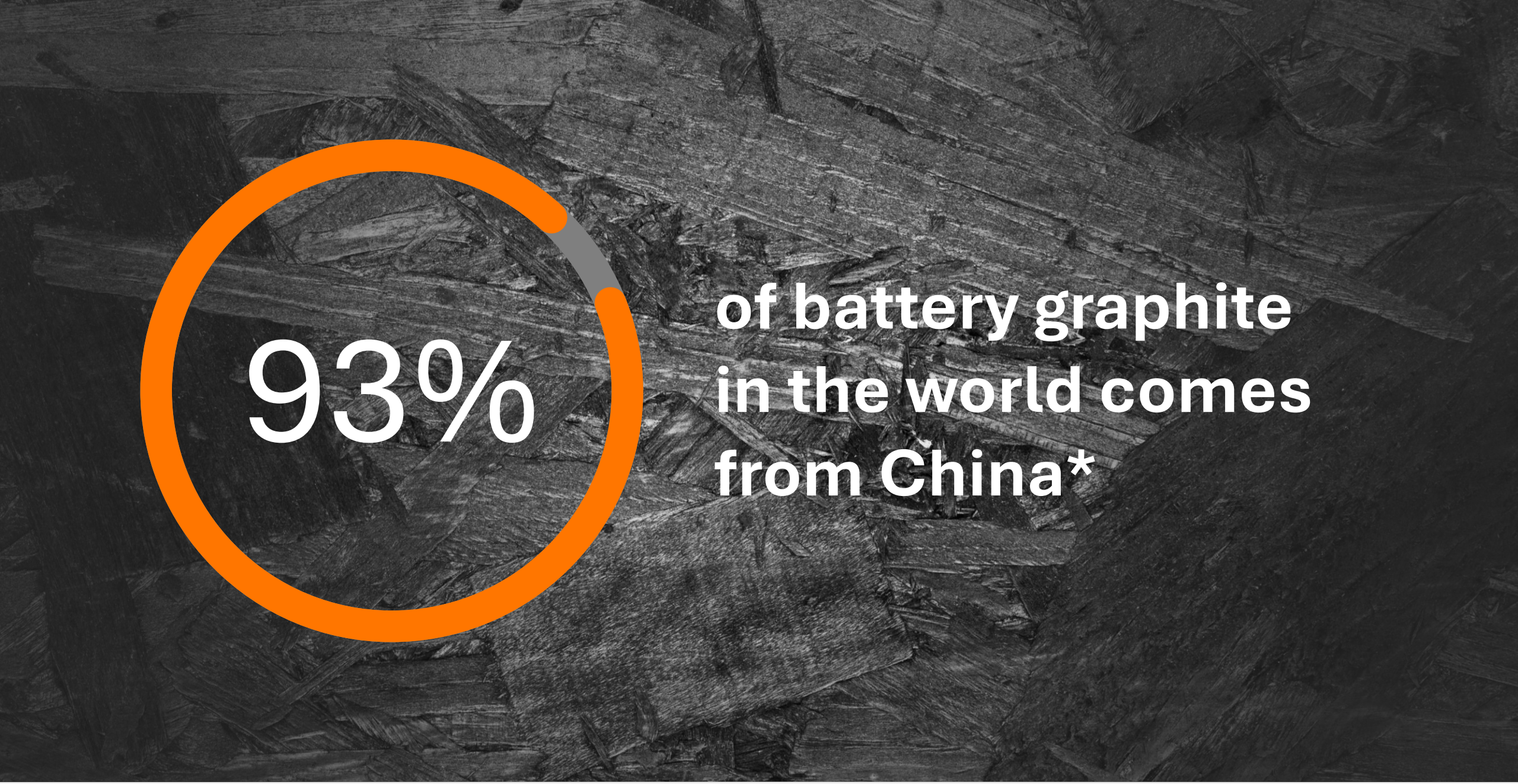


*) IEA 2024

astracite



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China Implements Export Controls on Lithium Batteries and Key Materials, Covering High-End Batteries and Artificial Graphite Anodes, [SMM Analysis]

Oct 9, 2025 11:12 Source: SMM

> The international battery industry landscape is undergoing a new round of adjustments, as China has introduced significant export control measures to strengthen national security barriers.

