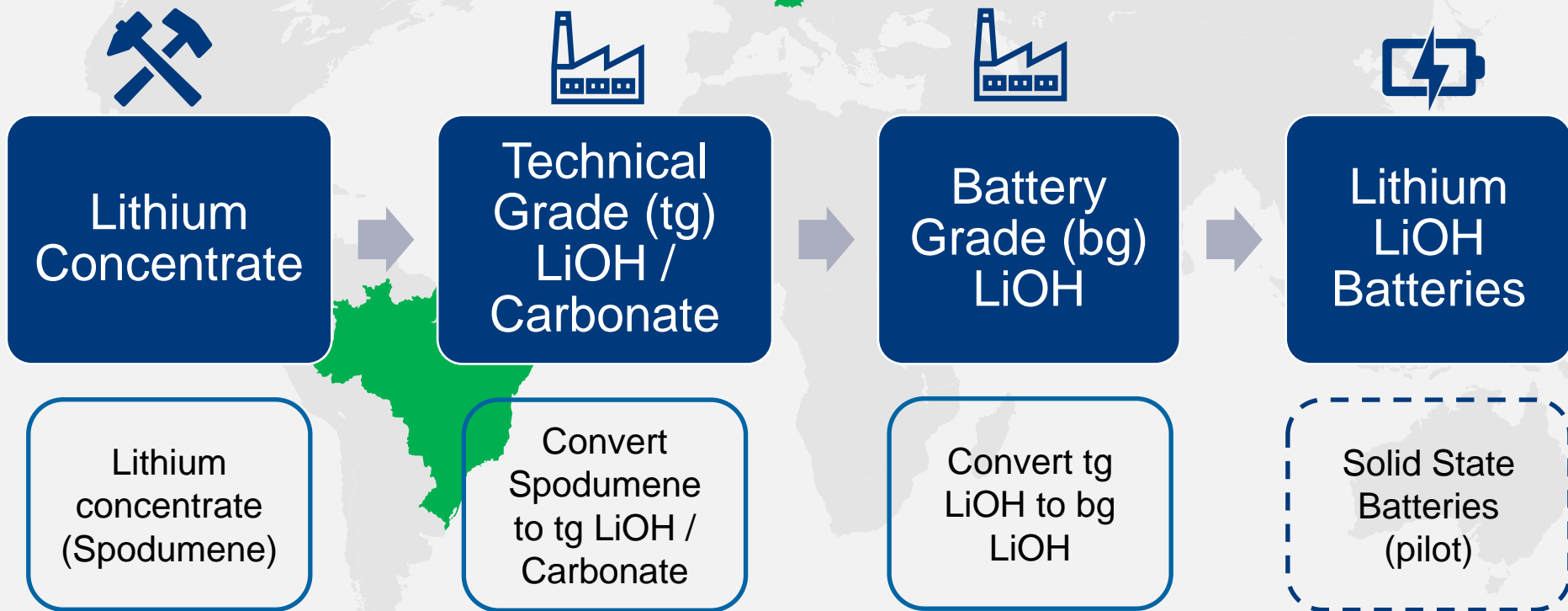




**LITHIUM HYDROXIDE BATTERY-GRADE REFINERY
BITTERFELD, GERMANY**

AMG LITHIUM'S VALUE CHAIN

AMG operates a value chain from mining all the way down to hydroxide bg for batteries

