 175 | 581 |
| Net finance costs | 9 | 21,068 | 25,786 |
| | | | |
| Share of (loss) profit of associates and joint ventures | 14 | (2,148) | 2,353 |
| (Loss) profit before income tax | | (49,412) | 11,349 |
| | | | |
| Income tax (benefit) expense | 10 | (4,376) | 10,828 |
| (Loss) profit for the year | | (45,036) | 521 |
| | | | |
| | | | |
| Attributable to: | | | |
| Shareholders of the Company | | (41,538) | 2,843 |
| Non-controlling interests | | (3,498) | (2,322) |
| | | (45,036) | 521 |
| **(Loss) earnings per share** | | | |
| Basic (loss) earnings per share | 21 | (1.51) | 0.10 |
| Diluted (loss) earnings per share | 21 | (1.51) | 0.10 |

* Certain amounts shown here do not correspond to the 2012 consolidated financial statements and reflect adjustments. Refer to note 3.s.

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

# Consolidated Statement of Comprehensive Income

| For the year ended December 31 | Note | 2013 | 2012 |
|---|---|---|---|
| In thousands of US Dollars | | | Restated* |
| **(Loss) profit for the year** | | (45,036) | 521 |
| **Other comprehensive income (loss)** | | | |
| Other comprehensive income to be reclassified to profit or loss in subsequent periods | | | |
| Exchange differences on translation of foreign operations | 20 | 79 | 2,700 |
| | | | |
| Gain on cash flow hedges | 20 | 1,332 | 8,827 |
| Income tax on cash flow hedges | 10, 20 | 483 | (2,029) |
| **Net gain on cash flow hedges** | | 1,815 | 6,798 |
| | | | |
| **Net other comprehensive income to be reclassified to profit or loss in subsequent periods** | | 1,894 | 9,498 |
| | | | |
| Other comprehensive income (loss) not to be reclassified to profit or loss in subsequent periods: | | | |
| Actuarial losses on defined benefit plans | | (1,942) | (24,395) |
| Income tax on actuarial losses | 10 | 3,548 | 3,176 |
| | | | |
| **Net other comprehensive income (loss) not being reclassified to profit or loss in subsequent periods** | 20 | 1,606 | (21,219) |
| **Other comprehensive income (loss) for the year, net of tax** | | 3,500 | (11,721) |
| | | | |
| **Total comprehensive loss for the year, net of tax** | | (41,536) | (11,200) |
| | | | |
| **Attributable to:** | | | |
| Shareholders of the Company | | (37,277) | (8,803) |
| Non-controlling interests | | (4,259) | (2,397) |

* Certain amounts shown here do not correspond to the 2012 consolidated financial statements and reflect adjustments. Refer to note 3.s.

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

# Consolidated Statement of Financial Position

| As at December 31 | Note | 2013 | 2012 | As at January 1, 2012 |
|---|---|---|---|---|
| In thousands of US Dollars | | | Restated* | Restated* |
| **Assets** | | | | |
| Property, plant and equipment | 12 | 259,683 | 288,269 | 263,586 |
| Goodwill | 13 | 25,078 | 24,751 | 23,535 |
| Intangible assets | 13 | 12,116 | 13,971 | 14,557 |
| Investments in associates and joint ventures | 14 | 4,755 | 7,351 | 5,085 |
| Derivative financial instruments | 32 | 271 | 527 | 1 |
| Deferred tax assets | 10 | 27,003 | 35,455 | 32,418 |
| Restricted cash | 18 | 7,967 | 11,888 | 11,074 |
| Notes receivable | | — | 227 | 250 |
| Other assets | 17 | 25,519 | 22,262 | 17,541 |
| **Total non-current assets** | | 362,392 | 404,701 | 368,047 |
| Inventories | 15 | 179,343 | 211,531 | 228,887 |
| Trade and other receivables | 16 | 150,807 | 177,232 | 188,103 |
| Derivative financial instruments | 32 | 2,177 | 3,229 | 3,956 |
| Other assets | 17 | 34,430 | 30,438 | 30,000 |
| Cash and cash equivalents | 19 | 103,067 | 121,639 | 79,571 |
| **Total current assets** | | 469,824 | 544,069 | 530,517 |
| **Total assets** | | 832,216 | 948,770 | 898,564 |
| **Equity** | | | | |
| Issued capital | | 744 | 743 | 742 |
| Share premium | | 382,518 | 382,176 | 381,921 |
| Other reserves | 20 | (4,605) | (9,909) | 5,741 |
| Retained earnings (deficit) | | (246,304) | (204,565) | (203,976) |
| Equity attributable to shareholders of the Company | | 132,353 | 168,445 | 184,428 |
| Non-controlling interests | | 2,237 | 6,818 | 15,160 |
| **Total equity** | 20 | 134,590 | 175,263 | 199,588 |
| **Liabilities** | | | | |
| Loans and borrowings | 22 | 223,788 | 265,553 | 210,448 |
| Employee benefits | 24 | 138,009 | 137,957 | 110,857 |
| Provisions | 26 | 30,443 | 31,852 | 27,019 |
| Deferred revenue | 28 | 11,776 | 2,724 | — |
| Government grants | 27 | 883 | 472 | 732 |
| Other liabilities | 29 | 8,425 | 6,690 | 9,276 |
| Derivative financial instruments | 32 | 7,702 | 11,082 | 8,122 |
| Deferred tax liabilities | 10 | 3,121 | 26,120 | 24,452 |
| **Total non-current liabilities** | | 424,147 | 482,450 | 390,906 |
| Loans and borrowings | 22 | 20,873 | 20,333 | 17,436 |
| Short term bank debt | 23 | 18,919 | 29,958 | 40,737 |
| Government grants | 27 | 74 | 55 | 34 |
| Other liabilities | 29 | 54,383 | 58,934 | 51,673 |
| Trade and other payables | 30 | 127,381 | 125,342 | 128,493 |
| Derivative financial instruments | 32 | 5,298 | 3,900 | 10,661 |
| Advance payments | 6 | 16,341 | 26,989 | 30,204 |
| Deferred revenue | 28 | 5,009 | 2,533 | — |
| Current taxes payable | 10 | 2,329 | 8,623 | 14,468 |
| Employee benefits | 24 | 1,350 | — | — |
| Provisions | 26 | 21,522 | 14,390 | 14,364 |
| **Total current liabilities** | | 273,479 | 291,057 | 308,070 |
| **Total liabilities** | | 697,626 | 773,507 | 698,976 |
| **Total equity and liabilities** | | 832,216 | 948,770 | 898,564 |

* Certain amounts shown here do not correspond to the 2012 consolidated financial statements and reflect adjustments. Refer to note 3.s.

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

# Consolidated Statement of Changes in Equity

| In thousands of US Dollars | Equity attributable to shareholders of the parent | | | | | Non-controlling interests | Total equity |
|---|---|---|---|---|---|---|---|
| | Issued capital | Share premium | Other reserves | Retained deficit | Total | | |
| | (note 20) | | (note 20) | | | | |
| **Balance at January 1, 2012** | 742 | 381,921 | 26,771 | (203,976) | 205,458 | 15,160 | 220,618 |
| Change in accounting policy (note 3.s, 20) | — | — | (21,030) | — | (21,030) | — | (21,030) |
| **Balance at January 1, 2012 (Restated*)** | 742 | 381,921 | 5,741 | (203,976) | 184,428 | 15,160 | 199,588 |
| Foreign currency translation | — | — | 2,775 | — | 2,775 | (75) | 2,700 |
| Gain on cash flow hedges, net of tax | — | — | 6,798 | — | 6,798 | — | 6,798 |
| Actuarial losses, net of tax | — | — | (21,219) | — | (21,219) | — | (21,219) |
| Net loss recognized through other comprehensive income | — | — | (11,646) | — | (11,646) | (75) | (11,721) |
| Profit (loss) for the year | — | — | — | 2,843 | 2,843 | (2,322) | 521 |
| Total comprehensive (loss) income for the year | — | — | (11,646) | 2,843 | (8,803) | (2,397) | (11,200) |
| Transfer to retained deficit | — | — | (6,021) | 6,021 | — | — | — |
| Issuance of shares to Supervisory Board | 1 | 263 | — | — | 264 | — | 264 |
| Change in non-controlling interest | — | — | — | (9,452) | (9,452) | (5,894) | (15,346) |
| Equity-settled share-based payments | — | — | 2,017 | — | 2,017 | — | 2,017 |
| Dividend paid to non-controlling interest | — | — | — | — | — | (51) | (51) |
| Other | — | (8) | — | (1) | (9) | — | (9) |
| **Balance at December 31, 2012** | 743 | 382,176 | (9,909) | (204,565) | 168,445 | 6,818 | 175,263 |
| | | | | | | | |
| **Balance at January 1, 2013** | 743 | 382,176 | (9,909) | (204,565) | 168,445 | 6,818 | 175,263 |
| Foreign currency translation | — | — | 840 | — | 840 | (761) | 79 |
| Gain on cash flow hedges, net of tax | — | — | 1,815 | — | 1,815 | — | 1,815 |
| Actuarial gains, net of tax | — | — | 1,606 | — | 1,606 | — | 1,606 |
| Net profit (loss) recognized through other comprehensive income | — | — | 4,261 | — | 4,261 | (761) | 3,500 |
| Loss for the year | — | — | — | (41,538) | (41,538) | (3,498) | (45,036) |
| Total comprehensive income (loss) for the year | — | — | 4,261 | (41,538) | (37,277) | (4,259) | (41,536) |
| Transfer to retained deficit | — | — | 18 | (18) | — | — | — |
| Issuance of shares to Supervisory Board | 1 | 342 | — | — | 343 | — | 343 |
| Change in non-controlling interest | — | — | — | (170) | (170) | 313 | 143 |
| Equity-settled share-based payments | — | — | 1,025 | — | 1,025 | — | 1,025 |
| Dividend paid to non-controlling interest | — | — | — | — | — | (635) | (635) |
| Other | — | — | — | (13) | (13) | — | (13) |
| **Balance at December 31, 2013** | 744 | 382,518 | (4,605) | (246,304) | 132,353 | 2,237 | 134,590 |

* Certain amounts shown here do not correspond to the 2012 consolidated financial statements and reflect adjustments. Refer to note 3.s.

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

# Consolidated Statement of Cash Flows

| For the year ended December 31 | Note | **2013** | 2012 |
|---|---|---|---|
| In thousands of US Dollars | | | Restated* |
| **Cash flows from operating activities** | | | |
| (Loss) profit for the year | | (45,036) | 521 |
| Adjustments to reconcile net (loss) profit to net cash flows: | | | |
| Non-cash: | | | |
| Income tax (benefit) expense | 10 | (4,376) | 10,828 |
| Depreciation and amortization | 12, 13 | 33,248 | 31,558 |
| Asset impairment expense | 12, 13, 15, 17 | 51,024 | 9,891 |
| Net finance costs | 9 | 21,068 | 25,786 |
| Share of loss (profit) of associates and joint ventures | 14 | 2,148 | (2,353) |
| (Gain) loss on sale or disposal of property, plant and equipment | 12 | (1,296) | 327 |
| Equity-settled share-based payment transactions | 25 | 475 | 1,724 |
| Movement in provisions, pensions and government grants | 24, 26, 27 | 2,427 | 8,617 |
| Working capital and deferred revenue adjustments | | | |
| Change in inventories | | 18,608 | 17,698 |
| Change in trade and other receivables | | 29,050 | 25,535 |
| Change in prepayments | | 2,706 | (8,353) |
| Change in trade payables and other liabilities | | (18,191) | (26,159) |
| Change in deferred revenue | 28 | 11,528 | 5,257 |
| Other | | (3,501) | (4,068) |
| Cash flows from operating activities | | 99,882 | 96,809 |
| Finance costs paid | 9 | (18,817) | (19,123) |
| Finance costs received | 9 | 771 | 522 |
| Income tax paid, net | 10 | (12,129) | (12,571) |
| Net cash flows from operating activities | | 69,707 | 65,637 |
| **Cash flows used in investing activities** | | | |
| Proceeds from sale of property, plant and equipment | 12 | 2,515 | 332 |
| Proceeds from sale of investment in associate | 5 | 650 | — |
| Acquisition of subsidiaries (net of cash acquired nil and $133, respectively) | 5 | — | (166) |
| Acquisition of property, plant and equipment and intangibles | 12, 13 | (32,025) | (48,109) |
| Change in restricted cash | 18 | 3,989 | (671) |
| Acquisition of other non-current asset investments | 17 | (4,000) | — |
| Other | | 9 | 75 |
| Net cash flows used in investing activities | | (28,862) | (48,539) |
| **Cash flows from financing activities** | | | |
| Proceeds from issuance of debt | 22, 23 | 38 | 72,078 |
| Repayment of borrowings | 22, 23 | (61,679) | (35,126) |
| Contributions by non-controlling interests | | 392 | — |
| Change of non-controlling interests | 5 | (1,007) | (15,291) |
| Other | | 4 | — |
| Net cash flows (used in) from financing activities | | (62,252) | 21,661 |
| Net (decrease) increase in cash and cash equivalents | | (21,407) | 38,759 |
| Cash and cash equivalents at January 1 | | 121,639 | 79,571 |
| Effect of exchange rate fluctuations on cash held | | 2,835 | 3,309 |
| Cash and cash equivalents at December 31 | 19 | 103,067 | 121,639 |

* Certain amounts shown here do not correspond to the 2012 consolidated financial statements and reflect adjustments. Refer to note 3.s.

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, 2013 were authorized for issuance in accordance with a resolution of the Supervisory Board on March 27, 2014.

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, 2013 comprise the Company and the companies that comprise its subsidiaries (together referred to as the "Group") and the Company's interest in associates and joint ventures.

AMG was incorporated in the Netherlands as a public limited liability company on November 21, 2006. In July 2007, the Company completed an initial public offering ("IPO") of 9,333,409 shares, which are listed on Euronext, Amsterdam, the Netherlands.

AMG is organized under three reportable segments as of January 1, 2013: AMG Processing, AMG Engineering, and AMG Mining. AMG Processing develops and produces specialty metals, alloys, chemicals and high performance materials. AMG Processing is a significant producer of specialty metals, such as ferrovanadium, ferronickel-molybdenum, aluminum master alloys and additives, chromium 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, solar silicon melting and crystallization, 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 Mining produces critical materials, such as high purity natural graphite, tantalum, antimony and silicon metal, utilizing its secure raw material sources in Africa, Asia, Europe and South America. These materials are of significant importance to the global economy and are available in limited supply. End markets for these materials include electronics, energy efficient building materials and infrastructure.

These financial statements represent the consolidated financial statements of the Company. These consolidated financial statements as of December 31, 2013 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. In accordance with part 9, Book 2, article 402 of the Netherlands Civil Code, the parent company income statement has been condensed.

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.

| Name | Country of incorporation | Percentage held (directly or indirectly) by the Company | Percentage held (directly or indirectly) by the Company |
|---|---|---|---|
| | | **December 31, 2013** | December 31, 2012 |
| 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, Inc. | 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 |
| GK Graphit Kropfmühl GmbH | Germany | 100 | 100 |
| 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 |

## 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, 2013 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, 2013 as adopted by the EU.

#### (B) BASIS OF MEASUREMENT

The consolidated financial statements have been prepared on the historical cost basis except for derivative financial instruments, which are measured at fair value. The carrying value of recognized assets and liabilities that are designated as hedged items in fair value hedges that would otherwise be carried at cost, are adjusted to record changes in the fair value attributable to the risks that are being hedged in effective hedge relationships. The methods used to measure fair values are discussed further in note 3.

All amounts included in the consolidated financial statements and notes are presented in US Dollars and rounded to the nearest Dollar in thousands except for share amounts and where otherwise indicated.

#### (C) GOING CONCERN

The consolidated financial statements have been prepared on a going concern basis, which assumes that the Company will continue to operate for the foreseeable future.

Due to the large non-cash asset impairment charges incurred in the second quarter of 2013, the Company had a reduction of equity which impacted its tangible net worth bank covenant. The Company incurred a bank covenant violation related to this covenant as of June 30, 2013 and received an amendment of its bank agreement through and including June 30, 2014. As the asset impairment charges recorded permanently reduce equity, there is uncertainty about the Company's ability to be in compliance once the tangible net worth covenant resets to its historical levels at September 30, 2014. If a debt covenant is violated and the banks make the decision to call the debt balance (which is $240,957 as of December 31, 2013), the Company may not be able to continue as a going concern. However, the Company is confident in its ability to resolve the financing situation.

In the year ended December 31, 2013, the Company generated operating cash flow of $69,707 and reduced its net debt levels by over $30,000 using cash from operations. Although the Company was not profitable during the year ended December 31, 2013, it is expected to be profitable in 2014.

Current assets exceed current liabilities by $196,345 as of December 31, 2013 and management is expecting to continue to generate cash from operations in 2014.

In order to address its potential debt covenant violation, the Company has a number of options including:

1. refinance the credit facility and exclude current tangible net worth covenant
2. work with the banks to receive an amendment of the current covenant through the remainder of the term of the facility agreement

These options will include banking reviews and assessments of the Company's ability to meet all other banking covenants and all ongoing principal and interest payments. The Company has succeeded in negotiating amendments to this covenant in past years. It has ongoing conversations with all members of the banking consortium and is confident that a solution to the potential debt covenant issue will be found before any violation occurs. The Company will continue to be able to make all required payments and expects to meet all debt covenants until that date.

#### (D) USE OF ESTIMATES AND JUDGMENTS

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

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

### Key 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
- notes 12 and 13 – measurement of the recoverable amounts of assets and cash-generating units
- note 14 – measurement of associates and joint ventures
- 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 management judgment. Total percentage of completion revenue for the year ended December 31, 2013 was $172,841 (2012: $186,321).

### 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, 2013 was $15,196 (2012: $16,206). 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

*Goodwill and long-lived assets*

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. 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, 2013 was $25,078 (2012: $24,751).

### Measurement of associates and joint ventures

The determination of whether an associate or joint venture is impaired requires an estimate of the recoverable amount of the investment. The recoverable amount is defined as the higher of the investment's fair value less costs of disposal and its value in use. The carrying amount of associates and joint ventures at December 31, 2013 was $4,755 (2012: $7,351).

### 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, 2013 was $139,359 (2012: $137,957).

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 group measures the initial cost of cash-settled and equity-settled transactions with employees by reference to the fair value of the equity instruments at the date at which they are granted. Estimating 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 into the valuation model including the expected life of the option, volatility, and dividend yield and making assumptions about them. Equity-settled transactions maintain the same fair value throughout the life of the option, while the fair value of cash-settled transactions are remeasured at each reporting date. 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, 2013, the provisions balance was $51,965 (2012: $46,242).

### 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. Management's judgment is used to determine the appropriate discount rates used for these calculations.

### Non-current classification of loans and borrowings

Loans and borrowings are classified as non-current when these loans and borrowings are due to be settled at least twelve months after the reporting period. Based on the options available to the Company, management is of the opinion that it is within the Company's control to defer settlement of the non-current loans and borrowings for at least twelve months after the reporting period. Further details about this judgment are given in note 2.c.

## 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, 2013.

Subsidiaries are fully consolidated from the date of acquisition, being the date on which the Company obtains control, and continue to be consolidated until the date when such control ceases. The financial statements of the subsidiaries are prepared for the same reporting period as the parent company using consistent accounting policies. All intra-group balances, transactions, unrealized gains and losses resulting from intra-group transactions and dividends are eliminated in full.

Losses within a subsidiary are attributed to the non-controlling interest even if that results in a deficit balance.

A change in the ownership interest of a subsidiary, without a loss of control, is accounted for as an equity transaction. If the Company loses control over a subsidiary, it:

- Derecognizes the assets (including goodwill) and liabilities of the subsidiary
- Derecognizes the carrying amount of any non-controlling interest
- Derecognizes the cumulative translation differences, recorded in equity
- Recognizes the fair value of the consideration received
- Recognizes the fair value of any investment retained
- Recognizes any surplus or deficit in profit or loss
- Reclassifies the parent's share of components previously recognized in other comprehensive income to profit or loss or retained earnings, as appropriate

### (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 a type of joint arrangement whereby the parties that have joint control of the arrangement have rights to the net assets of the joint venture. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require unanimous consent of the parties sharing control.

The considerations made in determining significant influence or joint control are similar to those necessary to determine control over subsidiaries. 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. 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 amortised 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 other comprehensive income ("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 United Kingdom 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

#### (i) Non-derivative financial instruments

Non-derivative financial instruments comprise trade and other receivables, cash and cash equivalents, restricted cash, notes receivable, loans and borrowings, short term bank debt, and trade and other payables. The Company does not have any non-derivative financial instruments which are classified as held-to-maturity investments or available-for-sale financial assets.

Trade and other receivables are initially recorded at fair value, which is the invoiced amount, and are subsequently measured at amortized cost. The Company provides an allowance for impairment for known and estimated potential losses arising from sales to customers based on a periodic review of these accounts. Impaired debts are derecognized when it is probable that they will not be recovered.

Cash and cash equivalents comprise cash balances and call deposits with maturities of 90 days or less. For the purpose of the consolidated statement of cash flows, cash and cash equivalents consist of cash and cash equivalents, as defined above, net of outstanding bank drafts.

Restricted cash, which in whole or in part is restricted for specific purposes including guarantees, is included in a separate line item within non-current assets in the statement of financial position. Restricted cash is measured at amortized cost.

Notes receivable are financial instruments with fixed and determinable payments that are not quoted in an active market. They are initially recorded at the fair value of the note plus direct issuance costs, if any. After initial recognition, notes receivable are subsequently measured at amortized cost using the effective interest method. Convertible notes receivable are bifurcated, if necessary, into the note receivable and the derivative instrument. The derivative instrument is valued first at inception, with the remaining balance being attributed to the note. If bifurcated convertible notes receivable are amended, the derivative instrument is valued at amendment, with the remaining balance being attributed to the note.

Loans and borrowings are initially recorded at the fair value of the proceeds received less direct issuance costs. After initial recognition, loans and borrowings are subsequently measured at amortized cost using the effective interest method.

Short term bank debt, trade and other payables are accounted for at amortized cost.

Fair value of non-derivative liabilities, 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. For finance leases, the market rate of interest is determined by reference to similar lease agreements.

### (ii) Derivative financial instruments

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 and 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 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 an economic 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) DERECOGNITION OF FINANCIAL ASSETS AND LIABILITIES

##### Financial assets

A financial asset (or where applicable, a part of a financial asset or part of a group of similar financial assets) is derecognized when:

- The rights to receive cash flows from the asset have expired
- The Company retains the right to receive cash flows from the asset but has assumed an obligation to pay them in full without material delay to a third party under a pass-through arrangement; or
- The Company retains the right to receive cash flows from the asset and either (a) has transferred substantially all the risks and rewards of the asset, or (b) has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred the asset.

When the Company has transferred its rights to receive cash flows from an asset and has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the asset is recognized to the extent of the Company's continuing involvement in the asset. In that case, the Company also recognizes an associated liability. The transferred asset and the associated liability are measured on a basis that reflects the rights and obligations that the Company has retained. Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Company could be required to pay.

##### Financial liabilities

A financial liability is derecognized when the obligation under the liability is discharged, cancelled or expires.

Where an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the income statement.

#### (E) 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 | 4-14 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 a 20 year remaining life of the mine based on updated geology studies and the current estimated annual production. 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.

### (F) BUSINESS COMBINATIONS AND GOODWILL

Goodwill (negative 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 either in profit or loss or as a change to other comprehensive income. 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.

### (G) 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 years.

#### (iv) Mining assets

Mining assets which are included in intangible assets include exploration, evaluation and development expenditures. See significant accounting policies section (j) 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, generally 5 years | 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 |

### (H) 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 on 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.

#### (I) 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.

#### (J) 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 can not 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 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 to be capitalized as part of an asset if, and only if, an entity 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.

#### (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, including impairment on assets and inventories, are usually recognized in the income statement in expense categories consistent with the function of the impaired asset. Due to the significant amount of the asset impairments, the asset impairment expense of $51,024 (2012: $9,891) has been presented as a separate line item in the income statement. The impairment of $17,724 recorded on mining assets and solar inventory was recognized in the income statement as asset impairment expense due to the restructuring of the related business. This classification, by not presenting it as part of cost of sales, provides better insight into the gross margin going forward. Refer to note 15 for additional details.

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, Sri Lanka, and the United Kingdom.

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

Re-measurements, 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. Re-measurements 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 by applying the discount rate to the net defined benefit liability or asset. 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 six 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 option, 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 cancellation, 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 cancellations 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 21).

