






# this is the age

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Looking out the window mid-flight, you may not know about all of the lightweight, high-strength materials around you that are reducing fuel consumption and improving performance. With more than 100 years of metallurgical expertise, AMG is continuously developing new materials, changing what is possible. Aerospace is just the beginning. Scientifically engineered materials are essential everywhere you look—Tantalum in smart phones, Vanadium-strengthened steel supporting bridges and buildings, Cerium for the glasses you are wearing, Natural Graphite and Antimony in hybrid car batteries—advancements in material science are connecting and empowering us in new and exciting ways. This is the world we live in.

# of material science

## At a Glance

AMG provides material science based metallurgical solutions for energy, aerospace, infrastructure and specialty metals and chemicals markets.

## OUR DIVISIONS:

AMG operates three business units that apply material science to produce essential materials. Advanced Materials develops and produces critical raw materials and specialty metals, alloys, and coatings designed for demanding, high-stress environments. Engineering Systems designs and produces advanced vacuum furnaces used to create high purity metals and operates vacuum heat treatment facilities. Graphit Kropfmühl produces silicon metal and is a vertically integrated producer of natural graphite.

## ADVANCED MATERIALS



## AMG participates in the value chains of these critical materials

AMG's material science expertise extends across a broad spectrum of minor metals, many of which suffer from scarcity of secure supply. AMG's unique market position in these minor metals' value chains includes secure raw material supplies, recycling services, conversion processing and vacuum technology used in all aspects of the production of these critical materials.

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Using secure raw material strategies, vertical and horizontal industry consolidations and investments in technology, AMG produces products that contribute to CO<sub>2</sub> reduction.

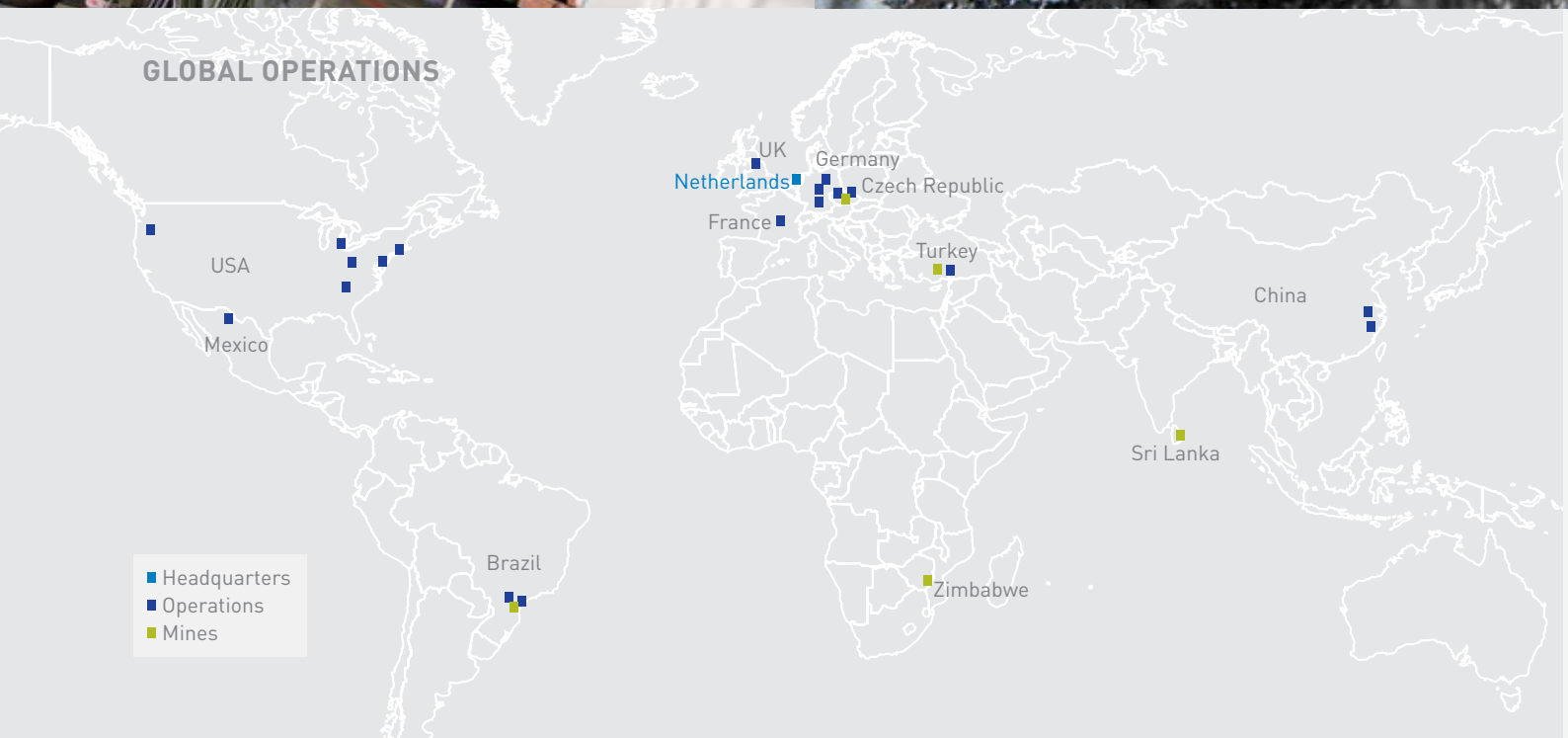
**ENGINEERING SYSTEMS**



**GRAPHIT KROPFMÜHL**



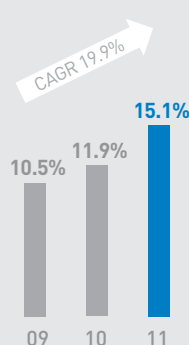
**GLOBAL OPERATIONS**



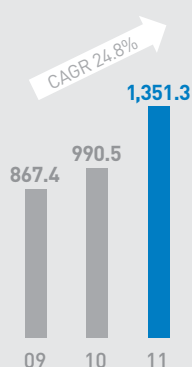
# Financial and Operational Highlights

↑27%  
2011 Increase in ROCE

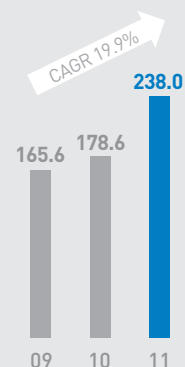
Return on Capital Employed (ROCE)



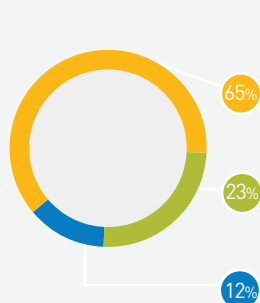
Revenue \$M



Gross Profit \$M



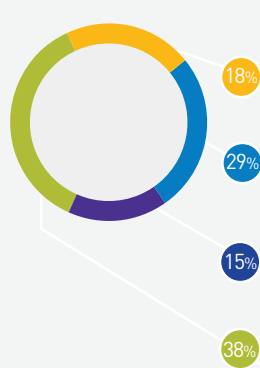
Consolidated Revenue 2011



\$M

Advanced Materials	872.0	10 616.3 11 872.0	↑41%
Engineering Systems	313.8	10 245.6 11 313.8	↑28%
Graphit Kropfmühl	165.5	10 128.6 11 165.5	↑29%

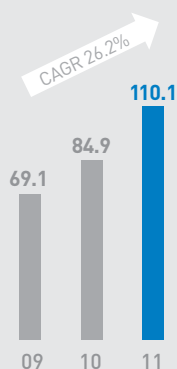
Revenue by End Market 2011



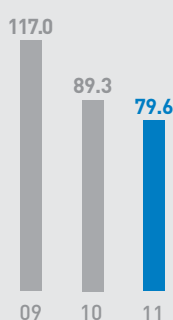
\$M

Energy	243.2	10 211.2 11 243.2	↑15%
Aerospace	385.5	10 258.8 11 385.5	↑49%
Infrastructure	196.6	10 162.7 11 196.6	↑21%
Specialty Metals & Chemicals	526.0	10 357.8 11 526.0	↑47%

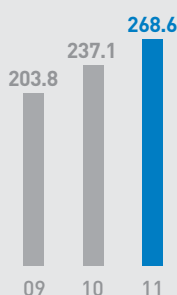
EBITDA \$M



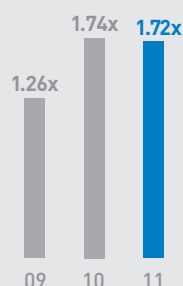
Cash \$M



Debt \$M



Net Debt to EBITDA



## ADVANCED MATERIALS

**\$255.7 million** increase in revenue, up **41%** from 2010

**\$10.6 million** increase in EBITDA, up **27%** from 2010

- Acquired KB Alloys, the North American market leader in the production of aluminum master alloys and grain refiners
- Entered into long-term sales contracts for tantalum concentrate in early 2011
- Launched the accelerated global EHS initiatives with implementation targets for ISO 14001 and OHSAS 18001
- Expanding spent catalyst processing capacity for the production of vanadium—expected completion in the fourth quarter 2012
- Conducting extensive antimony drilling and exploration program at the mine in Turkey and produced 34,000 tons of antimony ore in 2011
- Conducting strategic re-alignment of Advanced Materials Division to create an AMG Mining reporting segment

## GRAPHIT KROPFMÜHL

**\$37.0 million** increase in revenue, up **29%** from 2010

**\$18.2 million** increase in EBITDA, up **239%** from 2010

- Entered into a long-term silicon metal sales contract with a global specialty metals company
- AMG initiated a voluntary tender offer for the remaining 11.84% outstanding shares of Graphit Kropfmühl AG for a price of €31.75 per share on March 14, 2012. This is the next step in AMG's strategy to simplify its corporate structure by consolidating all operating activities under one public entity

## ENGINEERING SYSTEMS

**\$68.2 million** increase in revenue, up **28%** from 2010

**\$34.0 million** in EBITDA, **11%** of revenue

- Formed a 65% owned production company in Shanghai, with a long-term local partner, to strengthen AMG's Asian market presence
- Increased nuclear revenues by 95% in 2011 due to sales of furnaces for the recycling of weapons grade plutonium and nuclear fuel products that reduce CO<sub>2</sub> emission in power generation
- Granted U.S. Patent No. 8,048,221 for Mono<sup>2</sup>(TM), mono-crystalline growth methods
- Entered into a joint development project of the impermeable graphite matrix technology for safe storage of nuclear wastes in cooperation with Spanish government agencies
- Completed the buildout of heat treatment service facilities in the U.S. and Mexico



## Letter to Shareholders



2011 was a successful year. AMG generated improved financial results, made progress in the execution of capital projects, and advanced towards our sustainability goals. Adjusted EBITDA increased 30% to \$110.1 million, following a 23% increase in 2010. Return on Capital Employed (ROCE) increased to 15.1%, up from 11.9% in 2010.

Net working capital days decreased to 65 days. Revenue per employee increased from \$370,000 in 2010 to \$428,000 in 2011. The Advanced Materials Division's performance improved, with antimony, chrome metal, titanium alloys and coatings driving growth. The Engineering Systems Division experienced strong growth in the Heat Treatment business, both in engineering and in Heat Treatment Services. Graphit Kropfmühl AG had a record year.



FINANCIAL KPIs	2009	2010	2011	CAGR
Revenue	\$867.4 M	\$990.5 M	\$1,351.3 M	24.8%
Gross Profit	\$165.6 M	\$178.6 M	\$238.0 M	19.9%
EBITDA	\$69.1 M	\$84.9 M	\$110.1 M	26.2%
EBITDA Margin	8.0%	8.6%	8.2%	1.2%
ROCE	10.5%	11.9%	15.1%	19.9%

In 2011, AMG made substantial progress on our strategic projects. One significant project, the \$17 million expansion of the vanadium recycling facility, will double the recycling capacity for the processing of spent catalysts from oil refineries by the end of 2012. In Engineering Systems, the primary project has been the expansion of the Heat Treatment Service business driven by the growing market of small, high efficiency automotive engines. In mining, we continue to expand the antimony mine and smelter in Turkey and develop natural graphite projects in Africa.

AMG's publicly listed affiliate, Timminco Limited announced that it decided to seek protection from its creditors under the Canadian Companies' Creditors Arrangement Act on January 3, 2012 due to reduced cash flows from Timminco's silicon metal operations combined with deterioration in the global solar market. In view of the uncertain market dynamics and AMG's overall investment priorities, AMG decided not to commit further resources to Timminco. AMG subsequently wrote off its investment in Timminco resulting in an \$8.1 million noncash expense, which is included in the share of loss of associates line in the income statement. AMG also recorded a \$7.5 million bad debt expense in selling, general and administrative expenses related to the book value of a convertible note and receivables due from Timminco. AMG has no further assets on its balance sheet related to Timminco.

On March 14, 2012, AMG initiated a voluntary tender offer for all of the outstanding shares of Graphit Kropfmühl AG at a price of €31.75 per share. Prior to initiation of the voluntary tender, AMG owned 88.16% of Graphit Kropfmühl. This is the next step in AMG's strategy to simplify its corporate structure by consolidating all operating activities under one public entity.

## Management

In 2011, AMG assigned one member of the Management Board, Mr. Eric Jackson, as Chief Operating Officer ("COO"). In this position Mr. Jackson, with his wealth of experience in the industry, will work to create incremental value. Specifically, as COO, he is responsible for the company's day-to-day operating activities, including revenue and sales growth, expense and

margin control, and achieving budgets. Mr. Jackson will also develop and execute efficiency initiatives for AMG's products and services. The goal of these initiatives is to improve AMG's profitability. AMG will target a ROCE above 15% and EBITDA growth in 2012.

Also in 2011, AMG complemented and deepened its senior management team. AMG has welcomed, among others, Dr. Markus Holz, former CEO of Thyssen Krupp Titanium, as a Managing Director of the Engineering Systems Division; and Mr. Frank Berger, former CFO and Managing Director of a German Tier I automotive supplier, as Member of the Management Board of Graphit Kropfmühl; and, through acquisitions, Mr. Rick Malliris, CEO of KB Alloys and Mr. Frank Scheuch, CEO of AMG Intellifast.

In March 2012, AMG appointed Mr. Hoy Frakes as President of AMG Mining. Mr. Frakes joined AMG in 2000 and his latest leadership role was as President of AMG Vanadium, Inc. Mr. Frakes will bring his extensive expertise in mining and metallurgical applications to improving mining operational efficiencies at AMG's existing antimony and tantalum mines. Mr. Frakes assumes leadership from Mr. Gareth Penny, whose guidance and expertise positioned AMG Mining for future growth.

## The Value of Value Chains

The pending merger between Glencore and Xstrata has activated a century old discussion about the relative value of the different building blocks in natural resource value chains and the relative contribution of those building blocks to the total value of a material or metal. In the copper value chain there is a mine, producing concentrates; a smelter & refinery, turning concentrates into metal; a fabricator of copper products; and finally a trader, facilitating the transactions between those upgrading steps and providing market liquidity. The "smelting & refining charge" is an expression of the relative contribution of the "smelter & refinery" to the value of the metal, determined by the market as a percentage of the copper price.

Over generations, the German and Japanese trading houses focused on the service model, taking equity stakes in overseas mines, acting as sales agent or as underwriters, arranging engineering support, logistics, project financing, trade finance support, insurance, and so on. In that model, the smelter was the center of the value chain. In contrast, the British-American model was mine centered, partly explained by the history of mine ownership around the world.

In AMG's minor metals the value chain is dominated by process technology. There is no standard concentrate produced using off-the-shelf process technology and the concentrates are not transacted via uniform contract templates. The ores in minor metals typically are complex, frequently with multi-metal content, significant impurities and contaminations. The concentrator facility usually is a custom design, developed in intensive technical communication with key customers who have to accept the quality as compatible with their upgrading flow sheets. The process technology and quality interface between the miner and the customer does not leave a lot of room for a trader. There is no "smelting & refining charge" determined by the market, instead, there is a lengthy individual negotiating process based on process technology on both sides and their implications on mining and processing costs along the value chain.

Given the extensive technical interface between mining and processing, the question of vertical integration in minor metals arises with its implication on long-term stability and efficiency. Vertical integration between mines and processors of concentrates also reduces the level of volatility in the value chain; although experience has it that negotiations between sister companies are more challenging than with third parties. Furthermore, the recent run on mining resources and the perception of potential minor metal scarcities has an increasing influence on decisions about value chain positioning. As the management expert Gary Hamel observed, business models appear in clusters, and presently many signs point towards a trend of vertical integration in minor metals, a conclusion validated by the recent wave of vertical integration announcements in this industry.

### Innovations in Advanced Metallurgy

AMG's material science based activities, which we summarize under the term "advanced metallurgy", are progressing along four frontiers:

- The production and development of systems for alloys and alloying elements;
- The engineering, construction and development of vacuum furnace systems for such materials;
- The engineering for, and the operation of, surface treatment systems for parts produced from alloyed materials; and
- The development, engineering and application of new coating technologies for metallic and non-metallic surfaces.

AMG operates as both a producer and an engineering service provider in these areas. In the process flow of nickel based alloys, for example, for the use in turbine blades in stationary turbines and in jet engines, AMG is a producer of critical alloying elements, such as vacuum grade chrome metal, and niobium. AMG, as an engineering service provider, also supplies critical furnace equipment for melting those alloys, including vacuum induction, electroslag remelting, and vacuum arc remelting furnaces. In regard to lightweight titanium based alloys, such as gamma titanium materials used in aerospace turbine blades, AMG produces alloys and semi-finished products and provides engineering, vacuum furnace technology and centrifugal casting equipment used to produce materials that are sent to the engine producer for final machining.

The production of high purity industrial materials, alloys and semi-finished products, and the engineering of the necessary equipment is one frontier. The second frontier is surface treatment by which material properties are modified to improve wear resistance and other quality characteristics. AMG is the leading North American provider of vacuum carbonizing heat treatment services, for the new generation of high-efficiency, lightweight combustion engines. AMG operates as an engineering services provider, producing the furnaces, or operating them if the customer prefers an outsourcing model.

The third aspect of material science is improving high-temperature properties and wear-resistance of material surfaces. AMG provides coating equipment and coating materials and services such as thermal barrier coating systems for the ceramic coating of turbine blades or rotatable targets for large area thin film applications. AMG possesses a unique competitive advantage through the interaction of engineering and operations activities that push the advanced metallurgical frontiers. In summary, AMG's corps of engineers is progressing to accelerate innovations on all of these fronts.

### Social Responsibility

In 2011, AMG continued to make progress in sustainability and safety. We see these two areas as core values and view progress as fundamental to overall business excellence. Sustainability is a realization and formalization that these activities can dramatically improve not only the bottom line, but also the environment in which we live and the communities in which we operate—now and for future generations. AMG's

focus on sustainability is not solely focused on looking inward—indeed, even greater environmental and social impact can be seen by looking at the uses of our products and services.

NON-FINANCIAL KPIs	2009	2010	2011
GHG Emissions (mt/\$mm revenue)	144.9	148.5	123.5
Lost Time Accidents per 200,000 hrs worked	4.1	3.3	3.0

AMG is comprised of core technologies that provide superior capabilities in the metals, mining, chemical and engineering sectors. AMG has implemented a strategy to use these technologies to address some of the fundamental environmental and social challenges facing society today. The areas we focus on include clean energy generation, energy conservation (both through weight reduction in transportation and through energy savings in buildings), energy storage and recycling.

The Advanced Materials Division continuously increases its exposure to industrial wastes as raw materials for the production of valuable metal alloys. In 2012, AMG is expanding its capacity to recycle oil refinery spent catalysts into a number of products, including ferrovanadium alloys. In addition, AMG recycles vanadium slags, power plant residues, and titanium scrap, creating alloys and products used to reduce weight and save energy.

In Engineering Systems Division, a preeminent recycling technology project is designing and building a plant for the conversion of plutonium into MOX fuel in Savannah River, SC, USA. This project is a result of the 2000 Plutonium Management and Disposition Agreement between the USA and Russia for the disposition of enough plutonium to produce 17,000 nuclear weapons. This project simultaneously addresses numerous sustainability factors; it eliminates a disposal issue as the weapons grade material is repurposed for civilian power generation applications; it supplies fuel to the nuclear power industry, which despite challenges in recent months will remain an important part of addressing the world's need for near zero carbon energy generation; and it directly addresses the social and global security issue of nuclear proliferation.

Equally as important to our social responsibility approach is safety. Each year since AMG was formed we have seen improvements in our safety performance and this trend continued in 2011 with a further 10% reduction in lost time accident rates and a 15% improvement in lost time accident

severity rates. We have made great strides, and in January 2012, we had our safest month ever. Progress has been steady, and AMG is committed to achieving our goal of zero accidents. It is simply the right thing to do for our employees and for their families. During 2011, we refocused on safety training, safety inspections and near miss reporting. These proactive performance indicators are now linked directly to business unit leaders' compensation. Three of our largest manufacturing operations have now achieved formal OHSAS 18001 safety management systems and we are working to implement this company wide. These actions will continue to not only reduce injuries but also positively benefit the overall business. In April 2012, AMG will hold the second Safety and Sustainability Conference, bringing together management board members, business unit leaders, operational managers and safety and environmental professionals, to reinforce the importance of these areas not only to AMG but also to me personally.

We remain committed to making our products ethically and expect all employees to follow a strict code of business conduct, consistent with international standards of human rights. We continue to demonstrate our commitment to safe, sustainable and ethical operations through the membership in three organizations – the United Nations Global Compact, the Extractive Industries Transparency Initiative and as Organizational Stakeholders in the Global Reporting Initiative.

## Outlook

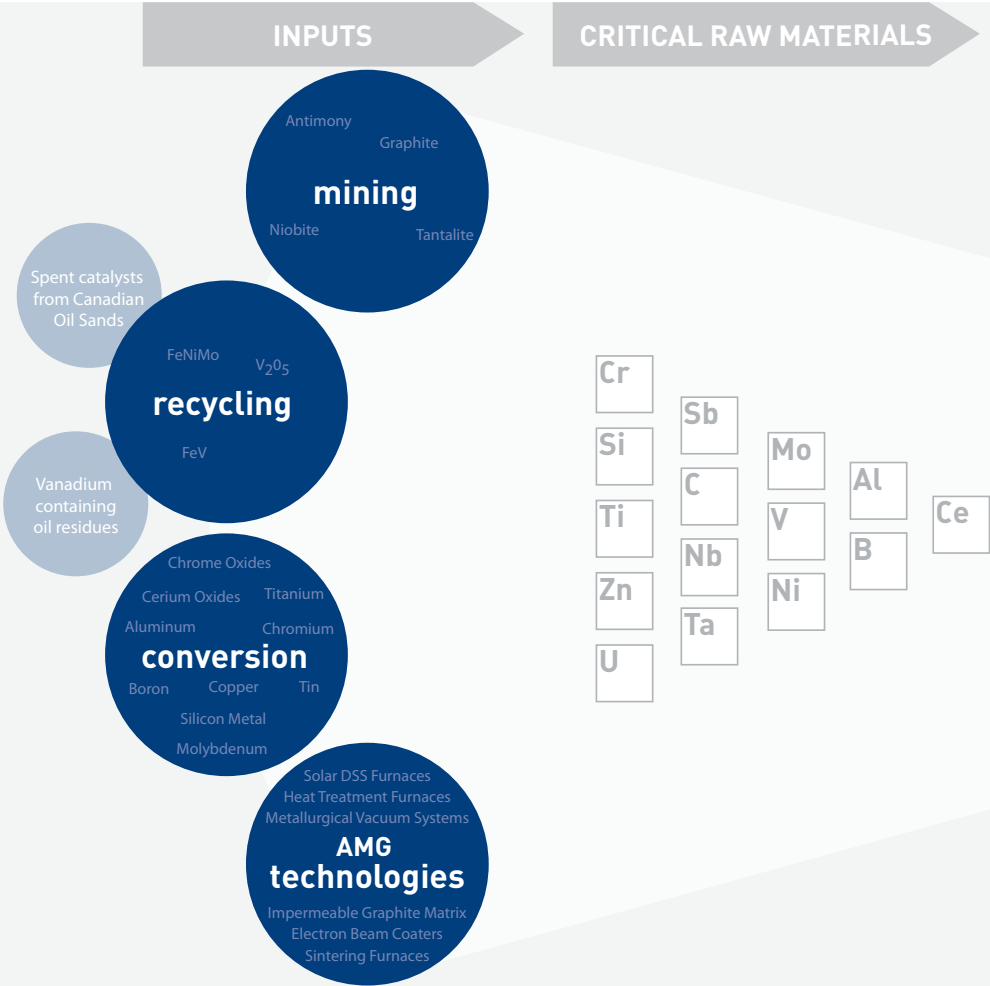
The global economy is slowly moving amongst various fault lines, which may be crossing: rising oil prices, Greek debt, Iran, China growth and the EU – USA economic malaise to name a few. This is an unusual combination of events. Accordingly, it is extraordinarily difficult to give guidance. On the positive side, however, the aerospace end market, which in 2011 generated 1/3 of AMG's gross margin, is strong. AMG's portfolio structure also is a strength in times like these. Therefore, in 2012 it is our objective to exceed 2011 EBITDA and ROCE levels.



Dr. Heinz C. Schimmelbusch  
Chief Executive Officer

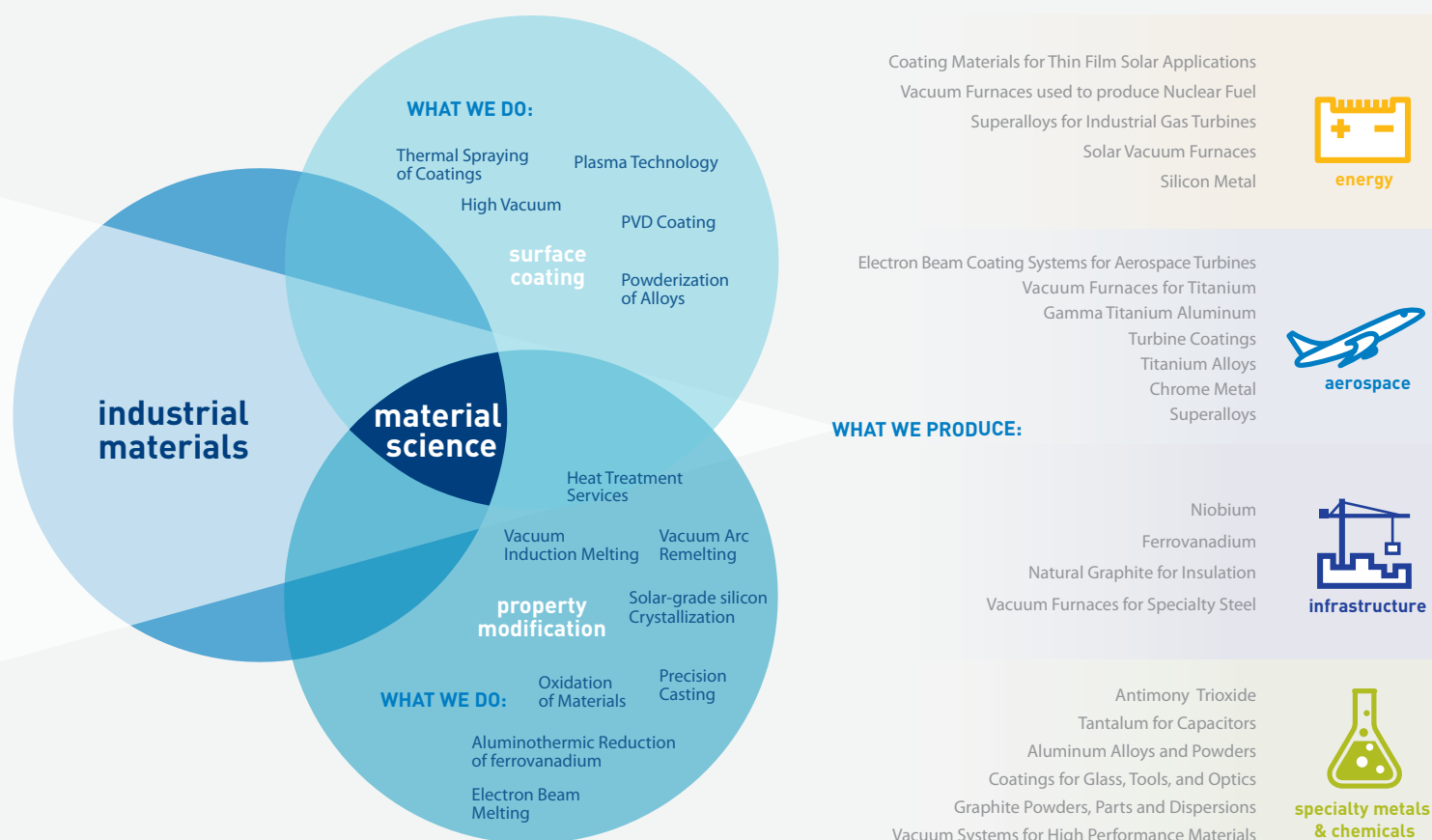
# The Technology Behind Critical Materials

AMG's material science is at the core of critical materials. AMG applies material science to mining, recycling and conversion based raw materials and vacuum furnace technology for surface coating, property modification and production of critical materials for the Energy, Aerospace, Infrastructure and Specialty Metals and Chemicals markets.



## REFINEMENT & APPLICATION OF AMG MATERIAL SCIENCE

## END-MARKETS



### AMG'S MATERIAL SCIENCE

AMG is a producer of specialty metals and a provider of engineering services for a number of critical materials that are used every day. AMG's business model, centered on the material science necessary to produce critical raw materials, maximizes its technical expertise across a wide range of minor metals. The combination of vertically integrated raw materials and technology is essential in the minor metals value chain. AMG's business model involves extensive technical interface between mining and processing. The product of this interface is longer-term stability and less volatility than in other non-integrated value chains.

AMG uses this expertise to modify material properties to create lightweight titanium based alloys, such as gamma titanium aluminum.

These alloys are ultimately used to produce lighter weight turbine blades to increase fuel efficiency in aerospace engines. AMG uses the same material science technology to produce industrial technologies such as vacuum arc remelting furnaces that are used to produce lightweight alloys for aerospace and energy applications.

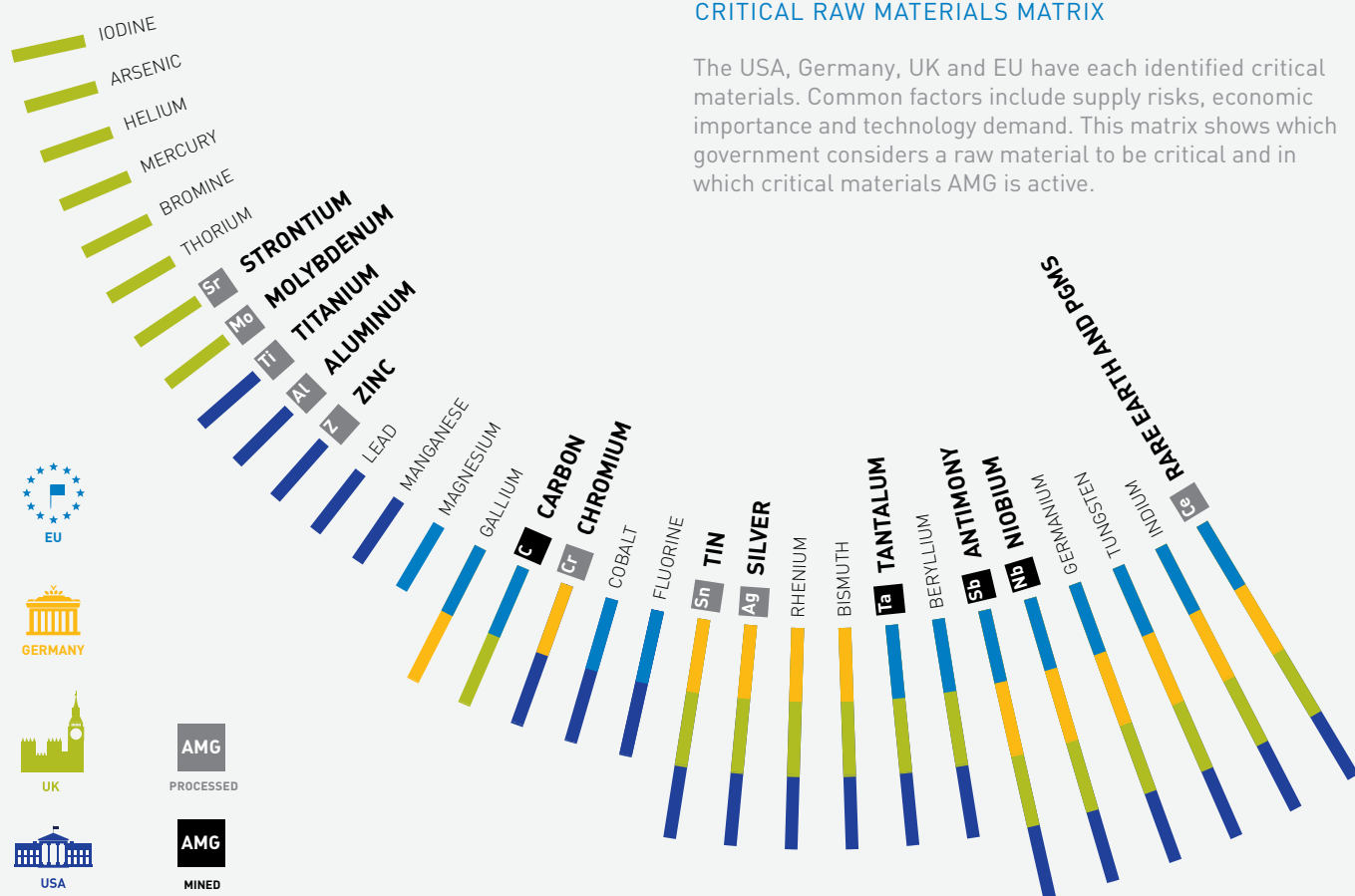
AMG also applies material science to improve high-temperature properties and wear-resistance of material surfaces. AMG produces vacuum coating equipment and coating materials for the ceramic coating of turbine blades and rotatable targets for large area solar thin film applications. AMG possesses a unique competitive advantage through the interaction of its engineering and operations activities.



## AMG's Secure Sources



AMG's mining activities are uniquely positioned to capitalize on the growing need for a reliable long term source of critical materials. AMG is working to expand its secure sources of critical materials to meet global demand.



### AMG'S CRITICAL RAW MATERIALS

Critical raw materials are consumed across a broad range of end markets from aerospace to consumer electronics to energy efficiency, power generation and storage. As the demand on these end markets to become more environmentally friendly increases, the demand on critical raw materials also increases. Many of the raw materials required to produce next generation technologies are currently produced in areas of the world with unstable geopolitical environments.

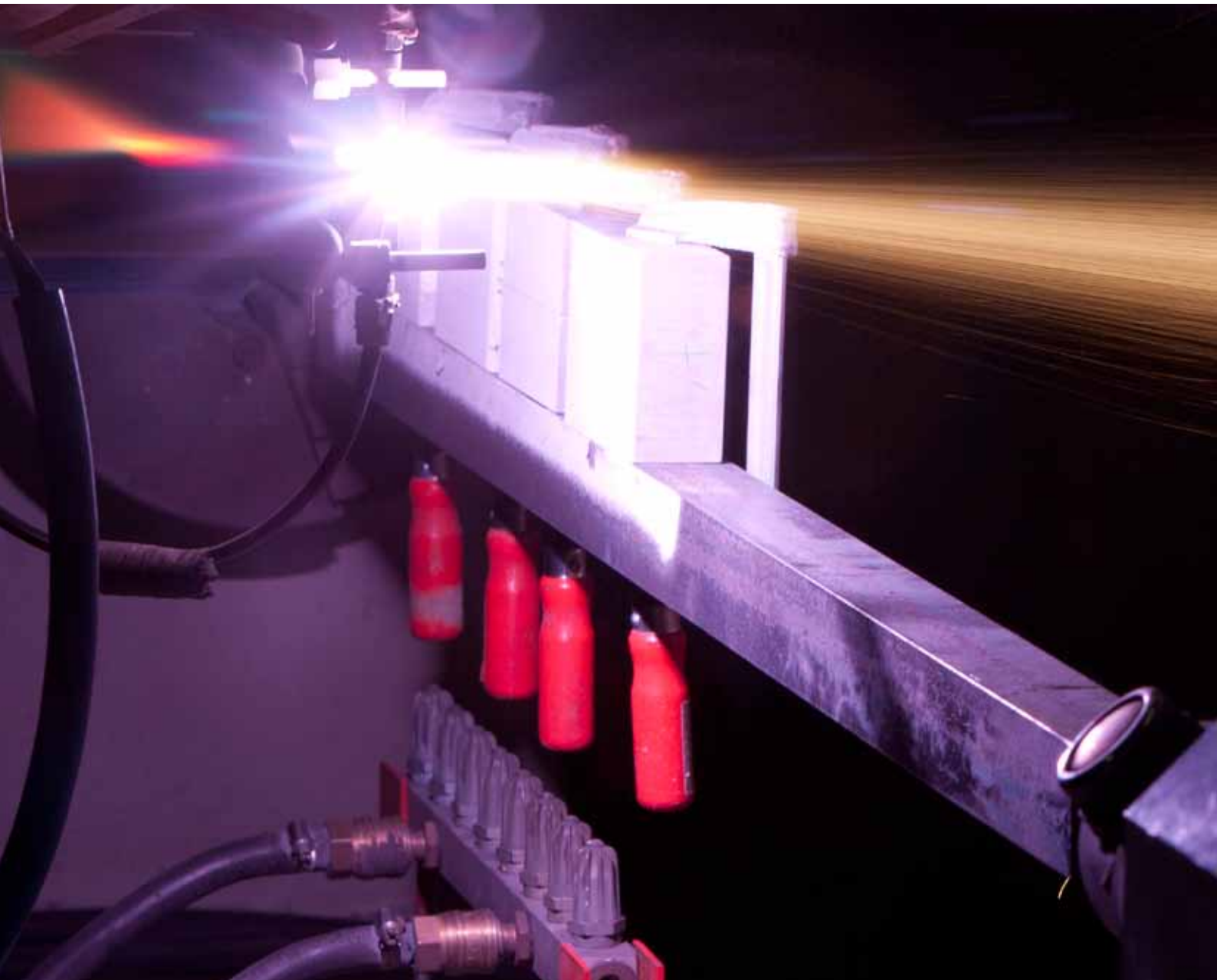
Governments are beginning to recognize these risks. In 2010, the European Union issued the "Critical Raw Materials for the EU" report, highlighting the need for secure sources of conflict free materials critical to the development of new technologies. In 2011, the British Geological Survey, the

United States "Report on Stockpile Requirements" and the "Kritische Rohstoffe für Deutschland" identified critical raw materials based upon individual determinants—common factors being supply risks, economic importance and technology demand.

The matrix above highlights 31 raw materials that these studies consider to be "critical". AMG is active in 13 of these critical materials. In 4 of those materials—antimony, graphite (carbon), niobium and tantalum—AMG has secure sources of raw materials through its own mines. AMG recognizes the importance of secure supplies of critical raw materials and increasing secure supplies of these raw materials is an integral part of AMG's long term strategy.

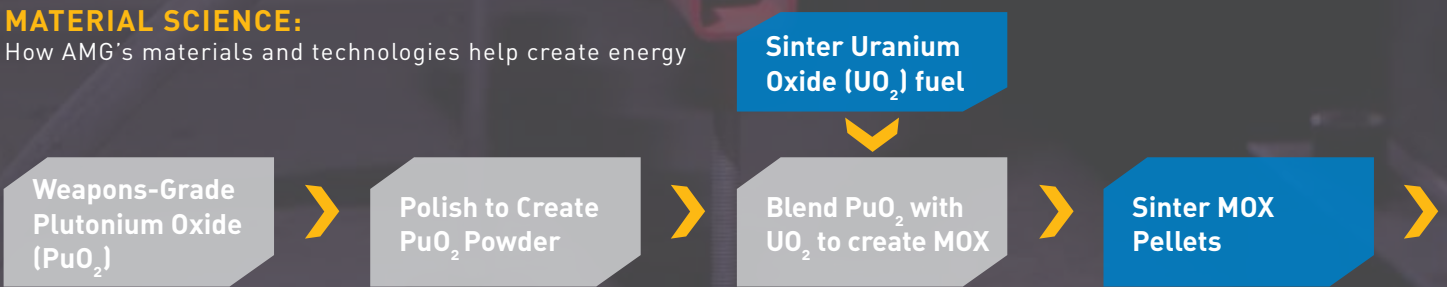


# Energy



**MATERIAL SCIENCE:**

How AMG's materials and technologies help create energy



**\$243.2M**

AMG revenue

**18%**

of total AMG  
revenue

**\$62.4M**

gross profit

**26%**

gross margin

Global energy demand is expected to increase over 50%<sup>1</sup> by 2035. AMG is using material science to help meet this demand. AMG is developing new metallurgical technologies to produce energy more efficiently, help reduce CO<sub>2</sub> emissions, and safely store waste streams created by energy production. AMG's technologies are currently being used in the solar, wind, industrial gas turbines, energy storage, energy efficiency and nuclear markets. In 2011, AMG announced a joint development project with Spanish governmental agencies to develop technologies enabling safe final disposal of nuclear contaminated (irradiated) graphite. AMG is currently working with the U.S. Department of Energy to recycle weapons grade plutonium into fuel for light water nuclear reactors. AMG's materials, coatings and property modification technologies are essential to meet the increasing global energy demand.

1. International Energy Outlook 2011, U.S. Energy Information Administration, September 2011.

Anneal Zirconium  
Alloy Tube

Assemble  
MOX Rod

Nuclear Energy  
Production



# Aerospace



**MATERIAL SCIENCE:**  
How AMG's materials and technologies make aerospace engines more efficient



**\$385.5M**  
AMG revenue

**29%**  
of total AMG  
revenue

**\$79.7M**  
gross profit

**21%**  
gross margin



Through the use of metallurgical material science, AMG produces high-purity master alloys and coatings that improve the physical properties and surfaces of titanium alloys. AMG is also the world's largest provider of advanced vacuum furnace systems used to produce titanium and other high purity materials used in light weight applications. These technologies enable the increased usage of titanium in aerospace applications. As a result of these new aerospace applications, titanium demand is forecast to grow 15% per annum through 2015<sup>1</sup>. Landing gears, airframes, and jet engine turbine blades rely on strong, light-weight titanium alloys strengthened with AMG's high-purity master alloys and coated with AMG's heat resistant products. AMG's material science is meeting the need of structural weight reduction while withstanding higher temperatures and mechanical stresses, thus improving aerospace fuel efficiency.

