AMG Advanced Metallurgical Group N.V.
Interim Financial Statements
(unaudited)
June 30, 2017

#### **Semi-Annual Financial Report**

This report contains the semi-annual financial report of AMG Advanced Metallurgical Group N.V. ("AMG" or "the Company"), a Company which was incorporated in the Netherlands as a public limited liability company on November 21, 2006. The address of the Company's registered office is WTC Amsterdam, Toren C, Strawinskylaan 1343, 1077 XX Amsterdam.

The semi-annual report for the six months ended June 30, 2017 consists of the responsibility statement by the Company's Management Board, the semi-annual management report and the condensed consolidated semi-annual financial statements. The information in this semi-annual financial report is unaudited.

The Management Board of the Company hereby declares that to the best of their knowledge, the semi-annual financial statements, which have been prepared in accordance with IAS 34, "Interim Financial Reporting" as adopted by the European Union, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the entities included in the consolidation taken as a whole. The half-year management board report gives a true and fair view of the important events of the past six-month period and their impact on the half-year financial statements, as well as the principal risks and uncertainties for the six-month period to come, and the most important related party transactions.

/s/ Heinz C. Schimmelbusch Chief Executive Officer /s/ Jackson Dunckel Chief Financial Officer /s/ Eric E. Jackson Chief Operating Officer

#### **Management Report**

AMG is organized under two reportable segments: AMG Critical Materials and AMG Engineering. AMG Critical Materials produces specialty metals, alloys and chemicals, including high purity natural graphite, tantalum, antimony and silicon metal and has major production facilities in the United Kingdom, United States, Germany, Brazil, and France. AMG Engineering provides specialty engineering services through its development and manufacturing of vacuum furnace systems and has major production facilities that are located in Germany, France, Mexico and the United States.

AMG's financial performance in the first half of 2017 was strong in both AMG Critical Materials and AMG Engineering. Revenue for the six months grew by 7%, attributable to an 11% increase in revenue in our Critical Materials segment offset slightly by a 4% decrease in our Engineering segment. AMG has continued to improve ROCE through improved product mix, operational improvements and disciplined capital management. ROCE increased to 23.9%, due to robust financial performance in both the Engineering and Critical Materials segments, and the recognition of additional deferred revenue following the announced tantalum contract cancellation. AMG generated significant cash from operating activities in the first half 2017. The strong cash generation enabled AMG to end June with net debt in line with prior year end, while at the same time funding substantial investment in growth capital expenditures. Capital expenditures during the six months ended June 30, 2017 increased to \$29.5 million from \$14.4 million during the six months ended June 30, 2016. The largest expenditures were for AMG's lithium project in Brazil and the titanium aluminide expansion in Germany.

AMG Critical Materials' focus on operational excellence and price risk management once again delivered solid financial results. Despite improvements in certain material prices in 2016 and so far in 2017, current prices for many of our products still reside in the lowest quartile when analyzed over a 10-year timeframe. AMG Critical Materials' revenue in the first half increased by \$39.0 million, or 11%, to \$397.1 million, driven by improved vanadium, aluminum and antimony prices, and higher sales volumes of chrome, antimony and titanium products. Gross profit in the first half increased by \$5.4 million, or 8%, to \$73.9 million. Strong financial performance in vanadium, titanium alloys, graphite, antimony and chrome was partially offset by lower gross profit in silicon. In addition, as a result of fire damage sustained at the Mibra mine in Brazil and the early cancellation of AMG Mineração's long term tantalum supply contract, tantalum profitability declined in 2017. AMG is insured for the damage sustained, and in accordance with IFRS, is recognizing estimated insurance proceeds once recovery amounts are confirmed.

AMG Engineering is experiencing strong demand for furnaces for the aerospace and automotive markets. AMG Engineering delivered higher profitability over the prior year as a result of new innovations which continue to have a positive impact, such as our industry leading SyncroTherm® heat treatment furnaces; powder metallurgy furnaces related to additive manufacturing; titanium remelting furnaces; and turbine blade coating plants. These innovative product offerings continue to drive a significant portion of sales and profitability for the division. For the first half of 2017, revenue decreased \$4.7 million, or 4%, to \$122.9 million, however, despite this decline in revenue, gross profit increased \$3.9 million, or 13%, due to product mix effects. Specifically, improved profitability was driven by strong sales of turbine blade coating and induction furnaces for the aerospace market. AMG Engineering signed \$158.7 million in new orders during the first half of 2017, representing a 1.29x book to bill ratio. Order backlog as of June 30, 2017 was \$183.3 million, an increase of 35% from \$135.5 million as of December 31, 2016. AMG Engineering's strong order intake is being driven by ongoing demand from the aerospace market and the automotive industry for our market leading vacuum heat treatment processes.

AMG's SG&A expenses in the first half 2017 decreased by \$2.5 million, or 4%, compared to the same period in the prior year, driven by a decline in share-based compensation expense and lower pension expense as a result of pension contributions made during 2016.

