CRITICAL MATERIALS FOR A SUSTAINABLE PLANET

ING Benelux Presentation | September 2023

AMG CRITICAL MATERIALS N.V.

Lithium Hydroxide Battery-Grade Refinery – Bitterfeld, Germany

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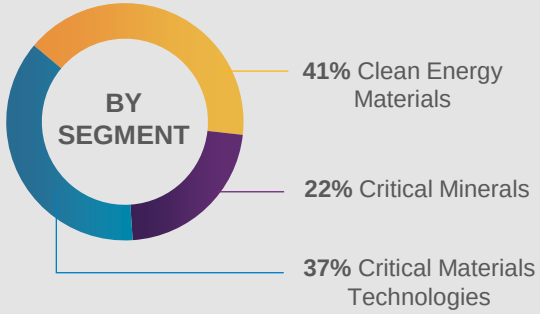
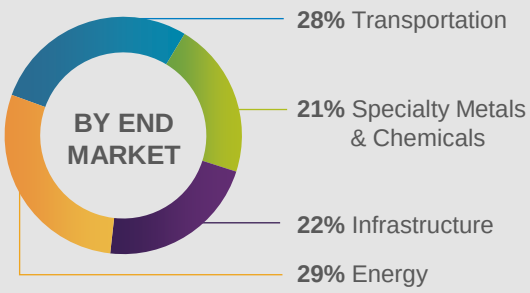
AMG OVERVIEW

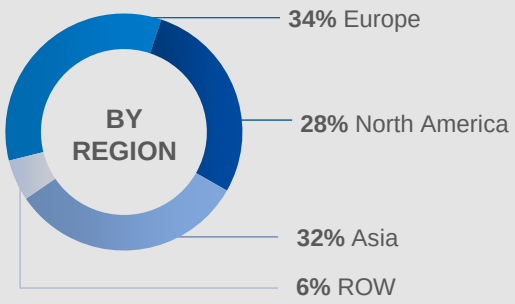
AMG Vanadium – Zanesville, Ohio, USA

AMG AT A GLANCE

FY 2022 REVENUE







AMG IS A GLOBAL SUPPLIER OF CRITICAL MATERIALS TO:

ENERGY

TRANSPORTATION

INFRASTRUCTURE

SPECIALTY METALS AND CHEMICALS

Market leading producer of critical materials and related process technologies

~3,400
Employees

~$1.6 billion
Annual Revenues

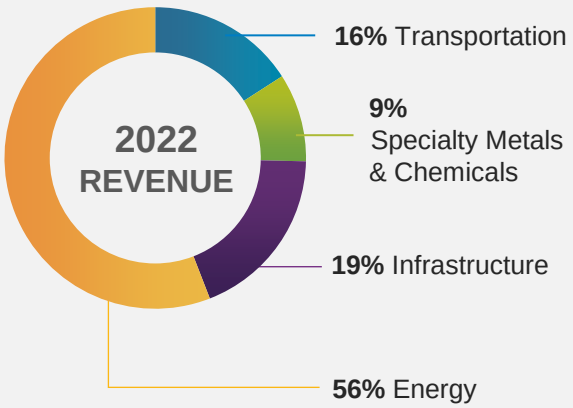
At the forefront of
CO_2 Reduction

AMG BUSINESS SEGMENTS

AMG CLEAN ENERGY MATERIALS
LTM EBITDA: $366M*

AMG's mining and recycling business

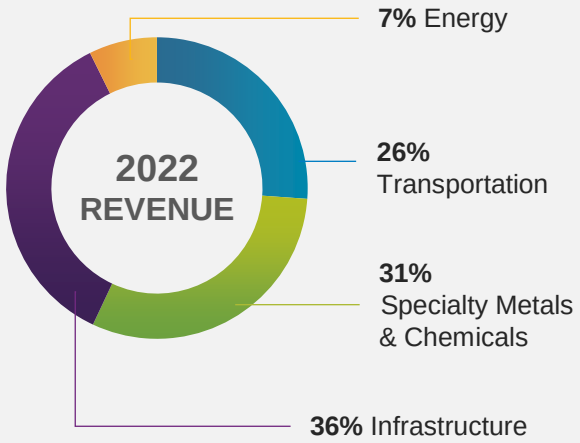
- Vanadium
- Lithium
- Tantalum



AMG CRITICAL MINERALS
LTM EBITDA: $25M*

AMG's conversion and mining business

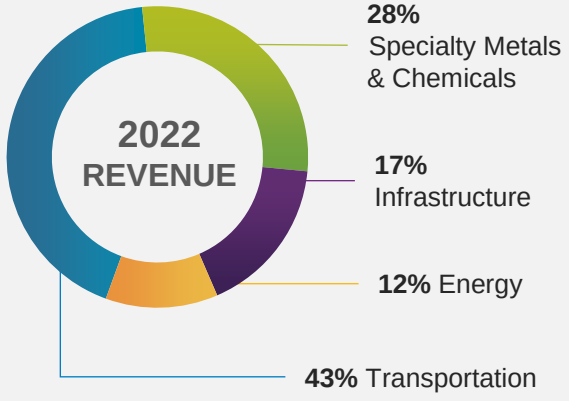
- Silicon Metal
- Graphite
- Antimony



AMG CRITICAL MATERIALS TECHNOLOGIES
LTM EBITDA: $41M*

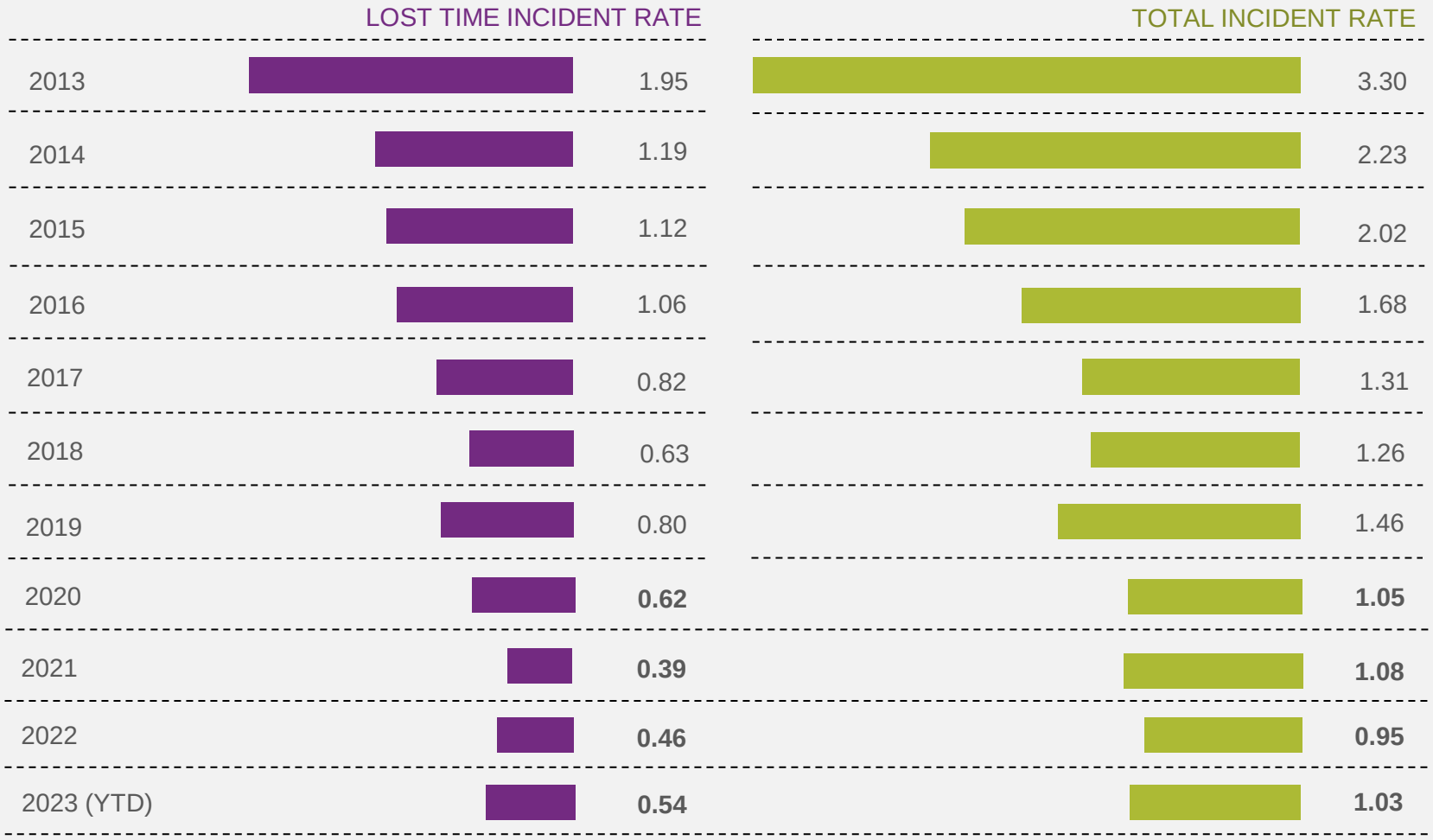
AMG's titanium, vacuum systems and services business