1. J.P. Morgan Aerospace and Defense research January 2012

Mill Ti  
Alloy Ingot



Anneal Milled  
Ti Products



Commercial  
and Military  
Aircraft



# Infrastructure



**MATERIAL SCIENCE:**  
How AMG's materials and technologies end up in building construction materials



■ AMG Process and Technology

**\$196.6M**

AMG revenue

**15%**

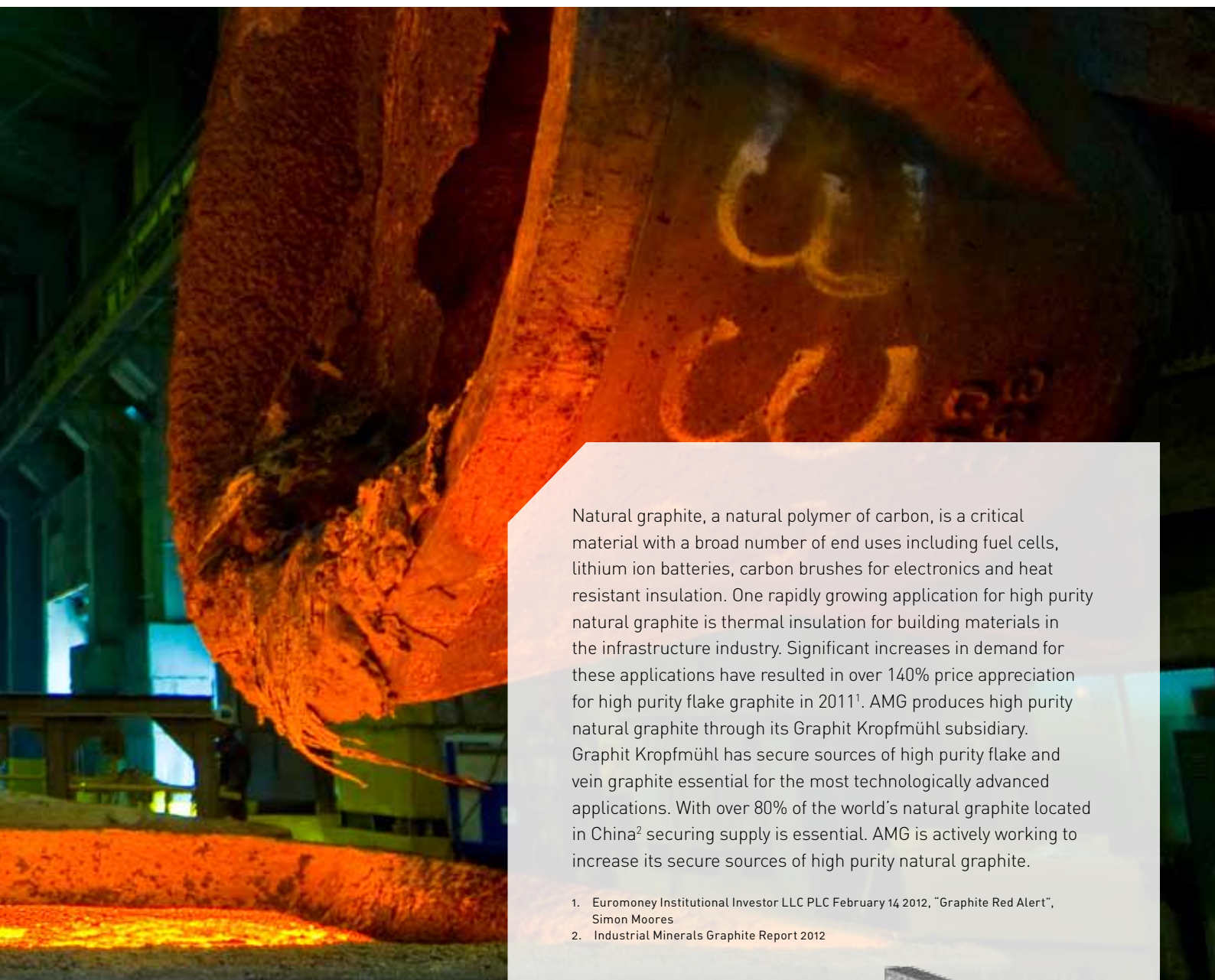
of total AMG  
revenue

**\$34.2M**

gross profit

**17%**

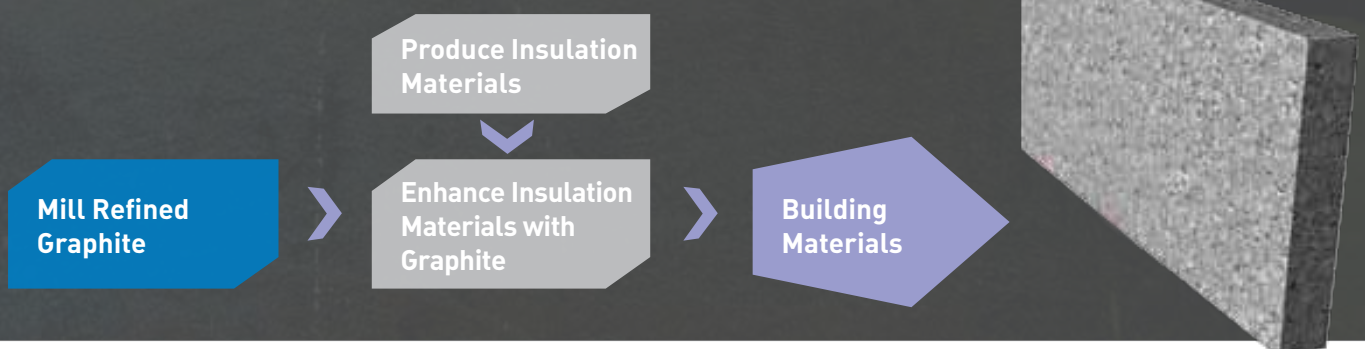
gross margin



Natural graphite, a natural polymer of carbon, is a critical material with a broad number of end uses including fuel cells, lithium ion batteries, carbon brushes for electronics and heat resistant insulation. One rapidly growing application for high purity natural graphite is thermal insulation for building materials in the infrastructure industry. Significant increases in demand for these applications have resulted in over 140% price appreciation for high purity flake graphite in 2011<sup>1</sup>. AMG produces high purity natural graphite through its Graphit Kropfmühl subsidiary. Graphit Kropfmühl has secure sources of high purity flake and vein graphite essential for the most technologically advanced applications. With over 80% of the world's natural graphite located in China<sup>2</sup> securing supply is essential. AMG is actively working to increase its secure sources of high purity natural graphite.

1. Euromoney Institutional Investor LLC PLC February 14 2012, "Graphite Red Alert", Simon Moores

2. Industrial Minerals Graphite Report 2012





# Specialty Metals and Chemicals



## MATERIAL SCIENCE:

How AMG's materials and technologies end up in your smart phone

Mine Tantalum  
(Ta) Ore



Gravimetric  
Concentration



Magnetic  
Separation



Convert to  
Ta Metal





**\$526.0M**  
AMG revenue

**38%**  
of total AMG  
revenue

**\$61.7M**  
gross profit

**12%**  
gross margin

AMG produces customized metallurgical solutions for the specialty metals and chemicals market. AMG has secure raw material supplies for two of its critical materials used extensively in the specialty metal and chemical markets. These two materials—tantalum and antimony—are listed as “critical” due to supply risk and economic importance. Tantalum is a material used to produce capacitors in electronics due to its high capacitance in small volumes, thus helping enable miniaturization of electronics. Demand for tantalum has increased substantially in recent years due to the significant use of tantalum for electronic capacitors in high tech electronic goods. Tantalum is vital in making smart phones, tablets and computers smaller, faster, and more efficient. AMG mines tantalum ore and produces tantalum concentrate in Brazil. AMG is also a member of Electronic Industry Citizenship Coalition (“EICC”) and a strong supporter of the use of “conflict free” tantalum.

Purify Ta in EB  
or VAR Furnace

Produce  
Ta Powder

Manufacture  
Ta Capacitors

Smart Phones,  
Tablets and  
Computers



# Report of the Management Board



Dr. Heinz Schimmelbusch  
Chairman & Chief Executive Officer

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William Levy  
Chief Financial Officer

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Eric Jackson  
Chief Operating Officer &  
President, Advanced Materials

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Dr. Reinhard Walter  
President, Engineering Systems

60

Dr. Schimmelbusch was appointed Chief Executive Officer and Chairman of the Management Board on November 21, 2006 and he was reappointed for a term of four years on May 11, 2011. He has served in a similar capacity for businesses comprising AMG since 1998. Dr. Schimmelbusch also serves as nonexecutive chairman of the board of various companies, including Allied Resource Corporation, United States, and Vice Chairman of the Supervisory Board of PFW Aerospace, Speyer, Germany. 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.

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Mr. Levy was appointed Chief Financial Officer and member of the Management Board on April 1, 2007 and he was reappointed for a term of four years on May 13, 2009. Mr. Levy has been employed by a subsidiary of AMG since 2005. Previously, he was CFO of PQ Corporation, a leading global chemicals and engineered glass materials company. He was appointed Vice President and Chief Financial Officer of PQ Corporation in 2002. From 1984 to 1996, Mr. Levy held various senior positions in finance and marketing with Imperial Chemical Industries plc in the United Kingdom and the United States. In 1984, Mr. Levy qualified as a certified public accountant with PricewaterhouseCoopers LLP, in the United States. Mr. Levy received a BS degree in accountancy (*magna cum laude*) from Villanova University, United States.

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Mr. Jackson was appointed President of the Advanced Materials Division and member of the Management Board on April 1, 2007 and he was reappointed for a term of four years on May 13, 2009. 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 degree in economics and an MBA, both from the University of Saskatchewan, Canada.

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Dr. Walter was appointed President of the Engineering Systems Division and member of the Management Board on April 1, 2007 and he was reappointed for a term of four years on May 13, 2009. He has served on the management board of directors of companies in the Division since December 2001, and has served as chairman of the management board of ALD since September 2004. From 1997 to 2001, Dr. Walter acted as Chief Financial Officer and Deputy Chairman of VBH Holding AG, Germany. He was a member of the management board in Berzelius Umwelt-Service AG, a recycler of industrial residues. From 1983 to 1988, he was Managing Director of Uraphos Chemie GmbH, a company operating engineering and recycling services for industrial waste. Dr. Walter received a business administration degree and a doctorate in economics from the University of Saarbrücken, Germany.



# Advanced Materials Division



## The Advanced Materials Division's financial performance improved in 2011, despite the challenging global economic environment.

The Advanced Materials Division's ("AMD") financial performance continued to steadily improve from the challenging levels of 2009–2010. 2011 revenue increased 41% to \$872.0 million. 2011 gross profit increased 26% to \$118.9 million and EBITDA increased 27% to \$50.4 million. 2011 Gross margin of 14% decreased from 15% in 2010 and it was slightly below our target. Gross margin was negatively impacted by product mix—principally due to the expansion of AMD's aluminum activities and higher pass through LME aluminum prices. Although a number of our businesses experienced significant challenges and pricing pressure, in particular a 50% decline in vanadium pentoxide and ferrovanadium market prices compared to 2008, 2011 financial results approached the historical highs of 2008.

In addition to these challenges, 2011 results were negatively impacted by a number of extraordinary events in the fourth quarter, including record setting rains in Minas Gerais, Brazil that caused significant disruption to AMD's tantalum mining activities. In spite of these one-time issues, we believe that the division's base line profitability is improving and will continue to do so as we increase our focus on operational excellence and establish tighter financial targets and controls throughout the company.

KB Alloys, which was acquired in February 2011, delivered operating results that were in line with our expectations. We are consolidating our aluminum businesses into a globally coordinated business unit, fully leveraging our economies of scale, extensive know-how and unique geographic reach. AMD's early stage mining activities in Turkey are progressing, with initial operations beginning in August 2011. AMG produced 34,000 tons of antimony ore in 2011. We recognize that mining is a capital intensive activity with a longer-term investment horizon than our traditional conversion businesses. We have responded to the challenges of developing and expanding our mining businesses by upgrading our mining management expertise, and we are moving toward the creation of a mining centric operating unit, AMG Mining.

Promoting a culture of safety is a high priority for AMD's management. The division's lost time accident rate improved in 2011 but fell short of our internal target. We have redoubled our efforts to make a step change improvement in safety, setting forward looking, prevention based objectives, such as training hours and also setting specific target dates for all facilities to achieve OHSAS 18001 certification. The division's safety performance in early 2012 is off to a very promising start.



Increases in raw material prices both positively and negatively affected AMD in 2011. Strong prices for antimony, tantalum and chrome metal, driven by scarcity of supply and increases in demand, generated improved revenue and margins. These results were partially mitigated by low prices for vanadium and ferronickel-molybdenum due to sluggish infrastructure demand.

Eric Jackson, Chief Operating Officer & President  
Advanced Materials

## End Markets

The Advanced Materials Division produces specialty metals, alloys, chemicals, coatings, powders and ceramic materials that are used in high performance environments. The majority of these materials are the basis of critical components used in energy, aerospace, infrastructure and specialty metal and chemical applications. Management estimates and consistent assumptions are used in making the following segmental end market comments.

### ENERGY

AMD produces metal and ceramic based target materials and coatings for photovoltaic end markets and high purity chromium metal and nickel niobium that are critical elements in super alloys used in land based turbines.

2011 revenue increased 35% to \$47.2 million, driven by high purity chromium metal and nickel niobium, offset to a small extent by weakness in materials used in thin film solar applications. 2011 Gross profit was \$12.3 million, up 65% from 2010.

### AEROSPACE

AMD produces critical metals, alloys and semi-finished products for titanium and super alloy industries supplying the aerospace market. AMD's master alloys are used in the titanium and super alloy industries as alloying elements to improve mechanical properties such as anti-corrosion and high temperature heat resistance. The results in this end market are primarily driven by the production and sale of titanium master alloys, titanium aluminum, nickel niobium and high purity and vacuum grade chromium metal.

In line with our expectations, revenue from the aerospace end market continued to improve, increasing 53% to \$161.0 million in 2011. Gross Profit also improved, increasing 29% to \$23.9 million. Demand for most major products in this category was strong entering 2012, although vanadium aluminum pricing has been weaker than expected as vanadium prices are determined by its primary end market—high strength low alloy steels.

## INFRASTRUCTURE

AMD produces a number of specialty metals and alloys that are used primarily in structural and stainless steel for infrastructure applications. AMD's products for this market include ferrovanadium, ferrotitanium, ferronickel-molybdenum, nickel boron and standard grades of chromium metal.

2011 revenue increased 16% to \$137.8 million, however gross profit decreased 21% to \$21.0 million. The decrease was the result of lower prices than in 2010 for ferrovanadium, nickel and molybdenum. AMD's vanadium recycling facility, AMG Vanadium, operated below full capacity in 2011 as AMD did not bid on raw material that could have exposed this business to substantial price risk. In order to mitigate this risk, AMG Vanadium utilizes long-term raw material contracts in which purchase prices are indexed to the sale price of the end product. We are expanding this business model and expect to operate at full capacity in late 2012, resulting in stronger and more sustainable financial results. In 2011 AMD also exited the commodity grade ferrotitanium business, a business in which we did not have a competitive advantage.

### SPECIALTY METALS AND CHEMICALS

AMD produces a number of specialty metals, chemicals and powders used in diverse, critical application end markets. Specifically, aluminum master alloys, antimony trioxide and antimony based master-batches, tantalum concentrates and oxides and aluminum alloy powders are significant drivers of the division's performance and strategically important to the growth of AMD.

Specialty metals and chemicals revenues increased by 47% in 2011 to \$526.0 million, with \$75.8 million of that increase from the acquisition of KB Alloys. Gross profit increased 46% to \$61.7 million in 2011, proportional to the increase in revenue. These increases reflect the strategic importance of these businesses and AMG is committing capital to vertically and horizontally expand in these businesses. Tantalum and antimony are critical geopolitically strategic materials and their importance is reflected in the structural change that AMG is making, implementing a new reporting segment—AMG Mining. AMG's antimony operations were particularly successful in 2011, as revenue increased 35% to \$142.3 million and gross profit increased 43% to \$26.5 million.

## Outlook

AMG is working to improve the financial results of its mining activities, both in Brazil and in Turkey, as operational challenges were significant in 2011. AMG is strengthening its management and technical mining team, with the goal to create a separate reporting entity—AMG Mining. Despite these challenges, AMG's strategy and objectives remain the same and we are convinced that a low cost, vertically integrated position in critical raw materials will deliver significant value to our shareholders over the longer term.

AMG is fully consolidating all aluminum activities under one global leadership and operation structure to leverage our market leading position in grain refiners and master alloys. We will also complete the expansion of AMG Vanadium's spent catalyst processing and metals reclamation capacity with a low risk pricing model based 100% on spent catalyst processing.

In 2012 we will also work to improve EHS performance, execute on our strategic initiatives, advance our operational excellence, deliver improved financial results and create value for our shareholders.

## Regional Breakdown



## Accomplishments

Increased revenue by 41%

Increased EBITDA by 27%

Completed KB Alloys acquisition, delivered in line operating results

Began extensive antimony drilling and exploration program in Turkey

Produced 34,000 tons of antimony ore in Turkey

Expanded spent catalyst processing capacity—expected completion in the fourth quarter 2012

Accelerated global EHS initiatives with implementation targets for ISO 14001 and OHSAS 18001

Initiated strategic re-alignment of Advanced Materials Division to create AMG Mining segment

## End Market Uses

### /// ENERGY

Superalloys for industrial gas turbines

Coating materials for thin film solar applications

Energy storage technologies

### /// AEROSPACE

Titanium alloys

Superalloys

Turbine coatings

### /// INFRASTRUCTURE

Ferrovanadium for building materials (structural steel)

### /// SPECIALTY METALS & CHEMICALS

Aluminum powders for paints and pigments

Tantalum for capacitors

Coatings for glass, tools and optics



# Engineering Systems



# The Engineering Systems Division grew revenue in 2011 despite a challenging global capital goods market.

In 2011, the Engineering Systems Division ("ESD") increased revenue by 28% to \$313.8 million and generated EBITDA of \$34.0 million, 11% of revenue.

The division's late cyclical markets continued the positive trend that had begun mid 2010 into the first half of 2011. The market, however, lost momentum in the second half of 2011. Although requests for quotation returned to pre-crisis level, actual order intake remained flat in 2011 compared to 2010. Combined with the increase in annual revenue, the year end 2011 order backlog declined by 13% to \$158.5 million compared to year end 2010.

The primary reason for this mixed result is the sharp decline in solar market demand that began in mid 2011 and evolved into a total collapse of the solar capital goods market by year end. The broad spectrum of ESD's product portfolio enabled the division to offset this negative trend by improved business prospects in the energy and mobility sectors.

Despite the moderating worldwide capital spending caused by the overall economic uncertainty, ESD achieved a strong order intake of \$292.4 million, however, the delay of several large projects resulted in a book-to-bill ratio of 93% for the year.

## Operations

In 2011, ESD continued to broaden the spectrum of internally manufactured products with a special focus on aerospace and automotive target markets. The recently acquired 30% stake in Dynatech Furnaces, Mumbai, India, ("Dynatech") a provider of heat treatment furnaces, provided a strategic footprint in the rapidly growing Indian market as well as other more price sensitive markets. The integration of Dynatech will continue in 2012 when ESD will assume a controlling interest in this strategically important business.

In order to strengthen the Asian market presence, ESD formed a production company in the Shanghai, China area with a long-term local partner. ESD controls 65% of this company. ESD will use this business to aggressively penetrate competitively priced market segments, many of which are closed to imported products. This investment compliments the division's existing strategy to provide the most technologically advanced vacuum furnace systems to the growing energy, aerospace and transportation markets in China.



The Engineering Systems Division performed well in a difficult economic environment. The broad product offering of advanced vacuum based technologies, including services, enabled the business to grow revenue in 2011. In particular, demand from the aerospace, nuclear and energy efficient transportation markets more than offset the struggling solar capital goods market.

Dr. Reinhard Walter, President, Engineering Systems

## End Markets

### MOBILITY

#### AUTOMOTIVE

Reducing emissions and improving fuel efficiency are very important for further growth in the automotive industry. Modern high performance gears and specific engine components play a key role in realizing this target. ESD's technology is an essential part of this market, for example:

- Over 7 million automotive gears manufactured world wide in 2011 were produced using ESD's heat treatment technology
- 33% of all newly developed and energy saving automotive gears are produced using ESD's vacuum technology
- 20% of the world wide production of diesel injection systems are treated using ESD's heat treatment processes

#### AEROSPACE

ESD is the world leader in vacuum technology for advanced aerospace turbines. In order to increase efficiency and reduce the ecological impact, the technological possibilities of high performance materials have to be stretched to their limits. ESD's technologies are essential to produce lighter weight more efficient products such as:

- High temperature materials utilized in the aerospace and energy generation industries that require a defined, reproducible refining high quality ingot, molten in sophisticated vacuum melting furnaces. ESD is the world market leader for these types of furnaces
- Modern aerospace turbine engines that use titanium compressor blades and discs to guarantee the high performance and low emission of the jet engine through weight reduction. 50% of the installed VAR furnaces used to melt titanium for this application are ESD products
- Materials capable of operating in significantly higher temperatures in the compressor and the turbine of the engine. Higher operating temperatures enable efficiency increases in the new generation of low emission jet engines. In this environment the temperature in the jet turbine is higher than the melting point of many high performance metals

Therefore, modern jet engines require a multi-layer-coating to protect the surface of the turbine components from these high temperatures. Approximately 90% of all jet turbines operate on materials coated using ESD's coating devices, which are essential for homogeneous and stable coating layers.

- Directionally solidified ("DS") and single crystal ("SC") components for industrial gas turbines and aircraft engines. ESD is the market leader for industrial vacuum investment casting equipment and, in particular, for Liquid Metal Cooling ("LMC") furnaces
- Gamma Titanium Aluminum based components that are vital for the performance of the latest generation of aerospace jet engines powering the Boeing 787 Dreamliner and the Airbus A380 fleet. ESD is pioneer in developing process technologies and equipment for the production of Gamma Titanium Aluminum material and for vacuum precision casting of turbine components. This cutting edge technology is a result of a joint development between AMG's Advanced Materials Division, a producer of Gamma Titanium Aluminum, and cooperation with ACCESS, an affiliate of the Technical University of Aachen, Germany

### ENERGY

The treatment of nuclear residues is an important process in preparing the most critical waste components for a sustainable final disposal and the generation of MOX fuel elements while avoiding environmental contamination. These environmentally beneficial solutions can be achieved through the generation of MOX fuel elements. Nearly 90% of all residues from reprocessing plutonium nuclear fuel elements and atomic weapons are made into new fuels using ESD's proprietary technologies.

In 2011, ESD increased its nuclear revenue by 95% due to the contract for recycling of weapons grade plutonium on behalf of the United States Department of Energy in the Shaw AREVA MOX project. Similar projects are being analyzed for customers in Russia and the UK.

ESD also continues to develop the impermeable graphite matrix technology for safe storage of nuclear wastes in cooperation with Spanish Government agencies. The field testing of the product and processes started in 2011 and will continue in 2012.

## SPECIALTY METALS & CHEMICALS

ESD is the major supplier of electron beam ("EB") melting systems for the refractory metals melting industry. More than 50% of EB refined sputtering targets globally are melted using ESD furnaces. Critical materials melted in these furnaces include tantalum for capacitors, niobium for high purity alloys and titanium for aerospace and chemical applications.

### Outlook

The outlook for 2012 is modestly positive. Innovation and expansion in niche markets, such as powder metallurgy and fibre optics, are compensating for the ongoing challenges in the global solar market. Geographically, demand should continue to be driven by Asia despite the effects of the global credit situation, especially in countries like China and India.

## Accomplishments

Formed a 65% owned production company in Shanghai with a long-term local partner to strengthen AMG's Asian market presence

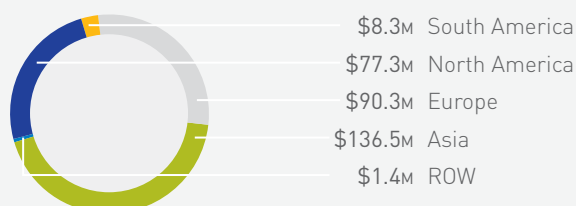
Increased nuclear revenues by 95% in 2011 due to sales of furnaces for the recycling of weapons grade plutonium and nuclear fuel products that reduce CO<sub>2</sub> emission in power generation

Granted U.S. Patent No. 8,048,221 for Mono<sup>2</sup>(TM) mono-crystalline growth methods

Entered into a joint development project of the impermeable graphite matrix technology for safe storage of nuclear wastes in cooperation with Spanish government agencies

Completed the buildout of Heat Treatment Service facilities in the U.S. and Mexico

## Regional Breakdown



## End 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

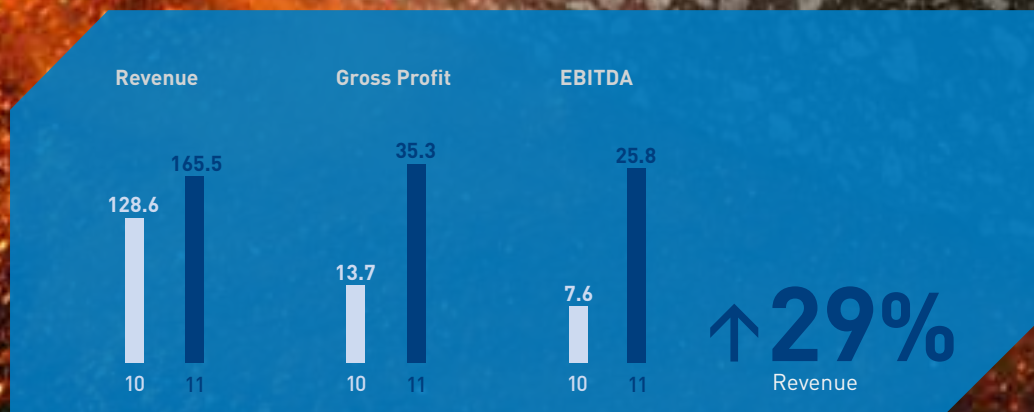
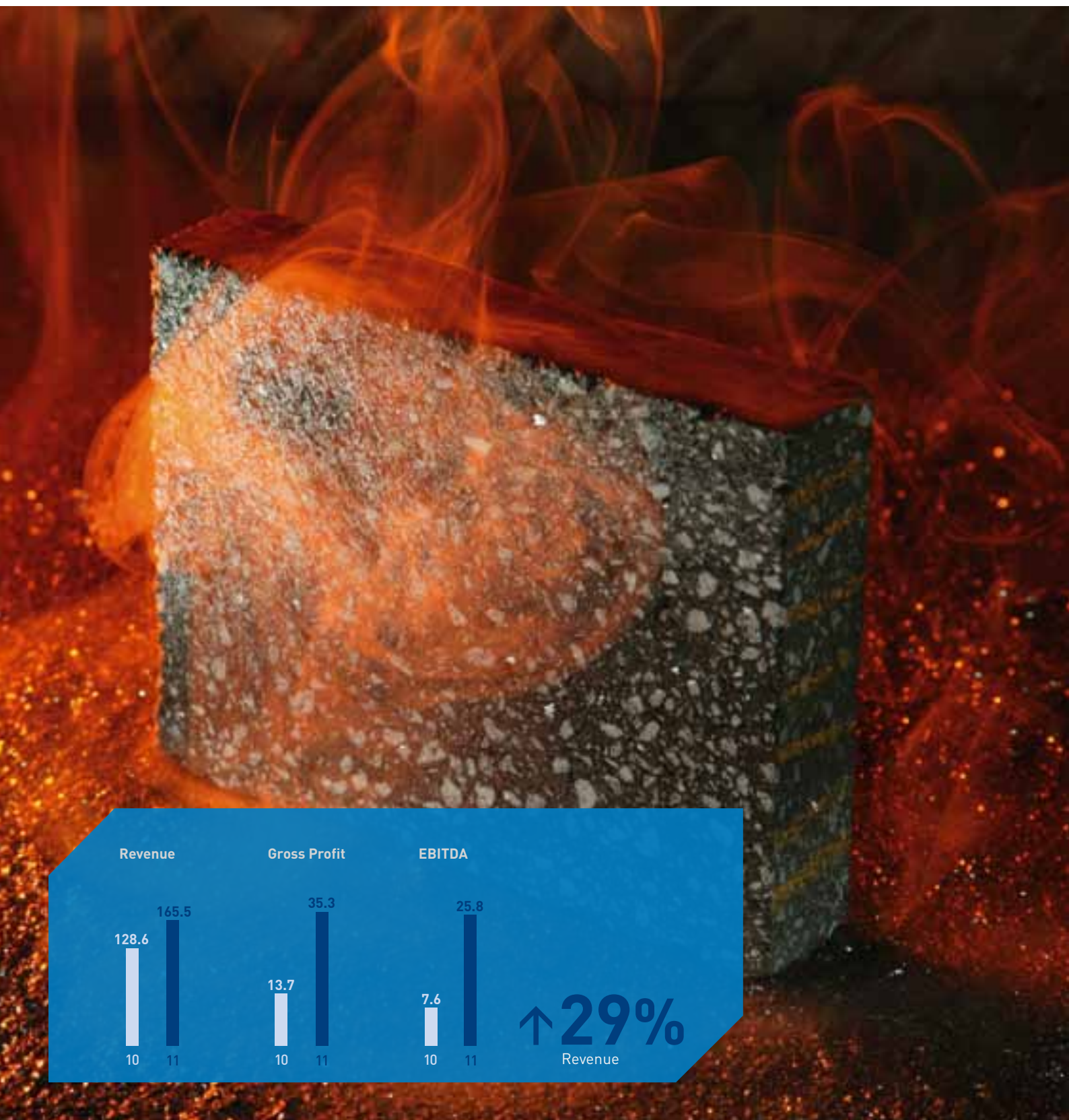
Vacuum furnaces for specialty steel

### /// SPECIALTY METALS & CHEMICALS

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



# Graphit Kropfmühl



# Graphit Kropfmühl grew revenue and EBITDA, and took steps to secure raw materials and lower operating costs in 2011.

Graphit Kropfmühl ("GK") is a majority controlled, publicly listed (Deutsche Börse: GKR.DE) specialist in the production of silicon metal and the mining, processing and refining of natural crystalline graphite for a wide range of energy saving industrial applications. GK's revenue and EBITDA increased in 2011 as global markets for silicon metal and natural graphite improved. GK's 2011 revenue increased by 29%, from 2010, to \$165.5 million in 2011. GK generated \$25.8 million in EBITDA during 2011, an increase of 239% from 2010. In 2011, GK also invested \$9.5 million in additional milling capacity for high purity natural graphite and composite electrodes and other productivity improvements in the silicon metal production facilities. The strong EBITDA and resulting cash flow enabled GK to reduce its net debt by 27% during 2011 to \$19.1 million as of December 31 2011. GK's share price appreciated 36% during 2011, ending the year at €26.30 per share.

## Silicon Metal

GK sold over 29,000 metric tons of metallurgical grade silicon metal and 23,000 metric tons of silicon metal by products in 2011. GK's silicon metal products are used in the solar, chemical and aluminum industries. In 2011, GK generated

\$107.2 million in revenue from silicon products, an increase of 27% from 2010. Improved pricing resulting from improved global supply-demand dynamics facilitated higher performance from the silicon metal operations. In 2011, GK started a major conversion project on the third of its four silicon metal furnaces. This conversion, which will be completed in late 2012, will improve the cost structure of the silicon metal operations.

## Natural Graphite

GK's graphite division mines and refines natural graphite into high quality graphite products with purities up to 99.99% carbon. GK produced over 24,000 metric tons of high purity natural graphite products in 2011. These products are used in the infrastructure industry for their heat resistance and in the chemical and transportation industries for their electrical conductivity. In 2011, GK generated \$58.3 million in revenue from natural graphite, an increase of 32% from 2010. This was the result of a 6% increase in volumes and a shift in product mix resulting in a 24% increase in average price. Demand increased across all end markets and raw material supply tightened during 2011.



Despite the impact of the European debt crisis, in 2011 Graphit Kropfmühl delivered strong operating and financial results from both the natural graphite and silicon metal businesses. GK is making great strides in its natural graphite vertical integration strategy and leveraging capital investments to increase silicon metal production efficiencies.

William Levy, Chief Financial Officer

Share Ownership

AMG's ownership in GK was 88.15% as of December 2011. On March 14, 2012, AMG initiated a voluntary tender offer for all of the outstanding shares of Graphit Kropfmühl AG at a price of €31.75 per share. This is the next step in AMG's strategy to simplify its corporate structure by consolidating all operating activities under one public entity.

Outlook

In 2012, the global market in general, and Europe in particular, will continue to struggle with the effects of the global credit crisis. Through continued investment in productivity improvements and securing additional mine based sources of natural graphite raw materials, Graphit Kropfmühl expects to generate 2012 earnings consistent with the level achieved in 2011.

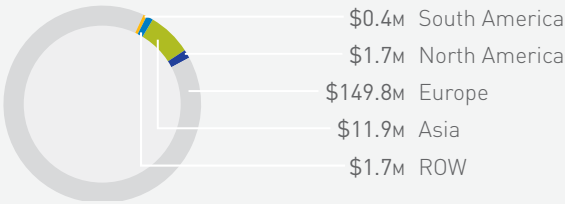
Accomplishments

- Converted a silicon metal electric arc furnace to a new energy efficient electrode system
- Expanded production capacity for high purity natural graphite
- Began a project to secure additional natural graphite sources in Mozambique

End Market Uses

- /// ENERGY
  - Silicon metal for solar applications
  - High purity natural graphite for lithium ion energy storage technologies
- /// INFRASTRUCTURE
  - Natural graphite for building materials (energy efficient insulation)
- /// SPECIALTY METALS & CHEMICALS
  - Silicon metal for aluminum products and silicones
  - Natural graphite for heat resistant transportation and electrical products

Regional Breakdown





# Risk Management and Internal Controls

## Risk Management Approach

AMG employs a risk management approach that includes a 'top-down' and 'bottom-up' analysis and assessment of the Company's risks. AMG employees at all levels of the workforce consider risks facing the Company, from everyday operational situations to formal board meetings. Appropriate and diverse lines of property and liability insurance coverage are also an integral part of this risk management program. AMG has implemented a comprehensive risk management program centered on the Company's Risk Assessment Package ("RAP"). 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, likelihood, and suddenness of occurrence;
- (iii) describe the risk mitigation or transfer procedures in place; and
- (iv) document the periodic monitoring of the risks.

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. The Management Board has the responsibility to inform the Supervisory Board of the most significant risk exposures and the related risk management plans in place. The Audit Committee of the Supervisory Board carries out a semi-annual review of the Company's internal control and risk management program. During 2011, special attention was given to:

- (i) refinancing the credit facility;
- (ii) developing management depth;
- (iii) improving mining operations;
- (iv) managing foreign exchange exposure; and
- (v) increasing information technology cohesiveness.

## 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 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, compliance with credit facility covenants, currency fluctuations, liquidity, refinancing, budgeting, metal price and currency hedging, treasury, and tax functions
- **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.

### 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. As a result of the collection of prepayments from most of its customers, the Engineering Systems Division mitigates a portion of customer payment and performance risk.

### 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 non-functional 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 also 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 looking at 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 better manage liquidity and capital allocation. 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 frequent Management Board meetings, allowing for quick action, further reducing risk. During 2011, AMG acquired Intellifast

GmbH, acquiring a new product offering that coats bolts with an ultrasonic transducer. This coating provides customers the ability to monitor bolt load for mechanical applications such as wind turbines and high stress aerospace applications. Acquisitions such as these help AMG mitigate entrepreneurial risk. AMG's highly educated and skilled workforce contributes greatly 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.

#### 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, 2011, AMG's Senior Leverage as calculated by its credit facility was 1.96x, compared to a covenant maximum of 3.00x. AMG's financing risk is also mitigated by its year-end 2011 liquidity of \$138.6 million. AMG greatly reduced its financing risk by completing a new credit facility in April 2011. The new agreement extends AMG's debt maturity by five years and includes an accordion feature that allows AMG to expand the size of its secured credit facility under certain circumstances. AMG's future liquidity is dependent on the Company's continued compliance with the terms and conditions of its credit facility.

#### INFORMATION TECHNOLOGY RISK

Potential failure of IT systems or significant loss of key data could substantially impair AMG's financial condition and operating results. Effective, reliable, and dependent IT systems are necessary for AMG's operations. AMG has created a new position, Vice President of Business Systems, to formulate and execute a consistent global IT strategy to create a coherent, fully integrated global systems environment. This effort includes ongoing internal and external analyses and audits of potential weaknesses, risks and threats to ensure failure free operation and early mitigation of potential risks. Continuous improvement efforts are being made to the current diversified systems by implementing strong, precise policies and procedures throughout the Company to provide the framework

for a consolidated, standardized, reliable and cost effective systems landscape and architecture.

#### **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. New environmental regulations or a change in regulatory bodies that have jurisdiction over AMG products and facilities could result in new restrictions, including those relating to the storage or disposal of legacy material at AMG owned properties. This may result in significantly higher costs to AMG (see note 34 to the Consolidated Financial Statements). More stringent regulations may be enacted for the release of air emissions, wastewater discharge or solid waste, which may negatively impact AMG's operations. Also, governmental policies may restrict AMG's access to key materials or scarce natural resources in certain regions or countries. Additionally, 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 as a result of tonnage or hazardous properties. Plans are in place to meet 2013 and 2018 deadlines. See note 34 to the Consolidated Financial Statements for information regarding legal matters affecting the Company. AMG has continuing obligations to comply with government regulations and practices concerning corporate organization 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 General Counsel who makes use of the services of several prominent local and global law firms.

#### **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 chromium, tantalum, graphite, ferrotitanium 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 (in 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.

#### **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 reserves 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 2011, AMG made significant improvements to its mining and geological expertise through new additions to its management and operating team.

#### **SUPPLY RISK**

AMG's Advanced Materials Division is 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's Engineering Systems Division is dependent on a limited number of suppliers for many of the components of its vacuum furnace systems as a result of its stringent quality requirements. If availability of AMG's supplies or components is limited, the Company can suffer from reduced capacity utilization. This could result in fewer 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.

#### 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 provides 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 2011, the Management Board conducted an evaluation of the structure and operation of the internal risk management and control systems. The Management Board discussed the outcome of such assessment with the Supervisory Board (in accordance with best practice provision III.1.8). 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 2011.

# Statement of Responsibilities

On the basis of the above 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 Managing 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.

**Management Board**  
**AMG Advanced Metallurgical Group N.V.**

Heinz Schimmelbusch  
William Levy  
Eric Jackson  
Reinhard Walter

March 28, 2012



# Report of the Supervisory Board



Pedro Pablo Kuczynski  
Chairman  
73



Wesley Clark  
67



Martin Hoyos  
64



Jack L. Messman  
Vice Chairman  
72



Norbert Quinkert  
69



Guy de Sellières  
59

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

Male/US  
Date of birth: December 23, 1944  
Date of initial appointment: June 6, 2007  
Date of end of term: 2013

Chairman & CEO, Wesley K. Clark & Associates  
Current board positions: Amava Gaming, Clark Bova Group., Bankers Petroleum Ltd.,  
Prysmian S.R.L., Rodman and Renshaw LLC (Chairman), Juhl Wind, Inc., United  
Global Resources LLC, BNK Petroleum, Ltd., Solace Systems, Rentec, Torvec,  
Clean Terra, Inc., Viridis Learning Systems  
Former position: NATO Supreme Allied Commander, Europe

Male/Austria  
Date of birth: October 27, 1947  
Date of initial appointment: May 13, 2009  
Date of end of term: 2013

Corporate Director  
Current board positions: KPMG Germany AG, Prinzhorn Holding GmbH,  
CAG Holding GmbH, Curanum AG  
Former positions: CEO KPMG Europe, Middle East and Africa

Male/US  
Date of birth: March 13, 1940  
Date of initial appointment: June 6, 2007  
Date of end of term: 2013

Corporate Director  
Current board positions: Celerant Consulting, Radio Shack Corporation, Safeguard  
Scientifics, Inc., Telogis, Inc. (Chairman), Timminco Limited  
Former positions: Chief Executive Officer, Novell, Inc. and  
Union Pacific Resources Corporation

Male/Germany  
Date of birth: January 18, 1943  
Date of initial appointment: June 6, 2007  
Date of end of term: 2014

CEO, TSB Technology Foundation Berlin  
Current board positions: VTION Wireless AG (Vice Chairman), MSC Gleichmann  
Former position: Motorola (Germany, Austria, Switzerland and The Netherlands)  
(Chairman)

Male/Belgium  
Date of birth: June 14, 1952  
Date of initial appointment: June 6, 2007  
Date of end of term: 2014

Corporate Director  
President, HCF International Advisers Ltd.  
Current board positions: Solvay SA, Wessex Grain, Ageas Group SA (Vice Chairman),  
Ageas UK, Ltd. (Chairman), Ivanplatz Ltd.  
Former position: Robert Fleming and Co. Limited, Eastern Europe (Chairman)

# 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 three committees: the Audit Committee, the Selection and Appointment Committee and the Remuneration Committee, each of which reports on a regular basis to the Supervisory Board. The separate reports of each of these Committees are published 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 six members. Pedro Pablo Kuczynski (Chairman), Jack Messman (Vice Chairman), Guy de Selliers, Norbert Quinkert, General Wesley Clark and Martin Hoyos. The Supervisory Board aims for an appropriate level of experience in technological, manufacturing, economic, 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 enables 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 2011 with the applicable corporate governance rules and the rules governing the principles and practices of the Supervisory Board.

The Resignation Schedule of the Supervisory Board is as follows:

Pedro Pablo Kuczynski	2015
Wesley Clark	2013
Jack Messman	2013
Martin Hoyos	2013
Norbert Quinkert	2014
Guy de Selliers	2014

## Supervisory Board Meetings

The Supervisory Board held eight meetings in the course of 2011, including three meetings by telephone conference. Six 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 was frequently absent from Supervisory Board meetings. The items discussed in the meetings included recurring subjects, such as AMG's financial position, objectives and results, strategy, potential acquisitions, the creation of a separate business segment for AMG's mining assets, business plans of the Advanced Materials ("AMD") and Engineering Systems ("ESD") Divisions, capital expenditure programs, succession planning, 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), debt to equity, liquidity and cash flow, return on shareholders' equity and return on capital employed. Furthermore, the Report of 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. In addition 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 8, 2011 the Supervisory Board (without the presence of the Management Board) met and reviewed the performance of

the Management Board and its members. At this meeting, the Supervisory Board also evaluated its own functioning and that of the three 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 composition was well balanced in terms of competence, nationality, age and experience. During that session, the Supervisory Board also expressed its continued desire to increase its diversity in terms of gender, but also acknowledged that given the particular industries in which the Company is operating, suitable candidates with different gender may be difficult to identify and select.

