



Green Battery Materials



RIU Fremantle – February 2023

ASX: **NMT** | AIM: **NMT** | OTC: **RDRUY** | DEU: **9R9**

Disclaimer

Summary information:

This document has been prepared by Neometals Ltd (“Neometals” or “the Company”) to provide summary information about the Company and its associated entities and their activities current as at the date of this document. The information contained in this document is of general background and does not purport to be complete. It should be read in conjunction with Neometals’ other periodic and continuous disclosure announcements lodged with the Australian Securities Exchange, which are available at www.asx.com.au.

Forward-looking information:

This document contains, opinions, projections, forecasts and other statements which are inherently subject to significant uncertainties and contingencies. Many known and unknown factors could cause actual events or results to differ materially from the estimated or anticipated events or results included in this document. Recipients of this document are cautioned that forward-looking statements are not guarantees of future performance.

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Financial data:

All figures in this document are in Australian dollars (AUD) unless stated otherwise.

Not financial product advice:

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Investment risk:

An investment in securities in Neometals is subject to investment and other known and unknown risks, some of which are beyond the control of Neometals. The Company does not guarantee any particular rate of return or the performance of Neometals. Investors should have regard to the risk factors outlined in this document.

Compliance Statement:

The information in this document that relates to Exploration Results, the Mineral Resource Estimate and the Ore Reserve Estimate for the Barrambie VTM Project has been extracted from ASX Releases set out below, which are available at www.neometals.com.au

17/04/2018	Updated Barrambie Mineral Resource Update
11/07/2018	Barrambie Test Work Produces +90% Purity Titanium Slag at High Recoveries
22/12/2020	Barrambie Flowsheet Breakthrough
3/11/2022	Barrambie - Successful Commercial Smelting Trials For Barrambie
17/11/2022	Robust Outcomes From Barrambie Titanium Project PFS

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that in the case of estimates of Mineral Resources or Ore Reserves all material assumptions and technical parameters underpinning the estimates in the market announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcements.

Executive Summary



Neometals

Neometals is an emerging, sustainable battery materials producer.



3 business units supporting energy transition in the EV / ESS supply chains:

Li-ion Battery Recycling (Ni/Co)
Vanadium Recovery
Lithium Chemicals



Underpinned by proprietary, green, processing technologies

16 Granted Patents
54 Patents Pending



ESG commitment. Recycling and recovery minimise reliance on mined materials and reduce carbon footprint



Focus on continuous development and innovative commercialisation with strong partners



Strong, growing team with track-record of value creation, project execution and shareholder return.

Core Battery Materials Business Snapshot

Business Unit

Business Unit Partners

Project Development Partners

Key Regions of Focus

Lithium-ion Battery Recycling

50:50 Incorporated JV

Primobius

SMS group

Mercedes-Benz

STELCO

ITOCHU

Vanadium Recovery

Co-operation Agreement for 50:50 Incorporated JV

Critical Metals

SSAB

H2green steel

Lithium Chemicals

Reed Advanced Materials ("RAM") 70:30 Incorporated JV

MINERAL RESOURCES

30%

Co-operation Agreement for 50:50 Incorporated JV with RAM

BONDALTI

EVOLVING CHEMISTRY

Underpinned by proprietary, sustainable processing technologies that recover battery materials

Nm

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Experienced & Growing Team



Steven Cole
Chair



Chris Reed
Managing Director /
CEO



Dr Natalia Streltsova



Doug Ritchie



Dr Jennifer Purdie



Les Guthrie



Jason Carone
Company Secretary /
CFO



Giuliano Giordani
Financial Controller



Jeremy Mcmanus
GM – Investor
Relations and
Commercial



Pablo Carabajal
Manager - Finance



Anél Joubert
Manager - ESG



Michael Tamlin
COO/Lithium



Merrill Gray
Head of Recycling



Paul Wallwork
GM – Marketing and
Product
Development



Matthew Read
GM – Lithium
Projects



Gavin Beer
GM – Lithium
Processing



Matthew Carter
Manager - Data



Dirk Kotzee
Manager – Project
Services



Adam Farghaly
Senior Project
Metallurgist



Darren Townsend
CDO/Vanadium



Irena Ivanova
GM – Evaluation
Studies



David Robinson
GM – Metallurgy and
R&D



Greg Hudson
GM – Geology



Casper Adson
GM – Barrambie
Project



Rihanna Vanin
Project Engineer



Eric Taarland
GM – Vanadium
Marketing



Owen Casey
Senior Project
Geologist

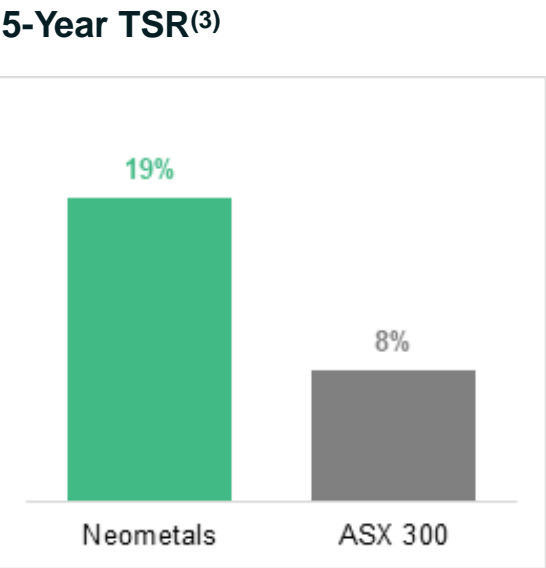
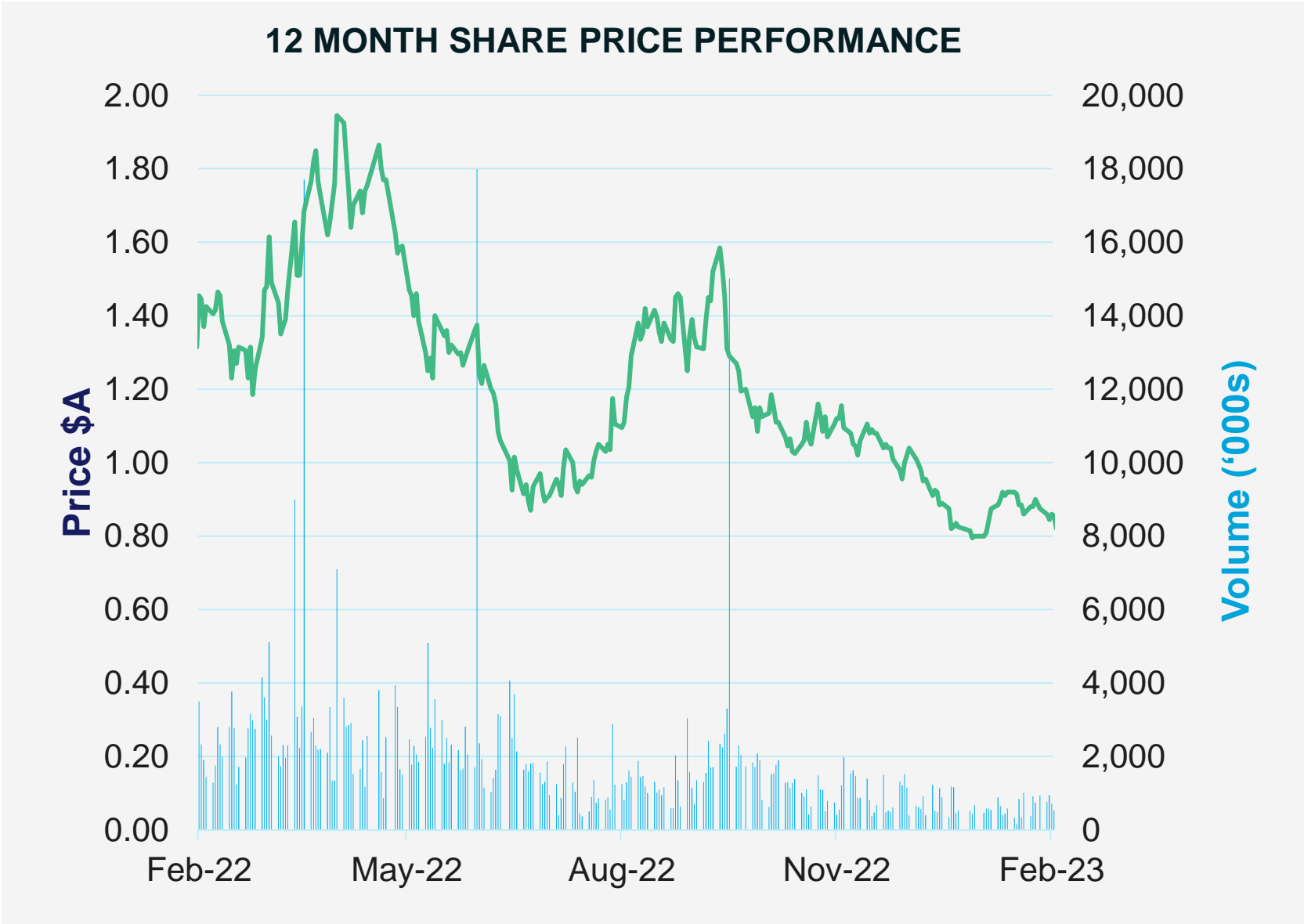
Corporate Dashboard

NEOMETALS HAS SIGNIFICANTLY OUTPERFORMED THE ASX200
A\$82M RETURNED VIA DIVIDENDS AND BUY BACKS IN THE LAST ~5 YEARS

ASX: NMT OTC:RDRUY		
Shares on Issue ⁽¹⁾	m	552.7
Share Price	A\$	0.86
Market capitalisation	A\$m	467.1
Cash (30-Dec-22)	A\$m	42.0
Debt	A\$m	-
Investments (30-Dec-22) ⁽²⁾	A\$m	29.4

MAJOR SHAREHOLDERS	
David Reed	5.5%
Clearstream/Deutsche Börse	3.9%
Top 20	39.8%
No of Shareholders	~14,572

Notes: Market data as at 15 February 2023 (unless otherwise noted)
⁽¹⁾ Excludes 12.6M performance rights
⁽²⁾ Receivables and investments
⁽³⁾ Sourced from Bloomberg (as at 30 December 2022) assumes dividends re-invested





