

ENABLING THE CIRCULAR ECONOMY

INVESTOR PRESENTATION | COMPANY DESCRIPTION 2021



AMG ADVANCED
METALLURGICAL GROUP N.V.

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AMG IS A CRITICAL MATERIALS COMPANY

DEMAND

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

SUPPLY

AMG sources, processes, and supplies the critical minerals that the market demands

GLOBAL TRENDS

CO₂ emission reduction, circular economy, population growth, increasing affluence, and energy efficiency



LEADER IN ADVANCED TECHNOLOGIES
TO ADDRESS CO₂ REDUCTION

CO₂ REDUCTION

A GLOBAL IMPERATIVE FOR THE 21ST CENTURY

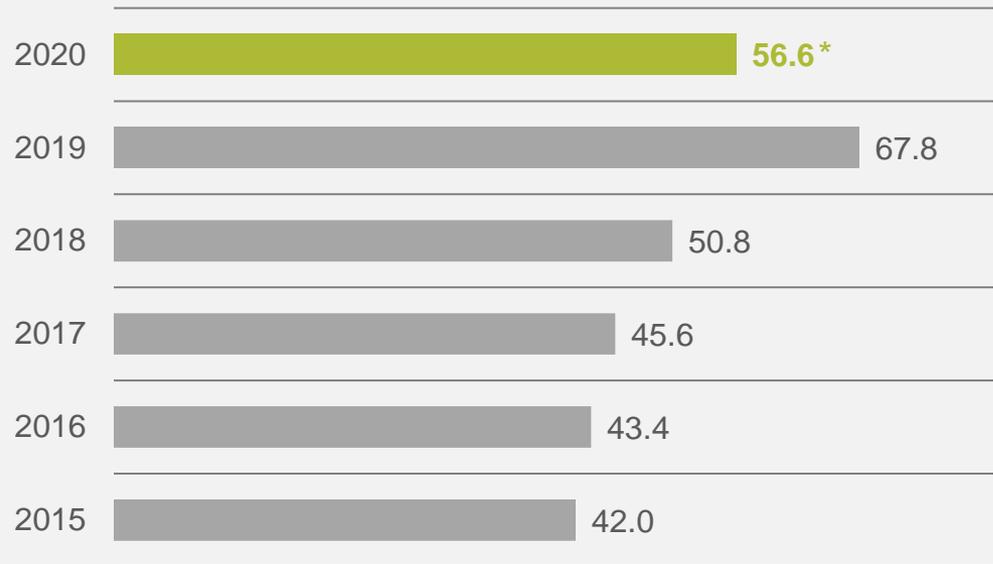
AMG: ENABLING TECHNOLOGIES

Products and processes saving CO₂ emissions during use (e.g., light-weighting and fuel efficiency in the aerospace and automotive industries)

AMG: MITIGATING TECHNOLOGIES

Products and processes saving raw minerals, energy and CO₂ emissions during manufacturing (e.g., recycling of Ferrovandium)

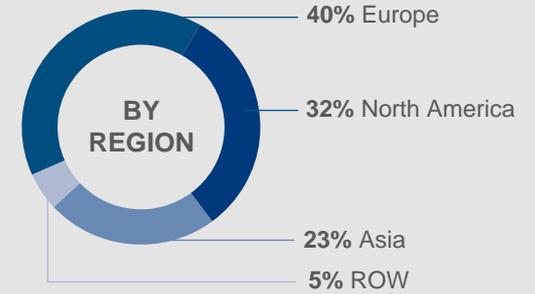
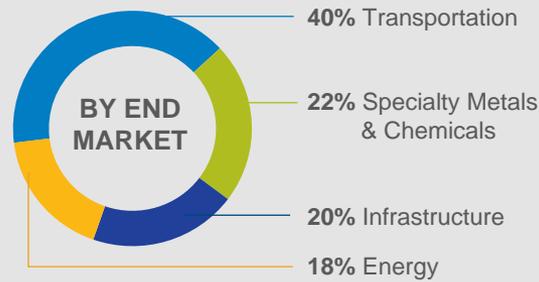
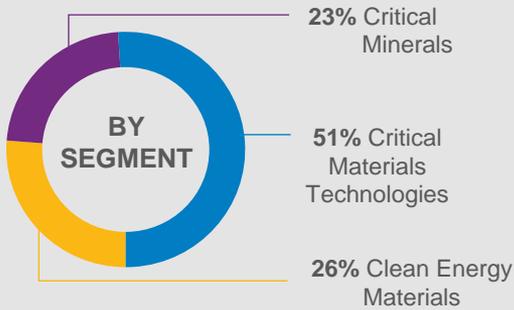
AMG'S ENABLED CO₂ EMISSION REDUCTIONS (Million MT)



* 2020 decrease due to the global pandemic significantly impacting volumes in our aerospace exposed businesses.