*Cash-settled plans*

The Company has also implemented a performance share unit plan ("PSUP") for certain members of the Company's management. Under the PSUP, each manager receives an award of an approved value of performance share units ("PSUs"). The issue price of each PSU is equal to the weighted average share price at which common shares of the Company trade on the Euronext Amsterdam Stock Exchange during the 10-day period subsequent to the annual earnings release. The PSUs have three-year vesting periods except for PSUs granted in 2010, which have transitional vesting provisions. One-third of the 2010 PSU grants vest after 2 years and two-thirds of the 2010 grants vest after 3 years. The vesting is subject to

certain return on capital employed ("ROCE") performance requirements. The value of the PSUs, when converted to cash, will be equivalent to the market value of the common shares at the time the conversion takes place.

Estimating the fair value of the PSUs 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 option, volatility and dividend yield, and other assumptions. The assumptions and models used are described in note 25.

The fair value of these PSUs is recognized over the period in which the service conditions are fulfilled using a graded vesting methodology, ending on the date on which the relevant employees become fully entitled to the award ("vesting date"). Since the PSUs are cash-settled, a new fair value is calculated at each reporting date by updating the assumptions used in the valuation model. When the PSUs vest, they are paid out in cash. No expense is recognized for awards that do not ultimately vest. The fair value of the PSUs outstanding is recorded as a liability in the statement of financial position.

Where the terms of a cash-settled transaction award are modified, an additional expense is recognized for any modification that increases the total fair value of the transaction, or is otherwise beneficial to the employee as measured at the date of modification.

There is no dilutive effect from outstanding PSUs as they are cash-settled rather than equity-settled.

#### (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. These provisions are developed on a contract by contract basis and are based on contractor estimates. 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 accounted for using the POC method. 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, foreign currency gains and gains on derivatives and hedging instruments. Interest income is recognized as it is earned, using the effective interest method.

Finance expense includes interest expense on borrowings and interest rate 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 and any loss recorded on debt extinguishment. All borrowing costs are recognized in profit or loss using the effective interest method.

### (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 is provided using the liability method on temporary differences at the reporting date between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred tax liabilities are recognized for all taxable temporary differences, except:

- where the deferred tax liability arises from the initial recognition of goodwill or of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of taxable temporary differences associated with investments in subsidiaries, interests in associates and joint ventures, where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognized for all deductible temporary differences, carryforwards of unused tax credits and unused tax losses, to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, and the carryforwards of unused tax credits and unused tax losses can be utilized except:

- where the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss; and
- in respect of deductible temporary differences associated with investments in subsidiaries, interests in associates and joint ventures, deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future and taxable profit will be available against which the temporary differences can be utilized.

The carrying amount of deferred tax assets is reviewed at each reporting date and adjusted to the extent that it has become probable or is no longer probable that sufficient taxable profit will be available to allow all or part of the deferred tax asset to be utilized. Unrecognized deferred tax assets are reassessed at each reporting date and are recognized to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply to the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date.

Deferred tax relating to items recognized outside profit or loss is recognized outside profit or loss. Deferred tax items are recognized in correlation to the underlying transaction either in other comprehensive income or directly in equity.

Deferred tax assets and deferred tax liabilities are offset, if a legally enforceable right exists to set off current tax assets against current income tax liabilities and the deferred taxes relate to the same taxable entity and the same taxation authority.

Tax benefits acquired as part of a business combination, but not satisfying the criteria for separate recognition at that date, would be recognized subsequently if new information about facts and circumstances changed. The adjustment would either be treated as a reduction to goodwill (as long as it does not exceed goodwill) if it was incurred during the measurement period or in profit or loss.

### 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 applies, for the first time, certain standards and amendments that require restatement of previous financial statements. These include amendments to IAS 1 Presentation of Financial Statements, IAS 19 (Revised 2011) Employee Benefits, and IFRIC 20 Stripping Costs in the Production Phase of a Surface Mine.

Several other new standards and amendments apply for the first time in 2013. However, they do not impact the annual consolidated financial statements of the Company.

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

*IFRS 13 Fair Value Measurement*

IFRS 13 establishes a single source of guidance under IFRS for all fair value measurements. IFRS 13 does not change when an entity is required to use fair value, but rather provides guidance on how to measure fair value under IFRS.

IFRS 13 defines fair value as an exit price. As a result of the guidance in IFRS 13, the Company reassessed its policies for measuring fair values, in particular, its valuation inputs such as non-performance risk for fair value measurement of liabilities. IFRS 13 also requires additional disclosures. Application of IFRS 13 has not materially impacted the fair value measurements of the Company. Where required, additional disclosures are provided in the individual notes relating to the assets and liabilities whose fair values were determined. The fair value hierarchy is provided in note 32.

*IAS 1 Presentation of Items of Other Comprehensive Income – Amendments to IAS 1*

The amendments to IAS 1 introduce a grouping of items presented in other comprehensive income ("OCI"). Items that will be reclassified ("recycled") to profit or loss at a future point in time have to be presented separately from items that will not be reclassified. The amendments affect presentation only and have no impact on the Company's financial position or performance.

*IAS 1 Clarification of the requirement for comparative information (Amendment)*

These amendments clarify the difference between voluntary additional comparative information and the minimum required comparative information. An entity must include comparative information in the related notes to the financial statements when it voluntarily provides comparative information beyond the minimum required comparative period. The amendments clarify that the opening statement of financial position (as at January 1, 2012 in the case of the Company), presented as a result of retrospective restatement or reclassification of items in financial statements does not have to be accompanied by comparative information in the related notes. As a result, the Company has not included comparative information in the notes in respect of the opening statement of financial position as at January 1, 2012. The amendments affect presentation only and have no impact on the Company's financial position or performance.

*Amended IAS 19 Employee Benefits*

IAS 19R includes a number of amendments to the accounting for defined benefit plans, including actuarial gains and losses that are now recognized in other comprehensive income and permanently excluded from profit and loss; expected returns on plan assets that are no longer recognized in profit or loss, instead, there is a requirement to recognize interest on the net defined benefit liability (asset) in profit or

loss, calculated using the discount rate used to measure the defined benefit obligation, and; unvested past service costs are now recognized in profit or loss at the earlier of when the amendment occurs or when the related restructuring or termination costs are recognized. Other amendments include new disclosures, such as, quantitative sensitivity disclosures.

The Company applied IAS 19 (Revised 2011) retrospectively in the current period in accordance with the transitional provisions set out in the revised standard. The opening statement of financial position of the earliest comparative period presented (January 1, 2012) and the comparative figures have been accordingly restated. IAS 19 (Revised 2011) changes, amongst other things, the accounting for defined benefit plans. Some of the key changes that impacted the Company include the following:

- The Company previously recognized only the net cumulative unrecognized actuarial gains and losses of the previous period, which exceeded 10% of the higher of the defined benefit obligation and the fair value of the plan assets. As a consequence, the Company's statement of financial position did not reflect a significant part of the unrecognized net actuarial gains and losses. Amortization on unrecognized gains and losses of $1,989 for the year ended December 31, 2012 were reversed. As a result of the adoption of the amendments in IAS 19, the Company recognizes actuarial gains and losses in the period in which they occur in total in other comprehensive income.
- All past service costs are recognized at the earlier of when the amendment/curtailment occurs or when the related restructuring or termination costs are recognized. As a result, unvested past service costs can no longer be deferred and recognized over the future vesting period. There was no impact of this change for the year ended December 31, 2012.
- The interest cost and expected return on plan assets used in the previous version of IAS 19 are replaced with a net interest amount under IAS 19 (Revised 2011), which is calculated by applying the discount rate to the net defined benefit liability or asset at the start of each annual reporting period. In view of this change, $1,538 ($1,518 net of tax) was charged to the Company's profit and loss for year ended December 31, 2012 with a consequential OCI gain. There was no impact on the overall equity of the Company.

IAS 19 (Revised 2011) also requires more extensive disclosures. These have been provided in note 24.

IAS 19 (Revised 2011) has been applied retrospectively, with following permitted exception:

- Sensitivity disclosures for the defined benefit obligation for comparative period (year ended December 31, 2012) have not been provided.

### Impact on profit or loss and OCI (increase/ (decrease) in profit/OCI)

*Impact on consolidated statement of financial position:*

| | As of December 31, 2012 |
|---|---|
| Increase in the defined benefit plan obligations (non-current) | 50,942 |
| Increase in deferred tax assets | 6,678 |
| Decrease in deferred tax liabilities | 1,982 |

*Impact on consolidated income statement:*

| | For the year ended December 31, 2012 |
|---|---|
| Increase in cost of sales | (45) |
| Decrease in selling, general and administrative | 516 |
| Increase in current tax expense | (20) |
| Net impact on income statement for the period | 451 |

*Impact on equity (increase/(decrease) in net equity:*

| | As of December 31 | As of December 31 | As of January 1 |
|---|---|---|---|
| | **2013** | 2012 | 2012 |
| Recognition of unrecognized actuarial losses | (52,721) | (50,779) | (26,384) |
| Consequential deferred tax impact of above | 12,078 | 8,530 | 5,354 |
| **Net decrease in equity** | (40,643) | (42,249) | (21,030) |
| Attributable to: | | | |
| Shareholders of the Company | (40,643) | (42,249) | (21,030) |
| Non-controlling interest | — | — | — |

The transition did not have impact on statement of cash flows. There is no significant impact on the Company's basic and diluted EPS.

*IAS 36 Impairment of Assets – Recoverable Amount Disclosures for Non-Financial Assets*

These amendments remove the unintended consequences of IFRS 13 on the disclosures required under IAS 36. In addition, these amendments require disclosure of the recoverable amounts for the assets or CGUs for which impairment loss has been recognized or reversed during the period. These amendments are effective retrospectively for annual periods beginning on or after January 1, 2014 with earlier application permitted, provided IFRS 13 is also applied. The Company has early adopted these amendments to IAS 36 in the current period. Accordingly, these amendments have been considered while making disclosures for impairment of non-financial assets in note 12 and note 13. These amendments would continue to be considered for future disclosures.

*IFRIC 20 Stripping Costs in the Production Phase of a Surface Mine*

IFRIC 20 applies to waste removal (stripping) costs incurred in surface mining activity, during the production phase of the mine. The interpretation addresses the accounting for the benefit from the stripping activity. The interpretation is effective for annual periods beginning on or after January 1, 2013. The new interpretation resulted in a reclassification of stripping costs from current other assets to non-current other assets. Stripping costs included in non-current other assets as of December 31, 2013 are $7,578. The Company has retroactively applied this guidance to 2012 reclassifying $9,479 to non-current other assets from current other assets.

**(T) STANDARDS ISSUED BUT NOT YET EFFECTIVE**

Standards and interpretations issued but not yet effective up to the date of issuance of the Company's financial statements are listed below. The listing of standards and interpretations issued are those that the Company reasonably expects to have an impact on disclosures, financial position or performance when applied at a future date. The Company intends to adopt these standards and interpretations when they become effective.

*IFRS 9 Financial Instruments: Classification and Measurement*

IFRS 9 as issued reflects the first and the third phase of the IASBs' work on the replacement of IAS 39 and applies to classification and measurement of financial assets and liabilities as defined in IAS 39 (first phase) and hedge accounting (third phase). In subsequent phases, the IASB is addressing impairment of financial assets and hedge accounting. The adoption of the first phase of IFRS 9 could have an effect on the classification and measurement of the Company's financial assets and on hedge accounting, but will not have an impact on the classification and measurement of the Company's financial liabilities. The Company will quantify the effect in conjunction with the other phases, when the final standard including all phases is issued. IFRS 9 is effective for fiscal years beginning January 1, 2018. The Company has not yet determined the impact of adoption.

*IFRS 10 Consolidated Financial Statements and IAS 27 Separate Financial Statements*

IFRS 10 establishes a single control model that applies to all entities including special purpose entities. IFRS 10 replaces the portion of IAS 27 Consolidated and Separate Financial Statements that addresses the accounting for consolidated financial statements. It also includes the issues raised in SIC-12 Consolidation – Special Purpose Entities.

IFRS 10 changes the definition of control such that an investor controls an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. To meet the definition of control in IFRS 10, all three criteria must be met, including: (a) an investor has power over an investee; (b) the investor has exposure, or rights, to variable returns from its involvement with the investee; and (c) the investor has the ability to use its power over the investee to affect the amount of the investor's returns. The standard becomes effective for financial years beginning on or after January 1, 2014. The Company will adopt IFRS 10 for the fiscal year beginning January 1, 2014 and does not believe the application will have an impact on the Company's financial statements.

*IFRS 11 Joint Arrangement*

IFRS 11 replaces IAS 31 Interests in Joint Ventures and SIC-13 Jointly-controlled Entities – Non-monetary Contributions by Venturers. IFRS 11 removes the option to account for jointly controlled entities using proportionate consolidation. Instead, jointly controlled entities that meet the definition of a joint venture must be accounted for using the equity method. This standard will have no impact on the Company's financial position and performance. The standard becomes effective for financial years beginning on or after January 1, 2014. The Company will adopt IFRS 11 for the fiscal year beginning January 1, 2014 and does not believe the application will have an impact on the Company's financial statements.

*IFRS 12 Disclosure of Interests in Other Entities*

IFRS 12 sets out the requirements for disclosures relating to an entity's interests in subsidiaries, joint arrangements, associates and structured entities. The requirements in IFRS 12 are more comprehensive than the previous existing disclosure requirements for subsidiaries. While the Company has subsidiaries with material non-controlling interests, there are no unconsolidated structured entities. The standard becomes effective for financial years beginning on or after January 1, 2014. The Company will adopt IFRS 12 for the fiscal year beginning January 1, 2014 and does not believe the application will have an impact on the Company's financial statements.

*IFRS 10-12 - Transition Guidance*

The amendments clarify the transition guidance in IFRS 10 Consolidated Financial Statements and also provide additional transition relief in IFRS 10, IFRS 11 Joint Arrangements and IFRS 12 Disclosure of Interests in Other Entities. The amendments will have no impact on the Company's financial position and performance. The transition guidance becomes effective for financial years beginning on or after January 1, 2014.

*IFRS 10, IFRS 12 and IAS 27 - Investment Entities*

The amendments provide an exception to the consolidation requirement for entities that meet the definition of an investment entity under IFRS 10. The exception to consolidation requires investment entities to measure particular subsidiaries at fair value through profit or loss. It is not expected this amendment would be relevant to the Company, since none of the entities in the group would qualify to be an investment entity under IFRS 10. The amendments become effective for financial years beginning on or after January 1, 2014.

*IAS 19 Employee Benefits – Defined Benefit Plans: Employee Contributions*

The amendment simplifies the accounting for contributions from employees or third parties to defined benefit plans that are independent of the number of years of employee service. The Company is currently assessing the impact of this standard. The amendment becomes effective for financial years beginning on or after January 1, 2015.

*IAS 27 Separate Financial Statements (as revised in 2011)*

As a consequence of the new IFRS 10 and IFRS 12, what remains of IAS 27 is limited to accounting for subsidiaries, jointly controlled entities, and associates in separate financial statements. The revised standard will have no impact on the Company's financial position and performance. The revised standard becomes effective for financial years beginning on or after January 1, 2014.

*IAS 28 Investments in Associates and Joint Ventures (as revised in 2011)*

As a consequence of the new IFRS 11 and IFRS 12, IAS 28 has been renamed IAS 28 Investments in Associates and Joint Ventures, and describes the application of the equity method to investments in joint ventures in addition to associates. The revised standard will have no impact on the Company's financial position and performance. The revised standard becomes effective for financial years beginning on or after January 1, 2014.

*IAS 32 Financial Instruments: Presentation – Offsetting Financial Assets and Financial Liabilities*

The amendments clarify the meaning of "currently has a legally enforceable right to set-off" and the criteria for non-simultaneous settlement mechanisms of clearing houses to qualify for offsetting. As the Company is not setting off financial instruments in accordance with IAS 32 and does not have relevant offsetting arrangements, the amendment will not have an impact on the Company. The amendments become effective for financial years beginning on or after January 1, 2014.

*IAS 39 Financial Instruments: Recognition and Measurement - Novation of Derivatives and Continuation of Hedge Accounting*

These amendments provide relief from discontinuing hedge accounting when novation of a derivative designated as a hedging instrument meets certain criteria. The Company has not novated its derivatives during the current period. However, these amendments would be considered for future novations. The amendments become effective for financial years beginning on or after January 1, 2014.

*IFRIC 21 Levies*

IFRIC 21 clarifies that an entity recognizes a liability for a levy when the activity that triggers payment, as identified by the relevant legislation, occurs. For a levy that is triggered upon reaching a minimum threshold, the interpretation clarifies that no liability should be anticipated before the specified minimum threshold is reached. This interpretation will have no impact on the Company's financial position and performance. IFRIC 21 becomes effective for financial years beginning on or after January 1, 2014.

### Annual Improvement – December 2013

The IASB issued the 2010-2012 cycle improvements to its standards and interpretations, primarily with a view to removing inconsistencies and clarifying wording.

- IFRS 2 Share-based Payment: The performance condition and service condition definitions were clarified to address several issues.
- IFRS 3 Business Combinations: It was clarified that contingent consideration in a business combination that is not classified as equity is subsequently measured at fair value through profit or loss whether or not it falls within the scope of IFRS 9 Financial Instruments.
- IFRS 8 Operating Segments:
  - It was clarified that if operating segments are combined, the economic characteristics used to assess whether the segments are similar must be disclosed.
  - It was clarified that the reconciliation of segment assets to total assets is only required to be disclosed if this reconciliation is reported to the chief operating decisions maker, similar to the required disclosure for segment liabilities.
- IFRS 13 Fair Value Measurement: It was clarified in the Basis for Conclusions that short term receivables and payables with no stated interest can be held at invoice amounts when the effect of discounting is immaterial.
- IAS 16 Property, Plant & Equipment and IAS 38 Intangible Assets: The revaluation method was clarified. Accumulated depreciation or amortization is eliminated so that the gross carrying amount and carrying amount equal the market value.
- IAS 24 Related Party Disclosures: It was clarified that a management entity, an entity that provide key management personnel services, is a related party subject to related party disclosure requirements. An entity that uses a management entity is required to disclose the expenses incurred for management services.

The improvements become effective for financial years beginning on or after July 1, 2014.

The IASB issued the 2011-2013 cycle improvements to its standards and interpretations, primarily with a view to removing inconsistencies and clarifying wording.

- IFRS 3 Business Combinations: It was clarified that joint arrangements, and not only joint ventures, are outside the scope of IFRS 3. It was further clarified that the scope exemption only applies to the accounting in the financial statements of the joint arrangement itself.
- IFRS 13 Fair Value measurement: It was clarified that the portfolio exception can be applied to financial assets, financial liabilities and other contracts.
- IAS 40 Investment Property: The interrelationship between IFRS 3 and IAS 40 was clarified. The description of ancillary services in IAS 40 differentiates between investment property and owner-occupied property. IFRS 3 is used to determine if the transaction is the purchase of an asset or a business combination.

The improvements become effective for financial years beginning on or after July 1, 2014.

## 4. Segment reporting

For management purposes, effective January 1, 2013, the Company is organized under three reportable segments: AMG Processing, AMG Engineering and AMG Mining. AMG Processing develops and produces specialty metals, alloys, chemicals, as well as high performance materials and has major production facilities in the United Kingdom, US, Germany, 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. AMG Mining produces high purity natural graphite, tantalum, antimony and silicon metal and is located mainly in France, Brazil, Germany, Turkey, Czech Republic, China, Zimbabwe and Sri Lanka.

In prior years the Company was organized under the following separate reportable segments: Advanced Materials, Engineering Services and AMG Mining AG. AMG Processing now contains the Company's conversion activities that were in prior years considered in Advanced Materials. The Engineering Systems division is now referred to as AMG Engineering. AMG Mining includes all mine-based rare metal and material value chains and the graphite and silicon businesses of AMG Mining AG. In prior years the mines in Turkey and Brazil were included as part of Advanced Materials.

The management reporting format is determined by reportable 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 Processing develops and produces specialty metals, alloys and high performance materials. AMG Processing is a significant producer of specialty metals, such as ferrovanadium, ferronickel-molybdenum, aluminum master alloys and additives, chromium 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, solar silicon melting and crystallization, 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 Mining produces critical materials, such as high purity natural graphite, tantalum, antimony and silicon metal, utilizing its secure raw material sources in Africa, Asia, Europe and South America. These materials are of significant importance to the global economy and are available in limited supply. End markets for these materials include electronics, energy efficient building materials and infrastructure.

AMG Corporate headquarters costs and assets are allocated forty-five percent to AMG Processing, thirty percent to AMG Engineering and twenty-five percent to AMG Mining in 2013 and 2012 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 somewhat 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, 2013 | AMG Processing | AMG Engineering | AMG Mining | Other and eliminations[a] | Total |
|---|---|---|---|---|---|
| **Revenue** | | | | | |
| Revenue from external customers | 568,629 | 260,200 | 329,615 | — | 1,158,444 |
| Intersegment revenue | 1,375 | 464 | 56 | (1,895) | — |
| Total revenue | 570,004 | 260,664 | 329,671 | (1,895) | 1,158,444 |
| **Segment results** | | | | | |
| Depreciation and amortization | 13,277 | 9,129 | 10,842 | — | 33,248 |
| Asset impairment | 32 | 15,466 | 35,526 | — | 51,024 |
| Environmental | (86) | — | — | — | (86) |
| Restructuring | 5,538 | 6,960 | 1,727 | — | 14,225 |
| Operating profit (loss) | 2,139 | (10,957) | (17,378) | — | (26,196) |
| **Statement of financial position** | | | | | |
| Segment assets | 381,546 | 220,140 | 265,712 | (39,937) | 827,461 |
| Investments in associates and joint ventures | — | 4,755 | — | — | 4,755 |
| Total assets | 381,546 | 224,895 | 265,712 | (39,937) | 832,216 |
| Segment liabilities | 205,549 | 221,167 | 117,049 | (37,463) | 506,302 |
| Employee benefits | 62,817 | 54,567 | 21,975 | — | 139,359 |
| Provisions | 20,790 | 14,233 | 16,942 | — | 51,965 |
| Total liabilities | 289,156 | 289,967 | 155,966 | (37,463) | 697,626 |
| **Other information** | | | | | |
| Capital expenditures for expansion – tangible assets | 9,125 | 260 | 5,495 | — | 14,880 |
| Capital expenditures for maintenance – tangible assets | 6,575 | 1,437 | 5,533 | — | 13,545 |
| Capital expenditures – intangible assets | 1,593 | 409 | 1,598 | — | 3,600 |

| Year ended December 31, 2012 | AMG Processing | AMG Engineering | AMG Mining | Other and eliminations[a] | Total |
|---|---|---|---|---|---|
| **Revenue** | | | | | |
| Revenue from external customers | 614,031 | 273,924 | 327,647 | — | 1,215,602 |
| Intersegment revenue | 12,533 | 910 | 131 | (13,574) | — |
| Total revenue | 626,564 | 274,834 | 327,778 | (13,574) | 1,215,602 |
| **Segment results** | | | | | |
| Depreciation and amortization | 11,560 | 9,766 | 10,232 | — | 31,558 |
| Asset impairment | 40 | 9,474 | 377 | — | 9,891 |
| Environmental | (240) | — | 2,012 | — | 1,772 |
| Restructuring | 2,150 | 2,269 | 1,732 | — | 6,151 |
| Operating profit (loss) | 28,089 | (673) | 7,366 | — | 34,782 |
| **Statement of financial position** | | | | | |
| Segment assets | 389,277 | 285,568 | 319,957 | (53,383) | 941,419 |
| Investments in associates and joint ventures | 1,416 | 5,935 | — | — | 7,351 |
| Total assets | 390,693 | 291,503 | 319,957 | (53,383) | 948,770 |
| Segment liabilities | 233,851 | 285,869 | 120,493 | (50,905) | 589,308 |
| Employee benefits | 68,131 | 48,854 | 20,972 | — | 137,957 |
| Provisions | 20,848 | 9,689 | 15,705 | — | 46,242 |
| Total liabilities | 322,830 | 344,412 | 157,170 | (50,905) | 773,507 |
| **Other information** | | | | | |
| Capital expenditures for expansion – tangible assets | 15,196 | 4,062 | 13,065 | — | 32,323 |
| Capital expenditures for maintenance– tangible assets | 6,089 | 750 | 4,255 | — | 11,094 |
| Capital expenditures – intangible assets | 995 | 609 | 3,088 | — | 4,692 |
| Intangible assets acquired | — | 652 | — | — | 652 |

(a) Other and eliminations column includes intersegment investment and 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, 2013 | | Year ended December 31, 2012 | |
|---|---|---|---|---|
| | Revenues | Non-current assets | Revenues | Non-current assets |
| United States | 293,598 | 73,462 | 281,362 | 70,940 |
| Germany | 260,231 | 113,186 | 284,990 | 133,288 |
| China | 68,042 | 1,321 | 81,664 | 4,235 |
| United Kingdom | 55,660 | 19,158 | 54,435 | 19,265 |
| France | 52,708 | 20,721 | 44,773 | 19,947 |
| Brazil | 45,392 | 60,441 | 48,578 | 55,465 |
| Japan | 32,838 | 19 | 37,761 | 24 |
| Italy | 30,585 | — | 39,503 | — |
| Austria | 30,006 | — | 34,058 | 221 |
| Russia | 27,406 | — | 29,399 | — |
| South Korea | 22,288 | — | 21,034 | — |
| Mexico | 22,258 | 15,531 | 27,138 | 16,656 |
| Belgium | 17,607 | 3 | 17,372 | 25 |
| Sweden | 15,817 | — | 18,437 | — |
| Canada | 13,679 | — | 14,475 | — |
| India | 13,206 | 2,134 | 12,445 | 2,582 |
| Thailand | 12,957 | — | 22,943 | — |
| Singapore | 12,700 | 8 | 6,818 | 16 |
| Taiwan | 12,557 | — | 13,529 | — |
| Turkey | 10,728 | 5,089 | 9,615 | 22,160 |
| Czech Republic | 9,797 | 3,372 | 13,398 | 2,321 |
| Netherlands | 9,314 | 45 | 10,789 | 70 |
| Spain | 7,625 | — | 7,671 | — |
| Kazakhstan | 6,482 | — | 2,393 | — |
| Poland | 6,160 | 132 | 7,023 | 125 |
| Other | 68,803 | 7,774 | 73,999 | 1,913 |
| **Total** | 1,158,444 | 322,396 | 1,215,602 | 349,253 |

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

## 5. Acquisitions and disposals

#### ACQUISITION OF ADDITIONAL SHARES OF THERMIQUE INDUSTRIE VIDE

During the year ended December 31, 2013, the Company acquired $1,007 of additional shares in Thermique Industrie Vide ("TIV") which was recorded as an acquisition of non-controlling interests ("NCI"). This increased the Company's ownership in TIV from 56.8% to 100% as of December 31, 2013 reducing NCI by $837 and adjusting retained earnings by $170. Upon obtaining additional ownership interests, no additional goodwill was recognized and the transaction was measured as an equity transaction.