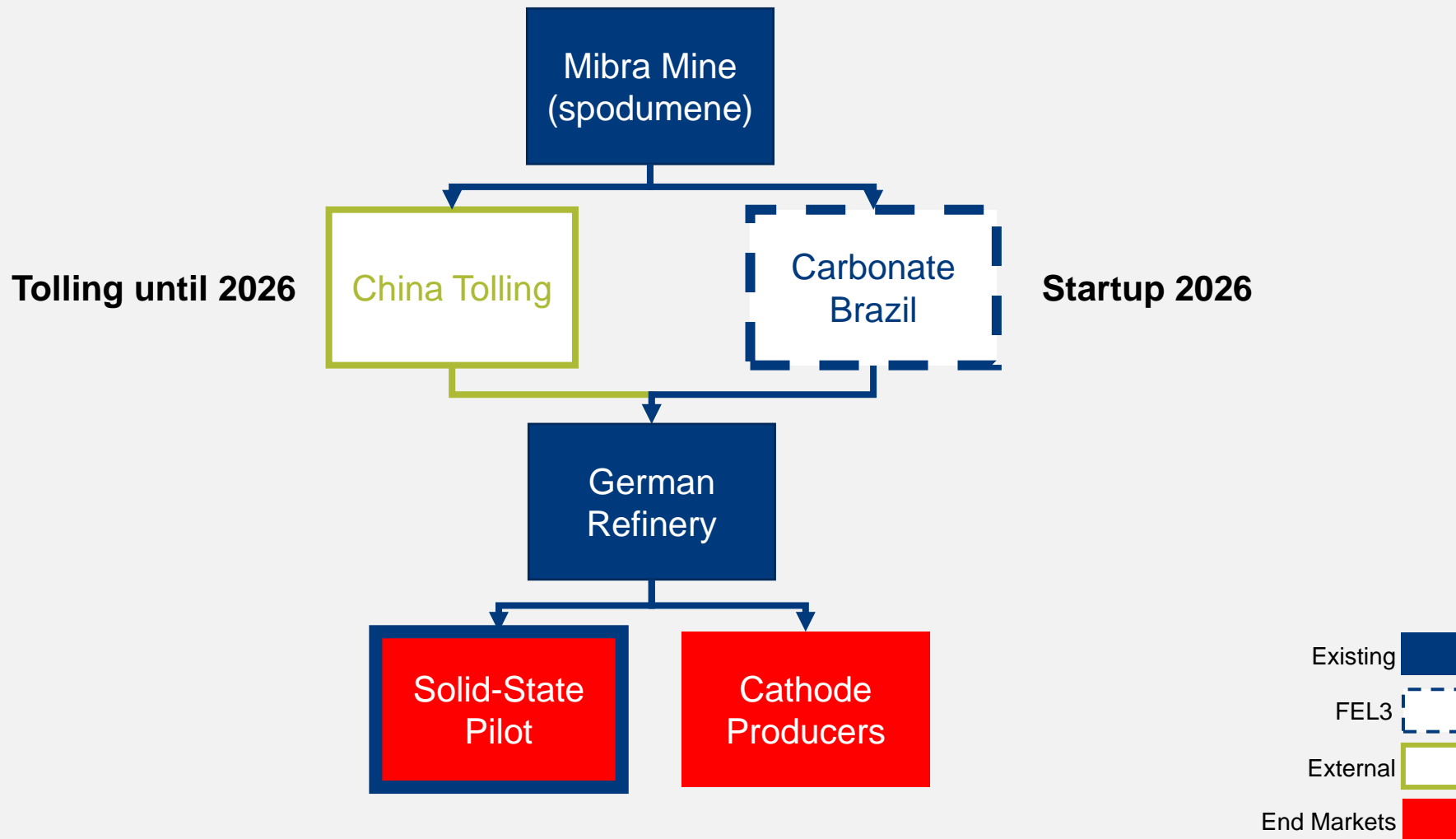


LiOH = Lithium Hydroxide

THE MIBRA MINE, BRAZIL



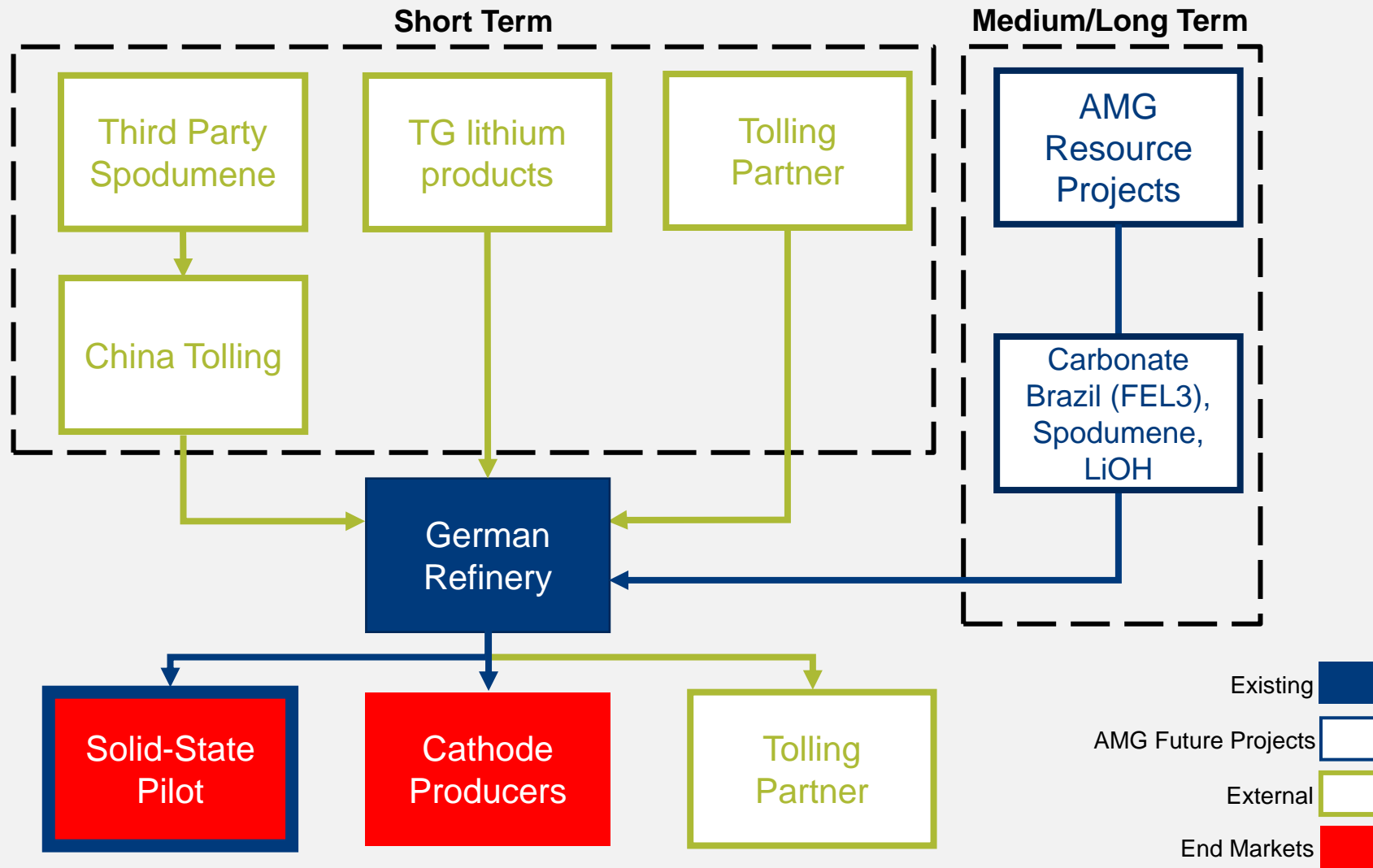
THE BITTERFELD REFINERY, GERMANY, MODULE 1



LITHIUM HYDROXIDE BG REFINERY IN GERMANY – STATUS



MODULE 2-5

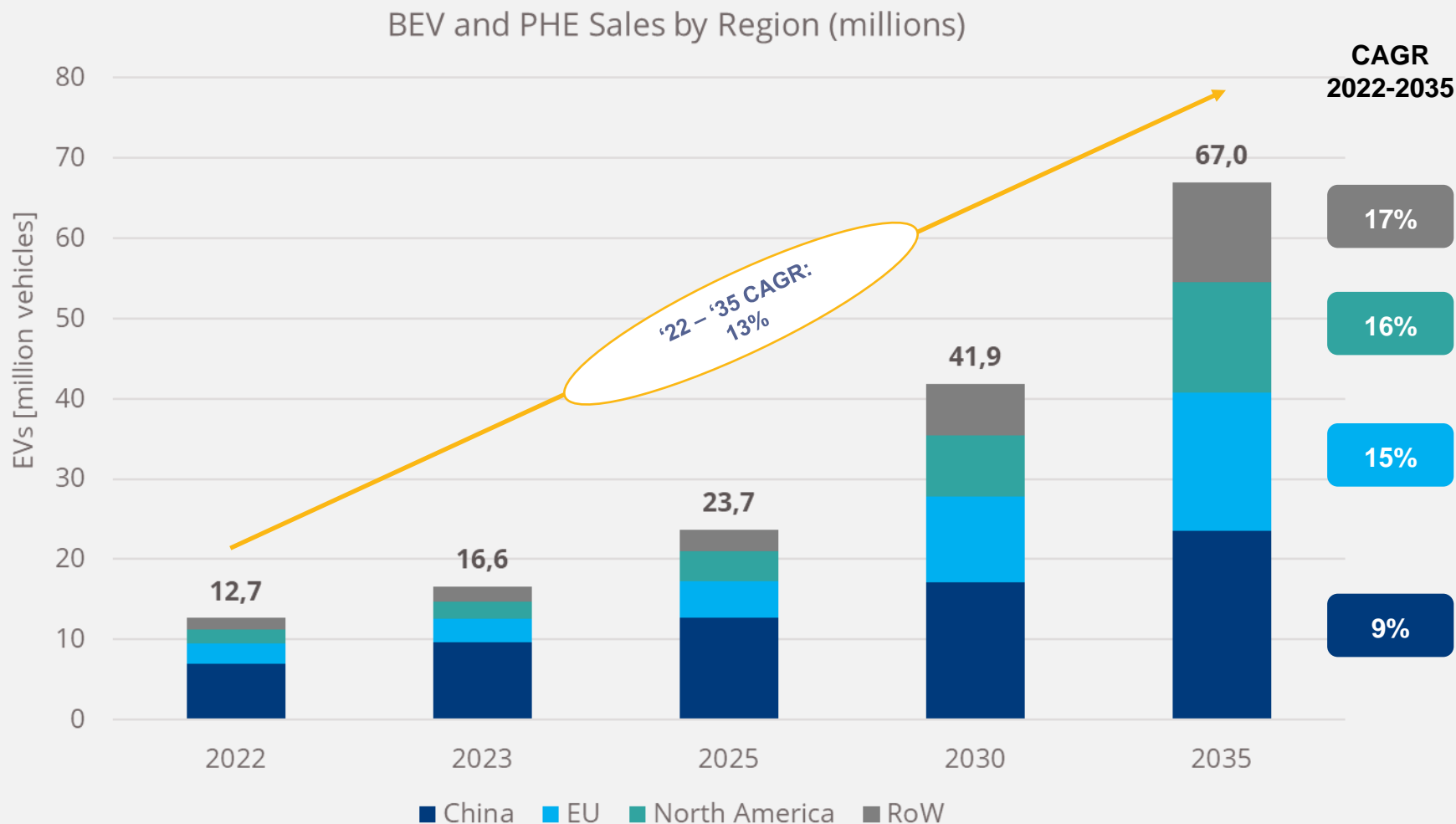


DEVELOPING ADDITIONAL (AFFILIATED) RESOURCES

AMG Resource Development Support

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

PROJECTED GLOBAL ELECTRIC VEHICLE GROWTH



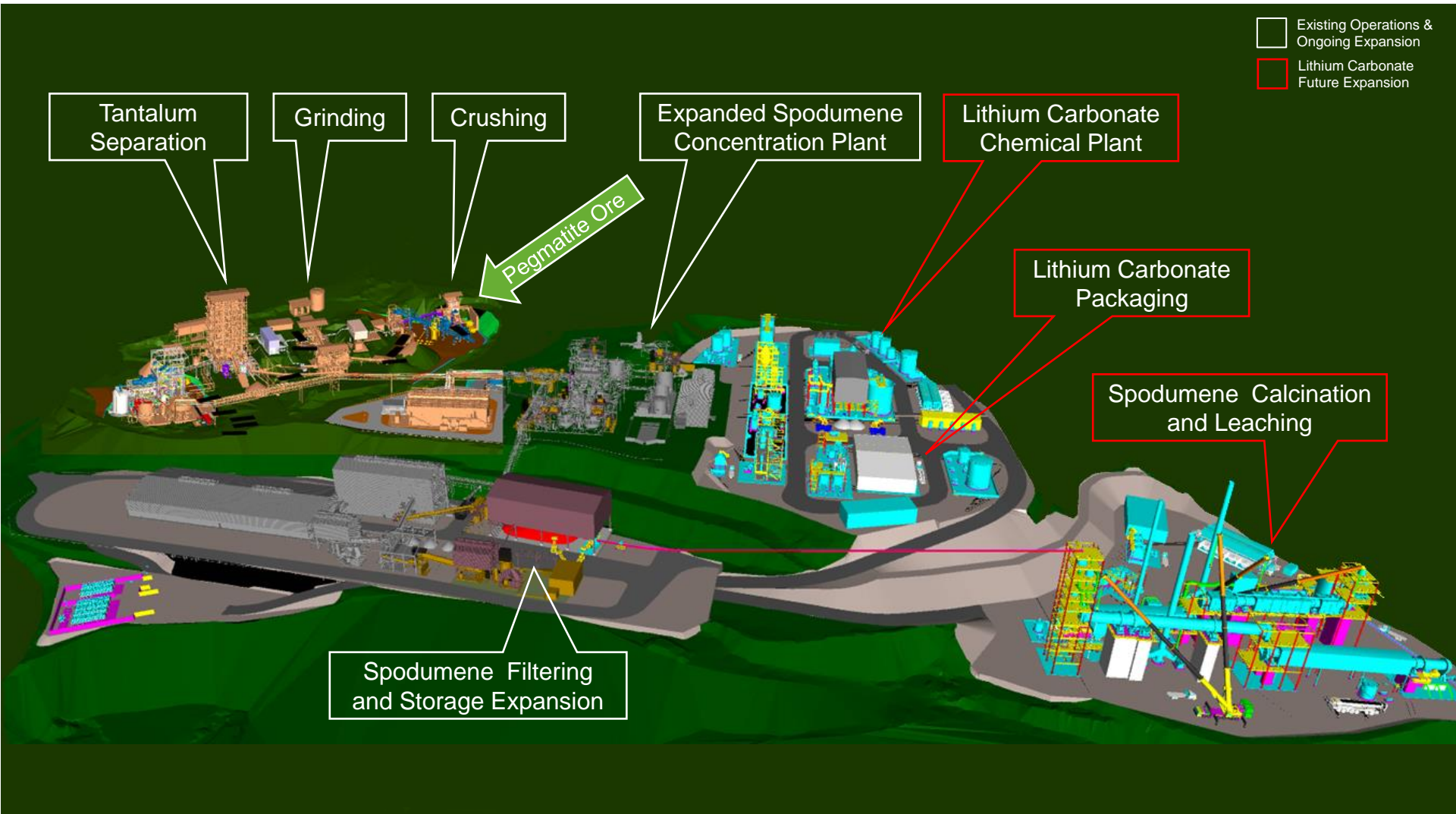
THE LIVA ORIGIN



LITHIUM: UPSTREAM GROWTH STRATEGY

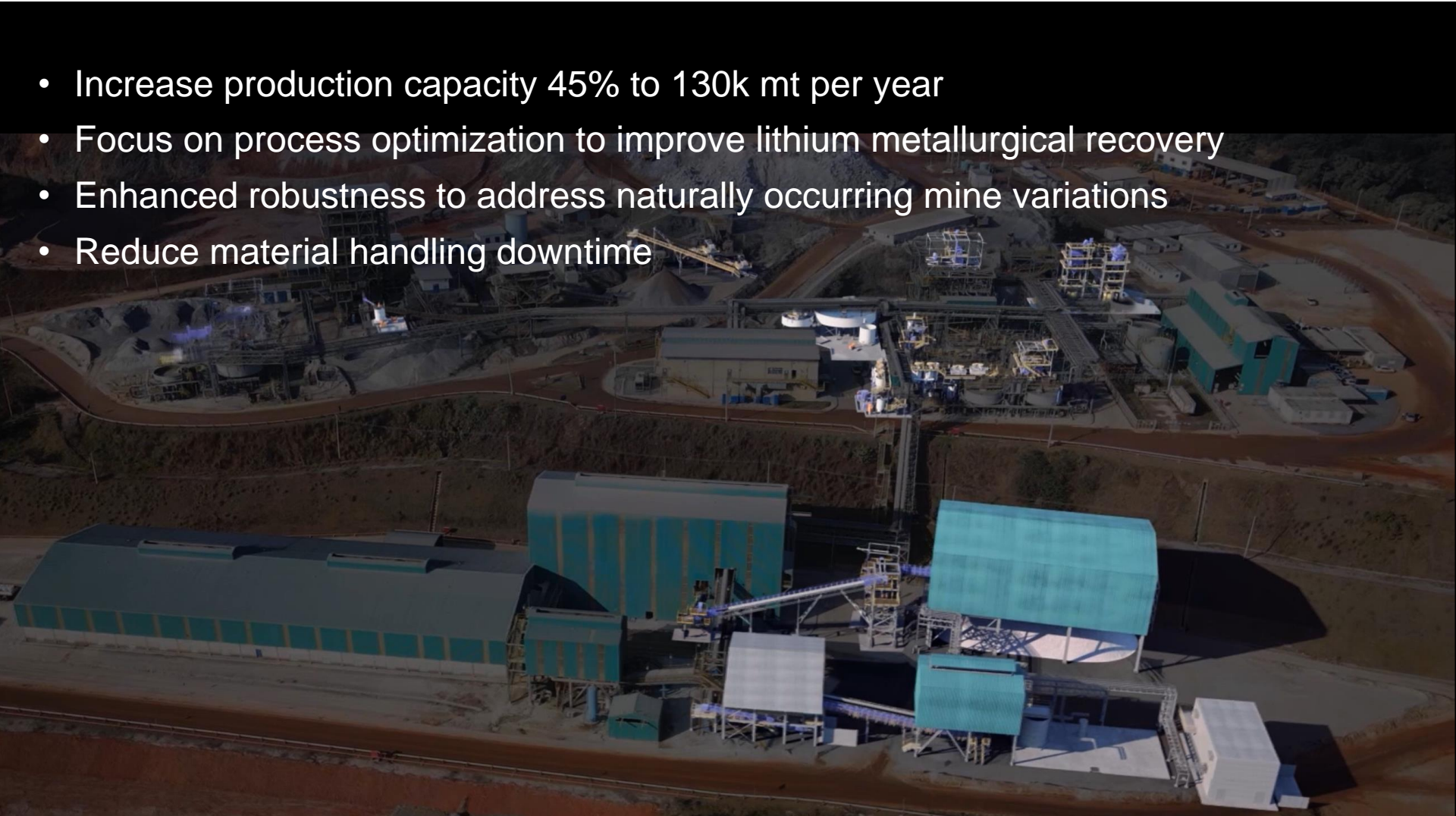


BRAZIL OPERATIONS



SPODUMENE EXPANSION

- 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

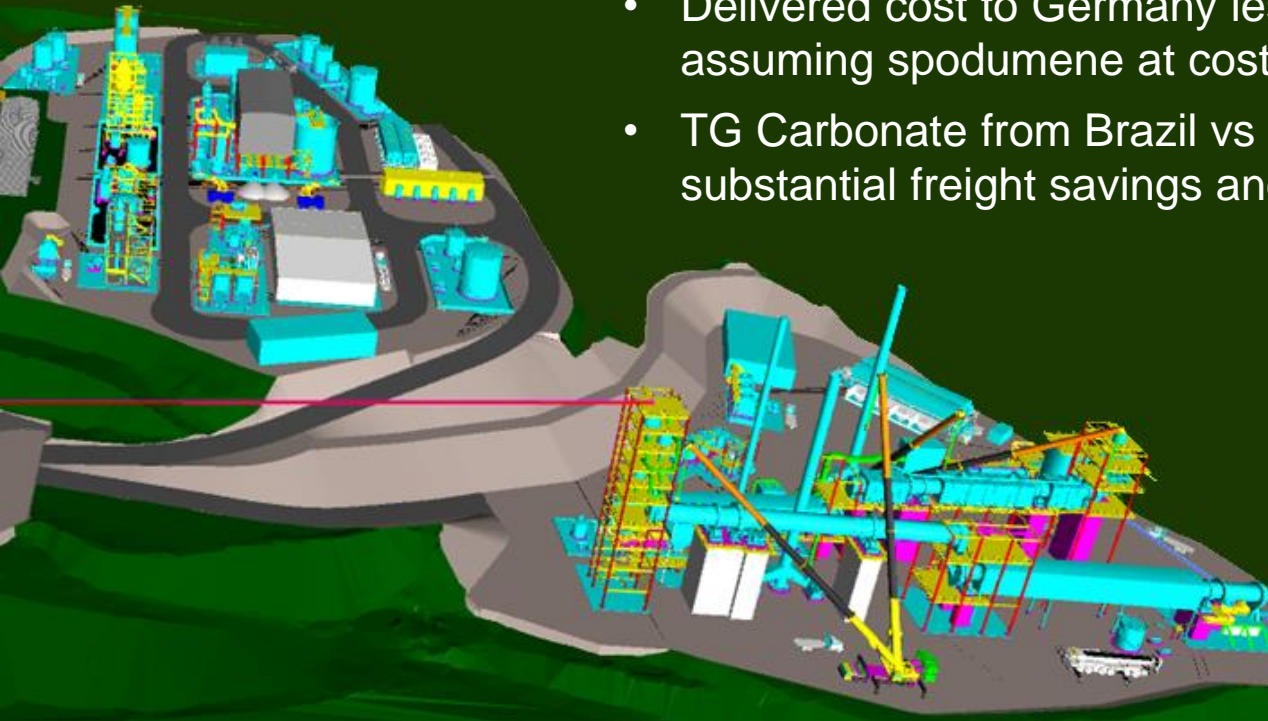
***\$461/mt cost per ton
delivered to China,
net of tantalum,
feldspar and tin by-
product credits***