### Remuneration Supervisory Board

In its meeting of May 13, 2009, the General Meeting of Shareholders had amended the remuneration of the members of the Supervisory Board with effect from January 1, 2009. 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. In 2011 no changes were made or effected with respect to the remuneration of the Supervisory Board members compared to 2010.

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. Chairmen of the Remuneration Committee, the Audit Committee and the Selection and Appointment 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 their annual remuneration in 2011, 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. During 2011, the specified numbers of Euros were 49,400 for the Chairman, 34,200 for the Vice Chairman and 30,400 for each other member. 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 below under the chapter Corporate Governance (page 60).

The table below shows the total remuneration of each member of the Supervisory board for 2011:

FOR THE YEAR ENDED DECEMBER 31, 2011	ROLE	CASH REMUNERATION	SHARE REMUNERATION	# OF SHARES GRANTED
Pedro Pablo Kuczynski	Chairman & Member	\$95,000	€49,400	3,862
Jack L. Messman	Vice Chairman & Remuneration Committee Chair	\$90,000	€34,200	2,674
Wesley Clark	Member	\$60,000	€30,400	2,377
Norbert Quinkert	Member & Selection and Appointment Committee Chair	\$80,000	€30,400	2,377
Guy de Selliers	Member & Audit Committee Chair	\$80,000	€30,400	2,377
Martin Hoyos	Member	\$60,000	€30,400	2,377

#### SHARES HELD BY MEMBERS OF THE SUPERVISORY BOARD

As of December 31, 2011, the members of the Supervisory Board held a total of 125,776 shares in the Company. Out of that number, a total of 92,396 shares were awarded to them during 2007, 2008, 2009, 2010 and 2011 as part of their annual remuneration.

#### REMUNERATION SUPERVISORY BOARD IN 2012

The remuneration of the members of the Supervisory Board in 2012 will not change as compared to the remuneration given in 2011 as explained above.

#### Committees

The Supervisory Board has three standing committees, the Audit Committee, the Selection and Appointment Committee and the Remuneration Committee.

##### AUDIT COMMITTEE

Composition: Messrs. de Selliers (Chairman), Hoyos and Messman

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 does monitor and review 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 four times during the year 2011 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. Topics of discussion at the meetings included the Internal Audit plan, liquidity and cash situation, credit facility and arrangement with the Company's major banks, insurance, environmental risk situation, compliance and Code of Business Conduct review program, foreign currency exposure and hedging policies, tax structuring and spending approval matrices and litigation reports. Ernst & Young Accountants LLP also provided the audit committee with a mid-year review and year-end audit of the Company's accounting policies and procedures. Furthermore, the Internal Audit director of the Company 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 Management Board or financial or accounting staff of the Company present and the Audit Committee reviewed the contents of the 2011 Management Letter of the external accountant and reported on this matter to the plenary meeting of the Supervisory board. The Audit Committee further reviewed the proposed audit scope and fees for the external auditors of the Company and after assessment of the performance of the external auditors, it advised the Supervisory Board to propose to the General Meeting of Shareholders to re-appoint Ernst & Young Accountants LLP through the year ending December 31, 2012 financial year. Fees were established in the amount of \$2.1 million per annum, which includes the cost of the mid-year review. Present at all meetings of the Audit Committee were the Chief Financial Officer, the Corporate Controller, the Internal Audit Director and AMG's auditors Ernst & Young Accountants LLP. At certain meetings, the Company's General Counsel and Treasurer were present.

##### SELECTION AND APPOINTMENT COMMITTEE

Composition: Mr. N. Quinkert (Chairman) and General W. Clark

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 one regular meeting during the year 2011, 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. Particular attention was paid in 2011 to succession planning and the composition of the Management Board. Highlights in 2011 included the appointment of Mr. Eric Jackson as Chief Operating Officer of the Group (next to his function as President of Advanced Materials Division and the appointment of Dr. Marcus Holz as member of the management board of the Engineering Systems Division.



## REMUNERATION COMMITTEE

Composition: Messrs. J. Messman (Chairman) and P.P. Kuczynski

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 2011, in addition to various informal discussions among its members and the Chairman of the Management Board. Topics of discussion at the meetings included: (i) implementation of the remuneration policy of the Company, including policies with respect to the compensation of the Management Board; (ii) review of the base salary for members of the Management Board; (iii) annual bonuses for members of the Management Board. In performing its duties and responsibilities the Remuneration Committee was assisted by external remuneration experts.

### Remuneration Report for the year 2011

The year 2011 concerned the third year in which the Supervisory Board had to implement the new Remuneration Policy for the Management Board, since this was approved and adopted by the General Meeting of Shareholders in May 2009 ("the

Remuneration Policy"). 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 2011
- Remuneration of the Management Board in 2012

### Report on Remuneration of the Management Board in 2011

The remuneration of AMG's Management Board for 2011 was based on the Remuneration Policy of the Company. The Remuneration Policy was developed with a group of peer companies drawn from the Hay Group Industrial Market Database. 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, it is noted that pursuant to the Remuneration Policy, it has been accepted that 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 2011 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).

FOR THE YEAR ENDED DECEMBER 31, 2011	BASE SALARY	ANNUAL BONUS	OPTION COMPENSATION	VALUE OF VESTED OPTIONS "IN THE MONEY" AT DEC. 31, 2011	PERFORMANCE SHARE UNITS	RETIREMENT BENEFITS & PENSIONS	OTHER REMUNERATION
Dr. Heinz Schimmelbusch	\$1,098,150	\$1,353,470	\$778,129	\$0	\$717,409	\$391,979	\$132,249
Eric Jackson	\$639,260	\$519,399	\$256,892	\$0	\$215,222	\$296,371	\$45,208
Dr. Reinhard Walter	\$661,485	\$451,464	\$256,892	\$0	\$215,222	\$1,159,444	\$56,468
William J. Levy	\$507,732	\$470,553	\$195,315	\$0	\$143,481	\$191,568	\$49,557

## Management Board Remuneration in 2011

The remuneration contracts of the Management Board members were with more than one company now part of the AMG Group. The remuneration levels in the table above show the aggregate amounts of the contracts per Management Board member. In addition, Dr. Schimmelbusch received compensation of €35,700 as Chairman of the Supervisory Board of AMG's subsidiary Graphit Kropfmühl AG. A detailed explanation of the remuneration paid in 2011 is provided in Note 35 to the Consolidated Financial Statements. Dr. Schimmelbusch also received remuneration from AMG's associate Timminco for his work for that company as Chief Executive Officer (until August 1st, 2011) and Chairman of the Board.

### BASE SALARY

The Base Salaries of the Management Board members were determined by the Supervisory Board in line with the Remuneration Policy of the Company. In 2011, for all Management Board members there was no increase in Base Salary compared to the years 2008-2010.

### 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%: Adjusted Earnings Before Interest, Tax, Depreciation and Amortization (EBITDA)
- 20%: Individual Performance

The Supervisory Board, on the recommendation of the Remuneration Committee and based on the overall excellent results of the Company and performance, has established the Annual Bonus over 2011 as percentage of the target amount as follows: Dr. Schimmelbusch 138%, Mr. Jackson, 118%, Dr. Walter 100% and Mr. Levy 138%.

Both EBITDA and ROCE realized in 2011 by the Company substantially outperformed the targets set by the Supervisory

Board. Also, the individual performance targets set by the Supervisory Board were fully met (and even substantially exceeded in two instances) by each Management Board member. The table below shows the target and paid out Annual Bonus over 2011 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, 2011	TARGET (AS A % OF BASE SALARY)	PAYOUT (AS A % OF BASE SALARY)
Dr. Heinz Schimmelbusch	85%	117%
Eric Jackson	65%	77%
Dr. Reinhard Walter	65%	65%
William J. Levy	65%	90%

### 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 in 2009. The table below provides an overview of the options granted under the AMG Option Plan during 2007, 2008, 2009, 2010 and 2011. All options granted in 2007 and 2008 are unconditional and have a vesting scheme of 25% per year starting one year after the grant date. In 2009, the Management Board members received options twice, one part governed by the AMG Option Plan and unconditional and one part governed by the AMG Management Board Option Plan 2009 and conditional, all as further explained on pages 39 and 40 of the 2009 Annual Report of the Company. In May 2011, options have been 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.

AMG OPTION PLAN			NON-VESTED OPTIONS UNDER THE PLAN				VESTED OPTIONS UNDER THE PLAN		
FOR THE YEAR ENDED 31 DECEMBER 2011	YEAR	DATE OF GRANT	# OF OPTIONS	PRESENT VALUE AT DATE OF GRANT	EXERCISE PRICE AT DATE OF GRANT	VESTING SCHEME	# OF OPTIONS	MARKET VALUE AT 12/31/2011	SHARE PRICE AT 12/31/2011
Dr. Heinz Schimmelbusch	2007	7/11/2007	—	€ 2,700,000.00	€ 24.00	25% per year	225,000	0	€ 7.60
	2008	11/12/2008	33,333	€ 846,664.55	€ 12.70	25% per year	100,000	0	
	2009	5/13/2009	—	€ 661,852.00	€ 8.00	by 12/31/2009	165,463	0	
	2009	11/10/2009	101,626	€ 499,999.92	€ 9.84	50% after 3 <sup>rd</sup> year, 50% after 4 <sup>th</sup> year	—	n/a	
	2010	5/12/2010	62,578	€ 249,999.11	€ 7.99	50% after 3 <sup>rd</sup> year, 50% after 4 <sup>th</sup> year	—	n/a	
	2011	5/11/2011	66,313	€ 500,000.02	€ 15.08	50% after 3 <sup>rd</sup> year, 50% after 4 <sup>th</sup> year	—	n/a	
Eric Jackson	2007	7/11/2007	—	€ 1,200,000.00	€ 24.00	25% per year	100,000	0	€ 7.60
	2008	11/12/2008	10,000	€ 254,000.00	€ 12.70	25% per year	30,000	0	
	2009	5/13/2009	—	€ 383,116.00	€ 8.00	by 12/31/2009	95,779	0	
	2009	11/10/2009	30,488	€ 150,000.96	€ 9.84	50% after 3 <sup>rd</sup> year, 50% after 4 <sup>th</sup> year	—	n/a	
	2010	5/12/2010	18,773	€ 74,998.14	€ 7.99	50% after 3 <sup>rd</sup> year, 50% after 4 <sup>th</sup> year	—	n/a	
	2011	5/11/2011	19,894	€ 150,000.76	€ 15.08	50% after 3 <sup>rd</sup> year, 50% after 4 <sup>th</sup> year	—	n/a	
Dr. Reinhard Walter	2007	7/11/2007	—	€ 1,200,000.00	€ 24.00	25% per year	100,000	0	€ 7.60
	2008	11/12/2008	10,000	€ 254,000.00	€ 12.70	25% per year	30,000	0	
	2009	5/13/2009	—	€ 414,112.00	€ 8.00	by 12/31/2009	103,528	0	
	2009	11/10/2009	30,488	€ 150,000.96	€ 9.84	50% after 3 <sup>rd</sup> year, 50% after 4 <sup>th</sup> year	—	n/a	
	2010	5/12/2010	18,773	€ 74,998.14	€ 7.99	50% after 3 <sup>rd</sup> year, 50% after 4 <sup>th</sup> year	—	n/a	
	2011	5/11/2011	19,894	€ 150,000.76	€ 15.08	50% after 3 <sup>rd</sup> year, 50% after 4 <sup>th</sup> year	—	n/a	
William J. Levy	2007	7/11/2007	—	€ 1,200,000.00	€ 24.00	25% per year	100,000	0	€ 7.60
	2008	11/12/2008	6,667	€ 169,335.45	€ 12.70	25% each yr over 4 years	20,000	0	
	2009	5/13/2009	—	€ 300,252.00	€ 8.00	by 12/31/2009	75,063	0	
	2009	11/10/2009	20,325	€ 99,999.00	€ 9.84	50% after 3 <sup>rd</sup> year, 50% after 4 <sup>th</sup> year	—	n/a	
	2010	5/12/2010	12,516	€ 50,001.42	€ 7.99	50% after 3 <sup>rd</sup> year, 50% after 4 <sup>th</sup> year	—	n/a	
	2011	5/11/2011	13,263	€ 100,003.02	€ 15.08	50% after 3 <sup>rd</sup> year, 50% after 4 <sup>th</sup> year	—	n/a	

## PERFORMANCE SHARE UNITS

In 2011 the Supervisory Board awarded performance share units for the third time to the Management Board members since adoption of the Remuneration Policy. The present value of the PSU award for the Management Board members in 2011 was as follows:

Dr. Heinz Schimmelbusch	€500,000
Eric Jackson	€150,000
Dr. Reinhard Walter	€150,000
William J. Levy	€100,000

The present value of the PSUs is calculated as 80% of the fair market value at the grant date. These PSU awards will vest in accordance with the phased-in vesting scheme adopted as part of the Remuneration Policy. In 2011 one-third (1/3) of the PSU award granted in 2009 vested (as part of the phased-in vesting scheme adopted as part of the Remuneration Policy). Vesting of the PSU's 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 the Bloomberg World Fabricate/Hardware.

The first threshold (minimum ROCE) over 2011 met the target set by the Supervisory Board. The relative TSR for the Company ended up in the 80-100 % ranking for the 2011 vesting, which caused the multiplier to reach 175 % of the number of initial performance share units vested. As a result the following amounts were paid out in cash in 2011:

Dr. Heinz Schimmelbusch	\$1,786,349
Eric Jackson	\$535,905
Dr. Reinhard Walter	\$535,905
William J. Levy	\$357,270

## PENSIONS AND RETIREMENT BENEFITS

The members of the Management Board, except for Dr. Walter, are members of a defined contribution plan maintained in the United States. Dr. Walter is provided pension benefits in accordance with the defined benefit plan at AMG's German subsidiary, ALD Vacuum Technologies GmbH ("ALD"). Dr. Schimmelbusch, Mr. Jackson and Mr. Levy receive additional retirement benefits from Metallurg's Supplemental Executive Retirement Plan ("SERP"). With respect to Dr. 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. See Note 24 to the Consolidated Financial Statements. Pursuant to Mr. Jackson's and Mr. Levy's SERP, if either Mr. Jackson and/or Mr. Levy are employed by Metallurg or remains in Metallurg's employment until he is 65, he is entitled, whether or not he has terminated his employment, to receive retirement benefits (reduced by amounts received under Metallurg's other pension plan). Mr. Jackson's and Mr. Levy's benefits will be reduced if his employment with Metallurg ends prior to his reaching age 65. Dr. Walter receives additional retirement benefits from AMG. According to these pension arrangements, if Dr. Walter is employed by AMG or remains in AMG's employment until he is 65, he is entitled, whether or not he has terminated his employment, to receive retirement benefits (reduced by amounts received under ALD's pension plan). Dr. Walter's benefits will be reduced if his employment with AMG ends prior to his reaching age 65. Total costs to AMG with respect to the pension and retirement benefits of the Management Board in 2011 is provided in the table above on page 45 which sets forth total costs incurred in 2011 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 45 which sets forth total costs incurred in 2011 for Management Board remuneration.

## CONTRACTS

Each member of the Management Board has a contract of employment with AMG. 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. As part of its approved and adopted Remuneration Policy, AMG will honor existing contractual agreements for its current 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, the members of the Management Board have a contract with one of AMG's subsidiaries. Details 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.

### Management Board Remuneration for 2012

In line with the Remuneration Policy, the Remuneration Committee has set up the size and structure of the Management Board's remuneration for 2012. 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.

#### BASE SALARY

The Supervisory Board has for 2012 decided that the Base Salary of the Management Board members will not change as compared to the Base Salary levels of 2011, with the exception of Mr. Levy. The table below shows the Base Salaries for 2012 and 2011. Differences are only due to exchange rate assumptions and in Mr. Levy's case, a \$50,000 increase in base salary on an annual basis.

BASE SALARY	2012	2011
Dr. Heinz Schimmelbusch	\$ 1,073,025	\$ 1,098,150
Eric Jackson	\$ 629,210	\$ 639,260
Dr. Reinhard Walter	\$ 616,748	\$ 661,485
William J. Levy	\$ 539,210	\$ 507,732

#### 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 with respect to the threshold, target and maximum pay-out 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 pay-out in any year relates to achievements realized during the preceding year in relation to the agreed targets.

The Annual Bonus for 2012 will be determined as follows:

- 40% from ROCE (excluding construction in progress)
- 40% from adjusted EBITDA growth
- 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, target and maximum performance levels are reached. Below threshold level the payout will be 0%. The Supervisory Board has considered whether given the continued challenging economic circumstances adjustment of the annual bonus components would be merited and has concluded that such adjustment is not needed. 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.

MANAGEMENT BOARD POSITION	MINIMUM PAYOUT	TARGET PAYOUT	MAXIMUM PAYOUT
Chairman and Chief Executive Officer	0%	85%	255%
Divisional head	0%	65%	195%
Chief Financial Officer	0%	65%	195%

#### LONG-TERM INCENTIVES

In line with the Remuneration Policy, the long-term incentives for the Management Board for 2012 consist of two programs: the Performance Share Unit Plan and the Stock Option Plan.

To facilitate a smooth transition from the old remuneration policy to the (new) Remuneration Policy, the Performance Share Unit Plan has a phasing-in schedule as indicated below.

PSU INITIAL GRANT	2009	2010	2011	2012	2013	2014
Grant #1 Phase-in	Grant 1	1/3 vest	1/3 vest	1/3 vest		
Grant #2 Phase-in		Grant 2	No vest	1/3 vest	2/3 vest	
Grant #3 Normal cliff			Grant 3	No vest	No vest	3/3 vest



This year's grant (2012) will be the fourth grant under the new plan and vesting will apply as outlined in the schedule above. Vesting of the Performance Share Units under the fourth grant is subject to:

- A minimum average ROCE over the performance period
- The relative Total Shareholder Return compared to the Bloomberg World 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 2012 is €500,000 for Dr. Schimmelbusch, €150,000 for Mr. Jackson and Dr. Walter and €100,000 for Mr. Levy. The present value of the PSUs is calculated as 80% of the fair market value at the grant date.

With regard to the Stock Option Plan ("SOP"), each member of the Management Board will be granted stock options in 2012 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 2012 is €500,000 for Dr. Schimmelbusch, €150,000 for Mr. Jackson and Dr. Walter and €100,000 for Mr. Levy. The present value of the stock options under the SOP is calculated as 50% of the fair market value of the shares at the grant date. 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 2011.

#### **CONTRACTS**

The current contractual agreements will not change compared to 2011. 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, 2011, Dr. Schimmelbusch held 258,397 AMG shares, Mr. Jackson held 10,000 AMG shares, Dr. Walter held 6,000 AMG Shares and Mr. Levy held 5,000 AMG shares.

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

The Supervisory Board would like to thank the Management Board for its extraordinary efforts in leading the Company through what has been again a difficult year in very challenging economic circumstances. After a promising start in 2011, the economic and financial climate has been severely set back primarily due to the sovereign debt crisis which erupted in the EURO zone affecting economies on a global scale and which will continue to cloud the outlook of the Company going forward into 2012. 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 Group for their daily commitment to AMG.

#### **Annual Report 2011**

The Annual Report and the 2011 Annual Accounts, audited by Ernst & Young Accountants LLP, have been presented to the Supervisory Board. The 2011 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 adopts the 2011 Annual Accounts.

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

Pedro Pablo Kuczynski, Chairman

Wesley Clark

Martin Hoyos

Jack Messman, Vice Chairman

Norbert Quinkert

Guy de Selliers

March 28, 2012

# Sustainable Development



AMG FACILITIES <sup>1</sup>	2011	2010
<b>Advanced Materials</b>		
AMG Vanadium, Ohio <sup>2</sup>	Y	Y
SICA, Chauny <sup>2</sup> , France	Y	Y
PCDL, Lucette <sup>2</sup> , France	Y	Y
Suda Maden, Turkey	N	NA
GfE, Nürnberg <sup>2</sup> , Germany	Y	Y
LSM UK, Rotherham <sup>2</sup> , UK	Y	Y
LSM Brazil, Sao Joao del Rei <sup>2</sup> , Brazil	Y	Y
LSM China	Y	N
Alpoco, Minworth <sup>2</sup> , UK	Y	Y
Alpoco, Anglesey <sup>2</sup> , UK	Y	Y
GfE Fremat, Freiburg <sup>2</sup> , Germany	Y	Y
CIF Mining, Nazareno <sup>2</sup> , Brazil	Y	Y
KB Alloys, Wenatchee, Washington	N	NA
KB Alloys, Henderson, Kentucky	N	NA
<b>Engineering Systems</b>		
ALD Hanau <sup>2</sup> , Germany	Y	Y
ALD Berlin <sup>2</sup> , Germany	Y	Y
ALD Limbach <sup>2</sup> , Germany	Y	Y
ALD Port Huron, Michigan	Y	Y
ALD Ramos Arizpe <sup>2</sup> , Mexico	Y	Y
ALD Japan	Y	Y
ALD UK	Y	Y
ALD USA	Y	Y
ALD Singapore	Y	Y
ALD FNAG	Y	Y
<b>Corporate Offices</b>		
Amsterdam, Netherlands	Y	Y
Wayne, Pennsylvania	Y	Y

- <sup>1</sup> 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. GK facilities are currently not included.
- <sup>2</sup> Externally audited data 2011.

## Report Boundaries

This section provides our fifth annual sustainability report. It follows on from the 2010 report and provides an evaluation of AMG's social and environmental performance compared to the previous calendar year. The report covers global manufacturing and mining operations, and sales and administrative offices, across AMG Advanced Metallurgical Group, including affiliates in 11 countries across 4 continents. We have focused on key activities and achievements that we believe will be of interest to our major stakeholder groups including our customers, investors, suppliers and the communities which we serve and operate within.

The total number of locations reporting in 2011 is 23. The Advanced Materials Division acquired KB Alloys during the year. The three KB Alloys manufacturing sites and the administrative office have started to put in place reporting mechanisms during the year but this work is incomplete and they have therefore not been included. Similarly the antimony mine in Turkey is undergoing infrastructure development and sustainability reporting will begin as production begins to ramp up. The facilities included, and those currently outside the boundaries of this report, are detailed in the table above. AMG's majority owned subsidiary, Graphit Kropfmühl, is currently outside of the scope of this report. All sites report their performance at the end of the fourth quarter and no forecast data are used.

## Scope of This Report.

AMG utilizes the Global Reporting Initiative ("GRI") G3 aspects, taken from its Mining and Metals Sector Supplement. 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 continues to apply these reporting principles at the self declared B+ reporting level and has utilized a standard reporting template which all 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 Advanced Materials and Engineering Systems Divisions are summarized in the table on page 59.

**AMG Advanced Metallurgical Group N.V.**

**[www.amg-nv.com](http://www.amg-nv.com)**

**Contact: [global.sustainability@amg-nv.com](mailto:global.sustainability@amg-nv.com)**

## Labor Practices and Decent Work Indicators

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

As of year-end 2011, the Advanced Materials Division had a workforce of 1,369 and the Engineering Systems Division had 820 employees. For those facilities reporting here, including Corporate employees, the total workforce was 2,189, an increase of approximately 150 from 2010. 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 17 % are female; 23% are under 30 years of age, 50% between 30 and 50 and 26% over 50. The Management and Supervisory Boards are currently all male and all members are over 50 years of age.

AMG respects the freedom of its individual employees and their rights to join, or to choose not to join, unions. Across the combined Advanced Materials and Engineering Systems Divisions, including corporate staff, 64% of AMG employees were covered by collective bargaining agreements. For the Advanced Materials Division 81% of employees are covered by such arrangements, whereas in the Engineering Systems Division, which includes a higher proportion of professional salaried staff, 37% were in unions or other similar collective bargaining units.

In 2011 AMG adopted its vision of Manufacturing Metallurgical Solutions Safely. Additionally the company formalized its goal of zero accidents. These are core values that steer our actions across the business units.



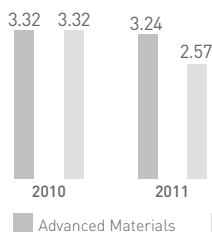
Manufacturing  
Metallurgical  
Solutions Safely

## ZERO ACCIDENTS IS OUR GOAL

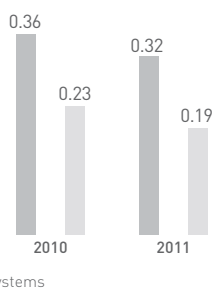
AMG is pleased to report that it has maintained its record of never suffering a fatal accident in either its Advanced Materials or Engineering Systems Divisions since its formation. Our primary measures of safety performance remain the lost time



## Lost time accident rate



## Accident severity



accident ("LTA") rate<sup>1</sup> and accident severity rates<sup>2</sup>. In 2011 the Advanced Materials LTA rate was 3.2, and was therefore marginally reduced from 2010. The Engineering Systems LTA rate was 2.6 for the year representing a reduction of 21%. Overall the Company LTA rate was 3.0 and while this represents an improvement of almost 10% over 2010, the Company will continue to unerringly focus on our ultimate goal of zero harm to any of our employees. The overall accident severity rate in the Company was 0.28, representing a 12% improvement over 2010.

Formal Health and Safety committees with representatives from all levels of the organization are in place at every major production facility and most of the smaller facilities. These committees are encouraged to lead and be intimately involved in decisions regarding safety at their facilities. Several additional committees were formed during 2011 so that now 94% of the AMG workforce is represented in these committees.

In 2010 AMG began reporting the hours we invest in our people to develop their skills. This is important to our safety, environmental and ethics programs and required if we are to maintain our technical competitive advantage. More robust data collection processes were put in place for this year, as a result of weaknesses identified in the previous year, and there is more complete capture of training hours for the 2011 report. The three categories of employees initially selected has been maintained—management; professional, technical, sales and administration; and production and maintenance. Training data on corporate employees was not fully available. In 2011 the training delivered was: Management (109 employees trained, averaging 24 hours per person), Professional, Technical, Sales and Administration (849 employees trained, averaging 21 hours) and Production and Maintenance (1,264 employees trained, averaging 28 hours). Across all the reporting sites, the average employee received a total of 25 hours of training time in 2011 (slightly more than 1% of total hours worked). The categories of training tracked included technical and professional development, quality, anti-corruption policies, human rights policies and health and safety.

<sup>1</sup> Lost time accident frequency rate equals the number of lost time accidents multiplied by 200,000 divided by the total hours worked. Lost time injury was defined using local regulations and ranged from minimum one lost day to three lost days.

<sup>2</sup> Accident severity is defined as the number of worker-days lost as a result of disabling injuries per thousand worker-hours of exposure.

## Human Rights and Ethics

### GRI INDICATORS HR3, HR5, HR6 AND SO3

AMG supports and respects the protection of internationally proclaimed human rights and will work to make sure it is not complicit in human rights abuses. As part of this commitment the Company has surveyed each of its Advanced Materials and Engineering Systems sites to identify if there is the possibility of freedom of association or collective bargaining being put at risk as a result of political or business factors and found that no sites were at risk, with the exception of China where unions currently cannot be formed. Similarly the Company has reviewed sites to ensure that they are not at risk for employing child labor or exposing young workers to hazards and again 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 and detailed in the company's Human Rights policy, both available on the AMG website.

In 2011, limited refresher human rights training was given to 10% of the workforce, focusing mainly on senior managers and employees that may be called on to make significant, ethically based decisions.

Compliance officers have been named at many sites to monitor implementation of the Code of Business Conduct.

## Resource Efficiency and Recycling

### GRI INDICATORS EN1 AND EN2

The AMG businesses fall into three distinct categories—those that produce metals, alloys and inorganic chemical products from primary, mined resources; those which produce metals and alloys from secondary, recycled resources; and those which provide technology and engineering services.

The Engineering Systems Division provides predominantly furnace technology and engineering services. Production activities include furnace assembly operations and furnace service operations (heat treatment services). ESD utilizes limited amounts of raw materials in these activities, mainly component parts for furnaces and heating and quenching fluids and gases. It does not knowingly utilize recycled or secondary raw materials although some steel and aluminum components may have secondary content. These components are often complex and diverse, and are routinely measured in units rather than by mass. Therefore, unlike the chemicals and alloys business units,



only limited data is available on raw material mass. In 2011 the Division reported using 4,383 metric tons of raw materials, all of which were classified as primary.

The Advanced Materials Division uses a much more diverse range of raw materials; for example, the Brazilian mine uses pegmatite as its primary raw materials for tantalum production, but has also developed markets in the ceramics industry for materials previously considered overburden. In contrast GfE in Nürnberg, Germany and AMG Vanadium in Ohio use secondary raw materials including power plant wastes and spent refinery catalysts for the production of vanadium alloys. AMD also uses recycled iron, steel, aluminum and titanium in processes when possible. Across AMD, excluding the mine site in Nazareno, Brazil, 148,000 metric tons of raw materials were used in 2011 of which 38,000 metric tons or 26% were secondary or recycled materials. The Nazareno, Brazil mine used a further 645,000 metric tons of primary raw materials.

## Energy Consumption

### GRI INDICATORS EN3 AND EN4

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 the Advanced Materials Division are energy intensive. In addition to the two most significant energy carriers, electricity and natural gas, minor energy sources captured in the data include gasoline, diesel, liquefied gases, combustible bottled gases and purchased compressed air.

The total energy usage for the Advanced Materials Division showed an expected increase from 1,008 terajoules (TJ) in 2010 to 1,098 TJ in 2011. This increase is explained by steadily increasing revenues as market conditions have improved since the recession, but particularly results from changes in product mix. The relationship of energy use to product mix is complex and is currently being studied for several areas. Direct (652 TJ) and indirect (446 TJ) energy usage continue to account for approximately half of the total energy usage each. The most significant energy carriers by a wide margin are, and will remain, electricity and natural gas.<sup>3</sup>

The heat treatment processes typically used by the Engineering Systems Division are lower temperature and use significantly less energy than Advanced Materials. Once again, increased demand for products and services led to a similar increase in power usage. In 2011 the Division used a total of 218 TJ. The increase over 2010 (186 TJ) relates mainly to increased throughput at the heat treatment facilities in Mexico and Michigan as a result of the auto industry recovery. Although increasing energy consumption, because this is a service, it does not increase product tonnages.

Indirect energy, in the form of electricity, accounted for the increase in energy usage rising from 153 TJ in 2010 to 196 TJ in 2011 while direct energy use, primarily natural gas and some liquid fuels reduced by a third from 2010 to 22 TJ. The mix of energy carriers was therefore more heavily biased to indirect energy (90%) in 2011.

Across AMG, the split between renewable and non renewable energy sources is difficult to determine since utilities do not generally publish this information. However, AMG does generate its own renewable energy. AMG's upgraded hydroelectric generating facility near Sao Joao del Rei, Brazil came fully back on line in 2011 following damage to the generating canal caused by a landslide, and generated a record 43,000 GJ (12,000 MWh). This supplied AMG's local requirements at its Sao Joao del Rei, Brazil plant and provided a surplus that was fed back into the power grid.

In 2011 AMG also started electrical generation from a 230 kW solar field at its AMG Vanadium site in Ohio. This solar facility, the largest of its kind in Southeastern Ohio, is a key component of AMG Vanadium's environmental stewardship and of its commitment to the local community, providing clean, alternative energy to the electrical grid. This solar power system generated 602 GJ and is estimated to eliminate over 200 tons of CO<sub>2</sub> per annum compared to traditional fossil fuels. This combination of AMG Vanadium's technologically advanced industrial recycling process and use of clean, renewable energy proves that metallurgical production and environmental responsibility can work together (see photograph on page 51).

## Water Consumption

### GRI INDICATOR EN8

Water is essential to many manufacturing processes and is used by AMG companies primarily for non contact, evaporative

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

## Mine Water Usage (liters per tonne of pegmatite mined)



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. Water utilized for cooling, process and sanitary usage is reported by all AMG businesses.

Both the Advanced Materials Division and Engineering Systems Division saw almost no change in water usage in 2011 compared to 2010. No clear pattern emerged across the companies with some facilities showing lower usage, and others increases. In most cases clear actions or changes could be identified which led to the changes, for example introduction of new equipment or repairs to water systems. Excluding mining operations, which are the largest water users in the group, water use decreased by 2% from 2010 (from 439 to 430 million liters).

The mine in Nazareno, Brazil saw significantly higher water usage in 2011 as a result of the start up of a second production plant. This new plant does not yet have a water recycling system of the type installed on the main processing plant, and therefore has significant water consumption. Design investigations are underway to determine if this plant, which first operated in 2010 but for which water use data was originally unavailable, can be adapted with a similar water recycle system. The 2010 water figures have been revised to include estimated usage in this second plant. Although the absolute figure rose, so did mine output and therefore the overall trend in water use per metric ton of pegmatite mined remains downward and currently stands at 7.55 liters per tonne.<sup>4</sup>

## Biodiversity

### GRI INDICATOR EN11

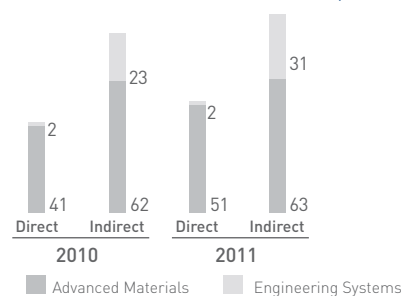
Unchanged from 2010, of the 23 locations reporting for 2011, four reported land areas on or adjacent to their property which had high biodiversity value, sensitive habitats or were protected. These areas included river frontage in Hanau, Germany, native forest in Sao Joao del Rei, Brazil, river frontage and setback areas in Nazareno, Brazil and wetlands in Ohio. AMG is very aware of the need to be responsible stewards of these areas.

## Climate Change

### GRI INDICATOR EN16

Electricity used for the generation of heat for metallurgical processing has been, and remains, the most significant source of greenhouse gas (GHG) emissions for AMG. This electricity use

## Greenhouse Gas Emissions (thousands of metric tons CO<sub>2</sub>e)



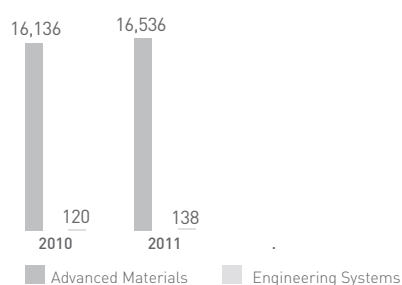
gives rise to indirect GHG emissions of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) which are dependent on the nature of its generation. The emissions have been calculated using emission factors available from the electricity supplier, the local environmental agency or the GHG protocol. Indirect emissions, are defined as those emissions generated by sources outside of AMG's control, but where AMG ultimately uses the energy. Whenever possible the most up to date emission factors have been utilized in the calculations. 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. Both indirect and direct emissions are reported. 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.

As discussed above, increased production levels in 2011 meant similar increases in energy usage, and the preponderance of fossil fuels for energy generation in turn gives rise to increased absolute CO<sub>2</sub>e emissions. The Advanced Materials Division GHG emissions rose from 103,000 metric tons of CO<sub>2</sub>e in 2010, to 114,000 metric tons in 2011, or an 11% increase. Of these emissions 55% are attributed to indirect sources and 45% to direct sources.

The Engineering Systems Division's GHG emissions in 2011 were 32,100 metric tons, an increase from 2010 (24,800 metric tons). This increase was, in the same way as the increased electricity usage that generates the emissions, related to the increased throughput at the Division's heat treatment plants in Limbach Germany, the Port Huron, Michigan and Ramos Arizpe, Mexico. Ninety five percent of these emissions are indirect and associated with electricity usage. AMG provides a complex mix of products and services and it has become clear that year on year comparisons are difficult as product mix varies. Therefore for 2011, GHG intensity has been defined on the basis of revenue rather than, for example, metric tons of product. Including the Advanced Materials Division, Engineering Systems Division and all offices, total GHG emissions were 146,500 metric tons CO<sub>2</sub>e and revenue for these divisions was \$1,185.7, giving overall GHG intensity of 123.5 metric tons per million \$ revenue. The equivalent figure in 2010 was 148.5 metric tons per million \$ revenue and this represent a reduction of 16% on this basis. AMG will continue to monitor and refine its methodology to provide the most meaningful year on year comparisons.

<sup>4</sup> Not all water at the mine is metered and these figures include some estimated data.

## Total landfilled waste disposal (metric tons)



## Emissions to Air

### GRI INDICATORS EN19 AND EN20

The emissions of ozone depleting substances (ODS) remain de minimis for both the Advanced Materials Division and Engineering Systems Division. Additionally, the nature of the Engineering Systems business means that it has minimal air emissions for other pollutants, resulting from only small sources such as heating and hot water boilers; these are again considered de minimis for the purposes of this report. The manufacturing facilities of the Advanced Materials Division do have some other significant air emissions including SO<sub>x</sub> (626 metric tons), NO<sub>x</sub> (111 metric tons), and particulate materials (17 metric tons). Reliable data is only available for regulated sources where measurements have been made. There may be other minor contributions from insignificant sources but they are not considered material for this report. The major change from 2010 is an increase in reported SO<sub>x</sub> emissions as a result of increased processing of sulfur rich raw materials in the production of ferroalloys. Although these plants are equipped with flue gas desulfurization, capturing the large majority of sulfurous gases, 100% capture cannot be achieved with current technologies.

## Emissions to Water and Spills

### GRI INDICATORS EN21 AND EN23

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 2011, the total waste water disposed to water courses by the Advanced Materials Division, excluding the Brazil mine, totaled 131 million liters compared to 136 million liters in 2010. The Brazil mine site discharged a further 189 million liters.

Although most of the Division'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 three production sites reporting industrial process water disposal, the major constituents were metals (1,682 kg), fluoride (185 kg), sulfate (845 metric tons) and total suspended solids (19 metric tons). Additionally, this water

included 6,483 kg of chemical oxygen demand (COD). The large volume of water discharged to surface water from the mine site in Brazil contains suspended solids but these have not been accurately quantified. The Engineering Systems Division also utilizes minimal water for non-contact, closed-cycle cooling purposes, and the discharges are therefore clean water and not considered material to this report.

In 2011 there were no significant spills of tailings and other process materials at any AMG site. A significant spill is 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.

## Waste Disposal

### GRI INDICATOR EN 22

Detailed information was collected once again in 2011 for all waste streams generated by AMG subsidiary companies, along with documentation of the route of recycle or disposal. Actions taken by many of the companies have converted materials once considered wastes into true products or by-products. Wastes as defined here encompass materials not purposefully produced for sale and with no commercial value. AMG continues to seek beneficial reuse opportunities for all by-product materials and views landfill as a last resort.

In 2011 a number of projects created wastes not normally generated as part of AMG's production processes, but which required landfill or incineration. These projects included disposal of legacy materials for which no customers could be identified, disposal of contaminated soils from a failed sewer line, and demolition of old plant and buildings. In addition, the 2010 data for the Advanced Materials Division has been revised upwards based on a review of available data. The total landfill or incineration disposal for AMD was 16,536 metric tons, an increase of 2% over 2010 (16,136 metric tons). This increase is primarily related to the projects referred to above, offset by ongoing and increasing recycling efforts. Of these materials 85% (13,840 metric tons) were non hazardous, with the remaining 2,697 metric tons disposed to licensed hazardous waste landfills. The disposal figures are expected to remain adversely affected by one off remediation and demolition projects, at least into 2012.

The waste produced by the Engineering Systems Division is much different in composition, and much smaller in volume. Just 138 metric tons was disposed to landfill in 2011, composed



mainly of general waste, contaminated oils and metals that could not readily be recycled. The total amount disposed by this Division was comparable to 2010 (120 metric tons).

Overall, the Company disposed of 16,675 metric tons of waste to landfill or incineration in 2011, of which 16% was hazardous waste. A further 4,244 metric tons of waste materials were recycled.

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

#### GRI INDICATOR EN28

The Advanced Materials and Engineering Systems Divisions did not receive any fines or equivalent penalties for non compliance with environmental laws in 2011.

#### GRI INDICATOR S08

In 2011 the Engineering Systems Division did not receive any fines. Within the Advanced Materials Division, the mine in Nazareno, Brazil, was found to be out of compliance with certain regulations and this is expected to result in monetary penalties but the amount is not yet finalized.

### Product Responsibility

#### GRI INDICATOR MM 11

Following the successful registration of all high volume (>1,000 metric tons) or hazardous products under the REACH regulations in Europe, AMG is now significantly advanced in preparations for the next series of registrations in 2013 for products with volumes >100 metric tons. European subsidiary companies are involved with Consortia developing the health, safety and environmental data required for these registrations and has 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 subsidiary companies are involved in, amongst others, the Aluminum Association, the Vanadium International Technical Committee (Vanitec) and the International Antimony Association (I2A).

#### 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 to ensure that AMG's reporting is consistent with the GRI reporting principles. AMG believes that in all material aspects the report meets the requirements of a B+ application level. For brevity, only the most pertinent and not all 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](http://www.amg-nv.com)).

### United Nations Global Compact

AMG commits its support to the principles of the United Nations Global Compact ("Global Compact"). The Global Compact, which is overseen by the United Nations ("UN"), 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 ("COP") in April 2012.

### Extractive Industries Transparency Initiative

AMG continues its support of the Extractive Industries Transparency Initiative ("EITI", <http://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. The Initiative 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, although, as of today, AMG does not have any extractive operations in an EITI implementing country.

### Global Reporting Initiative

AMG supports the Global Reporting Initiative ("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 was 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 is currently developing a fourth generation of guidelines, G4. As Organizational Stakeholder in the GRI Program, AMG is monitoring the development of this revision and will contribute as appropriate. Organizational Stakeholders put their name to the GRI mission, products and processes, and promote broadening participation around sustainability and transparency. The Organizational Stakeholders 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 UNGC Communication on Progress can be found on the AMG website ([www.amg-nv.com](http://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 were 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 was 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. AMG and CRA determined a different approach to assurance in 2011. An analysis of previous year's data demonstrated that 5 of AMG's facilities accounted for over 90% of the contributions to the major indicators. As a result CRA carried out onsite audits at Rotherham, UK, Ohio, Sao Joao del Rei, Brazil, Nazareno, Brazil and Nürnberg, Germany. Remote audits utilizing telephone and web based methods were carried out for 10 other facilities (see table page 51), but not for offices. Stakeholder engagement was not within the scope of the assurance activities.