The following is the calculation of the equity transaction completed in the year ended December 31, 2013, using the weighted average price of shares acquired:

| | |
|---|---|
| Non-controlling interest at acquisition | 837 |
| Transfer to AMG (43.2%) | (837) |
| 0% interest carried forward | — |
| Adjustment to equity: | |
| Cash consideration for shares | 1,007 |
| Acquisition costs | — |
| Total fair value of consideration | 1,007 |
| Change to NCI (as per above) | (837) |
| Dilution in AMG equity from purchase of non-controlling interest | 170 |

### SALE OF ASSOCIATE—NANJING YUNHAI KB ALLOYS CO., LTD.

During the year ended December 31, 2013, the Company sold its 45% ownership in Nanjing Yunhai KB Alloys Co., LTD for $650 which was recorded as the sale of an associate. The sale was completed at a value which was lower than the book value of shares, which was $1,415. The difference between the book value of the shares sold and the sale price of the associate sold of $765 is recorded as a loss and included on the share of (loss) profit of associates and joint ventures line on the consolidated income statement.

### ACQUISITION OF ADDITIONAL SHARES OF GRAPHIT KROPFMÜHL

During the year ended December 31, 2012, the Company acquired $15,291, including transaction costs, (2011: $111) of additional shares in Graphit Kropfmühl ("GK") which were recorded as the acquisition of non-controlling interests. Upon obtaining additional ownership interests, no additional goodwill was recognized and the transaction was measured as an equity transaction. In 2013 GK was renamed AMG Mining AG.

The following is the calculation of the equity transaction completed in the year ended December 31, 2012, using the weighted average price of shares acquired:

| | |
|---|---|
| Non-controlling interest at acquisition | 5,839 |
| Transfer to AMG (11.9%) | (5,839) |
| 0% interest carried forward | — |
| Adjustment to equity: | |
| Cash consideration for shares | 14,358 |
| Acquisition costs | 933 |
| Total fair value of consideration | 15,291 |
| Change to NCI (as per above) | (5,839) |
| Dilution in AMG equity from purchase of non-controlling interest | 9,452 |

### ACQUISITION OF DYNATECH FURNACES PRIVATE LTD.

On June 24, 2010, the Company acquired a 30.0% interest in Dynatech Furnaces Private Ltd. ("Dynatech"), an Indian engineering company which specializes in the design, manufacturing and maintenance of vacuum furnaces for $419. Dynatech is the largest vacuum heat treatment furnace manufacturer in India. Dynatech has been in business since 1985 with a manufacturing and assembly facility in Ambernath, near Mumbai. The Company had significant influence after the initial acquisition and therefore treated its investment as an associate. The Company acquired an additional 40.0% interest in Dynatech as of August 20, 2012 for $299. The acquisition of Dynatech expands the capacity and reach of the Engineering segment.

There was a loss of $194 recognized from re-measuring the 30.0% equity interest in Dynatech held by the Company prior to the business combination. The loss was recognized on the share of loss (profit) of associates and joint ventures line on the consolidated income statement. Upon acquisition of the additional 40.0% interest, Dynatech's results of operations are consolidated into AMG's consolidated financial statements.

The purchase price was allocated to the following categories:

| | Fair value recognized on acquisition |
|---|---|
| Property, plant and equipment | 348 |
| Intangible assets | 241 |
| Other long term assets | 102 |
| Cash | 133 |
| Prepayments | 144 |
| Trade receivables | 1,258 |
| Inventories | 124 |
| | 2,350 |
| Trade payables | 468 |
| Accrued expenses and other current liabilities | 1,143 |
| Debt | 752 |
| Deferred taxes | 72 |
| Other non-current liabilities | 98 |
| | 2,533 |
| Total identifiable net assets at 100% of fair value | (183) |
| Non-controlling interest measured at equity value | 55 |
| Fair value of consideration, satisfied by $718 cash in tranches, offset by loss on revaluation of $194 | 524 |
| Goodwill arising on acquisition | 652 |
| Consideration for 40.0%, satisfied by cash in 2012 | 299 |
| Fair value of initial 30.0% of shares acquired in 2011 | 225 |

| | |
|---|---|
| Cash flows on acquisition: | |
| Net cash acquired with the subsidiary | 133 |
| Cash paid in 2012 | 299 |
| Net cash outflow on consolidation | (166) |

At the date of acquisition, the gross amount of trade receivables was $1,258 and the fair value of trade receivables was $1,258. The estimated contractual cash flows not expected to be collected at the acquisition date was nil.

The revenues and loss before tax of Dynatech for the year ended December 31, 2012, including the period prior to the acquisition of the second tranche of shares, are $2,932 and ($183), respectively. The revenues and loss before tax of Dynatech for the year ended December 31, 2012, excluding the period prior to the acquisition, are $1,641 and ($267), respectively.

The Company incurred transaction related costs of $18 in conjunction with the acquisition of Dynatech, which are included in cash flows from operating activities and selling, general and administrative expenses on the consolidated income statement.

With respect to the acquisition of Dynatech, very few intangible assets could be identified which required valuation. Dynatech is a start-up furnace manufacturer that will benefit and be able to grow based on the existing operational knowledge of the Engineering segment management. Goodwill was created on this transaction as this was a strategic purchase based on Dynatech's geographical location. It allows AMG to have a presence in India and access to the large and growing Indian market for engineering furnaces.

## 6. Revenue

| | 2013 | 2012 |
|---|---|---|
| Sales of goods | 1,156,974 | 1,214,098 |
| Rendering of services (commissions) | 1,470 | 1,504 |
| Total | 1,158,444 | 1,215,602 |

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

| | 2013 | 2012 |
|---|---|---|
| Contract revenue recognized | 172,841 | 186,321 |
| Contract expenses recognized | 137,854 | 154,089 |
| Recognized profits | 34,987 | 32,232 |
| Contract costs incurred and recognized profits | 189,401 | 233,397 |
| Progress billings and advances received | 170,475 | 206,921 |
| Net amount due from customers | 18,926 | 26,476 |
| Gross amount due from customers for contract work (note 16) | 35,267 | 53,465 |
| Gross amount due to customers for contract work (shown as advance payments in consolidated statement of financial position) | (16,341) | (26,989) |
| Net amount due from customers | 18,926 | 26,476 |

## 7. Other income and expense

| | Note | 2013 | 2012 |
|---|---|---|---|
| Insurance proceeds | i | 1 | 233 |
| Grant income | ii | 41 | 41 |
| Gains from asset sales | iii | 1,603 | 81 |
| Rental income | iv | 201 | 204 |
| Sale of scrap | v | 125 | 218 |
| Other miscellaneous income | vi | 221 | 495 |
| Other income | | 2,192 | 1,272 |
| Other expense | | (71) | (46) |
| Other income, net | | 2,121 | 1,226 |

In 2013, other income of $2,192 consisted of: (i) insurance proceeds of $1 related to a German property insurance claim; (ii) government grant income of $41 associated with AMG Mining AG; (iii) income from asset sales of $1,603, including a gain of $1,458 from sale of land by AMG Mining AG; (iv) rental income of $201 at two subsidiaries which rent out unused space; (v) income from the sale of scrap of $125; and (vi) other miscellaneous income of $221.

In 2012, other income of $1,272 consisted of: (i) insurance proceeds of $233 related to a German property insurance claim; (ii) government grant income of $41 associated with AMG Mining AG; (iii) income from asset sales of $81; (iv) rental income of $204 at two subsidiaries which rent out unused space; (v) income from the sale of scrap of $218; and (vi) other miscellaneous income of $495.

## 8. Personnel expenses

| | Note | 2013 | 2012 |
|---|---|---|---|
| | | | Restated* |
| Wages and salaries | | 165,490 | 168,043 |
| Contributions to defined contribution plans | 24 | 4,064 | 3,160 |
| Expenses related to defined benefit plans | 24 | 7,701 | 8,695 |
| Social security and other benefits | | 37,253 | 35,406 |
| Performance share units | 25 | 2,063 | 391 |
| Equity-settled share-based payments | 25 | 475 | 1,724 |
| Total | | 217,046 | 217,419 |
| Included in the following lines of the consolidated income statement: | | | |
| Cost of sales | | 137,463 | 137,763 |
| Selling, general and administrative expenses | | 79,583 | 79,656 |
| Total | | 217,046 | 217,419 |

* Certain amounts shown here do not correspond to the 2012 consolidated financial statements and reflect adjustments. Refer to note 3.s.

## 9. Finance income and expense

| | 2013 | 2012 |
|---|---|---|
| Interest income on bank deposits | 378 | 476 |
| Interest income on escrow deposits | 62 | 104 |
| Interest income on tax refunds | 117 | — |
| Finance income on derivatives | — | 318 |
| Other | 253 | 153 |
| Finance income | 810 | 1,051 |
| Interest expense on loans and borrowings | 11,170 | 12,561 |
| Amendment fees | 2,047 | 2,856 |
| Interest expense on interest rate swap | 3,703 | 2,220 |
| Amortization of loan issuance costs | 2,084 | 1,946 |
| Finance costs on derivatives | 31 | 1,665 |
| Guarantees | 1,418 | 1,311 |
| Extinguishment of debt | — | 1,292 |
| Discount on provisions | 76 | 501 |
| Commitment/unutilized fees | 348 | 335 |
| Accounts receivable factoring | 162 | 92 |
| Interest on employee profit-sharing | 84 | 93 |
| Interest on other liabilities including tax and other fiscal liabilities | 457 | 1,112 |
| Other | 123 | 272 |
| Finance expense | 21,703 | 26,256 |
| Foreign exchange loss | 175 | 581 |
| Net finance costs | 21,068 | 25,786 |

On September 24, 2013, the Company amended and restated the Credit Facility due to a breach of the Tangible Net Worth to Total Assets covenant as of June 30, 2013, in order to adjust certain provisions for the strategic plans of the Company. Included in the amendments was a change to the Tangible Net Worth to Total Assets covenant. Previously, the minimum ratio for this covenant was 20.0% for 2013, 22.5% for the first two quarters of 2014 and 25.0% thereafter. The amendment decreased the minimum ratio to 16.0% for the remainder of 2013 and to 17.5% for Q1 and Q2 2014, and 25.0% thereafter. All other covenants remained unchanged. Fees related to this amendment were $1,114 and are included in finance expense.

On March 4, 2013, the Company amended the Credit Facility to lower the minimum Tangible Net Worth to Total Assets ratio for an additional four quarters. The amended minimum ratios were as follows: 20.0% for 2013, 22.5% for Q1 and Q2 2014, and 25.0% thereafter. All other covenants remained unchanged. Fees related to this amendment were $933 and are included in finance expense.

On October 9, 2012, the Company amended and restated the previous credit facility in order to adjust certain provisions for the strategic plans of the Company. Included in the amendments was a change to the Tangible Net Worth to Total Assets covenant. Also, in 2012, the Company utilized an accordion feature in its credit facility to increase the term loan to €100,850 and the revolver to $243,000. Fees related to these amendments were $2,856 and are included in finance expense. See note 22 for additional details.

The Company acquired the remaining minority shares of its previously majority-controlled entity, AMG Mining AG, in the fourth quarter of 2012. The acquisition of the remaining outstanding shares led to a requirement that it become a party to the Company's current Credit Facility. Becoming a party to the Credit Facility required that AMG Mining AG repay the majority of its historical debt. This repayment led to the incurrence of certain penalties on the debt and interest rate swaps. These penalties were recorded as extinguishment of debt of $1,292 and are included in finance expense in the year ended December 31, 2012. There was no extinguishment of debt recorded in the year ended December 31, 2013.

## 10. Income tax

Significant components of income tax (benefit) expense for the years ended:

| **Consolidated income statement** | **2013** | 2012 |
|---|---|---|
| **Current tax expense** | | Restated* |
| Current period | 5,836 | 9,841 |
| Adjustment for prior periods | 298 | 259 |
| Total current taxation charges for the year | 6,134 | 10,100 |
| **Deferred tax expense** | | |
| Origination and reversal of temporary differences | (10,014) | (5,764) |
| Changes in previously unrecognized tax losses, tax credits and unrecognized temporary differences | (5,130) | 6,181 |
| Changes in previously recognized tax losses, tax credits and recognized temporary differences for changes in enacted tax rates and currency effects | 2,878 | 256 |
| Derecognition of previously recognized tax losses, tax credits and temporary differences | 3,503 | — |
| Adjustment for prior periods | (1,747) | 55 |
| Total deferred taxation for the year | (10,510) | 728 |
| Total income tax (benefit) expense reported in consolidated income statement | (4,376) | 10,828 |
| **Consolidated statement of comprehensive income** | | |
| Deferred tax related to items recognized in OCI in the year: | | |
| Gain on cash flow hedges | 483 | (2,029) |
| Actuarial losses on defined benefit plans | 3,548 | 3,176 |
| Income tax charged to OCI | 4,031 | 1,147 |

The ($1,747) of prior period adjustments impacting deferred tax expense consists of: return to provision adjustments for the worldwide group of ($1,387) and NOL adjustments in the US, Brazil and Germany of ($360).

### RECONCILIATION OF EFFECTIVE TAX RATE

A reconciliation of income tax expense applicable to accounting profit before income tax at the weighted average statutory income tax rate of 29.35% (2012: 27.96%) to the Company's effective income tax rate for the years ended is as follows:

| | 2013 | 2012 Restated* |
|---|---|---|
| (Loss) profit before income tax from continuing operations | (49,412) | 11,349 |
| Income tax using the Company's weighted average tax rate | (14,500) | 3,173 |
| Non-deductible expenses and tax exempt income | 4,897 | (954) |
| Current year losses for which no deferred tax asset was recognized and changes in unrecognized temporary differences | 7,727 | 5,180 |
| Recognition of previously unrecognized tax losses, tax credits and temporary differences of a prior year | (7,180) | (7,133) |
| Derecognition of previously recognized tax losses, tax credits and temporary differences | 3,503 | 8,431 |
| Changes in previously recognized tax losses, tax credits and recognized temporary differences for changes in enacted tax rates and currency effects | 2,878 | (418) |
| Under (over) provided in prior periods | (1,450) | 244 |
| State and local taxes | 128 | 2,009 |
| Other | (379) | 296 |
| Income tax expense reported in consolidated income statement | (4,376) | 10,828 |
| Included in the following lines in the consolidated income statement: | | |
| Income tax (benefit) expense | (4,376) | 10,828 |
| Goodwill adjustments relating to deferred tax asset | — | — |

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 year ended December 31, 2013, the income tax benefits related to the current year losses of certain US, German, Dutch, Belgian, Turkish, Chinese, Mexican, and Canadian entities were not recognized. During the year ended December 31, 2012, the income tax benefits related to the current year losses of certain US, German, Dutch, Belgian, Turkish, Mexican and Canadian entities were not recognized. In total, $7,727 and $5,180 were not recognized in 2013 and 2012, respectively, as it is not probable that these amounts will be realized.

During the years ended December 31, 2013 and 2012, certain income tax benefits related to previously unrecognized tax losses and temporary differences related to certain US and German entities were recognized. In total, $7,180 and $7,133 were recognized in 2013 and 2012, respectively, through an increase to the net deferred tax asset. The income tax benefits were recognized since it is probable the amounts will be realized. As it is not probable that the benefits of certain net operating losses and temporary differences would be realized, $3,503 (2012: $8,431) of previously recognized net operating losses and temporary differences of certain US, Belgian, German and Turkish entities were unrecognized in 2013.

The main factors considered in assessing the realizability of deferred tax benefits were improved profitability, higher forecast profitability and the indefinite carryforwards 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.

Also during the years ended December 31, 2013 and 2012, the net recognized deferred tax assets/(liabilities) were adjusted for changes in the enacted tax rates in the United Kingdom, Mexico and the US. The net recognized deferred tax assets/(liabilities) were also adjusted to reflect changes in currency rates in Brazil and the United Kingdom. The impact of the tax rate changes and currency rates was an increase/(decrease) to income tax expense of $2,878 (2012: $418).

There were no income tax consequences attached to the payment of dividends in either 2013 or 2012 by AMG to its shareholders, as no dividend payments were made.

### DEFERRED TAX ASSETS AND LIABILITIES

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

Deferred tax assets are recognized to the extent it is probable that the temporary differences, unused tax losses and unused tax credits will be realized. The realization of deferred tax assets is reviewed each reporting period and includes the consideration of historical operating results, projected future taxable income exclusive of reversing temporary differences and 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 | | | |
| | **2013** | 2012 Restated* | **2013** | 2012 Restated* | **2013** | 2012 Restated* |
| Inventories | 30,540 | 42,760 | 1,000 | 649 | 13,847 | (5,238) |
| Long term contracts | — | — | 39,400 | 52,809 | (15,058) | 4,004 |
| Prepaids and other current assets | 9 | 6 | 37 | 103 | (70) | 808 |
| Property, plant and equipment | 677 | 291 | 8,378 | 11,932 | (4,118) | 4,432 |
| Deferred charges and non-current assets | 6,334 | 720 | 1,644 | 2,154 | (7,501) | (243) |
| Accruals and reserves | 3,707 | 6,002 | 1,008 | 2,027 | 3,676 | 2,293 |
| Environmental liabilities | 1,025 | 452 | 307 | 294 | (548) | (1,384) |
| Retirement benefits | 18,168 | 12,939 | — | 7 | (2,097) | 35 |
| Tax loss and tax credit carryforwards | 15,196 | 16,206 | — | 66 | 1,359 | (3,979) |
| Tax assets and liabilities | 75,656 | 79,376 | 51,774 | 70,041 | | |
| Set off of tax | (48,653) | (43,921) | (48,653) | (43,921) | | |
| Net tax assets and liabilities | 27,003 | 35,455 | 3,121 | 26,120 | | |
| Deferred tax (benefit) provision | | | | | (10,510) | 728 |

* Certain amounts shown here do not correspond to the 2012 consolidated financial statements and reflect adjustments. Refer to note 3.s.

### 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 only recognize a portion of its net operating losses but the recognition has increased significantly from 45% recognition in 2012 to 83% recognized in 2013; (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 continues to carry a full valuation allowance for US Federal and state tax purposes with the exception of state deferred taxes for a certain portion of its business; (4) certain Dutch holding companies and operating companies in Germany, the United Kingdom, China, Turkey, 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 forecast taxable income 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.

At December 31, 2013 there were gross unrecognized tax loss carryforwards of $98,065 from US operations which expire through 2033, and $13,036 from German operations, which do not expire, $12,350 from Canadian operations which expire through 2033, $62,357 from Dutch operations which expire through 2022, $14,283 from Brazil which do not expire and $1,193 from Mexican operations which expire in 2023. At December 31, 2012 there were gross unrecognized tax loss carryforwards of $103,167 from US operations which expire through 2032, and $19,336 from German operations which do not expire, $16,140 from Canadian operations which expire through 2033, $52,222 from Dutch operations which expire through 2021, $14,283 from Brazil which do not expire and $928 from Mexican operations which expire in 2022.

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

| | Assets | |
|---|---|---|
| | **2013** | 2012 |
| Inventories | 204 | (12) |
| Prepaids and other current assets | (8) | (4) |
| Property, plant and equipment | 956 | 1,207 |
| Accruals and provisions | 5,300 | 5,328 |
| Deferred charges and non-current assets | 18,718 | 17,857 |
| Environmental liabilities | 4,192 | 4,815 |
| Retirement benefits | 10,416 | 9,505 |
| Tax loss and tax credit carryforwards | 68,269 | 67,688 |
| Net tax assets – unrecognized | 108,047 | 106,384 |

## 11. Non-recurring items

Operating (loss) profit is adjusted for non-recurring items. Non-recurring items comprise income and expense items that, in the view of management, do not arise in the normal course of business and items that, because of their nature and/or size, should be presented separately to enable a better analysis of the results.

In the years ended December 31, 2013 and 2012, operating (loss) profit was adjusted for non-recurring items which arose during the year.

Operating (loss) profit includes the non-recurring items noted in the following reconciliation:

| | **2013** | 2012 |
|---|---|---|
| Operating (loss) profit | (26,196) | 34,782 |
| Asset impairment expense | 51,024 | 9,891 |
| Restructuring expense | 14,225 | 6,151 |
| Adjusted operating profit | 39,053 | 50,824 |

## 12. 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, 2012** | 27,349 | 125,482 | 320,836 | 21,402 | 27,391 | 1,420 | 523,880 |
| Additions | 2,797 | 2,341 | 10,186 | 2,226 | 34,473 | — | 52,023 |
| Retirements and transfers | 2,554 | 13,397 | 25,795 | (406) | (45,670) | 3,681 | (649) |
| Effect of movements in exchange rates | 291 | 2,166 | 5,374 | 123 | (31) | 137 | 8,060 |
| **Balance at December 31, 2012** | 32,991 | 143,386 | 362,191 | 23,345 | 16,163 | 5,238 | 583,314 |
| **Balance at January 1, 2013** | 32,991 | 143,386 | 362,191 | 23,345 | 16,163 | 5,238 | 583,314 |
| Additions | 7 | 990 | 7,333 | 1,887 | 15,504 | 1,511 | 27,232 |
| Retirements and transfers | 1,797 | 2,197 | (8,047) | (3,480) | (12,570) | (3,637) | (23,740) |
| Effect of movements in exchange rates | 810 | 2,967 | 4,794 | 516 | 225 | (24) | 9,288 |
| **Balance at December 31, 2013** | 35,605 | 149,540 | 366,271 | 22,268 | 19,322 | 3,088 | 596,094 |
| **Depreciation and impairment** | | | | | | | |
| **Balance at January 1, 2012** | (5,752) | (42,922) | (192,309) | (11,812) | (7,283) | (216) | (260,294) |
| Depreciation for the year | (1,284) | (4,031) | (20,792) | (2,571) | — | (162) | (28,840) |
| Retirements and transfers | 230 | 323 | 2,157 | 715 | — | — | 3,425 |
| Impairments | — | (110) | (5,667) | — | — | — | (5,777) |
| Effect of movements in exchange rates | 20 | (763) | (2,680) | (126) | — | (10) | (3,559) |
| **Balance at December 31, 2012** | (6,786) | (47,503) | (219,291) | (13,794) | (7,283) | (388) | (295,045) |
| **Balance at January 1, 2013** | (6,786) | (47,503) | (219,291) | (13,794) | (7,283) | (388) | (295,045) |
| Depreciation for the year | (1,553) | (4,660) | (21,639) | (2,332) | — | (805) | (30,989) |
| Retirements and transfers | 171 | 816 | 17,438 | 3,159 | — | 535 | 22,119 |
| Impairments | (13,809) | — | (13,341) | — | — | — | (27,150) |
| Effect of movements in exchange rates | (891) | (1,095) | (3,072) | (288) | — | — | (5,346) |
| **Balance at December 31, 2013** | (22,868) | (52,442) | (239,905) | (13,255) | (7,283) | (658) | (336,411) |
| **Carrying amounts** | | | | | | | |
| At January 1, 2012 | 21,597 | 82,560 | 128,527 | 9,590 | 20,108 | 1,204 | 263,586 |
| At December 31, 2012 | 26,205 | 95,883 | 142,900 | 9,551 | 8,880 | 4,850 | 288,269 |
| **At January 1, 2013** | 26,205 | 95,883 | 142,900 | 9,551 | 8,880 | 4,850 | 288,269 |
| **At December 31, 2013** | 12,737 | 97,098 | 126,366 | 9,013 | 12,039 | 2,430 | 259,683 |

#### MINING COSTS

Mining costs include assets related to the Company's tantalum and graphite mines. During the years ended December 31, 2013 and 2012, $1,553 and $1,284 of these costs have been depreciated.