On October 9, 2025, the Ministry of Commerce and the General Administration of Customs jointly issued Announcement No. 58 of 2025, deciding to implement export controls on items related to lithium batteries, cathode materials, and graphite anode materials. The measure will take effect on November 8, 2025, aiming to safeguard national security and interests and fulfill international obligations such as non-proliferation.

According to the announcement, the controlled items include high-end lithium-ion batteries with a gravimetric energy density greater than or equal to 300 Wh/kg, key battery production equipment, various cathode materials and their precursors, as well as artificial graphite anode materials and related production equipment and technology.

Source: China Implements Export Controls on Lithium Batteries and Key Materials, Covering High-End Batteries and Artificial Graphite Anodes, [SMM Analysis] | SMM

astracite

Green graphite for **Better** batteries

Trilateral Innovation Summit – October 15, 2026

Carbon13 · ATechX powered by AROUNDTOWN · IP Innovative Power · CarbOnFix · VLAIO · INAM · European Startup Prize for Mobility TOP 50 STARTUPS AWARD



We develop high-performing battery material from CO_2 and silicon.

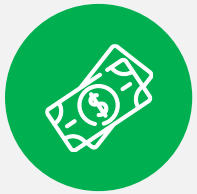
The solution:

Astracite Green graphite for better batteries*



>5x higher capacity

with embedded silicon



Lower

production cost



Carbon-negative

material from CO_2



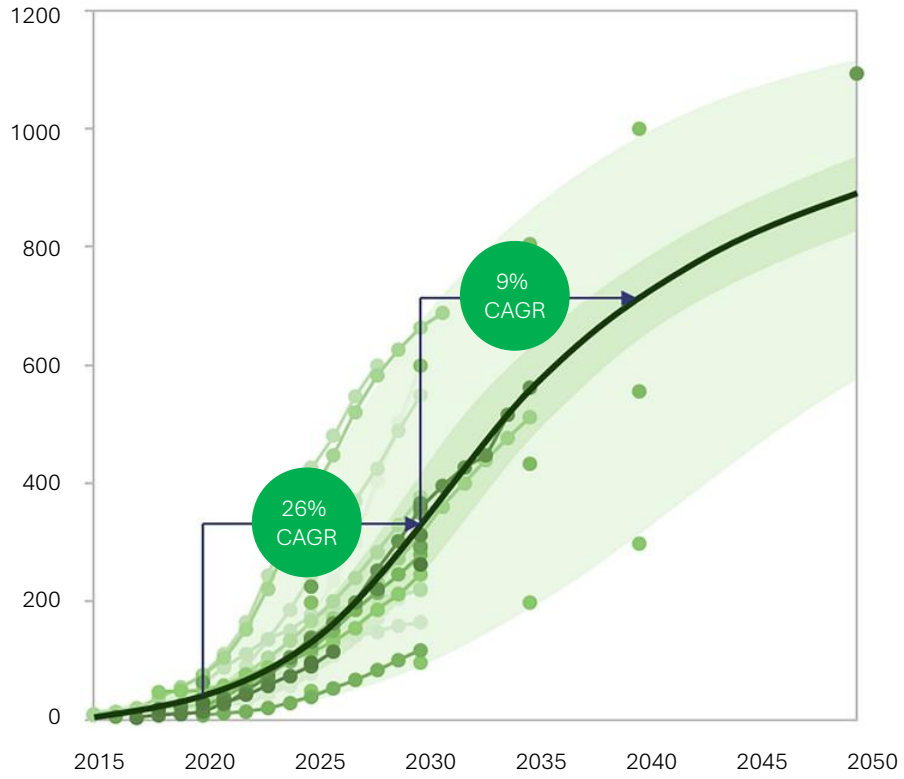
Made in Europe

*) Patent pending.