Lithium-ion Battery (LiB) Recycling

Intellectual Property Holding Company
50% Neometals / 50% SMS group

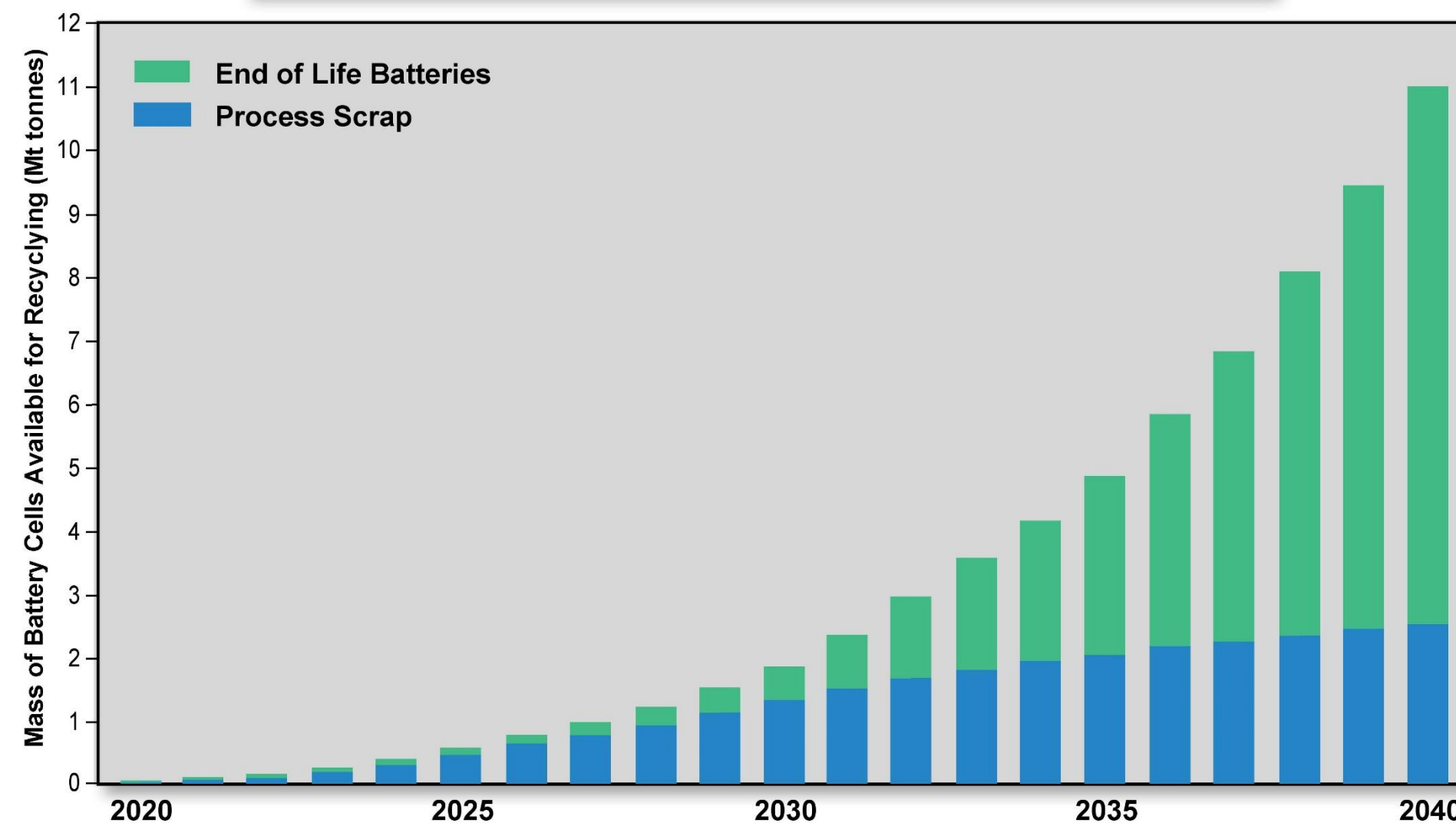
Primobius GmbH – Commercialisation
Incorporated 50:50 JV with SMS group

Primobius
Battery recycling without limits

Aim is to be leading provider of recycling solutions to OEM's

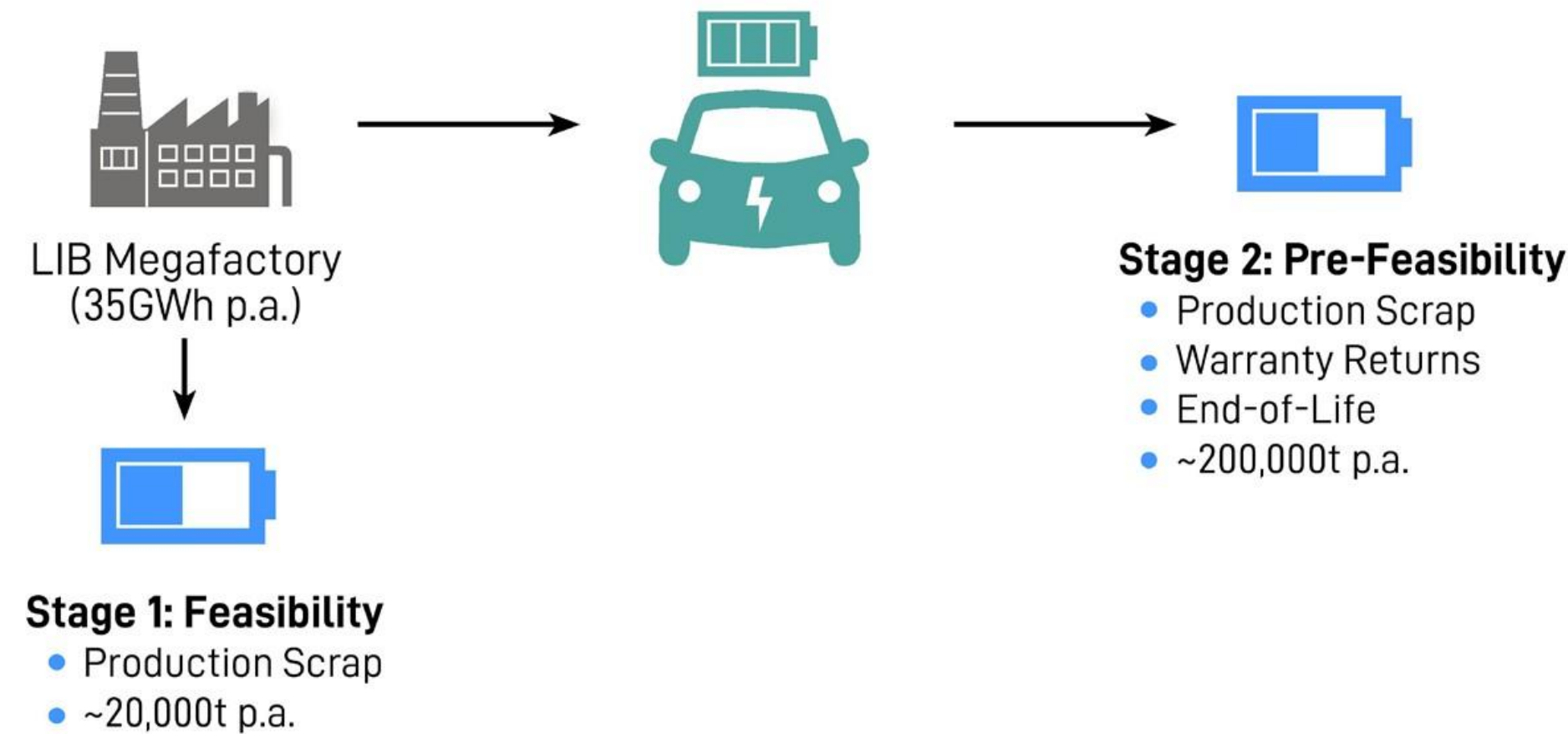
OUR SCALABLE PLANT SOLUTIONS ADDRESS GROWING VOLUMES OF PRODUCTION SCRAP AND END-OF-LIFE BATTERIES

Global Battery Volume Available for Recycling



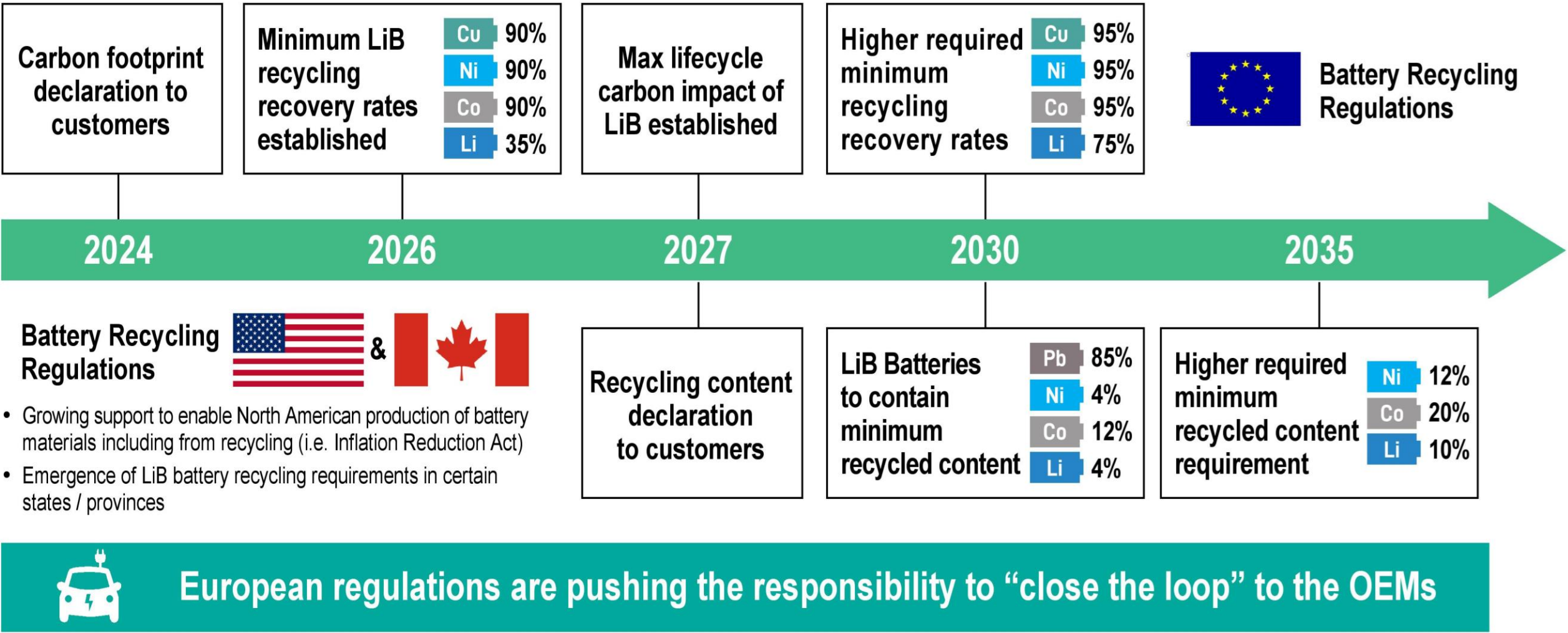
Source: Benchmark Minerals Intelligence (Dec. 2022), Battery Density - NMT Management (4t/MWh)

Aim is to be Recycler of Choice for Cellmakers & Car Makers



European Regulation Driving Automakers to “Close the Loop”