AMG's cash flows from operations were \$28.5 million during the six months ended June 30, 2017, as compared to \$20.0 million in the six months ended June 30, 2016. Cash flows from operations in the period were mainly generated by the strong earnings highlighted above and low levels of working capital. The increase in cash flows from operations versus 2016 was a result of contributions to pension plans during the same period in 2016. Current year contributions were \$19.3 million lower than in 2016. The 2016 contributions included additional voluntary contributions made to the plans in response to the historically low discount rates.

As of June 30, 2017, liquidity was \$349.6 million, comprised of \$168.9 million in cash and \$180.7 million in revolver capacity on the Company's credit facility. AMG monitors its cash and liquidity positions regularly in order to ensure that liquidity exists to maintain operations and the current capital expenditures program. Prior to making

any investing decisions, the effects on liquidity are analyzed both in terms of cash availability as well as debt covenant compliance. The Company is currently in compliance with all of its bank covenants.

Management's objectives consistently focus on delivering positive operational results using an efficient asset base as well as generating cash in order to be able to support expansion, research and development, and vertical integration strategies. These objectives are measured by the Company primarily using return on capital employed ("ROCE") and operating cash flow. ROCE is calculated by dividing operating profit by operating capital employed. EBIT, adjusted for non-recurring items, is a measure used by management as a proxy for operating profit. Operating capital employed is defined as total assets excluding interest-bearing assets less current liabilities excluding interest-bearing liabilities. This measure takes the profitability of the Company and measures it against the asset base. Short term incentive plans have ROCE targets and long term incentive plans require a minimum ROCE for vesting purposes.

#### **Risks and Uncertainties**

In our Annual Report 2016, we have described certain risk categories and risk factors which could have a material adverse effect on our financial position and results. These risks include metal price volatility, mining, customer, supply, legal and regulatory, currency, competition, product quality, safety and liability, financing, and business interruption. The Company believes that the risks identified for the second half of 2017 are in line with the risks that AMG presented in its Annual Report 2016.

Despite the positive business operating results in the first half of 2017, there remains global economic uncertainty which may have a negative effect on the operations, profitability, and cash flow of AMG as a whole.

Additional risks currently not known to us, or currently believed not to be material, could ultimately have a material impact on our business, objectives, revenues, income, assets, liquidity or capital resources.

#### **Operational Outlook**

AMG expects full year 2017 profitability to improve relative to 2016.

## AMG Advanced Metallurgical Group N.V. Condensed interim consolidated income statement

Condensed interim consonauted meome statement			
For the six months ended June 30			
In thousands of US Dollars		2017	2016
	Note	Unaudited	Unaudited
Revenue		520,011	485,748
Cost of sales		413,164	388,223
Gross profit		106,847	97,525
Selling, general and administrative expenses		63,552	66,060
Other income, net		(310)	(435)
Operating profit		43,605	31,900
Finance income		(421)	(294)
Finance expense		4,304	4,513
Foreign exchange (gain) loss		(83)	936
Net finance costs		3,800	5,155
Share of profit of associates and joint ventures		-	1,436
Profit before income tax		39,805	28,181
Income tax expense	5	11,194	3,085
Profit for the period		28,611	25,096
Attributable to:			
Shareholders of the Company		28,681	25,421
Non-controlling interests		(70)	(325)
Profit for the period		28,611	25,096
Earnings per share			
Basic earnings per share		1.00	0.91
Diluted earnings per share		0.91	0.90

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

AMG Advanced Metallurgical Group N.V. Condensed interim consolidated statement of comprehensive income For the six months ended June 30 In thousands of US Dollars

In thousands of US Dollars	Note	2017 Unaudited	2016 Unaudited
Profit for the period		28,611	25,096
Other comprehensive income			
Other comprehensive income to be reclassified to profit or loss in subsequent periods:			
Exchange differences on translation of foreign operations		9,005	(619)
Gain on cash flow hedges		8,706	12,328
Cash flow hedges reclassified to profit or loss		(1,885)	(1,566)
Income tax on cash flow hedges		(1,795)	(3,348)
Net increase on cash flow hedges		5,026	7,414
Change in fair value of available for sale investments		268	-
Net other comprehensive income to be reclassified to profit or loss in subsequent periods		14,299	6,795
Other comprehensive (loss) income not to be reclassified to profit or loss in subsequent periods:			
Exchange differences on translation of foreign operations-			
non-controlling interest		649	585
Actuarial losses on defined benefit plans	13	(834)	(15,364)
Income tax on actuarial losses on defined benefit plans	13	(984)	1,186
Net loss on actuarial losses on defined benefit plans	13	(1,818)	(14,178)
Net other comprehensive loss not being reclassified to profit or		(1.1(0)	(12.502)
loss in subsequent periods		(1,169)	(13,593)
Other comprehensive income (loss) for the period, net of tax		13,130	(6,798)
Total comprehensive income for the period, net of tax		41,741	18,298
Attributable to:			
Shareholders of the Company		41,171	18,238
Non-controlling interests		570	60