- Titanium Alloys
- Furnaces
- Heat treatment services
- Chrome Metal



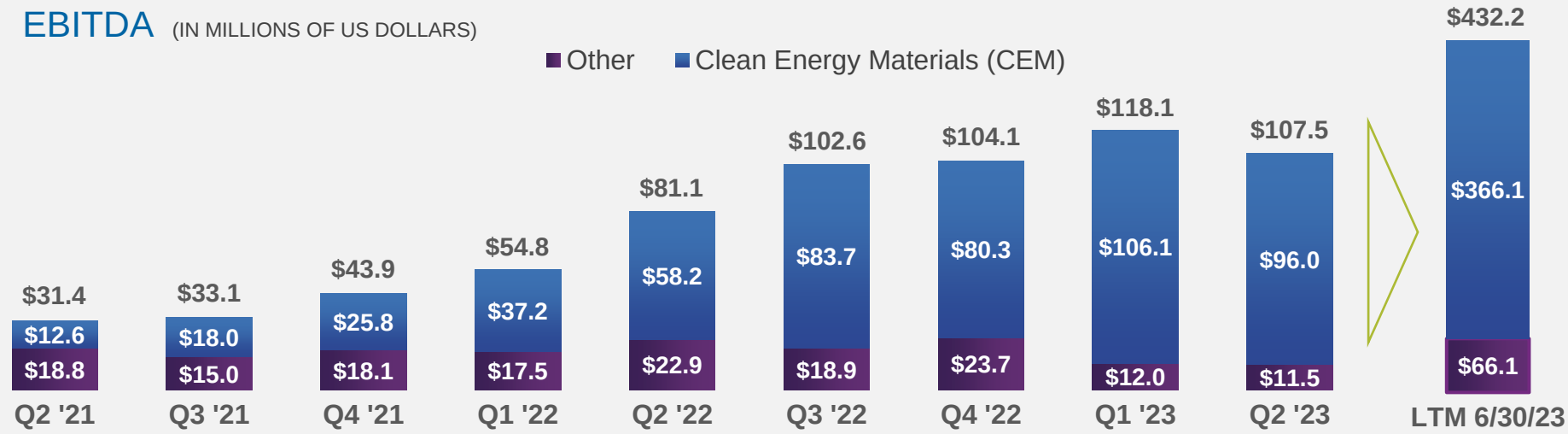
LTM EBITDA: Last Twelve Months through 6/30/2023

HEALTH AND SAFETY



- 2023 year-to-date results demonstrate a 17% increase in lost time rate and an 8% increase in total incident rate from 2022 year-end.
- As a benchmark, the most recent NAICS primary metal producer lost time incident rate for was 1.2 and the recordable rate was 4.1.

INCREASED SCALE AND A STRONG PROJECT PIPELINE



Significant Near-Term Growth Projects

Spodumene 1+

- Increase spodumene production by 40k tons p.a.
- Commissioning: Q4 2023
- Cost $50M

Bitterfeld BG Hydroxide

- Produce 20k tons of BG hydroxide
- First European producer
- First of 5 modules
- Commissioning: Q4 2023
- Cost $150M

Brazil TG Carbonate

- Produce 17k tons of TG Carbonate
- Supply Module 1
- Commissioning: Q4 2025
- Cost $250M

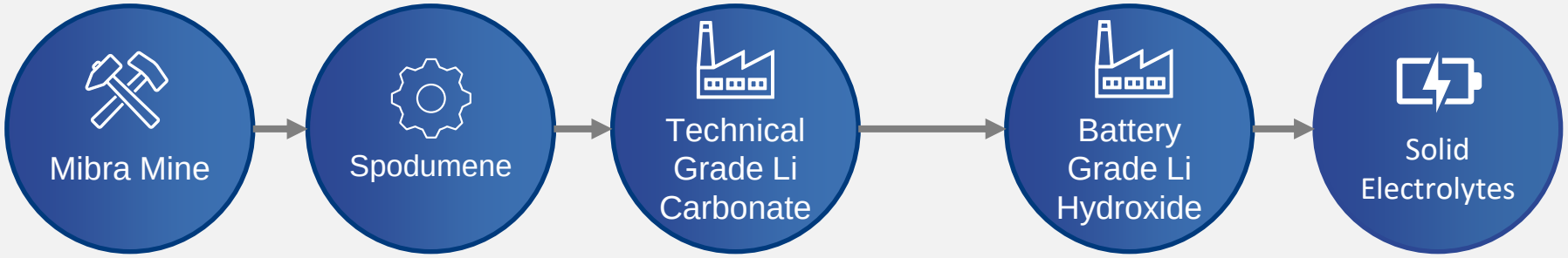
AMG LITHIUM

Lithium Hydroxide Battery-Grade Refinery – Bitterfeld, Germany

AMG LITHIUM HAS A SIGNIFICANT FIRST MOVER ADVANTAGE IN EUROPE

Upstream – Brazil

Downstream – Germany



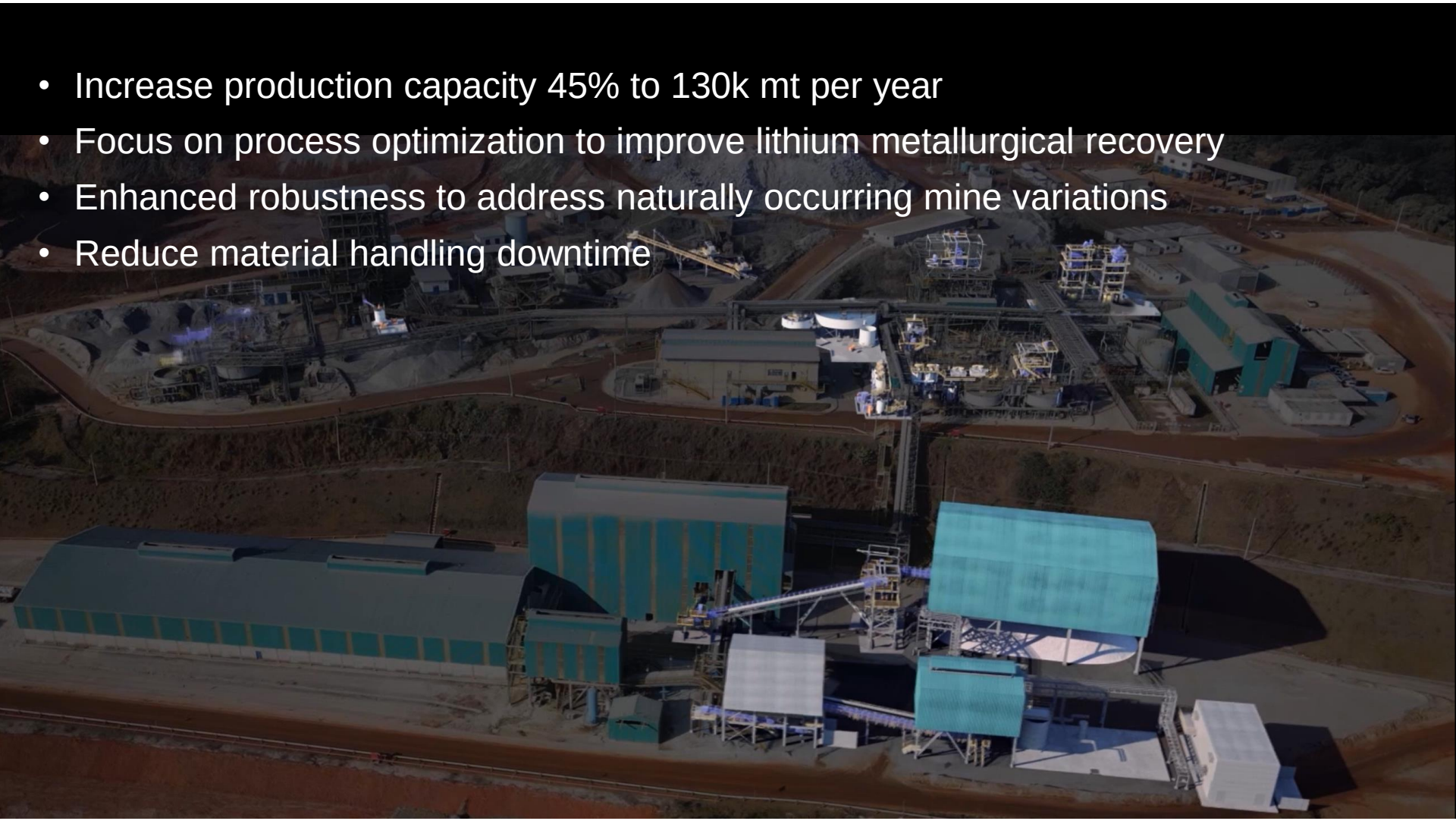
Mibra Mine	Spodumene	Technical Grade Li Carbonate	Battery Grade Li Hydroxide	Solid Electrolytes
Lithium concentrate production in operation since 2018	*Expansion underway* *Commissioning: Q4 2023*	*Under basic engineering* *Commissioning: Q4 2025*	*First European battery-grade hydroxide plant starting up in Q4 2023*	*Current Lab-scale production & sampling*
90k tons	*130k tons*	*16.5k tons*	*20k tons (1st of 5 modules)*	