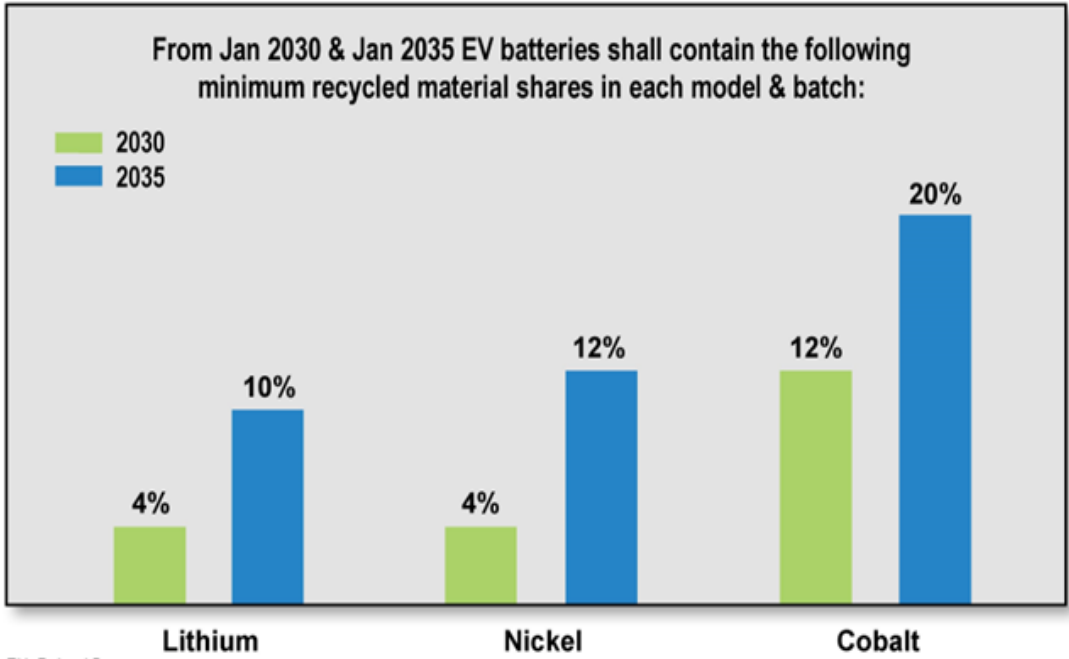
AIM TO BE THE FIRST TO BE FULLY COMPLIANT WITH ALL EU BATTERY REGULATIONS
FOR LIB RECYCLING, ON TRACK FOR 2026



Source: European Commission, FCAB

	Current TRL
Copper Recovery	87.4%
Nickel total recovery	84.4 %
Cobalt total recovery	82.3 %
Lithium total recovery	83.5 %