## Conclusions/Recommendations

On the basis of 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 2011. 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., Associate  
Conestoga-Rovers & Associates  
Gregory A. Carli, P.E., Principal  
Conestoga-Rovers & Associates

# Social and Environmental Key Performance Indicators and GRI Content Index

## SELECTED SOCIAL AND ENVIRONMENTAL KEY PERFORMANCE INDICATORS\*

GRI INDICATOR	DESCRIPTION		ADVANCED MATERIALS		ENGINEERING SYSTEMS	
			2010	2011	2010	2011
LA1	Total workforce		1,248	1,369	790	820
LA4	% of employees covered by collective bargaining agreements		82	81	45	37
LA7	Accident Rates	Total	3.3	3.2	3.3	2.6
LA7	Accident Severity Rate	Total	0.36	0.32	0.23	0.19
LA10	Average Hours of Training Per Year	Per person	17	32	17	15
EN2	% Recycled Raw Materials (excluding mine)	%	17	26	0	0
EN3	Direct Energy Consumption	TJ	551	652	33	22
EN4	Indirect Energy Consumption	TJ	468	446	153	196
EN8	Water consumption (manufacturing)	Million l	397	371	46	65
EN8	Water consumption (mining)	Million l	1,836	4,746	n/a	n/a
EN16	CO <sub>2</sub> equivalent emissions	mt	99,500	116,300	24,500	32,000
EN20	SO <sub>x</sub> emissions	mt	442	626	0	0
EN20	NO <sub>x</sub> emissions	mt	110	111	0	0
EN20	Particulates discharged to air	mt	18	17	0	0
EN21	Metals discharged to water	kg	4,200	1,682	0	0
EN22	Hazardous waste (including recycled)	mt	5,705	3,830	251	308
EN22	Non-hazardous waste (including recycled)	mt	13,791	16,229	643	803
EN22	Percent of waste recycled	%	40	20	86	62
EN22	Waste disposed to landfill	mt	16,138	16,536	120	138
EN23	Spills	L	0	0	0	0
EN28	Environmental Fines	\$	0	0	0	0
S08	Fines for non compliance with laws	\$	0	0	0	0

\* For a full list see pages 52-57.

## GRI CONTENT INDEX

PART	SECTION	REFERENCE	PAGES
Part I: Profile Disclosures	Strategy and Analysis	1.1, 1.2	4-9
	Organizational Profile	2.1 to 2.10	1-34
	Report Parameters	3.1 to 3.13	51-59
	Governance, Commitments, and Engagement	4.1 to 4.17	42-50, 60-65
Part II: Disclosures on Management Approach (DMA)	Economic, Environment, Labor, Human Resources, Society, Product Responsibility	DMA EC, EN, LA, HR, SO, PR	1-65
Part III: Performance Indicators	Economic: Economic Performance	EC1	2
	Environmental: Materials	EN1, EN2	53
	Environmental: Energy	EN3, EN4	54
	Environmental: Water	EN8	54
	Environmental: Emissions, effluents, wastes	EN16, 19, 20, 21, 22, 23	55, 56
	Environmental: Other	EN11, EN28	55, 57
	Social: Labor Practices and Decent Work	LA1, 4, 6, 7, 10, 13	52
	Social: Human Rights	HR3, 5, 6	53
	Social: Society	S03, S08	53, 57
	Social: Product Responsibility	MM11	57

# Corporate Governance

## General

AMG Advanced Metallurgical Group N.V. ("AMG" or the "Company") is a company organized under Dutch law and is the parent company of the AMG Group. The Company was established in 2006 as the holding company for the AMG Group companies and its shares were first listed on Euronext Amsterdam by NYSE Euronext ("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 ("Dutch Corporate Governance Code")). The Dutch Corporate Governance Code can be downloaded at [www.corpgov.nl](http://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 2011 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](http://www.amg-nv.com)) under the chapter Corporate Governance.

## Annual Accounts and Dividend

The Management Board and the Supervisory Board have approved AMG's audited (consolidated) financial statements for 2011. 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 finance the growth and development of its business. As a result, the Management Board does not anticipate that AMG will pay any dividends for the foreseeable future. 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, 2011, the total issued share capital of AMG amounts to EUR 550,398,58 consisting of 27,519,929 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 (>5%) in ordinary shares of AMG:

As of February 29, 2012

C. Leone/Luxor Management LLP	14,42 %
Hunter Hall Investment Management Ltd	5.10%

Shareholding table:

	2011	2010
Number of ordinary shares outstanding	27,519,929	27,503,885
Average daily turnover	415,414	213,730
Highest closing price	16.76	9.37
Lowest closing price	6.98	6.24

## 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 an anti-takeover 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 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. The Articles of Association of the Company have been amended on July 6, 2010 and now provide for an authorized share capital of 65,000,000 ordinary shares and 65,000,000 preference shares.

### Stichting Continuïteit AMG

In line with Dutch law and corporate practice, on July 6, 2010, the Stichting Continuïteit AMG ("Foundation") was established in Amsterdam, the Netherlands, 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.G. 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 twenty-eight (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. In the event of a binding nomination, the General Meeting of Shareholders appoints from a nomination of at least the number of persons prescribed by Dutch law (currently two) made by the Supervisory Board. A binding nomination means that the General Meeting of Shareholders may only appoint one of 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 and the Rules of Procedure state that in the event of a legal act or a lawsuit between the Company and any of the members of the Management Board, the Company shall be represented



by any other non-conflicted members of the Management Board or by a Supervisory Board member designated by the Supervisory Board. In addition, it is provided that the respective member of the Management Board shall not take part in the decision-making and voting in respect of such legal act or lawsuit, or any other subject whereby the respective member of the Management Board has a conflict of interest which is of material significance to the Company, and that any such legal act or subject require the approval of 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 neither be 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 and the Audit 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 reappointed for additional terms not exceeding four years. Unless the General Meeting of Shareholders provides otherwise, a member of the Supervisory Board cannot be reappointed 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 of at least the number of persons prescribed by Dutch law (currently two) made by the Supervisory Board. A binding nomination means that the General Meeting of Shareholders may only appoint one of the nominated persons, 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 Management 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, 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 42-50 of this Annual Report). Each of the current members of the Supervisory Board has undertaken to AMG 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 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), the Netherlands and takes place within six months from the end of the preceding financial year.

Meetings are convened by public notice and by letter, or by use of electronic means of communication, to registered shareholders. Notice is given at least forty-two 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 11, 2011, the General Meeting of Shareholders resolved to authorize the Management Board for a period of 18 months from that date (until November 10, 2012) 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, 2010 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, 2010 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.

In addition on May 11, 2011 the General Meeting of Shareholders resolved to authorize the Management Board for a period of 18 months from that date (until November 10, 2012) 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, 2010 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 which has been approved by the Supervisory Board. A resolution of the General Meeting of Shareholders to amend the Articles of Association which 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.

### 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 which 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 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 which information is incorporated by reference in this Corporate Governance report.

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

The Company is a party to the following agreement 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 5 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 61.

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

In this chapter the Company discusses 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"). In doing so, the outline and numbering of the Code is being followed.

As a general statement the Company fully endorses the Corporate Governance 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 will be explained hereafter.

Deviation from these best practice provisions stems from the specialized nature of the Company's business, a reflection of local market practice in which executives may be employed and the recognition of pre-existing contractual agreements. AMG was formed in March 2007 through the merger of eight operating companies. The members of the Management Board had pre-existing contracts as executives of certain of the operating companies that formed AMG. These contracts reflect local market conditions and customary provisions in the countries in which the executives may have been employed. They have provisions that do not fully comply with the Code's best practices. In view of the specialized nature of AMG's business and the qualifications and expertise of the present members of the Management Board, AMG intends to honour its existing contractual commitments to those members of the Management Board, in order to retain their services and to maintain their commitment to the Company.

The new remuneration policy for members of the Management Board was approved and adopted by the General Meeting of Shareholders in its Annual Meeting of May 13, 2009. This (revised) remuneration policy is published on the website of the Company under the heading Corporate Governance (hereafter referred to as "the Remuneration Policy"). Below the Company reviews in more detail to what extent its prevailing remuneration practice does not comply with the best practice provisions included in chapter II.2 of the Code.

### II.2.4

Under the Company's remuneration policy effective prior to 2009, the members of the Management Board have been granted unconditional options that do not have any performance criteria required to be met. Additionally, such options have a vesting schedule which permits a majority of the options to be exercised within the first three years after having been granted. Furthermore the members of the Management Board have been granted unconditional options, upon approval by the General Meeting of Shareholders in May 2009, in lieu of part of their base salary for 2009, as a measure to minimize cash expenditures by the Company. As a result the Company deviates from best practice provision II.2.4.

#### II.2.5

The Company has introduced under the Remuneration Policy so called performance share units ("PSUs") for its Management Board members (as well as other senior executives). No Company shares have been granted to Management Board members. The financial rationale and functioning of PSUs are explained in the Company's remuneration policy, published on its website. PSUs pay out, if and when targets specified beforehand are met, after three (3) years from the date of allocation. The Company believes that this remuneration component does not violate any of the best practice provisions and spirit of the Code. However, by way of enhanced transparency, and because the Supervisory Board has decided to introduce a phased-in vesting scheme for the initial awards, it is felt appropriate to make specific reference to PSUs under this chapter.

#### II.2.8

Each member of the Management Board has a contract of employment with AMG as well as with a now-constituent entity of AMG Group prior to the formation of AMG. These contracts provide for payment of two years of base salary compensation in the event of termination by the Company without cause. As a result the Company deviates from best practice provision II.2.8 for reasons explained above and in the Company's Remuneration Policy.

#### III.7.1

A supervisory board member shall not be granted any shares and/or rights to shares by way of remuneration. Shareholders at the General Meeting of Shareholders held in May 2009 approved granting shares to members of the Supervisory Board as part of their remuneration, as further explained in the Company's Remuneration Policy.

#### III.7.2

Any shares held by a Supervisory Board member in the Company on whose board he sits are long-term investments. The undertaking by members of the Supervisory Board not to transfer or otherwise dispose of shares in AMG's share capital until the earlier of the third anniversary of the date of the grant and the first anniversary of the date on which such member ceases to be a member of the Supervisory Board is limited to shares granted as part of their annual remuneration and does not extend to any other shares in the Company held by such member.

### Conflicts of Interest

In October 2011 AMG Invest GmbH, a group company of AMG, entered into an agreement with Intellifast GmbH to acquire all of the assets and assume certain of the liabilities of Intellifast GmbH for a total consideration of €6.1 million. Intellifast GmbH is a designer of advanced fastening technology for the energy, aerospace and industrial markets and is owned by a company controlled by Dr. Schimmelbusch. This transaction was approved by the Management Board and Supervisory Board in accordance with articles 11, 12 and 13 of the Rules of Procedure of the Management Board. Dr. Schimmelbusch did not participate in the discussion on the vote on this transaction in the Management Board.

No other 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, 2011 up to and including February 29, 2012, other than the conflict of interest mentioned above.

Further during the period starting January 1st, 2011 up to and including February 29th, 2012, 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 ("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.

# Financial Review

	Year ended December 31	
In thousands of US Dollars	2011	2010
<b>Revenue and expenses</b>		
Advanced Materials revenue	871,939	616,267
Engineering Systems revenue	313,830	245,652
Graphit Kropfmühl revenue	165,537	128,576
Total revenue	1,351,306	990,495
Cost of sales	1,113,330	811,937
<b>Gross profit</b>	237,976	178,558
Selling, general and administrative expenses	170,772	128,934
Restructuring and asset impairment expenses	609	1,025
Environmental expense	5,886	6,421
Other (income) expense, net	(8,827)	(1,081)
<b>Operating profit</b>	69,536	43,259

## Revenue

AMG's revenue improved by \$360.8 million to \$1,351.3 million in the year ended December 31, 2011, a 36% increase. Several acquisitions completed during the year contributed \$80.5 million of incremental revenue. Advanced Materials (excluding its acquisition of KB Alloys) and Graphit Kropfmühl both increased their revenue by 29% due to rising metal prices and improved demand in certain business sectors. Engineering's revenue growth of 28% was driven by strength in heat treatment and remelting furnaces, offset by the weakening of the solar market.

Advanced Materials' 2011 revenue increased by \$255.7 million, or 41%, from 2010, to \$871.9 million. KB Alloys contributed \$76.5 million of the improvement while increases in average selling prices and volumes for many products, most notably for antimony and titanium alloys, contributed to the remaining growth.

Engineering Systems' order intake for 2011 was \$292.4 million, up 4% from 2010. This slight improvement helped generate the revenue growth of \$68.2 million or 28%. The improvement in the automotive industry facilitated a large portion of the Engineering revenue growth. Revenue for heat treatment furnaces for the production of lightweight automotive components increased by \$42.3 million or 149% during 2011 while heat treatment services revenue increased by \$15.6 million or 55%.

Graphit Kropfmühl benefitted from improvements in both of its key products in 2011. Silicon metal revenue increased by \$22.8 million due to better contract pricing. Graphite volumes and prices improved during 2011 contributing \$14.1 million in additional revenue year over year.

## Gross profit

AMG's gross profit increased to \$238.0 million in the year ended December 31, 2011 from \$178.6 million in

the year ended December 31, 2010, a 33% improvement. As a percentage of revenue, gross profit remained relatively stable at 18%. Advanced Materials gross margin percentage declined slightly from 15% in 2010 to 14% in 2011 primarily due to the increase in aluminum products revenue which has historically lower margins than other Advanced Materials products. Engineering Systems margins also declined slightly from 29% in 2010 to 27% in 2011. This decline was the result of lower solar furnace sales, which historically had gross margins in excess of 30%. These two slight declines in Advanced Materials and Engineering Systems were offset by significant improvement in gross margin at GK, where the margin percentage improved from 11% in 2010 to 21% in 2011, led by strong silicon metal margins.

## Selling, general and administrative expenses

Selling, general and administrative costs were \$170.8 million in the year ended December 31, 2011 as compared to \$128.9 million in the year ended December 31, 2010. As a percentage of sales, SG&A costs remained relatively consistent with 2010 at 13% of sales. The increases in SG&A were across all categories with large one-time items affecting bad debt expense. Bad debt expense related to a Korean manufacturer's note receivable totalled \$4.2 million while provisions related to non-recoverable Timminco receivables were \$7.5 million.

Personnel expenses increased to \$89.3 million in the year ended December 31, 2011 from \$73.8 million in the year ended December 31, 2010. Due to improved performance in the year, salary and bonuses increased to \$61.9 million in 2011 from \$48.6 million in 2010. The cash-settled share-based payment expense increased by \$3.9 million. Those costs were partially offset by a decline in share-based payment expense. Equity settled option costs have declined by \$2.8 million year over year. The



Company incurs professional fees from global service providers for services including audit, tax planning and compliance and legal consultation. Professional fees were \$22.4 million in 2011 as compared to \$19.2 million in 2010, a 17% increase. Acquisition and potential group restructuring costs, including legal and tax planning, provided the largest portion of this increase. Research and development expense increased to \$8.1 million in the year ended December 31, 2011 as compared to \$6.0 million in the year ended December 31, 2010. During 2010, the Engineering Systems Division put several projects on hold which were restarted in 2011 with a better business projection. All other SG&A expenses, such as travel and entertainment, insurance, occupancy, communication and bank fees increased from \$29.9 million in the year ended December 31, 2010 to \$50.9 million in the year ended December 31, 2010. The primary reason for this increase was related to the bad debts noted previously. In 2011, the total bad debt expense was \$12.2 million. In 2010, bad debt expense was reversed resulting in a year over year variance of \$13.3 million.

### Other income

Other income for the year ended December 31, 2011 was primarily negative goodwill ("bargain purchase") income booked on the KB Alloys acquisition of \$5.4 million and an insurance recovery of \$2.8 million from a claim made in 2010.

### Operating profit

AMG's operating profit increased to \$69.5 million in the year ended December 31, 2011 from \$43.3 million in the period ended December 31, 2010, a 61% improvement. GK's continued improvement in overall profitability was bolstered

by the reversal of asset impairment of \$16.9 million. These GK improvements more than offset small declines noted in Advanced Materials and Engineering Systems.

### Non-recurring items

AMG's 2011 operating profit of \$69.5 million includes non-recurring items, which are not included in the calculation of EBITDA. These items are comprised of 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 better analysis of the results. Non-recurring items include asset impairment expense related to certain solar assets and certain Advanced Materials projects totaling \$15.0 million which are more than offset by a reversal of impairment of \$16.9 million for GK assets which previously had been written-down. Other non-recurring items in the year ended December 31, 2011 included in operating profit are a \$7.5 million provision for Timminco receivables, \$5.9 million environmental expense, \$2.5 million restructuring expense related to a dissolving joint venture and \$5.4 million bargain purchase gain recognized on the acquisition of KB Alloys. Additional non-recurring expenses affecting profit before tax include AMG's share of Timminco losses of \$17.7 million and \$2.6 million of net finance costs related to the valuation of a convertible note due from Timminco.

### Finance costs

The table below sets forth AMG's net finance expense for the periods ended December 31, 2011 and 2010. Finance expense increased during the year due to increasing debt levels. The Company refinanced its revolving credit facility during 2011 which resulted in an extinguishment of debt of \$3.9 million.

In thousands of US dollars	Period ended December 31	
	2011	2010
Finance expense	26,370	18,727
Finance income	(5,457)	(5,429)
Foreign exchange loss (income)	1,366	(2,799)
Net finance costs	22,279	10,497

### Income taxes

The provision for income taxes increased to \$18.7 million for the year ended December 31, 2011 from \$11.2 million for the period ended December 31, 2010. The increase in provision was primarily a result of the Company's increase in profit before income tax. The effective tax rate for 2011 was 69%, which was improved over the effective rate of 84% in 2010. These tax rates were negatively impacted by the losses from associates. These losses were \$20.3 million in 2011 and \$19.4 million in 2010 and no tax benefit can be booked

for these losses, which are accounted for on an equity basis. Excluding the loss from associates, the effective tax rate for 2011 would have been approximately 40% which more appropriately matches the statutory tax rates in the countries where the Company operates.

### Net income

The Company recorded net income attributable to shareholders of \$5.2 million in the year ended December 31, 2011 as compared to income of \$2.4 million in the year ended December 31, 2010.

## 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, 2011, the Company

had \$79.6 million in cash and cash equivalents and \$59.0 million available on its revolving credit facility. Changes in the Company's liquidity were due primarily to the investments in working capital, expansion projects and acquisitions during the year.

In thousands of US Dollars	2011	2010
Non-current loans and borrowings	210,448	187,813
Current loans and borrowings	58,173	49,276
Total debt	268,621	237,089
Cash	79,571	89,311
Net debt	189,050	147,778

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, 2011 and 2010.

	2011	2010
Net cash provided by (used in):		
Operating activities	45,039	(1,623)
Investing activities	(82,833)	(62,572)
Financing activities	27,935	42,352
Net decrease in cash and cash equivalents	(9,859)	(21,843)

### Cash flows

Net cash provided by operating activities was \$45.0 million in the year ended December 31, 2011 as compared to cash used of \$1.6 million in the year ended December 31, 2010, a \$46.7 million improvement. Improved EBITDA was only partially absorbed by investments in working capital, taxes paid of \$34.2 million and interest paid of \$14.6 million.

Net cash used in investing activities increased to \$82.8 million in the year ended December 31, 2011 from \$62.6 million in the year ended December 31, 2010, a \$20.3 million increase. The largest expenditures in the year ended December 31, 2011 included:

- \$26.8 million related to acquisitions in the Advanced Materials segment
- \$2.5 million related to acquisitions in Engineering Systems
- \$5.5 million to expand our heat treatment services business
- \$3.0 million to expand graphite milling capacity
- \$7.2 million to expand our tantalum processing facility
- \$1.1 million to expand our antimony mining operation
- \$17.8 million in maintenance capital and intangible acquisitions
- \$5.0 million to provide trade financing to Timminco

The remaining capital expenditures related to other smaller projects.

Cash provided by financing activities was \$27.9 million in the year ended December 31, 2011 as compared to

\$42.4 million in the year ended December 31, 2009. The cash provided by financing activities was lower in 2011 due to \$10.8 million in payments for debt issuance costs and offset by \$3.3 million net draws on revolving lines of credit. Cash from operating activities was able to provide a source of cash for some of the investing activities completed during the year.

### Outlook

The global market is still challenging. After a difficult year-end period, particularly for Advanced Materials, there are signs of improvement, but growth differs amongst geographic segments and end markets. Specific markets such as aerospace are robust, while the infrastructure and energy markets continue to suffer from supply-demand imbalances. Scarcity of resources, particularly in critical raw materials such as antimony, tantalum and natural graphite continue to be an issue. In this environment, AMG is focused on improving our existing operations to maximize profitability. Progress is being made in the Turkey and Brazil mine based businesses, which are producing ore and performing extensive drilling programs, which are the basis for more detailed and effective mining plans. In February 2012, AMG initiated a Voluntary Tender offer in an attempt to take Graphit Kropfmühl private in order to simplify the AMG capital structure and increase operational efficiencies. Despite the global uncertainties, AMG expects an increase in revenue, EBITDA and net income attributable to shareholders in 2012.

# Financial Statements

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# Consolidated Income Statement

For the year ended December 31	Note	2011	2010
In thousands of US Dollars			
<b>Continuing operations</b>			
Revenue	6	1,351,306	990,495
Cost of sales		1,113,330	811,937
Gross profit		237,976	178,558
Selling, general and administrative expenses		170,772	128,934
Restructuring expense	26	2,526	423
Asset impairment (reversal) expense	12, 13, 17	(1,917)	602
Environmental expense	26	5,886	6,421
Other expenses		1,243	260
Other income	7	(10,070)	(1,341)
Operating profit		69,536	43,259
Finance expense	9, 22	26,370	18,727
Finance income	9	(5,457)	(5,429)
Foreign exchange loss (gain)	9	1,366	(2,799)
Net finance costs	9	22,279	10,499
Share of loss of associates and joint ventures	14	(20,265)	(19,405)
Profit before income tax		26,992	13,355
Income tax expense	10	18,702	11,207
Profit for the year		8,290	2,148
Attributable to:			
Shareholders of the Company		5,160	2,414
Non-controlling interests		3,130	(266)
		8,290	2,148
<b>Earnings per share</b>			
Basic earnings per share	21	0.19	0.09
Diluted earnings per share	21	0.19	0.09

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



# Consolidated Statement of Comprehensive Income

For the year ended December 31	Note	2011	2010
In thousands of US Dollars			
<b>Profit for the year</b>		8,290	2,148
Exchange differences on translation of foreign operations	20	(7,475)	(4,311)
(Loss) gain on cash flow hedges, net of tax of \$3,315 and (\$871), respectively	20	(18,223)	1,865
Loss recognized directly in other comprehensive income	20	(25,698)	(2,446)
<b>Total comprehensive loss</b>	20	(17,408)	(298)
Attributable to:			
Shareholders of the Company		(19,902)	1,723
Non-controlling interests		2,494	(2,021)

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

# Consolidated Statement of Financial Position

As at December 31	Note	2011	2010
In thousands of US Dollars			
<b>Assets</b>			
Property, plant and equipment	12	263,586	228,612
Goodwill	13	23,535	21,704
Intangible assets	13	14,557	5,298
Investments in associates and joint ventures	14	5,085	25,186
Derivative financial instruments	31	1	5,199
Deferred tax assets	10	29,142	22,107
Restricted cash	18	11,074	12,528
Notes receivable	31	250	322
Other assets	17	17,866	15,372
<b>Total non-current assets</b>		<b>365,096</b>	<b>336,328</b>
Inventories	15	228,887	207,204
Trade and other receivables	16	188,103	175,421
Derivative financial instruments	31	3,956	5,731
Other assets	17	35,184	41,080
Cash and cash equivalents	19	79,571	89,311
<b>Total current assets</b>		<b>535,701</b>	<b>518,747</b>
<b>Total assets</b>		<b>900,797</b>	<b>855,075</b>
<b>Equity</b>			
Issued capital		742	741
Share premium		381,921	381,636
Other reserves		14,157	36,158
Retained earnings (deficit)		(191,362)	(196,481)
Equity attributable to shareholders of the Company		205,458	222,054
Non-controlling interests		15,160	11,911
<b>Total equity</b>	20	<b>220,618</b>	<b>233,965</b>
<b>Liabilities</b>			
Loans and borrowings	22	210,448	187,813
Employee benefits	24	90,078	88,372
Provisions	26	27,019	20,607
Government grants	27	732	642
Other liabilities	28	9,276	5,517
Derivative financial instruments	31	8,122	698
Deferred tax liabilities	10	26,434	25,436
<b>Total non-current liabilities</b>		<b>372,109</b>	<b>329,085</b>
Loans and borrowings	22	17,436	4,254
Short term bank debt	23	40,737	45,022
Government grants	27	34	175
Other liabilities	28	51,673	43,287
Trade and other payables	29	128,493	102,253
Derivative financial instruments	31	10,661	1,754
Advance payments	6	30,204	49,597
Current taxes payable	10	14,468	24,979
Provisions	26	14,364	20,704
<b>Total current liabilities</b>		<b>308,070</b>	<b>292,025</b>
<b>Total liabilities</b>		<b>680,179</b>	<b>621,110</b>
<b>Total equity and liabilities</b>		<b>900,797</b>	<b>855,075</b>

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						
	Issued capital (Note 20)	Share premium	Other reserves (Note 20)	Retained deficit	Total	Non-controlling interests	Total equity
<b>Balance at January 1, 2010</b>	725	379,518	31,284	(198,897)	212,630	15,793	228,423
Foreign currency translation	–	–	(2,556)	–	(2,556)	(1,755)	(4,311)
Gain on cash flow hedges, net of tax	–	–	1,865	–	1,865	–	1,865
Net loss recognized through other comprehensive income	–	–	(691)	–	(691)	(1,755)	(2,446)
Profit (loss) for the year	–	–	–	2,414	2,414	(266)	2,148
Total comprehensive (loss) income for the year	–	–	(691)	2,414	1,723	(2,021)	(298)
Issuance of shares to Supervisory board	1	272	–	–	273	–	273
Issuance of shares for acquisition of non-controlling interest	15	1,846	–	–	1,861	(1,861)	–
Equity-settled share-based payments	–	–	5,565	–	5,565	–	5,565
Other	–	–	–	2	2	–	2
<b>Balance at December 31, 2010</b>	741	381,636	36,158	(196,481)	222,054	11,911	233,965
<b>Balance at January 1, 2011</b>	741	381,636	36,158	(196,481)	222,054	11,911	233,965
Foreign currency translation	–	–	(6,839)	–	(6,839)	(636)	(7,475)
Loss on cash flow hedges, net of tax	–	–	(18,223)	–	(18,223)	–	(18,223)
Net loss recognized through other comprehensive income	–	–	(25,062)	–	(25,062)	(636)	(25,698)
Profit for the year	–	–	–	5,160	5,160	3,130	8,290
Total comprehensive (loss) income for the year	–	–	(25,062)	5,160	(19,902)	2,494	(17,408)
Issuance of shares to Supervisory board	1	285	–	–	286	–	286
Non-controlling interest obtained through acquisition	–	–	–	–	–	1,102	1,102
Equity-settled share-based payments	–	–	3,061	–	3,061	–	3,061
Dividend paid to non-controlling interest	–	–	–	–	–	(347)	(347)
Other	–	–	–	(41)	(41)	–	(41)
<b>Balance at December 31, 2011</b>	742	381,921	14,157	(191,362)	205,458	15,160	220,618

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

# Consolidated Statement of Cash Flows

For the year ended December 31	Note	2011	2010
In thousands of US Dollars			
<b>Cash flows from (used in) operating activities</b>			
Profit for the year		8,290	2,148
Adjustments to reconcile profit to net cash flows:			
Non-cash:			
Depreciation and amortization	12, 13	29,625	25,009
Amortization of purchase accounting adjustment to inventory		235	–
Restructuring expense	26	2,526	423
Asset impairment (reversal) expense	12, 13, 17	(1,917)	602
Environmental expense	26	5,886	6,421
Net finance costs	9	22,279	10,499
Share of loss of associates and joint ventures	14	20,265	19,405
Loss on sale or disposal of property, plant and equipment	12	50	262
Equity-settled share-based payment transactions	25	3,438	6,362
Income tax expense	10	18,702	11,207
Working capital adjustments			
Change in inventories		(19,963)	(23,774)
Change in trade and other receivables		(24,749)	(40,033)
Change in prepayments		8,440	(12,248)
Change in trade payables, provisions, and other liabilities		13,857	35,488
Change in government grants	27	(174)	(17)
Other		4,490	5,900
Finance costs paid	9	(14,593)	(15,334)
Finance costs received	9	2,530	1,496
Income tax paid, net	10	(34,178)	(35,439)
Net cash flows from (used in) operating activities		45,039	(1,623)
<b>Cash flows used in investing activities</b>			
Proceeds from sale of property, plant and equipment	12	609	983
Acquisition of associates and joint ventures	14	–	(10,765)
Acquisition of subsidiaries (net of cash acquired of \$3,856)	5	(29,456)	–
Asset acquisitions	5	–	(20,154)
Acquisition of property, plant and equipment and intangibles	12, 13	(51,922)	(32,973)
Related party loans	35	(5,002)	264
Change in restricted cash	18	1,369	151
Other		1,569	(78)
Net cash flows used in investing activities		(82,833)	(62,572)
<b>Cash flows from financing activities</b>			
Proceeds from issuance of debt	22, 23	227,511	45,546
Payment of transaction costs related to debt issuance	22	(10,848)	–
Repayment of borrowings	22, 23	(188,740)	(3,432)
Other		12	238
Net cash flows from financing activities		27,935	42,352
Net decrease in cash and cash equivalents		(9,859)	(21,843)
Cash and cash equivalents at January 1		89,311	117,016
Effect of exchange rate fluctuations on cash held		119	(5,862)
Cash and cash equivalents at December 31	19	79,571	89,311

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, 2011 were authorized for issuance in accordance with a resolution of the Supervisory Board on March 28, 2012.

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, 2011 comprise the Company and the companies that comprise its subsidiaries (together referred to as the "Group") and the Company's interest in associates and jointly controlled entities.

AMG was incorporated in the Netherlands as a public limited liability company 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 operating segments: Advanced Materials, Engineering Systems and Graphit Kropfmühl.

The subsidiaries that make up these three operating segments are primarily located in Europe, North America and South America. The Advanced Materials segment develops and produces specialty metals, alloys and high performance materials. AMG is a significant producer of specialty metals, such as ferrovanadium, ferronickel-molybdenum, aluminum master alloys and additives,

chromium metal and ferrotitanium for Energy, Aerospace, Infrastructure and Specialty Metal and Chemicals applications. Other key products include specialty alloys for titanium and superalloys, coating materials, tantalum and niobium oxides, vanadium chemicals and antimony trioxide (see note 4). The Engineering Systems segment 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 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 also provides vacuum case-hardening heat treatment services on a tolling basis. The Graphit Kropfmühl segment is a majority controlled, publicly listed subsidiary of AMG. Based on its secure raw material sources in Africa, Asia and Europe, Graphit Kropfmühl is a specialist in the production of silicon metal and the extraction, processing and refining of natural crystalline graphite for a wide range of energy saving industrial applications.

These financial statements represent the consolidated financial statements of the Company. These consolidated financial statements as of December 31, 2011 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 when a direct or indirect controlling interest exists through voting rights or joint ventures and associates at the reporting dates. The following table includes all entities in which AMG has any ownership interest.

Name	Country of incorporation	Percentage held (directly or indirectly) by the Company	Percentage held (directly or indirectly) by the Company
		December 31, 2011	December 31, 2010
ABS Apparate-und Behälterbau Staßfurt GmbH	Germany	49	49
ALD C&K Vacuum Technologies (Shanghai) Co., Ltd.	China	65	–
ALD Holcroft Vacuum Technologies Co.	United States	50	50
ALD Industrie-und Montagepark Staaken GmbH	Germany	51	51
ALD Own & Operate GmbH	Germany	100	100
ALD Technologies Polska S.z.o.o	Poland	100	100
ALD Thermal Treatment, Inc.	United States	100	100
ALD Thermo Technologies Far East Co., Ltd.	Japan	100	100
ALD Tratamientos Termicos S.A.	Mexico	100	100
ALD Vacuum Technologies GmbH	Germany	100	100
ALD Vacuum Technologies Inc.	United States	100	100
ALD Vacuum Technologies Ltd.	United Kingdom	100	100
ALD Vacuum Technologies Singapore PTE Ltd.	Singapore	100	100
ALD Vakuumpyje Technologii OOO	Russia	100	100
AMG Advanced Metallurgical Group Investment BV	Netherlands	100	100
AMG Brazilian Holding BV	Netherlands	100	100
AMG Coating Technologies GmbH	Germany	100	100
AMG Conversion Ltd.	Canada	100	100
AMG Dutch Holdings CV	Netherlands	100	100
AMG Euro Holdings CV	Netherlands	100	100
AMG Idealcast Solar Corporation	United States	100	100
AMG Intellifast GmbH	Germany	100	–
AMG Invest GmbH	Germany	100	100
AMG Mining Ltd.	United Kingdom	100	–
AMG Vanadium, Inc. (formerly Metallurg Vanadium Corporation)	United States	100	100
Benda-Lutz-Alpoco Sp.z o.o.	Poland	51	51
Bogala Graphite Lanka Plc. (a)	Sri Lanka	88.1	88.0
Bostlan S.A.	Spain	25	25
Branwell Graphite Ltd.	United Kingdom	88.1	88.0
Companhia Industrial Fluminense Mineracao S.A.	Brazil	100	100
Dynatech Furnaces Private Ltd.	India	30	30
Ecopedras LTA	Portugal	100	100
Edelgraphit GmbH	Germany	88.1	88.0
EsteR-Technologie GmbH	Germany	50.2	50.2
EsteR-Separation GmbH	Germany	60	60
Fair Deal Trading (Pvt.) Ltd. (a)	Sri Lanka	88.1	88.0
FNE Forschungsinstitut für Nichteisen-Metalle GmbH	Germany	100	100
Furnaces Nuclear Applications Grenoble S.A.	France	100	100
GfE Fremat GmbH	Germany	100	100
GfE Gesellschaft für Elektrometallurgie mbH	Germany	100	100
GfE Materials Technology Inc.	United States	100	100
GfE Metalle und Materialien GmbH	Germany	100	100
GfE Unterstützungskasse GmbH	Germany	100	100
GK Asia Ltd. (formerly Mutual Sources Ltd.)	China	88.1	88.0
GK Graphit Kropfmühl GmbH	Germany	88.1	88.0
Grafite Kropfmuehl de Mocambique, Limitada (b)	Mozambique	88.1	88.0
Graphit Kropfmühl AG	Germany	88.1	88.0
Graphit Kropfmühl do Brasil Participacoes Ltda.	Brazil	88.1	–

Name	Country of incorporation	Percentage held (directly or indirectly) by the Company	Percentage held (directly or indirectly) by the Company
		December 31, 2011	December 31, 2010
Graphite Týn spol. s r.o.	Czech Republic	88.1	88.0
KB Alloys, LLC	United States	100	–
KB Alloys China Holding, LLC	United States	100	–
KBA China Holding, LLC	United States	100	–
Korin Grundstücksgesellschaft GmbH & Co. Projekt 30 KG	Germany	94.9	94.9
London & Scandinavian Metallurgical Co Limited	United Kingdom	100	100
LSM Brasil S.A.	Brazil	100	100
London & Scandinavian Metallurgical Holdings BV	Netherlands	100	100
LSM (Jiaxing) Co Ltd	China	100	100
Metallurg Delaware Holding Company	United States	100	100
Metallurg Europe Limited	United Kingdom	100	100
Metallurg European Holdings LLC	United States	100	100
Metallurg Holdings Corporation	United States	100	100
Metallurg Holdings Inc.	United States	100	100
Metallurg, Inc.	United States	100	100
Metallurg International Holdings LLC	United States	100	100
Metallurg Mexico S.A. de C.V.	Mexico	100	100
Metallurg Servicios S.A. de R.L. de C.V.	Mexico	100	100
MG India Pvt. Ltd.	India	100	–
Nanjing Yunhai KB Alloys Co., LTD.	China	45	–
New Jersey Renewables Corporation	United States	100	100
Produits Chimiques de Lucette S.A.S.	France	100	100
Qingdao Kropfmuehl I Graphite Co. Ltd.	China	88.1	88.0
RW Silicium GmbH	Germany	88.1	88.0
Share Investments (Pvt.) Ltd.	Sri Lanka	88.1	88.0
Shieldalloy Metallurgical Corporation	United States	100	100
Silmag DA	Norway	50	50
Société Industrielle et Chimique de l'Aisne S.A.S.	France	100	100
Suda Maden A.S.	Turkey	99.99	99.99
Sudamin France S.A.S	France	100	100
Sudamin Holdings SPRL	Belgium	100	100
Sudamin IT S.A.R.L.	France	100	100
Sudamin SPRL	Belgium	100	100
Technologie-und Gründer-zentrum GmbH	Germany	2.5	2.5
The Aluminium Powder Company Limited	United Kingdom	100	100
Thermique Industrie Vide	France	56	30
Timminco Limited (c)	Canada	41.9	42.5
VACUHEAT GmbH	Germany	100	100
VACUHEAT Verwaltungs GmbH	Germany	100	100
Zimbabwe German Graphite Mines, Pvt. Ltd. (d)	Zimbabwe	88.1	88.0

- (a) Bogala Graphite and Fair Deal Trading are 90.4% owned by Graphit Kropfmühl, of which the Company owns 88.1%. Therefore, the Company effectively holds 79.6% of these companies.
- (b) Grafite Kropfmuehl de Mocambique, Limitada is a holding company 97.5% owned by Graphit Kropfmühl, of which the Company owns 88.1%. Therefore, the Company effectively holds 85.9% of this company.
- (c) AMG owns 41.9% of the shares Timminco Limited and accounts for it as an associate. Timminco Ltd. also has subsidiaries which are not included above.
- (d) Zimbabwe German Graphite Mines, Pvt. Ltd. is 50% owned by Graphit Kropfmühl, of which the Company owns 88.1%. Therefore, the Company effectively holds 44% of this company. This company is not recognized according to the equity method of accounting as no decisive influence can be exerted on the business and financial policy of the company due to political reasons.

Please see note 5 for a description of business combinations completed in 2011. Any other companies which are new in 2011 are holding companies established for future business purposes.

## 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, 2011 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, 2011 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 and financial instruments held for trading, 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) 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.

In particular, information about significant areas of estimation uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amount recognized in the financial statements are described in the following notes:

- Note 6 – determination of furnace construction contract revenue
- Note 10 – income tax
- Note 13 – measurement of the recoverable amounts of assets and cash-generating units
- Note 14 – associates and joint ventures

- Note 24 – measurement of defined benefit obligations
- Note 25 – measurement of share-based payments
- Note 26 – measurement of provisions
- Note 31 – measurement of financial instruments

### Key sources of estimation uncertainty

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

### 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. Significant management judgment is required to determine this percentage of completion. Total percentage of completion revenue for the year ended December 31, 2011 was \$177,632 (2010: \$141,075).

### 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, 2011 was \$11,950 (2010: \$6,105). 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*

The determination of whether goodwill is impaired requires an estimate of the recoverable amount of the cash-generating unit or group of cash-generating units to which the goodwill has been allocated. The recoverable amount is defined as the higher of a cash-generating unit's fair value less costs to sell and its value in use. For Advanced Materials, Engineering Systems and Graphit Kropfmühl, 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. The carrying amount of goodwill at December 31, 2011 was \$23,535 (2010: \$21,704).

## 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 to sell and its value in use. Certain associate investments were impaired in the year ended December 31, 2011. The carrying amount of associates and joint ventures at December 31, 2011 was \$5,085 (2010: \$25,186).

## 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, expected rates of return on assets, 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 net employee liability at December 31, 2011 was \$90,078 (2010: \$88,372).

In determining the appropriate discount rate, management considers the interest rates of corporate bonds in the respective currency with at least AA rating, 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 cost and recoveries, restructuring, warranties, cost estimates, partial retirement and other liabilities. These 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. As at December 31, 2011, the provisions balance was \$41,383 (2010: \$41,311).

If the estimated pre-tax discount rate used in the calculations had been 10% higher than management's estimate, the carrying amount of the provision would have been approximately \$500 lower.

## 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.

## 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, 2011.

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

### **(iii) Associates**

Associates are those entities in which the Company has significant influence, but not control, over the financial and operating policies. Associates are accounted for using the equity method ("equity accounted investees"). The consolidated financial statements include the Company's share of the profit and loss and other comprehensive income of equity accounted investees from the date that significant influence commences until the date that significant influence ceases. When the Company's share of losses exceeds its interest in an equity accounted investee, the carrying amount of that interest (including any long-term investments) is reduced to nil and the recognition of further losses is discontinued except to the extent that the Company has an obligation or has made payments on behalf of the investee. Profits and losses resulting from transactions between the Company and the associate are eliminated to the extent of the interest in the associate. See note 14 for further details.

### **(iii) Joint Ventures**

A joint venture is a contractual arrangement where two or more parties undertake an economic activity that is subject to joint control, and a jointly controlled entity is a joint venture that involves the establishment of a separate entity in which each venturer has an interest. The Company recognizes its interest in joint ventures under the equity method. The consolidated financial statements include the Company's share of the profit and loss and other comprehensive income

of jointly controlled investees from the date that joint control commences until the date that joint control ceases. When the Company's share of losses exceeds its interest in a jointly controlled investee, the carrying amount of that interest (including any long-term investments) is reduced to nil and the recognition of further losses is discontinued except to the extent that the Company has an obligation or has made payments on behalf of the investee.

When the Company contributes or sells assets to the joint venture, any portion of gain or loss from the transaction is recognized based on the substance of the transaction. When the Company purchases assets from the joint venture, the Company does not recognize its share of the profits of the joint venture from the transaction until it resells the assets to an independent party.

## **(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 hyper-inflationary 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, investments in associates and joint ventures, investment in equity instruments, 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 previously, 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.

The investments in associates and joint ventures of the Company are accounted for using the equity method of accounting. Associates and joint ventures are entities in which the Company has significant influence and which are not subsidiaries. Under the equity method, these investments are carried in the statement of financial position at cost plus post-acquisition changes in the Company's share of net assets of the associate or joint venture. The income statement reflects the share of the results of operations of the associate or joint venture. Where there has been a change recognized directly in the equity of an associate or joint venture, the Company recognizes its share of any changes and discloses this, when applicable, in the statement of changes in equity.

Investments in equity instruments whose fair value cannot be reliably measured and must be settled by delivery of those equity instruments are measured at cost less any impairment. If a reliable fair value measurement becomes available, the investment will be remeasured at that fair value and the gain or loss reported in profit and loss.

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 the relevant commodity exchange 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, canceled 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.

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.

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.

The Company capitalizes borrowing costs for all eligible assets where construction was commenced on or after January 1, 2009.

##### **(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 and comparative periods are as follows:

• mining costs	4–20 years
• land, buildings and improvements	2–50 years
• machinery and equipment	3–20 years
• furniture and fixtures	3–15 years
• finance leases	3–10 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 from the mine. Therefore, these assets are amortized using a units of production basis. Using that basis currently approximates a 7 year life of the mine. Other mining assets are depreciated on a straight-line basis ranging from 4–20 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 from January 1, 2010*

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 acquirer measures the non-controlling interest in the acquiree either at fair value or at the proportionate share of the acquiree's identifiable net 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 is, from the acquisition date, 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 of, 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.

