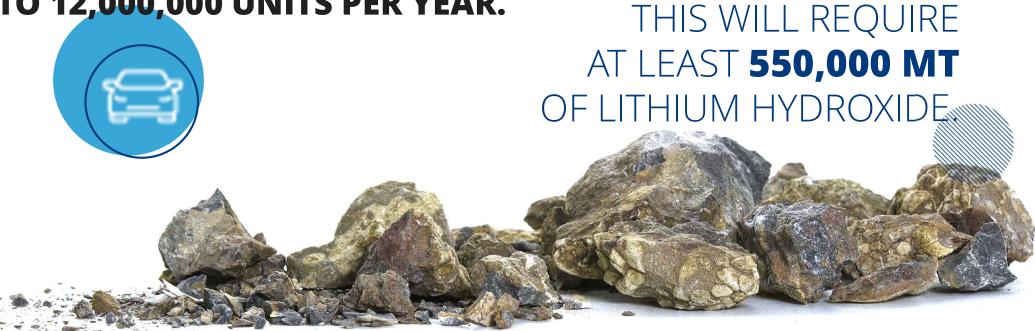


#### **HIGH DEMAND**

UNTIL 2030 THE PRODUCTION OF EVs IN EUROPE WILL INCREASE TO 12,000,000 UNITS PER YEAR.





**BUT NO ACCESS** 

100% AS OF TODAY OF ALL BATTERY GRADE LITHIUM COMES FROM

**OVERSEAS.** 



# BECOMING THE PREFERRED SUPPLIER

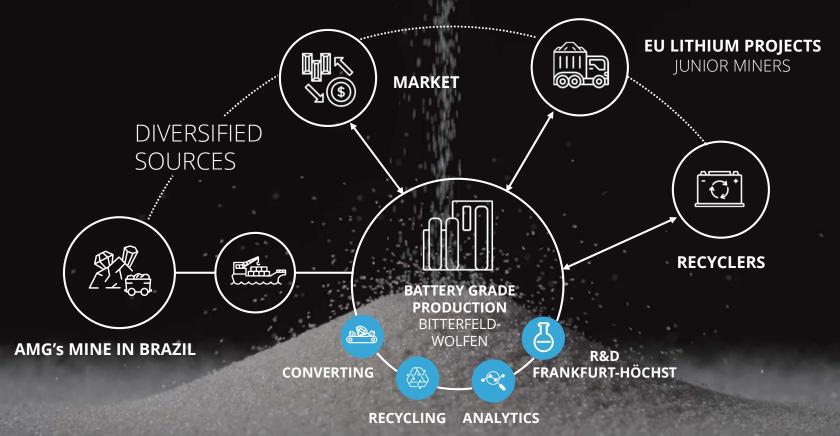
#### **OUR MISSION**

We strive to become the preferred supplier for the battery market in Europe with the highest quality Battery Grade Lithium Hydroxide and other high-performance battery materials.



## THE AMG LITHIUM HUB

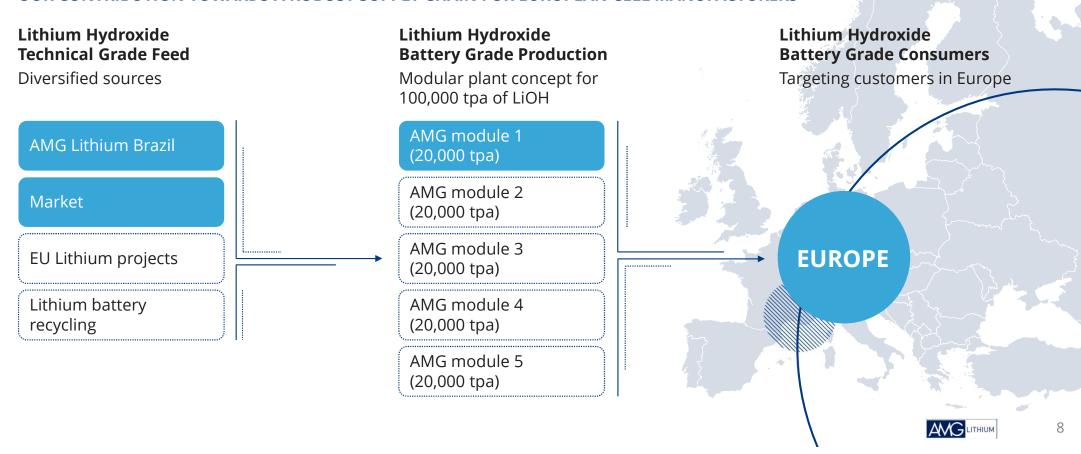
**ENGINEERING SYNERGIES IN PROVIDING LITHIUM** 



## THE HUB OUTPUT

5 MODULES WILL DELIVER 100,000 TPA OF LIOH

#### OUR CONTRIBUTION TOWARDS A ROBUST SUPPLY CHAIN FOR EUROPEAN CELL MANUFACTURERS



## THE HUB PERFORMANCE

LITHIUM CHEMICALS FOR THE NEXT GENERATION OF LITHIUM-ION BATTERIES

1

Upgrading of technical grade or low-grade feedstock to high-quality battery grade Lithium Hydroxide

2.