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

ľ	Note		December 31, 2016
		Unaudited	
Assets		247.470	22 < 000
Property, plant and equipment	6	247,470	226,098
Goodwill	7	24,148	22,729
Intangible assets	7	11,974	10,486
Derivative financial instruments	17	890	740
Other investments	17	30,200	29,930
Deferred tax assets Restricted cash	5	37,626	41,285
Other assets		2,504	2,526
Total non-current assets		12,108 <b>366,920</b>	17,207 <b>351,001</b>
Inventories	8	146,820	143,593
Derivative financial instruments	17	4,820	4,007
Trade and other receivables	1 /	153,022	129,220
Other assets		36,120	31,598
Cash and cash equivalents	9	168,853	160,744
Assets held for sale	4	1,972	149
	4		
Total current assets		511,607	469,311
Total assets		878,527	820,312
Equity			
Issued capital		796	760
Share premium		432,844	389,066
Treasury shares	10	(4,638)	(570)
Other reserves		(85,403)	(97,085)
Retained earnings (deficit)		(126,200)	(116,457)
Equity attributable to shareholders of the Company	10	217,399	175,714
Non-controlling interests	11	23,727	22,073
Total equity		241,126	197,787
Liabilities			
Loans and borrowings	12	149,600	150,959
Employee benefits	13	150,381	141,588
Provisions	15	31,336	30,854
Deferred revenue	16	-	2,822
Other liabilities		6,838	6,874
Derivative financial instruments	17	-	887
Deferred tax liabilities	5	8,574	8,435
Total non-current liabilities		346,729	342,419
Loans and borrowings	12	11,064	9,621
Short term bank debt	12	15,500	7,500
Other liabilities		52,405	57,528
Trade and other payables		140,899	133,328
Derivative financial instruments	17	1,835	4,661
Advance payments		38,005	29,404
Deferred revenue	16	956	10,198
Current taxes payable		10,721	7,065
Provisions	15	19,287	20,801
Total current liabilities		290,672	280,106
Total liabilities		637,401	622,525
Total equity and liabilities		878,527	820,312
The notes are an integral part of these interim consolidated financial statements.			

# AMG Advanced Metallurgical Group N.V. Condensed interim consolidated statement of changes in equity *In thousands of US Dollars*

#### Equity attributable to shareholders of the parent

(Unaudited)

	Issued capital	Share premium	Treasury Shares (note 10)	Other reserves (note 10)	Retained earnings (deficit)	Total	Non- controlling interests	Total equity
Balance at January 1, 2017	760	389,066	(570)	(97,085)	(116,457)	175,714	22,073	197,787
Foreign currency translation	-	-	-	8,197	808	9,005	649	9,654
Change in fair value of available for	-	-	-	268	-	268	-	268
sale investments Gain (loss) on cash flow hedges, net of tax	-	-	-	5,035	-	5,035	(9)	5,026
Actuarial losses, net of tax	-	-	-	(1,818)	-	(1,818)	-	(1,818)
Net profit recognized through other comprehensive income	-	-	-	11,682	808	12,490	640	13,130
Profit (loss) for the period	-	-	-	-	28,681	28,681	(70)	28,611
Total comprehensive income for the period	-	-	-	11,682	29,489	41,171	570	41,741
Issuance of common shares	36	43,778	-	-	-	43,814	-	43,814
Purchase of common shares	-	-	(12,190)	-	-	(12,190)	-	(12,190)
Change in non-controlling interest	-	-	-	-	(578)	(578)	1,084	506
Equity-settled share-based payments, net of tax Dividend	-	-	8,122	-	(34,254)	(26,132)	-	(26,132)
	-	- 422.044	(4.620)	(05.402)	(4,400)	(4,400)		(4,400)
Balance at June 30, 2017	796	432,844	(4,638)	(85,403)	(126,200)	217,399	23,727	241,126
Balance at January 1, 2016	745	382,978	-	(100,426)	(154,736)	128,561	25,006	153,567
Foreign currency translation	-	-	-	(818)	199	(619)	585	(34)
Gain (loss) on cash flow hedges, net of tax	-	-	-	7,429	-	7,429	(15)	7,414
Actuarial losses, net of tax	-	-	-	(13,993)	-	(13,993)	(185)	(14,178)
Net (loss) profit recognized through other comprehensive income	-	-	-	(7,382)	199	(7,183)	385	(6,798)
Profit (loss) for the period	-	-	-	-	25,421	25,421	(325)	25,096
Total comprehensive (loss) income for the period	-	-	-	(7,382)	25,620	18,238	60	18,298
Issuance of common shares	15	6,088	-	-	-	6,103	-	6,103
Purchase of common shares	-	321	(2,479)	-	-	(2,158)	-	(2,158)
Transfer to retained deficit	-	-	-	(1,901)	1,901	-	-	-
Change in non-controlling interest								
(note 11)	_	_	763	_	(5.582)	(4.819)	_	(4.819)
(note 11) Equity-settled share-based payments, net of tax	-	-	763	-	(5,582) (4,210)	(4,819) (4,210)	- (418)	(4,819) (4,628)
(note 11) Equity-settled share-based payments,	-	- - -	763 - -	- -	(5,582) (4,210) (110)	(4,819) (4,210) (110)	- (418) 110	(4,819) (4,628)