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 amount for which property could be exchanged on the date of valuation between a willing buyer and a willing seller in an arm's length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently and without compulsion. The market value of items of plant and equipment is based on the quoted market prices for similar items.

## (ii) Intangible assets

The fair value of intangible assets acquired in a business combination is the amount for which the asset could be exchanged between knowledgeable, willing parties in an arm's length transaction based on active markets or the discounted cash flows generated by the respective asset.

## (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.

### *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.

## (G) INTANGIBLE ASSETS

### (i) Patents and technology

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

### (ii) Development costs

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 costs are expensed as incurred.

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) 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) DEFERRED STRIPPING COSTS**

Within the Company's mining operations, advanced stripping costs incurred during the production stage of operations are recognized in prepaid inventory using the specific identification approach. This methodology is based on the variability of stripping costs over the course

of a stripping campaign. The ability to strip the mine is largely seasonal. These amounts are included in prepaid expenses when the costs are directly attributable to a specific section of ore body that becomes accessible as a result of the stripping campaign. Amortization of the stripping costs into cost of goods sold occurs as the ore body, to which the stripping has been allocated, is processed, generally within one year.

## **(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 indicate 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 finance costs in the income statement.

#### **(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 to sell 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 pre-tax 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 to sell, 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 inventories, are recognized in the income statement in expense categories consistent with the function of the impaired asset.

For assets excluding goodwill, an assessment is made at each reporting date whether there is any indication that previously recognized impairment losses may no longer exist or may have decreased. If such indication exists, the Company estimates the asset's or CGU's

recoverable amount. A previously recognized impairment loss is reversed only if there has been a change in the assumptions used to determine the asset's recoverable amount since the last impairment loss was recognized. The reversal is limited so that the carrying amount of the asset does not exceed its recoverable amount, nor exceed 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**

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 to sell and value in use of the associate or joint venture and its carrying amount and recognizes the amount in the income statement.

### **(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 United States, Germany, France, and the United Kingdom.

The Company's net obligation in respect of defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value, and any unrecognized actuarial net gains (losses), unrecognized past service costs and the fair

value of any plan assets are deducted. The discount rate is based on the appropriate corporate bond yields for the maturity dates in the country where the obligation exists. Plan assets are assets that are held by a long-term employee benefit fund or qualifying insurance policies. Plan assets are not available to creditors of the Company nor can they be paid directly to the Company. Fair value is based on market price information and in the case of quoted securities, it is the published bid price. The value of any plan asset recognized is restricted to the sum of any unrecognized actuarial net gains (losses), unrecognized past service costs and the present value of economic benefits available in the form of refunds from the plan or reductions in future contributions to the plan. The calculation is performed by a qualified actuary using the projected unit credit method.

When the benefits of a plan are improved, the portion of the increased benefit relating to past service by employees is recognized in profit or loss on a straight-line basis over the average period until the benefits become vested. To the extent that the benefits vest immediately, the expense is recognized immediately in profit or loss.

All actuarial gains and losses as at January 1, 2005, the date of transition to IFRS, were recognized. Subsequent to January 1, 2005 a corridor approach is used for actuarial gains and losses that arise in calculating the Company's obligation in respect of a plan. To the extent that any cumulative unrecognized actuarial gain or loss exceeds 10 percent of the greater of the present value of the defined benefit obligation and the fair value of plan assets, that portion is recognized in the income statement over the expected average remaining working lives of the employees participating in the plan. Otherwise, the actuarial gain or loss is not recognized.

The Company also has supplemental executive retirement plans ("SERPs") with four current and one previous 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 obligation 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 canceled, 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 canceled 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*

In May 2009, the Annual General Meeting of Shareholders approved and the Company 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 vest after three years, except in the first two years where transitional vesting provisions are in place. 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. The value of the outstanding PSUs, remeasured to fair value as at December 31, 2011 and 2010 was \$3,333 and \$3,681, respectively.

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 (or other benefactors) 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 several sites to date. 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.

#### **(iii) 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. 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.

### **(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) RESEARCH AND DEVELOPMENT**

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 expensed until the following occur: technical feasibility; both the intention and ability to complete for internal use or as an external sale; probable generation of future economic benefits; marketability existence; and the reliable measurements of expenditures accumulated during development. Research and development costs which do not qualify as assets are shown within selling, general and administrative expenses in the consolidated income statement.

#### **(P) FINANCE INCOME AND EXPENSES**

Finance income comprises interest income on funds invested, interest recognized on loans to related parties, interest recognized on notes receivable, accretion of convertible notes receivable, changes in the discount on provisions, foreign currency gains and income gains on derivatives and hedging instruments. Interest income is recognized as it is earned, using the effective interest method.

Finance expenses comprise interest expense on borrowings, finance charges on finance leases, changes in the discount on provisions, 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.

#### **(Q) 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.

#### **(R) 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, associates and interests in 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, associates and interests in 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.

## (S) 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.

## (T) NEW AND AMENDED STANDARDS

The accounting policies adopted are consistent with those of the previous financial year, except for the following new and amended IFRS and IFRIC interpretations effective as of January 1, 2011:

- IAS 24 *Related Party Disclosures* (amendment) effective January 1, 2011
- IAS 32 *Financial Instruments: Presentation* (amendment) effective February 1, 2010
- IFRIC 14 *Prepayments of a Minimum Funding Requirement* (amendment) effective January 1, 2011
- Improvements to IFRSs (May 2010)

The adoption of the standards or interpretations is described below:

- IAS 24 *Related Party Transactions* (Amendment): The IASB issued an amendment to IAS 24 that clarifies the definitions of a related party. The new definitions emphasize a symmetrical view of related party relationships and clarifies the circumstances in which persons and key management personnel affect related party relationships of an entity. In addition, the amendment introduces an exemption from the general related party disclosure requirements for transactions with government and entities that are controlled, jointly controlled or significantly influenced by the same government as the reporting entity. The adoption of the amendment did not have any impact on the related party note disclosures.
- IAS 32 *Financial Instruments: Presentation* (Amendment): The IASB issued an amendment that alters the definition of a financial liability in IAS 32

to enable entities to classify rights issues and certain options or warrants as equity instruments. The amendment is applicable if the rights are given pro rata to all of the existing owners of the same class of an entity's non-derivative equity instruments, to acquire a fixed number of the entity's own equity instruments for a fixed amount in any currency.

The amendment has had no effect on the financial position or performance of the Company because the Company does not have these type of instruments.

- **IFRIC 14 *Prepayments of a Minimum Funding Requirement* (Amendment):** The amendment removes an unintended consequence when an entity is subject to minimum funding requirements and makes an early payment of contributions to cover such requirements. The amendment permits a prepayment of future service cost by the entity to be recognized as a pension asset. The adoption of the amendment did not have a significant impact on the financial position or performance of the Company.

#### Improvements to IFRSs

In May 2010, the IASB issued its third omnibus of amendments to its standards, primarily with a view to removing inconsistencies and clarifying wording. There are separate transitional provisions for each standard. The adoption of the following amendments resulted in changes to accounting policies, but had no impact on the financial position or performance of the Company.

- **IFRS 3 Business Combinations:** The measurement options available for non-controlling interest ("NCI") were amended. Only components of NCI that constitute a present ownership interest that entitles their holder to a proportionate share of the entity's net assets in the event of liquidation should be measured at either fair value or at the present ownership instruments' proportionate share of the acquiree's identifiable net assets. All other components are to be measured at their acquisition date fair value. The amendments to IFRS 3 are effective for annual periods beginning on or after July 1, 2011. The Company, however, adopted these as of January 1, 2011 and changed its accounting policy accordingly. There was no financial impact from adopting these amendments.
- **IFRS 7 *Financial Instruments – Disclosures*:** The amendment was intended to simplify the disclosures provided by reducing the volume of disclosures around collateral held and improving disclosures by requiring qualitative information to put the quantitative information in context. The Company reflects the revised disclosure requirements in note 31.

- **IAS 1 *Presentation of Financial Statements*:** The amendment clarifies that an entity may present an analysis of each component of other comprehensive income maybe either in the statement of changes in equity or in the notes to the financial statements. The Company provides this analysis in note 20.

Other amendments resulting from Improvements to IFRSs to the following standards did not have any impact on the accounting policies, financial position or performance of the Company:

- **IFRS 3 Business Combinations (Contingent consideration arising from business combination prior to adoption of IFRS 3 (as revised in 2008))**
- **IFRS 3 Business Combinations (Un-replaced and voluntarily replaced share-based payment awards)**
- **IAS 27 Consolidated and Separate Financial Statements**
- **IAS 34 Interim Financial Statements**

The following interpretation and amendments to interpretations did not have any impact on the accounting policies, financial position or performance of the Company:

- **IFRIC 13 Customer Loyalty Programmes (determining the fair value of award credits)**
- **IFRIC 19 Extinguishing Financial Liabilities with Equity Instruments**

#### (U) STANDARDS ISSUED BUT NOT YET EFFECTIVE

Standards issued but not yet effective up to the date of issuance of the Company's financial statements are listed below. This 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 when they become effective.

- **IAS 1 *Financial Statement Presentation – Presentation of Items of Other Comprehensive Income*:** The amendments to IAS 1 change the grouping of items presented in OCI. Items that could be reclassified (or 'recycled') to profit or loss at a future point in time (for example, upon derecognition or settlement) would be presented separately from items that will never be reclassified. The amendment affects presentation only and has there no impact on the Company's financial position or performance. The amendment becomes effective for annual periods beginning on or after July 1, 2012.
- **IAS 12 *Income Taxes – Recovery of Underlying Assets*:** The amendment clarified the determination of deferred tax on investment property measured at fair value. The amendment introduces a rebuttable presumption that deferred tax on investment property

measured using the fair value model in IAS 40 should be determined on the basis that its carrying amount will be recovered through sale. Furthermore, it introduces the requirement that deferred tax on non-depreciable assets that are measured using the revaluation model in IAS 16 always be measured on a sale basis of the asset. The amendment becomes effective for annual periods beginning on or after January 1, 2012 and is not expected to have any impact on the Company's financial position.

- *IAS 19 Employee Benefits (Amendment)*: The IASB has issued numerous amendments to IAS 19. These range from fundamental changes such as removing the corridor mechanism and the concept of expected returns on plan assets to simple clarifications and re-wording. The Company is currently assessing the full impact of the remaining amendments. As of December 31, 2011, the Company has \$26,288 of unrecognized actuarial losses which may be required to be recognized upon transition to this new standard. The amendment becomes effective for annual periods beginning on or after January 1, 2013.
- *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 amendment becomes effective for annual periods beginning on or after January 1, 2013 and will not have any impact on the Company.
- *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 amendment becomes effective for annual periods beginning on or after January 1, 2013 and is not expected to have any impact on the financial statements of the Company.
- *IFRS 7 Financial Instruments: Disclosures — Enhanced Derecognition Disclosure Requirements*: The amendment requires additional disclosure about financial assets that have been transferred but not derecognized to enable the user of the Company's financial statements to understand the relationship with those assets that have not been derecognized and their associated liabilities. In addition, the amendment requires disclosures about continuing involvement in derecognized assets to enable the user to evaluate the nature of, and risks associated with, the entity's continuing involvement in those derecognized assets.

The amendment becomes effective for annual periods beginning on or after July 1, 2011. The amendment affects disclosure only and has no impact on the Company's financial position or performance.

- *IFRS 9 Financial Instruments: Classification and Measurement*: IFRS 9 as issued reflects the first phase of the IASBs work on the replacement of IAS 39 and applies to classification and measurement of financial assets and financial liabilities as defined in IAS 39. The standard is effective for annual periods beginning on or after January 1, 2015. In subsequent phases, the IASB will address hedge accounting and impairment of financial assets. The adoption of the first phase of IFRS 9 will have an effect on the classification and measurement of the Company's financial assets, but will potentially have no impact on classification and measurements of financial liabilities. The Company will quantify the effect in conjunction with the other phases, when issued, to present a comprehensive picture.
- *IFRS 10 Consolidated Financial Statements*: 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 establishes a single control model that applies to all entities including special purpose entities. The changes introduced by IFRS 10 will require management to exercise significant judgement to determine which entities are controlled, and therefore, are required to be consolidated by a parent, compared with the requirements that were in IAS 27. This standard becomes effective for annual periods beginning on or after January 1, 2013 and it is not expected to have a material impact on the financial statements of the Company.
- *IFRS 11 Joint Arrangements*: 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 ("JCEs") using proportionate consolidation. Instead, JCEs that meet the definition of a joint venture must be accounted for using the equity method. This standard becomes effective for annual periods beginning on or after January 1, 2013. The Company has a number of joint arrangements and is in the process of evaluating whether this new standard will have any impact on the financial position of the Company.
- *IFRS 12 Disclosure of Involvement with Other Entities*: IFRS 12 includes all of the disclosures that were previously in IAS 27 related to consolidated financial statements, as well as all of the disclosures that

were previously included in IAS 31 and IAS 28. These disclosures relate to an entity's interests in subsidiaries, joint arrangements, associates and structured entities. A number of new disclosures are also required. This standard becomes effective for annual periods beginning on or after January 1, 2013.

- 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 when fair value is required or permitted. The Company is currently assessing the impact that this standard will have on the financial position and performance. This standard becomes effective for annual periods beginning on or after January 1, 2013.
- IFRIC 20 *Stripping Costs in the Production Phase of a Surface Mine* establishes requirements related to the capitalization of costs incurred in undertaking stripping activities. It distinguishes between costs which will benefit the production of inventory in the current period and costs which will improve access to ore to be mined in future periods. The Company believes that its current policies are in line with IFRIC 20, but the interpretation will have an impact as the Company expands its mining activities in the coming years. This interpretation becomes effective for annual periods beginning on or after January 1, 2013.

#### 4. Segment reporting

For management purposes, the Company is organized under three separate operating segments: Advanced Materials, Engineering Systems and Graphit Kropfmühl ("GK"). Advanced Materials produces specialty metals, alloys and chemicals and has major production facilities in the United Kingdom, United States, Germany, Brazil, Turkey and France. The Engineering Systems Division 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 and the United States. GK produces specialty graphite and silicon metal and is located mainly in Germany, Czech Republic, China, Zimbabwe and Sri Lanka.

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

**Advanced Materials** – This division manufactures and sells high-quality specialty metals, alloys and metallic chemicals which are essential to the production of high-performance aluminum and titanium alloys, superalloys, steel and certain non-metallic materials for various applications in the Energy, Aerospace, Infrastructure, Specialty Metals and Chemicals end markets. Within Advanced Materials, seven entities are aggregated to create the one operating segment.

**Engineering Systems** – This division is the leading global supplier of processes and services supplying technologically advanced vacuum furnace systems to customers in the aerospace, energy (including solar and nuclear), transportation, electronics, superalloys and specialty steel industries. Core specialties of the Engineering Systems Division are the development of processes and the design of plants, which are made to concept by partners in the supplier industry. Engineering Systems has three entities which are aggregated to create one operating segment.

**Graphit Kropfmühl** – This division's operations are mainly in Germany with its own secured and controlled raw material resources for graphite in Asia, Africa and Europe. Graphit Kropfmühl manufactures silicon metal which is used in the Energy and Specialty Metals and Chemicals end markets. It also specializes in the extraction, processing and refining of natural crystalline graphite for a wide range of energy saving industrial applications. Graphit Kropfmühl AG is a majority controlled, publicly listed subsidiary in Germany. GK has two entities which are aggregated to create one operating segment.

AMG headquarters costs and assets are allocated sixty percent to Advanced Materials and forty percent to Engineering Systems in 2011 and 2010 based on an estimation of services provided to the segments. Other and eliminations includes intersegment eliminations as well as the accounting for the Company's investment in Timminco, since this is not allocable to any segment.

Management monitors the operating results of its business units separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated based on operating profit or loss and is measured consistently with operating profit or loss in the consolidated financial statements. The Company's headquarters costs, financing (including finance costs and finance income) and assets are managed on a group basis and are allocated to operating segments.



Transfer prices between operating segments are on an arm's length basis in a manner similar to transactions with third parties.

<b>Year ended December 31, 2011</b>	Advanced Materials	Engineering Systems	GK	Other and eliminations (a)	Total
<b>Revenue</b>					
Revenue from external customers	871,939	313,830	165,537	–	1,351,306
Intersegment revenue	600	1,620	–	(2,220)	–
Total revenue	872,539	315,450	165,537	(2,220)	1,351,306
<b>Segment results</b>					
Depreciation and amortization	15,924	9,158	4,778	–	29,860
Asset impairment	11,865	3,055	72	–	14,992
Reversal of asset impairment	–	–	(16,909)	–	(16,909)
Environmental	5,175	–	711	–	5,886
Restructuring	1,976	550	–	–	2,526
Operating profit (loss)	19,639	20,424	37,014	(7,541)	69,536
<b>Statement of financial position</b>					
Segment assets	667,802	371,866	123,340	(267,296)	895,712
Investments in associates and joint ventures	1,273	3,812	–	–	5,085
Total assets	669,075	375,678	123,340	(267,296)	900,797
Segment liabilities	379,327	297,427	51,206	(179,242)	548,718
Employee benefits	44,985	30,892	12,848	1,353	90,078
Provisions	23,227	12,772	5,384	–	41,383
Total liabilities	447,539	341,091	69,438	(177,889)	680,179
<b>Other information</b>					
Capital expenditures for expansion – tangible assets	18,758	9,067	6,345	–	34,170
Capital expenditures for maintenance – tangible assets	9,600	1,099	2,538	–	13,237
Capital expenditures – intangible assets	2,383	1,543	589	–	4,515
Intangible assets acquired	4,439	5,384	–	–	9,823

(a) Other and eliminations column includes the Company's investment in Timminco and all related Timminco transactions.

Year ended December 31, 2010	Advanced Materials	Engineering Systems	GK	Other and eliminations	Total
<b>Revenue</b>					
Revenue from external customers	616,267	245,652	128,576	–	990,495
Intersegment revenue	524	1,983	–	(2,507)	–
Total revenue	616,791	247,635	128,576	(2,507)	990,495
<b>Segment results</b>					
Depreciation and amortization	12,977	7,604	4,428	–	25,009
Asset impairment	–	602	–	–	602
Environmental	3,274	–	3,147	–	6,421
Restructuring	7	388	28	–	423
Operating profit (loss)	20,678	22,916	639	(974)	43,259
<b>Statement of financial position</b>					
Segment assets	633,979	368,863	97,785	(270,738)	829,889
Investments in associates and joint ventures	2,439	5,041	–	17,706	25,186
Total assets	636,418	373,904	97,785	(253,032)	855,075
Segment liabilities	290,828	240,237	49,540	(89,178)	491,427
Employee benefits	45,626	29,977	12,411	358	88,372
Provisions	17,003	19,368	4,940	–	41,311
Total liabilities	353,457	289,582	66,891	(88,820)	621,110
<b>Other information</b>					
Capital expenditures for expansion – tangible assets	14,420	5,651	2,682	–	22,753
Capital expenditures for maintenance – tangible assets	5,826	1,173	1,507	–	8,506
Capital expenditures – intangible assets	238	1,053	423	–	1,714
Intangible assets acquired	–	100	–	–	100

## 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.

	2011		2010	
	Revenues	Non-current assets	Revenues	Non-current assets
Germany	307,496	131,931	218,623	95,943
US	287,214	58,382	171,079	48,040
Canada	18,269	303	8,779	6,711
UK	61,724	22,699	43,026	21,822
Brazil	54,262	39,837	44,277	31,687
France	60,411	17,470	46,417	17,250
Norway	24,737	–	34,595	3
Italy	57,864	–	44,403	–
China	95,009	4,125	96,012	3,927
Japan	39,543	26	28,201	–
Mexico	23,237	14,890	15,981	19,588
Russia	21,591	–	16,218	7
Austria	39,098	48	25,862	74
Belgium	19,566	21	18,943	27
Sweden	20,264	–	15,036	–
Netherlands	15,376	190	15,534	312
Other Countries	205,645	29,622	147,509	25,595
Total	1,351,306	319,544	990,495	270,986

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

## 5. Acquisitions

### Acquisition of KB Alloys, LLC

On February 18, 2011, the Company acquired 100% of the LLC interests of KB Alloys, LLC ("KB") from CHS Capital LLC for \$24,376 in cash. KB is the North American market leader in the production of aluminum master alloys and grain refiners. The combination of KB with AMG's aluminum master alloys businesses establishes AMG as the world's largest producer of master alloys for the aluminum industry. KB is included in the Advanced Materials segment and will expand the Company's product offering while assuring security of supply for customers.

The purchase price was allocated to the following categories:

	Fair value recognized on acquisition
Property, plant and equipment	17,121
Intangible assets	2,187
Other long-term assets	1,260
Cash	89
Prepayments	217
Trade receivables	9,452
Inventories	9,781
Derivative financial instruments	83
	40,190
Trade payables	5,518
Accrued expenses and other current liabilities	1,163
Debt	1,414
Deferred tax liability	1,010
Other noncurrent liabilities	1,348
	10,453
Total identifiable net assets at fair value	29,737
Bargain purchase gain	5,361
Consideration, satisfied by cash	24,376

Cash flows on acquisition:	
Net cash acquired with the subsidiary	89
Cash paid	24,376
Net cash outflow	24,287

The fair value of the net assets acquired was in excess of the consideration paid by the Company, resulting in a "bargain purchase gain." Upon the determination that the Company was going to recognize a gain related to the bargain purchase, the Company reassessed its valuation assumptions utilized as part of the acquisition accounting. No adjustments to the acquisition accounting valuations were identified as a result of management's reassessment. The bargain purchase gain is included in other income in the consolidated income statement for the year ended December 31, 2011. KB Alloys was acquired from a private equity company which had owned the asset for over ten years and required an exit. Aluminum master alloys is typically a lower margin business but the acquisition is expected to allow the Company to more efficiently serve its markets. AMG acquired the business as part of an industry consolidation effort. The bargain purchase was the result of these circumstances as well as the unexpected appreciated value of certain real estate assets owned by KB Alloys.

At the date of acquisition, the gross amount of trade receivables was \$9,461 and the fair value of trade receivables was \$9,452. The estimated contractual cash flows not expected to be collected at the acquisition date were \$9.

The revenues and profit before tax of KB Alloys for the year ended December 31, 2011, including the period prior to the acquisition, were \$87,454 and \$489, respectively. The revenues and profit before tax of KB Alloys for the year ended December 31, 2011, excluding the period prior to the acquisition, were \$76,504 and \$1,447, respectively.

The Company incurred transaction related costs of \$456 in conjunction with the acquisition of KB Alloys which are included in cash flows from operating activities and selling, general and administrative expenses on the consolidated income statement.

### Acquisition of MG India

On February 17, 2011, the Company acquired 100% of the interests of MG India for \$3,163 in cash. MG India is an Indian trading company, specifically focused on metal trading. It is a part of the Advanced Materials segment and complements a similar business that exists within that segment already. There were very limited tangible assets acquired with respect to the business.

The purchase price was allocated to the following categories:

	Fair value recognized on acquisition
Property, plant and equipment	84
Other long-term assets	77
Cash	601
Prepayments	42
Trade receivables	247
	1,051
Trade payables	4
Accrued expenses and other liabilities	136
	140
Total identifiable net assets at fair value	911
Goodwill arising on acquisition	2,252
Consideration, satisfied by cash	3,163

Cash flows on acquisition:	
Net cash acquired with the subsidiary	601
Cash paid	3,163
Net cash outflow	2,562

At the date of acquisition, the gross amount of trade receivables was \$247 and the fair value of trade receivables was \$247. The estimated contractual cash flows not expected to be collected at the acquisition date was nil.

The commissions and profit before tax of MG India for the year ended December 31, 2011, including the period prior to the acquisition, were \$1,507 and \$947, respectively. The commissions and profit before tax of MG India for the year ended December 31, 2011, excluding the period prior to the acquisition, were materially the same.

The Company incurred transaction related costs of \$118 in conjunction with the acquisition of MG India, 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 MG India, no intangibles could be identified which required valuation. MG India is a trading company with monthly purchase orders and a continually changing customer base. Therefore, all excess purchase price has been treated as goodwill. Goodwill was created on this transaction as the purchase was geographically strategic. It allows AMG to have a presence in India which will allow it to access the large and growing Indian market.

## Acquisition of Thermique Industrie Vide

On March 31, 2010, the Company acquired a 30% interest in Thermique Industrie Vide ("TIV"), a French engineering company which specializes in the design, manufacturing and maintenance of vacuum furnaces for \$617. The Company had significant influence after the initial acquisition and therefore treated its investment as an associate. The Company acquired an additional 26.8% interest in TIV as of September 30, 2011 for \$911. The acquisition of TIV expands the capacity and reach of the Engineering Systems segment.

There was a gain of \$382 recognized from remeasuring the equity interest in TIV held by the Company prior to the business combination. The gain was recognized on the share of loss from associates line in the income statement. Effective October 1, 2011, TIV's results of operations are consolidated into AMG's financial statements.

The purchase price was allocated to the following categories:

	Fair value recognized on acquisition
Property, plant and equipment	46
Intangible assets	179
Other long-term assets	41
Cash	3,166
Prepayments	629
Trade receivables	3,189
Inventories	46
	7,296
Trade payables	1,124
Accrued expenses and other current liabilities	2,836
Debt	84
Deferred taxes	51
Other noncurrent liabilities	278
	4,373
Total identifiable net assets at fair value	2,923
Non-controlling interest measured at fair value	(1,213)
Goodwill arising on acquisition	221
Total consideration, satisfied by cash in tranches	1,931
Consideration for 26.8%, satisfied by cash in 2011	911
Fair value of initial 30% of shares acquired in 2010	1,020

Cash flows on acquisition:	
Net cash acquired with the subsidiary	3,166
Cash paid in 2011	911
Net cash inflow on consolidation	(2,255)



At the date of acquisition, the gross amount of trade receivables was \$3,189 and the fair value of trade receivables was \$3,189. The estimated contractual cash flows not expected to be collected at the acquisition date was nil.

The revenues and profit before tax of TIV for the year ended December 31, 2011, including the period prior to the acquisition, were \$11,116 and \$624, respectively. The revenues and profit before tax of TIV for the year ended December 31, 2011, excluding the period prior to the acquisition, were \$3,333 and \$107, respectively.

The Company incurred transaction related costs of \$43 in conjunction with the acquisition of TIV, which are included in cash flows from operating activities and selling, general and administrative expenses on the consolidated income statement.

#### 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. The total purchase price was \$8,019. Intellifast provides an engineering solution for bolt identification, clamp load controlled bolt assembly, and clamp load documentation using coded transducers. Intellifast is managed by and included within the Engineering Systems group as its products are engineering-focused.

The purchase price was provisionally allocated to the following categories:

	Fair value recognized on acquisition
Property, plant and equipment	2,574
Intangible assets	4,984
Trade receivables	278
Inventories	183
	8,019
Trade payables	234
Amounts owed to a subsidiary of the Company	3,034
	3,268
Total identifiable net assets at fair value	4,751
Goodwill arising on acquisition	–
Consideration, satisfied by cash	4,751
Cash flows on acquisition:	
Net cash acquired with the subsidiary	–
Cash paid	4,751
Net cash outflow	4,751

At the date of acquisition, the gross amount of trade receivables was \$278 and the fair value of trade receivables was \$278. The estimated contractual cash

flows not expected to be collected at the acquisition date was nil.

The revenues and loss before tax of Intellifast for the year ended December 31, 2011, including the period prior to the acquisition, were \$3,085 and (\$1,691), respectively.

The revenues and loss before tax of Intellifast for the year ended December 31, 2011, excluding the period prior to the acquisition, were \$652 and (\$695), respectively.

The Company incurred transaction related costs of \$74 in conjunction with the acquisition of Intellifast, which are included in cash flows from operating activities and selling, general and administrative expenses on the consolidated income statement.

#### Acquisition of additional shares of Graphit Kropfmühl

During the course of 2011, the Company obtained 3,975 shares of Graphit Kropfmühl on the open market in order to bring its ownership of GK to 88.1%. The total cost of these shares was \$111 which was recorded as a reduction of non-controlling interest.

On December 22, 2010 the Company acquired additional shares in Graphit Kropfmühl. The acquisition of shares caused the ownership percentage to increase from 79.5% to 88.0%. The Company chose to measure the non-controlling interest ("NCI") at its proportionate share of the recognized amount of the GK's net identifiable assets at the acquisition date. This methodology is allowed as per IFRS 3R.19. 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:

Non-controlling interest at December 22, 2010	4,502
Transfer to AMG (8.5%)	1,861
12% interest carried forward	2,641
Adjustment to equity:	
Fair value of consideration <sup>1</sup>	6,431
Change to NCI (as per above)	1,861
Dilution in AMG equity from purchase of NCI	4,570

<sup>1</sup> calculated as 575,529 AMG shares issued \* €8.50 per share

#### Acquisition of solar silicon casting technology

On December 20, 2010, the Company acquired intellectual property and manufacturing assets related to the Mono<sup>2</sup>™ suite of solar casting technologies from BP Solar for \$4,000. In addition to acquiring intellectual property and equipment, an experienced team of scientists and engineers with significant expertise in silicon casting were transferred to AMG. AMG will continue research and development activities, using manufacturing operations

at the BP Solar facility in Frederick, Maryland USA. This acquisition does not qualify as a business combination since operational assets and intellectual property were acquired rather than an existing business. Therefore, this purchase is being accounted for as an asset acquisition. The purchase price was allocated as follows based on the relative fair values at the date of purchase:

	Allocated Value
Equipment	3,600
Inventory	300
Patents	100
Total acquired	4,000

#### Acquisition of mine in Turkey

On August 31, 2010, the Company signed an agreement to acquire significant antimony mining rights and an adjacent antimony metal smelter in Turkey for a total investment of \$17,200, including the assumption of certain liabilities, other operational improvements, and options to acquire additional mining rights. The Company acquired 100% of the shares in Ecopedras LTA from Rolden LLC ("Rolden"), for a total purchase price of \$12,200. Ecopedras then acquired the 99.99% of the shares in Suda Maden A.S. in Turkey along with certain operational assets including inventory, machinery and equipment for \$5,000. Suda Maden A.S. holds certain mining rights over land in Turkey. This acquisition does not qualify as a business combination since operational assets were acquired rather than an existing business. Therefore, this purchase is being accounted for as an asset acquisition. The purchase price was allocated as follows based on the relative fair values at the date of purchase:

	Allocated Value
Building	202
Equipment	1,201
Construction in progress – mining	1,041
Inventory	1,788
Furniture	5
Valued added tax receivable	763
Licenses	12,200
Total acquired	17,200

#### Acquisition of Dynatech Furnaces Private Ltd.

On June 24, 2010, ALD GmbH entered into a share purchase contract to make an investment of \$443 to purchase 30% ownership in Dynatech Furnaces Private Ltd. ("Dynatech") from its current ownership. 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 is accounting for this investment as an associate.

#### Acquisition of additional shares of Timminco Limited

In the first quarter of 2010, Timminco issued 16.2 million shares to settle a customer contract termination as well as trade payables. These issuances lowered AMG's ownership of Timminco to 38.6%. Between May 13, 2010 and June 14, 2010, Timminco issued 20.2 million shares in a private placement. The Company acquired 15.4 million of these private placement shares at a cost of \$9,705. After the private placement, AMG had 42.5% ownership in Timminco and accounted for this investment as an associate. See note 13 for discussion of impairment of Timminco investment.

### 6. Revenue

	2011	2010
Sales of goods	1,349,293	990,042
Rendering of services (commissions)	2,013	453
Total	1,351,306	990,495

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

	2011	2010
Contract revenue recognized	177,632	141,075
Contract expenses recognized	137,743	100,470
Recognized profits	39,889	40,605
Contract costs incurred and recognized profits	246,881	183,714
Progress billings and advances received	223,804	190,367
Net amount due from (to) customers	23,077	(6,653)
Gross amount due from customers for contract work (note 16)	53,281	42,944
Gross amount due to customers for contract work (shown as advance payments in consolidated statement of financial position)	(30,204)	(49,597)
Net amount due from (to) customers	23,077	(6,653)

### 7. Other income

	Note	2011	2010
Insurance proceeds	i	2,784	–
Grant income	ii	53	216
Gains from asset sales	iii	602	–
Release of unused provisions	iv	–	254
Rental income	v	227	244
Sale of scrap	vi	340	169
Bargain purchase	vii	5,361	–
Other miscellaneous income	viii	703	458
Total		10,070	1,341

In 2011, other income of \$10,070 consisted of: (i) insurance proceeds of \$2,784 related to a Brazilian property insurance claim from 2010; (ii) government grant income of \$53 associated with Graphit Kropfmühl; (iii) income from asset sales of \$602; (iv) release of unused provisions of nil; (v) rental income of \$227 at two subsidiaries which rent out unused space; (vi) income from the sale of scrap of \$340; (vii) income from a bargain purchase of \$5,361 (see note 5) and (viii) other miscellaneous income of \$703.

In 2010, other income of \$1,341 consisted of: (i) insurance proceeds of nil; (ii) government grant income of \$216 associated with Graphit Kropfmühl; (iii) income from asset sales of nil; (iv) release of unused provisions of \$254; (v) rental income of \$244 at two subsidiaries which rent out unused space; (vi) income from the sale of scrap of \$169; (vii) income from a bargain purchase of nil and (viii) other miscellaneous income of \$458.

## 8. Personnel expenses

	Note	2011	2010
Wages and salaries		160,956	129,413
Contributions to defined contribution plans	24	2,737	2,210
Expenses related to defined benefit plans	24	9,013	8,777
Social security and other benefits		32,497	26,756
Performance share units	25	5,871	1,964
Equity-settled share-based payments	25	3,438	6,362
Total		214,512	175,482
Included in the following lines of the consolidated income statement:			
Cost of sales		125,217	101,724
Selling, general and administrative expenses		89,295	73,758
Total		214,512	175,482

## 9. Finance income and expense

	2011	2010
Interest income on bank deposits	495	525
Interest income on notes receivable	1,260	1,401
Accretion of convertible note	1,643	371
Finance income on derivatives	951	1,474
Discount on provisions	–	832
Other	1,108	826
Finance income	5,457	5,429
Foreign exchange loss (gain)	1,366	(2,799)
Extinguishment of debt	3,902	–
Amortization of loan issuance costs	1,277	1,849
Finance lease expense	54	53
Interest expense on loans and borrowings	11,654	10,884
Interest expense on interest rate swap	1,482	1,375
Discount for provisions	389	161
Guarantees	1,343	1,107
Finance costs on derivatives	142	153
Amendment fees	282	1,675
Commitment/unutilized fees	247	490
Valuation of derivative portion of convertible debt	4,267	–
Other	1,331	980
Finance expense	26,370	18,727
Net finance costs	22,279	10,499

On April 28, 2011, the Company entered into a five-year \$300 million multicurrency term loan and revolving credit facility with Commerzbank AG and Lloyds TSB Bank plc. The Company used the proceeds of the credit facility to repay its previous \$275 million term loan and revolving credit facility. The Company incurred \$3,902 in extinguishment of debt costs primarily due to the write-off of unamortized debt issuance costs from the credit facility that was refinanced.

As referenced in note 31, AMG entered into a convertible note which was bifurcated into a note and convertible equity option. Changes in the value of the option were recognized through finance expense in the year ended December 31, 2011 and amounted to \$4,268.

On May 27, 2010, the Company amended its term loan and revolving credit facility agreement to change several provisions including certain financial covenants. The Company incurred fees of \$1,675 related to the amendment. See note 22 for further details.

## 10. Income tax

Significant components of income tax expense for the years ended:

	2011	2010
<b>Current tax expense</b>		
Current period taxation	23,317	27,953
Adjustment for prior periods	(479)	(4,775)
Total current taxation charges for the year	22,838	23,178
<b>Deferred tax expense</b>		
Origination and reversal of temporary differences	(15,241)	(13,733)
Changes in previously unrecognized tax losses, tax credits and unrecognized temporary differences	14,739	(1,245)
Changes in previously recognized tax losses, tax credits and recognized temporary differences for changes in enacted tax rates	(678)	(1,579)
Adjustment for prior periods	(2,956)	4,586
Total deferred taxation for the year	(4,136)	(11,971)
Total income tax expense reported in the income statement	18,702	11,207

The prior period adjustments impacting deferred tax expense consist primarily of: return to provision adjustments across several jurisdictions of (\$4,380); US, Brazilian and German net operating loss ("NOL") adjustments of (\$3,160) and the impact of reversal of impairment adjustments of \$4,584.

The deferred tax benefit related to the net loss on revaluation of cash flow hedges in the amount of \$3,315 is the only tax charged or credited through comprehensive income during the year. In the year ended December 31, 2010, a deferred tax expense of \$871 was recorded through comprehensive income related to the net gain on revaluation of cash flow hedges.

### 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 34.35% (2010: 40.42%) to the Company's effective income tax rate for the years ended is as follows:

	2011	2010
Profit before income tax from continuing operations	26,992	13,355
Income tax using the Company's weighted average tax rate	9,271	5,398
Non-deductible expenses	(1,976)	8,822
Current year losses for which no deferred tax asset was recognized and changes in unrecognized temporary differences	14,918	(847)
Recognition of previously unrecognized tax losses, tax credits and temporary differences of a prior year	(178)	(397)
Changes in previously recognized tax losses, tax credits and recognized temporary differences for changes in enacted tax rates	(678)	(1,579)
Over provided in prior periods	(3,435)	(190)
Other	780	-
Income tax expense reported in consolidated income statement	18,702	11,207
Included in the following lines in the consolidated income statement:		
Income tax expense	18,702	11,207
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, 2011, the income tax benefits related to the current year losses of certain US, German, Dutch (including losses from a Norwegian joint venture), Mexican, and Canadian entities were not recognized. During the year ended December 31, 2010, the income tax benefits related to the current year losses of certain US, German, Dutch (including losses from a Norwegian joint venture), and Canadian entities were not recognized. In total, \$14,918 and (\$847) were not recognized in 2011 and 2010, respectively, as it is not probable that these amounts will be realized.

During the year ended December 31, 2011, certain income tax benefits related to previously unrecognized tax losses and temporary differences related to a German subsidiary were recognized. During the year ended December 31, 2010, certain income tax benefits related to previously unrecognized tax losses and temporary differences related to a German subsidiary were recognized. In total, \$178 and \$397 were recognized in 2011 and 2010, 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.

Also during the years ended December 31, 2011 and 2010, the net recognized deferred tax assets/(liabilities) were

adjusted for changes in the enacted tax rates in the United Kingdom, the Netherlands, Canada, Mexico and Germany. The net recognized deferred tax assets/(liabilities) were also adjusted to reflect accurate tax rates. The impact of the tax rate changes was a decrease to income tax expense of \$678 and \$1,579 for 2011 and 2010, respectively.

There were no income tax consequences attached to the payment of dividends in either 2011 or 2010 by AMG to its shareholders, as no dividend payments were made.

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.

#### DEFERRED TAX ASSETS AND LIABILITIES

Deferred 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			
	2011	2010	2011	2010	2011	2010
Inventories	35,917	35,625	–	17	(1,294)	989
Long-term contracts	–	–	47,610	51,217	(2,073)	(11,814)
Prepays and other current assets	1,007	1,454	290	11	742	(1,376)
Property, plant and equipment	2,011	2,046	9,061	5,126	3,328	(1,039)
Deferred charges and non-current assets	554	114	4,162	4,718	(1,004)	2,361
Accruals and reserves	8,598	8,331	1,007	1,646	1,473	(48)
Environmental liabilities	239	173	1,459	468	929	(783)
Retirement benefits	6,159	6,090	9	–	(230)	(677)
Tax loss and tax credit carryforwards	11,950	6,105	129	64	(6,007)	416
Tax assets and liabilities	66,435	59,938	63,727	63,267		
Set off of tax	(37,293)	(37,831)	(37,293)	(37,831)		
Net tax assets and liabilities	29,142	22,107	26,434	25,436		
Deferred tax benefit					(4,136)	(11,971)



## UNRECOGNIZED DEFERRED TAX ASSETS

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, 2011 there were gross unrecognized tax loss carryforwards of \$104,147 from US operations which expire through 2031, and \$21,131 from German

operations, which do not expire, \$15,580 from Canadian operations which expire through 2031, \$133,239 from Dutch operations which expire through 2020 and \$575 from Mexican operations which expire in 2021. At December 31, 2010 there were gross unrecognized tax loss carryforwards of \$99,842 from US operations which expire through 2030, and \$29,909 from German operations, which do not expire, \$5,505 from Canadian operations which expire through 2030 and \$93,587 from Dutch operations which expire through 2019.

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

	2011	2010
Inventories	254	284
Prepays and other current assets	(1)	14
Property, plant and equipment	(1,238)	(1,301)
Accruals and provisions	5,340	4,443
Deferred charges and non-current assets	16,986	16,775
Environmental liabilities	4,882	4,750
Retirement benefits	9,166	10,136
Tax loss and tax credit carryforwards	86,312	73,970
Net tax assets – unrecognized	121,701	109,071

## 11. Non-recurring items

Operating 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, 2011 and 2010, operating profit was adjusted for non-recurring items which arose during the year.