- 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: 16.5 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 CO₂e



SUSTAINABILITY

- Across all Brazil sites, Lost Time Rate of 0.14 and Recordable Rate of 0.42 compare favorably to Bureau of Labor Statistics Industry Benchmarks: 1.2 Lost Time Rate and 4.1 Recordable Rate (88% and 90% better, respectively).
- In 2021, AMG Brazil was awarded a Recognition on Good Suppliers Practices Prize from Novelis, which recognizes initiatives from partners of Novelis contributing to a more sustainable world.
- In 2022, AMG's owned hydroelectricity plant produced electricity to cover 48% of our total power needs (produced 65.67 TJ and consumed 135.96 TJ across all of our Brazil operations).
- Above all, preserving the environment is part of the essence of AMG Brazil which, with its production, contributes globally to the reduction of CO₂ emissions.



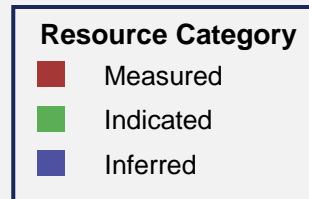
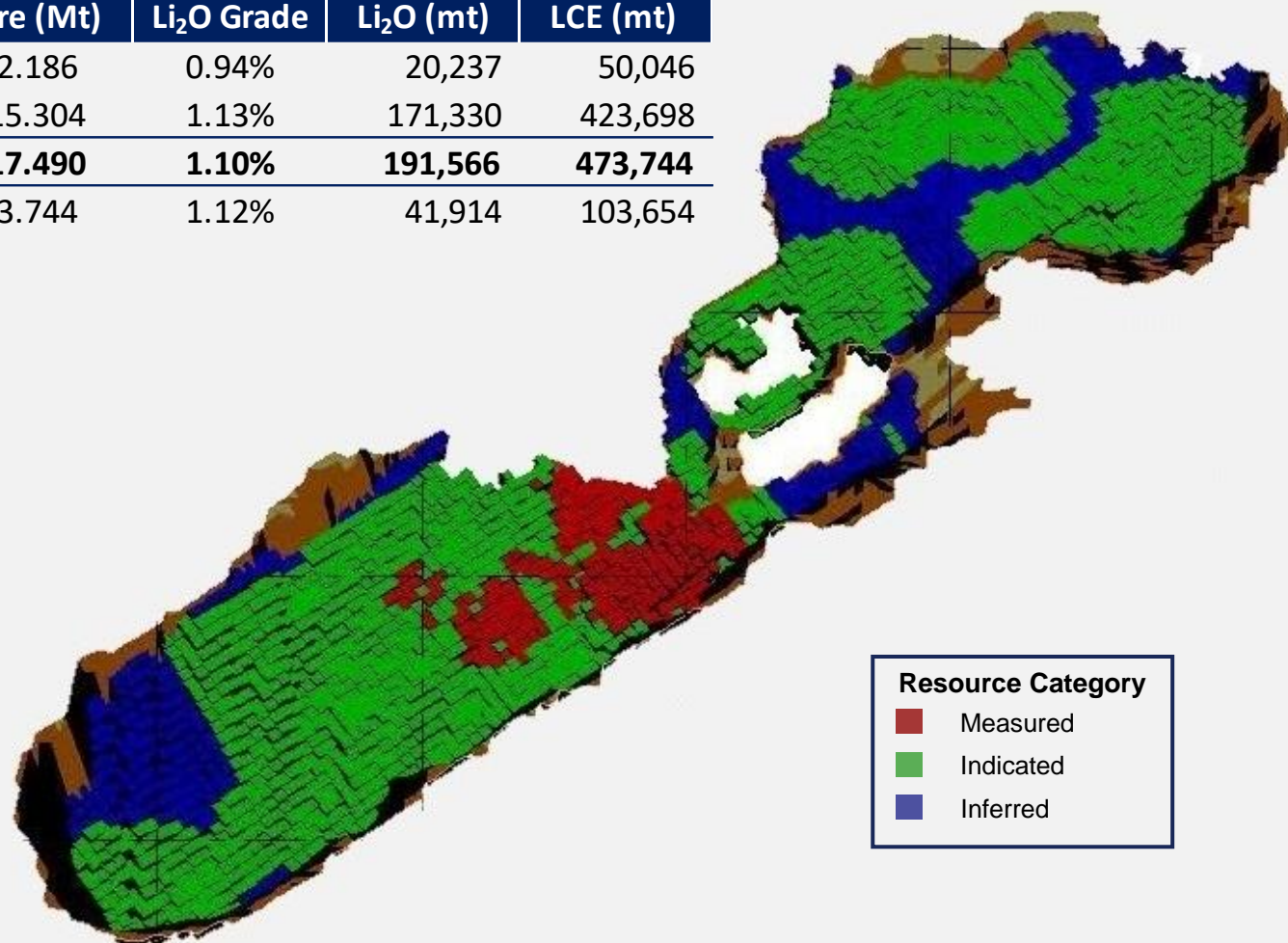
LOCAL COMMUNITY

- 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%.




MIBRA RESOURCE – 2021

Category	Ore (Mt)	Li ₂ O Grade	Li ₂ O (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



STRATEGIC EXPLORATION PROJECTS

 <p>BRAZIL</p>	Ceará	9 Mineral Rights. Geochemical results show presence of Lithium, Tantalum and Tin. Ongoing drilling campaign
	Paraíba	8 Mineral Rights. Geochemical results show presence of Lithium, Tantalum and Tin
	Minas Gerais	New exploration project to delineate subsurface pegmatite occurrences in areas near existing Mibra mine