AMG AT A GLANCE

FY 2020 REVENUE



AMG IS A GLOBAL SUPPLIER OF CRITICAL MINERALS TO:



ENERGY



TRANSPORTATION



INFRASTRUCTURE



SPECIALTY METALS AND CHEMICALS

Market leading producer of highly engineered specialty metals and vacuum furnace systems

~3,000
Employees

~\$1 billion
Annual Revenues

At the forefront of
CO₂ Reduction

AMG BUSINESS SEGMENTS

AMG CLEAN ENERGY MATERIALS

AMG's mining and recycling business

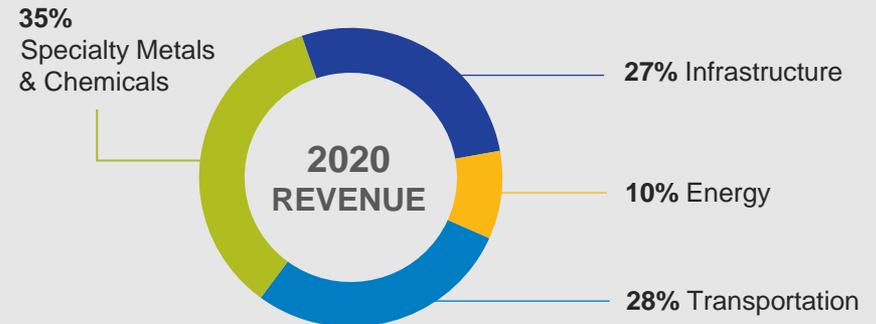
- Vanadium
- Mineração (Tantalum & Lithium)
- Aluminum (Master Alloys)



AMG CRITICAL MINERALS

AMG's conversion and mining business

- Silicon Metal
- Graphite
- Antimony

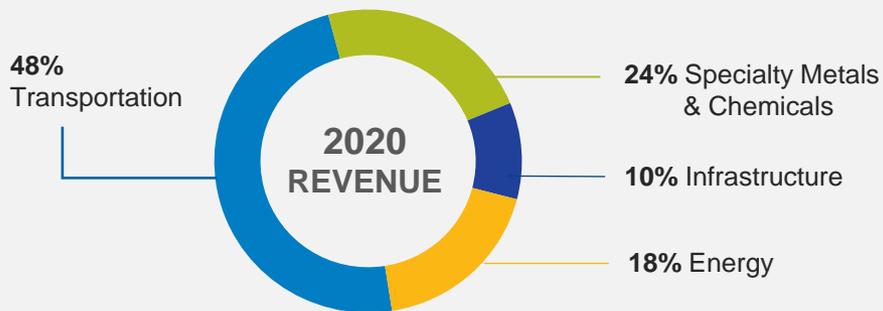


AMG BUSINESS SEGMENTS

AMG CRITICAL MATERIALS TECHNOLOGIES

AMG's titanium alloys, vacuum systems and services business

- Titanium Alloys
- Furnaces
- Heat treatment services
- Chrome Metal (Superalloys)



AMG ECO₂RP*

AMG's virtual business

- Ferrovandium
- Vanadium Aluminum
- Graphite Heat Insulation
- Turbine Coating Furnaces
- Casting and Sintering Furnaces
- Titanium Master Alloys
- Aluminum Master Alloys



* AMG has created and continues to grow a portfolio, entitled Enabling CO₂ Reduction Portfolio (ECO₂RP), to measure the energy savings enabled by our products and evaluate the impact on AMG's financial performance. Products are accepted in ECO₂RP only when the enabled CO₂ reduction effect has been established by a life-cycle assessment performed by a leading third-party expert.