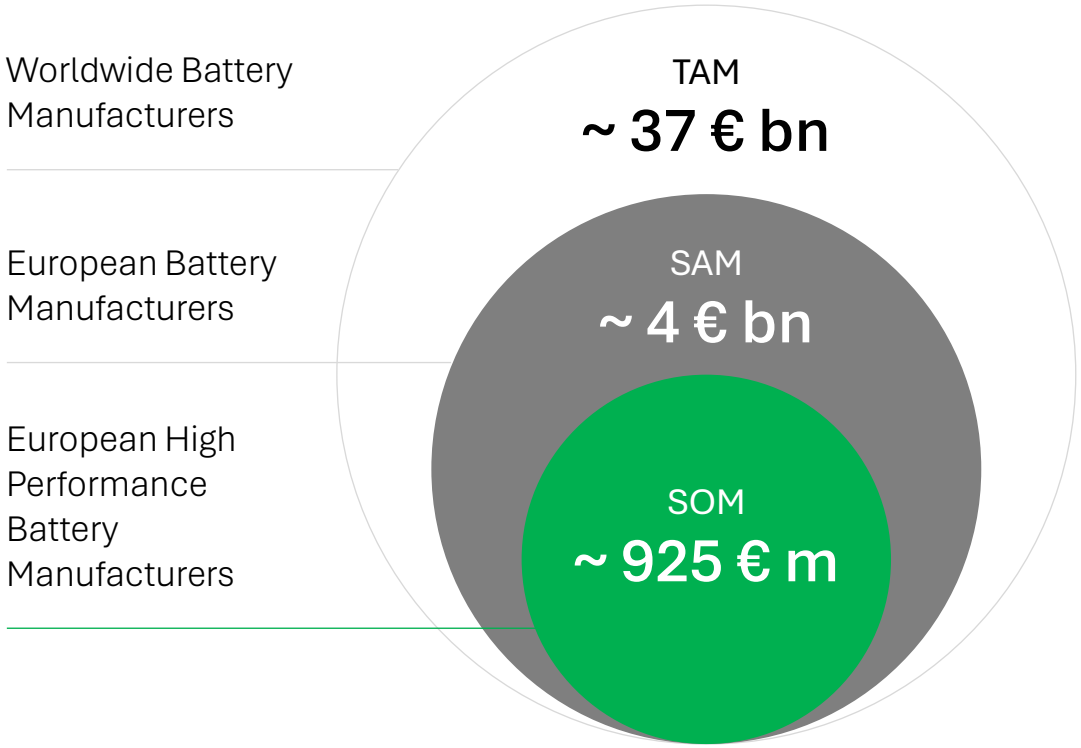
The anode material market is vast and will grow worldwide by >20% annually until 2030

Global Li-ion battery market 2015 to 2050*

Comparison of market development scenarios in gigawatt hours per year



Anode material market size 2030**

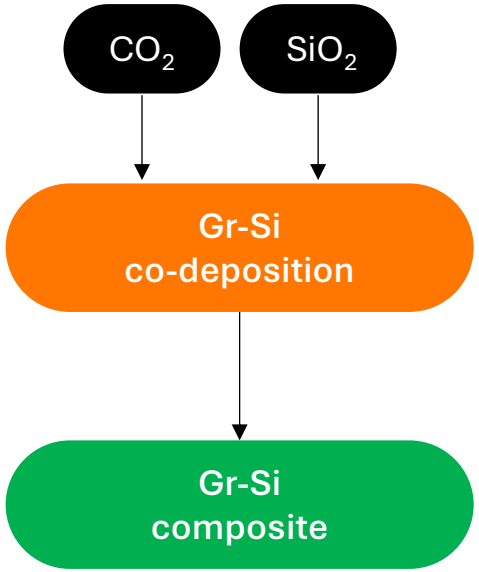


*) Wolf & Lüken (2024)

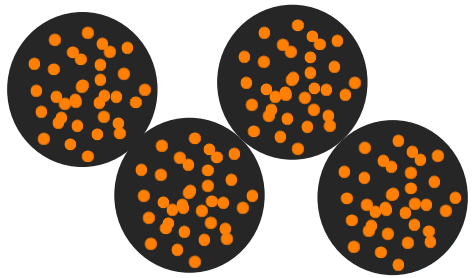
**) Sources: Our own calculation based on data from EUROBAT, Battery News, McKinsey, SMM, Benchmark and our own research.