LITHIUM HYDROXIDE BG REFINERY IN GERMANY - STATUS

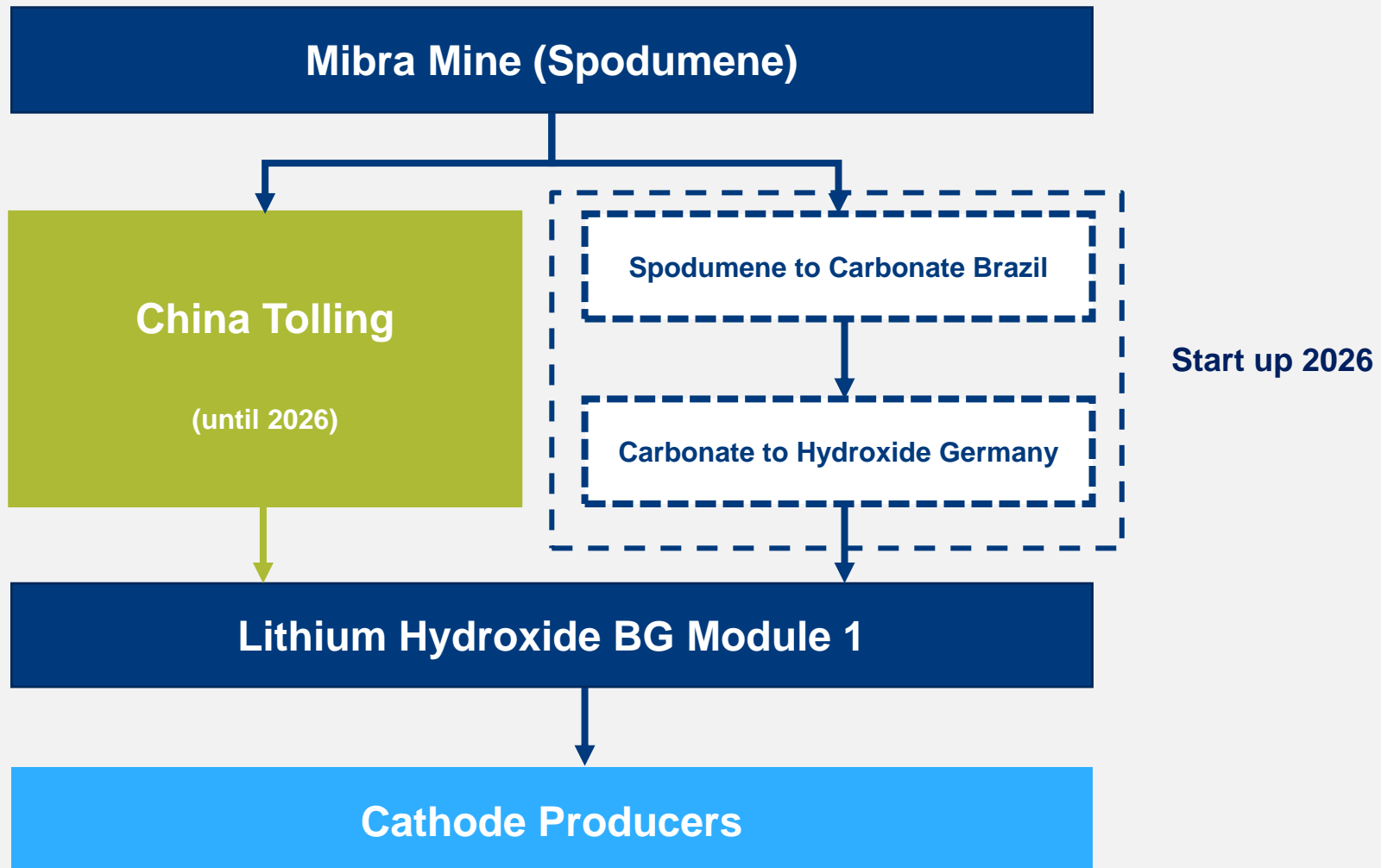




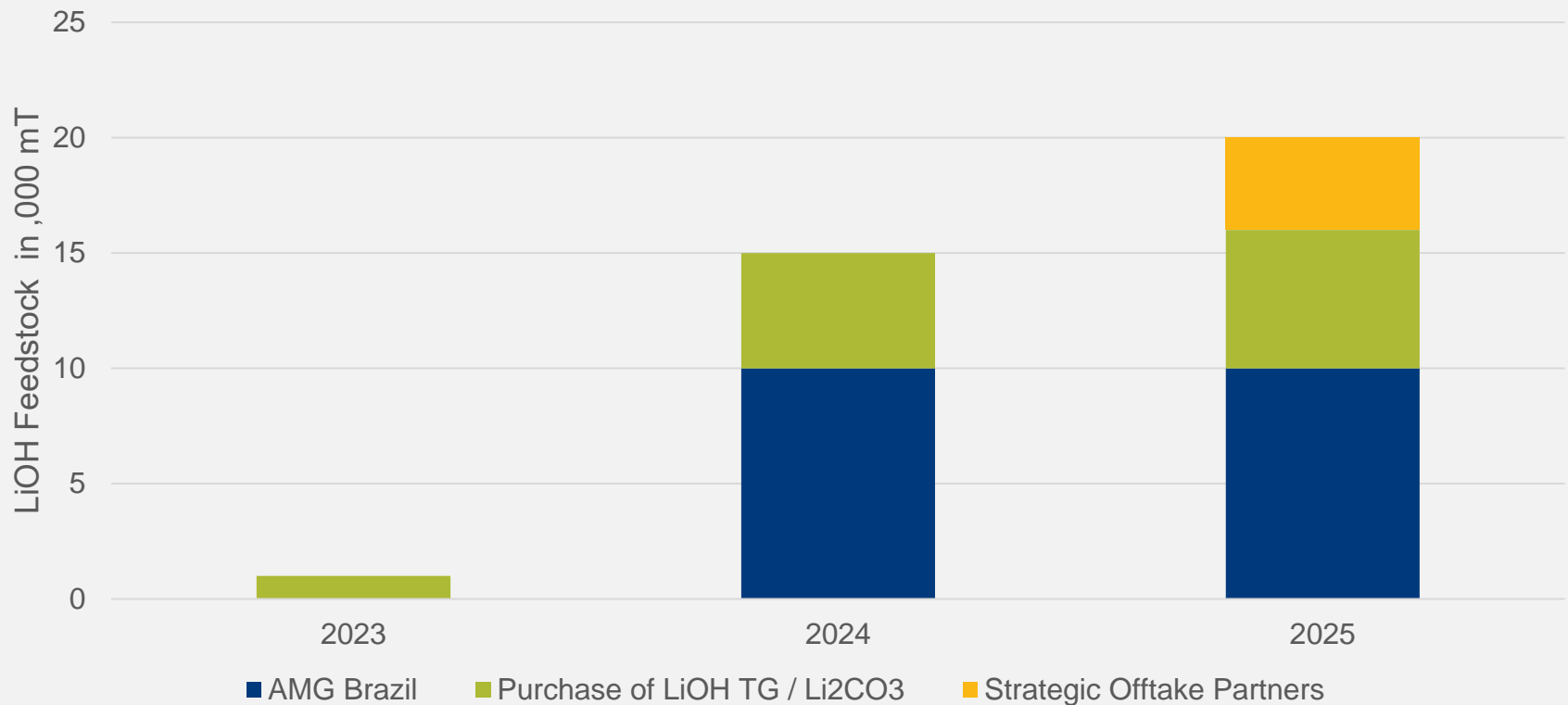
LITHIUM HYDROXIDE BG REFINERY – TIMELINE

- 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
- Expected Capex of \$140 million for module 1.

MODULE 1: LITHIUM SUPPLY CHAIN



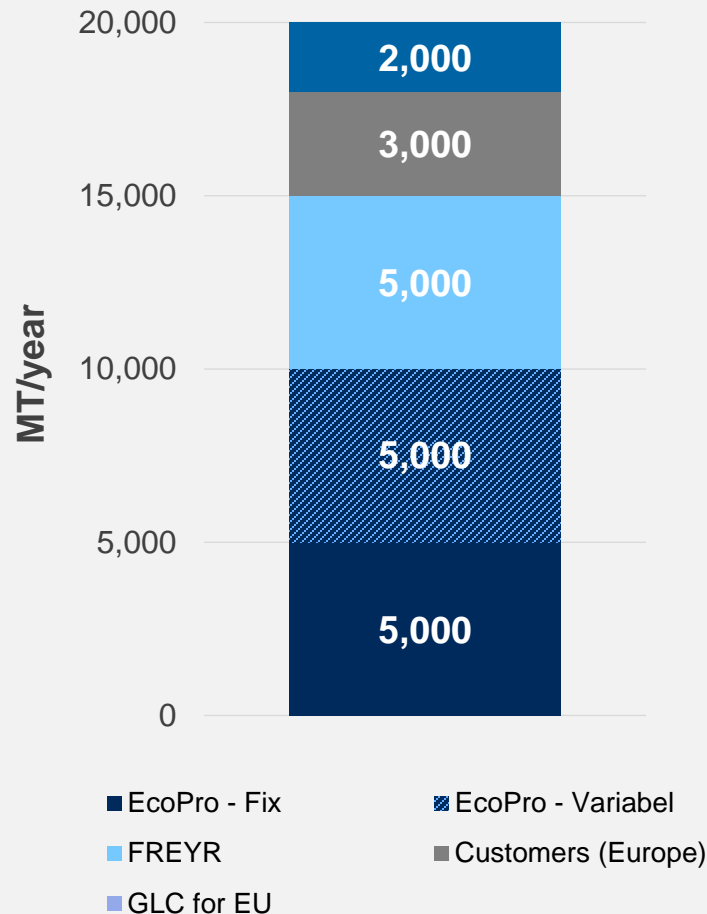
LITHIUM FEEDSTOCK SOURCES MODULE 1



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

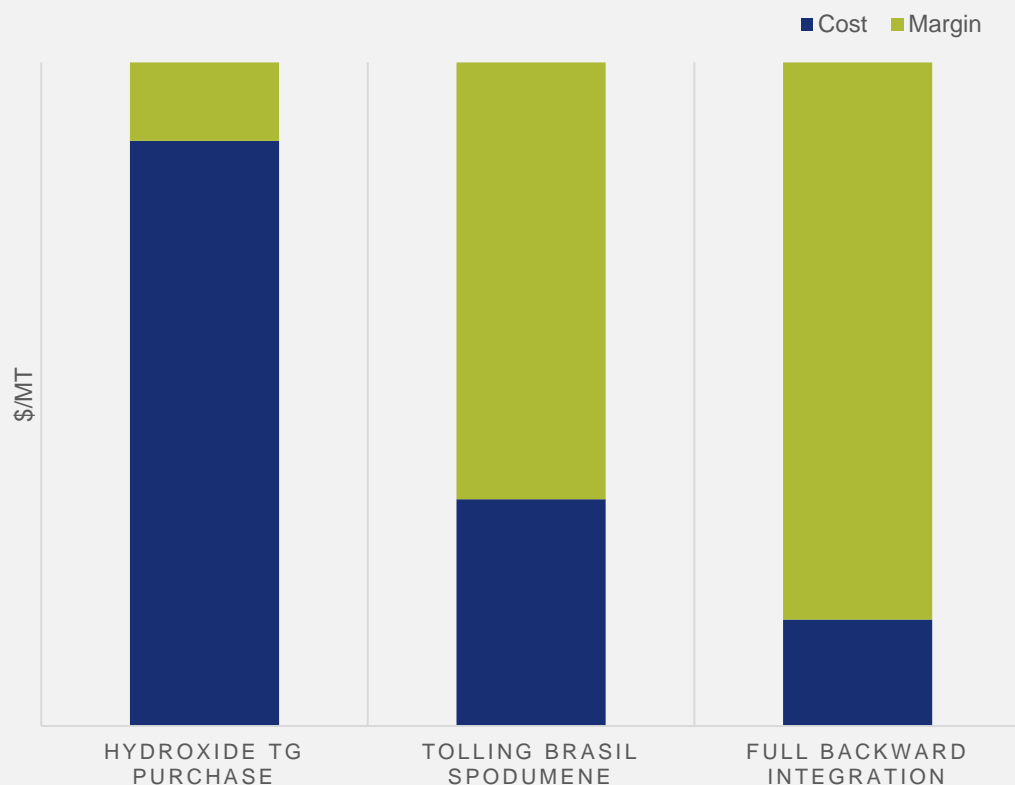
MODULE 1: LITHIUM HYDROXIDE OFFTAKE

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.