EU Mandatory Recycling Content



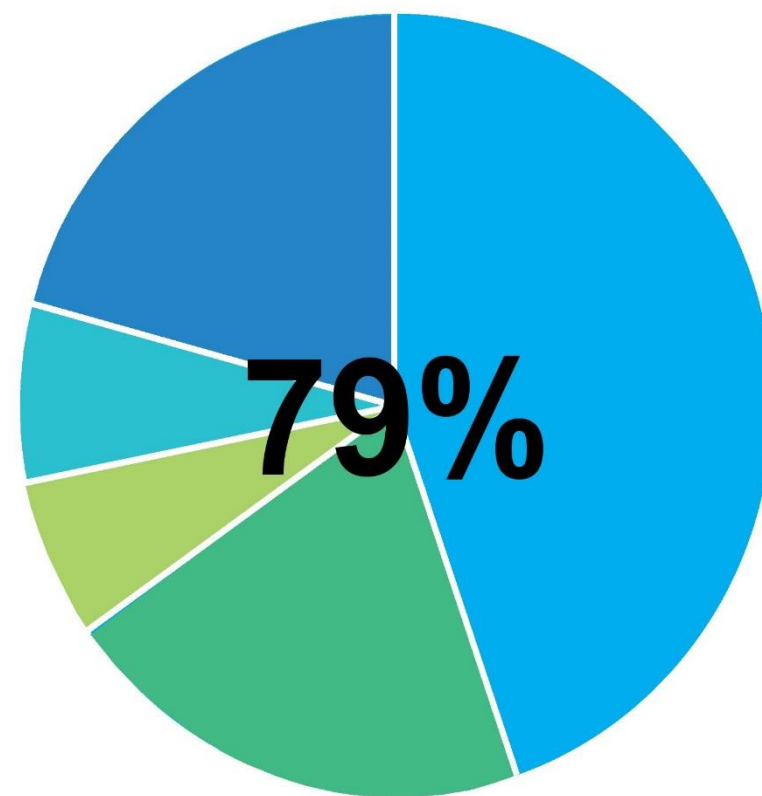
Source: EU, Roland Berger

Source: European commission, FCAB

Recycling = lowest cost materials

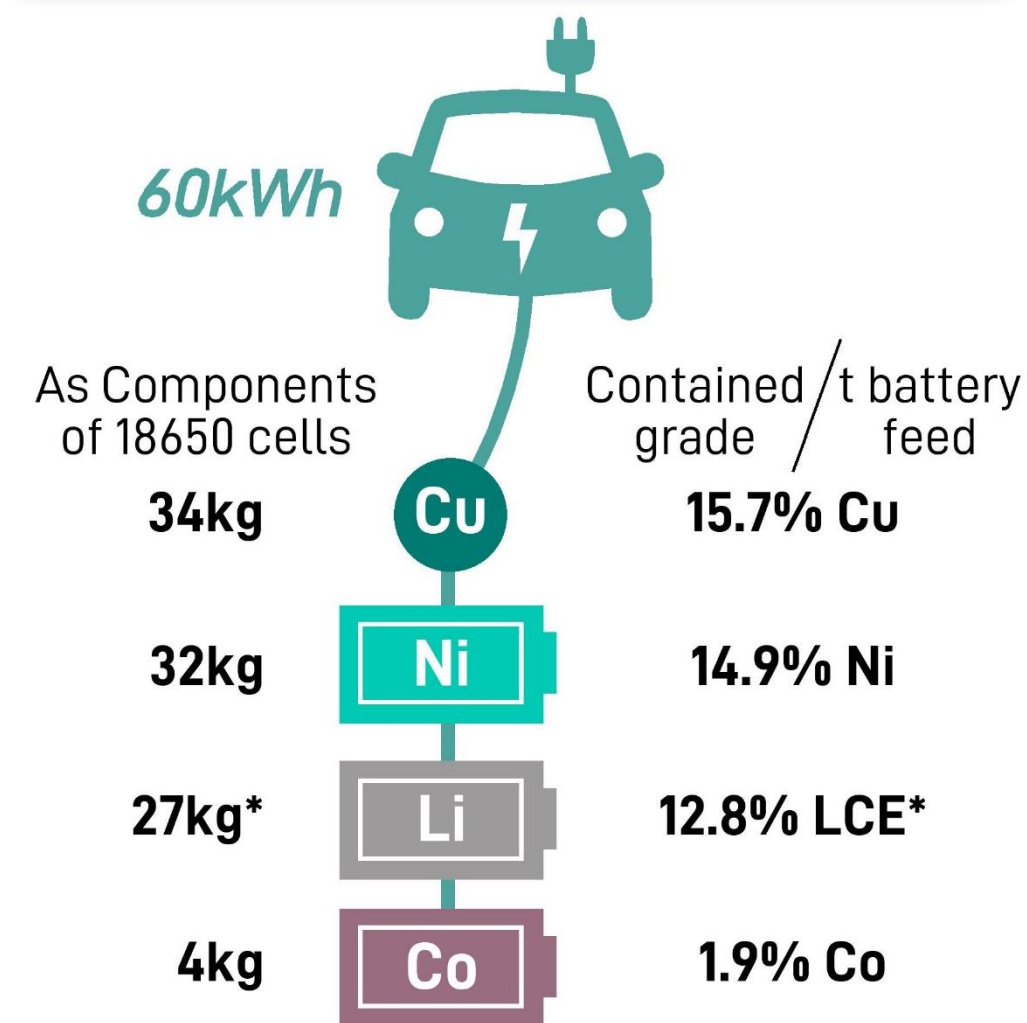
APPROX. 80% OF THE COST OF LITHIUM-ION BATTERIES IS IN THE RAW MATERIALS

Lithium Ion Cell Manufacturing Cost



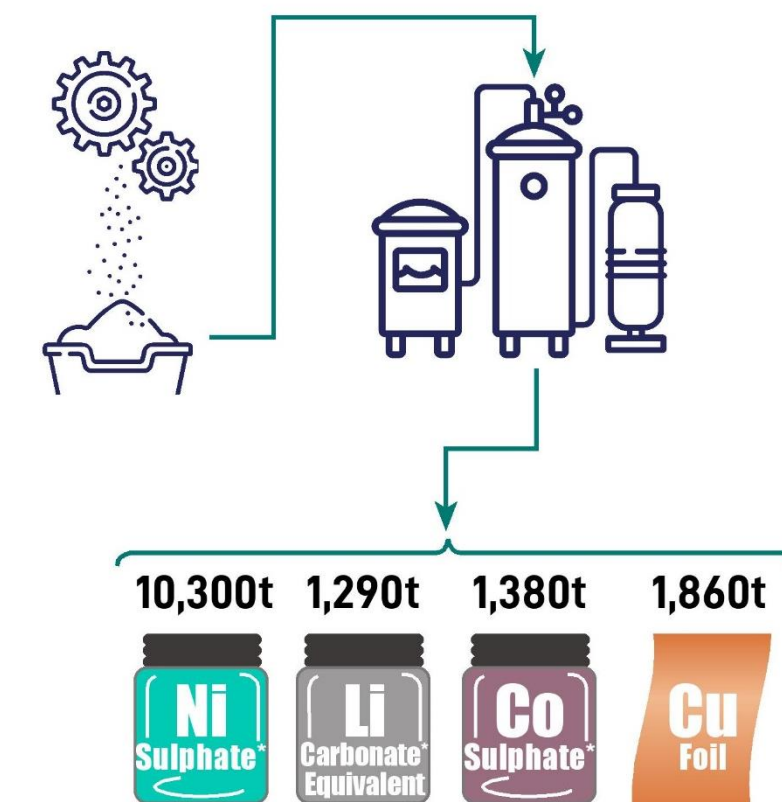
Source: Benchmark Mineral Intelligence

Typical BEV Battery Composition
Using NCM 811 Chemistry



* Lithium Carbonate Equivalent

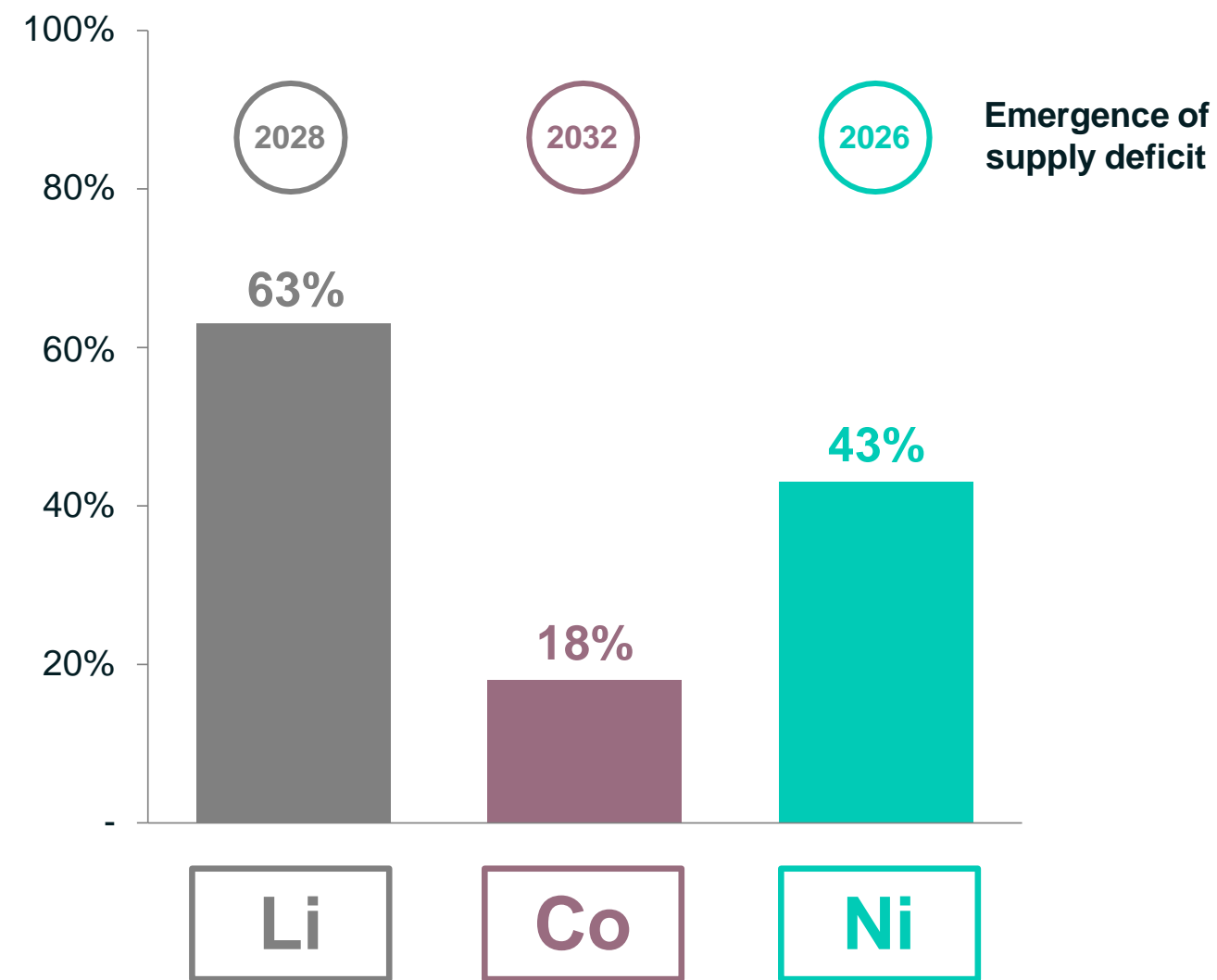
Annual Primobius Production
@ 50 Tonnes per Day of Battery Cells



*CoSO₄ · 7H₂O, NiSO₄ · 6H₂O, Li₂CO₃

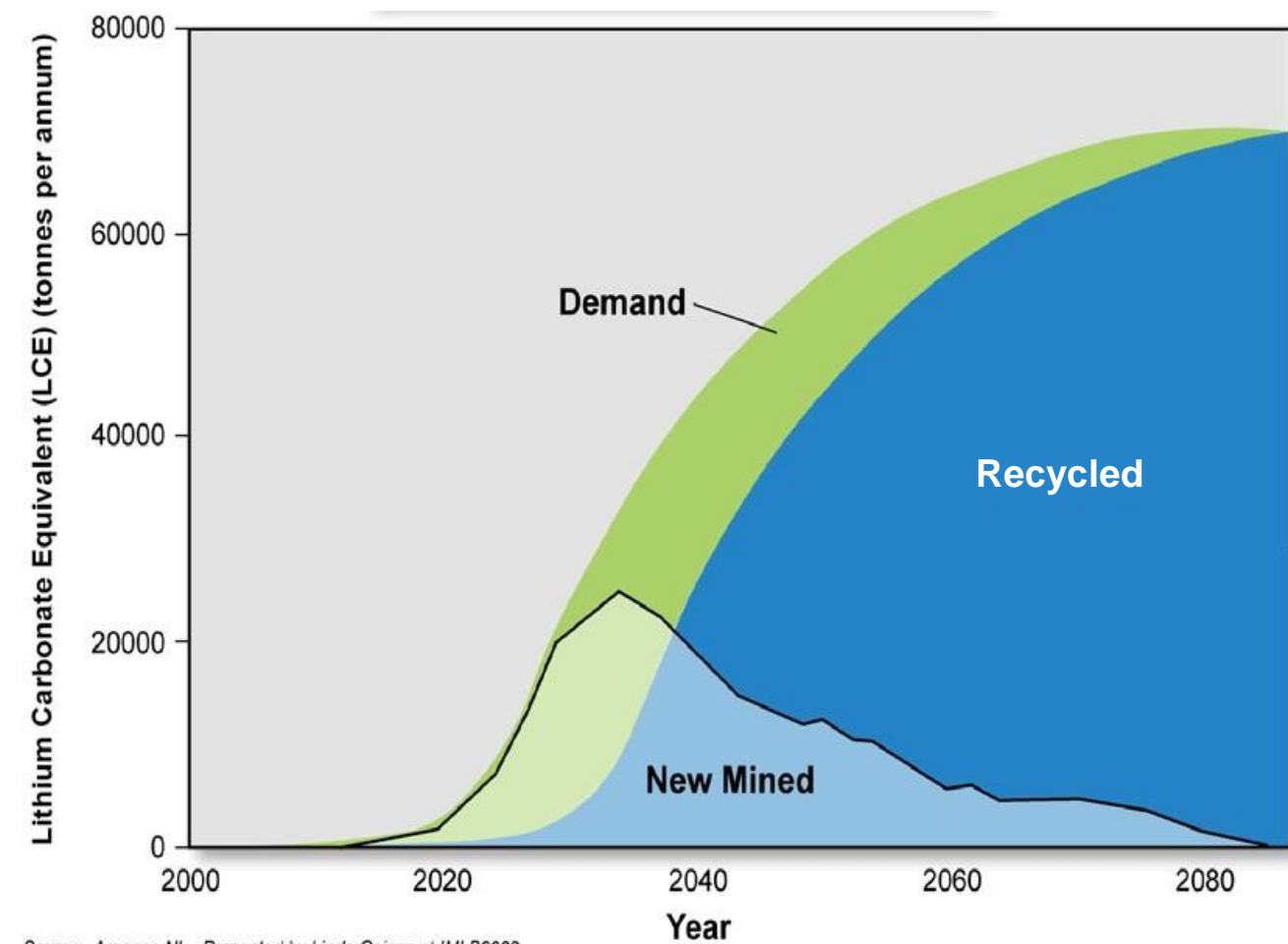
Recycling = secure, resilient raw material supply chains

Supply Deficits for Key Recovered Material (% of Demand 2040)



Source: Wood Mackenzie

By 2040, Recycled LCE will be the main source of Lithium



Source: Argonne NL - Presented by Linda Gaines at IMLB2022

Source: Argonne NL - Presented by Linda Gaines at IMLB2022.

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Recycling = greenest raw materials

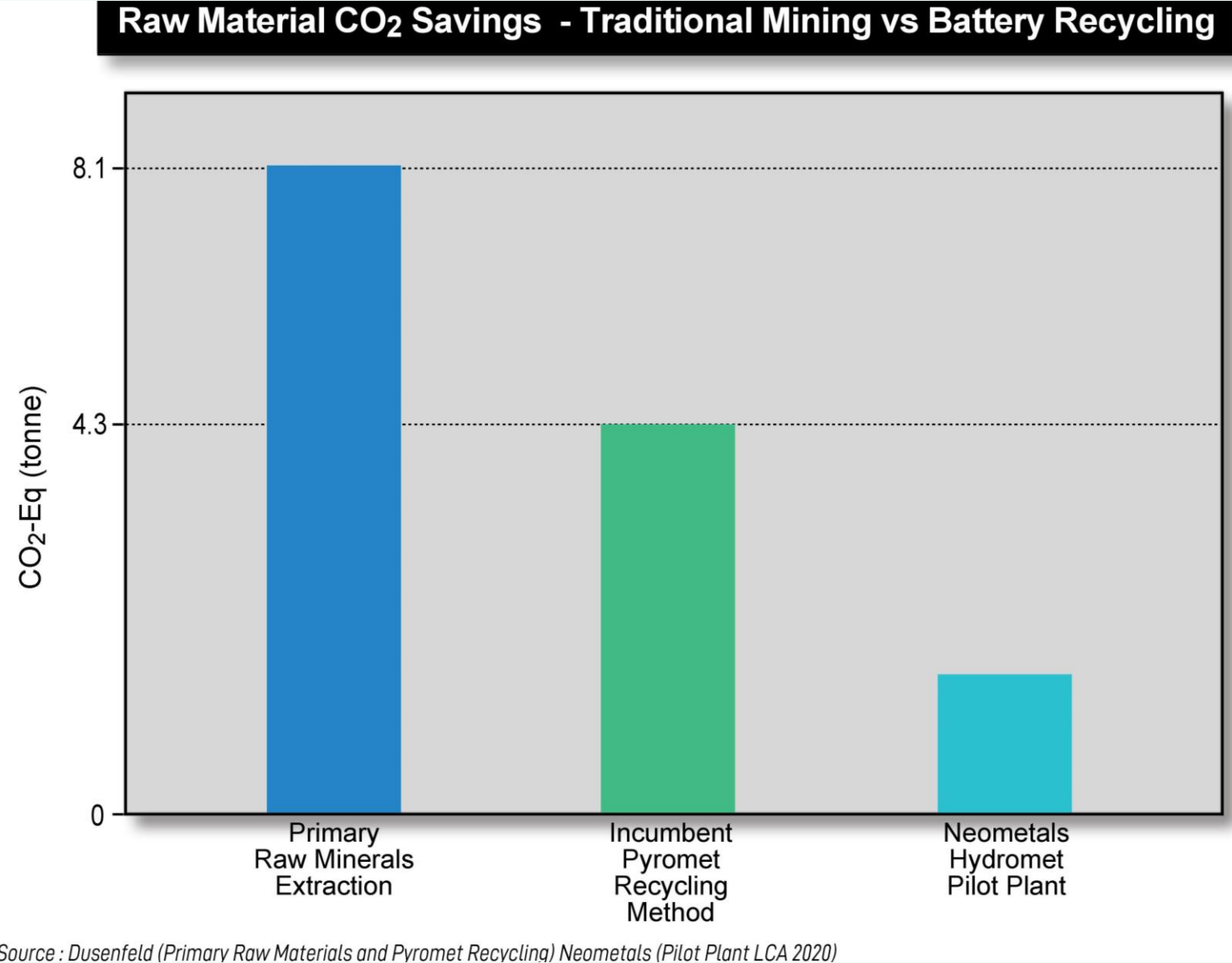
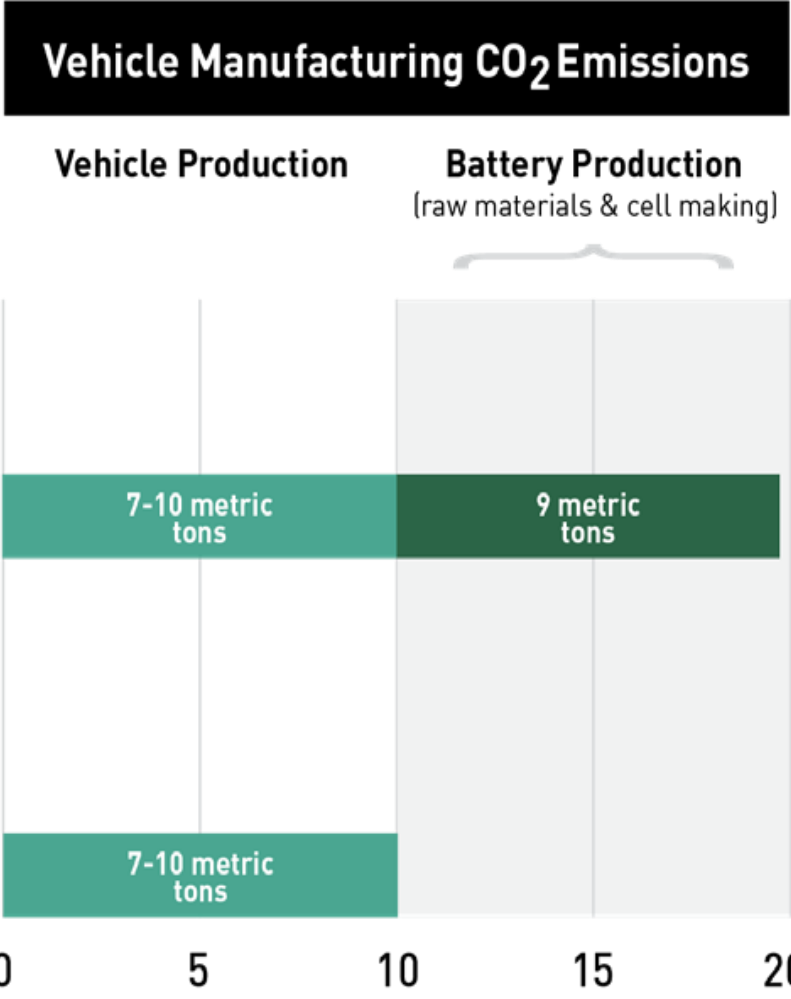
OUR PROCESSING TECHNOLOGY REDUCES THE CO2 FOOTPRINT BY >80% VS MINED RAW MATERIALS