From mining through to next generation lithium products

THE MIBRA MINE, BRAZIL

SPODUMENE EXPANSION (SP1+)

- Increase production capacity 45% to 130k mt per year
- Focus on process optimization to improve lithium metallurgical recovery
- Enhanced robustness to address naturally occurring mine variations
- Reduce material handling downtime

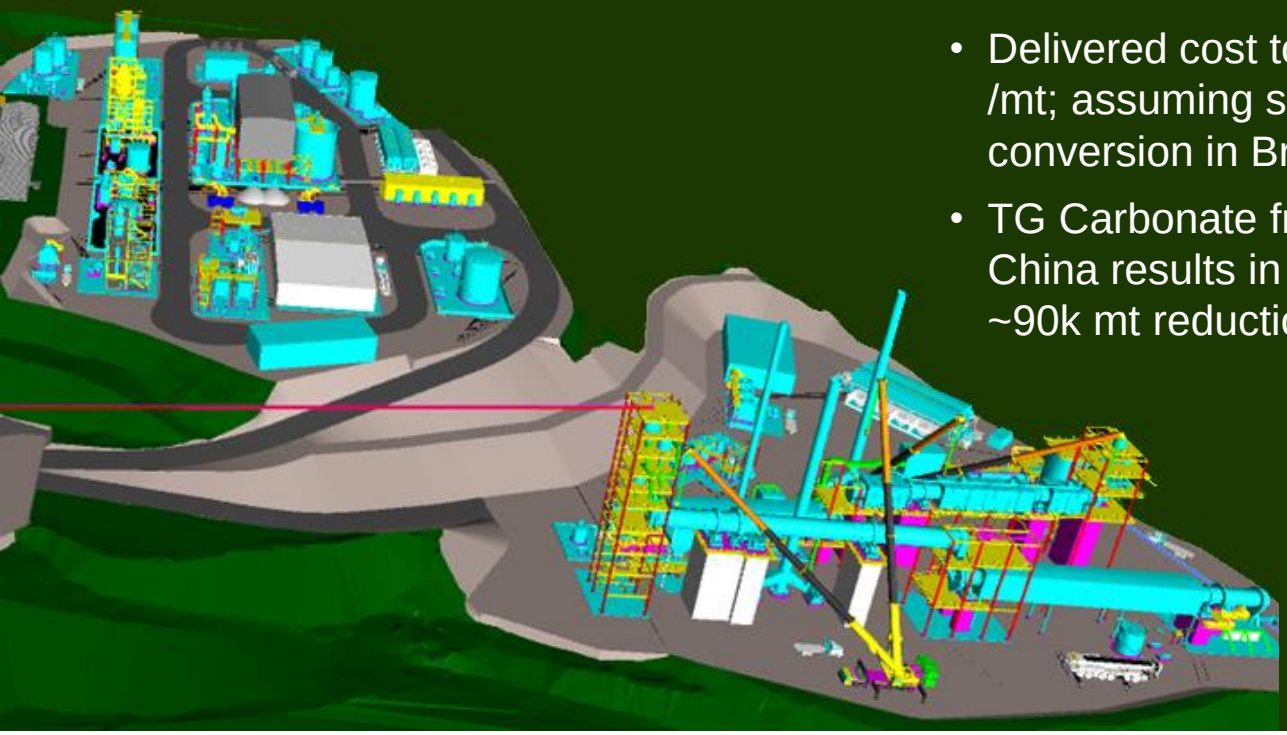


AMG IS A LOW-COST SPODUMENE PRODUCER

$434/mt YTD June 2023 cost per ton delivered to China, net of tantalum, feldspar and tin by-product credits

- The Mibra mine is a long-term tantalum concentrate producer and is the largest conflict-free producer of tantalum in the world
- Mibra's tantalum production is the key reason for the mine's low-cost spodumene position
- Mibra's tantalum production will expand to 370K pounds per year. This expansion will occur in combination with the spodumene expansion
- AMG Brazil entered into a life-of-mine strategic partnership with JX Nippon Mining & Metals Corporation that sells 100% of Mibra's tantalum concentrate production to their subsidiary, Taniobis
- This life of mine strategic partnership ensures long-term stability in tantalum sales and corresponding by-product credits to lithium production costs

TECHNICAL GRADE LITHIUM CHEMICAL PLANT



Preliminary Estimates:

- Investment: $250M
- Commissioning: End of 2025
- Capacity: 16.5k mt Technical Grade Lithium per annum
- Delivered cost to Germany less than $10,000 /mt; assuming spodumene at cost for conversion in Brazil
- TG Carbonate from Brazil vs Upgrading in China results in substantial freight savings and ~90k mt reduction in CO_2e

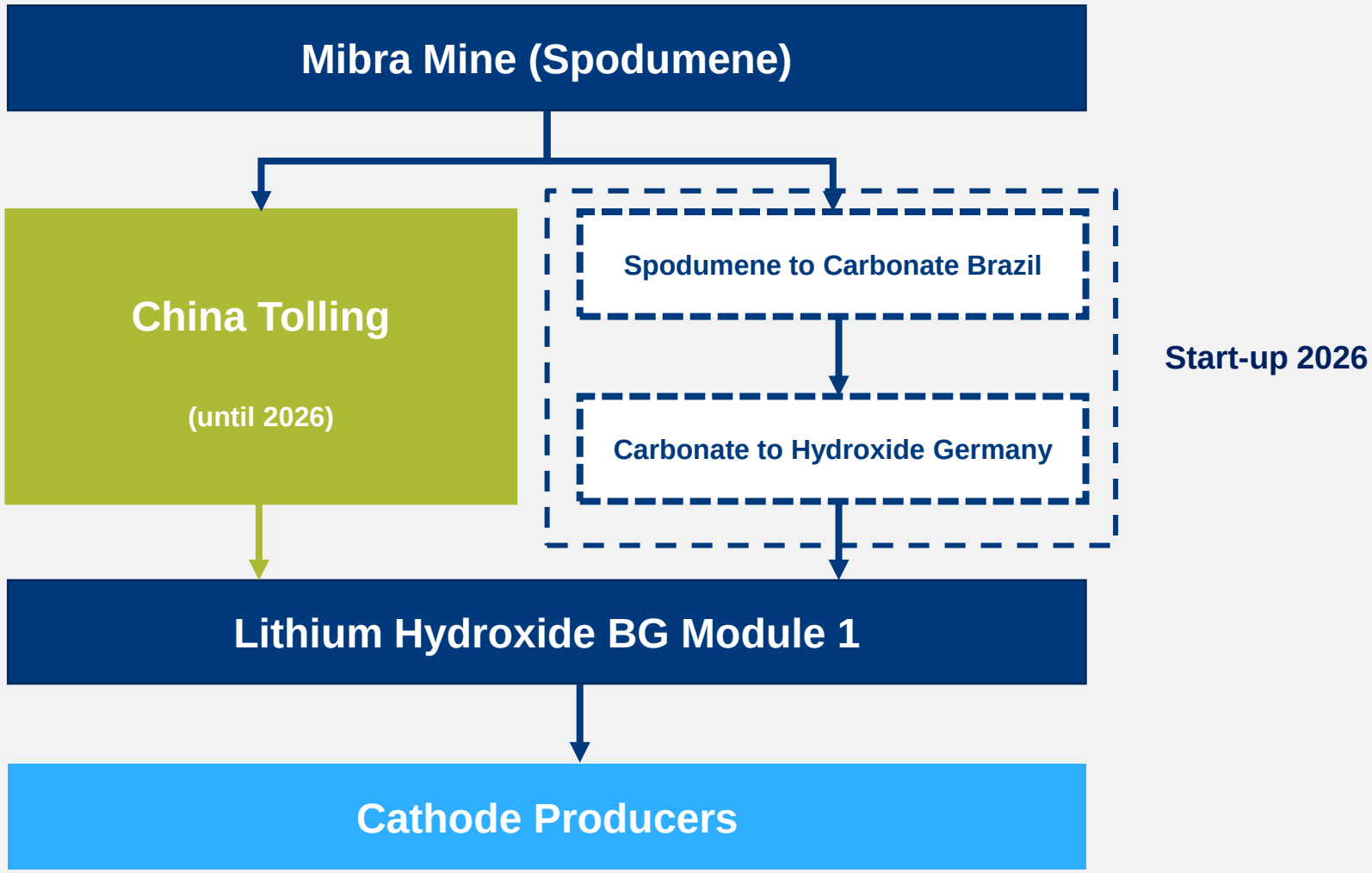
LOCAL COMMUNITY

- The company prioritizes local culture and building a relationship of trust and mutual respect and prioritizes hiring locally.
  - More than 70% of employees are local hires
  - The Young Apprentice Program, a partnership with SENAI, Nacional Service of Industrial Learning, is an internship based on the commitment of local labor development and professional possibilities.
  - AMG Brazil partners with local universities focusing on personal and professional development of young people and adults entering the job market. Since 2015, AMG Brazil has prepared more than 70 individuals for the job market, directly hiring almost 40%.