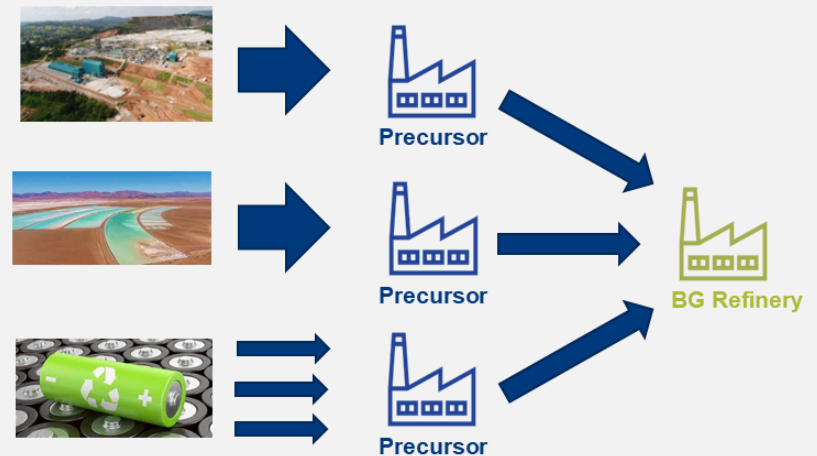
GAME CHANGER: NEW AMG SUPPLY CHAIN CONCEPT

CURRENT



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

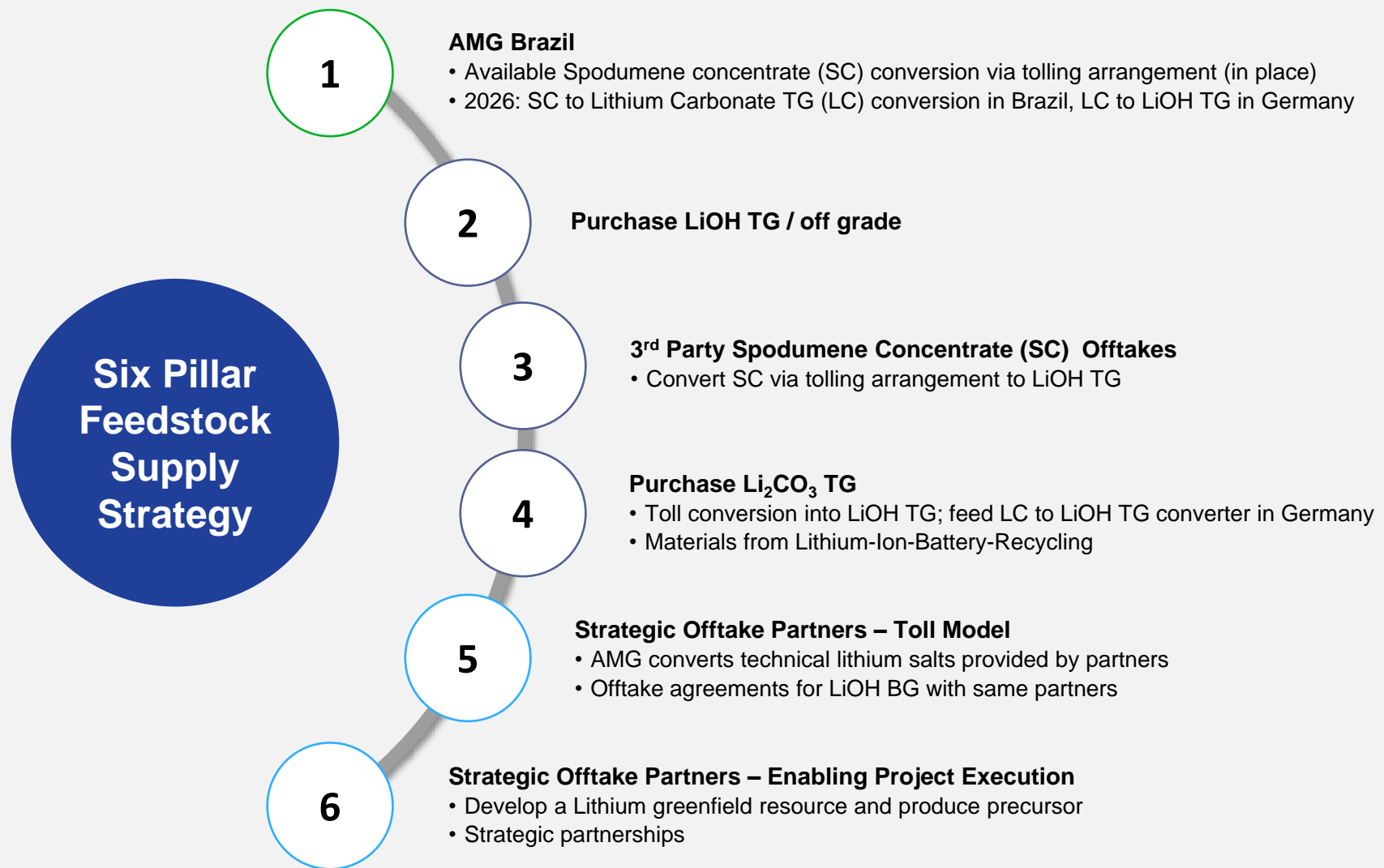
AMG's CONCEPT



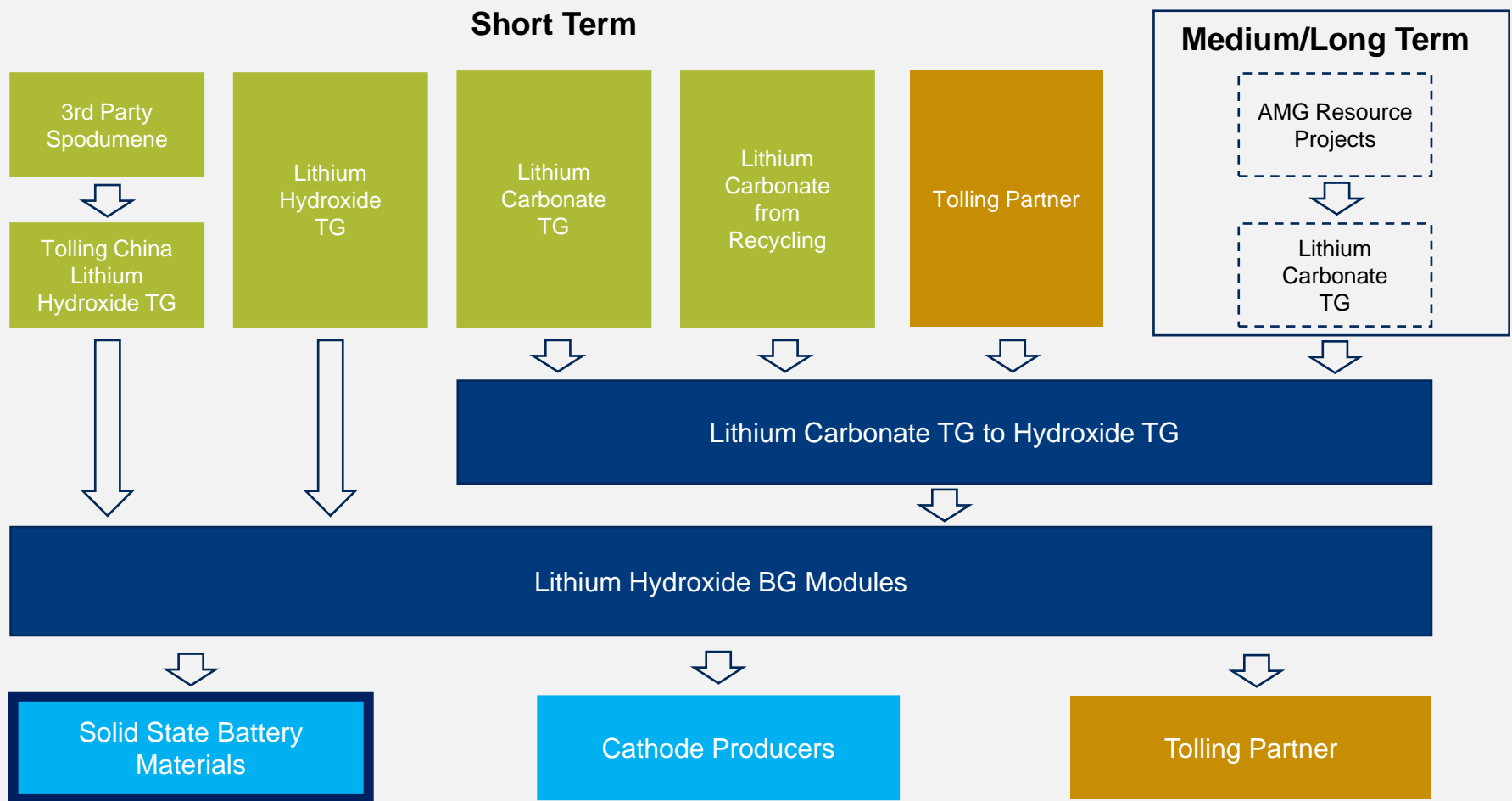
- Facilitating financing through robust offtake
- Time to market
- De-risking overall project
- Supply Security

**Project
Enabler**

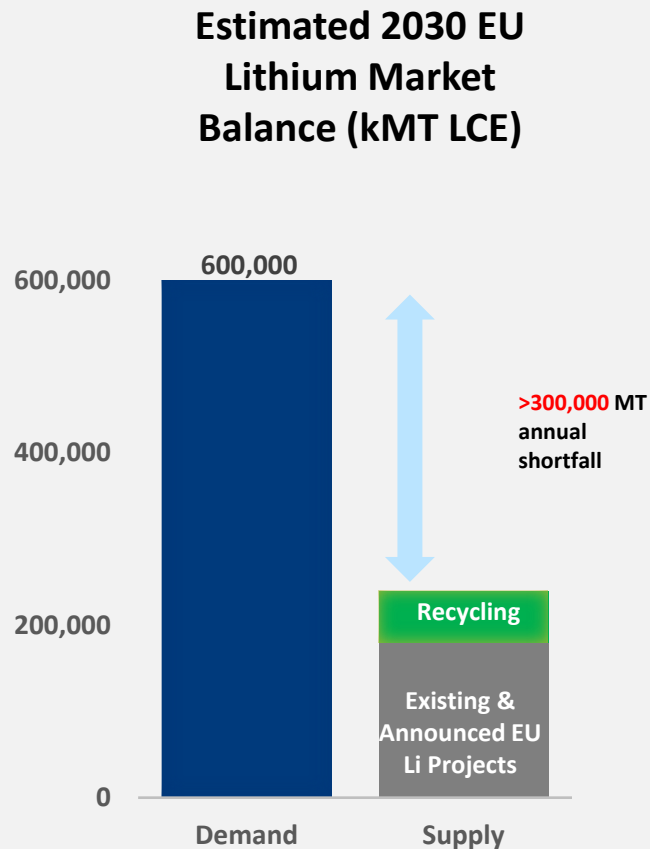
GROWTH: AMG LITHIUM SOURCING STRATEGY



LITHIUM SUPPLY CHAIN – MODULE 2-5



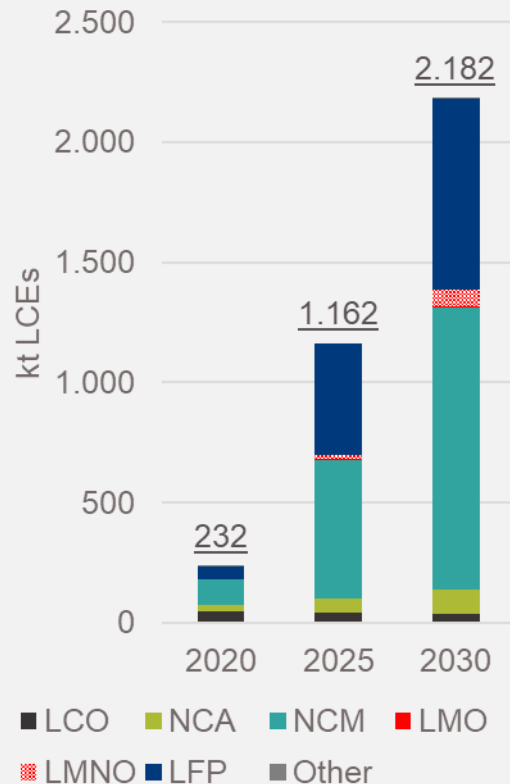
WHY EUROPE ? – EU REQUIRES LARGE VOLUMES LITHIUM HYDROXIDE BG



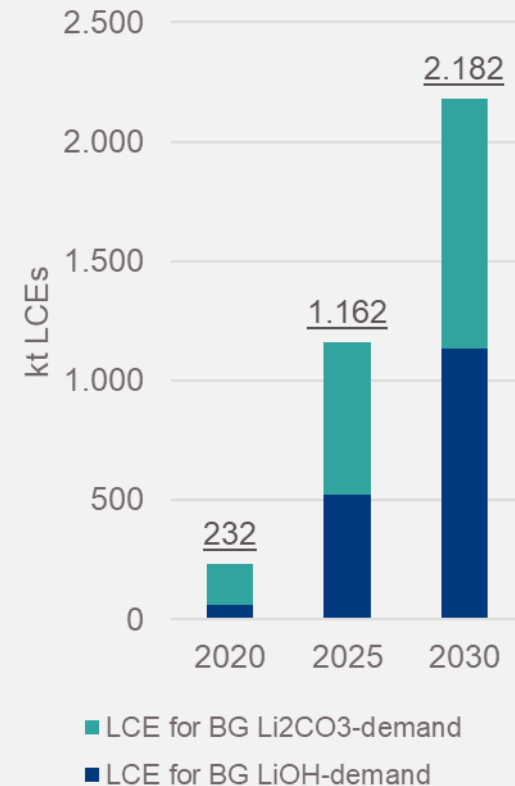
**2025: already announced European demand
of ~300 ktpa LCEs for Cathodes**

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

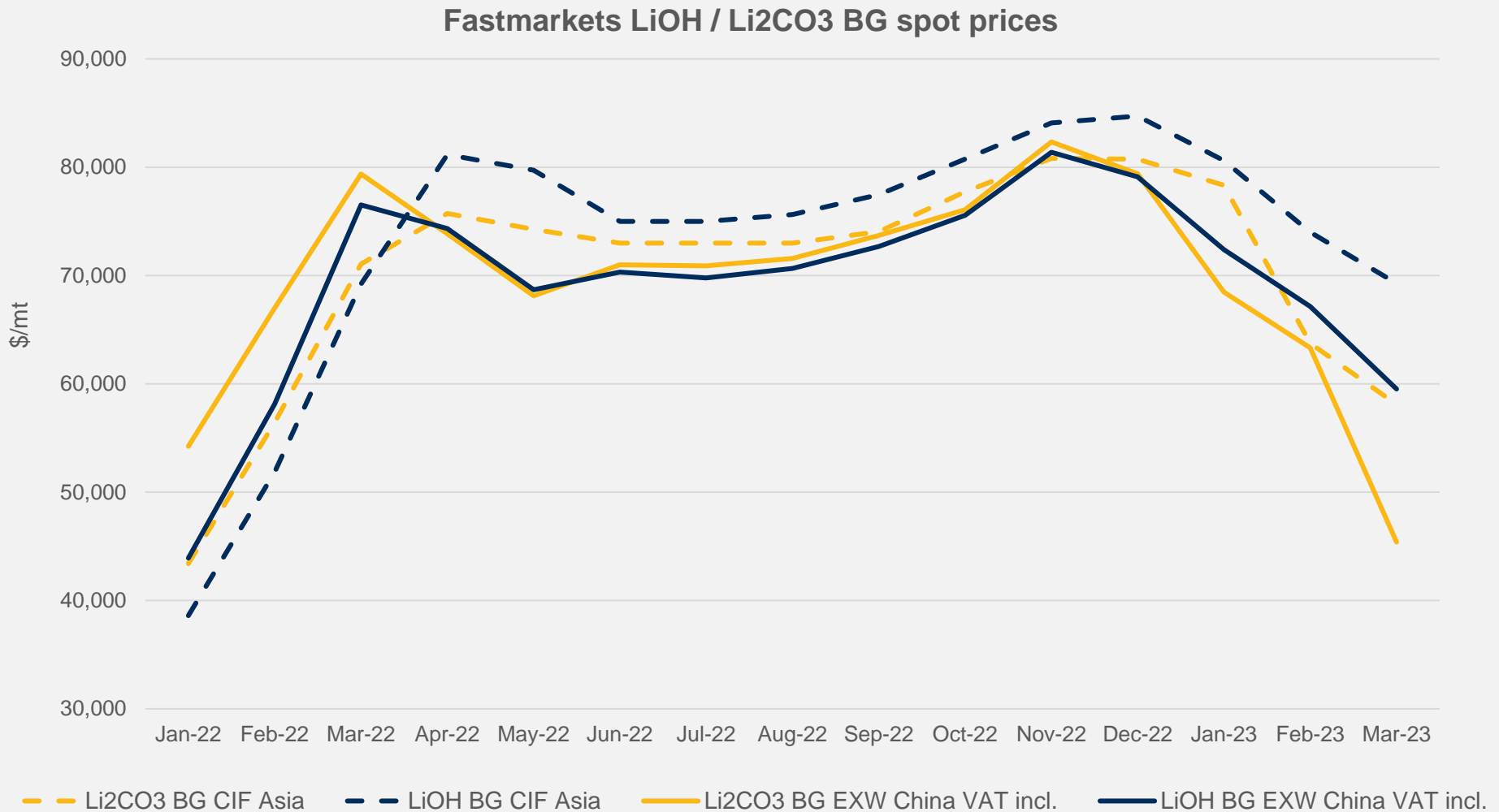
Lithium Demand in Rechargeable Batteries