Patent pending

Astracite's process



Astracite's product



Silicon nanoparticles interspersed within a graphite matrix

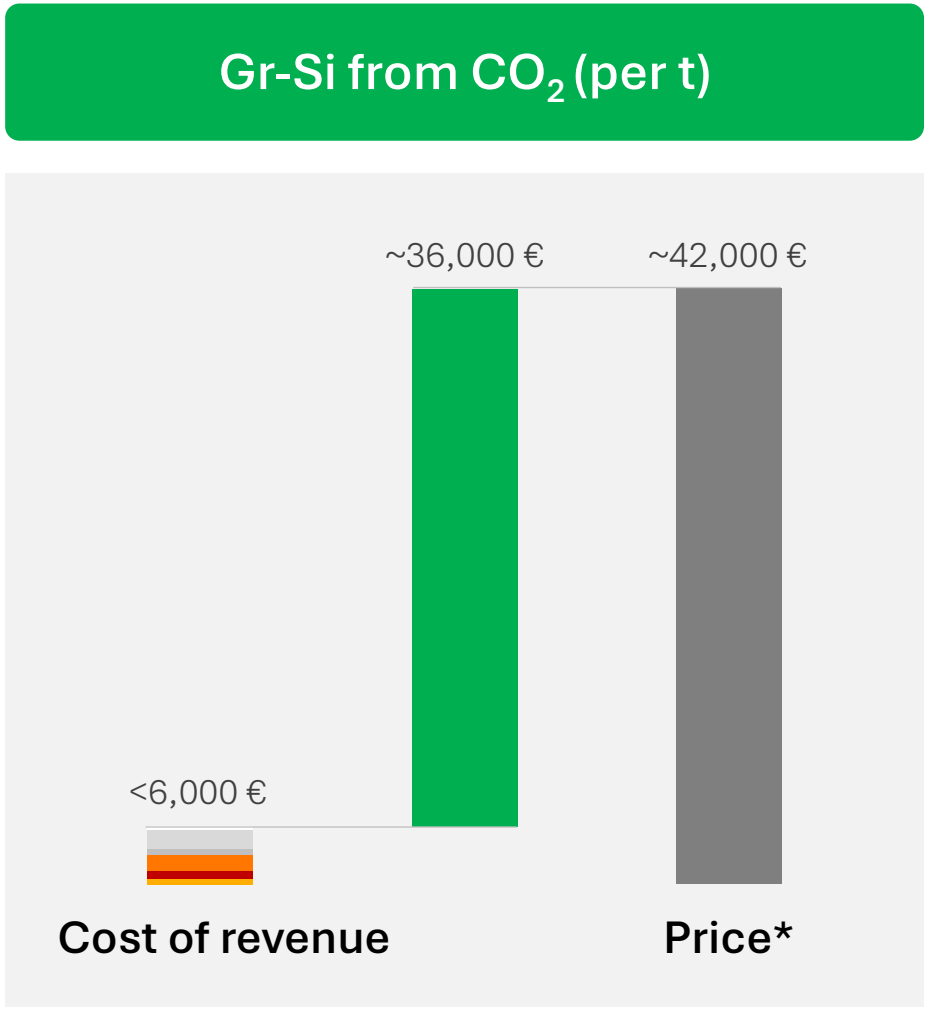
High capacity

Long cycle life

Low production cost

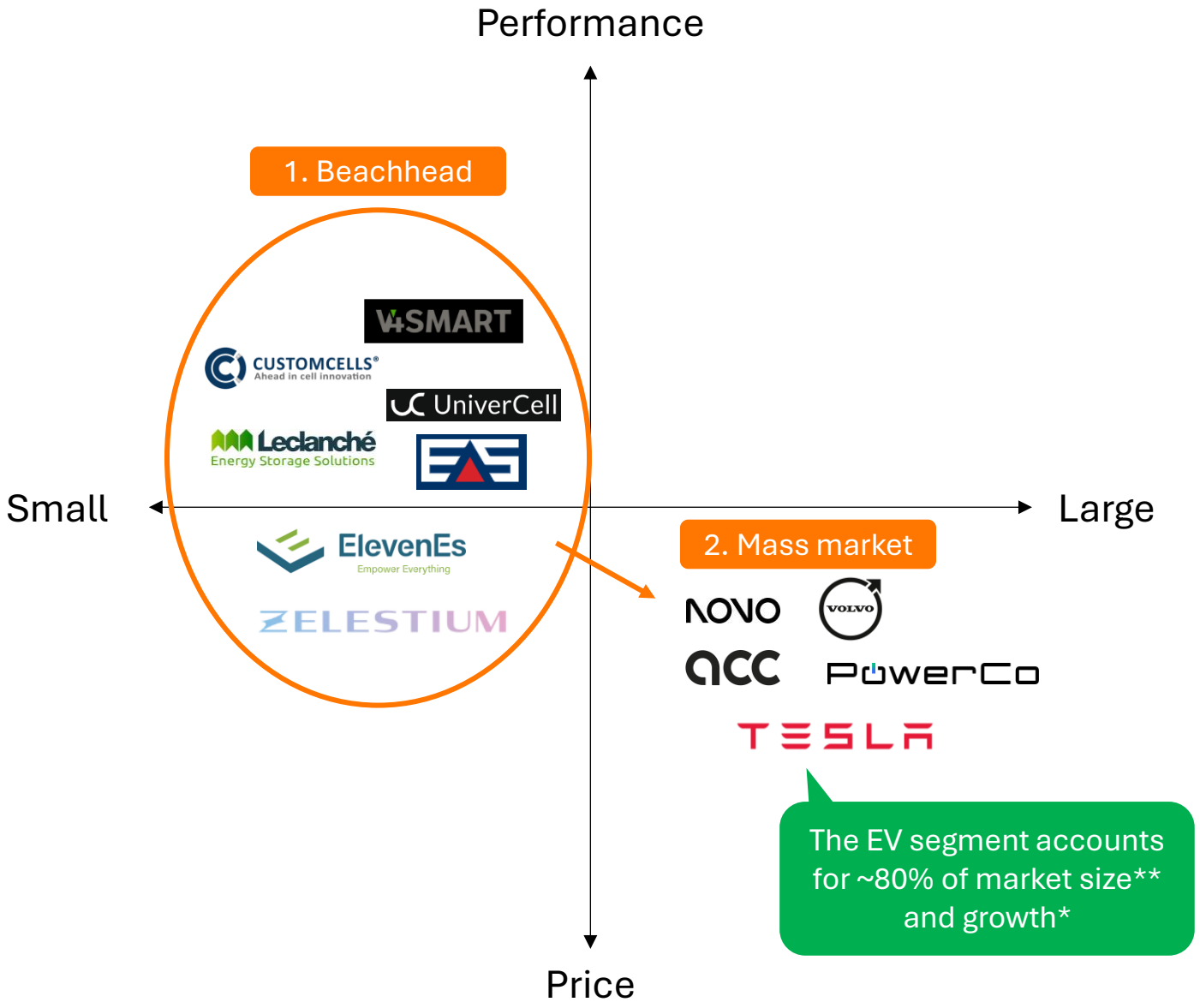
Unit economics

high margin at price parity



*) Short-term price range for graphite-silicon composite material: 50-75 USD/kg. Source: ESource (2024).

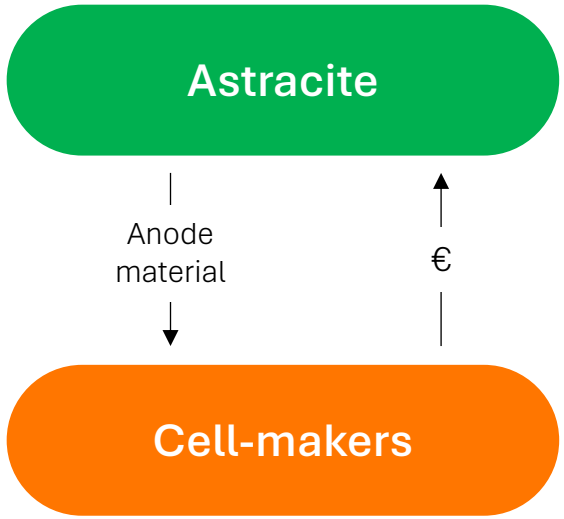
Our beachhead market are European-based cell makers with higher performance requirements, then we will tackle mass market OEMs