Assessing further technical grade lithium salts as feedstock for future modules

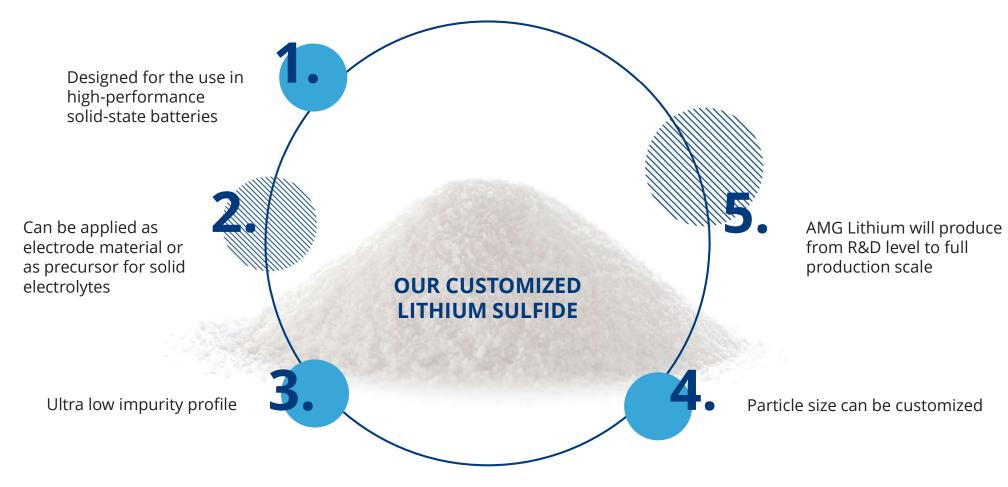
3

Supplying Lithium sulfide for the emerging All-Solid-State-Battery market 4.

Developing a production process for sulfidic solid electrolytes

Performance tests for solid electrolytes available

## PERFORMANCE ON DEMAND



**5** Mio €

INVESTMENT INTO R&D AND ANALYTICS



## THE HUB INTELLIGENCE CENTER

We pursue a holistic approach and support the entire lifecycle of lithium: from mining of crude ore to refining of battery precursors up to usage in different battery applications.



State-of-the-art battery laboratory



- Analytical methods pool
- Performance pool



Highly experienced team of lithium experts (average professional experience in the lithium business of +10 years), in research & development, production technology, and commerce



Technical support and process optimization for production sites



R&D on materials for next generation Lithium-ion batteries needed for electromobility and energy storage



## THE HUB'S RELIABLE BACKBONE

WE ARE PART OF THE AMG ADVANCED METALLURGICAL GROUP



**3,300** employees



~\$1 billion annual revenues





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



Access gate to resources and know-how



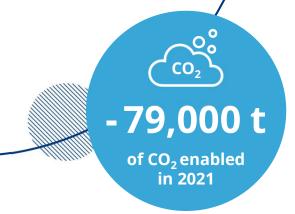
Global supplier of critical minerals to: Transportation, Infrastructure, Energy, Specialty Metals & Chemicals

## TOGETHER WE CARE

MORE SUSTAINABILITY BY INNOVATING PROCESSES AND PRODUCTS AND RECYCLING OF RESOURCES

#### **AMG COMMITS BY 2030:**

- Direct reduction of  $CO_2$ • emissions by 20% = 125,000 t (baseline of 2019)
- Increasing enabled CO<sub>2</sub> reduction by 10% per year from 2021



### Reduction of CO<sub>2</sub> by recycling, innovation and enablement

#### Recycling

AMG is the world's largest recycler of vanadium and continues to expand its circular economy wherever possible

#### Innovation and Quality Management

AMG develops innovative, highquality products to help our customers meet their performance and CO<sub>2</sub> reduction goals

#### AMG's ECO2RP concept

- Portfolio of 11 AMG products that enable CO<sub>2</sub> reduction
- Verified by third-party LCAs

#### Example of AMG Lithium: Lithium production in Brazil

- Substantive reduction of the CO<sub>2</sub> "load" of a ton of lithium concentrate
- Production is partially supplied by residues from previous tantalum mining and partly from primary mining

## GOOD REASONS FOR COOPERATION

#### **YOUR BENEFITS**

HIGH
PRODUCT PURITY

Premium battery grade lithium products

REDUCED

QUALIFICATION EFFORTS

Quality and process stability is key! Our validated processes will reduce qualification efforts at our customers 2 POTENTIAL SYNERGY

Lower production and transport costs

5 FAST LOCAL REPLACEMENT

AMG Lithium will upgrade outof-spec LiOH from customers and the market 3. SECURITY OF SUPPLY

Upgrader will not depend on one single resource

6. RECYCLED MATERIALS

Lithium salts from battery recycling could be provided to AMG to generate high-purity LiOH





**CONNECT TO THE HUB** 

## LET'S MAKE

EUROPE'S MOBILITY
TRANSITION HAPPEN!