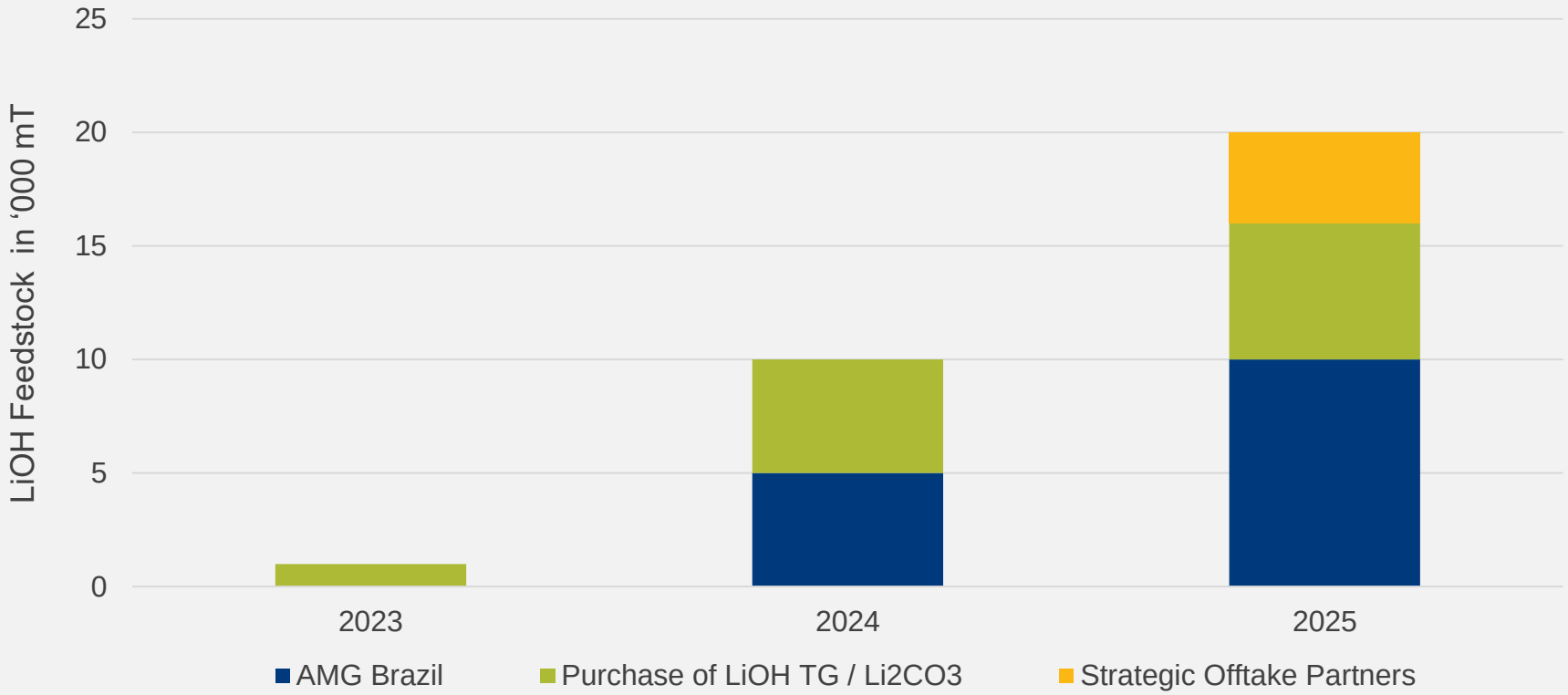
LITHIUM HYDROXIDE BATTERY-GRADE REFINERY BITTERFELD, GERMANY

- Production of highly-refined, battery-grade Lithium hydroxide
- Module 1 with 20,000 MT/yr capacity, further modules up to 100,000 MT/yr in total
- Located in Bitterfeld, Germany: access to all required energies and infrastructure
- Start up in Q4 2023
- Expected Capex of $150 million for module 1

MODULE 1: LITHIUM SUPPLY CHAIN



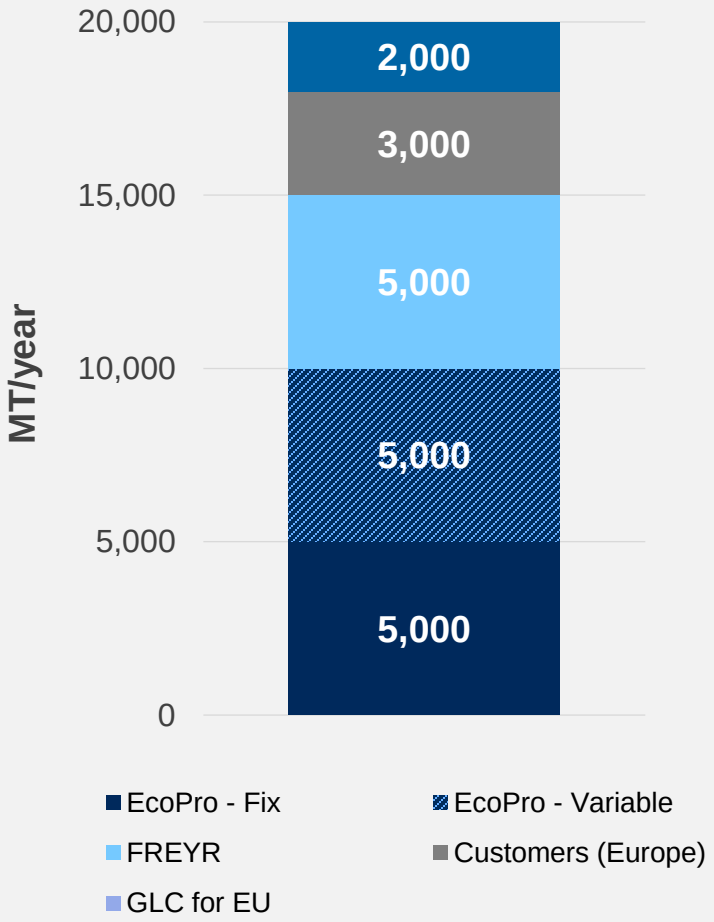
LITHIUM FEEDSTOCK SOURCES MODULE 1



- AMG Brazil: only volumes not covered by Spodumene contracts
- LiOH BG qualification during 1st half of 2024

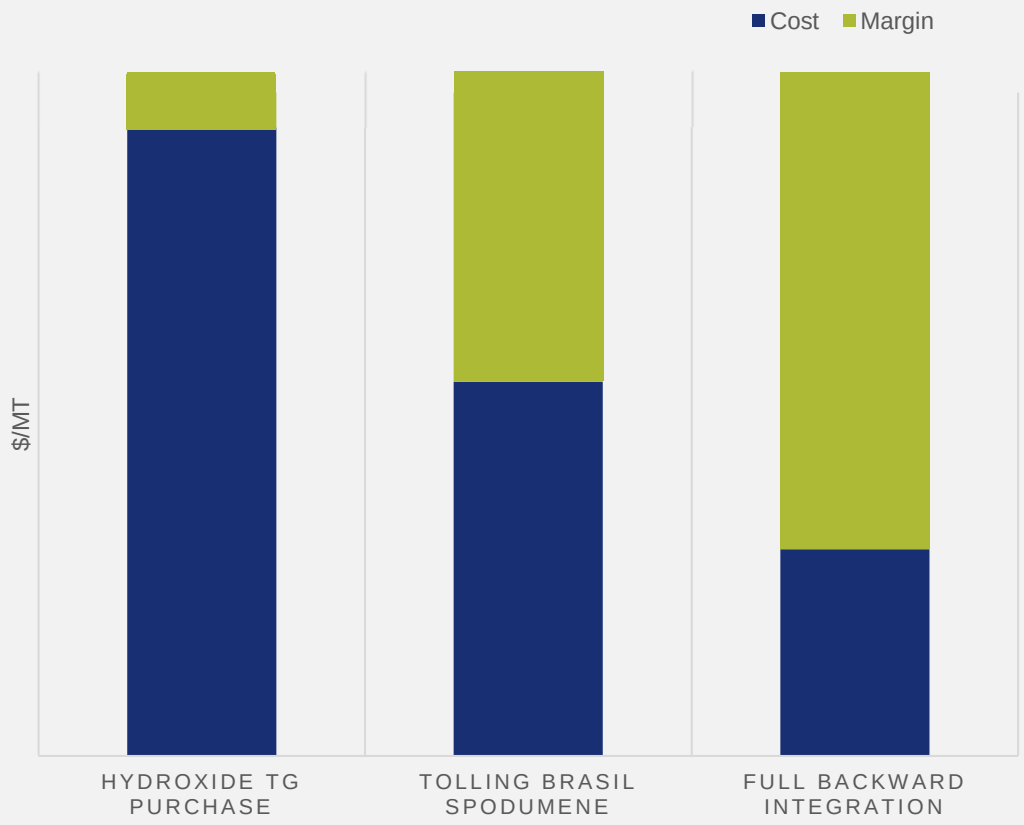
MODULE 1: LITHIUM HYDROXIDE OFFTAKE

Existing offtakes at runrate 2025



- AMG has signed a binding supply agreement with Korean **EcoPro** for an initial three-year term to deliver a binding 5,000 MT/yr plus an optional 5,000 MT/yr to EcoPro BM's CAM-facility in Debrecen-Hungary.
- AMG executed a MOU with **FREYR** for an off-take of up to 5,000 MT/yr.
- AMG executed further MOUs with different customers.
- AMG has an agreement in place with General Lithium for an offtake of up to 2,000 MT/yr for their EU needs.

