

AMG Advanced Metallurgical Group N.V.
Condensed Interim Consolidated Financial Statements
(unaudited)
June 30, 2020

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, 2020 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 a global critical materials company at the forefront of CO2 reduction trends. AMG produces highly engineered specialty metals and mineral products and provides related vacuum furnace systems and services to the transportation, infrastructure, energy, and specialty metals & chemicals end markets. AMG is organized under two reportable segments: AMG Critical Materials and AMG Technologies. AMG Critical Materials develops and produces specialty metals, alloys, chemicals and high performance materials. AMG Critical Materials is a significant producer of specialty metals, such as ferrovandium, ferronickel-molybdenum, aluminum master alloys and powders, chromium metal, tantalum, antimony, lithium, natural graphite and silicon metal for energy, aerospace, infrastructure and specialty metal and chemicals applications. AMG Critical Materials has major production facilities in the UK, the US, Germany, France, China, and Brazil. AMG Technologies designs, engineers and produces advanced vacuum furnace systems and operates vacuum heat treatment facilities and develops titanium aluminides and titanium alloys, primarily for the aerospace and energy (including solar and nuclear) industries. Furnace systems produced by AMG Technologies include vacuum remelting, vacuum induction melting, vacuum heat treatment and high-pressure gas quenching, turbine blade coating and sintering. AMG Technologies also provides vacuum case-hardening heat treatment services on a tolling basis. AMG Technologies has production facilities that are located in Germany, France, Mexico, India, China and the US.

AMG encountered significant challenges during the first half of 2020 associated with the coronavirus pandemic. As a result of the crisis, some of our production facilities were temporarily shut and operated below capacity, reflecting reduced demand levels. Our financial results reflect the low-price environment we are experiencing, and AMG continues to operate in an austerity mode and focus on things we can control, such as operational efficiency, capital expenditures and overhead costs. This focus on expenditures will help to preserve our solid liquidity position. Return on capital employed (“ROCE”) decreased to 2.9% due to the Company’s lower overall profitability and the significant strategic investments which are currently progressing.

AMG Critical Materials’ pandemic-related impacts were due to a confluence of events in our various end-use markets. In particular, we saw decreased and postponed volumes from our aerospace and automotive customers, and we faced pandemic-related shipping issues which increased costs for our business. In addition, US steel production volumes were significantly below previous downturns, which negatively impacted vanadium prices.

AMG Technologies’ pandemic-related impacts were mostly driven by decreased and postponed volumes from our aerospace customers, but we also experienced difficulty finalizing vacuum furnace orders due to global travel restrictions. Our Heat Treatment Service operations were impacted by the temporary closure of certain of our customer’s plants. We had an order intake of \$136 million in the first half of 2020, but the unfortunate foreseeable depressed conditions in the aerospace industry due to COVID-19 has forced us to postpone the pursuit of a public offering of AMG Technologies.

In these unprecedented times our priority is to preserve a strong liquidity position. Our liquidity position is \$390 million as of June 30, 2020. Cash from operating activities is strong and substantially surpasses the first half of 2019. We are embarking on comprehensive programs to reduce operating costs, SG&A, working capital, and freezing all non-essential capital expenditures. The current global pandemic significantly impacted our financial results with dramatically lower volumes, especially in our aerospace sector, compounding the historically low prices AMG is experiencing across our critical materials portfolio.

Despite our intense focus on cash flow, we continue to progress our key strategic programs: the construction of the plant in Zanesville, Ohio, which will essentially double our recycling capacity for refinery residues, is proceeding as planned, utilizing the funds raised from our municipal bond. Basic engineering of the new lithium hydroxide production facility in Germany continues and a final investment decision is planned in due course. Shell & AMG Recycling B.V. has started to operate and will pursue refinery residue recycling opportunities globally.

Capital expenditures during the six months ended June 30, 2020 increased to \$52.8 million from \$25.1 million during the six months ended June 30, 2019. The capital expenditures in 2020 are primarily attributable to expansion projects at AMG’s vanadium, titanium aluminide, lithium and heat treatment facilities.

AMG’s first half 2020 SG&A expenses were \$62.1 million compared to \$71.2 million in the first half of 2019. This decrease is primarily due to lower personnel costs, lower professional fees and continued cost reduction efforts across the business.