 ${\it The \ notes \ are \ an \ integral \ part \ of \ these \ interim \ consolidated \ financial \ statements.}$ 

## AMG Advanced Metallurgical Group N.V. Condensed interim consolidated statement of cash flows

#### For the period ended June 30

In thousands of US Dollars		2017	2016
	Note	Unaudited	Unaudited
Cash from operating activities			
Profit for the period		28,611	25,096
Adjustments to reconcile net profit to net cash flows:			
Non-cash:			
Income tax expense	5	11,194	3,085
Depreciation and amortization		14,742	14,838
Asset impairment expense Net finance costs	6	912 3,800	5,155
Share of profit of associates and joint ventures		3,800	(1,436)
Gain on sale or disposal of property, plant and equipment	6	(68)	(80)
Equity-settled share-based payment transactions	14	4,418	914
Movement in provisions, pensions and government grants	15	(3,023)	(15,735)
Working capital and deferred revenue adjustments	16	(22,930)	(5,006)
Cash generated from operating activities		37,656	26,831
Finance costs paid		(4,536)	(3,162)
Finance costs received		287	-
Income tax paid, net		(4,944)	(3,674)
Net cash from operating activities		28,463	19,995
Cash used in investing activities			
Proceeds from sale of property, plant and equipment	6	96	368
Insurance proceeds on property, plant and equipment		1,415	-
Proceeds from sale of subsidiaries (net of cash divested of \$35 in			c7.5
2016) Acquisition of property, plant and equipment and intangibles	6,7	(29,452)	675 (14,389)
Acquisition of property, plant and equipment and intangioles Acquisition of subsidiaries (net of cash acquired of \$35 in 2016)	0,7	(29,432)	(4,961)
Acquisition of other non-current asset investments		_	(1,000)
Change in restricted cash		210	19
Other		17	28
Net cash used in investing activities		(27,714)	(19,260)
Cash used in financing activities			
Proceeds from issuance of debt		8,000	1,573
Repayment of borrowings	12	(5,111)	-
Proceeds from issuance of shares		14,370	-
Net repurchase of common shares		(13,386)	(1,785)
Dividends paid		(4,417)	(3,503)
Other		-	1
Net cash used in financing activities		(544)	(3,714)
Net increase (decrease) in cash and cash equivalents		205	(2,979)
Cash and cash equivalents at January 1		160,744	127,778
Effect of exchange rate fluctuations on cash held		7,904	276
Cash and cash equivalents at June 30		168,853	125,075
		100,033	143,013

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

#### 1. Reporting Entity

AMG Advanced Metallurgical Group N.V. (hereafter referred to as "AMG" or "the Company") is domiciled in the Netherlands. The address of the Company's registered office is WTC Amsterdam, Toren C, Strawinskylaan 1343, 1077 XX Amsterdam. The condensed interim consolidated financial statements of the Company as at and for the period ended June 30, 2017 comprise the Company, its subsidiaries, and its interest in associates and joint ventures.

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

#### 2. Basis of preparation and accounting policies

#### **Basis of preparation**

The condensed interim consolidated financial statements for the six months ended June 30, 2017 have been prepared in accordance with IAS 34 *Interim Financial Reporting* as adopted by the European Union.

The interim condensed consolidated financial statements do not include all of the information and disclosures required in the annual financial statements, and should be read in conjunction with the Company's annual consolidated financial statements as of December 31, 2016.

These condensed interim consolidated financial statements were approved by the Management Board of the Company on August 22, 2017.

#### Standards issued but not yet effective

#### IFRS 9 Financial Instruments

The final version of IFRS 9 Financial Instruments replaces IAS 39 Financial Instruments: Recognition and Measurement and all previous versions of IFRS 9. IFRS 9 brings together all three aspects of the accounting for financial instruments project: classification and measurement, impairment and hedge accounting. IFRS 9 is effective for financial years beginning on or after January 1, 2018, with early application permitted. Except for hedge accounting, retrospective application is required but providing comparative information is not compulsory. For hedge accounting, the requirements are generally applied prospectively, with some limited exceptions. The Company plans to adopt the new standard on the required effective date. The Company does not expect IFRS 9 to have a material impact on the Company's financial position and performance.

#### IFRS 15 Revenue from Contracts with Customers

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

The new revenue standard will supersede all current revenue recognition requirements under IFRS. Either a full retrospective application, a modified retrospective application, or a cumulative effect method application is required for financial years beginning on or after January 1, 2018. Early adoption is permitted. The Company plans to adopt the new standard on the required effective date.