⚡ Electric car



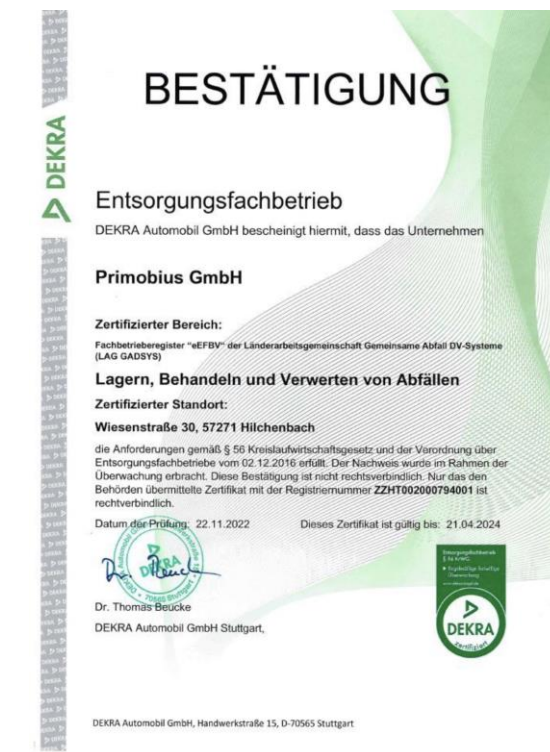
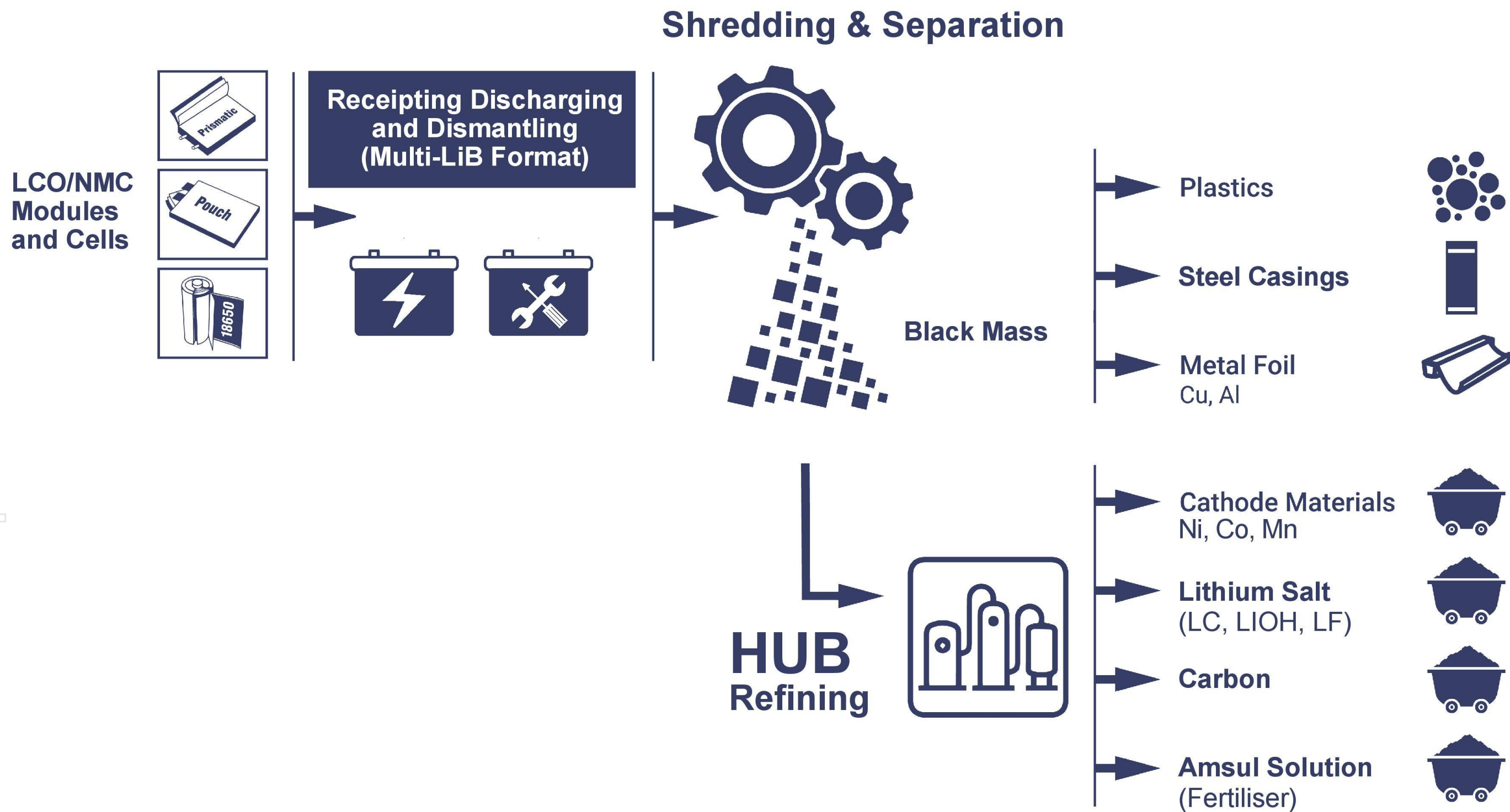
💧 Internal combustion engine car



Source: Duesenfeld

Our patent-pending recycling solution

1. PRIMOBIUS' FULLY CERTIFIED DISPOSAL SERVICE IN HILCHENBACH, GERMANY SERVICES ALL OEM SUPPLY CHAINS
2. PRIMOBIUS' AWARD-WINNING TECHNOLOGY WILL DELIVER BATTERY MATERIALS WITH LOWEST CARBON FOOTPRINT



Primobius equipment solutions backed by SMS group

SMS IS A 140 YEAR-OLD LEADING GERMAN PLANT BUILDER, 14,500 EMPLOYEES IN 95 SITES AROUND THE WORLD, PRODUCTION FACILITIES IN EUROPE, NORTH AMERICAN, INDIA AND CHINA

Primobius

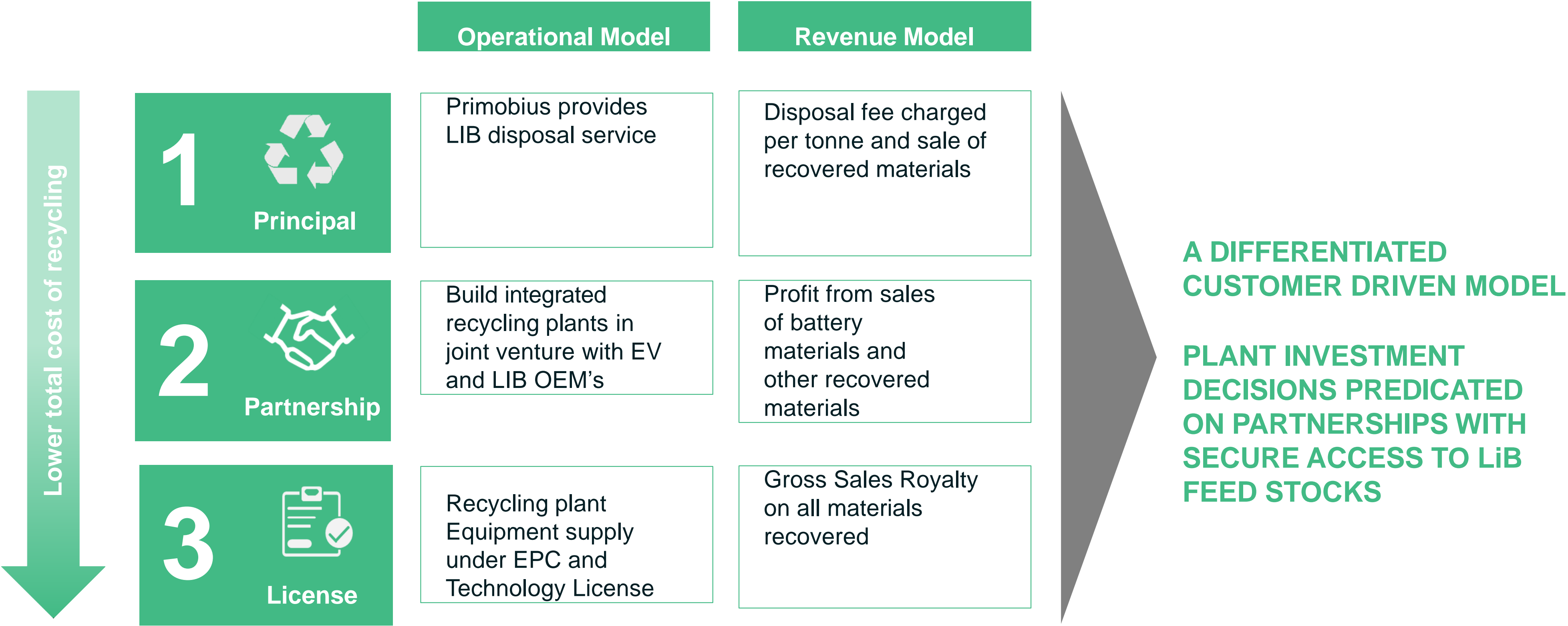
Battery recycling without limits

SMS  group



Our flexible business models deliver lowest total cost of recycling


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Commercial Pipeline*






Battery recycling without limits

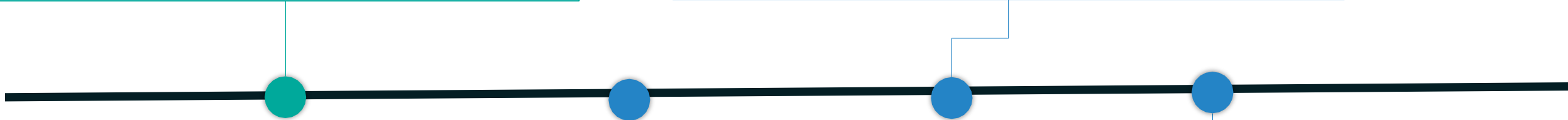





Capacity: 10tpd Spoke
Plant type: Shredding
Products: Black Mass
Business Model: Principal