AMG's cash from operating activities was \$16.7 million in first half of 2020 compared to cash used in operating activities of (\$4.1) million in the first half of last year. This increase was mainly due to lower working capital driven by AMG's current focus on operational efficiency and cash preservation.

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 ROCE and cash from operating activities. ROCE is calculated by dividing adjusted EBIT by the average operating capital employed for the period. EBIT, adjusted for exceptional 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 2019 Annual Report, 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 2020 are in line with the risks that AMG presented in its 2019 Annual Report.

In addition to the developments noted in the first half of 2020, there continues to be global economic uncertainty related to COVID-19, which may have a negative effect on the operations, profitability, and cash flow of AMG as a whole. Our operational outlook highlights the key areas of focus as we continue to navigate the risks presented by this unprecedented global pandemic.

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's first and most important priority is to ensure the health and safety of our employees. Additionally, we are acutely focused on the financial health of the company and are dedicated to preserving our strong liquidity position. While maintaining a strong balance sheet, we continue to drive long-term value creation through our transformational strategic projects in vanadium recycling and in our lithium downstream expansion.

Given the results in the first half of the year, the full year EBITDA is unlikely to reach the level of 2019.

AMG Advanced Metallurgical Group N.V.
Condensed Interim Consolidated Income Statement
For the six months ended June 30,
In thousands of US dollars

	Note	2020 Unaudited	2019 Unaudited
Revenue	6	485,900	650,135
Cost of sales	10	422,199	587,174
Gross profit		63,701	62,961
Selling, general and administrative expenses		62,096	71,175
Net other operating income		31	125
Operating profit (loss)		1,636	(8,089)
Finance income		(1,291)	(2,360)
Finance cost		13,028	18,351
Net finance cost		11,737	15,991
Loss before income tax		(10,101)	(24,080)
Income tax expense (benefit)	7	16,102	(7,598)
Loss for the period		(26,203)	(16,482)
Loss attributable to:			
Shareholders of the Company		(26,078)	(16,269)
Non-controlling interests		(125)	(213)
Loss for the period		(26,203)	(16,482)
Loss per share			
Loss earnings per share		(0.92)	(0.54)
Loss earnings per share		(0.92)	(0.54)

The notes are an integral part of these condensed 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

	Note	2020 Unaudited	2019 Unaudited
Loss for the period		(26,203)	(16,482)
Other comprehensive (loss) income			
<i>Items of other comprehensive (loss) income to be reclassified to profit or loss in subsequent periods:</i>			
Exchange differences on translation of foreign operations		(2,566)	843
Cash flow hedges, effective portion and cost of hedging reserve, changes in fair value	12	(16,554)	4,544
Cash flow hedges reclassified to profit or loss	12	1,731	1,972
Income tax on cash flow hedges	12	3,254	(1,972)
Net (decrease) increase on cash flow hedges	12	(11,569)	4,544
Net other comprehensive (loss) income to be reclassified to profit or loss in subsequent periods		(14,135)	5,387
<i>Items of other comprehensive (loss) income not to be reclassified to profit or loss in subsequent periods:</i>			
Exchange difference on translation of foreign operations-non-controlling interest		(169)	(43)
Actuarial losses on defined benefit plans		(1,542)	(5,975)
Income tax benefit on actuarial losses		117	567
Net losses on defined benefit plans		(1,425)	(5,408)
Change in fair value of equity investments classified as fair value through other comprehensive income		(1,365)	1,460
Net other comprehensive loss not being reclassified to profit or loss in subsequent periods		(2,959)	(3,991)
Other comprehensive (loss) income for the period, net of tax		(17,094)	1,396
Total comprehensive loss for the period, net of tax		(43,297)	(15,086)
Total comprehensive loss attributable to:			
Shareholders of the Company		(42,972)	(14,826)
Non-controlling interest		(325)	(260)

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

AMG Advanced Metallurgical Group N.V.
Condensed Interim Consolidated Statement of Financial Position
In thousands of US dollars