STRONG FUNDAMENTALS, ADAPTIVE TO GLOBAL DISRUPTION

Optimized Capital Structure

- Robust liquidity: AMG issued 3.1 million new shares in April 2021, generating \$119 million of net proceeds and increasing current liquidity to approximately \$500 million
- Covenant-lite Term Loan B matures in 2025
- \$307M 30-year 4.3% Municipal Bond finances 100% of the ferrovanadium expansion in Zanesville, OH

Business Resilience

- Focus on operational efficiency
- Reduction of operating costs and capital expenditures
- Momentum on positive business gains, strong backlogs into early 2021

Disciplined Approach to Growth

- Shell & AMG Recycling B.V. joint venture operational
- Ohio ferrovanadium expansion underway
- Lithium hydroxide refining plant in Germany

The fundamental positions of our businesses are sound, and AMG remains focused on disciplined, sustainable growth

STRATEGY

AMG's strategy is to build its critical minerals business through industry consolidation, process innovation and product development

PROCESS INNOVATION & PRODUCT DEVELOPMENT

Continue to focus on process innovation and product development to improve the market position of AMG's businesses

INDUSTRY CONSOLIDATION

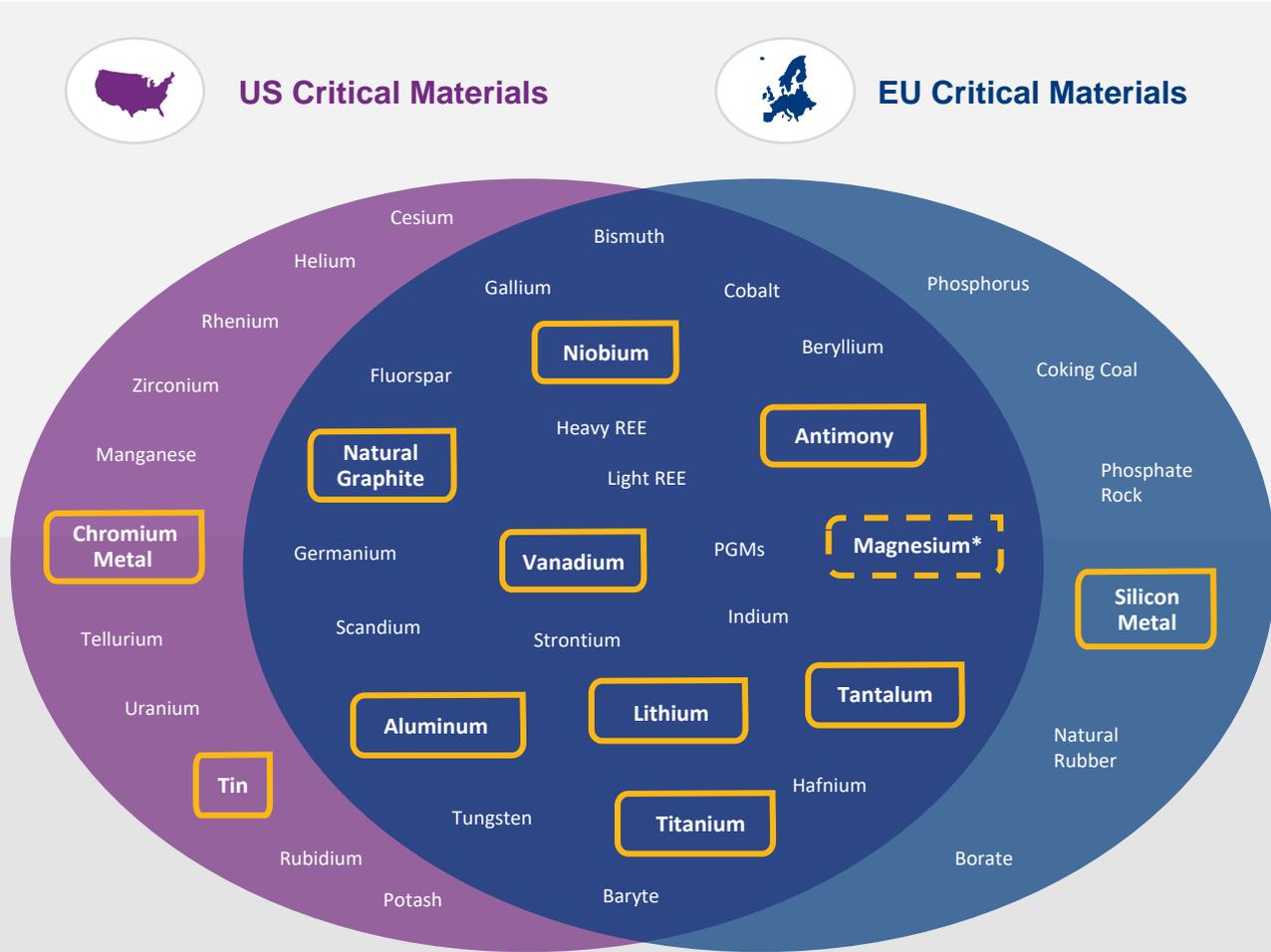
Pursue opportunities for horizontal and vertical industry consolidation across AMG's critical minerals portfolio