The Company has performed a review of contracts throughout the Company and has identified contracts with potential IFRS 15 implications. These potential implications mainly relate to a limited number of contracts within the AMG Engineering segment. The majority of the contracts in the AMG Engineering segment have historically been recognized on a percentage of completion method. In order to continue to recognize these contracts over time certain criteria have to be met. The first criteria the Company has analysed is whether or not the furnaces manufactured in the AMG Engineering Segment have an alternative use for the Company. The Company has been determined that these furnaces are very specific and would not be easily transferrable to another customer. The second criteria for revenue recognition over time is that the Company has an enforceable right to payment for performance completed to date for construction of the furnaces. The Company receives advanced payments for the majority of contracts within the AMG Engineering Segment. These advanced payments, in a majority of cases, are retained by the Company based on the amount of costs incurred to date plus any applicable margin in the event the customer cancels the contracts. There are a limited number of current contracts where the Company has not yet determined whether or not the enforceable right exists to retain the advanced payment based on the costs incurred plus the applicable margin in the event of a customer cancellation. The Company continues to evaluate the contracts and the full impact under IFRS 15 will not be determined until full adoption.

#### **IFRS 16 Leases**

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

The new standard is effective for financial years beginning on or after January 1, 2019, with certain transition reliefs permitted. Early application is permitted, but not before an entity applies IFRS 15 'Revenue from Contract with Customers'. Entities that are lessees are allowed to choose either a full retrospective or a modified retrospective transition approach. The Company has compiled a listing of all operational leases throughout the Company and is currently analysing this list as part of the conversion project. These leases consist mainly of machinery, office furniture, fork lifts, vehicles and other equipment used in the manufacturing process. The Company acknowledges that there will be a material impact on the Consolidated Financial Statements but has not calculated the impact in totality. The Company will provide an update upon issuing the December 31, 2017 Annual Financial Statements.

#### **Other Amendments**

The following new or amended standards have also been considered:

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

#### Use of estimates and judgements

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.

#### 3. Segment information

The following tables present revenue and profit information for the Company's operating segments for the six months ended June 30, 2017 and 2016, respectively. AMG headquarters costs and assets are allocated seventy percent to AMG Critical Materials and thirty percent to AMG Engineering in 2017 and 2016 based on an estimation of services provided to the operating segments.

#### **Segment information:**

Six month period ended June 30, 2017	AMG Critical Materials	AMG Engineering	Eliminations <sup>1</sup>	Total
Revenue				
Revenue from external customers Intersegment revenue	397,131 -	122,880 2,118	(2,118)	520,011
Total revenue	397,131	124,998	(2,118)	520,011
Segment results				
Operating profit	32,506 <b>AMG Critical</b>	11,099 <b>AMG</b>	-	43,605
	Materials	Engineering	${\bf Eliminations}^1$	Total

### Six month period ended June 30, 2016

June 30, 2016				
Revenue Revenue from external customers Intersegment revenue	358,174	127,574 924	- (924)	485,748 -
Total revenue	358,174	128,498	(924)	485,748
<b>Segment results</b> Operating profit	25,494	6,406	-	31,900
	AMG Critical	AMG		
	Materials	Engineering	Eliminations <sup>1</sup>	Total
Segment assets At June 30, 2017 At December 31.		_	Eliminations <sup>1</sup>	<b>Total</b> 878,527
O	Materials	Engineering	Eliminations <sup>1</sup>	
At June 30, 2017 At December 31,	<b>Materials</b> 701,722	Engineering 176,805	Eliminations <sup>1</sup> -  -	878,527

<sup>&</sup>lt;sup>1</sup> Eliminations column includes intersegment trade eliminations

#### 4. Assets held for sale

As of June 30, 2017 the Company has recorded assets held for sale in the amount of \$1,972 (December 31, 2016: \$149). This consists of a building and furnaces currently used in operations within AMG Engineering. The completion of the sale of these assets is expected to occur in the second half of 2017.

#### 5. Income tax expense

The major components of income tax expense in the condensed interim consolidated income statement are:

	June 30, 2017	June 30, 2016
Current income tax		
Current income tax charge	8,456	6,121
Deferred income tax Relating to origination and reversal of temporary differences Changes in previously recognized tax losses, tax credits and	2,765	2,189
recognized temporary difference for changes in enacted tax rates and currency effects	(27)	(5,225)
Total income tax expense	11,194	3,085

The June 30, 2017 effective tax rate was impacted by pre-tax losses of \$6,086 for which tax benefits could not be recorded due to the ongoing loss positions in the respective jurisdictions where the losses have occurred. There was also an effective tax rate benefit from strong earnings in the United States which were offset by unrecognized net operating losses.

The June 30, 2016 effective tax rate was impacted by a large tax benefit of \$5,225 which related to the revaluation of Brazilian deferred taxes as a result of a significant fluctuation in the exchange rates. The rate was also impacted by pre-tax losses of \$9,775 for which tax benefits could not be recorded due to the ongoing loss positions in the respective jurisdictions where the losses have occurred. There was also an effective tax rate benefit from strong earnings in the United States which were offset by unrecognized net operating losses.

#### 6. Property, plant and equipment

#### Acquisitions and disposals

During the six months ended June 30, 2017, assets with a cost of \$29,804 (2016: \$12,069) were acquired. Additionally, the property, plant and equipment in accounts payable increased by \$1,244 during the six months ended June 30, 2017.