	Note	June 30, 2020 Unaudited	December 31, 2019
Assets			
Property, plant and equipment	8	466,570	429,993
Goodwill and other intangible assets	9	41,265	41,923
Derivative financial instruments	16	19	922
Other investments	16	23,074	23,565
Deferred tax assets	7	53,605	60,945
Restricted cash	8	272,327	309,581
Other assets		7,953	11,072
Total non-current assets		864,813	878,001
Inventories	10	178,219	204,152
Derivative financial instruments	16	295	2,693
Trade and other receivables	6	106,264	119,052
Other assets	11	43,157	33,860
Current tax assets	7	3,452	7,980
Cash and cash equivalents		220,311	226,218
Total current assets		551,698	593,955
Total assets		1,416,511	1,471,956
Equity			
Issued capital		831	831
Share premium		489,546	489,546
Treasury shares	12	(80,584)	(83,880)
Other reserves	12	(133,325)	(116,358)
Retained earnings (deficit)		(163,690)	(129,626)
Equity attributable to shareholders of the Company		112,778	160,513
Non-controlling interest		23,936	23,893
Total equity		136,714	184,406
Liabilities			
Loans and borrowings	13	664,403	669,497
Lease liabilities		43,672	46,490
Employee benefits		175,972	175,870
Provisions	15	14,749	28,984
Other liabilities		7,479	3,629
Derivative financial instruments	16	5,218	4,289
Deferred tax liabilities	7	5,885	4,300
Total non-current liabilities		917,378	933,059
Loans and borrowings	13	29,873	21,740
Lease liabilities		4,177	4,227
Short-term bank debt	13	7,652	7,500
Other liabilities		61,129	61,479
Trade and other payables		159,497	157,108
Derivative financial instruments	16	16,233	4,037
Advance payments from customers	6	38,194	57,650
Current tax liability	7	18,497	18,299
Provisions	15	27,167	22,451
Total current liabilities		362,419	354,491
Total liabilities		1,279,797	1,287,550
Total equity and liabilities		1,416,511	1,471,956

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

Equity attributable to shareholders of the Company

(Unaudited)

	Issued capital	Share premium	Treasury shares (note 12)	Other reserves (note 12)	Retained earnings (deficit)	Total	Non-controlling interests	Total equity
Balance at January 1, 2020	831	489,546	(83,880)	(116,358)	(129,626)	160,513	23,893	184,406
Foreign currency translation	-	-	-	(2,566)	-	(2,566)	(169)	(2,735)
Change in fair value of equity investments classified as FVOCI	-	-	-	(1,365)	-	(1,365)	-	(1,365)
Losses on cash flow hedges, net of tax	-	-	-	(11,538)	-	(11,538)	(31)	(11,569)
Actuarial losses, net of tax	-	-	-	(1,425)	-	(1,425)	-	(1,425)
Net loss recognized through other comprehensive income	-	-	-	(16,894)	-	(16,894)	(200)	(17,094)
Loss for the period	-	-	-	-	(26,078)	(26,078)	(125)	(26,203)
Total comprehensive loss for the period	-	-	-	(16,894)	(26,078)	(42,972)	(325)	(43,297)
Purchase of common shares	-	-	(684)	-	-	(684)	-	(684)
Equity-settled share-based payments	-	-	3,980	-	(1,186)	2,794	-	2,794
Transfer to retained deficit	-	-	-	(73)	73	-	-	-
Change in non-controlling interest	-	-	-	-	(706)	(706)	368	(338)
Dividend	-	-	-	-	(6,167)	(6,167)	-	(6,167)
Balance at June 30, 2020	831	489,546	(80,584)	(133,325)	(163,690)	112,778	23,936	136,714
Balance at January 1, 2019	812	462,891	(347)	(104,274)	(39,158)	319,924	24,119	344,043
Foreign currency translation	-	-	-	843	-	843	(43)	800
Change in fair value of equity investments classified as FVOCI	-	-	-	1,460	-	1,460	-	1,460
Gains on cash flow hedges, net of tax	-	-	-	4,548	-	4,548	(4)	4,544
Actuarial losses, net of tax	-	-	-	(5,408)	-	(5,408)	-	(5,408)
Net profit recognized through other comprehensive income	-	-	-	1,443	-	1,443	(47)	1,396
Loss for the period	-	-	-	-	(16,269)	(16,269)	(213)	(16,482)
Total comprehensive income (loss) for the period	-	-	-	1,443	(16,269)	(14,826)	(260)	(15,086)
Issuance of common shares	19	26,655	-	-	-	26,674	-	26,674
Re-issuance of treasury shares	-	-	3,100	-	-	3,100	-	3,100
Purchase of common shares	-	-	(74,560)	-	-	(74,560)	-	(74,560)
Equity-settled share-based payments	-	-	5,103	-	(27,768)	(22,665)	-	(22,665)
Transfer to retained deficit	-	-	-	12	(12)	-	-	-
Change in non-controlling interest	-	-	-	-	(715)	(715)	-	(715)
Dividend	-	-	-	-	(10,335)	(10,335)	-	(10,335)
Balance at June 30, 2019	831	489,546	(66,704)	(102,819)	(94,257)	226,597	23,859	250,456