EXPANSION OF EXISTING HIGH-GROWTH BUSINESSES

Pursue opportunities in high-growth areas within the existing product portfolio

AMG's overriding strategic objective is to achieve industry leadership while being the low-cost producer

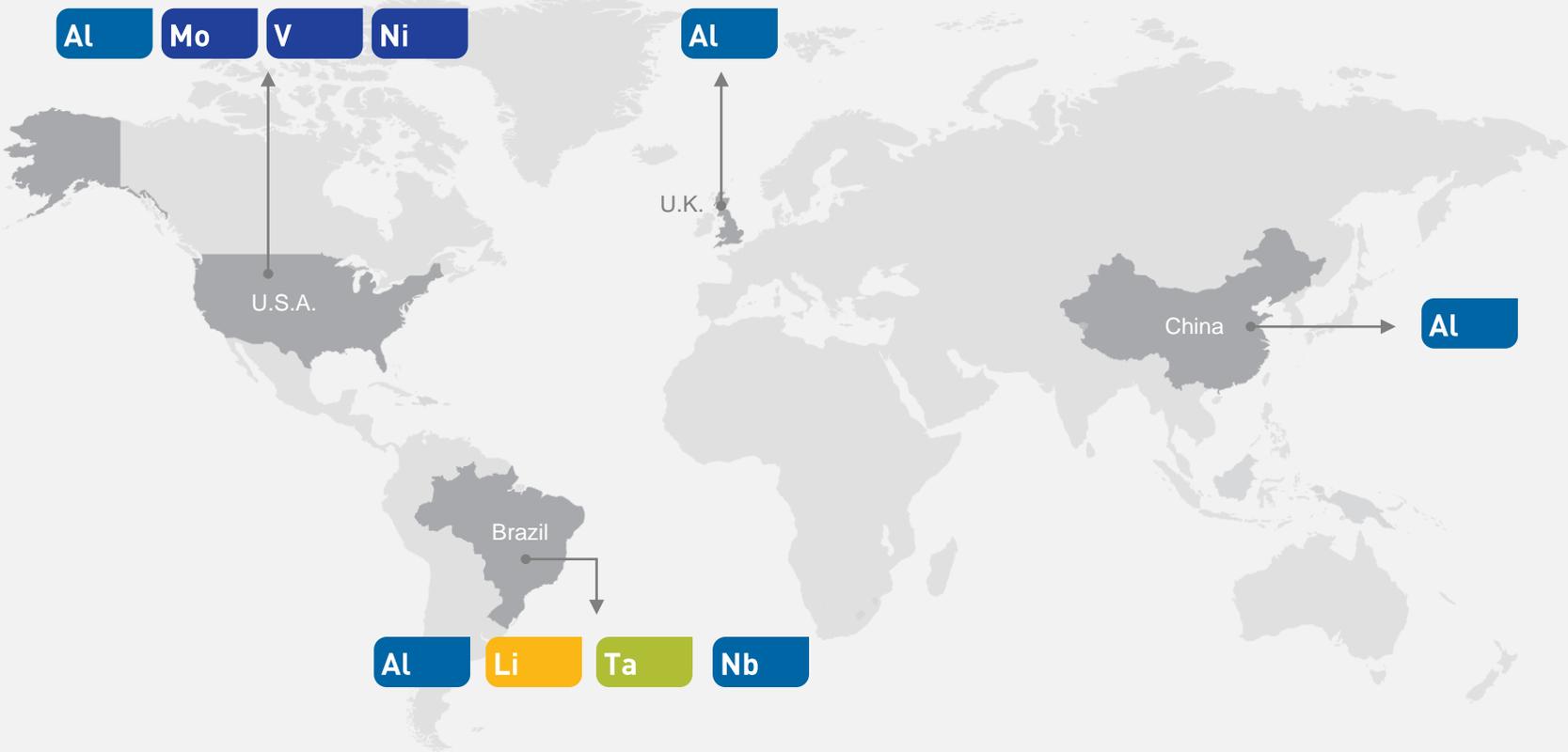
CRITICAL RAW MATERIALS: AMG PRESENCE



- AMG has a unique critical materials portfolio comprising of 9 EU critical materials and 10 US critical materials
- The EU identifies 30 total critical raw materials, the US 35

*AMG possesses technology license patent for production of Magnesium products
 Sources: The 2020 EU Critical Raw Materials List, published September 2020; and the U.S. list of Critical Materials per the May 2018 announcement by the U.S. Department of the Interior.