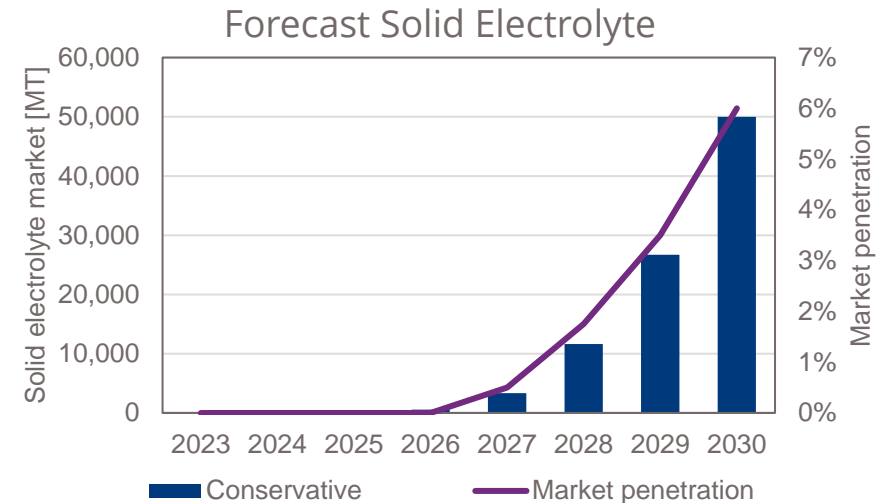
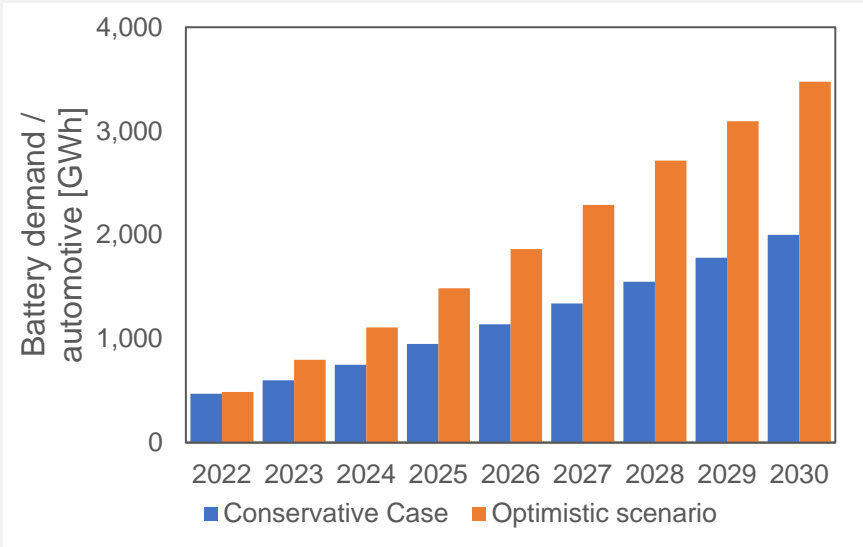
EV Demand for Lithium by Type



CURRENT LITHIUM SALT PRICE TREND IN CHINA



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



Application & Market:

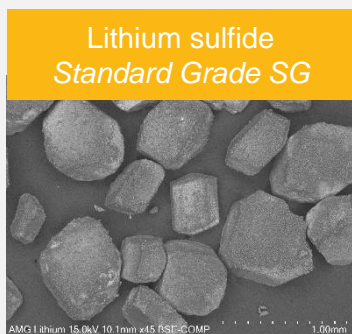
- All-Solid-State Batteries are next step in automotive battery technology
- Forecasts estimate 5-7 % market penetration in 2030 (total market of ~2.000 GWh)
- EV market forecast indicates large growth potential on long-term view 2030+

Technology:

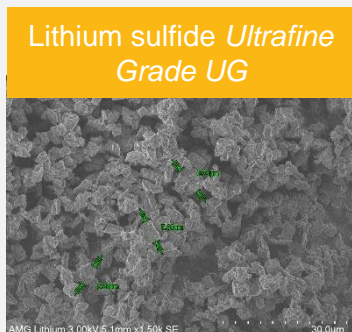
- Solid electrolytes are critical performance components to reach energy density and safety targets.
- Solid electrolytes and precursors are key compounds regarding quality and product availability of ASSBs.

MARKET TREND: ALL-SOLID-STATE-BATTERIES (ASSB) OUR PORTFOLIO: SOLID ELECTROLYTES AND LITHIUM SULFIDE

Precursors (Lithium Sulfide)

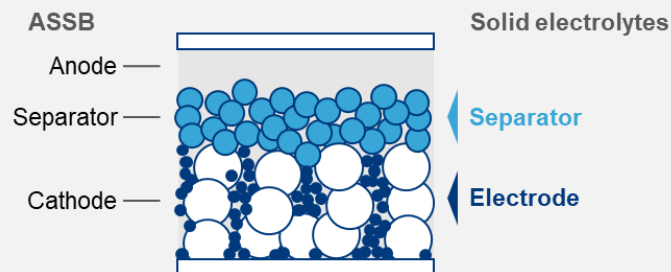


Standard product for solid electrolyte production

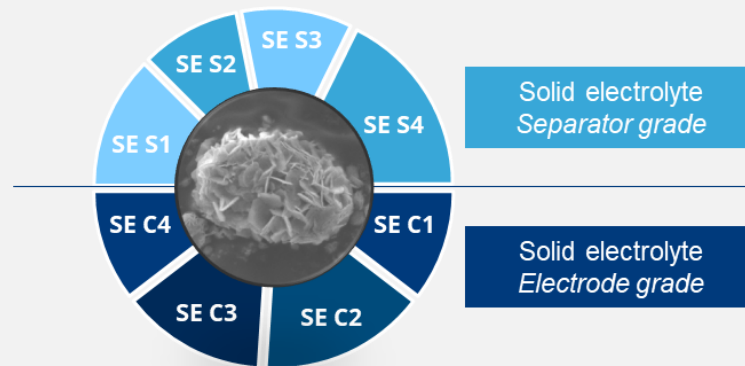


Premium product for **electrode** production

Sulfidic Solid Electrolytes



Solid electrolyte portfolio



- Broad portfolio of sulfide-based solid electrolytes
- Scalable production process
- Proprietary process filed for patent

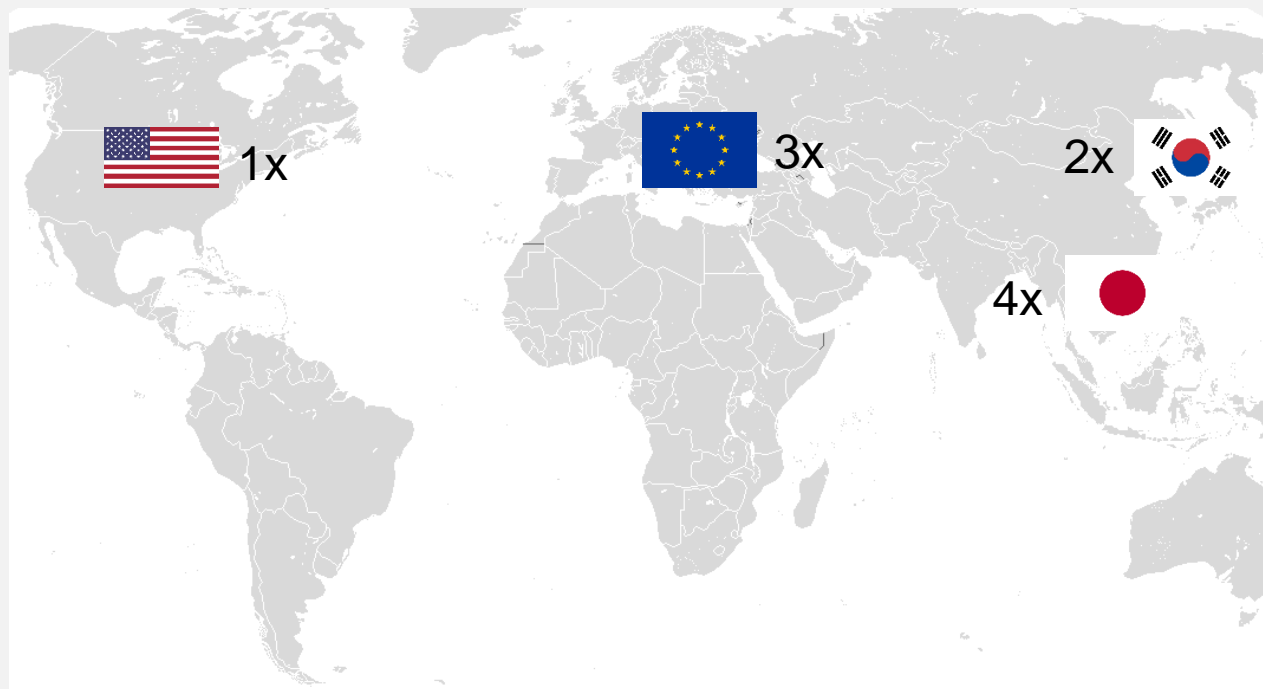
GLOBAL CUSTOMER ACTIVITIES

Current status:

Projects with customers in:

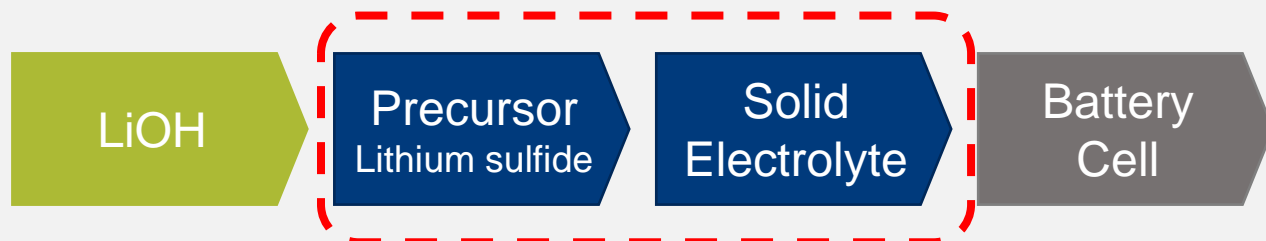
- Europe (3x): development projects & evaluation
- USA (1x): qualification
- Japan (4x): qualification & evaluation projects
- Korea (2x): sampling & evaluation