AMG Advanced Metallurgical Group N.V.
Condensed Interim Consolidated Statement of Cash Flows
For the six months ended June 30,
In thousands of US dollars

	Note	2020 Unaudited	2019 Unaudited
Cash from (used in) operating activities			
Loss profit for the period		(26,203)	(16,482)
Adjustments to reconcile net loss to net cash flows:			
Non-cash:			
Income tax expense (benefit)	7	16,102	(7,598)
Depreciation and amortization		21,135	20,166
Asset impairments	8	98	5,224
Net finance cost		11,737	15,991
Loss (gain) on sale or disposal of property, plant and equipment	8	114	(102)
Equity-settled share-based payment transactions	14	2,744	2,729
Movement in provisions, pensions and government grants	15	(6,432)	(4,168)
Working capital and deferred revenue adjustments		4,724	3,018
Cash generated from operating activities		24,019	18,778
Finance costs paid, net		(8,826)	(12,752)
Income tax received (paid), net		1,461	(10,118)
Net cash from (used in) operating activities		16,654	(4,092)
Cash used in investing activities			
Proceeds from sale of property, plant and equipment	8	6	295
Acquisition of property, plant and equipment and intangibles	8, 9	(46,480)	(25,111)
Investments in associates and joint ventures	16	(1,000)	-
Change in restricted cash	8	37,254	808
Capitalized borrowing cost	8	(6,350)	-
Other		3	8
Net cash used in investing activities		(16,567)	(24,000)
Cash used in financing activities			
Proceeds from issuance of debt	13	6,370	-
Repayment of borrowings	13	(2,281)	(1,750)
Proceeds from issuance of common shares		-	3,100
Net repurchase of common shares		(638)	(71,033)
Dividends paid		(6,167)	(10,335)
Payment of lease liabilities		(2,167)	(1,914)
Contributions by non-controlling interests		368	-
Net cash used in financing activities		(4,515)	(81,932)
Net decrease in cash and cash equivalents		(4,428)	(110,024)
Cash and cash equivalents at January 1		226,218	381,900
Effect of exchange rate fluctuations on cash held		(1,479)	(144)
Cash and cash equivalents at June 30		220,311	271,732

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

1. Reporting Entity

AMG Advanced Metallurgical Group N.V. (herein referred to as “the Company”, “AMG NV” or “AMG”) is domiciled in the Netherlands. These condensed consolidated interim financial statements (‘interim financial statements’) as of and for the six months ended June 30, 2020 comprise the Company and its subsidiaries (together referred to as ‘the Group’). The Group is primarily involved in the supply of critical materials, producing highly engineered specialty metals and mineral products and providing related vacuum furnace systems and services (see notes 5 and 6).

2. Basis of preparation

These interim financial statements have been prepared in accordance with IAS 34 *Interim Financial Reporting* and should be read in conjunction with the Group’s last annual consolidated financial statements as of and for the year ended December 31, 2019 (‘last annual financial statements’). They do not include all the information required for a complete set of IFRS financial statements. However, selected explanatory notes are included to explain events and transactions that are significant to an understanding of the changes in the Group’s financial position and performance since the last annual financial statements.

3. Use of judgements and estimates

In preparing these interim financial statements, management has made judgements and estimates that affect the application of accounting policies and the reported amounts of assets and liabilities, income and expense. Actual results may differ from these estimates.

The significant judgements made by management in applying the Group’s accounting policies and the key sources of estimation uncertainty were the same as those described in the last annual financial statements.