#### PROPERTY, PLANT AND EQUIPMENT UNDER CONSTRUCTION

During the years ended December 31, 2013 and 2012, the subsidiaries of the Company embarked on several different expansion projects as well as certain required maintenance projects. Costs incurred up to December 31, 2013, which are included in construction in progress, totaled $12,039 (2012: $8,880).

#### BORROWING COSTS

The Company capitalized borrowing costs of $97 during 2013 primarily for a furnace in Germany. During 2012 the Company capitalized borrowing costs of $1,272 primarily related to a furnace in Germany, geological exploration in Brazil, development and construction of a new vanadium roasting facility in the US and development of its asset purchase in Turkey. The Company used a rate of 4.50% (2012: 4.72%) for its capitalization which is its average cost of borrowing for the project. This amount is included in additions in the table above.

#### PROPERTY, PLANT AND EQUIPMENT INCLUDED IN PAYABLES

At December 31, 2013, the Company had $3,482 (2012: $6,184) of property, plant and equipment included in payables. This amount is included in additions in the table above. In 2012, a Brazilian asset retirement obligation of $2,422 was included in additions to construction in progress. See note 26 for additional information.

#### FINANCE LEASES

At December 31, 2013, the Company had $2,430 (2012: $4,850) of finance leases for equipment and software. A portion of this balance relates to an asset that was previously leased under an operating lease. The lease was amended in 2012 to become a finance lease and therefore this amount is treated as a transfer in the table above. See note 22 for additional information.

### DEPRECIATION OF PROPERTY, PLANT AND EQUIPMENT

Depreciation expense for the year ended December 31, 2013 was $30,989 (2012: $28,840). Depreciation expense is recorded in the following line items in the consolidated income statement:

| | 2013 | 2012 |
|---|---|---|
| Cost of sales | 27,625 | 24,718 |
| Selling, general and administrative expenses | 3,364 | 4,122 |
| Total | 30,989 | 28,840 |

### SALE OF PROPERTY PLANT AND EQUIPMENT

Certain land and equipment was sold in the years ended December 31, 2013 and 2012. In those years, the Company received proceeds of $2,515 and $332, respectively. In 2013, the proceeds were more than the book value of the assets and the gain on disposal of assets was $1,296 whereas the proceeds were less than the book value and the loss on disposal of equipment in 2012 was $327. During the year ended December 31, 2013, the primary source of proceeds and gain related to the sale of land by AMG Mining AG, both in the amount of $1,458.

### IMPAIRMENT TESTING

Impairment losses were recorded at certain locations in 2013 and 2012. 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.

Given the current market environment which is not expected to change in the near-term, the Company made a decision to suspend further investments in its non-developed mine properties as of June 30, 2013 until market pricing makes these investments more attractive. This strategic decision created indicators of impairment in the year ended December 31, 2013 for the long lived assets of Suda Maden in Turkey and AMG Mining AG in Germany. Therefore, the Company performed impairment tests for these assets as of this date. With respect to Suda Maden, impairment expense in the amount of $22,144 ($13,809 related to property, plant and equipment, $4,212 related to mining inventory, $2,024 related to prepaid indirect taxes and $2,099 related to mining intangible assets) was required as of June 30, 2013 based on the excess of carrying value over the recoverable amount.

An additional impairment test was performed as of December 31, 2013 and no additional impairment was required. A value in use methodology using discounted cash flows was used for Suda Maden AS based on the following key assumptions:

- Cash flows were projected based on a long term model for mining for this location which was based on current mine exploration reports and management's best estimates of pricing and costs for antimony metal. New price and cost estimates impacted the calculation.
- The growth rate of 2% 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 antimony as it is a scarce resource.
- Revenue projections were based on an internal 3-year business plan.
- Pre-tax discount rates of 17.0% and 16.4% were applied in determining the recoverable amount of the unit for the years ended December 31, 2013 and 2012, respectively.
- Suda Maden's value in use approximates its carrying value and net realizable value and therefore no additional impairment nor reversal of impairment was necessary at December 31, 2013. No sensitivity analysis was performed as the value in use represents the net realizable value of approximately $5,407.

With respect to AMG Mining AG, an impairment in the amount of $13,341 was required as of June 30, 2013 based on the excess of carrying value over the recoverable amount. An additional impairment test was performed as of December 31, 2013 and no additional impairment was required.

A value in use methodology using discounted future cash flows was used for AMG Mining AG. The cash flows were based on the following key assumptions for AMG Mining AG:

- Cash flows were projected based on a 3-year plan
- 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 silicon or graphite industries.
- Revenue projections were based on an internal 3-year business plan.
- Pre-tax discount rates of 13.62% and 13.11% were applied in determining the recoverable amount of the unit for the years ended December 31, 2013 and 2012, respectively.
- AMG Mining AG's value in use approximates its carrying value and net realizable value and therefore no additional impairment nor reversal of impairment was necessary at December 31, 2013. The value in use represents the net realizable value of approximately $109,982.

Sensitivities related to the value in use calculation would imply the following:

- A 1% increase in discount rate would create an impairment of $3,756.
- Assuming no growth would create an impairment of $1,665.

In the year ended December 31, 2012, impairment charges of $5,777 were taken, primarily at an AMG Engineering location in the US, which was focused on solar silicon development. The operation was shut down as of August 31, 2012 due to its lack of profitability and the fact that its primary function could be performed at a different location. In 2011 and 2012, the solar silicon market was virtually eliminated outside China and therefore, the assets of the operation had scrap value, if any at all.

### SECURITY

At December 31, 2013 properties with a carrying amount of $191,130 (2012: $189,414) are pledged as collateral to secure certain bank loans of subsidiaries.

## 13. Goodwill and intangible assets

| | | Intangible assets | | | | | |
|---|---|---|---|---|---|---|---|
| Cost | Goodwill | Customer relationships | Supply contracts | Capitalized development costs | Mining assets | Other intangible assets | Total intangible assets |
| **Balance at January 1, 2012** | 32,972 | 15,835 | 3,847 | 3,260 | 5,574 | 16,400 | 44,916 |
| Acquisitions | 652 | — | — | — | — | — | — |
| Additions | — | — | — | 50 | 3,039 | 1,603 | 4,692 |
| Disposals, reversals and transfers | — | — | — | 849 | — | — | 849 |
| Effect of movements in exchange rates | 779 | 311 | 88 | 99 | 324 | 974 | 1,796 |
| **Balance at December 31, 2012** | 34,403 | 16,146 | 3,935 | 4,258 | 8,937 | 18,977 | 52,253 |
| **Balance at January 1, 2013** | 34,403 | 16,146 | 3,935 | 4,258 | 8,937 | 18,977 | 52,253 |
| Additions | — | — | — | 459 | 1,574 | 1,567 | 3,600 |
| Disposals, reversals and transfers | — | — | — | — | — | 970 | 970 |
| Effect of movements in exchange rates | 771 | 584 | — | 137 | (398) | 778 | 1,101 |
| **Balance at December 31, 2013** | 35,174 | 16,730 | 3,935 | 4,854 | 10,113 | 22,292 | 57,924 |
| **Amortization and impairment** | | | | | | | |
| **Balance at January 1, 2012** | (9,437) | (9,430) | (3,847) | (885) | (1,776) | (14,421) | (30,359) |
| Amortization | — | (1,399) | — | (257) | (298) | (764) | (2,718) |
| Impairment | — | (3,634) | — | (480) | — | — | (4,114) |
| Effect of movements in exchange rates | (215) | (335) | (88) | (64) | (49) | (555) | (1,091) |
| **Balance at December 31, 2012** | (9,652) | (14,798) | (3,935) | (1,686) | (2,123) | (15,740) | (38,282) |
| **Balance at January 1, 2013** | (9,652) | (14,798) | (3,935) | (1,686) | (2,123) | (15,740) | (38,282) |
| Amortization | — | (431) | — | (351) | (306) | (1,171) | (2,259) |
| Impairment | (41) | — | — | (1,594) | (2,099) | (392) | (4,085) |
| Effect of movements in exchange rates | (403) | (583) | — | (104) | 192 | (687) | (1,182) |
| **Balance at December 31, 2013** | (10,096) | (15,812) | (3,935) | (3,735) | (4,336) | (17,990) | (45,808) |
| **Carrying amounts** | | | | | | | |
| At January 1, 2012 | 23,535 | 6,405 | — | 2,375 | 3,798 | 1,979 | 14,557 |
| At December 31, 2012 | 24,751 | 1,348 | — | 2,572 | 6,814 | 3,237 | 13,971 |
| At January 1, 2013 | 24,751 | 1,348 | — | 2,572 | 6,814 | 3,237 | 13,971 |
| At December 31, 2013 | 25,078 | 918 | — | 1,119 | 5,777 | 4,302 | 12,116 |

Intangible assets are comprised of customer relationships, supply contracts, 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 other intangibles amount represents certain licenses and registrations, including software licenses and REACH environmental registrations, as well as patents for certain manufacturing processes.

During 2012, the Company acquired a controlling interest in a company. The purchase price allocation for this acquisition resulted an additional $652 of goodwill. See note 5 for more details.

### RESEARCH COSTS

Research costs are expensed as incurred. Development costs are expensed until they meet the following criteria: technical feasibility; both the intention and ability to complete for internal use or as an external sale; probable generation of future economic benefits; and marketability existence. Research and development expenses are included in selling, general and administrative expenses and were $4,924 and $5,687 in the years ended December 31, 2013 and 2012, respectively.

### AMORTIZATION OF INTANGIBLE ASSETS

Amortization expense for year ended December 31, 2013 was $2,259 (2012: $2,718). Amortization expense is recorded in the following line items in the consolidated income statement:

| | 2013 | 2012 |
|---|---|---|
| Cost of sales | 90 | 659 |
| Selling, general and administrative expenses | 2,169 | 2,059 |
| Total | 2,259 | 2,718 |

### IMPAIRMENT TESTING FOR INTANGIBLE ASSETS

AMG incurred $4,085 of asset impairment expense on intangible assets during the year ended December 31, 2013. These charges primarily related to mine exploration assets of Suda Maden in Turkey as well as capitalized development costs in AMG Engineering.

Based upon global metal supply and demand trends as well as the continuing efforts to reduce capital spending, AMG Mining suspended its short term plans for new mine development. As a result, impairment expense of $2,099 was recorded on intangible mining assets during the year ended December 31, 2013.

Considering the significant slowdown in the global solar market, the Company assessed the long term prospects of its assets associated with AMG Engineering's solar operation. Based on this assessment, an impairment expense of $1,414 was recorded on these intangible assets during the year ended December 31, 2013.

Due to impairment indicators, an analysis was performed for the AMG Intellifast cash generating unit to evaluate the unit's carrying value relative to its recoverable amount. The recoverable amount was based on a value in use calculation determined using the discounted cash flow method. Based on the analysis performed, an impairment expense of $540 was recorded related to development costs and other intangible assets for the year ended December 31, 2013. Impairment expense of $4,114 was recorded related to AMG Intellifast's customer relationships and development costs for the year ended December 31, 2012. The following significant assumptions were utilized when determining AMG Intellifast's carrying value:

- Cash flows were projected based on a 4 year (2012: 5 year) business plan.
- Revenue projections are based on an internal business model.
- A pre-tax discount rate of 20.15% (2012: 18.49%) was applied. This was derived from a group of comparable companies (peer group) and has been compared to external advisor reports for reasonableness.

For the year ending December 31, 2013, impairment expense of $32 was recorded on trademark intangible assets no longer in use by the Company as a result of rebranding.

### 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 segments that represent the lowest level within the Company at which the goodwill is monitored for internal management purposes. AMG Antimony and AMG Mining AG are included in the Mining segment, while AMG Superalloys UK is included in the Processing segment and ALD is included in the Engineering segment.

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

| | 2013 | 2012 |
|---|---|---|
| AMG Antimony cash-generating unit | 12,557 | 12,641 |
| AMG Superalloys UK cash-generating unit | 1,510 | 1,510 |
| ALD cash-generating unit | 11,011 | 10,559 |
| AMG Mining AG cash-generating unit | — | 41 |
| Goodwill at cash-generating units | 25,078 | 24,751 |

### 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

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 higher of the fair value less costs of disposal or the value in use. The value in use was determined using the discounted cash flow method. In 2013 and 2012, the carrying amounts of the AMG Antimony, AMG Superalloys UK and ALD 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 and was based on the following key assumptions:
   - Cash flows were projected based on actual operating results and the 3-year business plan, which covers the next three calendar years following the impairment test date. Metal prices used in the projections are generally at current market prices at the time the plan is prepared.
   - The growth rate of 1% was used to extrapolate cash flow projections beyond the period covered by the most recent business plans. Management believes that this growth rate does not exceed the long term average growth rate for the metallurgical industry in Europe.
   - Revenue projections were based on an internal 3-year business plan.
   - Pre-tax discount rates of 14.80% and 14.77% were applied in determining the recoverable amount of the unit for the years ended December 31, 2013 and 2012, respectively. The discount rates were derived from a group of comparable companies (peer group) and have been compared to external advisor reports for reasonableness.
   - AMG Antimony's value in use exceeds its carrying value at December 31, 2013 by $19,469 (2012: $4,186). Due to the amount of excess value in use, no sensitivity calculations were necessary.

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 13.65% and 12.55% were applied in determining the recoverable amount of the unit for the years ended December 31, 2013 and 2012, respectively. The discount rates were derived from a group of comparable companies (peer group) and have been compared to external advisor reports for reasonableness.
   - AMG Superalloys UK's value in use exceeds its carrying value at December 31, 2013 by $1,891 (2012: $10,575).

   Sensitivities related to the value in use calculation for AMG Superalloys UK would imply the following:
   - A 1% increase in the discount rate would have created an impairment of $2,843.
   - Using a 0% growth rate would have created an impairment of $1,865.

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 14.66% and 13.04% were applied in determining the recoverable amount of the unit for the years ended December 31, 2013 and 2012, respectively. The discount rates were derived from a group of comparable companies (peer group) and have been compared to external advisor reports for reasonableness.
   - ALD's value in use exceeds its carrying value at December 31, 2013 by $112,931 (2012: $81,511). Due to the amount of excess value in use, no sensitivity calculations were necessary.

## 14. Associates and joint ventures

The Company's share of (loss) income in its associates and joint ventures for 2013 was a loss of ($2,148) (2012: income of $2,353).

### SALE OF ASSOCIATE - NANJING YUNHAI KB ALLOYS CO., LTD.

During the year ended December 31, 2013, the Company sold its 45.0% ownership in Nanjing Yunhai KB Alloys Co., LTD for $650 which was recorded as the sale of an associate. The sale was completed at a value which was lower than the book value of shares, which was $1,415. The difference between the book value of the shares sold and the sale price of the associate sold of $765 is recorded as a loss and included the share of (loss) profit of associates and joint ventures line on the consolidated income statement. See note 5 for additional information.

### ACQUISITION OF DYNATECH FURNACES PRIVATE LTD.

On June 24, 2010, ALD GmbH entered into a share purchase contract to make an investment of $419 to purchase 30.0% ownership in Dynatech Furnaces Private Ltd. ("Dynatech") from its current ownership. In 2011, the Company accounted for this investment as an associate. The Company acquired an additional 40.0% interest in Dynatech on August 20, 2012 for $299. There was a loss of $194 recognized from re-measuring the equity interest in Dynatech held by the Company prior to the business combination. The loss was recognized on the share of (loss) profit of associates and joint ventures line in the consolidated income statement. Effective August 20, 2012, Dynatech's results of operations are consolidated into AMG's financial statements. See note 5 for additional information.

### IMPAIRMENT OF EQUITY INVESTMENT IN BOSTLAN S.A. ("BOSTLAN")

Impairment tests for AMG Aluminum UK's 25.0% equity investment in Bostlan, an entity located in Spain, were based on its value in use. The carrying amount of this individual asset as of December 31, 2013 and 2012 was nil, as the value in use calculations did not indicate any value should be recorded for the investment.

Bostlan's value in use was determined by discounting the future cash flows generated from the continuing use of the asset and was based on the following key assumptions:

- Cash flows were projected based on actual operating results and the 3-year business plan, covering the next three 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 metallurgical industry in Spain.
- Revenue projections are based on an internal 3-year business plan.
- Pre-tax discount rates of 14.81% and 16.84% were applied in determining the recoverable amount of the asset for the years ended December 31, 2013 and 2012, respectively. The discount rates were derived from a group of comparable companies (peer group) and have been compared to external advisor reports for reasonableness.

### IMPAIRMENT OF EQUITY INVESTMENT IN ABS APPARATE-UND BEHÄLTERBAU STASSFURT GMBH (ABS)

Impairment tests for ALD's 49.0% equity investment in ABS, an entity located in Germany, were based on its value in use. In 2013, it was determined that due to declining business, impacted by the solar market downturn in Germany, the investment had indicators of impairment.

ABS's value in use was determined by discounting the future cash flows generated from the continuing use of the asset and was based on the following key assumptions:

- Cash flows were projected based on actual operating results and the 3-year business plan with a terminal value, covering the next three 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 metallurgical industry in Germany.
- Revenue projections are based on an internal 3-year business plan with a terminal value.
- Pre-tax discount rate of 14.66% was applied in determining the recoverable amount of the asset for the years ended December 31, 2013. The discount rate was derived from a group of comparable companies (peer group) and has been compared to external advisor reports for reasonableness.
- The carrying amount of this individual asset as of December 31, 2013 was $3,239 (2012: $5,097) after recording an impairment of $2,067 (2012: nil).

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

| | Country | Ownership | Total Assets | Total Liabilities | Net Equity | Revenues | Expense | Recognized profit (loss) | Carrying Amount |
|---|---|---|---|---|---|---|---|---|---|
| **2013** | | | | | | | | | |
| Bostlan S.A. | Spain | 25.0% | 8,589 | 5,578 | 3,011 | 11,782 | 11,782 | — | — |
| ALD Holcroft Vacuum Technologies Co. | US | 50.0% | 2,878 | 1,403 | 1,475 | 7,027 | 6,407 | 620 | 1,516 |
| ABS Apparaté und Behälterbrau Staßfurt GmbH | Germany | 49.0% | 4,566 | 913 | 3,653 | 5,231 | 5,167 | (2,003) | 3,239 |
| Silmag DA | Norway | 50.0% | 1,008 | 2,434 | (1,426) | — | — | — | — |
| Nanjing Yunhai KB Alloys Co LTD** | China | — | — | — | — | — | | (765) | — |
| Total | | | | | | | | (2,148) | 4,755 |
| **2012** | | | | | | | | | |
| Bostlan S.A. | Spain | 25.0% | 7,566 | 4,553 | 3,013 | 13,881 | 13,881 | — | — |
| ALD Holcroft Vacuum Technologies Co. | US | 50.0% | 3,984 | 2,273 | 1,711 | 7,147 | 6,778 | 369 | 838 |
| ABS Apparaté und Behälterbrau Staßfurt GmbH | Germany | 49.0% | 4,287 | 842 | 3,445 | 7,134 | 5,221 | 1,913 | 5,097 |
| Silmag DA | Norway | 50.0% | 95 | 2,419 | (2,324) | — | — | — | — |
| Dynatech Furnaces Private Ltd.* | India | 30.0% | 670 | 778 | (108) | 378 | 449 | (71) | — |
| Nanjing Yunhai KB Alloys Co LTD | China | 45.0% | 2,026 | 417 | 1,609 | 5,041 | 4,899 | 142 | 1,416 |
| Total | | | | | | | | 2,353 | 7,351 |

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

| | Current assets | Non-current assets | Total Assets | Current liabilities | Non-current liabilities | Total Liabilities |
|---|---|---|---|---|---|---|
| **2013** | | | | | | |
| ALD Holcroft Vacuum Technologies Co. | 2,811 | 67 | 2,878 | 1,400 | 3 | 1,403 |
| Silmag DA | 1,008 | — | 1,008 | 2,434 | — | 2,434 |
| **2012** | | | | | | |
| ALD Holcroft Vacuum Technologies Co. | 3,909 | 75 | 3,984 | 2,270 | 3 | 2,273 |
| Silmag DA | 95 | — | 95 | 2,419 | — | 2,419 |

* The Company acquired an additional 40.0% of Dynatech Furnaces Private Ltd. on August 20, 2012 and the entity was consolidated as of this date. The results shown in the table represent eight months of 30.0% ownership activity prior to consolidation. See note 5 for additional information.

** The Company sold its 45.0% of Nanjing Yunhai KB Alloys Co., LTD.

## 15. Inventories

| | 2013 | 2012 |
|---|---|---|
| Raw materials | 65,937 | 87,406 |
| Work in process | 28,265 | 37,882 |
| Finished goods | 78,484 | 82,078 |
| Other | 6,657 | 4,165 |
| Total | 179,343 | 211,531 |

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

In 2013 raw materials, changes in finished goods and work in process contributed to cost of sales by $660,044 (2012: $738,821). In the year ended December 31, 2013, the net adjustment to net realizable value amounted to a write-down of $2,793 (2012: $5,451) and was included in cost of sales. The net realizable value write-downs were related to obsolescence as well as inventory costing adjustments due to variability in metals pricing.

AMG incurred $17,724 of asset impairment expense on inventory during the year ended December 31, 2013. These charges primarily related to the following:

- $4,212 of mining inventory of Suda Maden in Turkey as a result of suspending its short term plans for new mine development
- $13,512 of solar inventory in AMG Engineering due to the expectation for a prolonged weakness in the solar market and the restructuring of a solar operation in Germany

Since these amounts related to the closures of operating facilities, the write-downs were classified as asset impairment expense in the consolidated income statement. This presentation, by not presenting the expense as part of cost of sales, provides better insight into the gross margin going forward.

Inventory in the amount of $143,552 (2012: $154,884) is pledged as collateral to secure the bank loans of certain subsidiaries (see note 22).

## 16. Trade and other receivables

| | 2013 | 2012 |
|---|---|---|
| Trade receivables, net of allowance for doubtful accounts | 115,540 | 123,767 |
| Notes receivable, net of allowance for doubtful accounts | — | — |
| Gross amount due from customers for contract work (POC) | 159,091 | 183,728 |
| Less: progress payments received | (123,824) | (130,263) |
| Net POC receivables | 35,267 | 53,465 |
| Total | 150,807 | 177,232 |

At December 31, 2013 and 2012, 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, 2013, receivables in the amount of $129,616 (2012: $147,941) are pledged as collateral to secure the term loan and multicurrency credit facility of the Company and the credit facilities of certain subsidiaries (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 |
|---|---|---|---|---|---|---|---|
| 2013 | 150,807 | 128,523 | 16,775 | 1,717 | 579 | 398 | 2,815 |
| 2012 | 177,232 | 150,808 | 19,721 | 3,333 | 1,316 | 528 | 1,526 |

At December 31, 2013, trade receivables are shown net of an allowance for impairment of $1,635 (2012: $3,828) arising from customer unwillingness or inability to pay. Impairment losses in the amount of $581 and $383 were recorded in the years ended December 31, 2013 and December 31, 2012, respectively.

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

| | 2013 | 2012 |
|---|---|---|
| At January 1 | 3,828 | 3,930 |
| Charge for the year | 581 | 383 |
| Amounts written off | (2,499) | (85) |
| Amounts recovered/collected | (356) | (454) |
| Foreign currency adjustments | 81 | 54 |
| At December 31 | 1,635 | 3,828 |

### FACTORING OF RECEIVABLES

The Company maintains an accounts receivable facility with a credit insurance company in Germany. The contract is based on a fixed fee. The Company sold receivables in the amount of $7,888 which includes a security deposit of $998 and cash proceeds of $6,640, which are included in cash flows from operating activities during the year ended December 31, 2013. During 2013, the Company incurred finance expense of $105 in conjunction with the sale of these receivables. In 2012, the Company sold receivables in the amount of $5,747 in exchange for cash proceeds of $5,747, which are included in cash flows from operating activities. During 2012, the Company incurred costs of $9 in conjunction with the sale of these receivables of which $5 are included in finance expense and $4 included in selling, general and administrative expenses on the consolidated income statement.

The Company also maintains an accounts receivable facility in the US. The discount rate under this facility is the equivalent of LIBOR plus 3.75%. The Company sold receivables in the amount of $6,000 (2012: $8,360) in exchange for cash proceeds of $5,943 ($8,273) which are included in cash flows from operating activities during the year ended December 31, 2013. The Company incurred costs of $57 (2012: $87) in conjunction with the sale of these receivables which are included in finance expense on the consolidated income statement.