INDICATIVE MARGIN DEVELOPMENT TO A FULLY BACKWARD INTEGRATED LITHIUM COMPANY



Technical Grade Purchase:

Represents the margin of the Bitterfeld plant assuming the open market purchase of technical grade hydroxide.

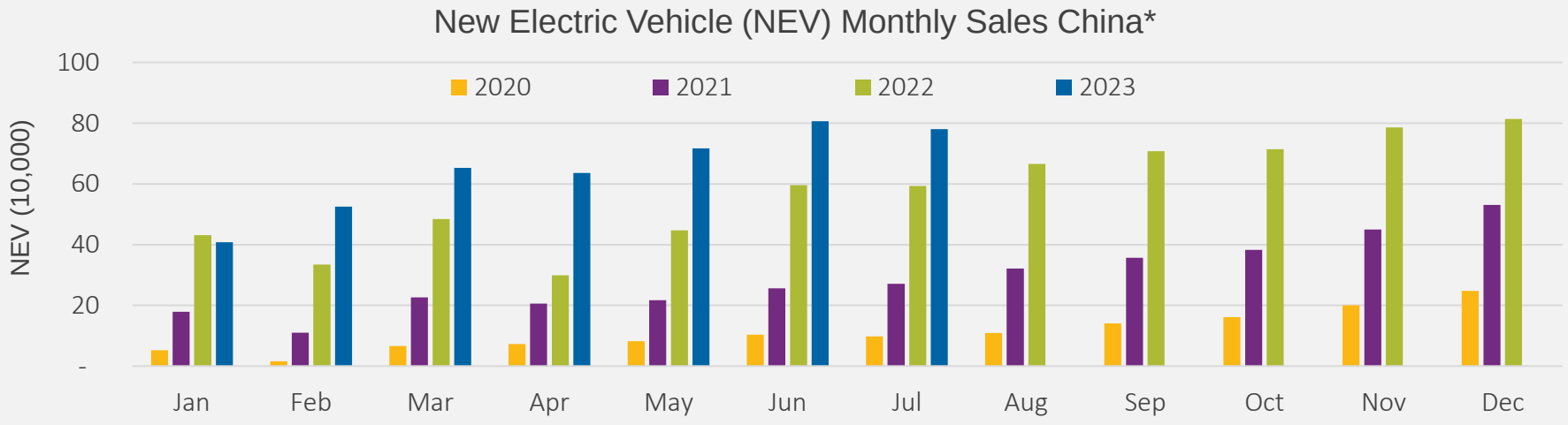
Tolling Brazil Spodumene:

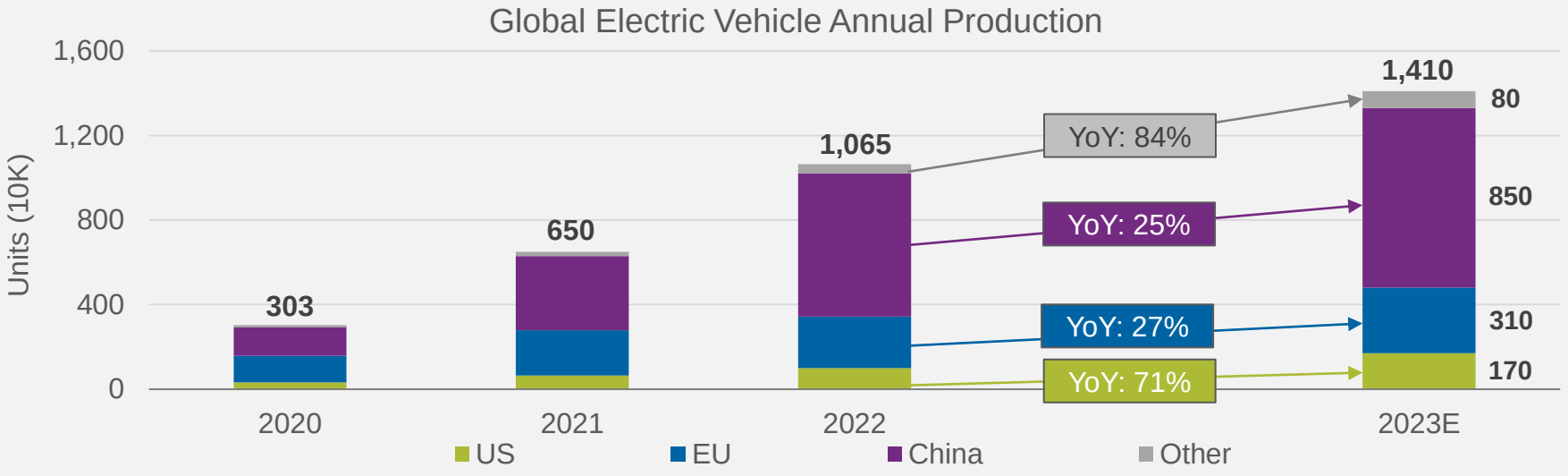
Represents the margin available to Bitterfeld via tolling Brazil spodumene in China and delivering technical grade hydroxide to Germany.

Full Integration:

Represents the delivery of technical grade carbonate to Germany direct from the Brazilian technical-grade plant.

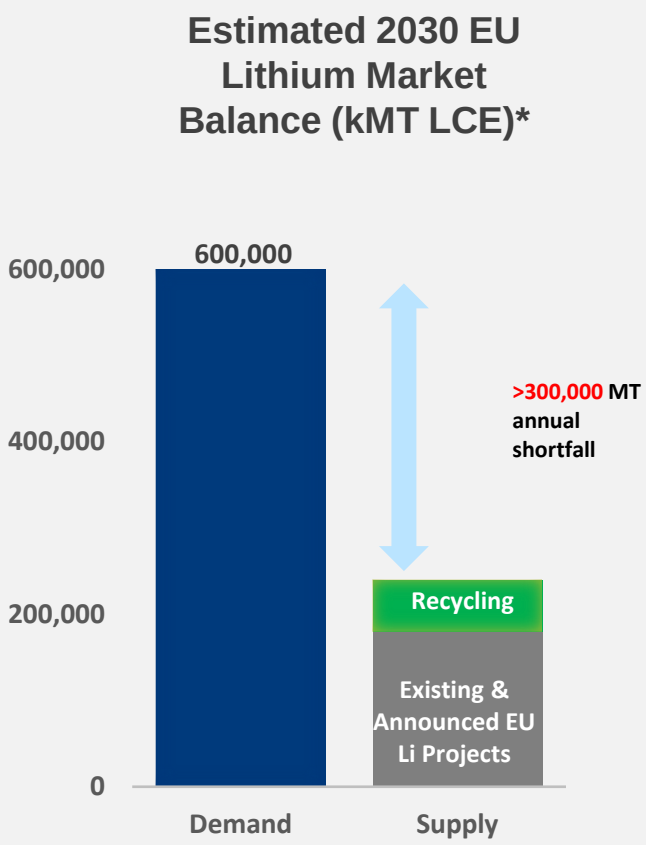
CHINESE AND GLOBAL EV SALES REMAIN STRONG





*Source: China Association of Automobile Manufacturers, www.gov.cn

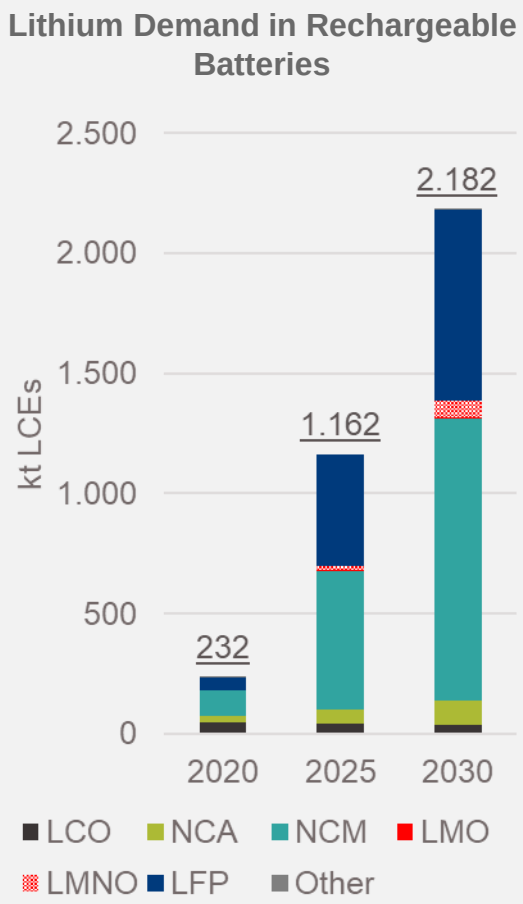
WHY EUROPE?
EU REQUIRES LARGE VOLUMES LITHIUM HYDROXIDE BG

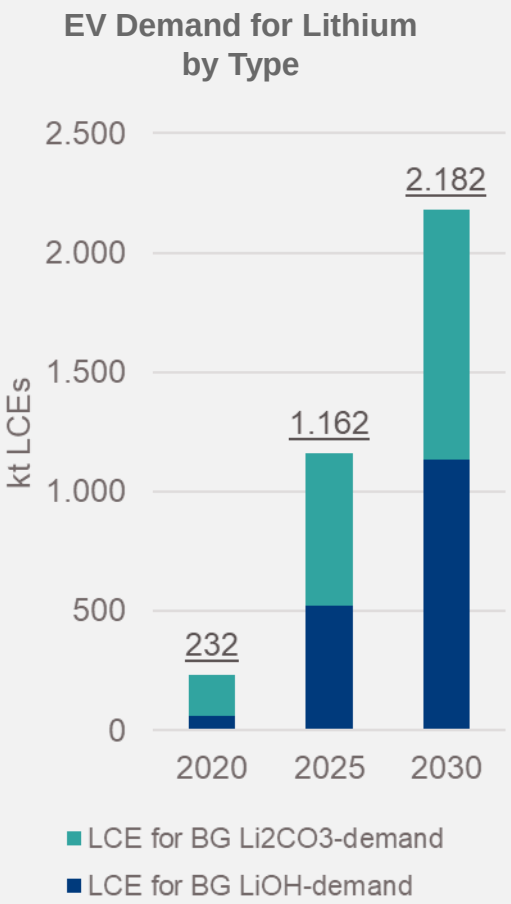


2025: already announced European demand of ~300 ktpa of lithium carbonate equivalent for Cathodes