AMG GLOBAL FOOTPRINT: CLEAN ENERGY MATERIALS



Al Aluminum Master Alloys,
Aluminum Powders

Mo Molybdenum

V FeV

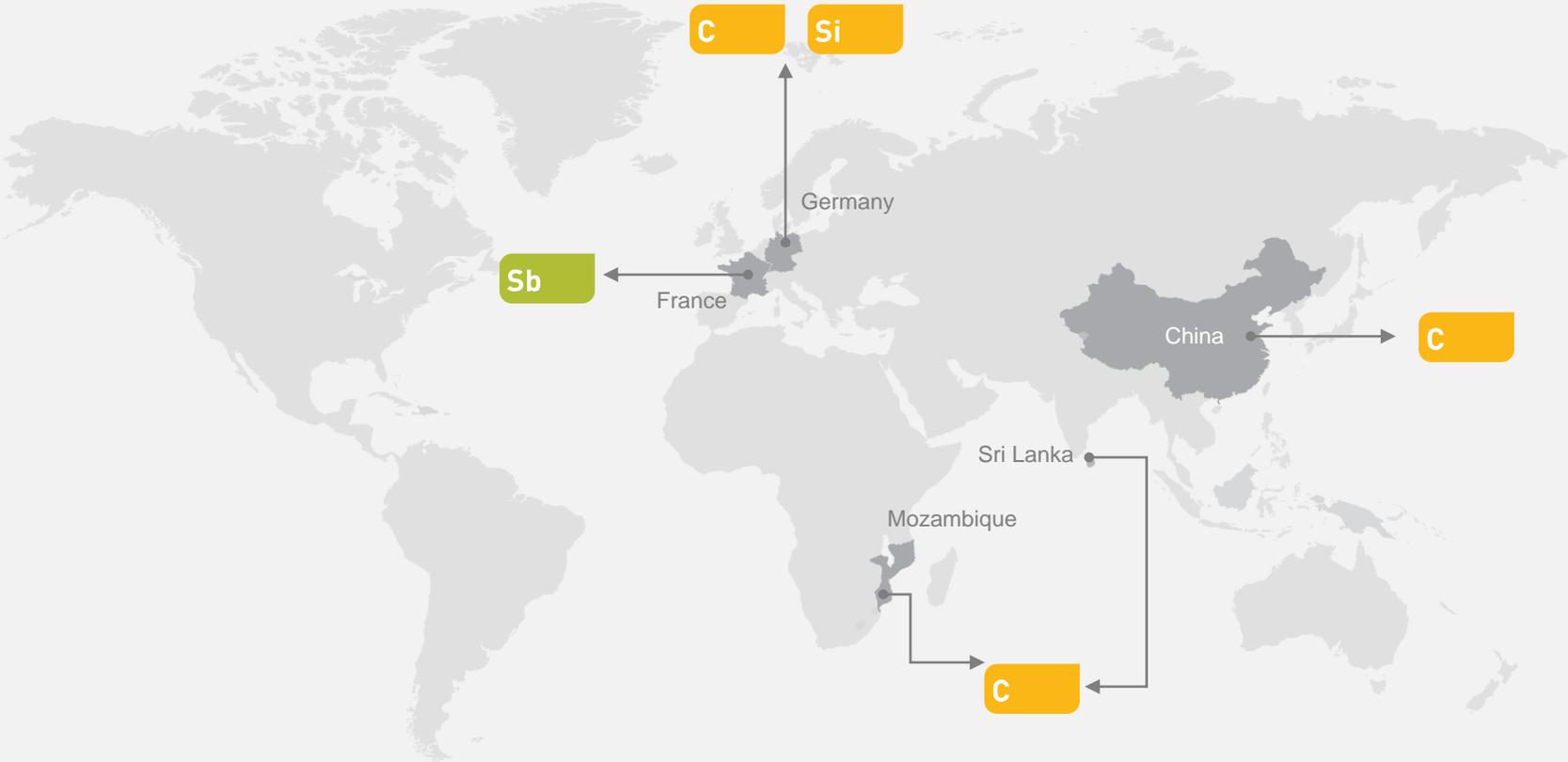
Ni Nickel

Nb Niobium

Li Lithium

Ta Tantalum

AMG GLOBAL FOOTPRINT: CRITICAL MINERALS

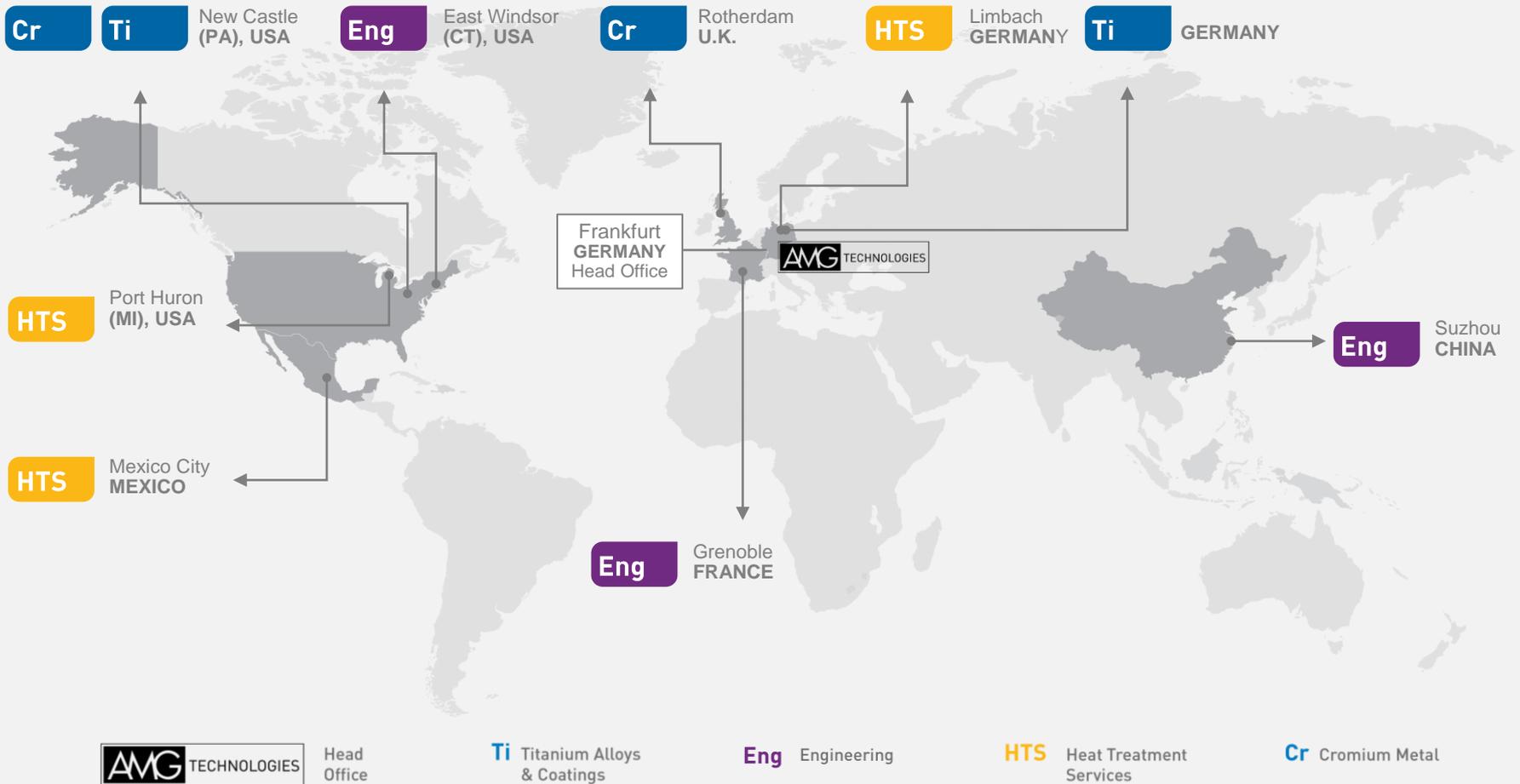


Sb Antimony

C Natural Graphite

Si Silicon Metal

AMG GLOBAL FOOTPRINT: CRITICAL MATERIALS TECHNOLOGIES



HEALTH AND SAFETY FOCUS



Safety Indicators

AMG compares itself to the industry average for Primary Metal Manufacturing (NAICS 331).

The most recent data provided in 2019 by the United States Bureau of Labor Statistics reports that the Primary Metal Manufacturing industry's total recordable case rate was **4.40** and the lost time rate was **2.70**.

YEAR	LOST TIME INCIDENTS IN THE LAST 12 MONTHS	12 MONTH AVERAGE LOST TIME INCIDENT RATE	12 MONTH AVERAGE TOTAL INCIDENT RATE
2019	25	0.80	1.46
2020	16 ↓	0.62 ↓	1.05 ↓



Internal safety performance in both lost time incidence rate and recordable incidence rate has improved year-over-year.