Under these facilities, the Company continues to collect the receivables from the customer but retains no interest 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 factored receivables. The factored receivables provide additional liquidity to the Company.

## 17. Other assets

Other assets are comprised of the following:

| | 2013 | 2012 Restated* |
|---|---|---|
| Prepaid taxes (income and indirect) | 30,880 | 26,925 |
| Prepaid inventory | 1,761 | 628 |
| Deferred stripping costs | 7,578 | 9,479 |
| Supplier prepayments | 105 | 858 |
| Insurance | 3,103 | 3,900 |
| Environmental trusts | 3,077 | 4,081 |
| Deposits | 3,236 | 1,828 |
| Officers life insurance | 660 | 622 |
| Maintenance and subscriptions | 453 | 471 |
| Prepaid tooling and parts | 1,140 | 915 |
| Mining rights | 4,000 | — |
| Other miscellaneous assets | 3,956 | 2,993 |
| Total | 59,949 | 52,700 |
| **Thereof:** | | |
| Current | 34,430 | 30,438 |
| Non-current | 25,519 | 22,262 |

* The December 31, 2012 balances were restated by $5,829 to remove a pension asset upon the adoption of IAS 19R. Additionally, a reclassification for deferred stripping costs in the amount of $9,479 was made from current to non-current assets upon the adoption of IFRIC 20 discussed in note 3.s, the composition of items within other assets remained consistent with the balances at December 31, 2012.

As a result of Suda Maden suspending its short term plans for new mine development, AMG incurred $2,024 of asset impairment expense on prepaid indirect taxes during the year ended December 31, 2013. Since these amounts related to the closure of an operating facility, it was classified as asset impairment expense in the consolidated income statement.

On April 1, 2013, the Company paid $4,000 for an option to acquire all of the mineral rights associated with certain mines in Brazil. Over the course of fifteen months, the Company will perform due diligence to determine whether it wants to move forward with the purchase of the mineral rights. If at the end of the fifteen months, the Company does not want to exercise its rights, the $4,000 can be credited over a period of three years against purchases of raw materials. This option, valued at $4,000, is included in non-current other assets in the statement of financial position and the purchase has been classified as an investing cash flow.

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

A German subsidiary maintains a factoring agreement with a credit insurance company discussed in note 16. In the year ended December 31, 2013 $998 was included in deposits related to the factoring agreement.

## 18. Restricted cash

Restricted cash at December 31, 2013 is $7,967 (2012: $11,888) and is comprised of $217 (2012: $3,463) security deposits to secure leasing activities and $7,750 (2012: $8,425) 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.

## 19. Cash and cash equivalents

| | **2013** | 2012 |
|---|---|---|
| Bank balances | 92,626 | 104,004 |
| Call deposits | 10,441 | 17,635 |
| Total | 103,067 | 121,639 |

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, 2013, the Company had $71,693 available liquidity (2012: $50,794) on undrawn committed borrowing facilities.

The above table is also representative of the consolidated statement of cash flows, cash and cash equivalents with no bank overdrafts as of December 31, 2013 (2012: nil).

## 20. Capital and reserves

### SHARE CAPITAL

At December 31, 2013, the Company's authorized share capital was comprised of 65,000,000 ordinary shares (2012: 65,000,000) with a nominal share value of €0.02 (2012: €0.02) and 65,000,000 preference shares (2012: 65,000,000) with a nominal share value of €0.02 (2012: €0.02).

At December 31, 2013, the issued and outstanding share capital was comprised of 27,592,924 ordinary shares (2012: 27,551,269), with a nominal value of €0.02 (2012: €0.02) which were fully paid. No preference shares were outstanding at December 31, 2013 (2012: nil). The nominal value of the outstanding shares as of December 31, 2013 was $760 (2012: $728) as compared to the value using historical exchange rates which was $744 (2012: $743).

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 retain future earnings to finance the growth and development of its business. 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. 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, 2012** | 27,519,929 |
| Shares issued to Supervisory Board | 31,340 |
| **Balance at December 31, 2012** | 27,551,269 |
| Shares issued to Supervisory Board | 41,655 |
| **Balance at December 31, 2013** | 27,592,924 |

### SUPERVISORY BOARD REMUNERATION

During the years ended December 31, 2013 and 2012, 41,655 and 31,340 shares were issued, respectively, as compensation to its Supervisory Board members for services provided in 2013 and 2012. 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 | Unrealized (losses) gains reserve | Legal participations reserve | Capitalized development expenditures reserve | Defined benefit obligation reserve | Total |
|---|---|---|---|---|---|---|---|
| **Balance at January 1, 2012** | 44,802 | (15,054) | (15,591) | 10,239 | 2,375 | — | 26,771 |
| Change in accounting policy (See note 3.s) | — | — | — | — | — | (21,030) | (21,030) |
| **Balance at January 1, 2012 (Restated*)** | 44,802 | (15,054) | (15,591) | 10,239 | 2,375 | (21,030) | 5,741 |
| Currency translation differences | — | 2,775 | — | — | — | — | 2,775 |
| Movement on cash flow hedges | — | — | 8,827 | — | — | — | 8,827 |
| Tax effect on net movement on cash flow hedges | — | — | (2,029) | — | — | — | (2,029) |
| Transfer to retained deficit | — | — | — | (6,218) | 197 | — | (6,021) |
| Equity-settled share-based payments | 2,017 | — | — | — | — | — | 2,017 |
| Actuarial losses | — | — | — | — | — | (21,219) | (21,219) |
| **Balance at December 31, 2012 (Restated*)** | 46,819 | (12,279) | (8,793) | 4,021 | 2,572 | (42,249) | (9,909) |
| **Balance at January 1, 2013** | 46,819 | (12,279) | (8,793) | 4,021 | 2,572 | (42,249) | (9,909) |
| Currency translation differences | — | 840 | — | — | — | — | 840 |
| Movement on cash flow hedges | — | — | 1,332 | — | — | — | 1,332 |
| Tax effect on net movement on cash flow hedges | — | — | 483 | — | — | — | 483 |
| Transfer to retained deficit | — | — | — | 1,863 | (1,845) | — | 18 |
| Equity-settled share-based payments | 1,025 | — | — | — | — | — | 1,025 |
| Actuarial gains | — | — | — | — | — | 1,606 | 1,606 |
| **Balance at December 31, 2013** | 47,844 | (11,439) | (6,978) | 5,884 | 727 | (40,643) | (4,605) |

* Certain amounts shown here do not correspond to the 2012 consolidated financial statements and reflect adjustments. Refer to note 3.s.

#### 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. 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. There are additional functional currencies used at small companies within the organization with limited impact to the consolidated financial statements.

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, 2013 and 2012.

#### UNREALIZED (LOSSES) GAINS RESERVE

The unrealized (losses) gains 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

IAS 19R, as discussed further in note 24, has been applied retrospectively from January 1, 2012. As a result, actuarial gains and losses are now recognized in other comprehensive income. The implementation of the transition to IAS 19R had the impact of restating equity attributable to shareholders, decreasing other reserves by $21,030. Actuarial gains on defined benefit plans for the year ended December 31, 2013 increased other reserves $1,606 while actuarial losses decreased other reserves $21,219 in the year ended December 31, 2012.

#### 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

No dividends have been paid or proposed in the years ended December 31, 2013 and 2012.

## 21. 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, 2013 and 2012, the calculation of basic earnings per share is performed using the weighted average shares outstanding for 2013 and 2012, 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, 2013 and 2012 are AMG's share options. 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. In years when there is a net loss attributable to shareholders, the dilutive effect of potential shares is not taken into effect.

| | 2013 | 2012 |
|---|---|---|
| **Earnings** | | Restated* |
| Net (loss) profit attributable to equity holders for basic and diluted earnings per share | (41,538) | 2,843 |
| **Number of shares (in 000's)** | | |
| Weighted average number of ordinary shares for basic earnings per share | 27,557 | 27,522 |
| Dilutive effect of share-based payments | 19 | 26 |
| Weighted average number of ordinary shares adjusted for effect of dilution | 27,576 | 27,548 |

* Net profit attributable to equity holders for basic and diluted earnings per share shown here does not correspond to the 2012 consolidated financial statements and reflects adjustments. Refer to note 3.s.

## 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 | 2013 | 2012 |
|---|---|---|---|---|
| €79,600 Term Loan | EURIBOR/LIBOR+2.875% | 04/2013 – 04/2016 | 89,310 | 122,611 |
| $243,000 Revolving Credit Facility | EURIBOR/LIBOR+2.875% | 04/2016 | 128,902 | 133,563 |
| €3,600 subsidiary debt | 2.45% | 03/2017 | 2,624 | 3,638 |
| €413 subsidiary debt | 6.58% | 12/2014 | — | 186 |
| €2,200 subsidiary debt | 4.95% | 12/2013 | — | 1,800 |
| €3,466 subsidiary debt | 4.70% | 03/2023 | 937 | 1,007 |
| €125 subsidiary debt | 10.50% – 12.00% | 12/2015 | 25 | 50 |
| $2,275 subsidiary debt | 6.75% – 9.30% | 07/2014 –09/2014 | — | 1,042 |
| Finance lease obligations | 4.49% – 12.00% | 08/2014 – 07/2017 | 1,990 | 1,656 |
| Total | | | 223,788 | 265,553 |

| **Current** | Effective interest rate | Maturity | 2013 | 2012 |
|---|---|---|---|---|
| €79,600 Term Loan | EURIBOR/LIBOR+2.875% | 04/2013 – 04/2016 | 17,208 | 6,608 |
| $243,000 Revolving Credit Facility | 3.15% | 12/2013 | — | 6,608 |
| €3,600 subsidiary debt | 2.45% | 03/2017 | 1,166 | 1,119 |
| €413 subsidiary debt | 6.58% | 12/2014 | 179 | 186 |
| €2,200 subsidiary debt | 4.95% | 12/2013 | — | 136 |
| €3,466 subsidiary debt | 4.70% | 03/2023 | 114 | 395 |
| €125 subsidiary debt | 10.50% – 12.00% | 12/2015 | 21 | 28 |
| $2,275 subsidiary debt | 6.75% – 9.30% | 07/2014 – 09/2014 | 1,036 | 1,069 |
| Finance lease obligations | 4.49% – 12.00% | 08/2014 – 07/2017 | 1,149 | 4,184 |
| Total | | | 20,873 | 20,333 |

#### TERM LOAN AND REVOLVING CREDIT FACILITY

On April 28, 2011, the Company entered into a five-year multicurrency term loan and revolving credit facility. The credit facility was composed of a €64,200 term loan and a $214,200 revolving credit facility ("Revolving Credit Facility"). The facility is structured to be able to increase borrowing capacity using an incremental term loan and revolving facility feature under certain conditions. In 2012, the Company utilized this feature to increase the term loan and revolver capacities to €100,850 and $243,000, respectively. Fees related to the amendment and utilization of this feature in 2012 were $1,644 and are included in finance expense. The five-year facility terminates in April 2016. Installment payments for the term loan began in 2013 and as of December 31, 2013 the term loan balance outstanding was €79,600.

Borrowings under the revolving credit facility may be used for general corporate purposes of the Company. As of December 31, 2013, $131,380 was borrowed (excluding letters of credit) under the revolving credit facility (2012: $143,610). At December 31, 2013, there was unused availability (including unused letters of credit) of $71,693 (2012: $50,794).

Interest on the 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, 2013, the margin was 2.875 (2012: 2.625). To mitigate risk, the Company entered into an interest rate swap for €64,200 to fix the interest rate on the initial term loan at 5.62% The Company also used an interest rate swap for $95,000 of the Revolving Credit Facility to fix the interest rate at 4.85%.

The Credit Facility is subject to several affirmative and negative covenants including, but not limited to, the following (as currently amended):

- EBITDA to Net Finance Charges: Not to be less than 4.00:1
- Net Debt to EBITDA: Not to exceed 3.00:1
- Tangible Net Worth to Total Assets: Not be less than 17.5% for Q1 and Q2 2014 and 25.0% thereafter.

EBITDA, Net Finance Charges, Net Debt, Tangible Net Worth and Total Assets are defined in the Credit Facility agreement. Based on constant monitoring of its forecast and its covenant calculations, the Company determined it should seek a change to its debt covenants. Therefore, with the concurrence of its banking group, the Company amended the Credit Facility on March 4, 2013 to lower the minimum Tangible Net Worth to Total Assets ratio for an additional four quarters. The amended minimum ratios were as follows: 20.0% for 2013, 22.5% for Q1 and Q2 2014, and 25.0% thereafter. Fees related to this amendment were $933 and are included in finance expense.

As a result of asset impairment charges, the Company was in breach of the Tangible Net Worth to Total Assets covenant as of June 30, 2013. On September 24, 2013, the Company amended the Credit Facility to account for this breach. Included in the amendments was a change to the Tangible Net Worth to Total Assets covenant. Previously, the minimum ratio for this covenant was 20.0% for 2013, 22.5% for the first two quarters of 2014 and 25.0% thereafter. The amendment decreased the minimum ratio to 16.0% for the remainder of 2013 and to 17.5% for Q1 and Q2 2014, and 25.0% thereafter. See note 2.c for further details. All other covenants remained unchanged. Fees related to this amendment were $1,114 and are included in finance expense. As part of this amendment, the Company agreed to make a prepayment of €10,000 of the Term Facility on or before October 28, 2013 and €12,500 of the Term Facility on or before April 28, 2014, in addition to the regularly scheduled payments on these dates. The €10,000 payment and €6,250 of the second prepayment were made prior to December 31, 2013.

On October 9, 2012, the Company amended and restated the previous credit facility in order to adjust certain provisions for the strategic plans of the Company. Included in the amendments was a change to the Tangible Net Worth to Total Assets covenant. Fees related to this amendment were $1,212 and are included in finance expense.

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.

#### DEBT ISSUANCE COSTS

In connection with the term loan which commenced in 2011, the Company incurred issuance costs of $10,848 which were deducted from the proceeds of the debt from the term loan. These amounts are shown net against the outstanding term loan balance and are amortized using the effective interest method using a rate of 5.94% for the costs associated with the US dollar dominated debt and a rate of 7.08% for the costs associated with the Euro denominated debt. The balance of unamortized costs which is net against the book value of debt was $5,537 as of December 31, 2013 (2012: $7,493).

#### 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. The acquisition of the remaining outstanding shares led to a requirement that it become a party to the Company's current Credit Facility. Becoming a party to the Credit Facility required the repayment of the majority of its historical debt. This repayment led to the incurrence of certain penalties on the debt and interest rate swaps. These repayment penalties of $1,292 were recorded as extinguishment of debt in finance expense in the year ended December 31, 2012.

The loans held prior to the refinancing of AMG Mining AG included a government subsidized loan agreement with Bayrische Landesbank and various other loan agreements with HypoVereinsbank, Unicredit and Sparkasse Passau. The

loans carried various interest rates and those with floating interest rates were fixed using interest rate swaps. Certain debt remained after the refinancing of the Company. The remaining debt includes capital lease instruments and limited credit facilities for its operations in Sri Lanka. The weighted average interest rates for the leases and facilities are 5.77% (2012: 5.76%) and 2.64% (2012: 2.75%), respectively.

#### FINANCE LEASE OBLIGATIONS

As of December 31, 2013, AMG subsidiaries had five capital leases outstanding to finance machinery. Monthly payments under these leases are $70. The leases mature from 2014 through 2017. As of December 31, 2012, AMG subsidiaries had four capital leases outstanding to finance machinery. Monthly payments under these leases were $73. The leases mature from 2013 through 2017.

The Company built two heat treatment modules in 2006 and sold the modules to a financial institution. Subsequently, the financial institution and the Company entered a leasing agreement according to which the financial institution leased the modules to the Company. The lease term started on October 1, 2006 and ended on October 1, 2012. At the end of the lease term the Company exercised its right to prolong the lease agreement. The lease agreement was prolonged on the same lease payment conditions for another year and ended on October 1, 2013. Furthermore, the lease prolongation agreement included a purchase clause. According to this clause, the Company purchased the leased objects at the end of the extended lease term for $2,950. The Company then sold one of the units to a leasing company and entered into a new leasing agreement according to which the leasing company leased the module to the Company. The lease term started on July 1, 2013 and expires on July 31, 2017. The balance as of December 31, 2013 of $1,426 (2012: $3,538) is included in the finance lease obligations in the table.

#### DEBT REPAYMENTS

The Company made capital lease and debt repayments of $50,487 during 2013. The payments included $28,689 on the term loan and $12,640 on the revolving credit facility. Also, ALD purchased two heat treatment modules during the year for $3,555 in accordance with a lease agreement reducing the lease obligation. Additional payments of $5,603 were to various banks related to capital leases and other debt repayments.

The Company made capital lease and debt repayments of $24,966 during 2012. In conjunction with the Company completing the squeeze-out of non-controlling interests in Graphit Kropfmühl("GK"), a majority of GK's external credit facilities were paid down through additional borrowings on the AMG revolver. Payments included GK repaying $10,501 as they retired the majority of their outstanding facilities and refinanced through the AMG credit facility. The Company previously had a Subordinated Loan Agreement ("ALD subordinated loan"). The principal amount of the subordinated loan is nil as of December 31, 2012 (2011: $12,864) as it was repaid in full in August 2012. The subordinated loan had an interest rate of 7.27% and an effective rate of 8.04%. AMG Mineração and AMG TAC paid $1,665 to various banks and the remaining repayments relate to capital lease and other debt repayments.

## 23. Short term bank debt

The Company's Brazilian subsidiaries maintain short term secured and unsecured borrowing arrangements with various banks. Borrowings under these arrangements are included in short term debt on the consolidated statement of financial position and aggregated $16,705 at December 31, 2013 (2012: $28,856) at a weighted-average interest rate of 3.33% (2012: 6.74%).

Dynatech maintains 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 and was $2,097 at December 31, 2013 (2012: $993) at a fixed interest rate of 11.50% (2012: 11.50%).

AMG Mining AG maintains a short term unsecured credit facility and other loans with an outstanding balance of $117 (2012: $109) at December 31, 2013.

During the year ended December 31, 2013, the Company made short term debt repayments in the amount of $11,192 (2012: $10,160).

## 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 from the assets of the subsidiaries under the control of trustees. 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, 2013 recognized in the consolidated income statement of $4,064 (2012: $3,160) represents contributions paid and payable to these plans.

### DEFINED BENEFIT PLANS

## North America plans

The Company offers tax-qualified, noncontributory 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 as well as two of the Company's former executive officers. Pursuant to the terms of the agreements, these officers earn additional retirement benefits for continued service with the Company. Under the terms of the SERPs, the Company has no obligation to set aside, earmark or entrust any fund or money with which to pay the obligations thereto. However, the amounts are guaranteed by AMG.

During 2013, the Company's former Chief Financial Officer stepped down and as a result a remeasurement and curtailment of the employee benefits liability occurred. The net impact of the remeasurement and curtailment was a reduction in the employee benefits liability of $542, a change in other comprehensive income of $113 and a net gain in the consolidated income statement of $429 and included in service costs in the following employee benefits disclosure. Also in 2013, the Company entered into an additional Supplemental Executive Retirement Plan with Amy Ard, its current Chief Financial Officer. Pursuant to the terms of the plan, Ms. Ard is to earn additional retirement benefits for continued service with the Company. The maximum retirement benefit payment under the plan is equal to 50% of the final two year average compensation reduced by retirement benefits as determined in accordance with the Company's defined contribution plan and payable from age 65 until age 88.

*Actuarial assumptions*

A majority of the North America plans are frozen to new entrants. As a result, the principal actuarial assumption for these plans is the rate of discount. The rate of discount utilized as of December 31, 2013 (expressed as a weighted average) was 4.36% (2012: 3.79%). 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-2000 Combined Healthy mortality table and the IRS 2008 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, 2014 is $2,612.

## European plans

The Company's European plans include qualified defined benefit plans in Germany, United Kingdom, Sri Lanka, and France as well as a nonqualified German supplemental executive retirement plan for a former executive officer. The plans in Germany, France and Sri Lanka are partial funded or unfunded while the United Kingdom plan is 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.

Dr. Walter was released from his responsibilities at the Company effective May 13, 2013. The pension expense in 2012 includes an amount to bring the defined benefit obligation up to an agreed upon value of $2,015, as per his severance agreement. Dr. Walter received the value of his SERP with payments beginning in June 2013 and ending in December 2014. Under the terms of the German SERP, the Company has no obligation to set aside, earmark or entrust any fund or money with which to pay the obligations thereto. However, the amounts are guaranteed by AMG.

*Actuarial assumptions*

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

| | 2013 | 2012 |
|---|---|---|
| | % per annum | % per annum |
| Inflation | 2.07 | 2.18 |
| Salary increases | 2.25 | 2.69 |
| Rate of discount at December 31 | 3.47 | 3.47 |
| Pension payments increases | 1.96 | 2.18 |

Assumptions regarding future mortality are based on published statistics and mortality tables including the RT 2005G and S1PxA mortality tables.

The best estimate of contributions to be paid to the primary plans for the year ending December 31, 2014 is $6,487.

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

### 2013 changes in the defined benefit obligation and fair value of plan assets

| | North America | | | Europe | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Defined benefit obligation | Fair value of plan assets | Total | Defined benefit obligation | Fair value of plan assets | Total | Defined benefit obligation | Fair value of plan assets |
| **January 1, 2013** | (27,361) | (52,953) | 25,592 | (110,596) | (219,462) | 108,866 | (137,957) | (272,415) | 134,458 |
| **Pension costs charged to profit or loss** | | | | | | | | | |
| Service costs | (171) | (171) | — | (2,344) | (2,344) | — | (2,515) | (2,515) | — |
| Net interest | (1,023) | (2,034) | 1,011 | (4,163) | (8,858) | 4,695 | (5,186) | (10,892) | 5,706 |
| Subtotal included in profit or loss | (1,194) | (2,205) | 1,011 | (6,507) | (11,202) | 4,695 | (7,701) | (13,407) | 5,706 |
| Benefits paid | — | 2,590 | (2,590) | 5,848 | 11,845 | (5,997) | 5,848 | 14,435 | (8,587) |
| **Remeasurement gains (losses) in other comprehensive income** | | | | | | | | | |
| Return on plan assets (excluding amounts included in net interest expense) | 1,579 | — | 1,579 | (3,591) | — | (3,591) | (2,012) | — | (2,012) |
| Actuarial changes arising from changes in demographic assumptions | 301 | 301 | — | 2,826 | 2,826 | — | 3,127 | 3,127 | — |
| Actuarial changes arising from changes in financial assumptions | 3,629 | 3,629 | — | (464) | (464) | — | 3,165 | 3,165 | — |
| Experience adjustments | (173) | (173) | — | (4,513) | (4,513) | — | (4,686) | (4,686) | — |
| Subtotal included in OCI | 5,336 | 3,757 | 1,579 | (5,742) | (2,151) | (3,591) | (406) | 1,606 | (2,012) |
| Contributions by employer | 1,902 | — | 1,902 | 3,565 | — | 3,565 | 5,467 | — | 5,467 |
| Effect of movements in foreign exchange rates | — | — | — | (4,610) | (6,729) | 2,119 | (4,610) | (6,729) | 2,119 |
| Transfers | — | — | — | — | — | — | — | — | — |
| **December 31, 2013** | (21,317) | (48,811) | 27,494 | (118,042) | (227,699) | 109,657 | (139,359) | (276,510) | 137,151 |

### 2012 changes in the defined benefit obligation and fair value of plan assets

| | North America | | | Europe | | | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| | Total | Defined benefit obligation | Fair value of plan assets | Total | Defined benefit obligation | Fair value of plan assets | Total | Defined benefit obligation | Fair value of plan assets |
| **January 1, 2012** | (25,243) | (47,633) | 22,390 | (85,614) | (183,432) | 97,818 | (110,857) | (231,065) | 120,208 |
| **Pension costs charged to profit or loss** | | | | | | | | | |
| Service costs | (679) | (679) | — | (2,121) | (2,121) | — | (2,800) | (2,800) | — |
| Net interest | (1,053) | (2,191) | 1,138 | (4,842) | (9,352) | 4,510 | (5,895) | (11,543) | 5,648 |
| Subtotal included in profit or loss | (1,732) | (2,870) | 1,138 | (6,963) | (11,473) | 4,510 | (8,695) | (14,343) | 5,648 |
| Benefits paid | — | 2,194 | (2,194) | 3,849 | 9,053 | (5,204) | 3,849 | 11,247 | (7,398) |
| **Remeasurement gains (losses) in other comprehensive income** | | | | | | | | | |
| Return on plan assets (excluding amounts included in net interest expense) | 1,961 | — | 1,961 | 5,795 | — | 5,795 | 7,756 | — | 7,756 |
| Actuarial changes arising from changes in demographic assumptions | (318) | (318) | — | 3,018 | 3,018 | — | 2,700 | 2,700 | — |
| Actuarial changes arising from changes in financial assumptions | (4,283) | (4,283) | — | (29,232) | (29,232) | — | (33,515) | (33,515) | — |
| Experience adjustments | (43) | (43) | — | (1,127) | (1,127) | — | (1,170) | (1,170) | — |
| Subtotal included in OCI | (2,683) | (4,644) | 1,961 | (21,546) | (27,341) | 5,795 | (24,229) | (31,985) | 7,756 |
| Contributions by employer | 2,297 | — | 2,297 | 1,237 | — | 1,237 | 3,534 | — | 3,534 |
| Effect of movements in foreign exchange rates | — | — | — | (2,664) | (7,374) | 4,710 | (2,664) | (7,374) | 4,710 |
| Transfers | — | — | — | 1,105 | 1,105 | — | 1,105 | 1,105 | — |
| **December 31, 2012** | (27,361) | (52,953) | 25,592 | (110,596) | (219,462) | 108,866 | (137,957) | (272,415) | 134,458 |

Plan assets consist of the following:

| | North America plans | | European plans | | Total | |
|---|---|---|---|---|---|---|
| | **2013** | 2012 | **2013** | 2012 | **2013** | 2012 |
| Equity securities and ownership of equity funds | 17,461 | 14,350 | 28,419 | 24,592 | 45,880 | 38,942 |
| Debt securities | 9,784 | 10,319 | 73,734 | 76,962 | 83,518 | 87,281 |
| Cash and equivalents | 249 | 484 | 546 | 696 | 795 | 1,180 |
| Insurance contracts and other | — | 439 | 6,958 | 6,616 | 6,958 | 7,055 |
| Total | 27,494 | 25,592 | 109,657 | 108,866 | 137,151 | 134,458 |

The expense is recognized in the following line items in the income statement:

| | North America plans | | European plans | | Total | |
|---|---|---|---|---|---|---|
| | **2013** | 2012 | **2013** | 2012 | **2013** | 2012 |
| Cost of sales | 440 | 412 | 2,197 | 2,276 | 2,637 | 2,688 |
| Selling, general and administrative expenses | 754 | 1,320 | 4,310 | 4,687 | 5,064 | 6,007 |
| Total | 1,194 | 1,732 | 6,507 | 6,963 | 7,701 | 8,695 |

A quantitative sensitivity analysis for significant assumptions as of December 31, 2013 is as shown below:

| Assumptions | Discount rate | | Future salary increases | | Future pension cost increase | | Life expectancy | |
|---|---|---|---|---|---|---|---|---|
| Sensitivity level | **1% increase** | 1% decrease | **1% increase** | 1% decrease | **0.5% increase** | 0.5% decrease | **1 year increase** | 1 year decrease |
| Impact on the net defined benefit obligation | (31,708) | 35,202 | 3,163 | (2,711) | 7,249 | (6,860) | 7,746 | (7,878) |

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 contributions to be made in the future years out of the defined benefit plan obligation for the year ending December 31:

| | |
|---|---|
| 2014 | 12,855 |
| 2015 | 12,539 |
| 2016 | 13,249 |
| 2017 | 13,561 |
| 2018 | 16,574 |
| 2019-2023 | 75,317 |

The average duration of the defined benefit plan obligation at the end of the reporting period is 15 years (2012: 14 years).