- **Addressable AMG customer potential: 6.000+ MT/a in 2028**

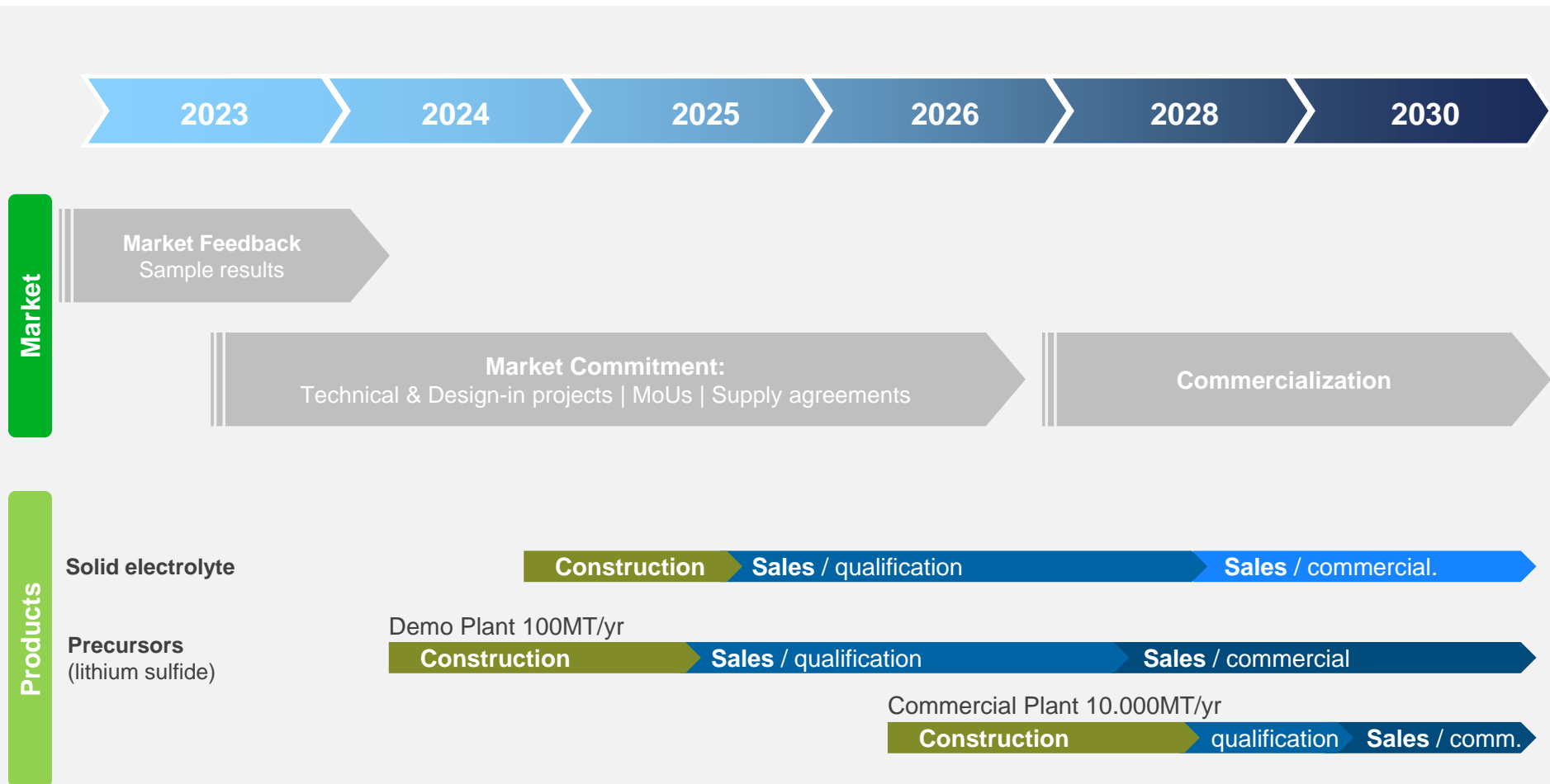


Our position:

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



LITHIUM SULFIDE & SOLID ELECTROLYTE ROADMAP

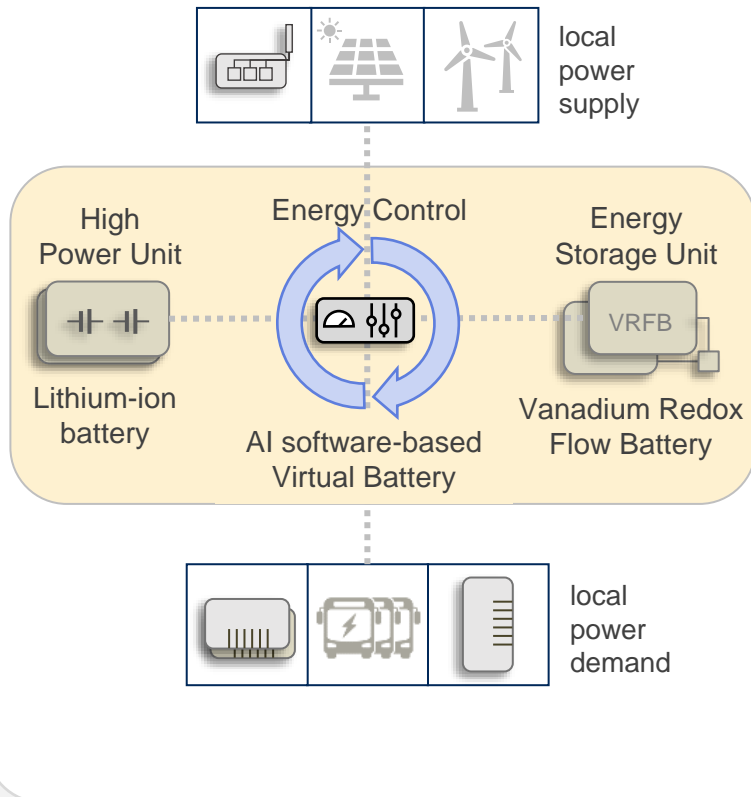


LIVA Power Management Systems



LIVA APPROACH: CONCEPT OF A HYBRID BATTERY

Hybrid Energy Storage System



Large scale energy storage systems:

Managing the fluctuating power demand and power supply, integrating and shifting unsteady renewable energies (solar & wind)

Technical approach:

- ▶ High power unit (Li-ion battery)
- ▶ Energy storage unit (Vanadium Redox Flow battery)
- ▶ Software solution with artificial intelligence (AI)
- ▶ Control system for multiple energy assets including power production, hydrogen, and process heat and cooling

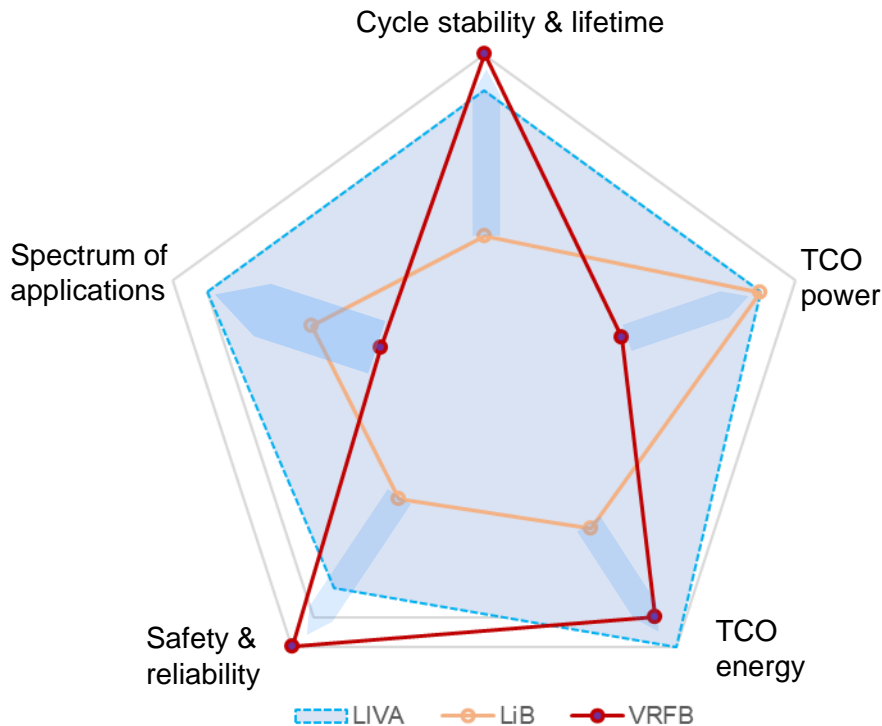
Environmentally friendly battery:

- ▶ Low CO₂ footprint of the energy storage system
- ▶ Green mining strategy
- ▶ No problematic raw materials
- ▶ Fully closed recycling

TECHNICAL ADVANTAGE & BENEFITS OF A HYBRID ENERGY STORAGE SYSTEM ('HESS')

LIVA's battery technology approach: use respective KPI advantages (key performance indicators)

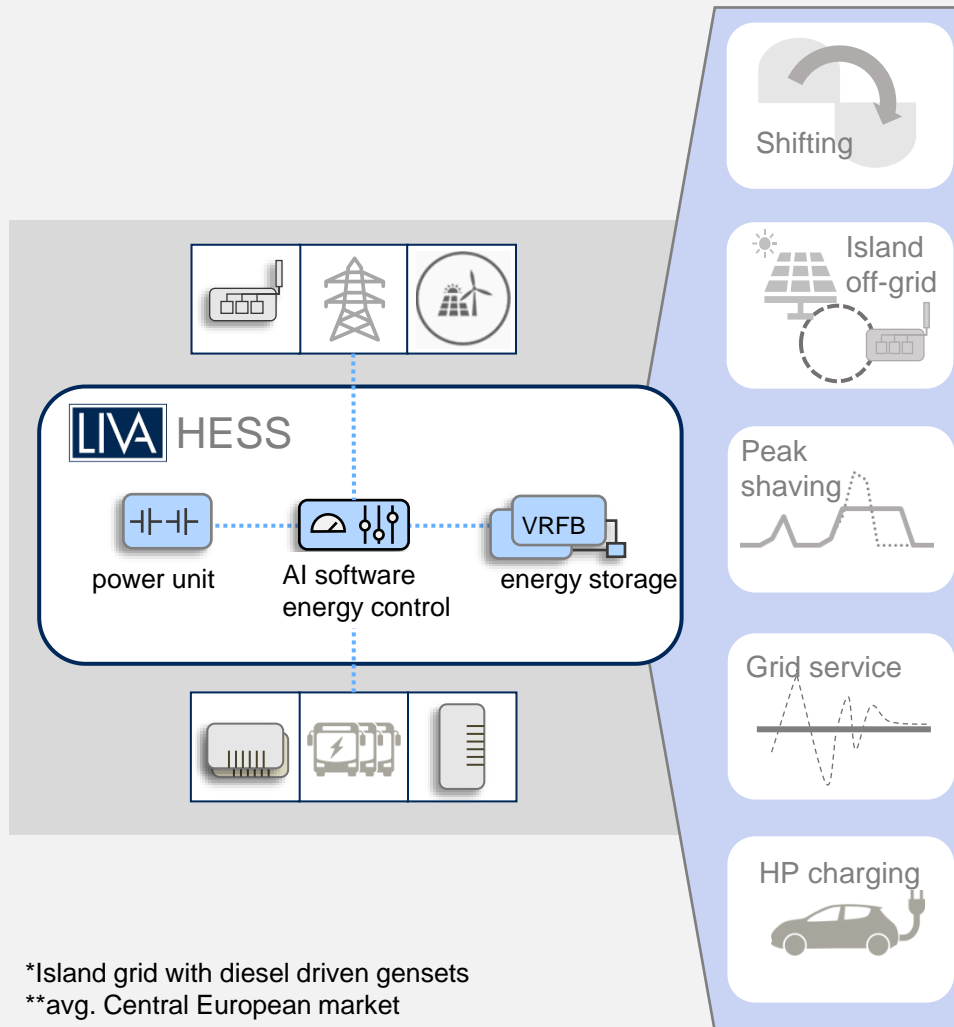
Performance profile virtual HESS



Advantage & Benefits

- ▶ Broad Range of industrial and grid scale applications
- ▶ Optimal use of the KPI's
- ▶ Increased overall system efficiency to power supply and energy storage
- ▶ Improved safety & increased reliability (availability >99,9%)
- ▶ Long lifetime of the batteries: 15-20 years, +20,000 cycles
- ▶ Lowest Total Cost of Ownership/ Levelized Cost of Storage (LCOS)
- ▶ Custom tailored system with flexible up-grade capabilities for power and energy
- ▶ Low CO₂ footprint at life-cycle

APPLICATIONS LIVA HYBRID ENERGY STORAGE SYSTEMS



Energy applications

- *Prosumer*. Optimized self consumption and self-sufficiency with solar & wind
- Efficient off-grid & island solutions
- Reducing CO₂ emission up to -80% vs. Diesel gensets. Reduce electricity costs up to -55%*