CLEAN ENERGY MATERIALS – MARKET TRENDS

CRITICAL MINERALS	MAJOR END MARKETS	MARKET TRENDS	MAJOR CUSTOMERS
<p>AMG VANADIUM FERROVANADIUM FERRONICKEL-MOLYBDENUM</p>	<p>INFRASTRUCTURE</p>	<p>INFRASTRUCTURE GROWTH VANADIUM REDOX FLOW BATTERIES</p>	<p>NUCOR GO GERDAU</p>
<p>AMG BRAZIL TANTALUM & NIOBIUM</p>	<p>MICRO CAPACITORS, SUPERALLOYS</p>	<p>COMMUNICATIONS & ELECTRONICS FUEL EFFICIENCY</p>	<p>ATI H.C.Starck</p>
<p>AMG LITHIUM LITHIUM CONCENTRATE (SPODUMENE)</p>	<p>BATTERIES</p>	<p>RENEWABLE ENERGY COMMUNICATIONS & ELECTRONICS</p>	<p>CONFIDENTIAL</p>
<p>AMG ALUMINUM ALUMINUM MASTER ALLOYS ALUMINUM POWDERS</p>	<p>AEROSPACE, AUTOMOTIVE</p>	<p>FUEL EFFICIENCY</p>	<p>Constellium ALCOA RioTinto</p>
<p> ENERGY</p>	<p> TRANSPORTATION</p>	<p> INFRASTRUCTURE</p>	<p> SPEC. METALS AND CHEM.</p>

CRITICAL MINERALS – MARKET TRENDS

CRITICAL MINERALS	MAJOR END MARKETS	MARKET TRENDS	MAJOR CUSTOMERS
<p>AMG GRAPHITE NATURAL GRAPHITE</p>	<p>EXPANDED POLYSTYRENE (EPS), BATTERY ANODES</p>	<p>ENERGY SAVING ENERGY STORAGE</p>	<p> </p>
<p>AMG ANTIMONY ANTIMONY TRIOXIDE ANTIMONY MASTERBATCHES ANTIMONY PASTES</p>	<p>FLAME RETARDANTS</p>	<p>PLASTICS</p>	<p> </p>
<p>AMG SILICON SILICON METAL</p>	<p>ALUMINUM ALLOYS, SOLAR</p>	<p>FUEL EFFICIENCY CLEAN ENERGY</p>	<p> </p>
<p> ENERGY</p>	<p> TRANSPORTATION</p>	<p> INFRASTRUCTURE</p>	<p> SPEC. METALS AND CHEM.</p>

CRITICAL MATERIALS TECHNOLOGIES – MARKET TRENDS

CRITICAL MINERALS	MAJOR END MARKETS	MARKET TRENDS	MAJOR CUSTOMERS
AMG TITANIUM ALLOYS TITANIUM MASTER ALLOYS & COATINGS	AEROSPACE	FUEL EFFICIENCY ENERGY SAVING	 
AMG ENGINEERING CAPITAL GOODS (VACUUM FURNACES)	AEROSPACE, AUTOMOTIVE	FUEL EFFICIENCY ELECTRONICS	 Rolls-Royce   CARPENTER ThyssenKrupp 
AMG ENGINEERING VACUUM HEAT TREATMENT SERVICES	AEROSPACE, AUTOMOTIVE	FUEL EFFICIENCY	  
AMG CHROME CHROMIUM METAL	AEROSPACE, DISTRIBUTED ENERGY, FUEL CELLS	FUEL EFFICIENCY	  Bloomenergy
 ENERGY	 TRANSPORTATION	 INFRASTRUCTURE	 SPEC. METALS AND CHEM.



FINANCIAL HIGHLIGHTS

FY 2020 AT A GLANCE

AMOUNTS IN \$M (EXCEPT EARNINGS PER SHARE)	FY 2020	FY 2019	% CHANGE
Revenue	\$937.1	\$1,188.6	(21%)
Gross Profit	\$112.7	\$118.3	(5%)
Gross Margin %	12.0%	10.0%	20%
Loss before Income Taxes	(\$31.3)	(\$53.7)	42%
EBITDA	\$66.8	\$121.4	(45%)
EBITDA Margin %	7.1%	10.2%	(30%)
Net Debt	\$287.9	\$162.9	77%
Return On Capital Employed (ROCE)	3.5%	13.7%	(74%)
Net Loss Attributable to Shareholders	(\$41.7)	(\$48.3)	14%
Diluted Loss per Share	(1.47)	(1.64)	10%