Source: AMG Lithium internal Q1 2023, Lithium-Forecast-Benchmark-Mineral-Intelligence Q4-2022.
* Lithium Carbonate Equivalent

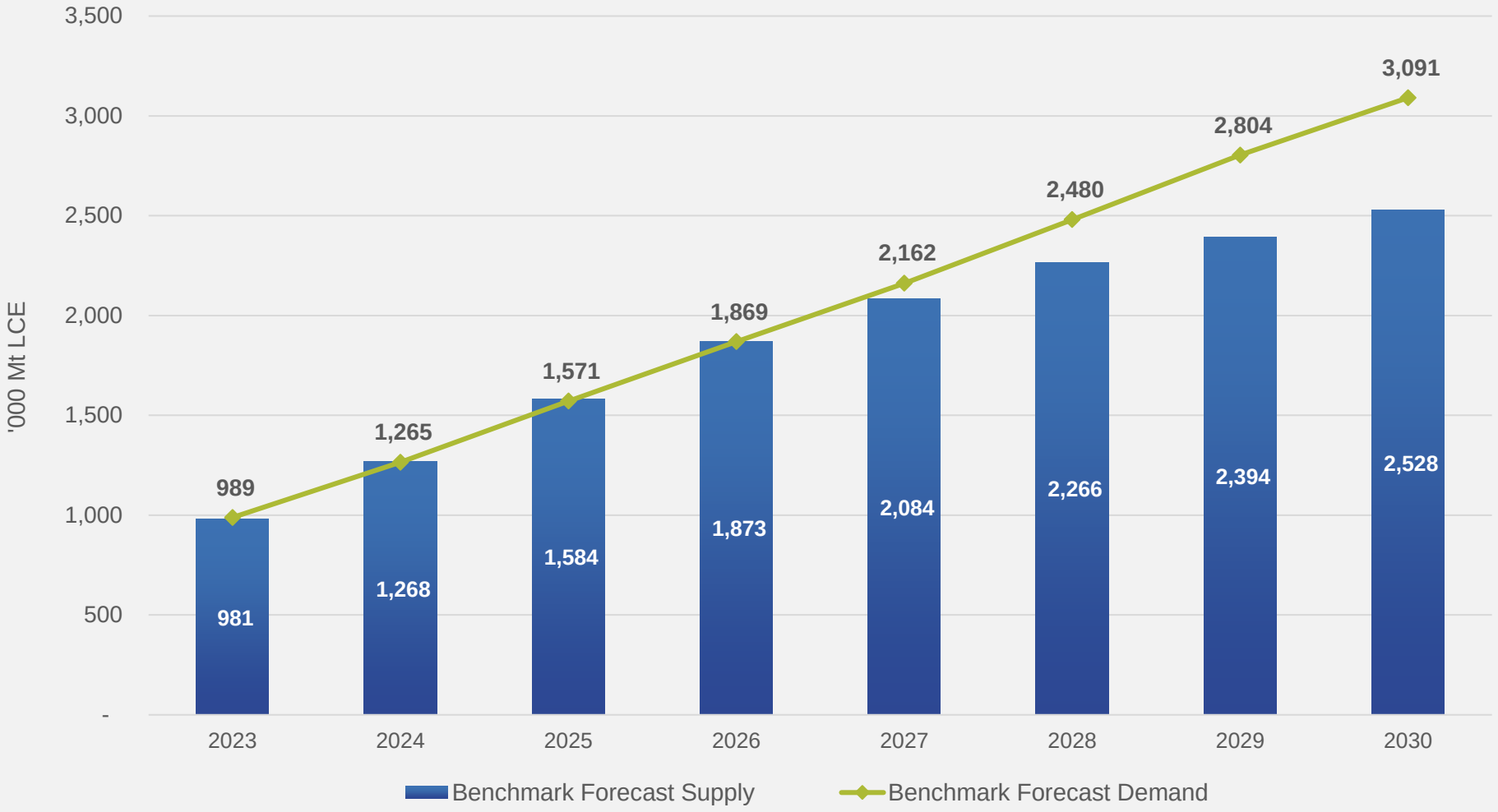
WHY LIOH? GROWING DEMAND FOR LITHIUM HYDROXIDE BG DRIVEN BY HIGH NICKEL BATTERY CATHODES





Source: Lithium-Forecast-Benchmark-Mineral-Intelligence Q4-2022. Note: High Nickel includes NCM712, NCM811, NMX, NCA, NCMA, LNMO and other nickel chemistries.

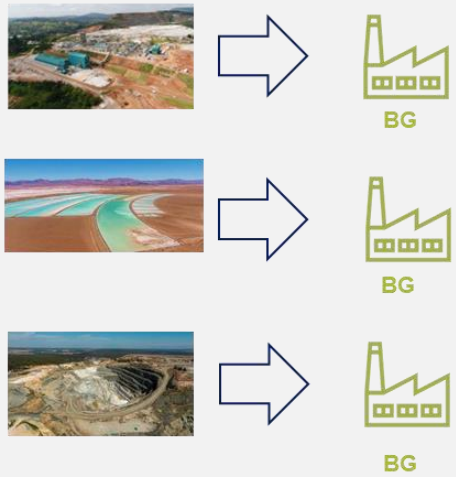
CURRENT SUPPLY / DEMAND OUTLOOK SHOWS LITHIUM MARKET BALANCED TO SHORT THROUGH 2030



Source: AMG Lithium internal 2023, Lithium-Forecast-Benchmark-Mineral-Intelligence Q2-2023.

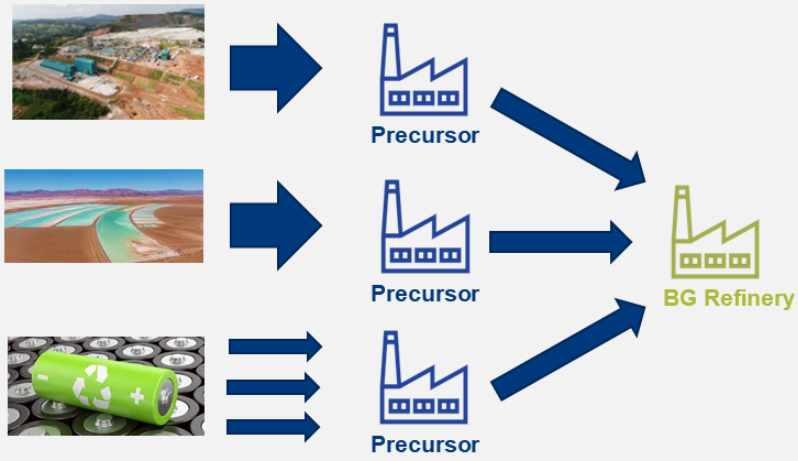
GAME CHANGER: THE AMG SUPPLY CHAIN CONCEPT

CURRENT



- High project complexity & underestimation of technical hurdles
- One mine – one BG plant: Supply risk
- BG offtakes always subject to qualification

AMG‘s CONCEPT



- Facilitating financing through robust offtake
- Time to market
- De-risking overall project
- Supply Security

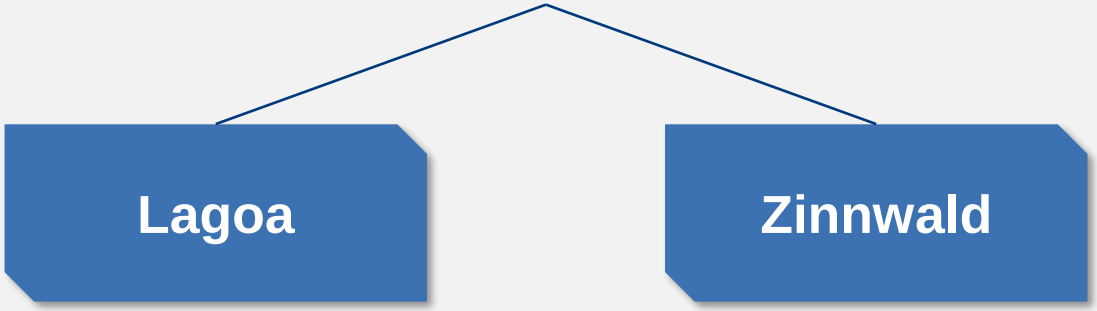
Project Enabler

DEVELOPING ADDITIONAL (AFFILIATED) RESOURCES

AMG Resource Development Support

- Spodumene production know how
- Engineering / Project Management
- Offtake contracts (with or without KfW)
- Project Financing / Equity
- Equity participation