## 25. Share-based payments

### EQUITY-SETTLED SHARE-BASED PAYMENTS

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.

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. One quarter of the options granted to each option holder on any date will vest on each of the first four anniversaries of the grant date. This vesting is not subject to any performance conditions. The options expire on the tenth anniversary of their grant date.

Total grants under the 2009 Plan during 2013 were 132,334 (2012: 279,634). During the year ended December 31, 2013, grants expired or forfeited were 151,851 (2012: nil). All options under the 2009 Plan are equity-settled, in accordance with IFRS 2, by award of options to acquire ordinary shares or award of ordinary shares. The fair value of these awards has been calculated at the date of grant of the award. The fair value, adjusted for an estimate of the number of awards that will eventually vest, is expensed using a graded vesting methodology. The fair value of the options granted was calculated using a black-scholes model. The assumptions used in the calculation are set out below.

During the year ended December 31, 2013 and 2012, there were no options granted or exercised under the 2007 Plan. Expired or forfeited options under this plan were 60,000 (2012: nil). 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. 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.

During the year ended December 31, 2013, AMG recorded compensation expense from equity-settled share-based payment transactions of $475 (2012: $1,724) of which $475 is included in selling, general and administrative expenses and nil is included in cost of sales ($1,693 and $31, respectively in 2012) in the income statement.

### Movements

| | 2013 | | 2012 | |
|---|---|---|---|---|
| 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** | 2,929 | 20.42 | 2,650 | 21.90 |
| Granted during the year | 132 | 6.80 | 279 | 6.44 |
| Forfeited or expired during the year | (211) | 9.06 | — | — |
| Outstanding at December 31 | 2,850 | 19.98 | 2,929 | 20.42 |
| **Exercisable at December 31** | 2,386 | 22.26 | 2,326 | 23.40 |

2,385,545 options were exercisable as of December 31, 2013 (2012: 2,326,297).

At December 31, 2013, 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 | 1,028,641 | 7.82 | 5.9 | 650,545 | 8.44 |
| €12.70 to €24.00 | 1,321,121 | 21.37 | 4.5 | 1,235,000 | 21.80 |
| €29.45 to €40.50 | 440,000 | 38.67 | 4.9 | 440,000 | 38.67 |
| €44.00 to €64.31 | 60,000 | 61.06 | 4.9 | 60,000 | 61.06 |

At December 31, 2012, 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 | 1,015,034 | 7.90 | 7.4 | 531,297 | 8.32 |
| €12.70 to €24.00 | 1,354,244 | 21.21 | 5.1 | 1,235,000 | 21.80 |
| €29.45 to €40.50 | 500,000 | 38.83 | 5.4 | 500,000 | 38.83 |
| €44.00 to €64.31 | 60,000 | 61.06 | 5.4 | 60,000 | 61.06 |

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, 2013, total shares outstanding under the 2007 Plan were 2,307,167 and the total options outstanding under or 2009 Plan were 542,595.

### Assumptions

The following table lists the inputs into the binomial model used to calculate the fair value of the share-based payment options that were granted in 2013 and 2012 under the 2009 Plan:

| | 2013 | 2012 |
|---|---|---|
| Exercise price | €6.80 | €6.44 |
| Share price at date of grant | €6.80 | €6.44 |
| Contractual life (years) | 10 | 10 |
| Dividend yield | Nil | Nil |
| Expected volatility | 65.5% | 70.15% |
| Risk-free interest rate | 1.06% | 1.11% |
| Expected life of option (years) | 6 | 3-4 |
| Weighted average share price | €4.02 | €7.10 |
| 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 2007 Plan options vest in four equal tranches on the first, second, third and fourth anniversaries of the grant date, and therefore continued employment is a non-market condition for options to vest. 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 20). The cumulative amount recorded in the share-based payment reserve in shareholders' equity was $47,844 as of December 31, 2013 (2012: $46,819).

### CASH-SETTLED SHARE-BASED PAYMENTS

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, 2013, the Company issued 642,635 performance share units ("PSUs") to certain employees which are cash-settled. 325,627 PSUs were issued in the year ended December 31, 2012. In the year ended December 31, 2013, 188,968 PSUs were paid out, 83,577 PSUs were terminated or paid out as required on a pro-rata basis and the total number of PSUs outstanding as of December 31, 2013 was 1,043,759.

Fair value of those PSUs is determined using the black-scholes method with the following assumptions:

| | **2013** | 2012 |
|---|---|---|
| Contractual life (years) | 1–3 | 1–3 |
| Dividend yield (%) | nil | nil |
| Expected volatility (%) | 25.00% – 38.02% | 21.91% – 46.45% |
| Risk-free interest rate (%) | 0.045% - 0.39% | 0.065% |
| Expected life of option (years) | 1–3 | 1–3 |

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

| | Value of liability |
|---|---|
| **Balance as at January 1, 2012** | 3,333 |
| Current year expense | 391 |
| Vesting and payments on third tranche 2009 and first tranche 2010 grants | (3,525) |
| Currency/other | 172 |
| **Balance as at December 31, 2012** | 371 |
| **Balance as at January 1, 2013** | 371 |
| Current year expense | 2,063 |
| Vesting and payments on second and third tranches 2010 | (387) |
| Currency/other | 107 |
| **Balance as at December 31, 2013** | 2,154 |

Due to the total shareholder return performance of the Company relative to its peers, only one tranche of PSUs carried any fair value at December 31, 2013. The fair value of these PSUs was €7.74. At December 31, 2012, PSUs had a fair value of €6.49.

## 26. Provisions

| | Environmental remediation costs and recoveries | Restructuring | Warranty | Cost estimates | Partial retirement | Restoration costs | Other | Total |
|---|---|---|---|---|---|---|---|---|
| **Balance at January 1, 2012** | 18,170 | 2,655 | 6,516 | 3,197 | 1,129 | 7,720 | 1,996 | 41,383 |
| Provisions made during the period | 793 | 6,151 | 2,120 | 1,934 | 1,238 | 979 | 473 | 13,688 |
| Provisions used during the period | (29) | (4,090) | (870) | (1,130) | (752) | (30) | (282) | (7,183) |
| Increase due to discounting | 110 | — | — | — | — | 391 | — | 501 |
| Currency, transfers and reversals | 116 | 75 | (3,555) | (863) | 864 | 2,532 | (1,316) | (2,147) |
| **Balance at December 31, 2012** | 19,160 | 4,791 | 4,211 | 3,138 | 2,479 | 11,592 | 871 | 46,242 |
| **Balance at January 1, 2013** | 19,160 | 4,791 | 4,211 | 3,138 | 2,479 | 11,592 | 871 | 46,242 |
| Provisions made during the period | (86) | 14,225 | 1,582 | 1,572 | 204 | 554 | (33) | 18,018 |
| Provisions used during the period | (1,368) | (8,254) | (766) | (926) | (1,001) | (66) | (35) | (12,416) |
| (Decrease) increase due to discounting | (269) | — | — | — | — | 345 | — | 76 |
| Currency, transfers and reversals | (916) | 295 | 208 | 161 | 63 | 211 | 23 | 45 |
| **Balance at December 31, 2013** | 16,521 | 11,057 | 5,235 | 3,945 | 1,745 | 12,636 | 826 | 51,965 |
| | | | | | | | | |
| Non-current | 17,537 | — | — | — | 2,380 | 11,592 | 343 | 31,852 |
| Current | 1,623 | 4,791 | 4,211 | 3,138 | 99 | — | 528 | 14,390 |
| **Balance at December 31, 2012** | 19,160 | 4,791 | 4,211 | 3,138 | 2,479 | 11,592 | 871 | 46,242 |
| Non-current | 15,240 | 227 | — | — | 1,742 | 12,636 | 598 | 30,443 |
| Current | 1,281 | 10,830 | 5,235 | 3,945 | 3 | — | 228 | 21,522 |
| **Balance at December 31, 2013** | 16,521 | 11,057 | 5,235 | 3,945 | 1,745 | 12,636 | 826 | 51,965 |

### 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 1,000 year liabilities in the US.

#### Cambridge, OH USA

The largest issues 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. According to the PICO guidelines, these slag piles were capped in 2009, 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 $44,562 on an undiscounted basis. Annual payments for O&M are expected to be $59 for the next 25-30 years, declining from that point on. These amounts will be paid out of an environmental trust already established by the Company. Other environmental items requiring provision include: stormwater remediation and limited groundwater remediation. These projects are expected to create cash outflows of $375, on an undiscounted basis, and are expected to be completed within the next 20 years. Discount rates of 0.13%-3.96% (depending on the expected timing of payments) were used in determining the liabilities recorded.

#### 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 the 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 also conducted operations that created a substantial slag pile with low-level radioactive materials. After the production that created this slag ceased, the Nuclear Regulatory Commission ("NRC") was notified and preparation of the decommissioning plan commenced. This plan has been through several iterations of technical review with the NRC. Based on the current version of the plan, the costs to cap the slag pile are estimated to be $7,263 and are expected to be paid over the next four to six years, subject to various court challenges as discussed in more detail in note 35. Until the capping is completed, the US subsidiary is required to pay the NRC for its oversight costs. The expected undiscounted cash flows related to oversight are $3,850, with payments expected to begin and end within the next seven years. In addition, operations and maintenance for the site will be required for 1,000 years subsequent to the capping, estimated to cost $49,700 on an undiscounted basis. Annual cash flows related to this will be approximately $50 for the first thirty years but are not expected to begin for six years. These amounts will be paid out of an environmental trust already established by the Company. Discount rates of 0.13%-3.96% (depending on the expected timing of payments) were used in determining the liabilities recorded.

#### Remediation trust funds

The Company's US subsidiaries have established trust funds to accumulate funds for future environmental remediation payments. Amounts are paid out from the trust fund following completion and approval of rehabilitation work. The contributions to the trust funds were placed with investment 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 the 1,000 year O&M at the sites. 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, 2013 are $2,475 (2012: $3,481). The undiscounted amounts in the trust funds as of December 31, 2013 are $5,495 (2012: $5,350).

#### Sao Joao del Rei, Brazil

The chemical plant facility in Brazil has waste from its operations that has accumulated over time. Management has negotiated with the Brazilian government on the best way to dispose of the waste material. The removal began in 2013 and is expected to be finalized in 2014. As of December 31, 2013, the provision for this liability is $153 (2012: $713). This amount is undiscounted as removal is expected to be finalized in 2014.

#### 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, 2013 was $484 (2012:$897). No additional provision was required in the year ended December 31, 2013. Payments of $413 were made against this provision and additional payments are expected throughout 2014 and 2015.

### Pocking, Germany

An environmental remediation liability exists with respect to the silicon metal operation and its waste storage. As of December 31, 2013, the liability for the remediation of this site is valued at $633 (2012: $588). Payments occurred in the amount of $5 as of December 31, 2013 and additional payments of approximately $663 are expected to be made between 2014 and 2017. A discount rate of 4% 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 line to cease any future leakage. In the year ended December 31, 2013, there was no additional expense recorded. The expected liability for continued work on the sewer rehabilitation project is $1,554 (2012: $1,663). Payments for this project are expected to occur over the next two to three years with spending taking place in a relatively consistent pattern over those years. Discount rates of 3.34% - 4.22% (depending on the expected timing of payments) were used in determining the liabilities recorded.

Reversals of environmental expense in the amount of $110 were recorded in the year ended December 31, 2013 (2012: $239). The 2013 reversal related to a reserve for wetlands remediation in the US which was no longer required while the 2012 reversal was primarily due to the capitalization of certain costs related to the REACH legislation.

### Restructuring

During the year ended December 31, 2013, the Company recorded restructuring expense of $14,225 based on the following restructuring actions taken:

- AMG Processing – Expense of $5,033 for an estimated headcount reduction of 71 in Germany, the UK and the US
- AMG Engineering – Expense of $6,345 for an estimated headcount reduction of 144 for the reorganization of an operation in Germany
- AMG Mining – Expense of $1,342 for an estimated headcount reduction of 77 in Turkey and Belgium
- AMG Corporate – Expense of $1,505 related to the separation of a member of the Company's Management Board (see note 36 for further details)

Restructuring payments of $8,254 were made in the year ended December 31, 2013, while the restructuring provision balance was $11,057 as of December 31, 2013. Payments on the restructuring provisions for all former employees of the Company are expected to be made over the next 12 to 24 months.

During the year ended December 31, 2012, the Company recorded a restructuring provision in the amount of $6,151. The largest portions of the severance related to the mining and aluminum businesses where high level executives were terminated as a means to cut costs. Severance was also recorded with respect to the solar business in the US, which was shut down during the year ended December 31, 2012. Additional restructuring costs included lease termination penalties and shut-down costs for offices and production facilities. Restructuring payments of $4,090 where made in the year ended December 31, 2012, while the restructuring provision balance was $4,791 as of December 31, 2012.

#### 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 12 to 24 months. The provisions for these warranties are based on the historical return percentages. There were $1,883 of additional provisions during 2013 (2012: $1,700) and payments of $766 (2012: $861).

Two German subsidiaries provide for warranties for certain products. The provision is based on actual claims made by customers. There were no additional provisions recorded during 2013 (2012: $420). There were no payments made during 2013 (2012: $9).

Additionally, there was a reversal of the warranty expense in the amount of $301 recorded in the year ended December 31, 2013 (2012: $283).

#### COST ESTIMATES

AMG Engineering builds a project cost provision on its percentage of completion contracts. The provision is developed on a contract by contract basis. The amounts recorded as a provision are the result of the expected total project costs and are based on historical percentages. Over the life of the percentage of completion contracts, the provision for project cost is utilized or derecognized depending on actual performance of the contracts. A provision of $1,572 was recorded in 2013 (2012: $1,934) related to projects that are currently in process while $926 (2012: $1,130) 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 2013, there were additional provisions of $204 (2012: $1,238) and payments of $1,001 (2012: $752). Additional payments of approximately $951 are expected to occur over the next two years. Discount rates of 0.76% and 3.4% were used by the Company's German subsidiaries to determine the liabilities recorded.

#### RESTORATION, REHABILITATION AND DECOMMISSIONING COSTS

Rehabilitation provision represents 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, which is five years.

#### Hauzenberg, Germany

A recultivation provision is recorded on AMG Mining AG's books as it relates 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. During 2013, there was an additional provision in the amount of $344. The total restoration liability for this mine is $5,303 as of December 31, 2013 (2012: $4,936). A discount rate of 2.7% was used to determine the liability recorded.

#### Nazareno, Brazil

In the year ended December 31, 2013, a Brazilian subsidiary recorded an expense of $210 (2012: $844) related to an asset retirement obligation at its mine. In order to properly state the asset retirement balance at December 31, 2012, an asset and liability were recorded in the amount of $2,422. Significant mining took place during the year ended December 31, 2013 in order to keep up with higher demand. The revision in the asset retirement provision is based on a review of the current mine landscape and the requirements of the Brazilian government to recultivate the area that was mined. As of December 31, 2013, the total provision amount was $7,333 (2012: $6,656). A discount rate of 7.5% was used to determine the liability recorded.

#### 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 $909 lower.

## 27. Government grants

| | Government grants |
|---|---|
| **Balance at January 1, 2012** | 766 |
| Provisions made during the period | — |
| Provisions used during the period | (41) |
| Repayments during the period | (192) |
| Currency and reversals | (6) |
| **Balance at December 31, 2012** | 527 |
| **Balance at January 1, 2013** | 527 |
| Provisions made during the period | 460 |
| Provisions used during the period | (41) |
| Repayments during the period | — |
| Currency and reversals | 11 |
| **Balance at December 31, 2013** | 957 |
| Non-current | 472 |
| Current | 55 |
| **Balance at December 31, 2012** | 527 |
| Non-current | 883 |
| Current | 74 |
| **Balance at December 31, 2013** | 957 |

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, 2013, the current and non-current portions of the grants were $43 and $691, respectively. As of December 31, 2012, the current and non-current portions of the grants were $40 and $370, respectively. During the year ended December 31, 2013, AMG Mining AG met the requirements established for government grants. During the year ended December 31, 2012, AMG Mining AG failed to meet requirements established for the government grants, this resulted in repayments of government grants in the amount of $192.

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, 2013, AMG Superalloys UK received the final grant payment of $125, resulting in current and non-current liabilities of $31 and $192, respectively. As of December 31, 2012, the current and non-current portions of the grant were $15 and $102, 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. 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 Company also received prepayments of nil in the year ended December 31, 2013 (2012: $257) which relate to expected future deliveries of products to customers in Germany (2012: Germany and Brazil) and are expected to be provided within the next year.

| | Deferred revenue |
|---|---|
| **Balance at January 1, 2012** | — |
| Deferred during the year | 5,257 |
| Released to the income statement | — |
| **Balance at December 31, 2012** | 5,257 |
| **Balance at January 1, 2013** | 5,257 |
| Deferred during the year | 15,000 |
| Released to the income statement | (3,472) |
| **Balance at December 31, 2013** | 16,785 |
| | |
| Non-current | 2,724 |
| Current | 2,533 |
| **Balance at December 31, 2012** | 5,257 |
| Non-current | 11,776 |
| Current | 5,009 |
| **Balance at December 31, 2013** | 16,785 |

## 29. Other liabilities

Other liabilities are comprised of the following:

| | 2013 | 2012 |
|---|---|---|
| Accrued bonus | 11,702 | 11,371 |
| Accrued interest | 4,140 | 4,079 |
| Accrued professional fees | 4,734 | 6,007 |
| Accrued employee payroll expenses | 5,760 | 5,677 |
| Accrual for performance share units | 2,154 | 371 |
| Accruals for operational costs | 5,637 | 6,295 |
| Claims | 1,055 | 512 |
| Fiscal contingency | 8,538 | 7,104 |
| Sales commission | 1,132 | 2,063 |
| Other benefits and compensation | 8,162 | 8,157 |
| Taxes, other than income | 5,064 | 9,734 |
| Other miscellaneous liabilities | 4,730 | 4,254 |
| Total | 62,808 | 65,624 |
| Thereof: | | |
| Non-current | 8,425 | 6,690 |
| Current | 54,383 | 58,934 |

## 30. Trade and other payables

| | 2013 | 2012 |
|---|---|---|
| Trade payables | 113,550 | 106,279 |
| Trade payables – percentage of completion | 13,831 | 19,063 |
| Total | 127,381 | 125,342 |

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.

## 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, 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. One customer of the Mining segment represents greater than 5% of the Company's revenue and no single customer accounts for more than 10% of the Company's revenue. There are no geographic concentrations of credit risk. The Company trades only with creditworthy third parties. 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 16.

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. Bank strength is presented to the Supervisory Board at least annually. This review is set to minimize the concentration of risks and therefore mitigate potential financial loss through counterparty failure.

### 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 the following lines of credit:

- $243,000 revolving credit facility with a syndicate of banks that is secured by the assets of the material subsidiaries of the Company. Interest is payable at a base rate plus a spread based on a coverage ratio.

The table below summarizes the maturity profile of the Company's financial liabilities at December 31, 2013 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.

| **2013** | Contractual cash flows | < 3 months | 3-12 months | 2015 | 2016 | 2017 | 2018 | > 2018 |
|---|---|---|---|---|---|---|---|---|
| Term loan/revolver | 240,958 | 3,442 | 13,766 | 5,162 | 218,588 | — | — | — |
| Cash interest on term loan | 13,660 | 210 | 5,514 | 5,658 | 2,278 | — | — | — |
| Fixed rate loans and borrowings | 6,097 | 857 | 1,651 | 1,297 | 1,279 | 403 | 110 | 500 |
| Cash interest on loans and borrowings | 416 | 35 | 104 | 97 | 63 | 33 | 28 | 56 |
| Financial derivatives | 13,000 | 3,477 | 4,882 | 3,098 | 1,543 | — | — | — |
| Financial lease liabilities | 3,365 | 296 | 890 | 956 | 862 | 361 | — | — |
| Trade and other payables | 127,381 | 112,659 | 14,722 | — | — | — | — | — |
| Short term bank debt | 18,919 | 118 | 18,801 | — | — | — | — | — |
| Accruals and other liabilities | 47,795 | 29,530 | 11,122 | 3,167 | 647 | 650 | 837 | 1,842 |
| Total | 471,591 | 150,624 | 71,452 | 19,435 | 225,260 | 1,447 | 975 | 2,398 |

The table below summarizes the maturity profile of the Company's financial liabilities at December 31, 2012 based on contractual undiscounted payments.

| 2012 | Contractual cash flows | < 3 months | 3-12 months | 2014 | 2015 | 2016 | 2017 | > 2017 |
|---|---|---|---|---|---|---|---|---|
| Term loan/revolver | 276,883 | 3,304 | 9,911 | 8,259 | 4,956 | 250,453 | — | — |
| Cash interest on term loan | 17,605 | — | 5,153 | 5,153 | 5,153 | 2,146 | — | — |
| Fixed rate loans and borrowings | 10,655 | 535 | 2,392 | 2,622 | 1,398 | 1,382 | 549 | 1,777 |
| Cash interest on loans and borrowings | 1,160 | 78 | 197 | 220 | 172 | 133 | 98 | 262 |
| Financial derivatives | 14,982 | 959 | 6,299 | 3,095 | 3,082 | 1,547 | — | — |
| Financial lease liabilities | 6,171 | 434 | 3,979 | 720 | 490 | 416 | 132 | — |
| Trade and other payables | 125,342 | 103,251 | 22,091 | — | — | — | — | — |
| Short term bank debt | 29,958 | 13,524 | 16,434 | — | — | — | — | — |
| Accruals and other liabilities | 44,952 | 27,727 | 8,598 | 4,408 | 1,097 | 1,051 | 387 | 1,684 |
| Total | 527,708 | 149,812 | 75,054 | 24,477 | 16,348 | 257,128 | 1,166 | 3,723 |

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 $5,537 and $7,493 as of December 31, 2013 and 2012, 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 and derivative financial instruments.