4. Significant accounting policies

Except as described below, the accounting policies applied in these interim financial statements are the same as those applied in the Group’s consolidated financial statements as of and for the year ended December 31, 2019 (the policy for recognizing and measuring income taxes in the interim period is described in note 7). A number of new standards are effective from January 1, 2020 but they do not have a material effect on the Group’s financial statements.

5. Segment information

The following tables present revenue and profit information for the Company’s operating segments for the six months ended June 30, 2020 and 2019, respectively. AMG headquarters costs and assets are allocated sixty-five percent to AMG Critical Materials and thirty-five percent to AMG Technologies in 2020 and 2019 based on an estimation of services provided to the operating segments.

Segment information:

Six month period ended June 30, 2020	AMG Critical Materials	AMG Technologies	Eliminations¹	Total
Revenue				
Revenue from external customers	286,613	199,287	-	485,900
Intersegment revenue	637	722	(1,359)	-
Total revenue	287,250	200,009	(1,359)	485,900
Segment results				
Operating (loss) profit	(2,799)	4,435	-	1,636

Six month period ended June 30, 2019	AMG Critical Materials	AMG Technologies	Eliminations¹	Total
Revenue				
Revenue from external customers	427,103	223,032	-	650,135
Intersegment revenue	1,151	3,659	(4,810)	-
Total revenue	428,254	226,691	(4,810)	650,135
Segment results				
Operating (loss) profit	(26,837)	18,748	-	(8,089)
Segment assets				
At June 30, 2020	1,017,541	398,970	-	1,416,511
At December 31, 2019	1,073,218	398,738	-	1,471,956
Segment liabilities				
At June 30, 2020	889,723	390,074	-	1,279,797
At December 31, 2019	879,429	408,121	-	1,287,550

¹ Eliminations column includes intersegment trade eliminations. The intersegment revenue eliminates against the intersegment cost of sales.

6. Revenue

The Company's operations and main revenue streams are those described in the last annual financial statements. The Company's revenue is derived from contracts with customers, except for immaterial amounts related to hedge accounting.

Disaggregation of revenue

In the following table, revenue is disaggregated by primary geographical market and timing of revenue recognition. The table also includes a reconciliation of the disaggregated revenue with the Group's reportable segments (see note 5).

Geographical information:

	AMG Critical Materials	AMG Technologies	Total
Six month period ended June 30, 2020			
Europe	126,833	59,452	186,285
North America	88,264	80,481	168,745
Asia	50,867	58,638	109,505
South America	16,739	410	17,149
Other	3,910	306	4,216
Total Revenue	286,613	199,287	485,900
Timing of revenue recognition			
Products transferred at a point in time	286,613	90,997	377,610
Products and services transferred over time	-	108,290	108,290
Total Revenue	286,613	199,287	485,900

	AMG Critical Materials	AMG Technologies	Total
Six month period ended June 30, 2019			
Europe	168,830	99,991	268,821
North America	170,767	58,776	229,543
Asia	59,358	63,140	122,498
South America	21,784	836	22,620
Other	6,364	289	6,653
Total Revenue	427,103	223,032	650,135
Timing of revenue recognition			
Products transferred at a point in time	427,103	128,572	555,675
Products and services transferred over time	-	94,460	94,460
Total Revenue	427,103	223,032	650,135

Contract balances

The following table provides information about receivables, contract assets, and contract liabilities from contracts with customers.

	June 30, 2020	December 31, 2019
Trade receivables, net of allowance for doubtful accounts	77,887	93,454
Gross amount due from customers for contract work	28,377	25,598
Trade payables – contract work ¹	23,971	20,531
Advance payments	38,194	57,650
Deferred revenue ²	5,652	965

¹ Balance is included within Trade and other payables line item in the Statement of Financial Position

² Balance is included within the Other liabilities line item in the Statement of Financial Position

The contract assets primarily relate to the Company's rights to consideration for work completed but not billed at the reporting date for furnace construction contracts. The contract assets are transferred to receivables when the rights become unconditional. This usually occurs when the Company issues an invoice to the customer. The contract liabilities primarily relate to the advance consideration received from customers for furnace construction contracts for which revenue is recognized over time. This will be recognized as revenue over the next three years. The decrease of \$15,567 in trade receivables is primarily driven by lower sales volumes and prices driven by the pandemic as well as higher utilization of factoring arrangements. The decrease of \$19,456 in advanced payments was driven by the completion of a large Engineering project for which revenue was recognized at the point in time that the customer obtained control of the product along with higher project completion compared to December 2019.