The Steel Company of Canada




Capacity: 50tpd Integrated
Plant type: Shredding/Refining
Products: Black Mass and BGMS⁽¹⁾
Business Model: License & JV Option


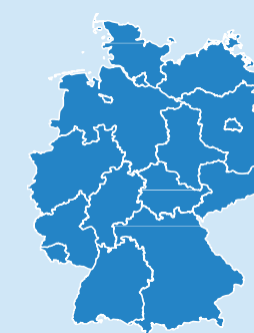




Capacity: 10tpd Integrated
Plant type: Shredding/Refining
Products: Black Mass and BGMS⁽¹⁾
Business Model: Limited Royalty-Free R&D License

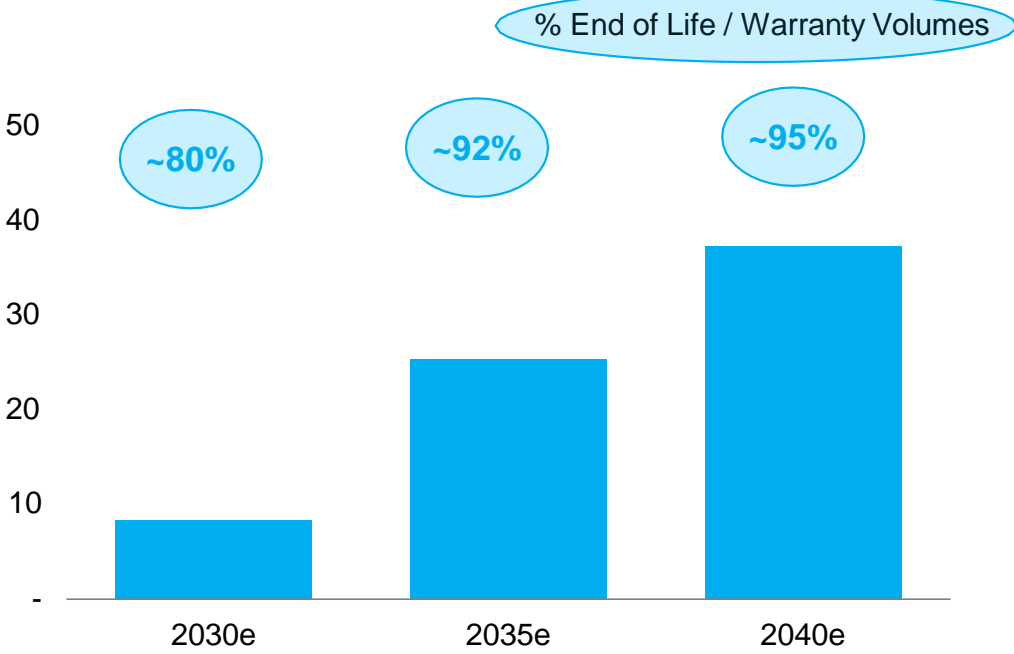

Battery recycling without limits

“Greenfields”



Capacity: 50tpd Integrated
Plant type: Shredding/Refining
Products: Black Mass and BGMS⁽¹⁾
Business Model: Principal / JV

Total Addressable Market (US\$bn)



Economies of scale and access to feed key to the success of LiB battery recyclers scale-up

Source: RBCe. NCM battery recycling North America and Europe.

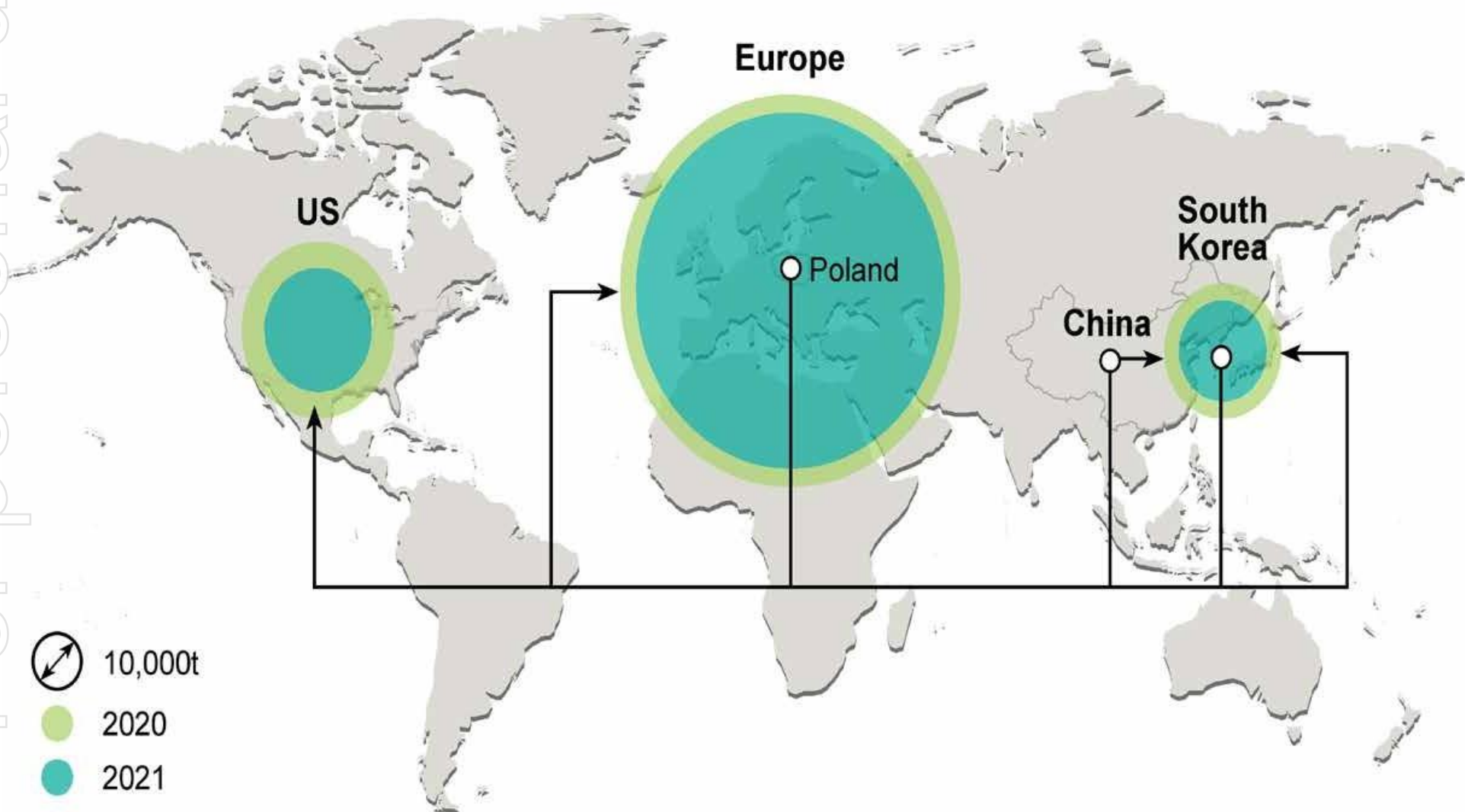
*Subject to Customer, Primobius and Neometals Board Approvals

1. BGMS = Battery Grade Metal Sulphates

Hilchenbach Spoke – establishing market share in EU

RAMPING UP TO LICENCED CAPACITY <10tpd IN SEPQ 2023, SECURED BASELOAD FEED FORCY 2023 FROM GERMAN OEM SUPPLY CHAIN

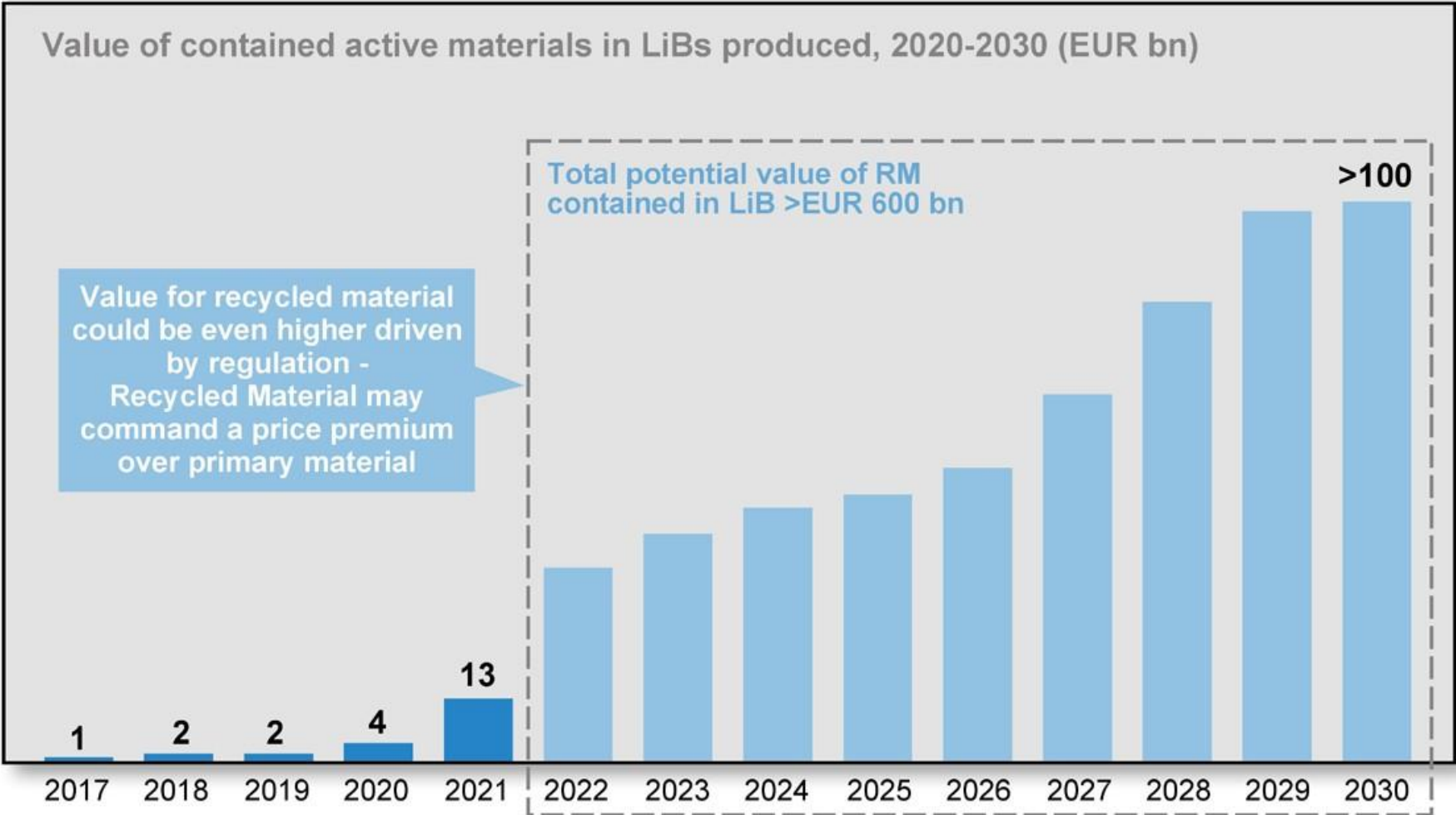
Key Lithium-Ion Battery Trade Flows, 1H21 & 1H22