The sensitivity analyses in the following sections relate to the positions as at December 31, 2013 and 2012.

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, 2013.

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, 2013 and 2012 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 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. These are designed to hedge underlying debt obligations. At December 31, 2013, after taking into account the effect of interest rate swaps, approximately 68% of the Company's borrowings are at a fixed rate of interest (2012: 62%).

The following table demonstrates the sensitivity to a reasonably possible change in interest rates adjusting for multiple interest rate swaps effective as at December 31, 2013 and 2012, 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.

| 2013 | Increase/decrease in basis points | Effect on profit before tax |
|---|---|---|
| USD *** | | (70) |
| Euro | +10 | (13) |
| USD *** | | 70 |
| Euro | -10 | 13 |

| 2012 | Increase/decrease in basis points | Effect on profit before tax |
|---|---|---|
| USD *** | | (113) |
| Euro | +10 | (9) |
| USD *** | | 113 |
| Euro | -10 | 9 |

***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, 2013, the Company's interest rate swaps had a fair value of ($7,702) (2012: ($11,068)). Per the agreements, the Company pays a fixed rate and receives a floating rate based on the six month USD EURIBOR. The following table demonstrates the sensitivity to a reasonably possible change in interest rates using the EURIBOR swap curve with all other variables held constant, of the Company's equity and profit before tax. There were no ineffective interest rate swaps in the years ended December 31, 2013 and 2012. Changes in sensitivity rates reflect various changes in the economy year-over-year.

| 2013 | Increase/decrease in basis points | Effect on equity | Effect on profit before tax |
|---|---|---|---|
| USD | +5 | 203 | — |
| USD | -10 | (405) | — |

| 2012 | Increase/decrease in basis points | Effect on equity | Effect on profit before tax |
|---|---|---|---|
| USD | +5 | 240 | — |
| USD | -10 | (611) | — |

#### 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 maximise hedge effectiveness. The Company seeks to mitigate this risk by hedging approximately 75% 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 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.

| **2013** | Strengthening/ weakening in functional rate | Effect on profit before tax | Effect on equity before tax |
|---|---|---|---|
| US Dollar | +5% | 1,248 | (14) |
| Euro | +5% | (1,037) | 129 |
| US Dollar | -5% | (1,248) | 14 |
| Euro | -5% | 1,037 | (129) |

| 2012 | Strengthening/ weakening in functional rate | Effect on profit before tax | Effect on equity before tax |
|---|---|---|---|
| US Dollar | +5% | 3,020 | 235 |
| Euro | +5% | (406) | 6 |
| US Dollar | -5% | (3,020) | (235) |
| Euro | -5% | 406 | (6) |

### 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.

| **2013** | Change in price | Effect on profit before tax | Effect on equity before tax |
|---|---|---|---|
| Aluminum | +10% | 169 | 109 |
| Aluminum | -10% | (169) | (109) |

| 2012 | Change in price | Effect on profit before tax | Effect on equity before tax |
|---|---|---|---|
| Aluminum | +10% | 343 | 26 |
| Aluminum | -10% | (343) | (26) |

### 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%. The calculated ratio is above the policy level for the years ended December 31, 2013 and 2012. The Management Board of the Company has established new remuneration targets for operating management which focuses on cash management with the intention of bringing the ratio back into policy compliance within the next two years.

| | **2013** | 2012 |
|---|---|---|
| Loans and borrowings | 244,661 | 285,886 |
| Short term bank debt | 18,919 | 29,958 |
| Less: cash and cash equivalents | 103,067 | 121,639 |
| Net debt | 160,513 | 194,205 |
| Net debt | 160,513 | 194,205 |
| Total equity | 134,590 | 175,263 |
| Total capital | 295,103 | 369,468 |
| Debt to total capital ratio | 0.54 | 0.53 |

## 32. Financial instruments

### FAIR VALUES

As of December 31, 2013, fixed rate loans and borrowings had a carrying value $162 greater than the fair value of the instruments. Excluding fixed rate loans and borrowings, the carrying amounts presented in the financial statements equate 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 rate loans and borrowings and notes receivable maintain a floating interest rate and approximate fair value. Fair values of the Company's floating rate loans and borrowings and notes receivable are estimated by discounting expected future cash flows using a discount rate that reflects the Company's borrowing rate at December 31, 2013. The consideration of non-performance risk did not significantly impact the fair values.
- The fair value of fixed rate loans and borrowings are estimated by discounting future cash flows using rates currently available for debt.

### 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, 2013, the Company held the following financial instruments measured at fair value:

#### Assets measured at fair value

| | December 31, 2013 | Level 1 | Level 2 | Level 3 |
|---|---|---|---|---|
| **Financial assets** | | | | |
| Forward contracts – hedged | 2,437 | – | 2,437 | – |
| Forward contracts – non-hedged | 11 | – | 11 | – |

#### Liabilities measured at fair value

| | December 31, 2013 | Level 1 | Level 2 | Level 3 |
|---|---|---|---|---|
| **Financial liabilities** | | | | |
| Forward contracts – hedged | 3,659 | – | 3,659 | – |
| Forward contracts – non-hedged | 1,639 | – | 1,639 | – |
| Interest rate swaps | 7,702 | – | 7,702 | – |

As of December 31, 2012, the Company held the following financial instruments measured at fair value:

#### Assets measured at fair value

| | December 31, 2012 | Level 1 | Level 2 | Level 3 |
|---|---|---|---|---|
| **Financial assets** | | | | |
| Forward contracts – hedged | 3,683 | – | 3,683 | – |
| Forward contracts – non-hedged | 73 | – | 73 | – |

#### Liabilities measured at fair value

| | December 31, 2012 | Level 1 | Level 2 | Level 3 |
|---|---|---|---|---|
| **Financial liabilities** | | | | |
| Forward contracts – hedged | 1,271 | – | 1,271 | – |
| Forward contracts – non-hedged | 2,643 | – | 2,643 | – |
| Interest rate swaps | 11,068 | – | 11,068 | – |

During the years ended December 31, 2013 and 2012, there were no transfers between Level 1 and Level 2 fair value measurements, and no transfers into or out of Level 3 fair value measurements.

The Company's floating rate loans and borrowings and notes receivable are considered Level 2 fair value.

### HEDGING ACTIVITIES

#### Interest rate hedges

In April 2011, the Company entered into two interest rate swap agreements for the entire drawdown of the term loan of €64,200 as well as $95,000 of the revolver (see note 22). These interest rate swaps were executed so that the Company could hedge its exposure to changes in the benchmark interest rate on the term loan of €64,200 and $95,000 of the revolver. These swap agreements provide for a fixed annual interest rate of 2.87% for the euro denominated term loan and a fixed annual interest rate of 2.10% for the US dollar denominated revolver (exclusive of the margin) paid semi-annually by AMG and a semi-annual payment by the counterparty of EURIBOR and LIBOR, respectively, expiring in 2016. Management has designated the interest rate swap as a cash flow hedge of the forecasted interest payments on the debt. The fair value of the term loan interest rate swap as at December 31, 2013 is a non-current liability of $4,284 (2012: $6,223). The fair value of the revolver interest rate swap as at December 31, 2013 is a non-current liability of $3,418 (2012: $4,845).

AMG Mining AG had seven interest rate hedges for a variety of floating rate debt instruments that were used to minimize interest rate risk. These swaps were terminated in the year ended December 31, 2012 due to the refinancing of AMG Mining AG's debt. This repayment led to the incurrence of certain penalties on the debt and interest rate swaps. These penalties were recorded as extinguishment of debt of $1,292 and are included in finance expense in the year ended December 31, 2012.

The amount from effective interest rate swap cash flow hedges included in equity through other comprehensive income is ($6,382) and ($9,129) in the years ended December 31, 2013 and 2012, respectively. The amount included in equity is anticipated to impact the income statement over the life of the related debt instrument. During the years ended December 31, 2013 and 2012, $3,703 and $2,894, respectively, were transferred from equity to the income statement as increases to interest expense. There are no ineffective interest rate swap contracts as at December 31, 2013 or as at December 31, 2012.

#### 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 at December 31, 2013 are as follows:

| | Metric tons | Average price | Fair value assets | Fair value liabilities |
|---|---|---|---|---|
| **US Dollar denominated contracts to purchase commodities:** | | | | |
| Aluminum forwards | 4,325 | 1,820 | 27 | (132) |
| Nickel forwards | 54 | 14,635 | — | (35) |
| Copper forwards | 150 | 6,998 | 54 | — |

The open commodity forward contracts as at December 31, 2012 are as follows:

| | Metric tons | Average price | Fair value assets | Fair value liabilities |
|---|---|---|---|---|
| **US Dollar denominated contracts to purchase commodities:** | | | | |
| Aluminum forwards | 2,900 | 2,180 | 226 | (70) |

The amount from the commodity cash flow hedges included in equity was $136 and $170 in the years ended December 31, 2013 and 2012, respectively. The amount included in equity is anticipated to impact the income statement over the next 12 months. During the years ended December 31, 2013 and 2012, $256 and $932, respectively, were transferred from equity to the income statement as increases to cost of sales. During the year ended December 31, 2013, $174 (2012: nil) was recorded to the income statement as interest expense related to commodity hedges. There was no ineffectiveness for contracts designated as cash flow hedges during the years ended December 31, 2013 and 2012.

#### 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. 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. Some foreign exchange forward contracts have been designated as cash flow hedges, while other contracts, although part of the risk management strategy, have not met the documentation requirements for hedge accounting and are therefore treated as economic hedges.

The open foreign exchange forward sales contracts as at December 31, 2013 are as follows:

| Exposure | Notional amount | Contract rate | Fair value assets | Fair value liabilities |
|---|---|---|---|---|
| **Cash Flow Hedges** | | | | |
| Euro (versus USD) | €26.6 million | 0.744 | 2 | (772) |
| USD (versus Euro) | $43.5 million | 1.329 | 1,831 | (2) |
| **Economic Hedges** | | | | |
| Euro (versus USD) | €19.6 million | 0.769 | — | (1,458) |

The open foreign exchange forward sales contracts as at December 31, 2012 are as follows:

| Exposure | Notional amount | Contract rate | Fair value assets | Fair value liabilities |
|---|---|---|---|---|
| **Cash Flow Hedges** | | | | |
| Euro (versus USD) | €22.5 million | 1.303 | 73 | (456) |
| USD (versus Euro) | $69.8 million | 1.288 | 2,040 | (115) |
| MXN (versus USD) | MXN 14.6 million | 17.405 | — | (5) |
| **Economic Hedges** | | | | |
| USD (versus Euro) | $ 0.3 million | 1.301 | 4 | — |
| Euro (versus USD) | € 44.3 million | 1.269 | — | (2,417) |

The open foreign exchange forward purchase contracts as at December 31, 2013 are as follows:

| Exposure | Notional amount | Contract rate | Fair value assets | Fair value liabilities |
|---|---|---|---|---|
| **Cash Flow Hedges** | | | | |
| USD (versus Euro) | $6.2 million | 1.296 | 5 | (47) |
| GBP (versus USD) | £6.5 million | 1.606 | 227 | — |
| BRL (versus USD) | R$94.1 million | 2.293 | 291 | (2,671) |
| **Economic Hedges** | | | | |
| USD (versus Euro) | $11.9 million | 1.364 | — | (128) |
| Euro (versus USD) | €8.8 million | 0.725 | 11 | (53) |

The open foreign exchange forward purchase contracts as at December 31, 2012 are as follows:

| Exposure | Notional amount | Contract rate | Fair value assets | Fair value liabilities |
|---|---|---|---|---|
| **Cash Flow Hedges** | | | | |
| USD (versus Euro) | $ 36.9 million | 1.300 | 453 | (337) |
| GBP (versus USD) | £ 12.0 million | 1.573 | 615 | — |
| BRL (versus USD) | R$ 96.2 million | 2.105 | 345 | (289) |
| **Economic Hedges** | | | | |
| USD (versus Euro) | $ 10.5 million | 1.292 | — | (225) |

The amounts from the foreign currency cash flow hedges included in equity were ($732) and $166 in the years ended December 31, 2013 and 2012, respectively. The amount included in equity is anticipated to impact the income statement over the next 12 months. During the years ended December 31, 2013 and 2012, $1,304 and $3,857, 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 $28 (2012: $60) recognized in profit or loss during the year ended December 31, 2013 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.

The Company also holds a hereditary land building right at its Berlin location. This building right requires lease payments to be made annually and does not expire until 2038.

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

| | **2013** | 2012 |
|---|---|---|
| Less than one year | 7,205 | 8,762 |
| Between one and five years | 15,716 | 18,899 |
| More than five years | 8,329 | 10,532 |
| Total | 31,250 | 38,193 |

During the year ended December 31, 2013 $7,183 (2012: $8,627) 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:

| | **2013** | 2012 |
|---|---|---|
| Less than one year | 1,186 | 4,413 |
| Between one and five years | 2,179 | 1,758 |
| Total minimum lease payments | 3,365 | 6,171 |
| Less amounts representing finance charges | (226) | (331) |
| Present value of minimum lease payments | 3,139 | 5,840 |

The Company built two heat treatment modules in 2006 and sold the modules to a financial institution. Subsequently, the financial institution and the Company entered a leasing agreement according to which the financial institution leased the modules to the Company. The lease term started on October 1, 2006 and ended on October 1, 2012. At the end of the lease term the Company exercised its right to prolong the lease agreement. The lease agreement was prolonged on the same lease payment conditions for another year and ended on October 1, 2013. Furthermore, the lease prolongation agreement included a purchase clause. According to this clause the Company purchased the leased objects at the end of the extended lease term for $2,950.

The Company then sold one of the units to a leasing company and entered into a new leasing agreement according to which the leasing company leased the module to the Company. The lease term started on July 1, 2013 and expires on July 31, 2017. The balance as of December 31, 2013 of $1,426 (2012: $3,538) is included in the finance lease obligations in the table.

## 34. Capital commitments

The Company's capital expenditures include projects to improve operations and productivity, replacement projects and ongoing environmental requirements (which are in addition to expenditures discussed in note 26). As of December 31, 2013, the Company had committed to capital requirements in the amount of $4,745 (2012: $16,061).

## 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, 2013 and 2012:

| | Business-related guarantees | Credit-related guarantees | Letters of credit | Total |
|---|---|---|---|---|
| **2013** | | | | |
| Total amounts committed: | 48,148 | 165 | 4,840 | 53,153 |
| Less than 1 year | 29,268 | 165 | — | 29,433 |
| 2–5 years | 4,575 | — | — | 4,575 |
| After 5 years | 14,305 | — | 4,840 | 19,145 |
| **2012** | | | | |
| Total amounts committed: | 57,885 | 162 | 4,840 | 62,887 |
| Less than 1 year | 38,982 | 162 | — | 39,144 |
| 2–5 years | 2,888 | — | — | 2,888 |
| After 5 years | 16,015 | — | 4,840 | 20,855 |

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 $75,000 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 assumes that the Company will be able to remediate the pile using a long term control license. In 2009, the governing party responsible for this site changed and the new governing party determined that this remediation is not satisfactory and issued a requirement that the Company remediate using a second alternative. The second alternative is an offsite disposal alternative which could potentially cost from $25,000 - $70,000. The Company has been successful in its legal challenges to the oversight party, although these are ongoing, and believes that the long term control license will be the final enforced remediation methodology and that the offsite disposal option will not be legally required.

As discussed in note 26, a German subsidiary of the Company has a sewer system liability, which is in the process of being remediated. Based on the liability associated with the sewer, it is also believed that there may be a groundwater contamination issue. This German subsidiary has not received a demand from the government with respect to any potential groundwater contamination and it has recorded no provision for this, but it is expected that some remediation will eventually be required. The Company believes that the maximum exposure related to this contamination is $10,000.

#### TAXATION

A subsidiary filed for a tax domination agreement in its local jurisdiction in 2007. The Company has recognized the benefits of this agreement since its inception. This agreement has never been challenged by the tax authorities, even during recent audits, but there is a potential that it may be challenged which could lead to taxes and penalties approximating $9,400. The Company has not provided for this contingency as it believes that the likelihood of a negative result is remote.

There are two outstanding sales tax cases with a subsidiary in Brazil whereby the authorities allege that $5,164 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, 2013 as the probability to pay these amounts is remote.

#### 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 $933 and $66,336 for unrealized estimated earnings with respect to the former joint venture. The German subsidiary had recognized a provision after the litigation had started in 2005, but released the entire amount in a prior year based on an assessment supported by legal counsel. On January 14, 2014, the German subsidiary received an Italian court ruling in the matter to pay the amount of $933, while they received a favorable ruling related to the $66,336. Based on the confirmation of legal counsel, the requested commission fee would only have been payable if the project would have been realized. Since the project has never been started and therefore has not been realized by the subsidiary, they would have no legal or contractual obligation to pay the commission fee. From the Company's perspective, this fact was not appropriately and sufficiently considered by the Italian judge in the first court ruling. 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.

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 potentially 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.

### Contingencies of former associates and joint ventures

Timminco and certain of its directors and officers, as well as certain other parties, were named as defendants in a potential class action lawsuit filed in the Ontario Superior Court of Justice on May 14, 2009. The plaintiff brought the action on behalf of shareholders who acquired Timminco's securities between March 17, 2008 and November 11, 2008 and claimed damages exceeding $540 million. The plaintiff alleged that Timminco and others made certain misrepresentations about Bécancour Silicon's solar grade silicon production process. On January 3, 2012, an Ontario Court stayed the lawsuit as against Timminco and its officers and directors named as Defendants. On February 16, 2012, the Ontario Court of Appeal imposed a statute bar on a portion of the lawsuit as pleaded by the plaintiff. The Plaintiff has moved for the Stay Order to be lifted, but no decision has been released by the Ontario Court. The Company is not named as a Defendant in the lawsuit. No provision has been made for this matter as AMG has an insurance policy which will provide reimbursement for any 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

As at December 31, 2013 and 2012, Dr. Schimmelbusch is the Chief Executive Officer for the Company, and in his position receives salary, benefits and perquisites from the Company.

In addition to their salaries, the Company also provides non-cash benefits to directors and executive officers, and contributes to a post-employment defined benefit plan on their behalf.

The compensation of the management board of the Company comprised:

| | Salaries and bonus | Share-based compensation | Post-employment benefits including contributions to defined contribution plans | Other remuneration[c] | Total |
|---|---|---|---|---|---|
| **For the year ended December 31, 2013** | | | | | |
| Heinz Schimmelbusch | 1,954 | 1,352 | 269 | 100 | 3,675 |
| Eric Jackson | 1,022 | 433 | 349 | 40 | 1,844 |
| Amy Ard (a) | 714 | 232 | 154 | 14 | 1,114 |
| William Levy (b) | 226 | 3 | — | 6 | 235 |
| Total | 3,916 | 2,020 | 772 | 160 | 6,868 |
| **For the year ended December 31, 2012** | | | | | |
| Heinz Schimmelbusch (d) | 1,071 | 820 | 524 | 139 | 2,554 |
| Eric Jackson | 629 | 246 | 314 | 42 | 1,231 |
| Reinhard Walter (e) | 534 | 246 | 848 | 63 | 1,691 |
| William Levy | 539 | 154 | 234 | 29 | 956 |
| Total | 2,773 | 1,466 | 1,920 | 273 | 6,432 |

(a) Ms. Ard was appointed as Chief Financial Officer ("CFO") on May 13, 2013 and was appointed to the Management Board effective November 8, 2013. The amounts shown represent the amounts paid to her for the fiscal year ended December 31, 2013 without regards to her appointment date.

(b) Mr. Levy stepped down from his position as CFO and Management Board member effective May 13, 2013. This led to a reversal of a portion of the accrual related to his postretirement benefits in the amount of $424, which is shown as nil for purposes of this tabular presentation. Conditional payments of $400 were made in the year ended December 31, 2013 in line with the terms of his supplemental retirement benefit. An additional $400 in payments will be made in 2014 to close out this liability.

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

(d) Dr. Schimmelbusch also received compensation in 2012 from AMG Mining AG in his capacity as Supervisory Board member in the amount of $46.

(e) Dr. Walter was suspended from his responsibilities effective October 2, 2012.

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.

During the year ended December 31, 2013, William Levy resigned from the Management Board. In accordance with his employment contract, he will receive the following payments:

- Cash payments for severance, payments in lieu of notice and vacation amounting to $1,267, to be paid out over two years
- Performance share units paid out on a pro-rata basis according to the PSU plan in the amount of $119
- Additional perquisite benefits in the amount of $119

The compensation of the Supervisory Board of the Company comprised:

| **For the year ended December 31, 2013** | Cash remuneration | Share-based remuneration | Total compensation |
|---|---|---|---|
| Pedro Pablo Kuczynski | 95 | 79 | 174 |
| Jack L. Messman | 90 | 53 | 143 |
| General Wesley Clark[1] | 23 | — | 23 |
| Norbert Quinkert | 80 | 47 | 127 |
| Guy de Selliers | 80 | 47 | 127 |
| Martin Hoyos | 80 | 47 | 127 |
| Ute Wolf[2] | 38 | 32 | 70 |
| Steve Hanke [2] | 38 | 32 | 70 |
| Herb Depp [3] | 9 | 6 | 15 |
| Total | 533 | 343 | 876 |

(1) General Clark stepped down from the Supervisory Board effective May 3, 2013.

(2) Ute Wolf and Professor Steve Hanke were appointed to the Supervisory Board effective May 3, 2013.

(3) Herb Depp was appointed to the Supervisory Board effective November 8, 2013.

| For the year ended December 31, 2012 | Cash remuneration | Share-based remuneration | Total compensation |
|---|---|---|---|
| Pedro Pablo Kuczynski | 95 | 64 | 159 |
| Jack L. Messman | 90 | 44 | 134 |
| General Wesley Clark | 60 | 39 | 99 |
| Norbert Quinkert | 80 | 39 | 119 |
| Guy de Selliers | 80 | 39 | 119 |
| Martin Hoyos | 60 | 39 | 99 |
| Total | 465 | 264 | 729 |

| 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[c] | Total |
|---|---|---|---|---|---|
| December 31, 2013 | 4,449 | 2,363 | 772 | 160 | 7,744 |
| December 31, 2012 | 3,238 | 1,730 | 1,920 | 273 | 7,161 |

#### 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 preference 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, 2013, the amounts paid by the Company to or on behalf of the Foundation were $64 (2012: $64).

#### ACQUISITION OF BUSINESS OF INTELLIFAST GMBH

On October 5, 2011, the Company acquired all of the assets and assumed certain liabilities of Intellifast GmbH ("Intellifast"), a subsidiary of Safeguard International, which was the former parent of the Company, prior its initial public offering. The Chief Executive Officer of the Company was also a Managing Director of Safeguard International.

Due to a lack of profitability within this business, impairment tests using value in use were performed in the years ended December 31, 2013 and 2012. The result of the impairment tests was an impairment expense of $540 (2012: $4,114). This impairment charge was based on the inability of the business to generate cash flows which would recover its carrying value. See note 13 for additional details of this impairment test.

#### OTHER TRANSACTIONS

The Company leases space in Frankfurt, Germany from a partnership, in which the Company's Chief Executive Officer has an interest. Rent paid for this office space was $90 during the year ended December 31, 2013 (2012: $87).

Subsequent to the Company's acquisition of Intellifast, certain office space and services continued to be provided by PFW Aerospace AG ("PFW"). Rent and services of $343 (2012: $279) were charged by PFW but nil was due to PFW as of December 31, 2013 (2012: nil). The Chief Executive Officer of the Company has an indirect ownership interest in PFW.

The Company has a small payroll processing function that processes payroll and administers the benefits of certain employees (less than 10) who are employed by Allied Resources ("Allied") or Puralube GmbH ("Puralube"). The Chief Executive Officer of the Company is the Chairman of the Board for Allied and Puralube. There are no amounts outstanding as of December 31, 2013 or 2012 from Allied or Puralube.

The Company paid service fees of $113 to PA Capital GmbH ("PA Capital") during the year ended December 31, 2013 (2012:$107). Services provided included secretarial work and the rental of a conference room in Frankfurt, Germany. The Chief Executive Officer of the Company has an indirect ownership interest in PA Capital.

All outstanding balances with these related parties are priced on an arm's length basis. None of the balances are secured.

## 37. Subsequent events

As detailed further in note 35, on January 14, 2014, a German subsidiary received an Italian court ruling in a matter to pay the amount of $933 related to a claim for a commission from a former joint venture partner. Based on the confirmation of legal counsel, the requested commission fee would only have been payable if the project would have been realized. Since the project has never been started and therefore has not been realized by the subsidiary, they would have no legal or contractual obligation to pay the commission fee. From the Company's perspective, this fact was not appropriately and sufficiently considered by the Italian judge in the first court ruling. Our legal counsel has determined a likelihood of more than 50% that the German subsidiary will succeed in an appeal and believes that the claim is without merit.