Announced Projects



AMG'S 25% SHAREHOLDING IN ZINNWALD LITHIUM

- Upon admission of the newly issued ordinary shares in March 2023, AMG became a 25% shareholder of Zinnwald and is supporting the Zinnwald Board to accelerate the development of its lithium project in Eastern Germany.
- Zinnwald's integrated operation planned to produce battery grade LiOH
  - A brownfield project previously mined for tungsten & tin with core mining license valid until 2047
  - Situated in the east of Germany in Saxony on the border with the Czech Republic
  - Preliminary economic assessment ('PEA') published in September 2022
    - Plan to produce ~12ktpa of lithium hydroxide (LiOH) with on-site processing
    - Revised mining concept that will take advantage of existing infrastructure
    - Mine life of >35 years

AMG BRAZIL SIGNS MOU FOR DEVELOPMENT OF LITHIUM CONCENTRATE PRODUCTION

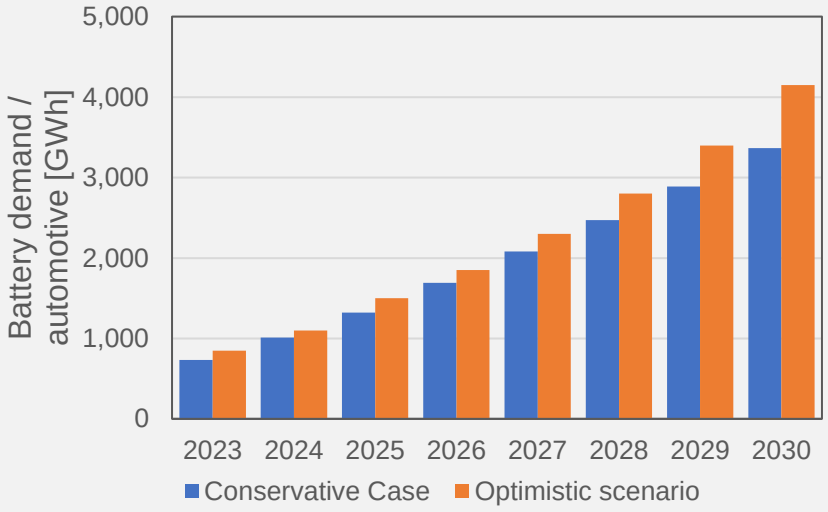
- AMG Brazil signed an exclusive MOU in August with Grupo Lagoa, which has operated a pegmatite mine supplying the Portuguese ceramic and glass industry since 1984. The partnership intends to concentrate the lithium minerals contained in the pegmatite to produce commercial grade lithium concentrate.

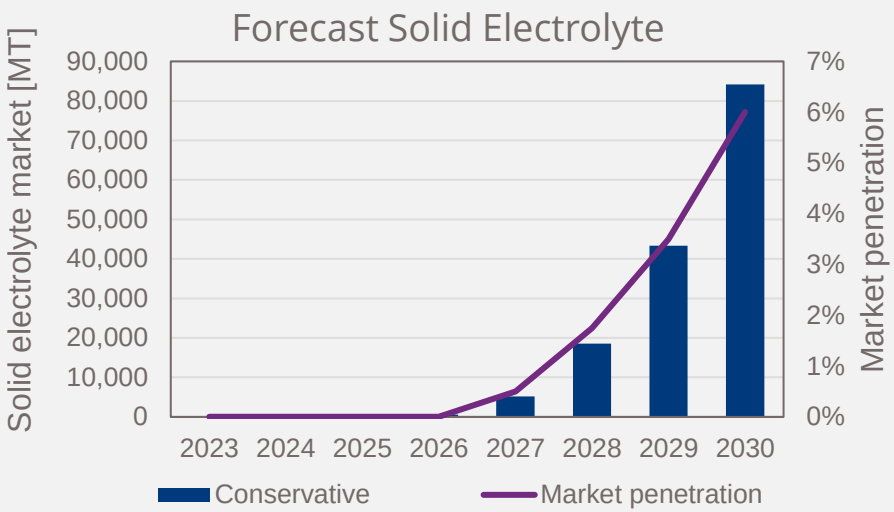
- To date, AMG has performed comprehensive metallurgical tests on a laboratory scale and confirmed a viable mineral processing route to convert a representative sample of 1.1% Li_2O yielding an output of 5.6% Li_2O spodumene concentrate at 15.5% mass recovery and 76.2% metallurgical recovery.

- Basic engineering of a sizeable Pilot Plant with a capacity to process up to 80,000 tonnes per annum of pegmatite has been initiated.

- Additional geological studies, including diamond drilling, are currently being conducted to confirm present estimates of the size and quality of the resources which we believe will support an industrial lithium concentrate operation similar in size to our existing Brazilian operations.

NEXT GENERATION AUTOMOTIVE BATTERY TECHNOLOGY: ALL-SOLID-STATE-BATTERIES (ASSB)





Application & Market:

- All-Solid-State Batteries are the next step in automotive battery technology
- Forecasts estimate 5-7% market penetration in 2030 (total market of ~3,500 GWh), increasing number of production projects
- EV market forecast indicates large growth potential on long-term view 2030+

Technology:

- Solid electrolytes are critical performance components to reach energy density and safety targets
- Solid electrolytes and precursors are key compounds regarding quality and product availability of ASSBs

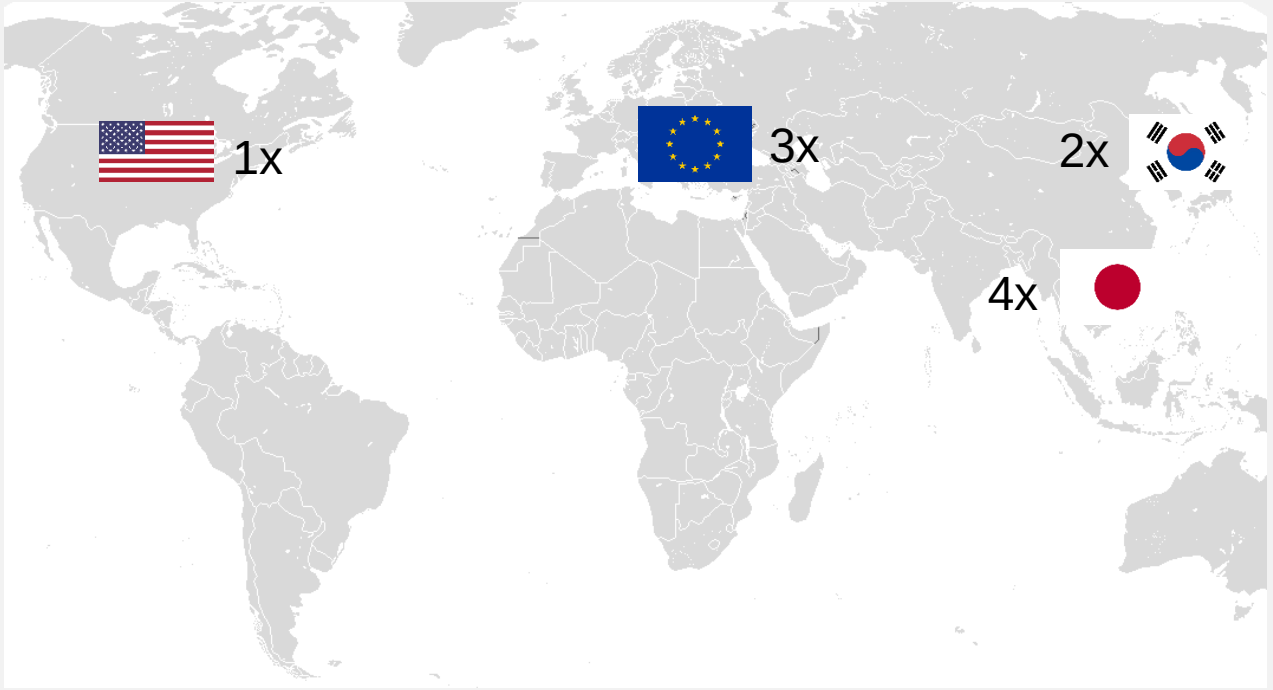
Sources: SolidPower (2023); Benchmark Minerals (Q2/2023); SNE Research (2022); HSBC (2021)

AMG LITHIUM SOLID STATE BATTERY MATERIAL CUSTOMER ACTIVITY

Current status:

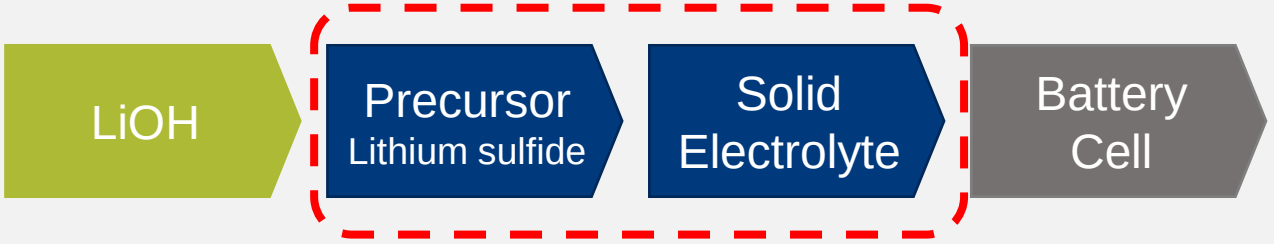
Projects with customers in:

- Europe (3x): development projects & evaluation
- USA (1x): qualification
- Japan (4x): qualification & evaluation projects
- Korea (2x): sampling & evaluation
- **Addressable AMG customer potential: 6,000+ MT/a in 2028**



Our position:

- Development partner and prospective material supplier
- Backward integrated technology leader for solid electrolyte production



APPENDIX

CLEAN ENERGY MATERIALS – MARKET TRENDS

CRITICAL MINERALS	MAJOR END MARKETS	MARKET TRENDS	MAJOR CUSTOMERS
AMG VANADIUM FERROVANADIUM FERRONICKEL-MOLYBDENUM	**INFRASTRUCTURE**	**INFRASTRUCTURE GROWTH** **VANADIUM REDOX FLOW BATTERIES**	GLENCORE
AMG BRAZIL TANTALUM & NIOBIUM	**MICRO CAPACITORS, SUPERALLOYS**	**COMMUNICATIONS & ELECTRONICS** **FUEL EFFICIENCY**	ATI, H.C.Starck, TANIOBIS inspiring metal evolution
AMG LITHIUM LITHIUM CONCENTRATE (SPODUMENE)	**BATTERIES**	**RENEWABLE ENERGY** **COMMUNICATIONS & ELECTRONICS**	GENERAL LITHIUM
AMG ALUMINUM ALUMINUM MASTER ALLOYS ALUMINUM POWDERS	**AEROSPACE, AUTOMOTIVE**	**FUEL EFFICIENCY**	Constellium, ALCOA, RioTinto
ENERGY	TRANSPORTATION	INFRASTRUCTURE	SPEC. METALS AND CHEM.

CRITICAL MINERALS – MARKET TRENDS

CRITICAL MINERALS	MAJOR END MARKETS	MARKET TRENDS	MAJOR CUSTOMERS
AMG GRAPHITE NATURAL GRAPHITE	EXPANDED POLYSTYRENE (EPS),BATTERY ANODES	ENERGY SAVING ENERGY STORAGE	sunpor Höganäs
AMG ANTIMONY ANTIMONY TRIOXIDE ANTIMONY MASTERBATCHES ANTIMONY PASTES	FLAME RETARDANTS	PLASTICS	DUPONT PIRELLI
AMG SILICON SILICON METAL	ALUMINUM ALLOYS, SOLAR	FUEL EFFICIENCY CLEAN ENERGY	AMAG AUSTRIA METALL Aleris
ENERGY	TRANSPORTATION	INFRASTRUCTURE	SPEC. METALS AND CHEM.

CRITICAL MATERIALS TECHNOLOGIES – MARKET TRENDS

CRITICAL MINERALS	MAJOR END MARKETS	MARKET TRENDS	MAJOR CUSTOMERS
AMG TITANIUM TITANIUM ALLOYS	**AEROSPACE**	**FUEL EFFICIENCY** **ENERGY SAVING**	SAFRAN Snecma, GE
AMG ENGINEERING CAPITAL GOODS (VACUUM FURNACES)	**AEROSPACE,** **AUTOMOTIVE**	**FUEL EFFICIENCY** **ELECTRONICS**	Rolls-Royce, CARPENTER, GE, ThyssenKrupp
AMG ENGINEERING VACUUM HEAT TREATMENT SERVICES	**AEROSPACE,** **AUTOMOTIVE**	**FUEL EFFICIENCY**	GM, MAGNA, Continental The Future in Motion
AMG CHROME CHROMIUM METAL	**AEROSPACE,** **DISTRIBUTED ENERGY,** **FUEL CELLS**	**FUEL EFFICIENCY**	PCC, ATI, Bloomenergy
ENERGY	TRANSPORTATION	INFRASTRUCTURE	SPEC. METALS AND CHEM.

AMG SPODUMENE CONTRACT PRICE IS DIRECTLY TIED TO SPOT PRICE FOR LITHIUM CARBONATE AND HYDROXIDE

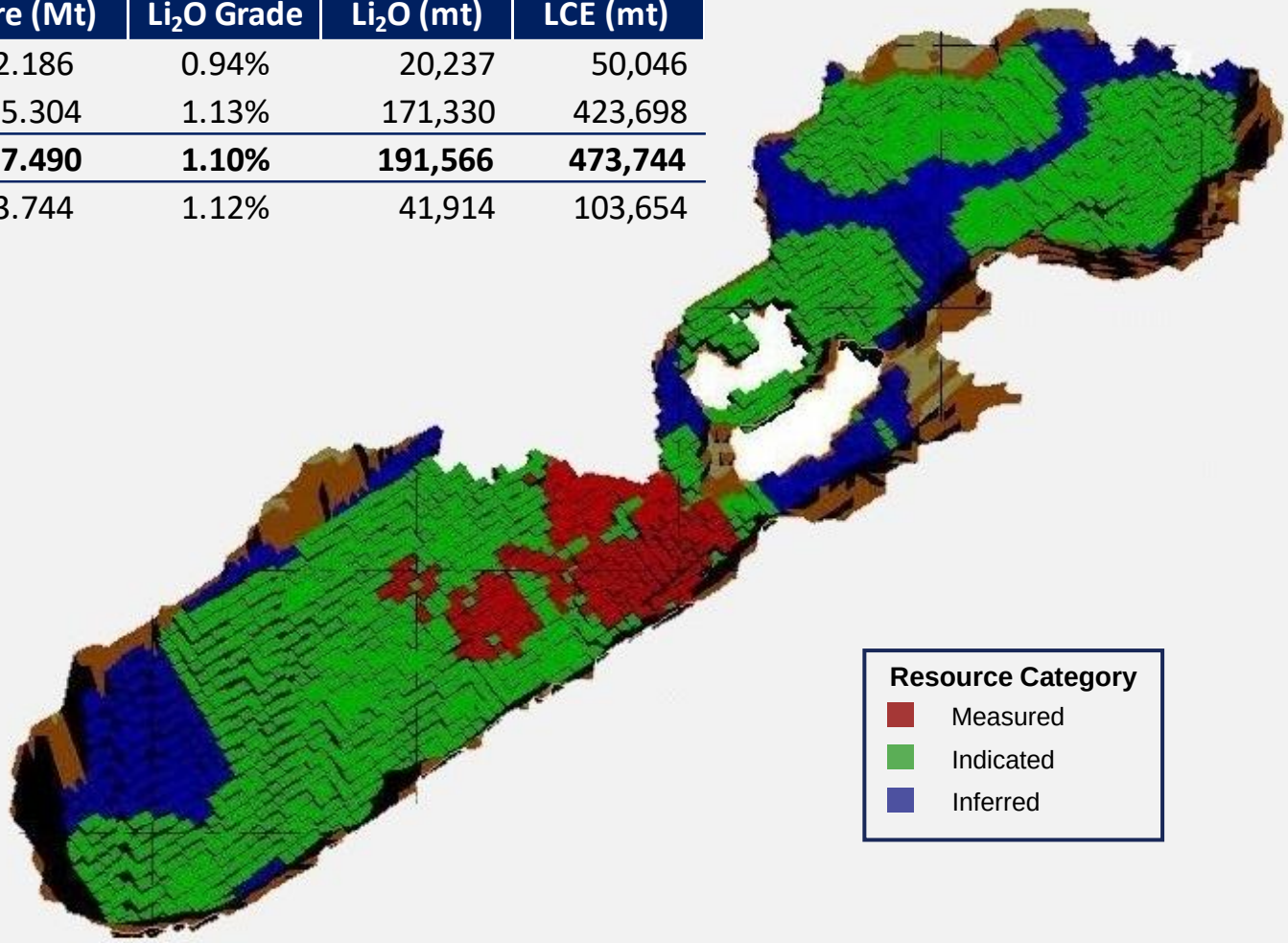
AMG Spodumene Contract Components

Component I	Average Index Spot Price[1]: *(Lithium Carbonate + Lithium Hydroxide) / 2*
Component II	Total Cost = *Minimum Spodumene Price + Conversion Cost*
AMG Spodumene Price	*(I – II) % + Minimum Price*

[1] Asian Metal Market spot price

MIBRA RESOURCE – 2021

Category	Ore (Mt)	Li_2O Grade	Li_2O (mt)	LCE (mt)
Measured	2.186	0.94%	20,237	50,046
Indicated	15.304	1.13%	171,330	423,698
Measured & Indicated	**17.490**	**1.10%**	**191,566**	**473,744**
Inferred	3.744	1.12%	41,914	103,654



This announcement appears as a matter of record.

AMG

AMG's LAW:

"Everything that can be recycled will be recycled."

AMG Critical Materials N.V.

amg-nv.com