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

	2011	2010
Operating profit	69,536	43,259
Asset impairment (reversal) expense	(1,917)	602
Environmental expense	5,886	6,421
Restructuring expense	2,526	423
Timminco related write-offs	7,541	–
Bargain purchase gain	(5,361)	–
Adjusted operating profit	78,211	50,705

## 12. Property, plant and equipment

Cost	Mining costs	Land, buildings and improvements	Machinery and equipment	Furniture and fixtures	Construction in progress	Finance leases	Total
<b>Balance at January 1, 2010</b>	14,888	107,451	291,662	23,385	12,947	555	450,888
Additions	–	1,261	11,340	2,181	15,252	1,225	31,259
Acquisition	12,200	202	4,801	5	1,041	–	18,249
Retirements and transfers	274	(1,553)	3,791	(4,675)	(4,854)	(257)	(7,274)
Effect of movements in exchange rates	(493)	(5,051)	(6,357)	(1,314)	(101)	(43)	(13,359)
<b>Balance at December 31, 2010</b>	26,869	102,310	305,237	19,582	24,285	1,480	479,763
<b>Balance at January 1, 2011</b>	26,869	102,310	305,237	19,582	24,285	1,480	479,763
Additions	–	9,907	12,402	3,002	22,096	–	47,407
Acquisition	–	9,664	9,328	94	739	–	19,825
Retirements and transfers	1,070	6,448	(637)	(816)	(19,753)	(21)	(13,709)
Effect of movements in exchange rates	(590)	(2,847)	(5,494)	(460)	24	(39)	(9,406)
<b>Balance at December 31, 2011</b>	27,349	125,482	320,836	21,402	27,391	1,420	523,880
<b>Depreciation and impairment</b>							
<b>Balance at January 1, 2010</b>	(3,959)	(41,986)	(179,249)	(14,572)	–	(100)	(239,866)
Depreciation for the year	(1,142)	(2,926)	(17,461)	(1,850)	–	(128)	(23,507)
Retirements and transfers	–	2,934	(1,543)	4,380	–	129	5,900
Impairments	–	–	(602)	–	–	–	(602)
Effect of movements in exchange rates	205	1,845	4,059	807	–	8	6,924
<b>Balance at December 31, 2010</b>	(4,896)	(40,133)	(194,796)	(11,235)	–	(91)	(251,151)
<b>Balance at January 1, 2011</b>	(4,896)	(40,133)	(194,796)	(11,235)	–	(91)	(251,151)
Depreciation for the year	(967)	(3,763)	(19,536)	(2,387)	–	(160)	(26,813)
Retirements and transfers	–	(36)	9,749	1,569	–	21	11,303
Impairments	–	–	(6,561)	–	(7,283)	–	(13,844)
Reversal of impairment	–	75	16,834	–	–	–	16,909
Effect of movements in exchange rates	111	935	2,001	241	–	14	3,302
<b>Balance at December 31, 2011</b>	(5,752)	(42,922)	(192,309)	(11,812)	(7,283)	(216)	(260,294)
<b>Carrying amounts</b>							
At January 1, 2010	10,929	65,465	112,413	8,813	12,947	455	211,022
At December 31, 2010	21,973	62,177	110,441	8,347	24,285	1,389	228,612
At January 1, 2011	21,973	62,177	110,441	8,347	24,285	1,389	228,612
At December 31, 2011	21,597	82,560	128,527	9,590	20,108	1,204	263,586

## MINING COSTS

Mining costs include assets related to the Company's tantalum and graphite mines. During the years ended December 31, 2011 and 2010, \$967 and \$1,142 of these costs have been depreciated.

## PROPERTY, PLANT AND EQUIPMENT UNDER CONSTRUCTION

During the years ended December 31, 2011 and 2010, the subsidiaries of the Company embarked on several different expansion projects as well as certain required maintenance projects. Costs incurred up to December 31, 2011, which are included in construction in progress, totalled \$20,108 (2010: \$24,285).

## BORROWING COSTS

The Company capitalized borrowing costs of \$936 during 2011 (2010: nil) related to the continued development of its asset purchase in Turkey as well as the design and construction of a new vanadium roasting facility in the United States. The Company used a rate of 4.60% for its capitalization which is the current average cost of borrowing.

The Company had no capitalized borrowing costs incurred during the year ended December 31, 2010.

## FINANCE LEASES

At December 31, 2011, the Company had \$1,204 (2010: \$1,389) of finance leases for equipment and software.

## DEPRECIATION OF PROPERTY, PLANT AND EQUIPMENT

Depreciation expense for the year ended December 31, 2011 was \$26,813 (2010: \$23,507). Depreciation expense is recorded in the following line items in the consolidated income statement:

	2011	2010
Cost of sales	23,481	20,887
Selling, general and administrative expenses	3,332	2,620
Total	26,813	23,507

## SALE OF EQUIPMENT

Certain equipment was sold in the years ended December 31, 2011 and 2010. In those years, the Company received proceeds of \$609 and \$983, respectively. The proceeds were less than the book value of the assets and losses on disposal of equipment were \$50 and \$262 in 2011 and 2010, respectively.

## IMPAIRMENT TESTING

Impairment losses were recorded at certain locations in 2011 and 2010 due to the discontinued use of certain assets. In 2011, a reversal of impairment was recorded within the GK operating segment due to changes in the outlook for that company.

In the year ended December 31, 2011, asset impairments in the amount of \$7,283 were recorded due to the impairment of two construction in progress projects in the Americas. These construction in progress projects were being completed within the Advanced Materials segment. The assets were deemed to be unrecoverable due to changes in capital expansion plans which eliminated the need for the in-progress asset. Additional charges of \$6,561 were recorded on equipment at a subsidiary in Canada due to the overall slowdown of the solar market. In the year ended December 31, 2010, impairment charges of \$602 were taken at an Engineering Systems subsidiary for equipment in the United States. All asset impairment charges are included in the asset impairment (reversal) expense line of the consolidated income statement.

In the year ended December 31, 2011, the Company reversed an impairment of fixed assets that was originally recorded in 2008. The original impairment related to the fair value of the fixed assets recorded upon the acquisition of GK and the subsequent change in the outlook for the acquired company due to the significant deterioration of the global economy. In 2011, the outlook for GK has improved substantially resulting in the recognition of a reversal of the impairment booked in 2008. This reversal was \$16,909 was based on a value in use calculation and is recorded as income in the asset impairment (reversal) expense line in the consolidated income statement. A deferred tax expense of \$4,600 was also recorded as a result of this reversal, equal to the deferred tax liability created with the step-up in the assets.

GK'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 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 the silicon or graphite industries as these products are being used in emerging technologies.
- Revenue projections are based on an internal 3-year business plan.
- After-tax discount rate of 8.55% was applied in determining the recoverable amount of the unit for the year ended December 31, 2011.

## SECURITY

At December 31, 2011 properties with a carrying amount of \$134,664 (2010: \$131,425) are pledged as collateral to secure certain bank loans of subsidiaries.

## 13. Goodwill and intangible assets

Cost	Goodwill	Customer relationships	Supply contracts	Capitalized development costs	Other intangible assets	TOTAL
<b>Balance at January 1, 2010</b>	33,790	9,777	4,268	–	19,528	67,363
Acquisitions	–	–	–	–	100	100
Additions	–	–	–	645	1,069	1,714
Disposals, reversals and transfers	–	–	–	1,369	(993)	376
Effect of movements in exchange rates	(2,406)	(737)	(322)	(53)	(1,353)	(4,871)
<b>Balance at December 31, 2010</b>	31,384	9,040	3,946	1,961	18,351	64,682
<b>Balance at January 1, 2011</b>	31,384	9,040	3,946	1,961	18,351	64,682
Acquisitions	2,473	7,133	–	–	217	9,823
Additions	–	–	–	1,381	3,134	4,515
Disposals, reversals and transfers	–	–	–	–	946	946
Effect of movements in exchange rates	(885)	(338)	(99)	(82)	(674)	(2,078)
<b>Balance at December 31, 2011</b>	32,972	15,835	3,847	3,260	21,974	77,888
<b>Amortization and impairment</b>						
<b>Balance at January 1, 2010</b>	(10,465)	(9,777)	(4,268)	–	(14,600)	(39,110)
Amortization	–	–	–	(464)	(1,038)	(1,502)
Disposals and reversals	–	–	–	–	(8)	(8)
Effect of movements in exchange rates	785	737	322	1	1,095	2,940
<b>Balance at December 31, 2010</b>	(9,680)	(9,040)	(3,946)	(463)	(14,551)	(37,680)
<b>Balance at January 1, 2011</b>	(9,680)	(9,040)	(3,946)	(463)	(14,551)	(37,680)
Amortization	–	(635)	–	(432)	(1,745)	(2,812)
Impairment	–	–	–	–	(72)	(72)
Effect of movements in exchange rates	243	245	99	10	171	768
<b>Balance at December 31, 2011</b>	(9,437)	(9,430)	(3,847)	(885)	(16,197)	(39,796)
<b>Carrying amounts</b>						
At January 1, 2010	23,325	–	–	–	4,928	28,253
At December 31, 2010	21,704	–	–	1,498	3,800	27,002
At January 1, 2011	21,704	–	–	1,498	3,800	27,002
At December 31, 2011	23,535	6,405	–	2,375	5,777	38,092

During 2011, the Company acquired three companies as well as a controlling interest in a fourth company. The purchase price allocation for these acquisitions resulted in the creation of new customer relationship assets of \$7,133 as well as additional goodwill of \$2,473. See note 5 for more details.

Intangible assets are comprised of goodwill, customer relationships, supply contracts, capitalized development costs 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 IFRS guidelines.

The other intangibles amount represents certain licenses, including software licenses.

## 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 expense is included in selling, general and administrative expenses and was \$8,129 and \$6,017 in the years ended December 31, 2011 and 2010, respectively.

## AMORTIZATION OF INTANGIBLE ASSETS

Amortization expense for year ended December 31, 2011 was \$2,812 (2010: \$1,502). Amortization expense is recorded in the following line items in the consolidated income statement:

	2011	2010
Cost of sales	1,809	871
Selling, general and administrative expenses	1,003	631
Total	2,812	1,502

An impairment charge of \$72 was recorded related to exploration costs in Brazil.

## IMPAIRMENT TESTING FOR CASH-GENERATING UNITS CONTAINING GOODWILL

For the purpose of impairment testing, goodwill and indefinite-lived intangible assets are allocated to the Company's operating divisions that represent the lowest level within the Company at which the goodwill is monitored for internal management purposes. Sudamin and LSM are included in the Advanced Materials segment, while ALD is included in the Engineering Systems segment. GK is included in its similarly named segment.

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

	2011	2010
Sudamin cash-generating unit (France and India)	12,360	10,484
LSM cash-generating unit (UK)	1,510	1,510
ALD cash-generating unit (Germany and France)	9,637	9,669
GK cash-generating unit (Germany)	28	41
Goodwill at cash-generating units	23,535	21,704

## 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 management's estimate of risks specific to each unit on an after-tax basis. The discount rate was estimated based on the average percentage of a weighted average cost of capital for the Company.

Growth rate assumptions – Rates are based on management's interpretation of published industry research. As most businesses follow economic trends, an inflationary factor 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 Sudamin, LSM and ALD's cash-generating units, the recoverable amounts are the higher of the fair value less costs to sell and the value in use. The value in use was determined using the discounted cash flow method. In 2011 and 2010, the carrying amounts of the Sudamin, LSM and ALD units were determined to be lower than their recoverable amounts and impairment losses were not recognized.

(1) Sudamin'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 metallurgical industry in France or Turkey.
- Revenue projections are based on an internal 3-year business plan.
- After-tax discount rates of 9.61% and 10.29% were applied in determining the recoverable amount of the unit for the years ended December 31, 2011 and 2010, respectively. The discount rates were derived from a group of comparable companies (peer group) and have been compared to external advisor reports for reasonableness.
- Sudamin's value in use exceeds its carrying value at December 31, 2011 by \$2,420.

(2) LSM'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 metallurgical industry in the UK.
- Revenue projections are based on an internal 3-year business plan.
- After-tax discount rates of 7.30% and 8.40% were applied in determining the recoverable amount of the unit for the years ended December 31, 2011 and 2010, respectively. The discount rates were derived from a group of comparable companies (peer group) and have been compared to external advisor reports for reasonableness.
- LSM's value in use exceeds its carrying value at December 31, 2011 by \$72,597.

(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 metallurgical industry.
- Revenue projections are based on an internal 3-year business plan.
- After-tax discount rates of 7.29% and 8.00% were applied in determining the recoverable amount of the unit for the years ended December 31, 2011 and 2010, 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, 2011 by \$203,369.

GK recognized a small amount of goodwill on the purchase of a small mining company in 2009. The balance changes from year-to-year in this balance relate only to changes in currency. AMG assessed the fair value of GK as at December 31, 2011 and 2010. The fair value of GK approximated the carrying value and therefore, no adjustment to goodwill value was made in 2011 or 2010.

## 14. Associates and joint ventures

The Company's share of loss in its associates and joint ventures for 2011 was \$20,265 (2010: \$19,405).

### INVESTMENT IN TIMMINCO

In the first quarter of 2010, Timminco issued 16.2 million shares to settle a customer contract termination as well as trade payables. These issuances lowered AMG's ownership of Timminco to 38.6%. Between May 13, 2010 and June 14, 2010, Timminco issued 20.2 million shares in a private placement. The Company acquired 15.4 million of these private placement shares at a cost of \$9,705. After the private placement, AMG had 42.5% ownership in Timminco.

During the year ended December 31, 2011, Timminco issued additional shares to acquire a controlling interest in a joint venture in Iceland. This reduced AMG's ownership percentage to 41.9%. The Company continues to account for this investment as an associate.

### ACQUISITION OF THERMIQUE INDUSTRIE VIDE

On March 31, 2010, the Company acquired a 30% interest in Thermique Industrie Vide ("TIV"), a French engineering company which specializes in the design, manufacturing and maintenance of vacuum furnaces for \$617. In 2010, TIV was accounted for as an associate. The Company acquired an additional 26.8% interest in TIV on September 30, 2011 for \$943. As of September 30, 2011, TIV's results of operations are consolidated into AMG. 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 \$443 to purchase 30% ownership in Dynatech Furnaces Private Ltd. ("Dynatech") from its current ownership. 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 Ambarnath, near Mumbai. The Company is accounting for this investment as an associate.

### ACQUISITION OF SILMAG DA

On December 18, 2008, a wholly owned subsidiary of the Company invested \$10,432 (including \$118 of acquisition costs) to acquire 50% of Silmag DA. Silmag DA is a joint venture with Norsk Hydro that was established to develop a unique process to produce silica and magnesium at a low cost from olivine, a raw material abundant in Norway. During 2010, the carrying amounts for this investment were determined to be greater than the investment's

recoverable amounts, which were determined to be nil and the asset was fully impaired. As the asset balance has been reduced to nil, there will be no additional impairment recorded in the future related to this investment.

**IMPAIRMENT OF EQUITY INVESTMENT IN TIMMINCO LTD. ("TIMMINCO")**

Impairment tests for the Company's 41.9% equity investment in Timminco were based on its fair value less costs to sell. The carrying amount of this individual asset as of December 31, 2011 was nil (2010: \$17,706). During 2011, the Company recorded its share of losses of Timminco of \$9,563. At December 31, 2011, the remaining carrying amount was determined to be higher than the investment's recoverable amount and an impairment in the amount of \$8,143 was booked. This impairment charge was based on management's assessment of Timminco's ability to continue as a going concern. Timminco filed for protection from its creditors in Canada on January 3, 2012 and all trading of its shares outstanding stopped on that date. In the year ended December 31, 2010, the carrying value was lower than the investment's recoverable amount and no impairment was necessary.

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

Impairment tests for LSM's 25% 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, 2011 and 2010 was nil and \$2,439, respectively. During 2011, the Company recorded its share of income of Bostlan of \$241. At December 31, 2011, the remaining carrying amount was determined to be higher than the investment's recoverable amount and an impairment in the amount of \$2,680 was booked. No impairment was necessary in 2010. The change in recoverable amount is due to under performance of the operation related to economic unrest in Spain.

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 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 the metallurgical industry in Spain.
- Revenue projections are based on an internal 3-year business plan.
- After-tax discount rates of 10.56% and 8.40% were applied in determining the recoverable amount of the asset for the years ended December 31, 2011 and 2010, respectively. The discount rates were derived from a group of comparable companies (peer group) and have been compared to external advisor reports for reasonableness.

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

2011	Country	Ownership	Total assets	Total liabilities	Net equity	Revenues	Expense	Recognized profit (loss)	Carrying amount
Bostlan S.A.	Spain	25.0%	10,109	6,928	3,181	15,496	17,935	(2,439)	–
ALD Holcroft Vacuum Technologies Co.	United States	50.0%	3,299	2,819	480	4,142	3,984	158	450
ABS Apparáté und Behälterbau Staßfurt GmbH	Germany	49.0%	4,645	1,501	3,144	7,966	8,513	(547)	3,060
Silmag DA	Norway	50.0%	89	2,249	(2,160)	–	–	–	–
Timminco Ltd.	Canada	41.9%	50,346	33,520	16,826	37,416	(55,122)	(17,706)	–
Thermique Industrie Vide*	France	30.0%	2,139	1,297	842	2,335	1,953	382	–
Dynatech Furnaces Private Ltd.	India	30.0%	486	705	(219)	375	515	(140)	302
Nanjing Yunhai KB Alloys Co LTD	China	45.0%	1,690	327	1,363	3,658	3,631	27	1,273
Total								(20,265)	5,085
<b>2010</b>									
Bostlan S.A.	Spain	25.0%	8,004	5,883	2,121	12,141	11,858	283	2,439
ALD Holcroft Vacuum Technologies Co.	United States	50.0%	1,518	855	663	1,176	1,086	90	310
ABS Apparáté und Behälterbau Staßfurt GmbH	Germany	49.0%	3,532	553	2,979	5,623	8,361	(2,738)	3,658
Silmag DA	Norway	50.0%	3,824	127	3,697	–	5,581	(5,581)	–
Timminco Ltd.	Canada	42.5%	66,060	40,493	25,567	53,985	65,444	(11,459)	17,706
Thermique Industrie Vide	France	30.0%	2,872	2,100	772	3,860	3,860	–	630
Dynatech Furnaces Private Ltd.	India	30.0%	469	495	(26)	822	822	–	443
Total								(19,405)	25,186

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
<b>2011</b>						
ALD Holcroft Vacuum Technologies Co.	3,264	35	3,299	2,819	–	2,819
Silmag DA	89	–	89	2,249	–	2,249
<b>2010</b>						
ALD Holcroft Vacuum Technologies Co.	1,446	72	1,518	855	–	855
Silmag DA	122	3,702	3,824	127	–	127

\* The Company acquired an additional 26.8% of Thermique Industrie Vide on September 30, 2011 and the entity was consolidated as of this date. The results shown in the table represent nine months of 30% ownership activity prior to consolidation. See note 5 for additional information.

## 15. Inventories

	2011	2010
Raw materials	97,457	84,867
Work in process	41,773	36,270
Finished goods	86,119	83,164
Other	3,538	2,903
Total	228,887	207,204

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

In 2011 raw materials, changes in finished goods and work in process contributed to cost of sales by \$856,420 (2010: \$591,536). In the year ended December 31, 2011, the net adjustment to net realizable value amounted to a write-down of \$10,604 (2010: write-up \$773) and was included in cost of sales. The net realizable value write-downs were related to obsolescence in solar products as well as inventory costing adjustments due to variability in metals pricing.

Inventory in the amount of \$167,451 (2010: \$164,793) is pledged as collateral to secure the bank loans of certain subsidiaries (see note 22).

## 16. Trade and other receivables

	2011	2010
Trade receivables, net of allowance for doubtful accounts	134,822	125,432
Notes receivable	–	7,045
Gross amount due from customers for contract work (POC)	181,292	140,582
Less: progress payments received	(128,011)	(97,638)
Net POC receivables	53,281	42,944
Total	188,103	175,421

At December 31, 2011, 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. Notes receivable represent amounts due within one year. Notes receivable are shown at their net realizable value. During the year ended December 31, 2011, a provision of \$3,333 was made against a note receivable from a Korean company when it filed for bankruptcy protection. See note 31 for additional information on notes receivable.

At December 31, 2011, receivables in the amount of \$181,919 (2010: \$169,048) 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:

		Past due but not impaired					
	Total	Neither past due nor impaired	< 30 days	30–60 days	60–90 days	90–120 days	> 120 days
2011	188,103	155,211	23,247	5,931	828	428	2,458
2010	175,421	141,643	19,666	6,062	1,025	447	6,578

At December 31, 2011, trade receivables are shown net of an allowance for impairment of \$3,930 (2010: \$3,130) arising from customer unwillingness or inability to pay. Impairment losses in the amount of \$1,713 and \$19 were recorded in the years ended December 31, 2011 and December 31, 2010, respectively.

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

	2011	2010
<b>At January 1</b>	3,130	4,864
Charge for the year	1,713	19
Amounts written off	(642)	(92)
Amounts recovered / collected	(221)	(1,329)
Foreign currency adjustments	(50)	(332)
<b>At December 31</b>	3,930	3,130

## 17. Other assets

Other assets are comprised of the following:

	2011	2010
Prepaid taxes (income and indirect)	23,577	22,278
Prepaid inventory	7,646	9,994
Investments in equity securities	–	887
Pension prepayments	5,509	5,279
Supplier prepayments	1,323	1,340
Insurance	4,375	3,775
Deposits	1,834	2,425
Prepaid tooling	136	1,926
Other miscellaneous assets	8,650	8,548
<b>Total</b>	<b>53,050</b>	<b>56,452</b>
Thereof:		
Current	35,184	41,080
Non-current	17,866	15,372

Prepaid inventory includes inventory purchased for specific percentage of completion contracts as well as deferred stripping costs related to mining activities. Investment in equity securities represents a strategic investment in a growth-based company in Iceland.

The equity investment cannot be reliably measured at fair value and is therefore accounted for using a cost basis. As of December 31, 2011 and 2010, the investment amounted to nil and \$887 respectively. The cash invested can only be realized if the money is utilized for an investment project in Iceland. Since the Company has changed course and does not have any investment plans in Iceland, this amount is non-recoverable and an impairment loss of \$759 was recorded for the remaining book value. An additional impairment loss of \$317 was recorded for spare parts related to Timminco, which filed for CCAA protection from its creditors subsequent to year-end (see note 35

for additional information on Timminco CCAA filing). Both impairment losses were recorded in the asset impairment (reversal) expense line of the consolidated income statement.

## 18. Restricted cash

Restricted cash at December 31, 2011 is \$11,074 and is comprised of \$3,378 security deposits to secure leasing activities and \$7,677 which provides security to financial institutions who issue letters 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 Systems Division and to provide financial assurance to vendors and regulatory agencies to whom the Company is obligated. Additionally, there is restricted cash related to import and export allowances in the amount of \$19.



Restricted cash at December 31, 2010 is \$12,528 and is comprised of \$3,188 security deposits to secure leasing activities and \$9,178 which provides security to financial institutions who issue letters 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 Systems Division and to provide financial assurance to vendors and regulatory agencies to whom the Company is obligated. Additionally, there is restricted cash related to import and export allowances in the amount of \$162.

## 19. Cash and cash equivalents

	2011	2010
Bank balances	65,463	72,192
Call deposits	14,108	17,119
Total	79,571	89,311

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, 2011, the Company had \$59,047 of available liquidity (2010: \$47,800) on undrawn committed borrowing facilities.

The above chart is also representative of the consolidated cash flow statement, cash and cash equivalents with no bank overdrafts as of December 31, 2011 (2010: nil).

## 20. Capital and reserves

### SHARE CAPITAL

At December 31, 2011, the Company's authorized share capital was comprised of 65,000,000 ordinary shares (2010: 65,000,000) with a nominal share value of €0.02 (2010: €0.02) and 65,000,000 preference shares (2010: 65,000,000) with a nominal share value of €0.02 (2010: €0.02).

At December 31, 2011, the issued and outstanding share capital was comprised of 27,519,929 ordinary shares (2010: 27,503,885), with a nominal value of €0.02 (2010: €0.02) which were fully paid. No preference shares were outstanding at December 31, 2011 (2010: nil).

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:

<b>Balance at January 1, 2010</b>	26,899,548
Shares issued to Supervisory Board	28,808
Shares issued to purchase additional shares of GK	575,529
<b>Balance at January 1, 2011</b>	<b>27,503,885</b>
Shares issued to Supervisory Board	16,044
<b>Balance at December 31, 2011</b>	<b>27,519,929</b>

### SUPERVISORY BOARD REMUNERATION

During the years ended December 31, 2011 and 2010, 16,044 and 28,808 shares were issued, respectively, as compensation to its Supervisory Board members as compensation for services provided in 2011 and 2010. These shares were awarded as part of the remuneration policy approved by the Annual General Meeting.

### SHARES ISSUED TO PURCHASE ADDITIONAL SHARES OF GRAPHIT KROPFMÜHL

On December 22, 2010, the Company issued 575,529 additional shares in order to acquire an additional 8.5% of Graphit Kropfmühl. This purchase raised the Company's ownership in GK from 79.5% to 88.0%. The Company chose to measure the non-controlling interest ("NCI") at its proportionate share of the recognized amount of the GK's net identifiable assets at the acquisition date.

The following is the calculation of the equity transaction:

Non-controlling interest at December 22, 2010	4,502
Transfer to AMG (8.5%)	1,861
12% interest carried forward	2,641
Adjustment to equity:	
Fair value of consideration <sup>1</sup>	6,431
Change to NCI (as per above)	1,861
Dilution in AMG equity from purchase of NCI	4,570

<sup>1</sup> calculated as 575,529 AMG shares issued \* €8.50 per share

The negative movement in AMG equity denoted above represents the discount to fair value at which the AMG shares were issued in the share for share exchange.

## OTHER RESERVES

	Net unrealized gains (losses) reserve (a)	Foreign currency translation reserve (a)	Share-based payment reserve	Total
<b>Balance at January 1, 2010</b>	767	(5,659)	36,176	31,284
Currency translation differences	–	(2,556)	–	(2,556)
Movement on cash flow hedges	2,736	–	–	2,736
Tax effect on net movement on cash flow hedges	(871)	–	–	(871)
Equity-settled share-based payments	–	–	5,565	5,565
<b>Balance at December 31, 2010</b>	2,632	(8,215)	41,741	36,158
<b>Balance at January 1, 2011</b>	2,632	(8,215)	41,741	36,158
Currency translation differences	–	(6,839)	–	(6,839)
Movement on cash flow hedges	(21,538)	–	–	(21,538)
Tax effect on net movement on cash flow hedges	3,315	–	–	3,315
Equity-settled share-based payments	–	–	3,061	3,061
<b>Balance at December 31, 2011</b>	(15,591)	(15,054)	44,802	14,157

(a) These amounts represent legal reserves and are therefore not available for dividend distribution.

### NET UNREALIZED GAINS (LOSSES) RESERVE

The net unrealized gains (losses) reserve comprises the effective portion of the cumulative net change in the fair value of cash flow hedging instruments related to hedged transactions that have not yet occurred. For further discussion of the cash flow hedges and the amounts that were realized in the income statement, see note 31.

### 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 which are listed below:

British Pound Sterling  
Chinese Renminbi  
Czech Koruna  
Hong Kong Dollar  
Indian Rupee  
Japanese Yen  
Mexican Peso  
Mozambican Metical  
Polish Zloty  
Turkish Lira  
Singapore Dollar  
Sri Lankan Rupee

Resulting translation adjustments were reported in a separate component of equity 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, 2011 and 2010.

### 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.

### DIVIDENDS

No dividends have been paid or proposed in the years ended December 31, 2011 and 2010.

## 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, 2011 and 2010, the calculation of basic earnings per share is performed using the weighted average shares outstanding for 2011 and 2010, 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, 2011 and 2010 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.

Earnings	2011	2010
Net profit attributable to equity holders for basic and diluted earnings per share	5,160	2,414
<b>Number of shares (in 000's)</b>		
Weighted average number of ordinary shares for basic earnings per share	27,506	26,918
Dilutive effect of share-based payments	180	–
Weighted average number of ordinary shares adjusted for effect of dilution	27,686	26,918

## 22. Loans and borrowings

This note provides information about the contractual terms of the Company's interest-bearing loans and borrowings. For more information about the Company's exposure to interest rate and foreign currency risk, see note 30.

Non-current	Effective interest rate	Maturity	2011	2010
€64,200 Term Loan	EURIBOR +2.75%	04/2013–04/2016	78,450	–
\$214,200 Revolving Credit Facility	EURIBOR OR LIBOR +2.75%	04/2016	119,123	–
€71,003 Term Loan	EURIBOR +2.25%	08/2012	–	90,460
\$175,000 Term Loan Revolver	LIBOR +2.25	08/2012	–	69,000
€12,781 GK SPK Passau	4.25%–5.85%	03/2013–03/2018	4,281	6,151
€4,000 GK Unicredit	5.08%–6.58%	09/2013–12/2014	1,504	2,863
€1,400 GK Landesbank	4.65%	03/2017	1,017	1,275
€2,200 GFE bank loan	4.95%	12/2023	1,893	2,071
€3,466 GfE subsidiary debt	4.05–6.30%	03/2013–03/2023	1,354	1,722
€10,000 ALD subordinated loan	8.04%	08/2012	–	13,105
\$2,000 CIF Mining subsidiary debt	9.30%	01/2014	2,000	–
Capital lease obligations	4.60%–11.90%	07/2014–06/2015	826	1,166
<b>Total</b>			<b>210,448</b>	<b>187,813</b>

Current	Effective interest rate	Maturity	2011	2010
€12,781 GK SPK Passau	4.25–5.85%	03/2013–03/2018	1,717	1,761
€4,000 GK Unicredit	5.08%–6.58%	09/2013–12/2014	1,275	1,313
€1,400 GK Landesbank	4.65%	03/2017	226	232
€245 GK Bank of China	8.50%	12/2012	316	–
€2,200 GFE bank loan	4.95%	12/2023	127	123
€3,466 GfE subsidiary debt	4.05–6.30%	03/2013–03/2023	455	465
€10,000 ALD subordinated loan	8.04%	08/2012	12,864	–
€60 ALD subsidiary debt	5.00%	12/2012	78	–
Capital lease obligations	4.60%–11.90%	07/2014–06/2015	378	360
<b>Total</b>			<b>17,436</b>	<b>4,254</b>

### TERM LOAN AND REVOLVING CREDIT FACILITY

On April 28, 2011, the Company entered into a five-year multicurrency term loan and revolving credit facility with Commerzbank AG and Lloyds TSB Bank plc. The credit facility is composed of a €64,200 term loan and a \$214,200 revolving credit facility ("Revolving Credit Facility"). AMG used the proceeds of the credit facility to repay its existing \$275,000 term loan and multicurrency revolving credit facility which was due to expire in August 2012. The new credit facility's borrowing costs are generally consistent

with those in the debt facility that was refinanced. The new facility is structured to be able to increase borrowing capacity using an incremental term loan and revolving facility feature under certain conditions. The Company was able to utilize this incremental term loan and revolving credit facility feature in October 2011 and received additional borrowing capacity of €3,210 and \$10,000. The five-year facility extends the term of the Company's primary debt agreements to April 2016. Instalment payments for the €64,200 term loan begin

in 2013. With respect to the previous credit facility, the Company incurred a loss on extinguishment of \$3,902 related to unamortized debt issuance costs.

Borrowings under the revolving credit facility may be used for general corporate purposes of the Company. As of December 31, 2011, \$123,949 was borrowed under the revolving credit facility (2010: \$69,000). At December 31, 2011, there was unused availability of \$59,047 (December 31, 2010: \$47,800).

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, 2011, the margin was 2.75 (2010: 2.25). To mitigate risk, the Company entered into an interest rate swap for the entire €64,200 term loan to fix the interest rate on the 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:

- 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 to be less than 20% for 2011 and 2012, 22.5% for 2013, and 25% for 2014 and after

EBITDA, Net Finance Charges, Net Debt, Tangible Net Worth and Total Assets are defined in the Credit Facility agreement. The Company was in compliance with all debt covenants both during the year ended December 31, 2011 and at the balance sheet date.

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.

On May 27, 2010, 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 Senior Net Debt to EBITDA covenant. Previously, the maximum ratio for this covenant was 2.00:1. The amendment increased the maximum ratio to 3.00:1. Fees related to this amendment were \$1,675 and are included in finance expense.

#### **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 \$9,329 as of December 31, 2011

The Company also has a Subordinated Loan Agreement with HSBC Trinkhaus & Burkhardt KGaA. The principal amount of the subordinated loan is \$12,864 (2010: \$13,105). The subordinated loan bears interest at 7.27%. A disagio of 4.0% was applied on the subordinated loan; therefore the effective rate of interest is 8.04%. The term of the subordinated loan is unlimited. The Agreement can be terminated no earlier than August 10, 2012.

A German subsidiary maintains a loan agreement with Sparkasse Nuremberg which was originated on December 1, 2003 and requires annual payments of approximately \$127. This loan is secured by land and buildings.

#### **GRAPHIT KROPFMÜHL ("GK") DEBT**

A subsidiary of GK maintains a government subsidized loan agreement with Bayerische Landesbank and various other loan agreements with HypoVereinsbank, Unicredit and Sparkasse Passau. The loans carry various interest rates. Those with floating interest rates have been fixed through interest rate swaps. See note 31. These loans are secured by GK's accounts receivable as well as property, plant and equipment. GK is required to maintain certain financial ratios related to their multiple long term credit agreements which include an equity ratio greater than 22.5%, and an interest coverage ratio greater than 3.0 and a leverage ratio less than 4.0. GK was in compliance with all covenant requirements for the years ended December 31, 2011 and 2010. GK's longer term credit agreements used for specific fixed asset financing are individually secured by land charges, assignment of claims, pledge of shares in RW Silicium GmbH and security transfers for certain titles.

#### **CAPITAL LEASES**

As of December 31, 2011, AMG subsidiaries had four capital leases outstanding to finance machinery. Monthly payments under these leases are \$33. The leases mature from 2012 through 2015.

#### **DEBT REPAYMENTS**

The Company made capital lease and debt repayments of \$188,740 during 2011. The largest repayment was \$182,878 which was used to refinance the 2007 term loan and revolver. In order to complete the refinancing, it was also necessary for KB Alloys to repay \$1,435 and close out the credit facility they maintained prior to their

acquisition by AMG.GK and GfE also repaid \$3,508 and \$494, respectively, to various banks. The remaining \$425 relates to capital lease and other debt repayments.

The Company made capital lease and debt repayments of \$3,432 during 2010. Payments included GK paying \$2,703 and GfE paying \$579 to various banks and the remaining \$150 relates 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 \$31,759 at December 31, 2011 (2010: \$30,565) at a weighted-average interest rate of 6.29% (2010: 5.70%).

GK maintains short term secured and unsecured credit facilities with various banks to fund short term operating activities and capital projects. This short term debt carries both floating and fixed interest rates. The balance of these facilities at December 31, 2011 was \$8,978 (2010: \$14,421) at a weighted-average interest rate of 3.38% (2010: 3.75%).

### 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. Where 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, 2011 recognized in the consolidated income statement of \$2,737 (2010: \$2,210) represents contributions paid and payable to these plans.

#### DEFINED BENEFIT PLANS

##### US plans

###### *Metallurg plans*

Tax-qualified, noncontributory defined benefit pension plans cover 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 equal to the minimum funding requirements of the US Employee Retirement Income Security Act. Substantially all plan assets are invested in cash and short term investments or listed stocks and bonds.

On June 1, 2005, Metallurg entered into a Supplemental Executive Retirement Plan ("SERP") with Eric E. Jackson, its President and Chief Operating Officer. This SERP was amended in May 2010. Pursuant to the terms of the SERP and its amendments, Mr. Jackson will earn additional retirement benefits for continued service with the Company. The maximum retirement benefit payment under the SERP is equal to 50% of the final three year average compensation reduced by Mr. Jackson's retirement benefits under the Company's defined contribution plan as well as reduced by benefits determined in accordance with Metallurg's US defined benefit plan and payable from age 65 until age 88.

The maximum retirement benefit payment will also be reduced in the case of the commencement of benefit payments prior to age 65 as a result of Mr. Jackson's early termination and/or early retirement. On May 20, 2010, the Company entered into an additional Supplemental Executive Retirement Plan ("2010 SERP") with William Levy, its Chief Financial Officer. Pursuant to the terms of the 2010 SERP, Mr. Levy will earn additional retirement benefits for continued service with the Company. The maximum retirement benefit payment under the 2010 SERP is equal to 50% of the final three 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. Pension expense related to the SERPs in 2011 totaled \$423 (2010: \$1,550). Under the terms of the SERPs, Metallurg 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.

On April 1, 2007, Metallurg entered into an additional Supplemental Executive Retirement Plan ("Executive SERP") with Heinz Schimmelbusch and Arthur Spector, its Chief Executive Officer and former Deputy Chairman, respectively. Pursuant to the terms of the agreements,

these officers earn additional retirement benefits for continued service with the Company. The maximum retirement benefit under these Executive SERP agreements is 50% of their final average compensation with a maximum per annum of \$600 and \$500 for Dr. Schimmelbusch and Mr. Spector, respectively. Pension expense related to the Executive SERP in 2011 totaled \$710 (2010: \$575). Under the terms of the Executive SERP, Metallurg 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. Mr. Spector left the employ of AMG effective September 30, 2009 and initiated payments from his Executive SERP on November 1, 2010.

#### *Actuarial assumptions*

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

	2011	2010
	% per annum	% per annum
Expected return on plan assets at January 1	8.00	8.00
Inflation	N/A	N/A
Salary increases	N/A	N/A
Rate of discount at December 31	4.63	5.63
Taxable wage base increases	N/A	N/A
IRC Section 401(a)(17) and 415 limits increases	N/A	N/A

The actual return on plan assets for the year ending December 31, 2011 was 0.02% and the actual return on plan assets for the year ending December 31, 2010 was 14.8%. The investment strategy of the subsidiaries is to achieve long-term capital appreciation, while reducing risk through diversification in order to meet the obligations of the plans. The expected return on plan assets assumption, reviewed annually, reflects the average rate of earnings expected on the funds invested using weighted average historical returns of approximately 9.2% for equities, 5.0% for debt, 6.9% for other and 4.0% for cash. The overall expected rate of return on assets is determined based on the market expectations prevailing on that date, applicable to the period over which the obligation is to be settled. The expectation used for 2011 was 8.0% (2010: 8.0%) for the Metallurg plans.

Assumptions regarding future mortality are based on published statistics and the RP-2000 Combined Healthy 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 provision has been made for contingent liabilities with respect to non-vested terminated members who may be reemployed. 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, 2012 is \$1,885.

#### *KB Alloys plan*

KB Alloys (which was acquired on February 18, 2011) has a tax-qualified, noncontributory defined benefit pension plan covering certain hourly paid employees. The plan provides benefit payments using a formula based on an employee's compensation and length of service. The plan is funded in amounts equal to the minimum funding requirements of the US Employee Retirement Income Security Act. Substantially all plan assets are invested in cash and short term investments or listed stocks and bonds.

#### *Actuarial assumptions*

Principal actuarial assumptions at the reporting date are presented below.

	2011
	% per annum
Expected return on plan assets at February 18	7.50
Inflation	N/A
Salary increases	N/A
Rate of discount at December 31	5.00
Taxable wage base increases	N/A
IRC Section 401(a)(17) and 415 limits increases	N/A

The actual return on plan assets for the year ending December 31, 2011 was (0.5%). The investment strategy of the subsidiaries is to achieve long-term capital appreciation, while reducing risk through diversification in order to meet the obligations of the plans. The expected return on plan assets assumption, reviewed annually, reflects the average rate of earnings expected on the funds invested using weighted average historical returns of approximately 11% for equities and 3% for debt. The overall expected rate of return on assets is determined based on the market expectations prevailing on that date, applicable to the period over which the obligation is to be settled. The expectation used for 2011 was 7.5% for the KB Alloys plan.

Assumptions regarding future mortality are based on published statistics and the RP-2000 Healthy 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 this plan.

The best estimate of contributions to be paid to the plans for the year ending December 31, 2012 is \$513.



## European plans

### LSM plans

The Company sponsors the LSM 2006 Pension Plan and the LSM Additional Pension Plan, which are defined benefit arrangements. LSM's defined benefit pension plans cover all eligible employees in the UK.

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 LSM.

Substantially all plan assets are invested in listed stocks and bonds. The expected return on bonds is determined by reference to UK long dated gilt and bond yields at the reporting date. The expected rate of return on equities have been determined by setting an appropriate risk premium above gilt/bond yields having regard to market conditions at the reporting date. The expected long-term return on cash is equal to bank base rates at the reporting date.

The expected long-term rates of return on plan assets are as follows:

	2011	2010
	% per annum	% per annum
Equities	8.40	8.50
Bonds	4.20–5.40	4.15–5.50
Cash	2.00	2.00
Other	3.90	3.90
Overall for LSM plans	6.09	6.30

The actual return on plan assets for the year ending December 31, 2011 was 9.5% (2010: 21.5%) for the primary plan and 11.1% (2010: 4.1%) for the additional defined benefit plan.

### Actuarial assumptions

	2011	2010
	% per annum	% per annum
Inflation	3.00	3.50
Salary increases	N/A	N/A
Rate of discount at December 31	4.70	5.40
Allowance for pension payment increases of the Retail Prices Index ("RPI") or 5% p.a. if less	2.90	3.40
Allowance for revaluation of deferred pensions of RPI or 5% p.a. if less	3.00	3.50
Allowance for commutation of pension for cash at retirement	nil	nil

Assumptions regarding future mortality are based on published statistics and mortality tables.

The best estimate of contributions to be paid to the primary plan for the year ending December 31, 2012 is \$1,110. In the Additional Pension Plan, only payments for

expenses to run the plan, together with the levy for the Pension Protection Fund, are expected to be made in 2012.

### ALD plans

ALD has defined benefit plans that cover employees in Germany and France. The benefits are based on years of service and average compensation.

On March 30, 2010, the Company entered into an additional Supplemental Executive Retirement Plan ("German SERP") with Dr. Reinhard Walter, President of Engineering Systems. Pursuant to the terms of the German SERP, Dr. Walter will earn additional retirement benefits for continued service with the Company. The maximum retirement benefit payment under the German SERP is \$315 per annum reduced by retirement benefits as determined in accordance with the Company's ALD plans and payable from age 65 until age 88. The maximum retirement benefit payment will also be reduced in the case of the commencement of benefit payments prior to age 65 as a result of early termination and/or early retirement. Pension expense related to the German SERP in 2011 totaled \$1,083 (2010: \$358). 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 are presented below.

	2011	2010
	% per annum	% per annum
Expected return on plan assets at January 1	3.75	3.75
Inflation	N/A	N/A
Salary increases	2.00	2.00
Rate of discount at December 31	5.35	5.28
Pension payments increases	1.75	1.75

Assumptions regarding future mortality are based on published statistics and mortality tables ("Richttafeln 2005G").

The best estimate of contributions to be paid to the plans for the year ending December 31, 2012 is approximately \$1,295.

### GfE plans

GfE has two defined benefit plans that cover all of the employees in Germany who were considered plan participants prior to 2005. Each plan has been closed to new participants – one was closed in 1992 and the other was closed in 2005. The plan benefits are funded by insurance contracts which are managed by Swiss Life Group. Benefits are paid by the insurance contracts and are based on years of service and average compensation.

An additional defined benefit plan covers two former managing directors from a previous acquisition. The plan benefits are funded by insurance contracts. Benefits are paid by the insurance contracts and are based on individual agreements with the managing directors.

#### Actuarial assumptions

Principal actuarial assumptions at the reporting date are presented below.

	2011	2010
	% per annum	% per annum
Inflation	2.25	2.25
Salary increases	3.00	3.00
Rate of discount at December 31	5.40	4.86
Pension payments increases	2.25	2.25

Assumptions regarding future mortality are based on published statistics and mortality tables ("Richttafel 2005G").

GfE plan assets consist of insurance contracts, and the expected long term rates of return are 4.5% (2010: 4.5%).

The best estimate of contributions to be paid to GfE's plans for the year ending December 31, 2012 is approximately \$1,743.