- AMG's results have trended positively since Q2 2020
- AMG management believes that this positive trend will continue and expects to exceed \$120 million EBITDA in 2021

CONSOLIDATED BALANCE SHEET

AS OF IN MILLIONS OF US DOLLARS	DECEMBER 31, 2020	DECEMBER 31, 2019
Fixed assets	551.9	430.0
Goodwill and intangibles	43.2	41.9
Other non-current assets	96.0	96.5
Restricted cash	208.9	309.6
Inventories	152.3	204.2
Receivables	122.4	119.1
Other current assets	56.9	44.5
Cash	207.4	226.2
TOTAL ASSETS	1,439.0	1,472.0
TOTAL EQUITY	141.3	184.4
Long-term debt	673.3	669.5
Long-term lease liabilities	47.1	46.5
Employee benefits	197.2	175.9
Other long-term liabilities	37.7	41.2
Current debt	31.0	29.2
Current lease liabilities	4.8	4.2
Accounts payable and accruals	231.1	217.6
Advance payments	29.9	57.6
Other current liabilities	45.6	45.9
TOTAL LIABILITIES	1,297.7	1,287.6
TOTAL EQUITY AND LIABILITIES	1,439.0	1,472.0

CONSOLIDATED INCOME STATEMENT

FOR THE YEAR ENDED IN MILLIONS OF US DOLLARS	DECEMBER 31, 2020	DECEMBER 31, 2019
Revenue	937.1	1,188.6
Cost of sales	824.5	1,070.3
Gross profit	112.6	118.3
Selling, general & administrative	117.8	143.5
Environmental expense	4.3	0.7
Other income, net	(0.2)	(0.2)
Operating loss	(9.3)	(25.8)
Net finance costs	21.1	27.9
Share of loss of associates	(0.9)	—
Loss before income taxes	(31.3)	(53.7)
Income tax expense (benefit)	11.2	(5.1)
Loss for the year	(42.5)	(48.6)
Shareholders of the Company	(41.7)	(48.3)
Non-controlling interest	(0.8)	(0.3)
ADJUSTED EBITDA	66.8	121.4

CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED IN MILLIONS OF US DOLLARS	DECEMBER 31, 2020	DECEMBER 31, 2019
EBITDA	66.8	121.4
Change in working capital and deferred revenue	10.8	76.2
Other operating cash flow	(30.0)	(103.3)
Cash generated from operating activities	47.6	94.3
Finance costs paid, net	(19.4)	(23.1)
Income tax paid	(8.6)	(24.6)
Net cash flow from operating activities	19.6	46.6
Capital expenditures	(137.7)	(79.4)
Change in restricted cash (municipal bond)	100.7	(307.9)
Other investing activities	(0.9)	(22.6)
Net cash flow used in investing activities	(37.9)	(409.9)
Net cash flow (used in) from financing activities	(9.2)	208.7
Net decrease in cash and equivalents	(27.5)	(154.6)
Cash and equivalents at January 1	226.2	381.9
Effect of exchange rate fluctuations on cash held	8.7	(1.1)
CASH AND EQUIVALENTS AT DECEMBER 31	207.4	226.2

NET LOSS TO EBITDA RECONCILIATION

FOR THE YEAR ENDED IN MILLIONS OF US DOLLARS	DECEMBER 31, 2020	DECEMBER 31, 2019
Net loss for the year	(42,460)	(48,586)
Income tax expense (benefit)	11,184	(5,119)
Net finance cost *	23,524	27,626
Equity-settled share-based payment transactions **	3,792	5,514
Restructuring expense	5,700	3,265
Inventory cost adjustment	6,219	87,792
Asset impairment expense	664	4,519
Environmental provision	4,342	725
Exceptional legal expense	1,353	3,133
Strategic project expense	7,085	–
Share of loss of associates	947	–
Others	756	546
EBIT	23,106	79,415
Depreciation and amortization	43,661	41,967
EBITDA	66,767	121,382

*Excludes foreign exchange (gain) loss.

**Amount includes variable compensation expense which is expected to be share-settled in 2021.



V₂O₅



LI PROCESSING, AMG BRAZIL



TANTALUM, NIOBIUM, AND HAFNIUM



PLUTONIUM

This announcement appears as a matter of record.



AMG's LAW:

“Everything that can be recycled will be recycled.”

AMG ADVANCED METALLURGICAL GROUP N.V.
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NIOBIUM



LITHIUM TAILINGS



TITANIUM



CHROMIUM