Source: Argus Media Sept. 2022

Recycling Will Become a Significant Profit Pool

Batteries produced in the last 5 years contain Recycled Material in excess of EUR 20 bn & could exceed EUR 600 bn until 2030



Note: Only battery production since 2017 considered, 2022 average spot market prices limited to Li, Ni, Co, Mn
Source: Roland Berger Intergrated LiB Demand and Supply Model

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Partnership with Mercedes-Benz Cont'd

COOPERATION AGREEMENT WITH MERCEDES-BENZ (LICULAR GMBH)*



- One of the leading premium global automotive players having produced 2.3 million vehicles in 2021
- Targeting 100% of car sales to be EVs by 2030 requiring 200GWh of battery cell production capacity
- Eight new cell factories planned globally including with one in the U.S. and four in Europe



~3.5%
of Global Vehicle Sales



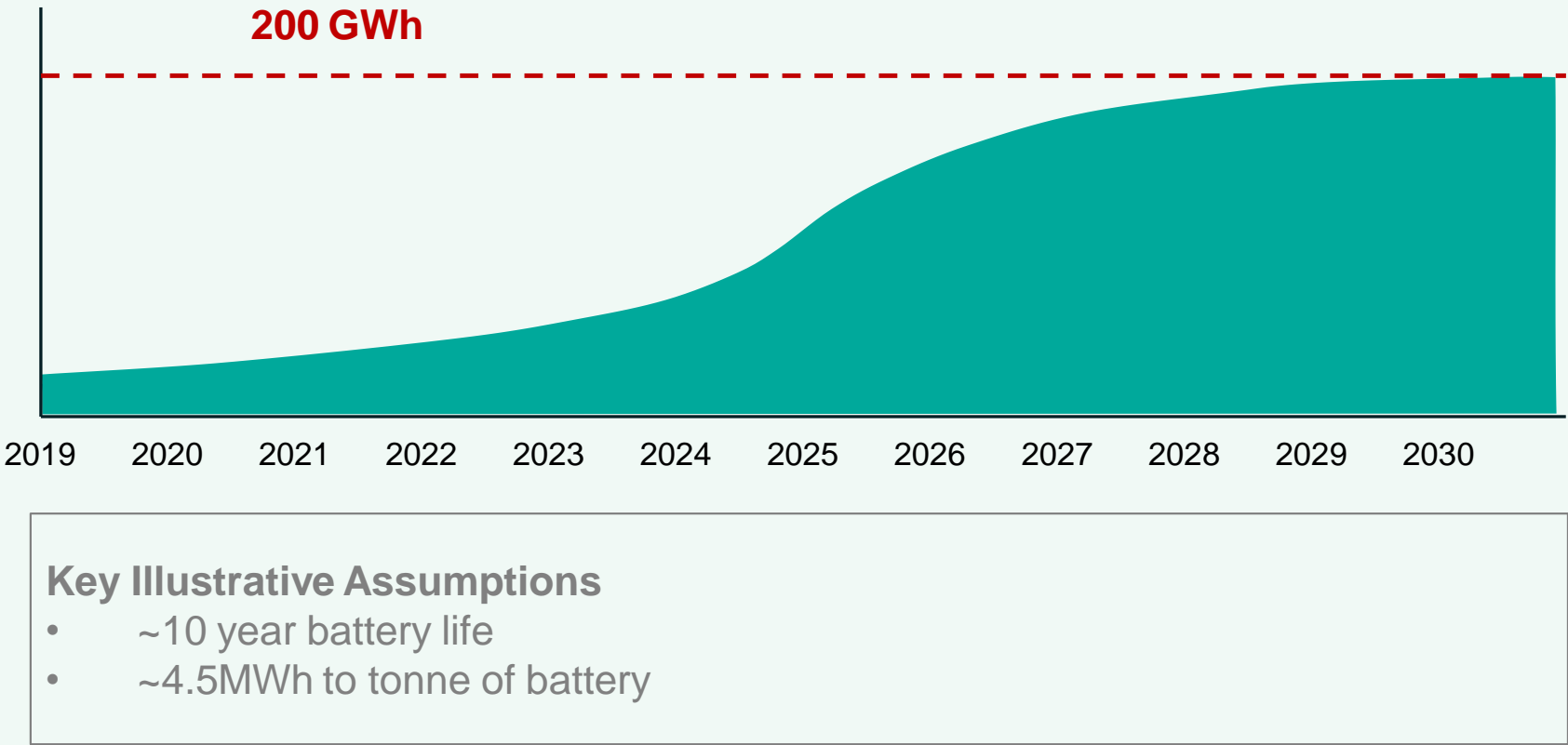
~5.4%
of EU Car Sales



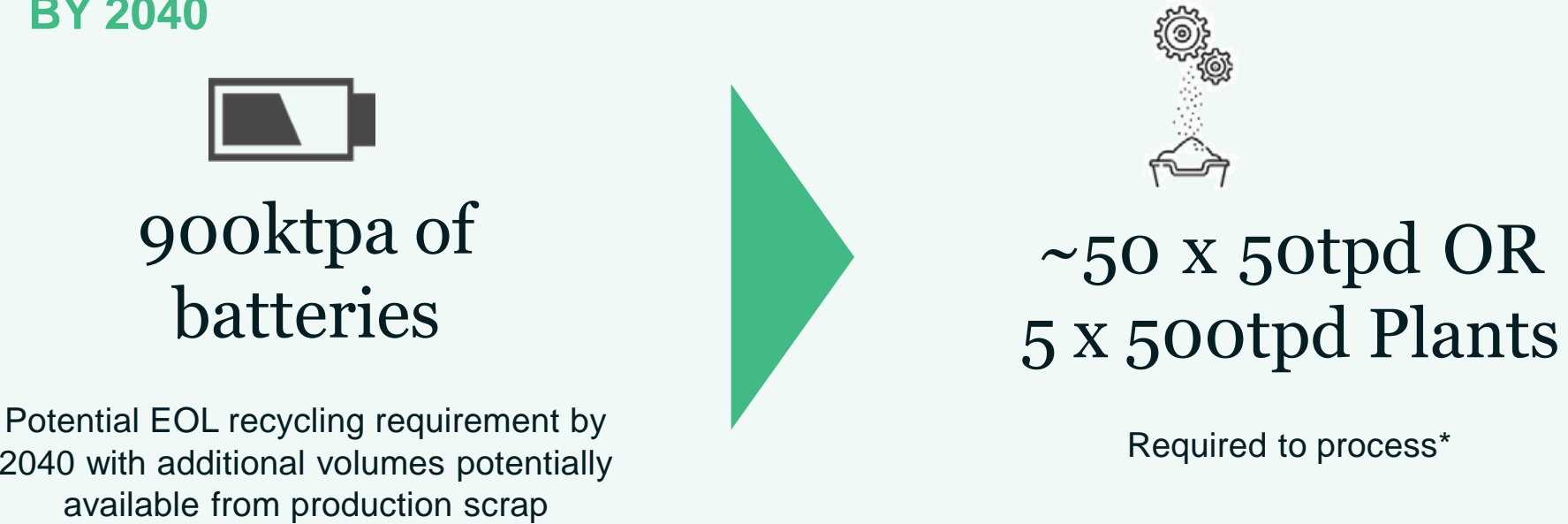
Partnership

- Cooperation agreement between Mercedes-Benz recycling subsidiary and Primobius
- Cooperation agreement follows partnership for designing and constructing a 2,500tpa Recycling Plant located in Kuppenheim, Germany
- Long-term collaboration to recycle next generation cell formats and chemistries
- Strong validation of the Primobius technology

MERCEDES-BENZ TARGET CELL PRODUCTION**



POTENTIAL MERCEDES-BENZ EOL LIB RECYCLING REQUIREMENTS BY 2040



*For further information, refer to ASX release dated 13 May 2022 – “Primobius executes Co-operation Agreement with Mercedes Benz”
 **Source: Mercedes-Benz Strategy Update: electric drive, July 2021

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Primobius Greenfields Integrated Refinery - Germany

EVALUATION OF A FUTURE INTEGRATED OPERATION IN GERMANY

- Staged Engineering and Cost Study (“**ECS**”) will deliver Operating & Capital Costs for a 50 tpd (~20,000 tpa) integrated operation covering:
 - Inbound LIB storage
 - Discharging and Disassembly of modules
 - Shredding and Separation
 - Hydrometallurgical Refinery
- The Spoke and Hub are Primobius’ products which it can deploy under different business models
- Provides template for potential customers to integrate and re-estimate, tailored to their sites
- Kaiserslautern is a potential site in an existing industrial estate