Assets with a book value of \$28 were disposed of during the six months ended June 30, 2017 (2016: \$288) resulting in a gain on sale or disposal of \$68 (2016: \$80).

The Company recorded asset impairment expense on property, plant and equipment of \$912 in the period ended June 30, 2017. This was primarily related to assets destroyed in a fire at the Mibra mine in Brazil amounting to \$2,217 which was partially offset by insurance proceeds received of \$1,415. The fire occurred in the first quarter of 2017. There were no asset impairments during the six months ended June 30, 2016.

#### 7. Intangible assets

Intangible assets are tested for impairment annually and when circumstances indicate the carrying value may be impaired. No impairment tests were deemed necessary as there were no indicators of impairment at June 30, 2017 or 2016.

During the six months ended June 30, 2017, intangible assets with a cost of \$892 (2016: \$1,444) were capitalized.

#### 8. Inventory and cost of sales

During the six months ended June 30, 2017, the reversal of provisions for inventory valuation did not have a material impact on cost of sales. During the six months ended June 30, 2016, the reversal of provisions for inventory valuation decreased cost of sales by \$5,664.

Cost of sales included \$2,921 of business interruption proceeds related to a fire at the Company's Mibra mine in Brazil as an offset to costs. AMG is insured for the damage sustained, and in accordance with IFRS, is recognizing estimated insurance proceeds once recovery amounts are confirmed.

#### 9. Cash and cash equivalents

As of June 30, 2017, cash and cash equivalents are comprised of bank balances of \$168,853 (December 31, 2016: \$160,744). Bank balances earn interest at floating rates based on daily bank deposit rates.

#### 10. Capital and reserves

Actuarial losses on defined benefit plans for the period ended June 30, 2017 decreased other reserves by \$1,818, net of tax, while actuarial losses on defined benefit plans decreased other reserves by \$14,178, net of tax, in the six months ended June 30, 2016.

The reserve for share based payments is now being recorded directly to retained earnings. This was previously recorded in other reserves. The prior period balances have been adjusted to reflect this change. The reason for this change is to align with common practice and to simplify the recording and disclosure of equity compensation transactions. The elements of other comprehensive income (loss) and equity-settled share based payments are more fully disclosed in notes 13 and 14, respectively.

During the six months ended June 30, 2017, the Company issued 1,655,628 common shares in connection with a performance share unit compensation arrangement and stock option arrangements with certain employees. See note 14 for additional information. The Company purchased 474,708 common shares which it recorded as treasury shares with a value of \$12,190 upon purchase. During the six months ended June 30, 2017 the Company re-issued 362,220 of these treasury shares with a value of \$8,122 to settle stock option exercises. The ending balance in treasury shares was \$4,638 as a result of these transactions.

#### 11. Non-controlling interest in subsidiaries

In 2015 the Company sold a 40% equity interest in a German subsidiary, AMG Graphit Kropfmühl GmbH ("AMG Graphite"). This sale resulted in the Company owning 60% of this subsidiary and a non-controlling interest of 40%. The Company has maintained control of the subsidiary and continues to consolidate the financial results. The non-controlling interest has rights to the financial position and results of AMG Graphite in proportion with their ownership. The non-controlling interest also has certain protective rights which prevent fundamental changes to AMG Graphite as well as restrictions on the ability to transfer cash out of the subsidiary.

#### 12. Loans and borrowings

#### **Credit Facility**

On July 19, 2016, the Company entered into a five-year multicurrency term loan and revolving credit facility. The facility is composed of a \$100,000 term loan, a €50,000 term loan and \$243,000 revolving credit facility ("Revolving Credit Facility"). As of June 30, 2017, the total balance outstanding on the term loans was \$153,687. As of June 30, 2017, available revolver capacity was \$180,734 (December 31, 2016: \$182,645). Interest on the Revolving Credit Facility is based on current LIBOR (or in the case of any loans denominated in Euros, EURIBOR) plus a margin. The margin is dependent on the leverage ratio. At June 30, 2017 the margin was 2.0%. To mitigate risk the Company has entered into interest rate caps totaling \$100,000 in order to cap the interest rate on the US Dollar term loan. See note 17 for additional information on the interest rate hedging activities. The Company repaid \$3,854 of term loan borrowings during the six months ended June 30, 2017. There was \$1,257 paid on other borrowings and finance leases during the six months ended June 30, 2017.

As part of obtaining the facility the Company is responsible for maintaining Net Debt to EBITDA not to exceed 3.00 to 1 and EBITDA to Net Finance Charges not to be less than 4.00 to 1. As of June 30, 2017, the Company was in compliance with all of its debt covenants.

#### 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 bank debt in the consolidated statement of financial position. The Company borrowed \$8,000 on these facilities during 2017.

#### 13. Employee benefits

As of June 30, 2017, the employee benefits liability has increased to a balance of \$150,381 from the December 31, 2016 balance of \$141,588. The increase in the pension liability is primarily due to significant increase in the Euro to USD exchange rate during the six months ended June 30, 2017 as well as fluctuations in the discount rate used in the actuarial assumptions. Many of the liabilities are held in German entities and are subject to fluctuations in the exchange rate.