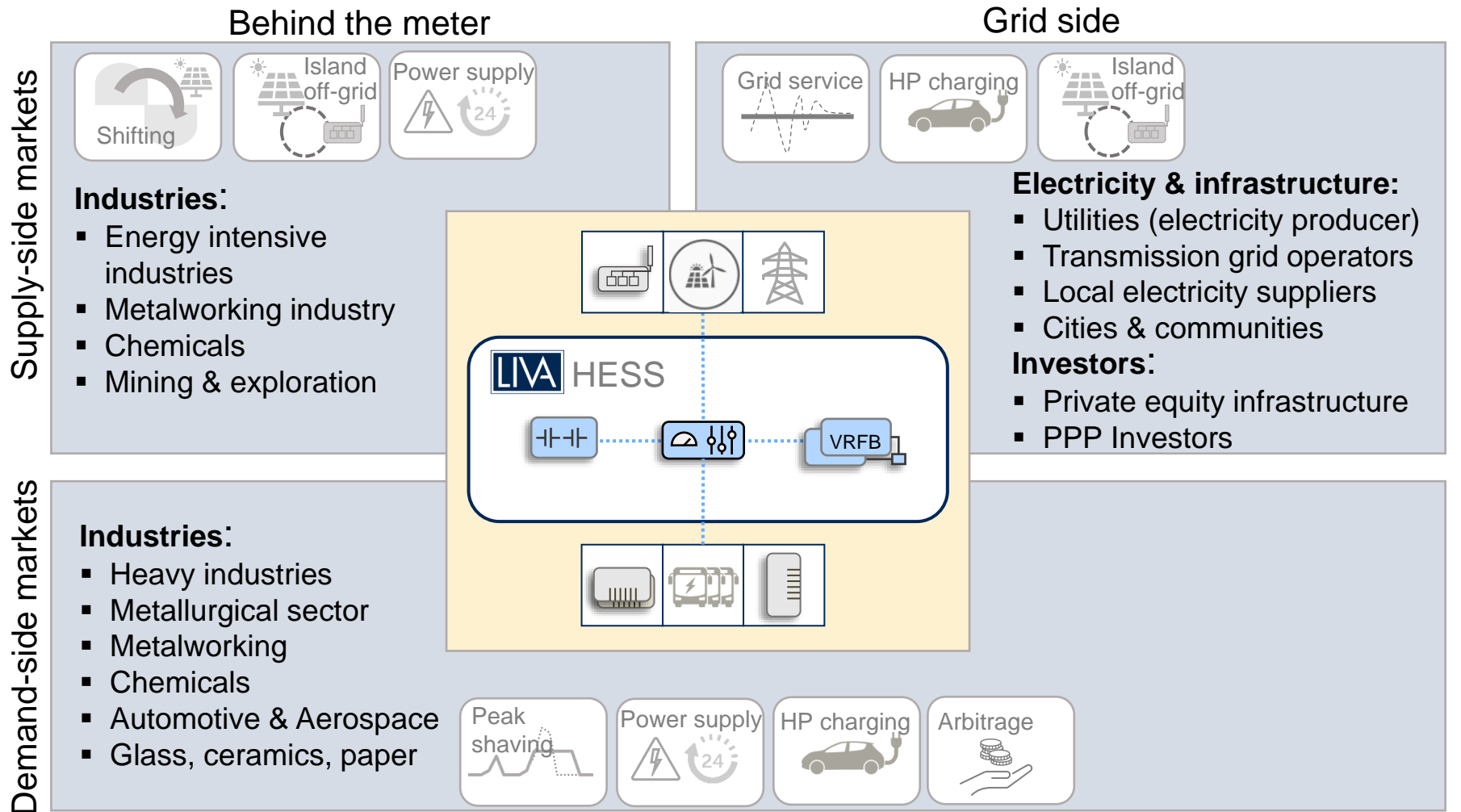
Power applications

- Reduce power peaks (peak shaving) and power grid cost up to -80%**
- Grid stabilization & power quality improvement: frequency containment reserve, grid peak load management
- Emergency/uninterrupted power supply with black starting capabilities

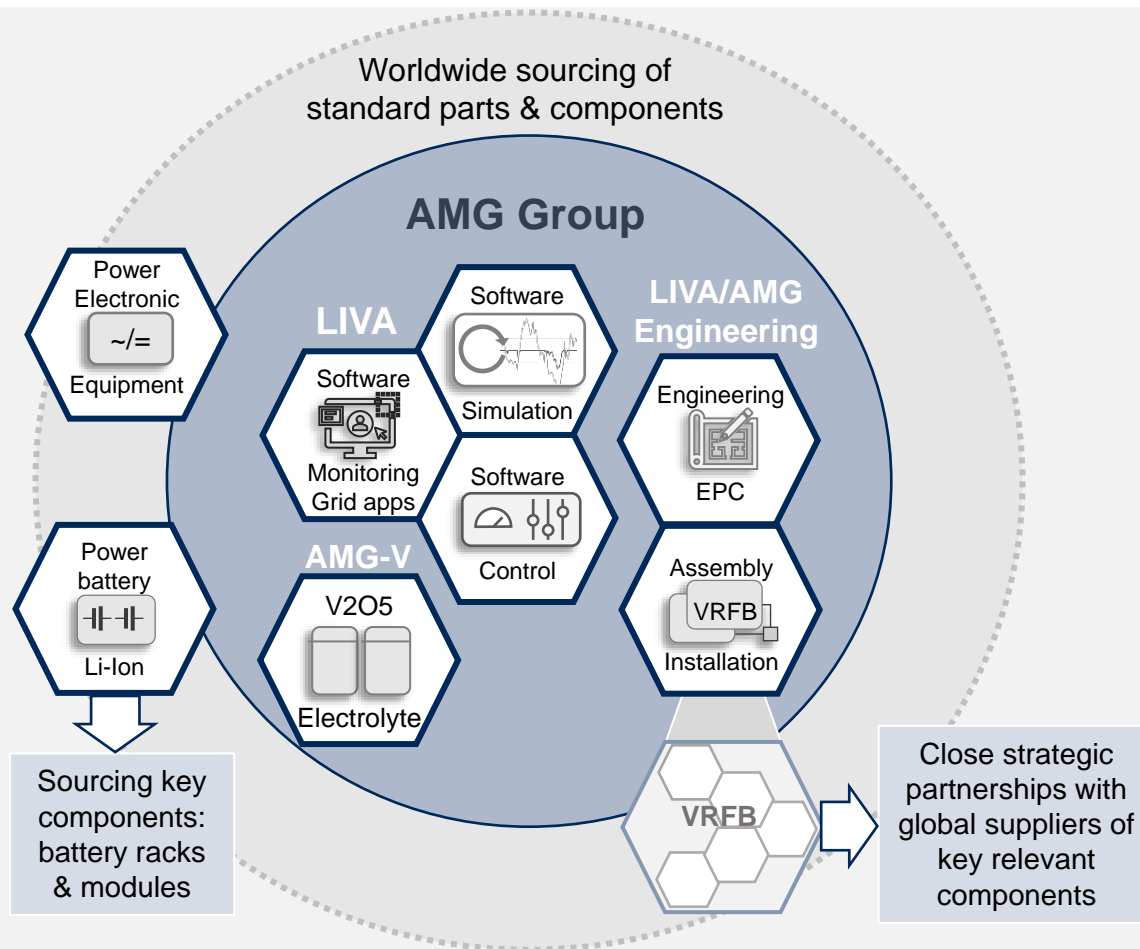
New applications

- Electric vehicle infrastructure: Integrate renewable energies & high-power charging
- Opportunity charging & discharging: Arbitrage spot market of electricity

MARKET OF THE APPLICATIONS



VALUE CHAIN: INTEGRATION WITH AMG ACCELERATES LIVA'S GROWTH



LIVA delivers a customized, turnkey facility

- Full-service engineering, procurement and construction (“EPC”) of a Hybrid Energy Storage System (“HESS”)
- Automated operations and energy balancing with self-learning algorithms
- Remote monitoring with analytics and monthly reporting
- Utilizing AMG Engineering to accelerate our EPC offering
- Backward integrated to vanadium electrolyte production in Nuremberg

Power Management as a Service

LIVA IS PLANNING A RAPID EXPANSION OF HYBRID ENERGY STORAGE SYSTEMS (“HESS”)

1. AMG Graphite Hauzenberg, Germany

Current Use:

- Peak Shaving
- Emergency Power

Future Expansion:

- Solar Energy Integration
- Grid Service

Size 3,5 MWh

2. Wipotec Kaiserslautern, Germany

Planned Uses

- Renewable Integration:
 - Solar
 - Wind
 - Geothermal
- Energy Shifting
- Peak Shaving
- Grid Service

Size: 4 MWh

3. AMG Titanium Nuremberg, Germany

4. AMG Chrome Rotherham, UK

5. AMG Vanadium Cambridge, Ohio

Planned Uses

- Peak Shaving
- Solar Integration / Energy shifting
- Grid Services
- Emergency Power

Total size: 15 MWh

6. Large Scale Industrial Customer (Electro Steel)

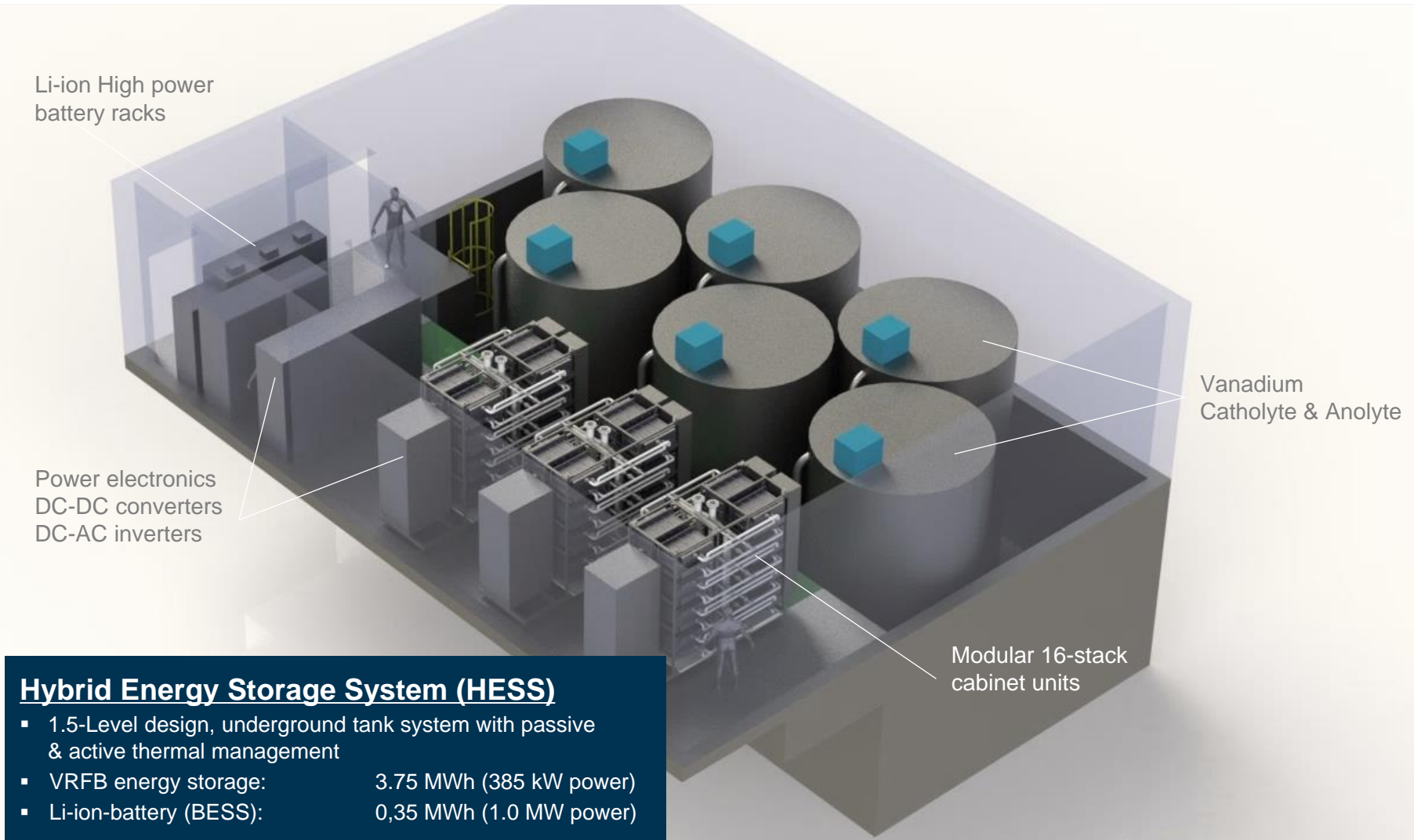
Planned Uses

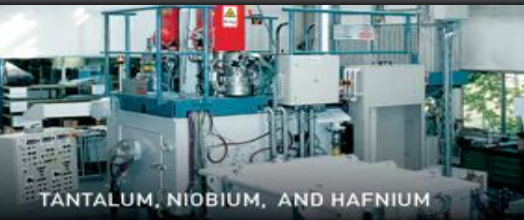
- Integrated Energy Management
- Replace diesel generators
- Peak Shaving
- Grid Service
- Renewable Integration

Lithium-ion Battery:
28 MWh

Vanadium Redox Flow
Battery: 80 MWh

THANK YOU!





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.
amg-nv.com