The Company recognized revenues of \$31,673 (2019: \$60,556) that were included in the balance of contract liabilities as of December 31, 2019. There were \$475 (2019: 313) of revenues recognized in the six months ended June 30, 2020 that pertained to performance obligations that were satisfied or partially satisfied in previous periods.

7. Income tax expense

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

	June 30, 2020	June 30, 2019
Current income tax		
Current income tax charge	3,764	12,410
Deferred income tax		
Origination and reversal of temporary differences	(11,478)	(16,324)
Changes in previously recognized tax losses, tax credits and recognized temporary difference for changes in enacted tax rates and currency effects	23,816	(3,684)
Total income tax expense (benefit)	16,102	(7,598)

The June 30, 2020 effective tax rate was impacted by pre-tax losses of \$4,550 for which tax benefits could not be recorded due to the ongoing loss positions in the respective jurisdictions where the losses have occurred. Also, during the period ended June 30, 2020, the net recognized deferred tax assets (liabilities) were adjusted to reflect changes in currency rates in Brazil. The impact of the currency rates in Brazil was an increase to income tax expense of \$23,289.

The June 30, 2019 effective tax rate was impacted by pre-tax losses of \$10,812 for which tax benefits could not be recorded due to the ongoing loss positions in the respective jurisdictions where the losses have occurred. Also, during the period ended June 30, 2019, the net recognized deferred tax assets (liabilities) were adjusted to reflect changes in currency rates in Brazil. The impact of the currency rates was a decrease to income tax expense of \$3,732.

8. Property, plant and equipment

Acquisitions and disposals

During the six months ended June 30, 2020, assets with a cost of \$52,353 (2019: \$22,357) were acquired. Additionally, the property, plant and equipment in accounts payable increased \$6,293 (2019: decreased by \$2,136). The increase in property, plant and equipment is primarily related to the construction of AMG Vanadium's catalyst recycling facility in Zanesville, Ohio. For the six months ended June 30, 2020, restricted cash was used to fund \$31,033 of project cost requisitions and \$6,186 of capitalized interest payments, net of interest income, related to the project.

Assets with a book value of \$120 were disposed of during the six months ended June 30, 2020 (2019: \$193) resulting in a loss on sale or disposal of \$114 (2019: gain of (\$102)).

During the six months ended June 30, 2020, the Company recorded an asset impairment expense of \$98 (2019: \$5,224) related to equipment at our facility in Brazil.

Borrowing costs

The Company capitalized borrowing costs of \$6,672 (2019: nil) during the six months ended June 30, 2020. These costs included \$7,575 of capitalized interest related to the construction of AMG Vanadium's catalyst recycling facility in Ohio, net of \$1,067 of cash interest received from the restricted cash generated from AMG Vanadium's municipal bond as well as \$164 of capitalized interest for other AMG facilities.

9. Intangible assets

Intangible assets are tested for impairment annually and when circumstances indicate the carrying value may be impaired. Given the market disruptions that occurred in the six months ended June 30, 2020, the Company performed an analysis and noted that the value in use exceeds the carrying value of the assets within the Company's cash-generating units at June 30, 2020. For the six months ended June 30, 2019, no impairments were deemed necessary.

During the six months ended June 30, 2020, intangible assets with a cost of \$420 (2019: \$618) were capitalized.

10. Inventory and cost of sales

As of June 30, 2020, inventory decreased to \$178,219 (December 31, 2019: \$204,152) mainly driven by declining metal prices. During the six months ended June 30, 2020, provision for inventory valuation did not have a significant impact on cost of sales. During the six months ended June 30, 2019, provision for inventory valuation increased cost of sales by \$56,663. This was primarily related to write-downs on inventories of \$54,679 in our US and German locations due to lower costs of vanadium which was included in the working capital movement in the condensed interim consolidated statement of cash flows.