# Parent Company Financial Statements

## AMG Advanced Metallurgical Group, N.V. — Parent Company Statement of Financial Position

(AFTER PROFIT APPROPRIATION)

| As at December 31 | Note | 2013 | 2012 |
|---|---|---|---|
| In thousands of US Dollars | | | Restated* |
| **Assets** | | | |
| Investments in subsidiaries | 4 | 45,539 | 79,276 |
| Loans due from subsidiaries | 4 | 177,921 | 176,636 |
| Deposits | 5 | 84 | 84 |
| **Financial Fixed Assets** | | 223,544 | 255,996 |
| Property, plant and equipment, net | 2 | 292 | 392 |
| Intangible assets, net | 3 | 102 | 77 |
| **Total non-current assets** | | 223,938 | 256,465 |
| Trade and related party receivables | 6 | 11,277 | 23,338 |
| Loans due from subsidiaries | 4 | 123,910 | 126,315 |
| Prepayments | 7 | 668 | 603 |
| Cash and cash equivalents | 8 | 3,699 | 7,236 |
| **Total current assets** | | 139,554 | 157,492 |
| **Total assets** | | 363,492 | 413,957 |
| **Equity** | | | |
| Issued capital | 9 | 744 | 743 |
| Share premium | 9 | 382,518 | 382,176 |
| Share based payment reserve | 9 | 47,844 | 46,819 |
| Foreign currency translation reserve | 9 | (11,439) | (12,279) |
| Unrealized (losses) gains reserve | 9 | (6,978) | (8,793) |
| Legal participations reserve | 9 | 5,884 | 4,021 |
| Capitalized development expenditures reserve | 9 | 727 | 2,572 |
| Defined benefit obligation reserve | 9 | (40,643) | (42,249) |
| Retained earnings (deficit) | | (246,304) | (204,565) |
| **Total equity attributable to shareholders of the Company** | | 132,353 | 168,445 |
| **Provisions** | | | |
| Provision for negative participation | 4 | 67,283 | 58,747 |
| **Liabilities** | | | |
| Long term debt | 10 | 137,701 | 172,945 |
| Derivative financial instruments | 13 | 3,418 | 4,845 |
| **Total non-current liabilities** | | 141,119 | 177,790 |
| Current portion of long term debt | 10 | 8,604 | — |
| Taxes and premium | | 87 | 92 |
| Trade and other payables | 11 | 7,859 | 4,830 |
| Amounts due to subsidiaries | 12 | 6,065 | 3,341 |
| Derivative financial instruments | 13 | 122 | 712 |
| **Total current liabilities** | | 22,737 | 8,975 |
| **Total liabilities** | | 231,139 | 245,512 |
| **Total equity, provisions and liabilities** | | 363,492 | 413,957 |

## AMG Advanced Metallurgical Group, N.V. — Parent Company Income Statement

| In thousands of US Dollars | 2013 | 2012 |
|---|---|---|
| | | Restated* |
| (Loss) income from subsidiaries, after taxes | (30,907) | 7,979 |
| Other income and expenses, net | (10,631) | (5,136) |
| Net (loss) income | (41,538) | 2,843 |

* Certain amounts shown here do not correspond to the 2012 Parent Company financial statements and reflect adjustments. Refer to note 3.s in the consolidated financial statements.

The notes are an integral part of these financial statements.

# Notes to Parent Company Financial Statements

## 1. Summary of significant accounting policies

For details of the Company and its principal activities, reference is made to the Consolidated Financial Statements.

The parent company financial statements have been prepared in accordance with Part 9 of Book 2 of the Netherlands Civil Code, as generally accepted in the Netherlands. In accordance with the provisions of article 362-8 of Book 2 of the Netherlands Civil Code, the accounting policies used in the financial statements are the same as the accounting policies used in the Notes to the Consolidated Financial Statements, prepared under IFRS as endorsed by the European Union. Investments in subsidiaries are valued at their net equity value including allocated goodwill.

For a listing of all material operating entities in which the Company has an ownership interest, please refer to note 1 in the consolidated financial statements. The Company has filed a complete list of entities in which AMG has an ownership interest with the Dutch Chamber of Commerce.

As of December 31, 2013, the statement of financial position has been converted to USD from Euros using a conversion rate of EUR:USD of 1.3766 (2012: 1.3215).

## 2. Property, plant and equipment

| Cost | Leasehold improvements | Machinery and equipment | Office furniture | Total |
|---|---|---|---|---|
| **Balance January 1, 2012** | 599 | 91 | 406 | 1,096 |
| Additions | — | — | 50 | 50 |
| **Balance at December 31, 2012** | 599 | 91 | 456 | 1,146 |
| **Balance January 1, 2013** | 599 | 91 | 456 | 1,146 |
| Additions | — | — | 20 | 20 |
| **Balance at December 31, 2013** | 599 | 91 | 476 | 1,166 |
| Depreciation | | | | |
| **Balance at January 1, 2012** | (409) | (91) | (88) | (588) |
| Depreciation | (120) | — | (46) | (166) |
| **Balance at December 31, 2012** | (529) | (91) | (134) | (754) |
| **Balance at January 1, 2013** | (529) | (91) | (134) | (754) |
| Depreciation | (70) | — | (50) | (120) |
| **Balance at December 31, 2013** | (599) | (91) | (184) | (874) |
| **Carrying amounts** | | | | |
| At January 1, 2012 | 190 | — | 318 | 508 |
| At December 31, 2012 | 70 | — | 322 | 392 |
| At January 1, 2013 | 70 | — | 322 | 392 |
| At December 31, 2013 | — | — | 292 | 292 |

All property, plant and equipment is pledged as collateral under the AMG Revolving Credit Facility.

## 3. Intangible assets

Intangible assets include computer and software licenses. They are carried at amortized cost and are amortized over their anticipated useful life.

| Cost | |
|---|---|
| **Balance January 1, 2012** | 419 |
| Additions | 60 |
| **Balance at December 31, 2012** | 479 |
| **Balance January 1, 2013** | 479 |
| Additions | 54 |
| **Balance at December 31, 2013** | 533 |
| Amortization | |
| **Balance at January 1, 2012** | (346) |
| Amortization | (56) |
| **Balance at December 31, 2012** | (402) |
| **Balance at January 1, 2013** | (402) |
| Amortization | (29) |
| **Balance at December 31, 2013** | (431) |
| At January 1, 2012 | 73 |
| At December 31, 2012 | 77 |
| At January 1, 2013 | 77 |
| At December 31, 2013 | 102 |

## 4. Financial fixed assets

### INVESTMENTS IN SUBSIDIARIES

The movement in subsidiaries was as follows:

| | Investment in subsidiaries | Provision for negative participation | Total |
|---|---|---|---|
| **Balance at January 1, 2012** | 93,304 | (50,947) | 42,357 |
| Change in accounting policy (Restated*) | (19,082) | (1,948) | (21,030) |
| **Balance at January 1, 2012 (Restated*)** | 74,222 | (52,895) | 21,327 |
| Dilution of equity related to squeeze-out | (9,452) | — | (9,452) |
| Dividend received from subsidiary | (5,000) | — | (5,000) |
| Investment in companies | 17,337 | — | 17,337 |
| Subsidiary options | 1,035 | — | 1,035 |
| Profit for the period | 7,979 | — | 7,979 |
| Deferred losses on derivatives | 7,828 | — | 7,828 |
| Pension adjustment impact on OCI | (21,219) | — | (21,219) |
| Other | (8) | — | (8) |
| Currency translation adjustment | 702 | — | 702 |
| **Balance at December 31, 2012 (Restated*)** | 73,424 | (52,895) | 20,529 |
| Reclassification for provision for negative participation: | | | |
| Provision for negative participation | 5,852 | (5,852) | — |
| **Balance at December 31, 2012** | 79,276 | (58,747) | 20,529 |
| **Balance at January 1, 2013** | 79,276 | (58,747) | 20,529 |
| Dividend received from subsidiary | (9,000) | — | (9,000) |
| Investment in companies | 392 | — | 392 |
| Subsidiary options | 478 | — | 478 |
| Profit for the period | (30,907) | — | (30,907) |
| Deferred losses on derivatives | 389 | — | 389 |
| Pension adjustment impact on OCI | 1,606 | — | 1,606 |
| Other | (197) | — | (197) |
| Currency translation adjustment | (5,034) | — | (5,034) |
| **Balance at December 31, 2013** | 37,003 | (58,747) | (21,744) |
| Reclassification for provision for negative participation: | | | |
| Provision for negative participation | 8,536 | (8,536) | — |
| **Balance at December 31, 2013** | 45,539 | (67,283) | (21,744) |

* Certain amounts shown here do not correspond to the 2012 Parent Company financial statements and reflect adjustments. Refer to note 3.s in the consolidated financial statements.

### DEFERRED GAINS/LOSSES ON DERIVATIVES

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.

### SUBSIDIARY OPTIONS

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.

### DILUTION OF EQUITY

In the year ended December 31, 2012, AMG completed the squeeze-out of non-controlling shareholders at one of its subsidiaries. This transaction was accounted for through equity. The result of this transaction was a dilution of the Company's equity in the amount of $9,452 as of December 31, 2012. See note 5 to the consolidated financial statements for additional details.

#### LOANS DUE FROM SUBSIDIARIES

| | Non-current loans due from subsidiaries | Current loans due from subsidiaries | Total |
|---|---|---|---|
| **Balance at January 1, 2012** | 131,409 | 126,228 | 257,637 |
| Loans | 40,749 | — | 40,749 |
| Currency translation adjustment | 4,478 | 87 | 4,565 |
| Balance at December 31, 2012 | 176,636 | 126,315 | 302,951 |
| Balance at January 1, 2013 | 176,636 | 126,315 | 302,951 |
| **Loans** | 4,138 | 1,500 | 5,638 |
| **Repayments** | (9,990) | (3,976) | (13,966) |
| Accrual of interest | 197 | — | 197 |
| Currency translation adjustment | 6,940 | 71 | 7,011 |
| **Balance at December 31, 2013** | 177,921 | 123,910 | 301,831 |

There are two non-current loans due from a German subsidiary, which is a holding company for many German companies within the group, and two loans due from subsidiaries in Brazil. The first loan to the German holding company has an interest rate of 7.5% and a term through December 31, 2018. The second German loan has an interest rate of 4.5% and a term through June 30, 2017. The loan to the first Brazilian subsidiary has a term through April 8, 2017 with an interest rate of 8.8%. The loan to the second Brazilian subsidiary has a term through April 7, 2016 with an interest rate of 6.85%. Current loans are due from several subsidiaries in Europe and the US. Loans in the amount of $123,910 (2012: $126,315) 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 5.61-6.85% at December 31, 2013 (5.88-6.69% at December 31, 2012).

## 5. Deposits

The deposit account includes security deposits for the Amsterdam and Frankfurt office locations of the Company.

## 6. Receivables from associates and related parties

Trade and related party receivables of $11,277 (2012: $23,338) primarily represents interest owed to the Company on loans due from subsidiaries $10,227 (2012: $11,065), debt issuance costs billed to a subsidiary of nil (2012: $5,922) and management fees owed $710 (2012: $5,942). 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.

## 7. Prepayments

At December 31, 2013 and 2012, prepayments primarily represent prepaid insurance and prepaid rent for the Company.

## 8. Cash and cash equivalents

Bank balances earn interest at floating rates based on daily bank deposit rates.

## 9. Shareholders' equity and other capital reserves

For the statement of changes in consolidated equity for the year ended December 31, 2013, please refer to page 69 in the consolidated financial statements. Additional information on shareholders' equity is disclosed in note 20 to the consolidated financial statements.

### OTHER RESERVES

| | | Legal Reserves | | | | |
|---|---|---|---|---|---|---|
| | Share-based payment reserve | Foreign currency translation reserve | Unrealized (losses) gains reserve | Legal participations reserve | Capitalized development expenditures reserve | Defined benefit obligation reserve |
| **Balance at January 1, 2012** | 44,802 | (15,054) | (15,591) | 10,239 | 2,375 | — |
| Change in accounting policy (Restated*) | — | — | — | — | — | (21,030) |
| **Balance at January 1, 2012 (Restated*)** | 44,802 | (15,054) | (15,591) | 10,239 | 2,375 | (21,030) |
| Currency translation differences | — | 2,775 | — | — | — | — |
| Movement on cash flow hedges | — | — | 8,827 | — | — | — |
| Tax effect on net movement on cash flow hedges | — | — | (2,029) | — | — | — |
| Transfer to retained deficit | — | — | — | (6,218) | 197 | — |
| Equity-settled share-based payments | 2,017 | — | — | — | — | — |
| Actuarial losses | — | — | — | — | — | (21,219) |
| **Balance at December 31, 2012 (Restated*)** | 46,819 | (12,279) | (8,793) | 4,021 | 2,572 | (42,249) |
| **Balance at January 1, 2013** | 46,819 | (12,279) | (8,793) | 4,021 | 2,572 | (42,249) |
| Currency translation differences | — | 840 | — | — | — | — |
| Movement on cash flow hedges | — | — | 1,332 | — | — | — |
| Tax effect on net movement on cash flow hedges | — | — | 483 | — | — | — |
| Transfer to retained deficit | — | — | — | 1,863 | (1,845) | — |
| Equity-settled share-based payments | 1,025 | — | — | — | — | — |
| Actuarial gains | — | — | — | — | — | 1,606 |
| **Balance at December 31, 2013** | 47,844 | (11,439) | (6,978) | 5,884 | 727 | (40,643) |

* Certain amounts shown here do not correspond to the 2012 Parent Company financial statements and reflect adjustments. Refer to note 3.s in the consolidated financial statements.

### 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 consist of the cumulative translation adjustment reserve, the unrealized losses on derivatives reserve, the legal participation reserve and the capitalized development expenditure reserve. Legal reserves are non-distributable to the Company's shareholders.

### DEFINED BENEFIT OBLIGATION RESERVE

IAS 19R, as discussed further in note 24 to the consolidated financial statements, has been applied retrospectively from January 1, 2012. As a result, actuarial gains and losses are now recognized in other comprehensive income. The implementation of the transition to IAS 19R had the impact of restating equity attributable to shareholders, decreasing other reserves by $21,030. Actuarial gains on defined benefit plans for the year ended December 31, 2013 increased other reserves $1,606 while actuarial losses decreased other reserves $21,219 in the year ended December 31, 2012.

### DIVIDENDS

No dividends have been paid or proposed in the years ended December 31, 2013 and 2012.

#### 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.

## 10. Long term debt

On April 28, 2011, the Company entered into a five-year multicurrency term loan and revolving credit facility. The credit facility was composed of a €64,200 term loan and a $214,200 revolving credit facility ("Revolving Credit Facility"). The facility is structured to be able to increase borrowing capacity using an incremental term loan and revolving facility feature under certain conditions. In 2012, the Company utilized this feature to increase the term loan and revolver capacities to €100,850 and $243,000, respectively. Fees related to the amendment and utilization of the this feature in 2012 were $1,644 and are included in finance expense. The five-year facility terminates in April 2016. Installment payments for the term loan began in 2013 and as of December 31, 2013 the term loan balance outstanding was €79,600.

Borrowings under the revolving credit facility may be used for general corporate purposes of the Company. As of December 31, 2013, $131,380 was borrowed (excluding letters of credit) under the revolving credit facility (2012: $143,610). At December 31, 2013, there was unused availability (including unused letters of credit) of $71,693 (2012: $50,794).

Interest on the 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, 2013, the margin was 2.875 (2012: 2.625). To mitigate risk, the Company entered into an interest rate swap for €64,200 to fix the interest rate on the initial term loan at 5.62% The Company also used an interest rate swap for $95,000 of the Revolving Credit Facility to fix the interest rate at 4.85%.

The Credit Facility is subject to several affirmative and negative covenants including, but not limited to, the following (as currently amended):

- EBITDA to Net Finance Charges: Not to be less than 4.00:1
- Net Debt to EBITDA: Not to exceed 3.00:1
- Tangible Net Worth to Total Assets: Not be less than 17.5% for Q1 and Q2 2014 and 25.0% thereafter.

EBITDA, Net Finance Charges, Net Debt, Tangible Net Worth and Total Assets are defined in the Credit Facility agreement. Based on constant monitoring of its forecast and its covenant calculations, the Company determined it should seek a change to its debt covenants. Therefore, with the concurrence of its banking group, the Company amended the Credit Facility on March 4, 2013 to lower the minimum Tangible Net Worth to Total Assets ratio for an additional four quarters. The amended minimum ratios were as follows: 20.0% for 2013, 22.5% for Q1 and Q2 2014, and 25.0% thereafter. Fees related to this amendment were $933 and are included in finance expense.

On September 24, 2013, the Company amended and restated the Credit Facility due to a breach of the Tangible Net Worth to Total Assets covenant as of June 30, 2013, in order to adjust certain provisions for the strategic plans of the Company. Included in the amendments was a change to the Tangible Net Worth to Total Assets covenant. Previously, the minimum ratio for this covenant was 20.0% for 2013, 22.5% for the first two quarters of 2014 and 25.0% thereafter. The amendment decreased the minimum ratio to 16.0% for the remainder of 2013 and to 17.5% for Q1 and Q2 2014, and 25.0% thereafter. See note 2.c in the consolidated financial statements for further details. All other covenants remained unchanged. Fees related to this amendment were $1,114 and are included in finance expense. As part of this amendment, the Company decided to make a voluntary prepayment of €10,000 of the Term Facility on or before October 28, 2013 and €12,500 of the Term Facility on or before April 28, 2014, in addition to the regularly scheduled payments on these dates. The €10,000 payment and €6,250 of the second prepayment were made prior to December 31, 2013.

On October 9, 2012, the Company amended and restated the previous credit facility in order to adjust certain provisions for the strategic plans of the Company. Included in the amendments was a change to the Tangible Net Worth to Total Assets covenant. Fees related to this amendment were $1,212 and are included in finance expense.

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.

## 11. Trade and other payables

Trade and other payables represent amounts owed to professional service firms, accrued employee costs and accrued interest. See note 16.

## 12. Amounts due to subsidiaries

Certain payroll, travel and entertainment and other expenses are paid directly by two subsidiaries and billed to the Company at cost. As of December 31, 2013 and 2012, these amounted to $6,065 and $3,341, respectively.

## 13. Derivative financial instruments

Please refer to notes 32 and 33 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. The Company's foreign exchange forward contracts, although part of the risk management strategy are treated as economic hedges. The fair value of these contracts is recorded in the statement of financial position. As of December 31, 2013, the Company had a derivative financial instrument liability of $122 as compared to a liability of $712 as of December 31, 2012.

### INTEREST RATE SWAP

The Company uses an interest rate swap to hedge its cash flow related to interest payments owed on its long term debt. At the inception of the new Revolving Credit Facility, the Company entered into an interest rate swap to swap $95,000 of its variable rate debt into fixed rate debt with a rate of 2.10% (exclusive of margin). This hedge is treated as a cash flow hedge. The fair value of this contract is recorded in the statement of financial position. As of December 31, 2013, the fair value of this contract was a derivative liability of $3,418 (2012: $4,845). Since the hedge is effective, the changes in this instrument are recorded in equity as a deferred gain or loss on derivatives until the hedge is settled at which point, it will be recorded through the income statement.

## 14. 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:

| | **2013** | 2012 |
|---|---|---|
| Less than one year | 762 | 274 |
| Between one and five years | 1,214 | 725 |
| More than five years | — | 171 |
| Total | 1,976 | 1,170 |

## 15. Related parties

Key management compensation data is disclosed in note 37 of the consolidated financial statements. The crisis levy for the year ended December 31, 2013 is expected to be $44 (2012: $51). The majority of key management compensation is not sourced out of the Netherlands and therefore the crisis levy is only applicable to key management compensation to the extent of $275.

The Company entered into a cost compensation agreement with the Foundation dated December 22, 2010 (see note 10). 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, 2013, the Company funded $65 into an account for the expenses of the Foundation. Through December 31, 2012, the amounts paid by the Company on behalf of the Foundation were $64.

## 16. Employees

At December 31, 2013 the Company had 21 employees (2012:17), of which 3 are employed in the Netherlands.

## 17. Audit fees

Ernst and Young Accountants LLP has served as the Company's independent auditors for each of the two years in the periods ended December 31, 2013 and December 31, 2012. The following table sets forth the total fees in accordance with Part 9 of Book 2, article 382a of the Netherlands Civil Code.

| | **2013** | 2012 |
|---|---|---|
| Audit fees | 648 | 624 |
| Audit related fees | 10 | 64 |
| Other | — | — |
| Total | 658 | 688 |

## 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.

AMG's dividend policy is to retain future earnings to finance the growth and development of its business. As a result, the Management Board, with the approval of the Supervisory Board, has resolved that no dividend will be paid in respect of 2013 and that the 2013 net profit will be added to the retained earnings.

## Subsequent Events

As detailed further in note 35 to the consolidated financial statements, on January 14, 2014, a German subsidiary received an Italian court ruling in a matter to pay the amount of $933 related to a claim for a commission from a former joint venture partner. Based on the confirmation of legal counsel, the requested commission fee would only have been payable if the project would have been realized. Since the project has never been started and therefore has not been realized by the subsidiary, they would have no legal or contractual obligation to pay the commission fee. From the Company's perspective, this fact was not appropriately and sufficiently considered by the Italian judge in the first court ruling. Our legal counsel has determined a likelihood of more than 50% that the German subsidiary will succeed in an appeal and believes that the claim is without merit.

Amsterdam, March 27, 2014

# Independent Auditor's Report

## To: The Shareholders and Supervisory Board of AMG Advanced Metallurgical Group N.V.

### REPORT ON THE FINANCIAL STATEMENTS

We have audited the accompanying financial statements 2013 of AMG Advanced Metallurgical Group N.V., Amsterdam, The Netherlands. The financial statements include the consolidated financial statements and the parent company financial statements. The consolidated financial statements comprise the consolidated statement of financial position as at December 31, 2013, the consolidated income statement, the consolidated statements of comprehensive income, changes in equity and cash flows for the year then ended, and notes, comprising a summary of the significant accounting policies and other explanatory information. The parent company financial statements comprise the parent company statement of financial position as at December 31, 2013, the parent company income statement for the year then ended and the notes, comprising a summary of the accounting policies and other explanatory information.

### Management's responsibility

Management is responsible for the preparation and fair presentation of these financial statements in accordance with International Financial Reporting Standards as adopted by the European Union and with Part 9 of Book 2 of the Dutch Civil Code, and for the preparation of the management board report in accordance with Part 9 of Book 2 of the Dutch Civil Code. Furthermore management is responsible for such internal control as it determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

### Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. This requires that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error.

In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

### Opinion with respect to the consolidated financial statements

In our opinion, the consolidated financial statements give a true and fair view of the financial position of AMG Advanced Metallurgical Group N.V. as at December 31, 2013, its result and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union and with Part 9 of Book 2 of the Dutch Civil Code.

### Opinion with respect to the parent company financial statements

In our opinion, the parent company financial statements give a true and fair view of the financial position of AMG Advanced Metallurgical Group N.V. as at December 31, 2013 and of its result for the year then ended in accordance with Part 9 of Book 2 of the Dutch Civil Code.

### Emphasis with respect to the going concern assumption

We draw attention to note 2.c to the financial statements which includes information relating to the going concern assumption. Our opinion is not qualified in respect of this matter.

### REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

Pursuant to the legal requirement under Section 2:393 sub 5 at e and f of the Dutch Civil Code, we have no deficiencies to report as a result of our examination whether the management board report, to the extent we can assess, has been prepared in accordance with Part 9 of Book 2 of this Code, and whether the information as required under Section 2:392 sub 1 at b-h has been annexed. Further we report that the management board report, to the extent we can assess, is consistent with the financial statements as required by Section 2:391 sub 4 of the Dutch Civil Code.

Eindhoven, March 27, 2014
Ernst & Young Accountants LLP

/s/ W.T. Prins

# Shareholder Information

## Supervisory Board

**Pedro Pablo Kuczynski**
Selection and Appointment Committee

**Martin Hoyos**
Audit Committee (Chair)

**Jack L. Messman**
Remuneration Committee (Chair)

**Norbert Quinkert**
Selection and Appointment Committee (Chair)

**Guy de Selliers**
Risk Management Committee (Chair)

**Herb Depp**
Remuneration Committee

**Ute Wolf**
Audit Committee

**Steve Hanke**
Risk Management Committee

## Management Board

**Dr. Heinz Schimmelbusch**
Chairman and Chief Executive Officer

**Amy Ard**
Chief Financial Officer

**Eric Jackson**
Chief Operating Officer and
President, AMG Processing

Copies of the Annual Report and further information are obtainable from the Investor Relations Department of the Company
ir@amg-nv.com
or by accessing the Company's website
www.amg-nv.com

## 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

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AMG Advanced Metallurgical Group N.V.

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