*) Wolf & Lüken (2024) **) EUROBAT

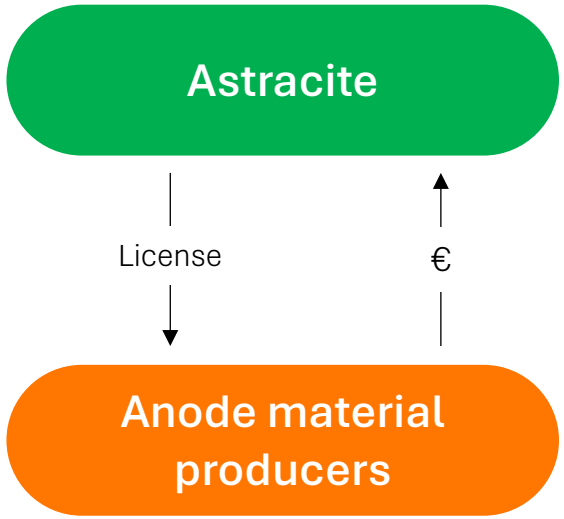
Business model

Astracite-owned production



Demonstration plant: 1 ktpa

Licensing



Ca. 3 licensees with 100 ktpa each

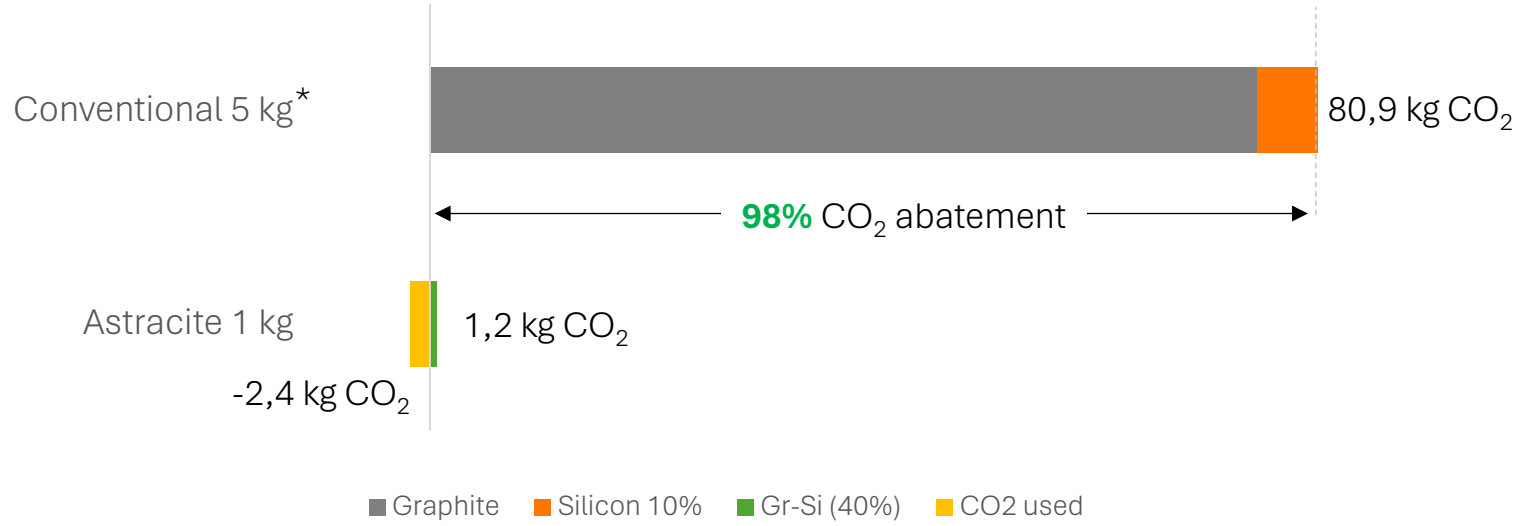
Our own production will be pursued at least to pilot stage to prove viability

Once viability is demonstrated, licensing will be pursued due to its lower CAPEX requirements and complexity

Licensing may be complemented with technical services to protect our IP

We are aiming for impact – in climate and beyond

Climate impact – direct emission reductions compared to conventional anode material