11. Other assets

As of June 30, 2020, the current portion of other assets has increased to a balance of \$43,157 from the December 31, 2019 balance of \$33,860. The net increase is primarily due to higher prepayments related to capital expansion projects, receivables from governmental entities for various employment and energy-credit subsidies, and supplier prepayments during the six months ended June 30, 2020.

12. Capital and reserves

Losses on cash flow hedges for the period ended June 30, 2020 decreased other reserves by (\$11,538) (2019: \$4,548) net of tax. These losses were primarily driven by the deterioration of the BRL versus USD foreign exchange rate since year end, which negatively impacted in the Company's foreign currency forward contracts.

During the six months ended June 30, 2020 and 2019, the Company re-issued 117,432 treasury shares and issued 786,044 common shares, respectively, in connection with a performance share unit compensation arrangement and stock option arrangements with certain employees. See note 14 for additional information.

Noted below is a roll forward of the treasury shares activity for the six months ending June 30, 2020 and 2019:

	2020		2019	
	Shares	Amount	Shares	Amount
Beginning balance	2,993,565	83,880	7,780	347
Shares repurchased	46,132	684	2,602,236	74,560
Re-issuance of treasury shares	-	-	(91,372)	(3,100)
Treasury shares delivered for share-based compensation	(117,432)	(3,980)	(147,530)	(5,103)
Ending balance	2,922,265	80,584	2,371,114	66,704

13. Loans and borrowings

	2020	2019
Beginning balance	691,237	365,921
New issues		
Subsidiary debt ¹	6,370	8,000
Repayments		
Term loan and revolving credit facility	(1,750)	(1,750)
Subsidiary debt	(531)	-
Other movements	(1,050)	764
Ending balance	694,276	372,935

¹ 2019 balance represents non-cash refinancing of short-term bank debt

Subsidiary debt

In 2020, a Brazilian subsidiary obtained an additional financing arrangement for \$6,370. This arrangement is denominated in Brazilian reais, carries a variable interest rate and matures in 2023.

14. Share-based payments

Equity-settled stock options

During the six months ended June 30, 2020, 144,445 (2019: 58,115) share options were granted under the 2009 AMG Option Plan ("The Plan") to the AMG Management Board as part of their 2020 compensation package, as approved by the Supervisory Board. 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, 2020 was calculated as €3.96 (2019: €9.55) using a Black-Scholes model.

In the six months ended June 30, 2020, the Company recorded \$307 of expense related to stock options. There were no vested stock options exercised during the six months ended June 30, 2020. In the six months ended June 30, 2019, the Company recorded \$294 of expense related to stock options. There were 133,368 vested stock options exercised during the six months ended June 30, 2019. These options were granted in the years 2015 and 2016, and the Company re-issued 133,368 treasury shares with respect to settling these option exercises in 2019.

Performance share units

During the six months ended June 30, 2020, the Company issued 242,840 (2019: 146,627) performance share units (“PSUs”) to certain employees. The Company recorded expense of \$2,437 (2019: \$2,435) related to the outstanding PSUs in the six months ended June 30, 2020.

During the six months ended June 30, 2020, the 2017 PSU awards vested and based on performance conditions the Company re-issued 117,432 treasury shares with respect to the settling of the awards. During the six months ended June 30, 2019, the 2016 PSU awards vested and based on performance conditions the Company issued 786,044 common shares with respect to the settling of the awards.

15. Provisions

Environmental

During the six months ended June 30, 2020, payments of \$5,438 (2019: \$4,461) were made from the environmental provision primarily related to ongoing transportation and disposal costs at the Newfield, NJ site in the United States.

There have been no other significant changes to the provisions disclosed in the Company’s last annual financial statements.

16. Financial instruments – Fair values and risk management

(a) Accounting classifications and fair values

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy at June 30, 2020. 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. Methods and assumptions used to estimate fair values are consistent with those used in the year ended December 31, 2019.

June 30, 2020	Carrying Amount	Fair Value		
		Level 1	Level 2	Level 3
Financial assets				
Derivative financial instruments	314	-	314	-
Other investments ¹	<u>22,074</u>	<u>9,595</u>	-	<u>12,479</u>
Financial assets carried at FVOCI	<u>22,388</u>	<u>9,595</u>	<u>314</u>	<u>12,479</u>
Financial liabilities				
Derivative financial instruments	<u>2,588</u>	-	<u>2,588</u>	-
Financial liabilities carried at FVTPL	<u>2,588</u>	-	<u>2,588</u>	-
Derivative financial instruments	<u>18,863</u>	-	<u>18,863</u>	-
Financial liabilities carried at FVOCI	<u>18,863</u>	-	<u>18,863</u>	-

¹ Excludes \$1,000 investment in joint venture which is measured using the equity method and does not have a quoted market price.