#### Sudamin Plans

The French office and operations of Sudamin have defined benefit pension plans which cover all employees. Sudamin funds the pension plans through an external insurance company but there are no plan assets. Benefits under the plans are based on the beginning of service for all employees; however, employees must be employed by Sudamin at retirement in order to obtain any benefits as vesting is only upon retirement. Benefits are paid by the external insurance company.

#### Actuarial assumptions

Principal actuarial assumptions at the reporting date are presented below.

	2011	2010
	% per annum	% per annum
Inflation	N/A	N/A
Salary increases	2.50	2.50
Rate of discount at December 31	3.80	3.59

The discount rate used is based on the yields of AA rated euro zone corporate bonds plus 10 years.

Assumptions regarding future mortality are based on published statistics and mortality tables ("2004-2006 INSEE").

The best estimate of contributions to be paid to Sudamin's plans for the year ending December 31, 2012 is approximately \$45.

#### Graphit Kropfmühl ("GK") plans

Graphit Kropfmühl has two defined benefit plans that cover all of the employees in Germany. The plan benefits are not funded. Benefits are paid by insurance contracts and are based on years of service and average compensation.

#### Actuarial assumptions

Principal actuarial assumptions at the reporting date are presented below.

	2011	2010
	% per annum	% per annum
Inflation	1.20	2.00
Salary increases	3.00	2.50
Rate of discount at December 31	5.50	4.95
Pension payment increases	1.20	2.00

Assumptions regarding future mortality are based on published statistics and mortality tables ("Heuback 2005G").

The best estimate of contributions to be paid to GK's plans for the year ending December 31, 2012 is approximately \$538.

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

	US plans		European plans	
	2011	2010	2011	2010
Present value of unfunded obligations	14,103	12,699	2,665	1,306
Present value of funded obligations	33,530	25,920	180,767	176,594
Total present value of obligations	47,633	38,619	183,432	177,900
Fair value of plan assets	(22,390)	(19,160)	(97,818)	(95,812)
Unrecognized actuarial losses	(11,932)	(6,799)	(14,356)	(10,934)
Net liability for defined benefit obligations	13,311	12,660	71,258	71,154

## Movement in employee benefits

	US plans		European plans	
	2011	2010	2011	2010
<b>Recognized liability for defined benefit obligations at January 1</b>	12,660	11,206	71,154	76,183
Expense recognized in profit and loss	1,563	2,635	7,450	6,142
Amortization of vested past service costs	–	–	(11)	–
Benefits paid directly by the employer	(392)	(65)	(3,995)	(3,711)
Defined benefit obligation from KB Alloys acquisition	1,348	–	–	–
Employer contributions	(1,868)	(1,116)	(1,240)	(1,430)
Effect of movements in foreign exchange rates	–	–	(2,100)	(6,030)
Net liability for defined benefit obligations at December 31	13,311	12,660	71,258	71,154
Asset for defined benefit obligations at December 31	144	–	5,365	4,558
<b>Liability for defined benefit obligations at December 31</b>	13,455	12,660	76,623	75,712

Plan assets consist of the following

	US plans		European plans	
	2011	2010	2011	2010
Equity securities	12,504	10,312	11,283	23,830
Debt securities	9,056	8,082	76,677	65,245
Cash	442	383	6,716	3,633
Other	388	383	3,142	3,104
<b>Total</b>	22,390	19,160	97,818	95,812

## Movement in present value of defined benefit obligations

	US plans		European plans	
	2011	2010	2011	2010
<b>Present value of defined benefit obligations at January 1</b>	38,619	34,060	177,900	180,131
Benefits paid directly by the employer or from the plan assets	(2,038)	(1,528)	(8,853)	(8,840)
Contributions from plan participants	–	–	–	–
Past service cost	–	1,250	720	–
Current service costs and interest	2,766	2,385	12,047	11,669
Defined benefit obligation from KB Alloys acquisition	4,285	–	–	–
Unrecognized actuarial losses	4,001	2,452	5,430	4,089
Effect of movements in foreign exchange rates	–	–	(3,812)	(9,149)
<b>Present value of defined benefit obligations at December 31</b>	47,633	38,619	183,432	177,900

## Movement in fair value of plan assets

	US plans		European plans	
	2011	2010	2011	2010
<b>Fair value of plan assets at January 1</b>	19,160	17,127	95,812	93,076
Employer contributions	1,868	1,115	1,240	1,430
Contributions from plan participants	–	–	–	–
Benefits paid from the plan assets	(1,646)	(1,462)	(4,858)	(5,051)
Fair value of plan assets from KB Alloys acquisition	2,937	–	–	–
Expected return on plan assets	1,727	1,364	5,499	5,511
Unrecognized actuarial (losses) gains	(1,656)	1,016	1,843	5,284
Effect of movements in foreign exchange rates	–	–	(1,718)	(4,438)
<b>Fair value of plan assets at December 31</b>	22,390	19,160	97,818	95,812

## Expense recognized in profit or loss

	US plans		European plans	
	2011	2010	2011	2010
Current service costs	502	328	2,720	2,352
Past service costs	–	1,250	720	–
Interest on obligation	2,264	2,057	9,327	9,317
Expected return on plan assets	(1,727)	(1,364)	(5,499)	(5,511)
Recognized actuarial losses (gains)	524	364	193	(16)
Amortization of vested past service cost	–	–	(11)	–
Expense recognized in profit and loss	1,563	2,635	7,450	6,142

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

	US plans		European plans	
	2011	2010	2011	2010
Cost of sales	234	166	2,401	2,195
Selling, general and administrative expenses	1,329	2,469	5,049	3,947
Total	1,563	2,635	7,450	6,142

Amounts for the current and previous four periods are as follows:

### North American Plans

	2011	2010	2009	2008	2007
Defined benefit obligation	47,633	38,619	34,060	31,488	27,280
Plan assets	22,390	19,160	17,127	14,991	20,891
Deficit	(25,243)	(19,459)	(16,933)	(16,497)	(6,389)
Experience adjustments on plan liabilities	105	116	59	474	(101)
Experience adjustments on plan assets	(1,458)	1,017	2,190	6,875	226

### European Plans

	2011	2010	2009	2008	2007
Defined benefit obligation	183,432	177,900	180,131	146,640	178,989
Plan assets	97,818	95,812	93,076	77,433	126,497
Deficit	(85,614)	(82,088)	(87,055)	(69,207)	(52,492)
Experience adjustments on plan liabilities	(11,541)	10,988	(6,567)	(26,073)	(246)
Experience adjustments on plan assets	364	1,149	15,360	(50,411)	1,660

A one percentage point change in the assumed discount rate would have the following effects:

2011	Increase	Decrease
Effect on the aggregate current service costs and interest cost	(1,467)	1,539
Effect on defined benefit obligation	(28,189)	28,719

## 25. Share-based payments

### EQUITY-SETTLED SHARE-BASED PAYMENTS

On May 13, 2009, the Annual General Meeting approved a new 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 2011 were 119,244 (2010: 112,640). During the years ended December 31, 2011 and 2010, there were no grants exercised, expired or forfeited. All options under the 2009 Plan are equity-settled, in accordance with IFRS 2, by award of options to acquire ordinary shares or award of ordinary shares. The fair value of these awards has been calculated at the date of grant of the award. The fair value, adjusted for an estimate of the number of awards that will eventually vest, is expensed using a graded vesting methodology.

The fair value of the options granted was calculated using a binomial expected life model. The assumptions used in the calculation are set out below.

During the year ended December 31, 2011 and 2010, there were no options granted or exercised under the 2007 Plan. Expired or forfeited options under this plan were 11,250 (2010: 143,750). 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. The fair value of the options granted was calculated using a binomial expected life model. The assumptions used in the calculation are set out below.

During the year ended December 31, 2011, AMG recorded compensation from equity-settled share-based payment transactions of \$3,438 (2010: \$6,362) which is included in selling and administrative expenses and cost of goods sold in the income statement.

## Movements

	2011		2010	
In thousands of options	Number of options (in 000s)	Weighted average exercise price (in €)	Number of options (in 000s)	Weighted average exercise price (in €)
<b>Outstanding at January 1</b>	2,542	22.25	2,573	23.24
Granted during the year	119	15.09	113	7.99
Forfeited or expired during the year	(11)	29.50	(144)	28.75
Exercised during the year	–	–	–	–
<b>Outstanding at December 31</b>	2,650	21.90	2,542	22.25
<b>Exercisable at December 31</b>	2,052	23.15	1,607	21.87

2,052,333 options were exercisable as of December 31, 2011. 1,607,333 options were exercisable as of December 31, 2010.

At December 31, 2011, 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	Exercisable options	Weighted average exercisable price (in €)
€7.99 to €9.84	735,400	8.46	7.64	439,833	8.00
€12.70 to €24.00	1,354,244	21.21	6.10	1,175,000	22.27
€29.45 to €40.50	500,000	38.83	6.41	392,500	38.41
€44.00 to €64.31	60,000	61.06	6.41	45,000	61.06

At December 31, 2010, 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	Exercisable options	Weighted average exercisable price (in €)
€7.99 to €9.84	735,400	8.46	8.64	439,833	8.00
€12.70 to €24.00	1,242,500	21.82	6.76	866,250	22.43
€29.45 to €40.50	503,750	38.85	7.36	271,250	38.25
€44.00 to €64.31	60,000	61.06	7.41	30,000	61.06

The maximum number of options that can be granted under the Plan is 10% of total shares outstanding up to a maximum of 50,000,000.

### 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 2011 and 2010 under the 2009 Plan:

	2011	2010
Exercise price	€15.09	€7.99
Share price at date of grant	€15.09	€7.99
Contractual life (years)	10	10
Dividend yield	nil	nil
Expected volatility	71.12%	79.78%
Risk-free interest rate	2.28%	1.27%
Expected life of option (years)	3–4	3–4
Weighted average share price	€11.19	€7.57
Expected departures	10%	10%

The expected volatility was calculated using the average historical share volatility of the Company's peers (over a period equal to the expected term of the options). The expected volatility reflects the assumption that the calculated volatility of the Company's peers would be indicative of future trends, which may not be the actual outcome. 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 \$44,802 as of December 31, 2011 (2010: \$41,741).

### 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, 2011, the Company issued 159,069 performance share units ("PSUs") to certain employees which are cash-settled. 283,452 PSUs were issued in the year ended December 31, 2010. Fair value is determined using the binomial method using the following assumptions:

	2011	2010
Contractual life (years)	1–3	2–3
Dividend yield (%)	nil	nil
Expected volatility (%)	49.12–59.82%	36.10–88.41%
Risk-free interest rate (%)	0.18%	0.29–0.85%
Expected life of option (years)	1–3	2–3
Expected departures (%)	3%	10%
The liability for cash-settled share-based payments has been rolled forward as noted below:		
Balance as at January 1, 2010	3,639	
Current year expense	1,964	
Vesting and payments on first tranche 2009 grant	(1,810)	
Currency / other	(112)	
Balance as at December 31, 2010	3,681	
Balance as at January 1, 2011	3,681	
Current year expense	5,871	
Vesting and payments on second tranche 2009 grant	(6,156)	
Currency / other	(63)	
Balance as at December 31, 2011	3,333	

As of December 31, 2011, the fair value of PSUs was dependent on the issuance date and the vesting term. For those issued in 2009, the fair value was €7.53. For those issued in 2010, the fair value was €7.31–€7.53. For those issued in 2011, the fair value was €7.10.



## 26. Provisions

	Environmental remediation costs and recoveries	Restructuring	Warranty	Cost estimates	Partial retirement	Other	Total
<b>Balance at January 1, 2010</b>	13,908	5,116	13,657	3,564	1,052	651	37,948
Provisions made during the period	6,421	423	5,869	4,022	1,421	283	18,439
Provisions used during the period	(664)	(3,950)	(1,421)	(1,238)	(1,745)	(337)	(9,355)
Decrease due to discounting	(671)	–	–	–	–	–	(671)
Currency, transfers and reversals	1,088	(283)	(5,902)	(1,425)	1,537	(65)	(5,050)
<b>Balance at December 31, 2010</b>	20,082	1,306	12,203	4,923	2,265	532	41,311
<b>Balance at January 1, 2011</b>	20,082	1,306	12,203	4,923	2,265	532	41,311
Provisions made during the period	5,886	2,526	2,090	2,443	653	1,806	15,404
Provisions used during the period	(1,500)	(923)	(1,312)	(1,557)	(1,912)	(194)	(7,398)
Increase due to discounting	389	–	–	–	–	–	389
Currency, transfers and reversals	1,033	(254)	(6,465)	(2,612)	123	(148)	(8,323)
<b>Balance at December 31, 2011</b>	25,890	2,655	6,516	3,197	1,129	1,996	41,383
Non-current	18,415	693	–	–	1,288	211	20,607
Current	1,667	613	12,203	4,923	977	321	20,704
Balance at December 31, 2010	20,082	1,306	12,203	4,923	2,265	532	41,311
Non-current	25,235	–	–	–	810	974	27,019
Current	655	2,655	6,516	3,197	319	1,022	14,364
Balance at December 31, 2011	25,890	2,655	6,516	3,197	1,129	1,996	41,383

### 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:

#### 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. Under the PICO, these slag piles were required to be capped, thereby lowering the radioactive emissions from the piles.

Remediation plans were finalized with the State of Ohio during 2003 and the Company completed all work for this remediation in 2009. In addition to the capital spending required for the actual cap on the slag piles, the Company has reserved for ongoing operations and maintenance expenses (“O&M”) at the site. This O&M is required to

be provided for 1,000 years through the year 3009 and is expected to cost \$44,500 on an undiscounted basis. Other environmental items requiring provision include: wetlands remediation, stormwater remediation and maintenance. These projects are expected to create cash outflows of \$611, on an undiscounted basis, and are expected to be completed within the next 20 years. Discount rates of 0.12%-2.89% (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 3 to 5 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. Until the capping is completed, the US subsidiary is required to pay the NRC for its oversight costs. Due to timing, the expectation of these costs was increased and an additional provision of \$2,630 was recorded in the year ended December 31, 2010. The expected undiscounted cash flows related to oversight are \$3,850, with payments expected to begin and end within the next five years. Discount rates of 0.12%-2.89% (depending on expected timing of the 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, 2011 are \$3,678 (2010: \$2,402). The undiscounted amounts in the trust funds as of December 31, 2011 are \$5,207 (2010: \$5,055).

#### Sao Joao del Rei, Brazil

In the year ended December 31, 2011, a Brazilian subsidiary recorded an expense of \$3,135 (2010: \$54) related to a decommissioning liability at its mine. The total provision amount of \$3,420 (2010: \$308) has been recorded after taking into effect the Brazilian laws that are in place related to decommissioning. Significant mining took place during the year-ended December 31, 2011 in order to keep up with demand. The 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.

In addition to the decommissioning liability at the mine, the aluminum plant facility has waste from its operations that has accumulated over time. Management is in negotiations with the Brazilian government on the best way to dispose of the waste material. During the year ended December 31, 2010, a provision of \$90 was recorded related to the waste disposal. No additional provision

was recorded during the year ended December 31, 2011. The liability for removal of material as at December 31, 2011 was \$450 (2010: \$526).

#### Hauzenberg, Germany

A recultivation provision was recorded on GK's books as it relates to its graphite mine in Germany and was recorded at fair value as part of the purchase accounting performed for this acquisition in 2008. In 2010, German mining authorities met with management and developed a timeline for completion of the recultivation. Based on the meetings held, management's best estimate of the cost to complete the recultivation increased and an additional provision of \$3,146 was recorded. In the year ended December 31, 2011, a new environmental remediation liability was identified with respect to the silicon metal operation and its waste storage. This new liability was recorded as an expense of \$711 during the year ended December 31, 2011. The value of these two provisions as of December 31, 2011 and 2010 was \$4,856 and \$4,278, respectively. Payments are not expected to occur on these provisions until 2015.

#### Nuremburg, Germany

A provision for sewer rehabilitation in Germany has been recorded. Over time, damage to the sewer lines from the plant in Nuremburg 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. Through continued conversation with the authorities, the clean-up liability has grown and an additional expense in the amount of \$1,750 was recorded in the year ended December 31, 2011 (2010: \$265). The expected liability for continued work on the sewer rehabilitation project is \$1,742 at December 31, 2011 (2010: \$896). Payments for this project are expected to occur over the next three to four years with spending taking place in a relatively consistent pattern over those years. Discount rates of 3.82%-4.24% (depending on the expected timing of payments) were used in determining the liabilities recorded.

#### RESTRUCTURING

During the year ended December 31, 2011, the Company recorded a restructuring provision in the amount of \$2,526. This was primarily related to the Company's Silmag joint venture. The management of this joint venture determined that it would terminate the joint venture arrangement. This termination triggered the recognition of a value added tax liability (since the operation took advantage of a start-up Company exemption and is no longer qualified for this exemption) as well as certain other costs related to the clean-up of the joint venture site.

As a result of the global economic downturn, AMG and its subsidiaries recorded restructuring costs of \$423 in the year ended December 31, 2010. Amounts paid related to current and previous years' restructurings were \$923.

#### WARRANTY

Engineering Systems 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 months. The provisions for these warranties are based on the historical return percentages. There were \$1,600 of additional provisions during 2011 (2010: \$5,723) and payments of \$1,123 (2010: \$1,087).

Two German subsidiaries provide for warranties for certain products. These provisions are based on actual claims made by customers. There were \$490 of additional provisions during 2011 (2010: \$146) and payments of \$189 (2010: \$334).

#### COST ESTIMATES

Engineering Systems 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 \$2,443 was recorded in 2011 (2010: \$4,022) related to projects that are currently in process while \$1,557 (2010: \$1,238) 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 2011, there were additional provisions of \$653 (2010: \$1,421) and payments of \$1,912 (2010: \$1,745).

#### OTHER

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

## 27. Government grants

	Government grants
<b>Balance at January 1, 2010</b>	903
Provisions made during the period	199
Provisions used during the period	(216)
Currency and reversals	(69)
<b>Balance at December 31, 2010</b>	817
<b>Balance at January 1, 2011</b>	817
Provisions made during the period	613
Provisions used during the period	(53)
Repayments during the period	(618)
Currency and reversals	7
<b>Balance at December 31, 2011</b>	766
Non-current	642
Current	175
Balance at December 31, 2010	817
Non-current	732
Current	34
Balance at December 31, 2011	766

GK has government grant obligations related to retention of personnel and its capital investment in the state of Bavaria, Germany. According to the grants received, GK 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, 2011, the current and non-current portions of the grants were \$19 and \$616, respectively. As of December 31, 2010, the current and non-current portions of the grants were \$175 and \$642, respectively. During the year ended December 31, 2011, GK failed to meet requirements established for the government grants, this resulted in repayments of government grants in the amount of \$618.

LSM 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, LSM 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 grants funds will be used for a capital project that will introduce a new product. The liability for the grant is reduced as money is spent on capital expansion. As of December 31, 2011, the current and non-current portions of the grant were \$15 and \$116, respectively.

## 28. Other liabilities

Other liabilities are comprised of the following:

	2011	2010
Accrued bonus	12,267	7,230
Accrued interest	3,578	3,617
Accrued professional fees	5,162	5,099
Accrued employee payroll expenses	4,679	3,604
Accrual for performance share units	3,333	3,681
Accruals for operational costs	4,947	2,511
Claims	1,693	1,540
Fiscal contingency	4,380	188
Sales Commission	1,376	1,710
Other benefits and compensation	7,726	6,318
Taxes, other than income	6,220	6,543
Other miscellaneous liabilities	5,588	6,763
Total	60,949	48,804
Thereof:		
Current	51,673	43,287
Non-current	9,276	5,517

## 29. Trade and other payables

	2011	2010
Trade payables	115,649	92,520
Trade payables – percentage of completion	12,844	9,733
Total	128,493	102,253

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 35

## 30. Financial risk management objectives and policies

The Company's principal financial liabilities, other than derivatives, are comprised of loans and borrowings, short term bank debt and trade payables. The main purpose of these financial instruments is to provide capital for the Company's operations, including funding working capital, capital maintenance and expansion. The Company has various financial assets such as trade and other

receivables, restricted cash, and 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. No single customer accounts for more than 10% of the Company's revenue and geographically, there are no 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.

During 2011, the Company utilized MF Global as a broker for the purchase and sale of derivative contracts which were employed to reduce exposure to fluctuations in the price of aluminum. On October 31, 2011, MF Global filed a Chapter 11 petition at the U.S. Bankruptcy Court in the Southern District of New York. All contracts with the Company were liquidated as of November 1, 2011. As of December 31, 2011, the Company had \$183 on deposit with MF Global in customer-segregated accounts that remain frozen pending final resolution by the bankruptcy trustee. While the Company's exposure at this time is not considered material, management is unable to predict when, or to what extent, these remaining funds will be returned.

## 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:

- \$214,200 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, 2011 based on contractual undiscounted payments. The financial derivatives obligations are presented on a net basis for balances in a net obligation position for the respective period.

2011	Contractual cash flows	< 3 months	3-12 months	2013	2014	2015	2016	> 2017
Term loan / revolver	206,902	–	–	6,461	8,076	4,845	187,520	–
Cash interest on term loan	19,695	–	5,021	4,862	4,494	4,040	1,278	–
Fixed rate loans and borrowings	29,166	563	16,532	4,236	2,728	1,057	1,065	2,985
Cash interest on loans and borrowings	2,750	314	943	420	293	222	173	385
Financial derivatives	14,849	1,732	5,975	2,325	2,067	2,008	738	4
Financial lease liabilities	1,312	109	324	412	370	97	–	–
Trade and other payables	128,493	114,743	13,750	–	–	–	–	–
Short term bank debt	40,737	19,448	21,289	–	–	–	–	–
Accruals and other liabilities	50,325	24,818	14,740	2,581	4,325	1,564	782	1,515
<b>Total</b>	<b>494,229</b>	<b>161,727</b>	<b>78,574</b>	<b>21,297</b>	<b>22,353</b>	<b>13,833</b>	<b>191,556</b>	<b>4,889</b>

The table below summarizes the maturity profile of the Company's financial liabilities at December 31, 2010 based on contractual undiscounted payments.

2010	Contractual cash flows	< 3 months	3–12 months	2012	2013	2014	2015	> 2016
Term loan / revolver	163,100	–	–	163,100	–	–	–	–
Cash interest on term loan	13,160	470	7,427	5,263	–	–	–	–
Fixed rate loans and borrowings	31,229	477	3,404	17,140	3,239	1,761	1,085	4,123
Floating rate loans and borrowings	2,997	–	–	2,997	–	–	–	–
Cash interest on loans and borrowings	4,537	443	1,415	1,195	409	301	227	547
Financial derivatives	1,945	–	–	847	639	249	150	60
Financial lease liabilities	1,815	114	365	466	438	357	75	–
Trade and other payables	102,253	87,234	15,019	–	–	–	–	–
Short term bank debt	42,025	20,620	21,405	–	–	–	–	–
Accruals and other liabilities	36,560	16,553	12,347	3,067	1,742	1,415	1,429	7
<b>Total</b>	<b>399,621</b>	<b>125,911</b>	<b>61,382</b>	<b>194,075</b>	<b>6,467</b>	<b>4,083</b>	<b>2,966</b>	<b>4,737</b>

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 financial instruments of the Company that are not included in the above tables are non-interest bearing and are therefore not subject to interest rate risk.

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 \$9,329 and \$3,640 as of December 31, 2011 and 2010, 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, 2011 and 2010.

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, 2011.

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, 2011 and 2010 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% (2010: 60%) 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. Due to all-time low interest rates, the Company determined that it would be beneficial to lock in a more significant portion of its floating rate debt using interest rate swaps and has increased the policy for fixed rate borrowings from 60% in 2010 to 75% in 2011. At December 31, 2011, after taking into account the effect of interest rate swaps, approximately 77% of the Company's borrowings are at a fixed rate of interest (2010: 57%).



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, 2011 and 2010, 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.

	Increase/ decrease in basis points	Effect on profit before tax
<b>2011</b>		
USD***		(169)
Euro	+10	(9)
USD***		132
Euro	-10	9

	Increase/ decrease in basis points	Effect on profit before tax
2010		
USD***		(137)
Euro	+10	(11)
USD***		85
Euro	-10	11

\*\*\* 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, 2011, the Company's interest rate swaps had a fair value of (\$8,375) [2010: (\$1,092)]. Per the agreements, the Company pays a fixed rate and receives a floating rate based on the six month, three month or one 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 is an impact in the income statement for two ineffective interest rate swaps in the year ended December 31, 2011 and one ineffective interest rate swap in the year ended December 31, 2010. Changes in sensitivity rates reflect various changes in the economy year-over-year.

	Increase/ decrease in basis points	Effect on equity	Effect on profit before tax
<b>2011</b>			
USD	+5	405	18
USD	-10	(805)	(35)

	Increase/ decrease in basis points	Effect on equity	Effect on profit before tax
2010			
USD	+5	112	6
USD	-10	(158)	(9)

## 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 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, British Pound Sterling, Brazilian Reais and Euros. 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 at least 70% 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.

	Strengthening/ weakening in functional rate	Effect on profit before tax	Effect on equity before tax
<b>2011</b>			
US Dollar	+5%	514	711
Euro	+5%	(1,013)	(188)
US Dollar	-5%	(514)	(711)
Euro	-5%	1,013	188

	Strengthening/ weakening in functional rate	Effect on profit before tax	Effect on equity before tax
2010			
US Dollar	+5%	(825)	93
Euro	+5%	(296)	(214)
US Dollar	-5%	825	(93)
Euro	-5%	296	214

#### 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.

	Change in price	Effect on profit before tax	Effect on equity before tax
<b>2011</b>			
Aluminum	+5%	463	103
Nickel	+5%	(10)	-
Copper	+5%	18	-
Aluminum	-10%	(926)	(207)
Nickel	-10%	20	-
Copper	-10%	(36)	-

	Change in price	Effect on profit before tax	Effect on equity before tax
2010			
Aluminum	+5%	424	68
Nickel	+5%	12	-
Copper	+5%	7	-
Aluminum	-10%	(849)	(136)
Nickel	-10%	(25)	-
Copper	-10%	(14)	-

#### 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 ratio is above the policy level for the years ended December 31, 2011 and 2010. 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.

	<b>2011</b>	2010
Loans and borrowings	227,884	192,067
Short term bank debt	40,737	45,022
Trade and other payables	128,493	102,253
Less cash and cash equivalents	79,571	89,311
Net debt	317,543	250,031
Net debt	317,543	250,031
Total equity	220,618	233,965
Total capital	538,161	483,996
Debt to total capital ratio	0.59	0.52

## 31. Financial instruments

### FAIR VALUES

Set out below is a comparison by category of the carrying amounts and fair values of all of the Company's financial instruments that are presented in the financial statements:

		2011		2010	
	Note	Carrying amount	Fair value	Carrying amount	Fair value
Current financial assets					
Derivatives in effective hedges	31	1,680	1,680	5,390	5,390
Financial assets at fair value through profit or loss	31	2,276	2,276	341	341
Investments in equity securities	14	–	–	887	887
Trade and other receivables	16	188,103	188,103	175,421	175,421
Cash and cash equivalents	19	79,571	79,571	89,311	89,311
Total		271,630	271,630	271,350	271,350
Non-current financial assets					
Embedded derivative	31	–	–	5,113	5,113
Derivatives in effective hedges	31	1	1	86	86
Notes receivable	31	250	250	322	322
Restricted cash	18	11,074	11,074	12,528	12,528
Total		11,325	11,325	18,049	18,049
Current financial liabilities					
Derivatives in effective hedges	31	10,255	10,255	839	839
Financial current liabilities at fair value through profit or loss	31	406	406	915	915
Fixed rate loans and borrowings	22	17,436	17,436	4,254	4,254
Short term bank debt	23	40,737	40,737	45,022	45,022
Trade and other payables	29	128,493	128,493	102,253	102,253
Total		197,327	197,327	153,283	153,283
Non-current financial liabilities					
Derivatives in effective hedges	31	8,122	8,122	698	698
Financial non-current liabilities at fair value through profit or loss	31	–	–	–	–
Fixed rate loans and borrowings	22	181,497	181,577	122,240	118,681
Floating rate loans and borrowings	22	28,951	28,951	65,573	65,573
Total		218,570	218,650	188,511	184,952

The fair value of the financial assets and liabilities are included at the amount at which the instrument could be exchanged in a current transaction between willing parties. The following methods and assumptions were used to estimate the fair values.

- 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 therefore approximate fair value.
- The fair value of fixed rate loans and borrowings are estimated by discounting future cash flows using rates currently available for debt.
- The fair value of embedded derivatives is estimated using an option pricing model. The embedded derivative represents a conversion feature in a note from an associate. See note 35 for details.

The Company made a strategic investment in a growth-based company in Iceland in 2008. This investment cannot be reliably measured at fair value and are therefore accounted for using a cost basis. An impairment loss was booked during the year ended December 31, 2011 as management deemed the investment in Iceland to be non-recoverable. At December 31, 2011, this investment was nil (2010: \$887) and is included in other non-current assets in the statement of financial position.

#### 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, 2011, the Company held the following financial instruments measured at fair value:

#### Assets measured at fair value

	December 31, 2011	Level 1	Level 2	Level 3
Financial assets				
Forward contracts – hedged	2,192	–	2,192	–
Forward contracts – non-hedged	1,764	–	1,764	–

#### Liabilities measured at fair value

	December 31, 2011	Level 1	Level 2	Level 3
Financial liabilities				
Forward contracts – hedged	10,133	–	10,133	–
Forward contracts – non-hedged	275	–	275	–
Interest rate swaps	8,375	–	8,375	–

As of December 31, 2010, the Company held the following financial instruments measured at fair value:

#### Assets measured at fair value

	December 31, 2010	Level 1	Level 2	Level 3
Financial assets				
Forward contracts – hedged	5,642	–	5,642	–
Forward contracts – non-hedged	175	–	175	–
Embedded derivative	5,113	–	5,113	–

#### Liabilities measured at fair value

	December 31, 2010	Level 1	Level 2	Level 3
Financial liabilities				
Forward contracts – hedged	941	–	941	–
Forward contracts – non-hedged	419	–	419	–
Interest rate swaps	1,092	–	1,092	–

During the years ended December 31, 2011 and 2010, 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.

## HEDGING ACTIVITIES

### Interest rate hedges

In April 2011, the Company entered into two interest rate hedge 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, 2011 is a non-current liability of \$3,707. The fair value of the revolver interest rate swap as at December 31, 2011 is a non-current liability of \$3,815.

In October 2010, the Company entered into an interest rate hedge agreement for the entire drawdown of the term loan which was €71,003 (see note 22). This interest rate swap was executed as a replacement to an expiring contract so that the Company could continue to hedge its exposure to changes in the benchmark interest rate on the term loan. This swap agreement provided for a fixed annual interest rate of 1.416% (exclusive of the margin) paid semi-annually by AMG and a semi-annual payment by the counterparty of EURIBOR expiring in 2010. Management had designated the interest rate swap as a cash flow hedge of the forecasted interest payments on the debt. At December 31, 2010, the fair value of the prior interest

rate swap was (\$74). This interest rate swap was settled when the previous credit facility was refinanced.

GK entered into seven interest rate hedges for a variety of floating rate debt instruments to minimize interest rate risk. The swap agreements provide for fixed interest rates paid either monthly or quarterly by the Company and a payment made by the counterparty of EURIBOR. The contracts expire between 2013 and 2017 depending on each contract's underlying debt maturity. Management has designated the interest rate swaps as cash flow hedges of the forecasted interest payments on each respective debt. At December 31, 2011, the fair value of the various interest rate swaps was (\$853) (2010: (\$1,018)).

The amount from effective interest rate swap cash flow hedges included in equity through other comprehensive income is (\$7,907) and (\$566) in the years ended December 31, 2011 and 2010, respectively. During the years ended December 31, 2011 and 2010, \$1,350 and \$1,365, respectively, were transferred from equity to the income statement as increases to interest expense. There are two ineffective interest rate swap contract as at December 31, 2011 and there was one ineffective interest rate swap as of December 31, 2010. Therefore, all amounts related to these contracts are directly recognized in the income statement.

### Commodity forward contracts

The Company is exposed to volatility in the prices of raw materials used in some products and uses commodity forward contracts to manage these exposures. Such contracts generally mature within twelve months. 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, 2011 are as follows:

US Dollar denominated contracts to purchase commodities:	Metric tons	Average price	Fair value assets	Fair value liabilities
Aluminum forwards	4,550	2,130	8	(681)

The open commodity forward contracts as at December 31, 2010 are as follows:

US Dollar denominated contracts to purchase commodities:	Metric tons	Average price	Fair value assets	Fair value liabilities
Aluminum forwards	4,625	2,325	634	–
US Dollar denominated contracts to sell commodities:	Metric tons	Average price	Fair value assets	Fair value liabilities
Aluminum forwards	1,075	2,351	–	(121)

The amount from the commodity cash flow hedges included in equity was (\$642) and \$519 in the years ended December 31, 2011 and 2010, respectively. During the years ended December 31, 2011 and 2010, \$964 and (\$612), respectively, were transferred from equity to the income statement as increases (decreases) to cost of sales. There was no ineffectiveness for contracts designated as cash flow hedges during the years ended December 31, 2011 and 2010.

#### 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, 2011 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
<b>Cash Flow Hedges</b>				
Euro (versus USD)	€ 19.8 million	1.354	1,064	(12)
USD (versus Euro)	\$ 83.5 million	1.362	5	(5,023)
PLZ (versus USD)	zł 1.5 million	4.069	44	–
MXN (versus USD)	MXN 112.6 million	17.216	404	–
<b>Economic Hedges</b>				
CAD (versus USD)	CAD 3.6 million	0.966	–	(41)
Euro (versus USD)	€ 21.0 million	1.382	1,753	–

The open foreign exchange forward sales contracts as at December 31, 2010 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
<b>Cash Flow Hedges</b>				
Euro (versus USD)	€ 20.3 million	1.365	573	(206)
USD (versus Euro)	\$ 45.2 million	1.324	653	(143)
PLZ (versus USD)	zł 9.0 million	4.042	7	(1)
MXN (versus USD)	MXN 123.2 million	16.961	121	(155)
<b>Economic Hedges</b>				
USD (versus Euro)	\$ 0.8 million	1.331	8	–
CAD (versus USD)	CAD 3.6 million	0.981	–	(57)
Euro (versus USD)	€ 21.0 million	1.344	164	(361)

The open foreign exchange forward purchase contracts as at December 31, 2011 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
<b>Cash Flow Hedges</b>				
USD (versus Euro)	\$ 7.8 million	1.396	596	–
GBP (versus USD)	£ 13.3 million	1.614	–	(1,474)
BRL (versus USD)	R\$ 66.3 million	1.7692	17	(3,173)
MXN (versus USD)	MXN 30 million	18.649	63	–
<b>Economic Hedges</b>				
USD (versus Euro)	\$ 0.2 million	1.293	3	(4)



The open foreign exchange forward purchase contracts as at December 31, 2010 are as follows:

Exposure	Notional amount	Contract rate	Fair value assets	Fair value liabilities
<b>Cash Flow Hedges</b>				
USD (versus Euro)	\$ 4.9 million	1.366	155	(12)
GBP (versus USD)	£ 13.3 million	1.499	862	(303)
BRL (versus USD)	R\$ 57.0 million	1.905	2,637	–
<b>Economic Hedges</b>				
USD (versus Euro)	\$ 0.6 million	1.314	3	(1)

The amounts from the foreign currency cash flow hedges included in equity were (\$8,660) and \$2,608 in the years ended December 31, 2011 and 2010, respectively. During the years ended December 31, 2011 and 2010, (\$937) and \$2,143, respectively, were transferred from equity to the income statement as (decreases) increases to cost of sales. There was no ineffectiveness recognized in profit or loss during the years ended December 31, 2011 and 2010.

#### Notes receivable

On December 11, 2009, the Company loaned \$5,000 to Timminco's wholly-owned subsidiary, Bécancour Silicon Inc. ("Bécancour"), in exchange for a convertible promissory note ("Initial Convertible Note"). On December 15, 2010, the Company amended the terms of the loan, through an amended convertible promissory note ("Amended Convertible Note"). As the amendments to the debt agreement were considered substantial, the transaction was accounted for as an extinguishment of the Initial Convertible Note and issuance of new debt in accordance with IAS 39. The Initial Convertible Note had an annual interest rate of 12%, payable quarterly in arrears starting December 31, 2009 and maturing on January 3, 2011. The Amended Convertible Note bears interest at 14%, payable quarterly in arrears starting December 31, 2010 and matures on January 3, 2014. The full principal amount is convertible into common shares of Timminco at the conversion price, at AMG's option at any time, subject to customary anti-dilution adjustments. The conversion price was amended from C\$1.58 per share under the Initial Convertible Note to a conversion price of C\$0.26 per share under the Amended Convertible Note.

Both the Initial and Amended Convertible notes were accounted for as hybrid instruments with the note and the equity option being valued separately. The value of the Amended Convertible Note was \$1,714 as of December 31, 2011 (2010: \$71). The value of the equity option on the Amended Convertible Note was \$846 as of December 31, 2011 (2010: \$5,113). The full value of both the equity and note portion were fully reserved as at December 31, 2011 due to the CCAA filing for creditor protection of Timminco which occurred on January 3, 2012. The allowance for

these receivables was recorded through selling, general and administrative expenses in the consolidated income statement. Interest income from the convertible notes was \$700 during the year ended December 31, 2011 (2010: \$600). Interest receivable related to the Convertible Note was \$58 as of December 31, 2011, but has been reserved in full due to the Timminco CCAA filing. All interest for 2010 was paid as of December 31, 2010. The Company recorded finance income of \$371 during the year ended December 31, 2010 as a result of a gain recognized on the amendment. The Company also recorded finance income of \$100 during 2010 for an amendment fee charged in conjunction with the amendment.

On July 22, 2008, the Company loaned \$5,000 to Millinet Solar Co., Ltd., a Korean manufacturer of solar silicon. The note was issued with a maturity date of July 22, 2010 and carried interest at a rate of 5% if Millinet went public and 10% if Millinet did not go public. The principal balance was not repaid on July 22, 2010 and the Company entered into default negotiations. The final amendment agreement was signed on March 10, 2011. According to the agreement, Millinet agreed to repay all amounts, including default interest and penalties, by February 21, 2012. In addition to the amendment agreement, a guarantee agreement was signed by Millinet Co, Ltd. (Millinet Solar's parent company) and its managing director. At December 31, 2010, the Company had interest receivable of \$1,000 and the note receivable of \$5,000. After having made payments in the amount of \$2,979 during the year ended December 31, 2011, Millinet filed for bankruptcy protection in Korea on October 31, 2011. The Company has recorded a provision of \$4,163 as of December 31, 2011 for the entire amount outstanding under the note, including interest.

## 32. Leases

### OPERATING LEASES AS LESSEE

The Company has entered into leases for office space, facilities and equipment. The leases generally provide that the Company pays the tax, insurance and maintenance expenses related to the leased assets. These leases have an average life of 5–7 years with renewal terms at the option of the lessee and lease payments based on market

prices at the time of renewal. There are no restrictions placed upon the lessee by entering into these leases.

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-cancelable operating leases as at December 31 are as follows:

	2011	2010
Less than one year	7,922	7,121
Between one and five years	20,014	19,739
More than five years	8,342	8,606
Total	36,278	35,466

During the year ended December 31, 2011 \$8,453 (2010: \$7,942) 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-cancelable leases have remaining terms between one and five years. Future minimum lease payments under finance leases are as follows:

	2011	2010
Less than one year	433	479
Between one and five years	879	1,336
Total minimum lease payments	1,312	1,815
Less amounts representing finance charges	(108)	(289)
Present value of minimum lease payments	1,204	1,526

## 33. Capital commitments

The Company's capital expenditures include projects to improve the Company's operations and productivity, replacement projects and ongoing environmental requirements (which are in addition to expenditures discussed in note 26). As of December 31, 2011, the Company had committed to capital requirements in the amount of \$5,138 (2010: \$6,269).

## 34. Contingencies

### GUARANTEES

The following table outlines the Company's off-balance sheet credit-related guarantees and business-related guarantees for the benefit of third parties as of December 31, 2011 and 2010:

	Business-related guarantees	Credit-related guarantees	Letters of credit	Total
<b>2011</b>				
Total amounts committed:	52,701	219	4,790	57,710
Less than 1 year	24,750	219	–	24,969
2–5 years	2,858	–	–	2,858
After 5 years	25,093	–	4,790	29,883
<b>2010</b>				
Total amounts committed:	63,563	254	5,080	68,897
Less than 1 year	41,209	254	303	41,766
2–5 years	5,170	–	–	5,170
After 5 years	17,184	–	4,777	21,961

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**

As discussed in note 26, 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 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 is requesting the Company to remediate using a second alternative. The second alternative is an offsite disposal alternative which could potentially cost from \$25,000–\$70,000. The Company is currently challenging the oversight party in a legal battle but believes that the long-term control license will be the enforced remediation and that the offsite disposal option will not be legally required. In 2010, a US subsidiary was named as a potentially responsible party in the Macalloy Superfund site in South Carolina. The total claim for the site is \$980 and there are two additional potentially responsible parties ("PRPs"). Based on the claim and the known number of viable PRPs, the maximum exposure for this case is \$327. The Company does not believe that it has a liability for the site, given several circumstances but has recorded a liability of \$100 at December 31, 2011 as this would be a reasonable settlement amount. However, this amount could reach the maximum of \$327.

#### **LITIGATION**

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. There can be no assurance, however, 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.

#### **CONTINGENCIES OF ASSOCIATES AND JOINT VENTURES**

Timminco and certain of its directors and officers, as well as certain third 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 common shares 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.

The Company has not recorded any liability related to these matters. Timminco's directors and officers insurance policies provide for reimbursement of costs and expenses incurred in connection with this lawsuit, including legal and professional fees, as well as potential damages awarded, if any, subject to certain policy limits and deductibles. On February 16, 2012, the Ontario Court of Appeal dismissed the claim, citing a time limit. It is not certain whether the plaintiff will appeal this decision and no assurance can be given with respect to the ultimate outcome of such proceedings.

#### **OTHER**

The Company entered into a trade finance transaction with Timminco in August 2011. This trade finance transaction required that the Company would deliver material supplied by Timminco's subsidiary and subsequently collect from the ultimate external customer and is described in more detail in note 35. Timminco filed for protection under Canadian reorganization laws on January 3, 2012. It is not certain whether the Company will be required to supply the material to the ultimate customer as this will be determined based on the final creditor proceedings. If the material contracted to be supplied by Timminco's subsidiary was being offered at a discount to the current market price, the Company could have a liability equal to the difference between the contracted selling price and market price to purchase this material.