New “Gigafactories” Being Built in Germany

1. Tesla
Grünheide,
up to 250 GWh

2. Microvast
Ludwigsfelde,
up to 6 GWh

3. Farasis
Ludwigsfelde,
8-10 GWh from
2022, later
up to 16 GWh

4. VW & Northolt
Salzgitter,
up to 24 GWh
from 2024

5. CATL
Erfurt, 14 GWh
from 2022, later
up to 24 GWh

6. SVOLT
Überherrn, 6 GWh
by 2023, later
up to 24 GWh

7. ACC
Kaiserslautern,
from 2023, gradual
commissioning of
individual units, up
to a total of 24 GWh



Source: en:former

Robust Economics Across Key Battery Chemistries

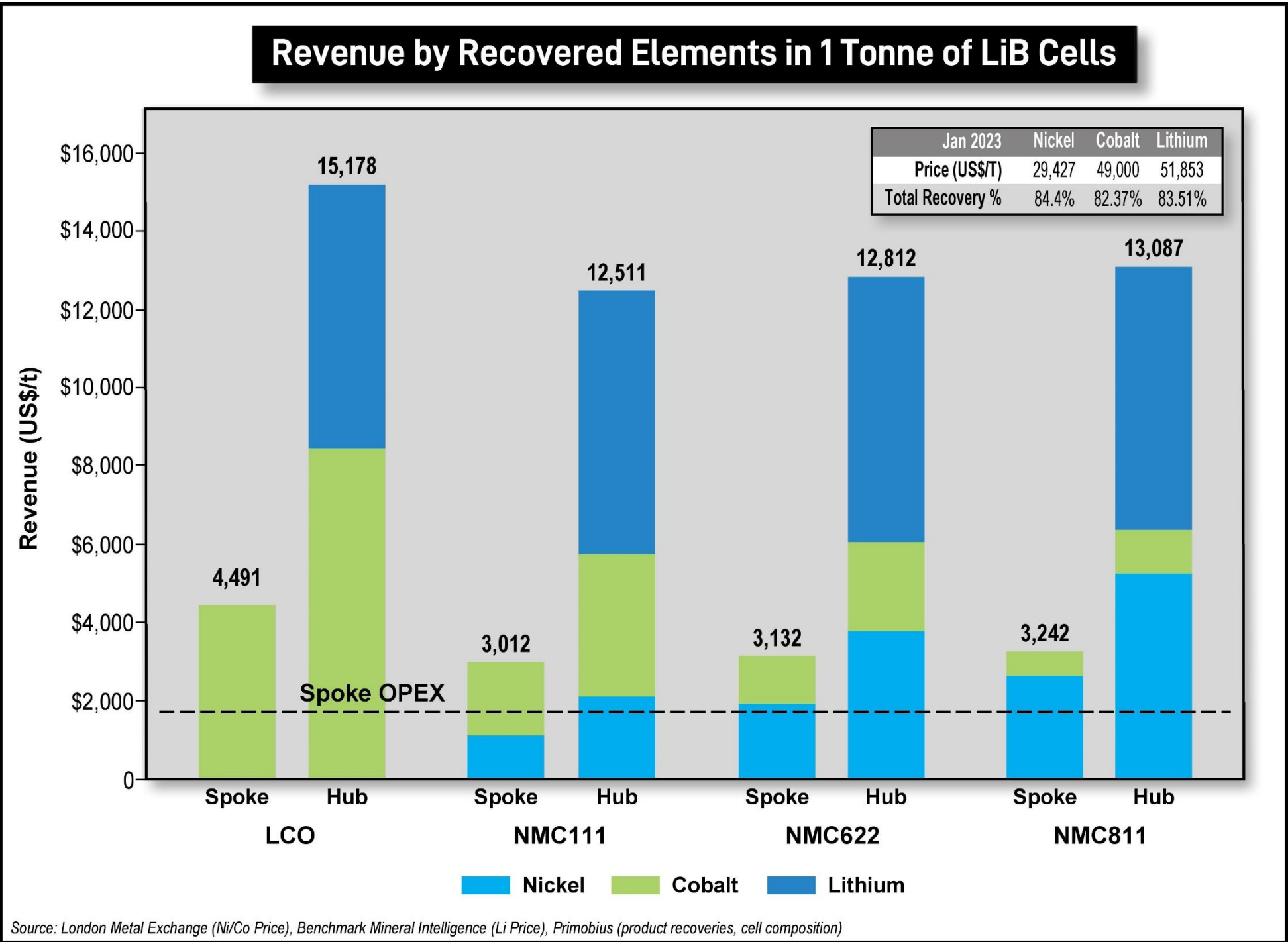
Disclosed capital costs include land, plant, buildings, plant and equipment, installation, infrastructure, pre-production, EPC costs and contingency

New design includes Europe's first integrated module discharge and disassembly operation – provides futureproof flexibility to handle any mix of production scrap, warranty return or EOL arising's

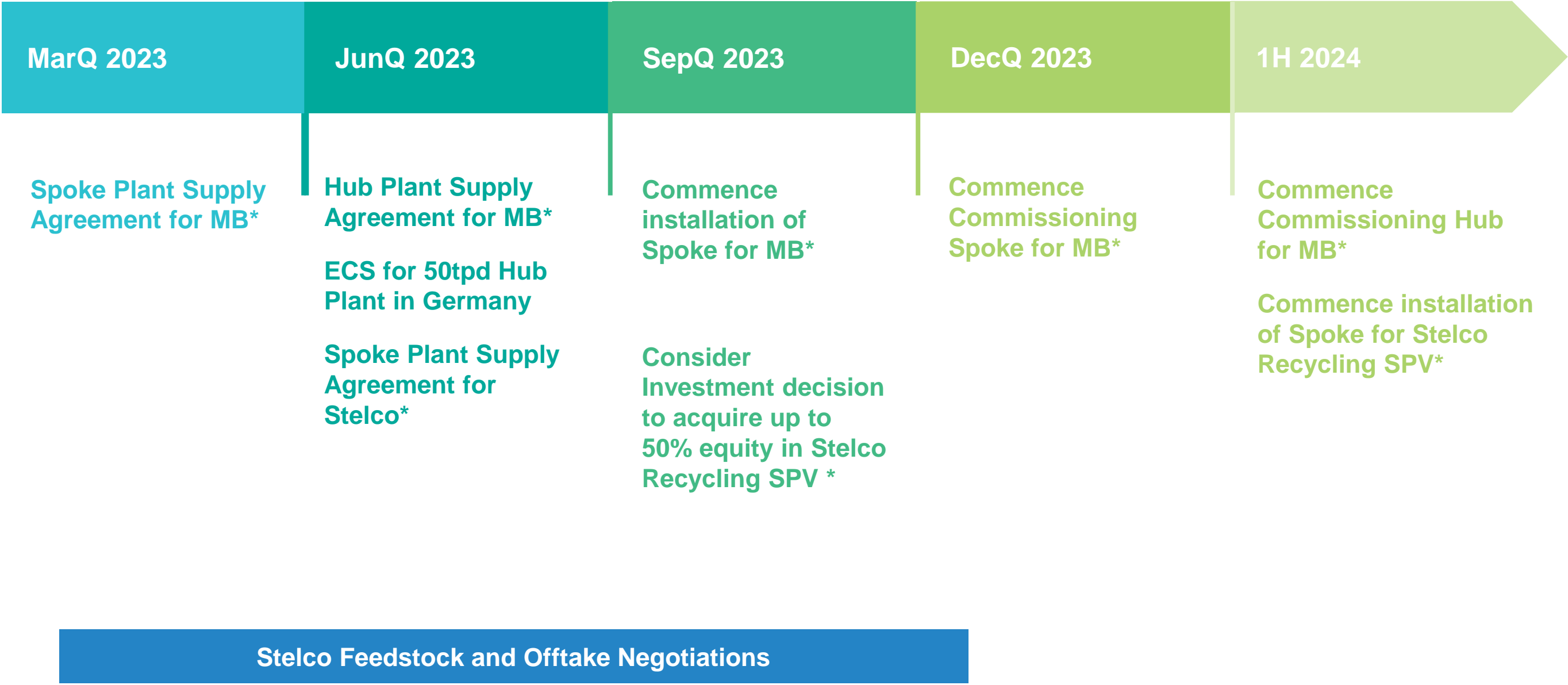
Hub Engineering Cost Study Results expected JunQ 2023

Primobius Spoke ECS Outputs	
Annual Throughput (Feed)	21 ktpa
Annual Production (Black Mass)	7,130 tpa
Operating Cost per tonne of feed	US\$1,400/t ⁽¹⁾
Capital Costs (incl 20% contingency)	US\$104m

*For further information, refer to ASX release dated 13 September 2022 – “Primobius – 50tpd Spoke Engineering Cost Study Results” and the assumptions set out therein.
1. Assumes 1:1 USD:Euro FX



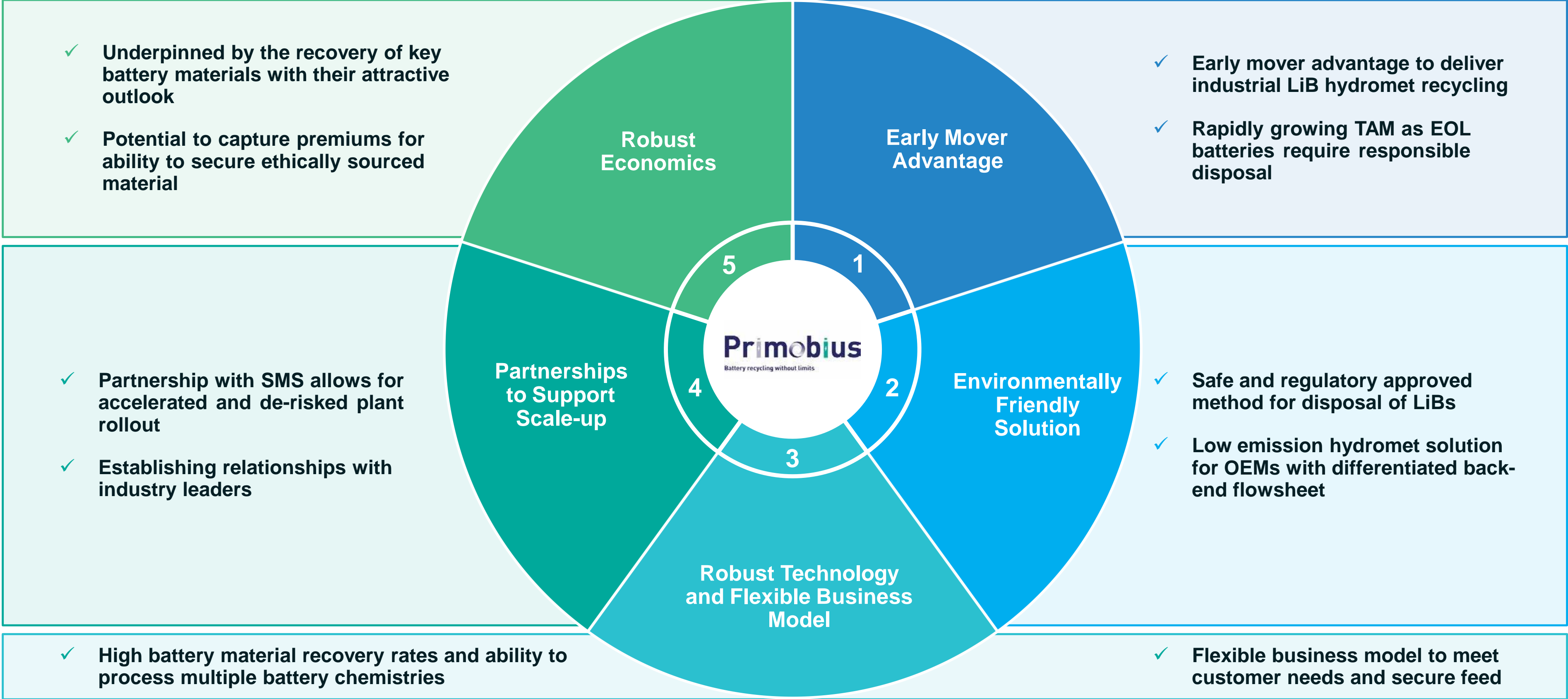
Indicative Timeline – LiB Recycling



*Subject to Customer Award/Primobius and Neometals Approvals



Unique Positioning for Rapid Growth

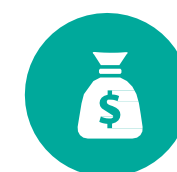


Company Highlights

Neometals is an attractive investment at the forefront of the low carbon production of battery materials via recycling



Growing portfolio of **ESG-aligned, sustainable** battery materials businesses with near-term decision points



Proprietary green processing technologies underpin low-cost, low-carbon product



Clear **strategy** to commercialise with proven partnering business model



Strong balance sheet, fully funded to key investment decisions



Strong team with **track record** and commitment to **green circular economy** principles



Strong organic **growth** potential (size and scale) from pipeline of opportunities to deploy as principal, partner or technology licensor – whatever customer needs

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Neometals

Thank you.

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Sustainability

Neometals is committed to optimising finite resources with circular practices to benefit society and the environment for a sustainable future

- Focus on production of sustainable battery materials - reducing reliance on new mined materials.
- Commercialising internationally recognised award-winning sustainable processing technologies
- Transparent sustainability reporting to GRI, SASB, TCFD
- Neometals' 3rd annual sustainability report released in September 2022