For cash and cash equivalents, trade and other receivables, restricted cash, trade payables, and short-term bank debt, the carrying amounts approximate fair value because of the short maturity of these instruments, and therefore, fair value information is not included in the table above. Loans and borrowings maintain a floating interest rate and approximate fair value.

Derivative financial instruments

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 normal sales of product, the Company enters into commodity forward and foreign exchange forward contracts to manage price and currency risks. No significant new contracts were entered into as of June 30, 2020, other than in the ordinary course of business.

The following are the fair values of the derivative financial instruments at June 30, 2020 and December 31, 2019 along with the balance of unrealized gains (losses) included within equity through other comprehensive income.

	Fair Value		Unrealized gains (losses) included in other comprehensive income	
	June 30, 2020	December 31, 2019	June 30, 2020	December 31, 2019
Commodity forward contract assets	39	94		
Commodity forward contract liabilities	(387)	-		
Net commodity forward contracts	(348)	94	(270)	85
Foreign currency forward contract assets	254	3,416		
Foreign currency forward contract liabilities	(16,574)	(5,267)		
Net foreign currency forward contracts	(16,320)	(1,851)	(13,057)	(1,797)
Interest rate forward contract assets	21	105		
Interest rate forward contract liabilities	(4,490)	(3,059)		
Net interest rate forward contracts	(4,469)	(2,954)	(478)	(530)

Other investments

At June 30, 2020, the balance of other investments is comprised of several investments held by the Company. \$7,077 (December 31, 2019: \$7,854) relate to equity interests in Global Advanced Metals U.S.A., Inc. The fair value of this equity investment is estimated by management using an approach that is consistent with the methodology disclosed in our latest annual financial statements. The investment is designated as a Level 3 financial instrument in the fair value hierarchy due to the utilization of unobservable inputs to derive the estimated fair value. The fair value has decreased (\$777) (2019: increased \$474) since December 31, 2019.

\$14,997 (December 31, 2019: \$15,711) of the balance of other investments relate to assets that are held by the Company to fund a non-qualified pension liability. The pension assets consist of debt securities, equity securities and insurance contracts which are held at fair value. The debt and equity securities are designated as Level 1 financial instruments in the fair value hierarchy as they are valued based on quoted, observable market prices. The insurance contracts are designated as Level 3 financial instruments in the fair value hierarchy due to the utilization of unobservable inputs to derive the estimated fair value. The value of the insurance contracts has increased by \$978 at both June 30, 2020 and 2019 based on additional purchases made by the Company during the periods then ended.

\$1,000 of the balance of other investments relates to the Company's equity interest in its joint venture, Shell & AMG Recycling B.V. The joint venture was incorporated in the Netherlands and will provide a long-term sustainable solution for catalyst reclamation and recycling. The Company maintains a 50% interest and joint control of the entity. The Company's interest is measured using the equity method as prescribed by IFRS 11 and IAS 28.

There were no transfers of financial instruments between Levels 1 and 2 for the periods ended June 30, 2020 and 2019. There were also no transfers of financial instruments out of Level 3 for the periods ended June 30, 2020 and 2019.

17. Commitments and contingencies

Commitments

There were commitments for the manufacture and purchase of property, plant and equipment in the amount of \$107,313 (December 31, 2019: \$66,459). This increase is mainly driven by AMG Vanadium's capital project to double its spent catalyst recycling capacity by building a new, greenfield plant in the operational vicinity of its current spent catalyst processing plant in Cambridge, Ohio.

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 32 and 33 in the 2019 consolidated financial statements.

Contingencies

At June 30, 2020, there were business-related bank guarantees for the benefit of third parties in the amount of \$173,176 (December 31, 2019: \$122,557), which were made in the normal course of business.

Other than the noted above, there have been no material updates to the Company's contingencies.

18. 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 12 and 14.