#### 14. Share-based payments

#### **Equity-Settled Stock Options**

During the six months ended June 30, 2017, 75,707 (2016: 206,107) share options were granted under the 2009 AMG Option Plan ("The Plan") to the AMG Management Board as part of their 2017 compensation package, as approved at the Company's Annual General Meeting. One half of the options granted to each option holder 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. All options under the 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 the options granted during the six months ended June 30, 2017 was calculated as €7.13 (2016: €2.62) using a Black-Scholes model. The assumptions used in the calculation are set out below.

Exercise price	<b>€</b> 25.50
Share price at date of grant	€25.50
Contractual life (years)	10
Dividend yield (%)	2.00%
Expected volatility (%)	37.9%
Risk-free interest rate (%)	(0.23%)
Expected life of option (years)	6

In the six months ended June 30, 2017, the Company recorded \$313 (2016: \$248) of expense related to stock options. There were 1,528,317 vested stock options exercised during the six months ended June 30, 2017. These options were granted in the years 2007 through 2014 and the Company issued 867,950 common shares and re-issued 362,220 treasury shares with respect to settling these option exercises.

#### Performance share units

During the six months ended June 30, 2017, the Company issued 165,132 (2016: 460,196) performance share units ("PSUs") to certain employees. The Company recorded expense of \$4,105 related to the 2017, 2016, and 2015 PSUs in the six months ended June 30, 2017.

During the six months ended June 30, 2017, the 2014 PSU awards vested and based on performance conditions the Company issued 787,678 common shares with respect to the settling of the awards.

#### 15. Provisions

#### Restructuring

During the six months ended June 30, 2017, restructuring provisions of \$1,423 (2016: \$522) were recognized. The expense includes \$1,258 of provisions related to severance and cost reduction programs in Germany and early retirements in our US operations and \$165 of expense for relocation costs. The headcount impact on the 2017 restructuring expense was 10 employees at our European and US operations. Restructuring payments of \$3,037 (2016: \$960) were made during the six months ended June 30, 2017.

#### **Environmental**

During the six months ended June 30, 2017, payments of \$446 (2016: \$215) were made from the environmental provision and no additional provision was recorded in 2017.

#### Warranty

During the six months ended June 30, 2017 the Company made warranty payments of \$279 (2016: \$492), recorded additional provision expenses of \$61 (2016: \$341) and reversals of (\$44) (2016: (\$188)) were recorded. Warranty provisions are provided on certain contracts and the provisions are made on a contract by contract basis or on actual claims made by customers. Each contractual warranty is expected to be utilized or derecognized within 12 months.

#### **Cost estimates**

AMG Engineering builds a project cost provision for long term contracts that are completed. The provision is developed on a contract by contract basis and is based on contractor estimates. The provision is utilized or derecognized depending on actual performance of the contracts and expected total of project costs. During the six months ended June 30, 2017, project cost payments of \$2,058 (2016: \$852) were made, additional provision expenses of \$2,588 (2016: \$4,807) and reversals of (\$1,011) (2016: nil) were recorded.

#### **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, our German subsidiaries have made provisions for those employees who are eligible per their employment contracts. During the six months ended June 30, 2017, there were provisions recorded of \$152 (2016: \$60), no additional reversals (2016: (\$178)) and payments of \$58 (2016: \$26).

#### Restoration, Rehabilitation and Decommissioning Costs

The decommissioning provision represents the accrued cost required to provide adequate restoration and rehabilitation upon the completion of extraction activities. These amounts will be settled when rehabilitation is undertaken. During the six months ended June 30, 2017 there were additional provisions related to the ongoing mine operations in Brazil of \$9 (2016: \$5). A discount rate of 11.12% was used to determine the liability recorded which is consistent with prior year end rate. The liability recorded as of June 30, 2017 was \$1,993 (December 31, 2016: 1,911)

#### 16. Deferred revenue

In the year ended December 31, 2012, one of the Company's subsidiaries entered into a sales contract with a long term customer. In July of 2015, this contract was amended and the Company received a payment of \$11,016 along with an ownership interest with a value of \$12,600 for price concessions. In 2017 the customer cancelled the contract and the Company has recognized the remaining deferred revenue balance as revenue as there are no remaining performance obligations outstanding.

The Company has other deferred revenue balances outstanding in relation to prepayments on customer orders received. These amounted to \$956 at June 30, 2017 (December 31, 2016: \$2,696). The deferred revenue liability will be reduced using a prescribed formula over the course of the contract based on the tonnage shipped.

#### 17. Financial instruments

#### Fair Values

The fair value of the financial assets and liabilities are included at the price that would be received to sell the instrument in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions.