### 35. Related parties

#### TRANSACTIONS WITH KEY MANAGEMENT PERSONNEL

##### Key management personnel compensation

As at December 31, 2011 and 2010, 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:

				Post-employment benefits including contributions to defined contribution plans	Other remuneration (b)	Total
For the year ended December 31, 2011	Salaries and bonus	Option compensation	Performance share units			
Heinz Schimmelbusch (a)	2,452	778	1,659	392	132	5,413
Eric Jackson	1,159	257	498	296	45	2,255
Reinhard Walter	1,113	257	498	1,159	56	3,083
William J. Levy	978	195	332	192	50	1,747
Total	5,702	1,487	2,987	2,039	283	12,498

				Post-employment benefits including contributions to defined contribution plans	Other remuneration (b)	Total
For the year ended December 31, 2010	Salaries and bonus	Option compensation	Performance share units			
Heinz Schimmelbusch (a)	2,461	1,081	854	314	87	4,797
Eric Jackson	1,250	398	256	973	49	2,926
Reinhard Walter	1,222	398	256	358	17	2,251
William J. Levy	973	340	171	644	23	2,151
Total	5,906	2,217	1,537	2,289	176	12,125

(a) Dr. Schimmelbusch also received compensation in 2011 and 2010 from Graphit Kropfmühl in his capacity as Supervisory Board member in the amount of \$50 and \$40, respectively.

(b) Other remuneration also includes car expenses, country club dues and additional insurance paid for by the Company. In 2011, the Chief Executive also received payments for German living expenses, including an apartment.

Each member of the management board has an employment contract with the Company which provides for severance in the event of termination without cause. The maximum severance payout is limited to two years base salary and two years of target annual bonus.

The compensation of the Supervisory Board of the Company comprised:

For the year ended December 31, 2011	Cash remuneration	Share-based remuneration	Total compensation
Pedro Pablo Kuczynski	95	69	164
Jack Messman	90	48	138
General Wesley Clark	60	42	102
Norbert Quinkert	80	42	122
Guy de Selliers	80	42	122
Martin Hoyos	60	42	102
Total	465	285	750

For the year ended December 31, 2010	Cash remuneration	Share-based remuneration	Total compensation
Pedro Pablo Kuczynski	95	66	161
Jack Messman	90	45	135
General Wesley Clark	60	40	100
Norbert Quinkert	80	40	120
Guy de Selliers	80	40	120
Martin Hoyos	60	40	100
Total	465	271	736

Total compensation for key management, including both the Management Board and the Supervisory Board was \$13,248 in the year ended December 31, 2011 (2010: \$12,861).

#### ENTITIES WITH SIGNIFICANT INFLUENCE OVER THE COMPANY

Safeguard International Fund ("SIF" or "Safeguard") previously owned approximately 26.6% of the voting shares of the Company. During the year ended December 31, 2010, all shares were distributed by Safeguard to its members and therefore SIF's ownership percentage is now nil. Dr. Schimmelbusch is also managing directors of Safeguard and receives compensation for his role as a managing director. The relatives of Directors hold only a de minimus portion of the voting shares.

A number of key management personnel, or their related parties, hold positions in other group entities that result in them having control or significant influence over the financial or operating policies of these entities.

A number of these entities transacted with the Company in the reporting period. The terms and conditions of the transactions with key management personnel and their related parties were no more favourable than those available, or which might reasonably be expected to be available, on similar transactions to non-key management personnel and their related parties on an arm's length basis.

#### Foundation

In July 2010, the foundation "Stichting Continuïteit AMG" ("Foundation") was established following the resolution adopted at its Annual Meeting on May 12, 2010. The board

of the Foundation consists of three members, all of whom are independent of AMG. The purpose of the Foundation is to safeguard the interests of the parent company, the enterprise connected therewith and all the parties having an interest therein and to exclude as much as possible influences which could threaten, amongst other things, the continuity, independence and identity of the parent company contrary to such interests.

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

The Company entered into a cost compensation agreement with the Foundation dated December 22, 2010. As per the agreement, the Company is required to provide funds to the Foundation for the costs incurred in connection with the fulfilment of the objectives of the Foundation. These costs include costs for establishing the Foundation, remuneration and out of pocket expenses for the members of the board of the Foundation, commitment fees, advisory fees and certain other costs. During the year ended December 31, 2011, the amounts paid by the Company to or on behalf of the Foundation were \$100 (2010: \$29).

#### LOANS AND RECEIVABLES

On December 11, 2009, the Company loaned \$5,000 to Timminco's wholly-owned subsidiary, Bécancour

Silicon Inc. ("Bécancour"), in exchange for a convertible promissory note ("Initial Convertible Note"). On December 15, 2010, the Company amended the terms of the loan, through an amended convertible promissory note ("Amended Convertible Note"). As the amendments to the debt agreement were considered substantial, the transaction was accounted for as an extinguishment of the Initial Convertible Note and issuance of new debt in accordance with IAS 39. The Initial Convertible Note had an annual interest rate of 12%, payable quarterly in arrears starting December 31, 2009 and maturing on January 3, 2011. The Amended Convertible Note bears interest at 14%, payable quarterly in arrears starting December 31, 2010 and matures on January 3, 2014. The full principal amount is convertible into common shares of Timminco at the conversion price, at AMG's option at any time, subject to customary anti-dilution adjustments. The conversion price was amended from C\$1.58 per share under the Initial Convertible Note to a conversion price of C\$0.26 per share under the Amended Convertible Note.

Both the Initial and Amended Convertible notes were accounted for as hybrid instruments with the note and the equity option being valued separately. The value of the Amended Convertible Note was \$1,714 as of December 31, 2011 (2010: \$71). The value of the equity option on the Amended Convertible Note was \$846 as of December 31, 2011 (2010: \$5,113). The full value of both the equity and note portion were fully reserved in an allowance account as at December 31, 2011 due to the CCAA filing for creditor protection of Timminco which occurred on January 3, 2012. The allowance for these receivables was recorded through selling, general and administrative expenses in the consolidated income statement. Interest income from the convertible notes was \$700 during the year ended December 31, 2011 (2010: \$600). Interest receivable related to the Convertible Note was \$58 as of December 31, 2011, but has been reserved in full in an allowance account due to the Timminco CCAA filing. All interest for 2010 was paid as of December 31, 2010. The Company recorded finance income of \$371 during the year ended December 31, 2010 as a result of a gain recognized on the amendment. The Company also recorded finance income of \$100 for an amendment fee charged in conjunction with the amendment.

Between January 2004 and May 2007, ALD entered into a series of loan agreements with Intellifast GmbH (formerly known as PFW Technologies GmbH), a subsidiary of Safeguard and PFW LLC, in an aggregate principal amount of \$1,706. At December 31, 2010, \$2,045 was outstanding under these loans including interest and an additional amount of approximately \$875 was due for normal course of business transactions. Intellifast is now consolidated into the Company and the loans payable to ALD are eliminated in consolidation.

## 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. The total purchase price was \$8,019. Intellifast provides an engineering solution for bolt identification, clamp load controlled bolt assembly, and clamp load documentation using coded transducers. Intellifast is managed by and included within Engineering Systems as its products are engineering-focused.

The purchase price was provisionally allocated to the following categories:

	Fair value recognized on acquisition
Property, plant and equipment	2,574
Intangible assets	4,984
Trade receivables	278
Inventories	183
	8,019
Trade payables	234
Amounts owed to subsidiary of the Company	3,034
	3,268
Total identifiable net assets at fair value	4,751
Goodwill arising on acquisition	-
Consideration, satisfied by cash	4,751

The revenues and loss before tax of Intellifast for the year ended December 31, 2011, including the period prior to the acquisition, were \$3,085 and (\$1,691), respectively. The revenues and loss before tax of Intellifast for the year ended December 31, 2011, excluding the period prior to the acquisition, were \$652 and (\$695), respectively.

## TRANSACTIONS WITH ASSOCIATES

There were no purchases of Timminco shares during the year ended December 31, 2011. The Company completed the following purchase of Timminco shares during 2010:

Date	Shares purchased	Share price	Total equity purchase
2010			
June 14, 2010 <sup>1</sup>	15.4 million	C\$0.65	\$9,705

<sup>1</sup> Timminco 2010 private placement completed in three tranches with third tranche closing on June 14, 2010

As of December 31, 2011, the Company owned 83,146,007 or 41.9% of the outstanding shares of Timminco. As of December 31, 2010, the Company owned 83,146,007 or 42.5% of the outstanding shares of Timminco.

During the third quarter of 2011, one of the Company's subsidiaries agreed to finance Timminco by prepaying \$5,002 (€3,498) for 2,106 metric tons of silicon metal to be delivered in the third quarter of 2012. As of December 31, 2011, all inventory remained to be delivered to the



customer. Due to the Timminco's CCAA filing for creditor protection on January 3, 2012, the full receivable amount due from Timminco (\$4,520 as valued at December 31, 2011) was provided for in an allowance account. The allowance for this receivable was recorded through selling, general and administrative expenses in the consolidated income statement. During the first quarter of 2010, one of the Company's subsidiaries agreed to prepay \$4,765 to Timminco for 2,000 metric tons of silicon metal to be delivered in the third and fourth quarters of 2010. Timminco delivered silicon metal to an agreed-upon customer who then repaid the Company. As of December 31, 2010, no inventory remained to be delivered to the customer. The Company recognized \$353 in commission income from Timminco related to these sales.

One of the Company's subsidiaries, AMG Conversion Ltd. ("AMGC") is a party to a Memorandum of Understanding and Joint Development Agreement with Timminco. AMGC was established as a producer of solar grade ingots and bricks to be sold to the solar wafer market. AMGC manufactured ingots and bricks both for Timminco's and its own use. Timminco's employees were used in the production process. Each party received a tolling fee based on the cost of contributions to the process, plus an agreed upon fixed margin on such costs. During 2011, \$1,599 (2010: \$1,113) was invoiced to Timminco with respect to these services. AMGC had a receivable of \$367 due from Timminco as of December 31, 2011 which was fully provided for in an allowance account due to Timminco's CCAA filing (2010: \$341).

A summary of the profit and loss impact related to all transactions with Timminco for the year ended December 31, 2011 is summarized as follows:

Extraordinary amounts due to CCAA filing		Profit and loss classification
Provision for convertible note book value	1,714	Selling, general and administrative expenses
Provision for convertible note equity value	846	Selling, general and administrative expenses
Provision for trade financing receivable	4,520	Selling, general and administrative expenses
Provision for other receivables	461	Selling, general and administrative expenses
Impairment of associate carrying value	8,143	Share of loss of associates
Amounts occurring in normal course of business		
Share of Timminco net loss	9,563	Share of loss of associates
Net change in valuation of convertible equity option	4,267	Finance expense
Accretion in convertible note value	(1,643)	Finance income

Certain of the Company's other subsidiaries had limited sales and spare parts transactions with Timminco during the year ended December 31, 2011. These other transactions accounted for \$195 of revenues. From these transactions, amounts totalling \$32 were outstanding as of December 31, 2011.

In 2009, AMGC purchased inventory from Timminco in the amount of \$5,927 for use in its crystallization facility. A lower of cost or net realizable value reserve in the amount of \$3,420 was established against this inventory during the year ended December 31, 2010. An additional reserve of \$1,720 was recorded in the year ended December 31, 2011.

In the year ended December 31, 2010, Dr. Schimmelbusch received cash compensation from Timminco in his role as Chief Executive Officer in the amount of \$437. Dr. Schimmelbusch also received director's compensation in 2010 from Timminco in the form of deferred share units in the amount of \$206. During 2011, Dr. Schimmelbusch relinquished his position as Chief Executive Officer of Timminco but prior to his resignation, he received \$103 in compensation for this position. He also received director's compensation of \$216 in the form of deferred share units during the year ended December 31, 2011.

In addition, certain members of Timminco's executive team who were previously employees of the Company

still hold performance share units and stock options in AMG. The plan document required that non-AMG employees would relinquish their PSUs upon termination but an exception was made to the plan document for these employees. As of December 31, 2011, the liability for PSUs for these Timminco employees is currently valued at \$132. Prior to their becoming members of Timminco management, these employees were paid total compensation which amounted to \$539 by the Company in the year ended December 31, 2011.

#### OTHER TRANSACTIONS

The Company shares office space in the United States with Safeguard. During the years ended December 31, 2011 and 2010, the Company was billed \$18 and \$29 by Safeguard for a small portion of costs related to the building. Amounts due to Safeguard at December 31, 2011 and 2010 were nil and \$1, respectively.

During the year ended December 31, 2010, the Company paid \$173 to Safeguard International Management GmbH ("SIM GmbH") for management services. The service agreement with SIM GmbH requires the Company to pay for the use of SIM GmbH's office and administrative services in its Frankfurt location. SIM GmbH is a wholly owned subsidiary of Safeguard International Fund

whose managing director is also the Company's Chief Executive Officer.

The Company also 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 \$94 during the year ended December 31, 2011 (2010: \$89).

Subsequent to the Company's acquisition of Intellifast, certain office space and services continued to be provided by PFW Aerospace AG ("PFW"). The rent and services had a value of \$43 and \$40 was recorded as an amount due to PFW as of December 31, 2011. The Company's Chief Executive Officer is on the Supervisory Board of PFW. The Company also purchased consulting services from Allied Environmental Services ("AES") during the year ended December 31, 2011. AES is owned by Allied Resources for which the Company's Chief Executive Officer acts as the Chairman of the Board. AES provided environmental consulting related to the design of new equipment in the United States. The value of the services was \$100. Another subsidiary of Allied Resources provided waste energy consulting to the Company with a value of \$29. No amount was due to either Allied Resource company as of December 31, 2011.

During the year ended December 31, 2010, the Company paid consulting fees to members of the PFW GmbH Supervisory Board. PFW GmbH is partially owned by Safeguard International Fund (it was wholly owned through September, 2011). Heinz Schimmelbusch, the Chief Executive Officer of the Company is a Managing Director and a beneficial owner of Safeguard International. Consulting fees in the amount of \$528 were paid to the Vice Chairman of the PFW board. In addition, another board member and the acting CEO of PFW for a portion of 2011 received compensation from the Company in the amount of \$117 and also received bonuses in the amount of \$117 during the year ended December 31, 2011.

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

### 36. Subsequent events

On January 3, 2012, Timminco and its wholly-owned subsidiary, Bécancour Silicon Inc. decided to seek protection from their creditors under the Companies' Creditors Arrangement Act ("CCAA") in Canada.

Accordingly, Timminco BSI applied for and obtained an initial order from the Ontario Superior Court of Justice (Commercial Division) (the "Court") under the CCAA. It is the intention of Timminco BSI to continue its operations uninterrupted during the CCAA proceeding and to meet its obligations to employees and suppliers of goods and services provided after the filing date.

According to Timminco, reduced cash flows from its silicon metal operations combined with deterioration in

the global solar market that adversely impacted the timing of a restart of commercial scale solar silicon production, resulted in Timminco requiring additional funding to continue existing operations. In view of the uncertain market dynamics and AMG's overall investment priorities, AMG decided to not commit further resources.

AMG owned 41.9% of Timminco common stock as of December 31, 2011 and had various amounts due from them in the ordinary course of business. The recoverability of the Company's investment in Timminco was deemed to be nil and the full balance of the investment in associate was eliminated as of December 31, 2011. In addition, the Company provided an allowance against the convertible note receivable from Timminco which had a book value of \$2,560 as of December 31, 2011. Other amounts outstanding with Timminco as of December 31, 2011 for which allowances were provided included:

- a trade finance transaction which had a book value of \$4,520
- various receivables including interest on the convertible note, outstanding tolling invoices and other miscellaneous expenses which had a book value of \$461

See note 35 for further details of these transactions with Timminco.

On February 29, 2012, the Company announced that it has commenced the preparation of a voluntary public tender offer (the "Voluntary Tender") pursuant to the German Securities Acquisition and Tender Act to acquire all non-par value bearer shares in Graphit Kropfmühl AG, ("GK") Hauenberg, Germany.

The Company currently owns 88.1% of GK's shares. AMG Invest is offering €31.75 per share for the 341,321 GK shares that it does not own. The Voluntary Tender is expected to be completed during the second quarter of 2012. AMG intends to finance the Voluntary Tender from available balance sheet resources. Upon acquiring the required amount of GK shares outstanding, AMG intends to initiate a squeeze out of the remaining minority shareholders with a goal to own 100% of GK.

In conjunction with the Voluntary Tender, AMG is in the process of exercising the incremental term and revolving facility feature of its primary multicurrency term loan and revolving credit facility and securing approximately \$62 million in incremental credit from its banking consortium. Upon successful completion of the Voluntary Tender, AMG's total credit facility will be a U.S. dollar equivalent \$377 million. The incremental borrowing costs are consistent with those in the existing facility. The term of this facility remains the same, with an April 2016 maturity date. Upon successful completion of the Voluntary Tender, AMG intends to use the proceeds of the incremental facility to refinance GK's existing debt facilities and to fund the squeeze out of minority shareholders.

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

(AFTER PROFIT APPROPRIATION)

As at December 31	Note	2011	2010
In thousands of US Dollars			
<b>Assets</b>			
Property, plant and equipment, net	2	508	677
Intangible assets, net	3	73	207
Investments in subsidiaries	4	93,304	153,328
Investment in associates	4	–	17,706
Loans due from subsidiaries	4	131,409	108,589
Investment in equity securities	5	–	887
Deposits	6	84	84
Notes receivable	7	–	2,321
Derivative financial instrument	14	–	5,113
<b>Total non-current assets</b>		<b>225,378</b>	<b>288,912</b>
Trade and related party receivables	7	23,785	19,273
Notes receivable	7	–	2,750
Loans due from subsidiaries	4	126,228	96,116
Derivative financial instruments	14	173	67
Prepayments	8	479	510
Cash and cash equivalents	9	4,509	3,320
<b>Total current assets</b>		<b>155,174</b>	<b>122,036</b>
<b>Total assets</b>		<b>380,552</b>	<b>410,948</b>
<b>Equity</b>			
Issued capital	10	742	741
Share premium	10	381,921	381,636
Foreign currency translation reserve	10	(15,054)	(8,215)
Share based payment reserve	10	44,802	41,741
Net unrealized (loss) gain reserve	10	(15,591)	2,632
Retained earnings (deficit)	10	(191,362)	(196,481)
<b>Total equity attributable to shareholders of the Company</b>		<b>205,458</b>	<b>222,054</b>
<b>Provisions</b>			
Provision for negative participation	4	50,947	113,851
<b>Liabilities</b>			
Long-term debt	11	110,753	69,000
Derivative financial instruments	14	3,815	–
<b>Total non-current liabilities</b>		<b>114,568</b>	<b>69,000</b>
Taxes and premium		151	135
Trade and other payables	12	5,890	5,882
Amounts due to subsidiaries	13	3,538	26
Current taxes payable		–	–
<b>Total current liabilities</b>		<b>9,579</b>	<b>6,043</b>
<b>Total liabilities</b>		<b>124,147</b>	<b>75,043</b>
<b>Total equity, provisions and liabilities</b>		<b>380,552</b>	<b>410,948</b>

The notes are an integral part of these financial statements.

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

For the year ended December 31	2011	2010
In thousands of US Dollars		
Income from subsidiaries, after taxes	42,795	22,205
Other income and expenses, net	(37,635)	(19,791)
<b>Net income</b>	<b>5,160</b>	<b>2,414</b>

The notes are an integral part of these 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 subsidiaries included in the consolidated financial statements of the Company, please refer to note 1 in the consolidated financial statements.

As of December 31, 2011, the statement of financial position has been converted to USD from Euros using a conversion rate of EUR:USD of 1.2921. (2010: 1.3253)

## 2. Property, plant and equipment

Cost	Leasehold improvements	Machinery and equipment	Office furniture	TOTAL
<b>Balance January 1, 2010</b>	599	91	251	941
Additions	–	–	155	155
<b>Balance at December 31, 2010</b>	599	91	406	1,096
<b>Balance January 1, 2011</b>	599	91	406	1,096
Additions	–	–	–	–
<b>Balance at December 31, 2011</b>	599	91	406	1,096
<b>Depreciation</b>				
<b>Balance at January 1, 2010</b>	(170)	(20)	(16)	(206)
Depreciation	(119)	(62)	(32)	(213)
<b>Balance at December 31, 2010</b>	(289)	(82)	(48)	(419)
<b>Balance at January 1, 2011</b>	(289)	(82)	(48)	(419)
Depreciation	(120)	(9)	(40)	(169)
<b>Balance at December 31, 2011</b>	(409)	(91)	(88)	(588)
<b>Carrying amounts</b>				
At January 1, 2010	429	71	235	735
At December 31, 2010	310	9	358	677
At January 1, 2011	310	9	358	677
At December 31, 2011	190	–	318	508

### 3. Intangible assets

Intangible assets include computer equipment and software licenses. They are carried at amortized cost and are amortized over their anticipated useful life.

Cost	
<b>Balance January 1, 2010</b>	406
Additions	13
<b>Balance at December 31, 2010</b>	419
<b>Balance January 1, 2011</b>	419
Additions	–
<b>Balance at December 31, 2011</b>	419
Amortization	
<b>Balance at January 1, 2010</b>	(112)
Amortization	(100)
<b>Balance at December 31, 2010</b>	(212)
<b>Balance at January 1, 2011</b>	(212)
Amortization	(134)
<b>Balance at December 31, 2011</b>	(346)
At January 1, 2010	294
At December 31, 2010	207
At January 1, 2011	207
At December 31, 2011	73

### 4. Financial Fixed Assets

#### INVESTMENTS IN SUBSIDIARIES

The movement in subsidiaries was as follows:

	Investment in subsidiaries	Provision for negative participation	Total
<b>Balance at January 1, 2010</b>	147,417	(143,794)	3,623
Investment in companies	2,659	–	2,659
Subsidiary options	2,836	–	2,836
Profit for the period	22,205	–	22,205
Deferred gains on derivatives	1,865	–	1,865
Other	(8)	–	(8)
Currency translation adjustment	6,297	–	6,297
<b>Balance at December 31, 2010</b>	183,271	(143,794)	39,477
Reclassification for provision for negative participation:			
Provision for negative participation	(29,943)	29,943	–
<b>Balance at December 31, 2010</b>	153,328	(113,851)	39,477
<b>Balance at January 1, 2011</b>	153,328	(113,851)	39,477
Return of capital	(26,551)	–	(26,551)
Investment in companies	3,067	–	3,067
Subsidiary options	1,560	–	1,560
Profit for the period	42,795	–	42,795
Deferred losses on derivatives	(14,408)	–	(14,408)
Other	(41)	–	(41)
Currency translation adjustment	(3,542)	–	(3,542)
<b>Balance at December 31, 2011</b>	156,208	(113,851)	42,357
Reclassification for provision for negative participation:			
Provision for negative participation	(62,904)	62,904	–
<b>Balance at December 31, 2011</b>	93,304	(50,947)	42,357

### 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.

### Capitalization of companies

AMG NV periodically reviews the capital structure of its subsidiaries. When a subsidiary receives additional capital from the Company or returns capital to the Company, it is recorded through the investment in subsidiaries balance.

In the year ended December 31, 2011, a Dutch subsidiary returned capital to the Company by transferring a loan and interest due from a German subsidiary in the amount of \$26,551 back to the Company. In addition, a German subsidiary with negative equity received an increase of capital through a contribution to its capital reserve in the amount of \$28,943.

### INVESTMENT IN ASSOCIATES

The Company owns 41.9% of Timminco as of December 31, 2011 and owned 42.5% of Timminco as of December 31, 2010. Timminco is therefore, not consolidated and is recorded as an associate in the consolidated statement of financial position. On January 3, 2011, Timminco filed for CCAA protection in the Canadian courts and all trading of its shares was stopped. Based on the filing for creditor protection, the Company has no recoverable value in Timminco's shares and therefore, the entire remaining balance of the investment was written down to nil. During the year ended December 31, 2011, the Company's share of Timminco's loss prior to impairment was \$9,563 and an additional impairment loss on the associate was \$8,143. The total loss on the associate was \$17,706 (2010: \$11,459).

### LOANS DUE FROM SUBSIDIARIES

	Non-current loans due from subsidiaries	Current loans due from subsidiaries	Total
<b>Balance at January 1, 2010</b>	117,638	93,397	211,035
Loans	140	7,000	7,140
Repayments	(340)	(3,747)	(4,087)
Currency translation adjustment	(8,849)	(534)	(9,383)
<b>Balance at December 31, 2010</b>	108,589	96,116	204,705
<b>Balance at January 1, 2011</b>	108,589	96,116	204,705
Loans	5,520	30,210	35,730
Repayments	(4,085)	–	(4,085)
Return of capital	24,651	–	24,651
Currency translation adjustment	(3,266)	(98)	(3,364)
<b>Balance at December 31, 2011</b>	131,409	126,228	257,637

The non-current loans are due from a German subsidiary, which is a holding company for many German companies within the group. The first loan which was initiated in 2008 has a variable interest rate and a term through December 31, 2018. At December 31, 2011, the rate on this loan was 4.03% (2010: 2.938%). The remaining three loans with this subsidiary have terms that end in 2017 or 2018 and all of these long-term loans bear a fixed rate of interest of 8%. One of these loans is a return of capital from another Dutch subsidiary to whom this loan was originally granted. Current loans are due from several subsidiaries in Europe and the United States. Loans in

the amount of \$126,228 (2010: \$96,116) are due in 2011 but can be extended by both parties upon request. All current loans have an interest rate in the range of 4.01%–4.77% at December 31, 2011 (3.50–4.01% at December 31, 2010).

### 5. Investment in equity instruments

The Company has a strategic investment in a growth-based company in Iceland. This equity investment cannot be reliably measured at fair value and is therefore accounted for using the cost basis. During this year ended December 31, 2011, the Company determined that it does not have a recoverable value related to this investment



and therefore, the investment was deemed to be impaired and the Company recorded impairment expense of \$759. As of December 31, 2011, this investment amounted to nil (2010: \$887).

## 6. Deposits

The deposit account includes security deposits for the Amsterdam and Frankfurt office locations of the Company.

## 7. Receivables from associates and related parties

Trade and related party receivables of \$23,785 (2010: \$19,273) primarily represents interest owed to the Company on loans due from subsidiaries (\$12,045), debt issuance costs billed to a subsidiary (\$5,922) and management fees owed (\$5,027). 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.

On December 11, 2009, the Company loaned \$5,000 to Timminco's wholly-owned subsidiary, Bécancour Silicon Inc. ("Bécancour"), in exchange for a convertible senior subordinated promissory note ("Convertible Note"). The Convertible Note accrued interest at 12%, payable quarterly in arrears.

On December 15, 2010, the Company amended the terms of the Convertible Note through an amended convertible senior subordinated promissory note ("Amended Convertible Note"). The Amended Convertible

Note bears interest at 14%, payable quarterly in arrears starting December 31, 2010 and matures on January 3, 2014. The full principal amount is convertible into common shares of Timminco, at AMG's option at any time, at a conversion price of C\$0.26 per share, subject to customary anti-dilution adjustments. Both the Initial and Amended Convertible notes were accounted for as hybrid instruments with the note and the equity option being valued separately. The value of the Amended Convertible Note was \$1,714 as of December 31, 2011 (2010: \$71). The value of the equity option on the Amended Convertible Note was \$846 as of December 31, 2011 (2010: \$5,113). The full value of both the equity and note portion were fully reserved in an allowance account as at December 31, 2011 due to the CCAA filing of Timminco which occurred on January 3, 2012. Interest income from the convertible notes was \$700 during the year ended December 31, 2011 (2010: \$600). Interest receivable related to the Convertible Note was \$58 as of December 31, 2011, but has been reserved in full in an allowance account due to the Timminco CCAA filing. All interest for 2010 was paid as of December 31, 2010. The Company recorded finance income of \$371 during the year ended December 31, 2010 as a result of a gain recognized on the amendment. The Company also recorded finance income of \$100 for an amendment fee charged in conjunction with the amendment.

A summary of the profit and loss impact related to transactions between AMG NV and Timminco for the year ended December 31, 2011 would be summarized as follows:

<b>Extraordinary amounts due to CCAA filing</b>	
Provision for convertible note book value	1,714
Provision for convertible note equity value	846
Provision for trade financing receivable	4,520
Provision for other receivables	81
Impairment of associate carrying value	8,143
<b>Amounts occurring in normal course of business</b>	
Share of Timminco net loss	9,563
Net change in valuation of convertible equity option	4,267
Accretion in note value	(1,643)

## 8. Prepayments

At December 31, 2011 and 2010, prepayments primarily represent prepaid insurance and prepaid rent for the Company.

## 9. Cash and cash equivalents

Bank balances earn interest at floating rates based on daily bank deposit rates.

## 10. Capital and reserves

Equity attributable to shareholders of the parent							
	Issued capital	Share premium	Foreign currency translation reserve (a)	Share-based payment reserve	Unrealized (losses) gains reserve (a)	Retained deficit	Total
<b>Balance at January 1, 2010</b>	725	379,518	(5,659)	36,176	767	(198,897)	212,630
Foreign currency translation	–	–	(2,556)	–	–	–	(2,556)
Gain on cash flow hedges, net of tax	–	–	–	–	1,865	–	1,865
Net (loss) income recognized through other comprehensive income	–	–	(2,556)	–	1,865	–	(691)
Profit for the year	–	–	–	–	–	2,414	2,414
Total recognized income and expense for the year	–	–	(2,556)	–	1,865	2,414	1,723
Issuance of shares to Supervisory Board	1	272	–	–	–	–	273
Issuance of shares to acquire minority interest	15	1,846	–	–	–	–	1,861
Equity-settled share-based payment expense	–	–	–	5,565	–	–	5,565
Other	–	–	–	–	–	2	2
<b>Balance at December 31, 2010</b>	741	381,636	(8,215)	41,741	2,632	(196,481)	222,054
<b>Balance at January 1, 2011</b>	741	381,636	(8,215)	41,741	2,632	(196,481)	222,054
Foreign currency translation	–	–	(6,839)	–	–	–	(6,839)
Loss on cash flow hedges, net of tax	–	–	–	–	(18,223)	–	(18,223)
Net loss recognized through other comprehensive income	–	–	(6,839)	–	(18,223)	–	(25,062)
Profit for the year	–	–	–	–	–	5,160	5,160
Total recognized income and expense for the year	–	–	(6,839)	–	(18,223)	5,160	(19,902)
Issuance of shares to Supervisory Board	1	285	–	–	–	–	286
Equity-settled share-based payment expense	–	–	–	3,061	–	–	3,061
Other	–	–	–	–	–	(41)	(41)
<b>Balance at December 31, 2011</b>	742	381,921	(15,054)	44,802	(15,591)	(191,362)	205,458

(a) These amounts represent legal reserves and are therefore not available for dividend distribution.

### NET UNREALIZED (LOSSES) GAINS RESERVE

The net unrealized gains (losses) 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. This represents both the unrealized gains and losses occurring both at the Company and at its subsidiaries.

### FOREIGN CURRENCY TRANSLATION RESERVE

The translation reserve comprises all foreign currency differences arising from the translation of the financial statements of the Company's 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 which are listed below:

British Pound Sterling  
Chinese Renminbi  
Czech Koruna  
Hong Kong Dollar  
Indian Rupee  
Japanese Yen  
Mexican Peso  
Mozambican Metical  
Polish Zloty  
Turkish Lira  
Singapore Dollar  
Sri Lankan Rupee

Resulting translation adjustments were reported in a separate component of equity through other comprehensive income.

## 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.

## DIVIDENDS

No dividends have been paid or proposed in the years ended December 31, 2011 and 2010.

## SHARE CAPITAL

At December 31, 2011, the Company's authorized share capital was comprised of 65,000,000 ordinary shares (2010: 65,000,000) with a nominal share value of €0.02 (2010: €0.02) and 65,000,000 preference shares (2010: 65,000,000) with a nominal share value of €0.02.

At December 31, 2011, the issued and outstanding share capital was comprised of 27,519,929 ordinary shares (2010: 27,503,885), with a nominal value of €0.02 (2010: €0.02) which were fully paid. No preference shares were outstanding at December 31, 2011 and 2010.

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:

<b>Balance at January 1, 2010</b>	26,899,548
Shares issued to Supervisory Board directors	28,808
Shares issued to purchase additional shares of GK	575,529
<b>Balance at December 31, 2010</b>	27,503,885
<b>Balance at January 1, 2011</b>	27,503,885
Shares issued to Supervisory Board directors	16,044
<b>Balance at December 31, 2011</b>	27,519,929

## SUPERVISORY BOARD REMUNERATION

During the years ended December 31, 2011 and 2010, 16,044 and 28,808 shares were issued, respectively, as compensation to its Supervisory Board members as compensation for services provided in 2011 and 2010. These shares were awarded as part of the remuneration policy approved by the Annual General Meeting.

## SHARES ISSUED TO PURCHASE ADDITIONAL SHARES OF GRAPHIT KROPFMÜHL

On December 22, 2010, the Company issued 575,529 additional shares in order to acquire an additional 8.5% of Graphit Kropfmühl. This purchase raised the Company's ownership in GK from 79.5% to 88.0%. The Company chose to measure the non-controlling interest ("NCI") at its proportionate share of the recognized amount of GK's net identifiable assets at the acquisition date.

The following is the calculation of the equity transaction:

Non-controlling interest at December 22, 2010	4,502
Transfer to AMG (8.5%)	1,861
12% interest carried forward	2,641
Adjustment to equity:	
Fair value of consideration <sup>1</sup>	6,431
Change to NCI (as per above)	1,861
Dilution in AMG equity from purchase of NCI	4,570

<sup>1</sup> calculated as 575,529 AMG shares issued \* €8.50 per share

In anticipation of the Company's Annual General Meeting's adoption of the annual accounts, it is proposed that the net income for 2011 of \$5,160 (2010: \$2,414) be allocated to the retained earnings. Other reserves and the foreign currency translation reserve are not distributable. There are no expected tax consequences on retained earnings as no distributions are anticipated.

## PREFERENCE SHARES

In July 2010, the foundation "Stichting Continuïteit 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 canceled or repurchased preference shares acquired by the Foundation.

## 11. Long term debt

On April 28, 2011, the Company entered into a five-year multicurrency term loan and revolving credit facility with Commerzbank AG and Lloyds TSB Bank plc. The credit facility is composed of a €64,200 term loan and a \$214,200 revolving credit facility ("Revolving Credit Facility"). AMG used the proceeds of the credit facility to repay its existing \$275,000 term loan and multicurrency revolving credit facility which was due to expire in August 2012. The new credit facility's borrowing costs are generally consistent with those in the existing debt facility. The new facility is structured to be able to increase using an incremental term loan and revolving facility feature under certain conditions. The five-year facility extends the term of the Company's primary debt agreements to April 2016.

Borrowings under the revolving credit facility may be used for general corporate purposes of the Company. As of December 31, 2011, \$115,098 was outstanding under the revolving credit facility (2010: \$69,000). Debt issuance costs in the amount of \$4,927 were recorded for the transaction and are being amortized using the effective interest rate methodology. The unamortized balance of debt issuance costs was \$4,345 as of December 31, 2011. At December 31, 2011, there was unused availability of \$59,047 (December 31, 2010: \$47,800).

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, 2011, the margin was 2.75 (2010: 2.25). To mitigate risk, the Company entered into an interest rate swap for the entire €64,200 term loan to fix the interest rate on the term loan at 5.62%. The Company also used an interest rate swap for \$95,000 of the Revolving Credit Facility borrowings 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:

- 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 to be less than 20% for 2011 and 2012, 22.5% for 2013, and 25% for 2014 and after

EBITDA, Net Finance Charges, Net Debt, Tangible Net Worth and Total Assets are defined in the Credit Facility agreement. The Company was in compliance with all covenants during the year ended December 31, 2011 and at the balance sheet date.

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.

On May 27, 2010, 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 Senior Net Debt to EBITDA covenant. Previously, the maximum ratio for this covenant was 2.00:1. The amendment increased the maximum ratio to 3.00:1. Fees related to this amendment were \$1,675.

## 12. Trade and other payables

Trade and other payables represent amounts owed to related parties as well as amounts owed to professional service firms. See note 16.

## 13. 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, 2011 and 2010, these amounted to \$3,538 and \$26, respectively.

## 14. Derivative financial instruments

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

### FOREIGN CURRENCY FORWARD CONTRACTS

At any point in time, the Company uses foreign exchange forward contracts to hedge intergroup loans that will be repaid in different functional currencies. These contracts are negotiated to match the expected terms of the commitments and generally mature within one year. When necessary, these contracts are rolled over at maturity. 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, 2011, the company had a derivative financial instrument asset of \$173 (2010:\$67).

## 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, 2011, the fair value of this contract was a derivative liability of \$3,815. 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.

## EMBEDDED DERIVATIVE

As part of its convertible note receivable from Bécancour Silicon (see note 7), AMG concluded that the conversion feature was an embedded derivative. The conversion feature was revalued upon the amendment of the note receivable, but is still being treated as a derivative. Due to Bécancour Silicon and its parent filing for creditor protection on January 3, 2011, the value of this conversion option was written down to nil. This derivative had a fair value of \$5,113 as at December 31, 2010.

## 15. Commitments and contingencies

The Company has entered into leases for office space in Amsterdam and Frankfurt. The Amsterdam lease term is through March 31, 2013 while the Frankfurt lease term is through December 31, 2012. There is also a lease for copier equipment in Frankfurt through December 31, 2011.

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

	2011	2010
Less than one year	416	362
Between one and five years	121	311
More than five years	–	–
Total	537	673

## 16. Related parties

Key management compensation data is disclosed in note 35 of the consolidated financial statements.

Safeguard International Fund (“SIF” or “Safeguard”) previously owned approximately 26.6% of the voting shares of the Company. During the year ended December 31, 2010, all shares were distributed by Safeguard to its members and therefore SIF’s ownership percentage is now nil. Dr. Schimmelbusch is also a managing director of Safeguard and has received compensation for his role as managing director.

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, 2011, the Company funded \$100 into an account for the expenses of the Foundation. Through December 31, 2010, the amounts paid by the Company on behalf of the Foundation were \$29.

## 17. Employees

At December 31, 2011 the Company had 17 employees (2010: 14).

## 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, 2011 and December 31, 2010. The following table sets forth the total fees in accordance with Part 9 of Book 2, article 382a of the Netherlands Civil Code.

	2011	2010
Audit fees	468	455
Audit related fees	–	46
Other	90	122
Total	558	623

## 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.

### EVENTS AFTER THE BALANCE SHEET DATE

On January 3, 2012, Timminco and its wholly-owned subsidiary, Bécancour Silicon Inc. decided to seek protection from their creditors under the Companies' Creditors Arrangement Act ("CCAA") in Canada.

Accordingly, Timminco BSI applied for and obtained an initial order from the Ontario Superior Court of Justice (Commercial Division) (the "Court") under the CCAA. It is the intention of Timminco BSI to continue its operations uninterrupted during the CCAA proceeding and to meet its obligations to employees and suppliers of goods and services provided after the filing date.

According to Timminco, reduced cash flows from its silicon metal operations combined with deterioration in the global solar market that adversely impacted the timing of a restart of commercial scale solar silicon production, resulted in Timminco requiring additional funding to continue existing operations. In view of the uncertain market dynamics and AMG's overall investment priorities, AMG decided to not commit further resources.

AMG owned 41.9% of Timminco common stock as of December 31, 2011 and had various amounts due from them in the ordinary course of business. The recoverability of the Company's investment in Timminco was deemed to be nil and the full balance of the investment in associate was eliminated as of December 31, 2011. In addition, the Company provided an allowance against the convertible note receivable from Timminco which had a book value of \$2,560 as of

December 31, 2011. Other amounts outstanding with Timminco as of December 31, 2011 for which allowances were provided included:

- a trade finance transaction which had a book value of \$4,520
- various receivables including interest on the convertible note, outstanding tolling invoices and other miscellaneous expenses which had a book value of \$461

See note 35 of the consolidated financial statements for further details of these transactions with Timminco.

On February 29, 2012, the Company announced that it has commenced the preparation of a voluntary public tender offer (the "Voluntary Tender") pursuant to the German Securities Acquisition and Tender Act to acquire all non-par value bearer shares in Graphit Kropfmühl AG, ("GK") Hauzenberg, Germany.

The Company currently owns 88.1% of GK's shares. AMG Invest is offering €31.75 per share for the 341,321 GK shares that it does not own. The Voluntary Tender is expected to be completed during the second quarter of 2012. AMG intends to finance the Voluntary Tender from available balance sheet resources. Upon acquiring the required amount of GK shares outstanding, AMG intends to initiate a squeeze out of the remaining minority shareholders with a goal to own 100% of GK.

In conjunction with the Voluntary Tender, AMG is in the process of exercising the incremental term and revolving facility feature of its primary multicurrency term loan and revolving credit facility and securing approximately \$62 million in incremental credit from its banking consortium. Upon successful completion of the Voluntary Tender, AMG's total credit facility will be a U.S. dollar equivalent \$377 million. The incremental borrowing costs are consistent with those in the existing facility. The term of this facility remains the same, with an April 2016 maturity date. Upon successful completion of the Voluntary Tender, AMG intends to use the proceeds of the incremental facility to refinance GK's existing debt facilities and to fund the squeeze out of minority shareholders.

### 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 2011 and that the 2011 net profit will be added to the retained earnings.

Amsterdam, March 28, 2012



# Independent Auditor's Report

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

## **Report on the financial statements**

We have audited the accompanying financial statements 2011 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, 2011, the consolidated income statement, consolidated statement 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 company financial statements comprise the parent company statement of financial position as at December 31, 2011, 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, 2011, 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 COMPANY FINANCIAL STATEMENTS**

In our opinion, the company financial statements give a true and fair view of the financial position of AMG Advanced Metallurgical Group N.V. as at December 31, 2011 and of its result for the year then ended in accordance with Part 9 of Book 2 of the Dutch Civil Code.

## **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 28, 2012

Ernst & Young Accountants LLP

/s/ A.J.M. van der Sanden

# Shareholder Information

## Supervisory Board

### **Pedro Pablo Kuczynski, Chairman**

Remuneration Committee

### **Wesley Clark**

Selection and Appointment Committee

### **Martin Hoyos**

Audit Committee

### **Jack Messman**

Audit Committee

Remuneration Committee (Chairman)

### **Norbert Quinkert**

Selection and Appointment Committee (Chairman)

### **Guy de Selliers**

Audit Committee (Chairman)

## Management Board

### **Heinz Schimmelbusch**

Chairman and Chief Executive Officer

### **William Levy**

Chief Financial Officer

### **Eric Jackson**

Chief Operating Officer and

President, Advanced Materials Division

### **Reinhard Walter**

President, Engineering Systems Division

Copies of the Annual Report and further information are obtainable from the Investor Relations Department of the Company

**[ir@amg-nv.com](mailto:ir@amg-nv.com)**

or by accessing the Company's website

**[www.amg-nv.com](http://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

**AMG Advanced Metallurgical Group N.V.**

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