The **direct emission reduction** compared with conventional material is **99%**

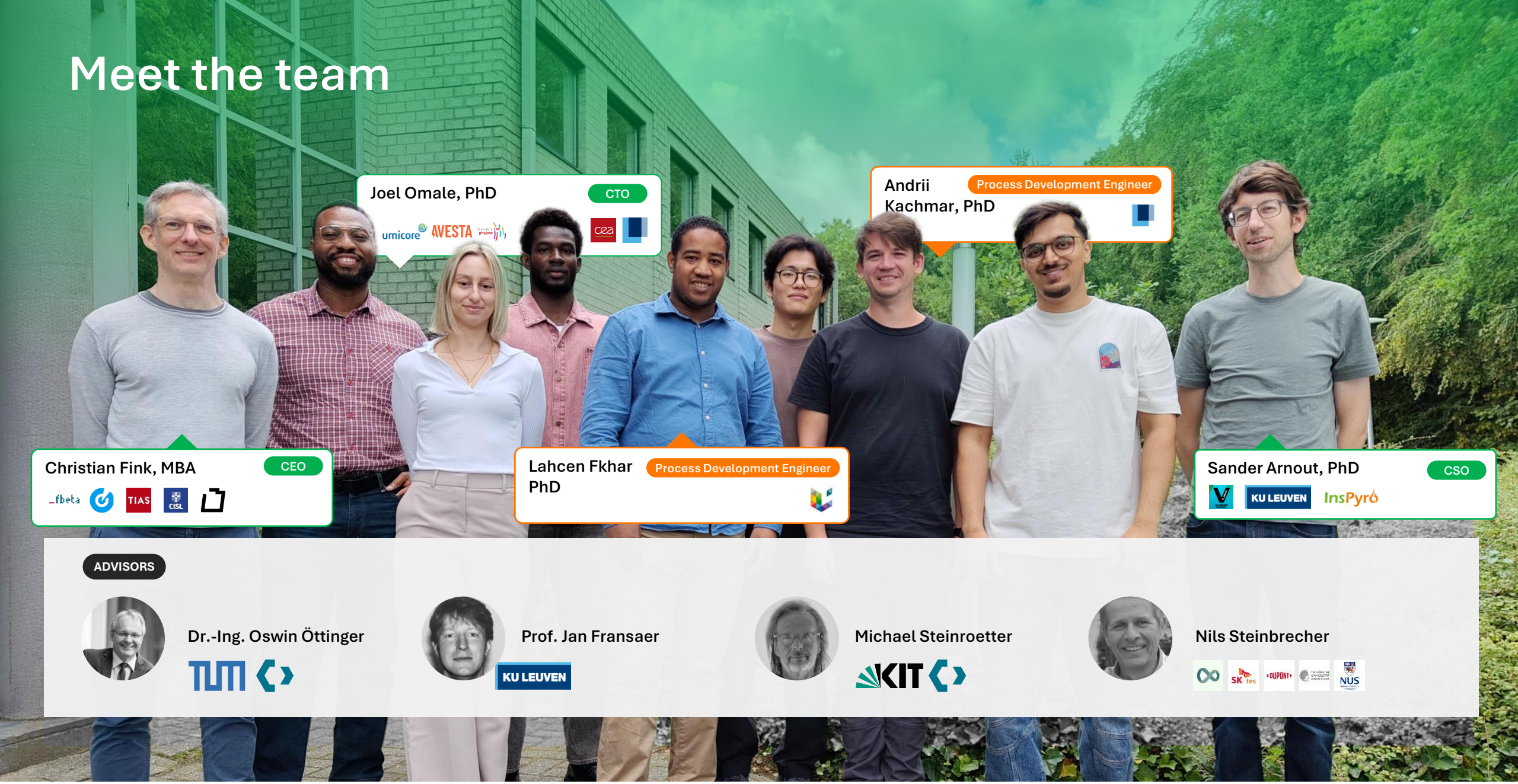
When counting **negative emissions** from **carbon utilization**, our product is **net-negative (-1,2 kg CO_2)**

Large indirect reductions from EVs are harder to quantify

Social and **ecological impacts** beyond climate

* Because of the higher capacity, 1 kg of our material can replace 5 kg of conventional material.

Meet the team



Joel Omale, PhD — CTO

Andrii Kachmar, PhD — Process Development Engineer

Christian Fink, MBA — CEO

Lahcen Fkhar PhD — Process Development Engineer

Sander Arnout, PhD — CSO

ADVISORS

Dr.-Ing. Oswin Öttinger

Prof. Jan Fransaer

Michael Steinroetter

Nils Steinbrecher

Achieved since November 2024

€1.1 M Pre-seed + grants raised

Filed first patent

40% silicon Material produced

LOIs & R&D collaborations

>1,000 mAh/g Capacity

Won AdMaCom 2025
& TOP50 EUSP for mobility

Milestones for the seed round: until end-2028 we're aiming to achieve

- **1 kg/day** Pilot-scale throughput
- **1,500–2,000 mAh/g** Capacity
- **500** Cycles
- Internationalize our IP
- Sign the first MOUs & Offtake Agreements


If you can support us -
get in touch!
info@astracite.com