- Short term assets and liabilities approximate their carrying amounts largely due to the short term maturities of these instruments.
- The calculation of fair value for derivative financial instruments depends on the type of instruments: Derivative interest rate contracts are estimated by discounting expected future cash flows using current market interest rates and yield curves over the remaining term of the instrument; Derivative currency and commodity contracts are based on quoted forward exchange rates and commodity prices respectively.
- Floating and fixed rate loans and borrowings and notes receivable maintain a floating interest rate and approximate fair value. Fair value of the Company's floating rate loans and borrowings and notes receivable are estimated by discounting expected future cash flows using a discount rate that reflects the Company's borrowing rate at June 30, 2017.
- The consideration of non-performance risk did not significantly impact the fair values for fixed and floating rate loans and borrowings.
- The fair value of fixed rate loans and borrowings are estimated by discounting future cash flows using rates currently available for debt.

#### Fair value hierarchy

The Company uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

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

Level 2: other techniques for which all inputs which have a significant effect on the recorded fair value are observable, either directly or indirectly

Level 3: techniques which use inputs which have a significant effect on the recorded fair value that are not based on observable market data

As of June 30, 2017, the Company held the following financial instruments measured at fair value:

#### Assets measured at fair value

Assets measured at lair value	June 30, 2017	Level 1	Level 2	Level 3
Non-current financial assets				
Forward contracts – hedged	832	-	832	-
Interest rate swaps and caps	58	-	58	-
Investments recognized as available for sale	15,047	-	-	15,047
Other investments	15,153	12,750	-	2,403
Current financial assets				
Forward contracts – hedged	4,820	-	4,820	-
Liabilities measured at fair value				

June 30, 2017

Level 1

Level 2

Level 3

#### **Current financial liabilities**

Forward contracts – hedged	1,535	-	1,535	-
Forward contracts – non-hedged	300	-	300	-

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

#### Assets measured at fair value

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

#### Liabilities measured at fair value

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

During the six months ended June 30, 2017, there were no significant changes in policies with respect to financial instruments.

#### Interest rate hedges

In July 2016, the Company entered into three interest rate cap agreements for the drawdown of the term loan of \$100,000. These interest rate caps were executed so that the Company could hedge its exposure to changes in the benchmark interest rate on the term loan. The fair value of the interest rate cap agreements is being recorded through interest expense while the benchmark interest rate is below the cap rate of 2%. The fair value of the interest rate cap at December 31, 2016 was a liability of \$159. As of June 30, 2017, the fair value of the interest rate cap was an asset of \$58. The Company has designated the interest rate caps as an effective cash flow hedge. There were no amounts included in equity through other comprehensive income.

#### Commodity forward contracts and foreign currency forward contracts

The Company views derivative instruments as risk management tools and does not use them for trading or speculative purposes. During the course of operations, including normal purchases and sales of product, the Company enters into commodity forward and foreign exchange contracts to manage price and currency risks. No significant new contracts were entered into as of June 30, 2017, other than in the ordinary course of business.

The following are the fair values of the contracts that were in place at June 30, 2017 and December 31, 2016.

	June 30, 2017	December 31, 2016
Assets		
Commodity forward contracts	82	108
Liabilities		
Commodity forward contracts	-	54

The commodity hedges that are treated as cash flow hedges were assessed to be highly effective and as of June 30, 2017 there was an unrealized gain of \$44 (December 31, 2016: (\$2)) included in equity.

June 30,	December 31,
2017	2016

#### Assets

Foreign exchange forward contracts	5,570	4,639
Liabilities		
Foreign exchange forward contracts	1.835	5,335

Foreign exchange forward contracts that are treated as cash flow hedges were deemed to be highly effective and as at June 30, 2017, there was an unrealized gain of \$2,412 (December 31, 2016: (\$2,579)) included in equity.

#### 18. Commitments and contingencies

#### **Commitments**

At June 30, 2017, there were commitments for the manufacture and purchase of property, plant and equipment in the amount of \$42,955 (December 31, 2016: \$54,005).

Other than the commitments to purchase property, plant and equipment noted above, there have been no material updates to the Company's commitments as discussed in notes 34 and 35 to the 2016 consolidated financial statements.

#### **Contingencies**

At June 30, 2017, there were business-related bank guarantees for the benefit of third parties in the amount of \$60,238 (December 31, 2016: \$66,766).

In the first half of 2017, a Company subsidiary, AMG Vanadium, filed suit in the United States against a customer for damages arising from the customer's purported breach of a supply contract. This customer subsequently made a counterclaim against the Company related to payments the Company received for providing the customer with price concessions under a 2015 contract amendment. The Company believes there is no basis for the customer's counterclaims and believes it is not probable the Company will be held liable, however, the outcome is uncertain. The Company has recorded no liability as of June 30, 2017. The Company is also currently involved in a legal action with the customer's parent company in Australia to gain access to information supporting the valuation of the parent company. AMG owns a 13.5% interest in the parent company, and this investment is currently valued at \$15.0 million in "other investments" on the Company's balance sheet. The results of the United States and Australian legal disputes could impact the carrying value of AMG's investment.

Other than noted above, there have been no material updates to the Company's contingencies as discussed in note 35 to the 2016 consolidated financial statements.

#### 19. Related parties

Material related party transactions during the period include the recognition of stock based compensation for certain employees and the exercise and settlement of certain stock based compensation arrangements. These transactions are disclosed in more detail in notes 10 and 14.