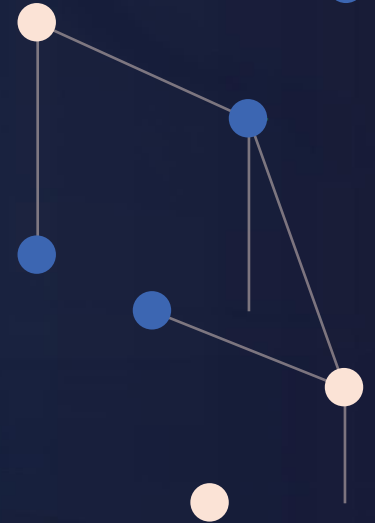




AI-DRIVEN INNOVATION: REVOLUTIONIZING BATTERY MATERIALS AND MANUFACTURING



PROLOGIUM IS DEFINING THE PATH TO SCALABLE NEXT-GEN BATTERIES



OVERVIEW

Years of Battery Development

20

YE2025 Patents

1,000+

\$M USD Raised to Date

~\$690

Employees

820+

Automotive Samples Delivered

>10,000

Cells Delivered to Global Clients Since 2013

2,400,000

KEY HIGHLIGHTS



Fast Charging
6.4 MINS
From 5 to 80% at 12C

-20°C Performance
>90%
Retention

NEXT-GEN BATTERY 2.0

Gen 4: Superfluidized
Inorganic Lithium Ceramic Battery



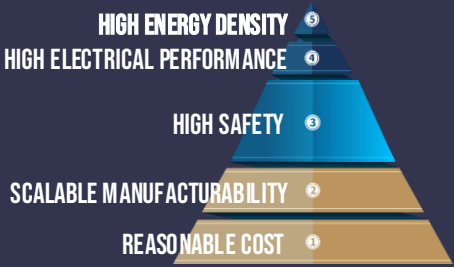
OPERATIONAL GIGAFACTORY

Taoyuan, Taiwan



€1.4B FRENCH GOVERNMENT SUBSIDY

Dunkirk Gigafactory



BALANCED SOLUTIONS

5-Pillar Framework



WORLD-CLASS CUSTOMERS

Global Enterprises



GLOBAL PARTNER NETWORK

Industrial and R&D Partners

#1

In Patents

1,000+

YE2025 Patents

INDUSTRY-LEADING PATENTS

70% Active Patents



Mercedes-Benz

posco

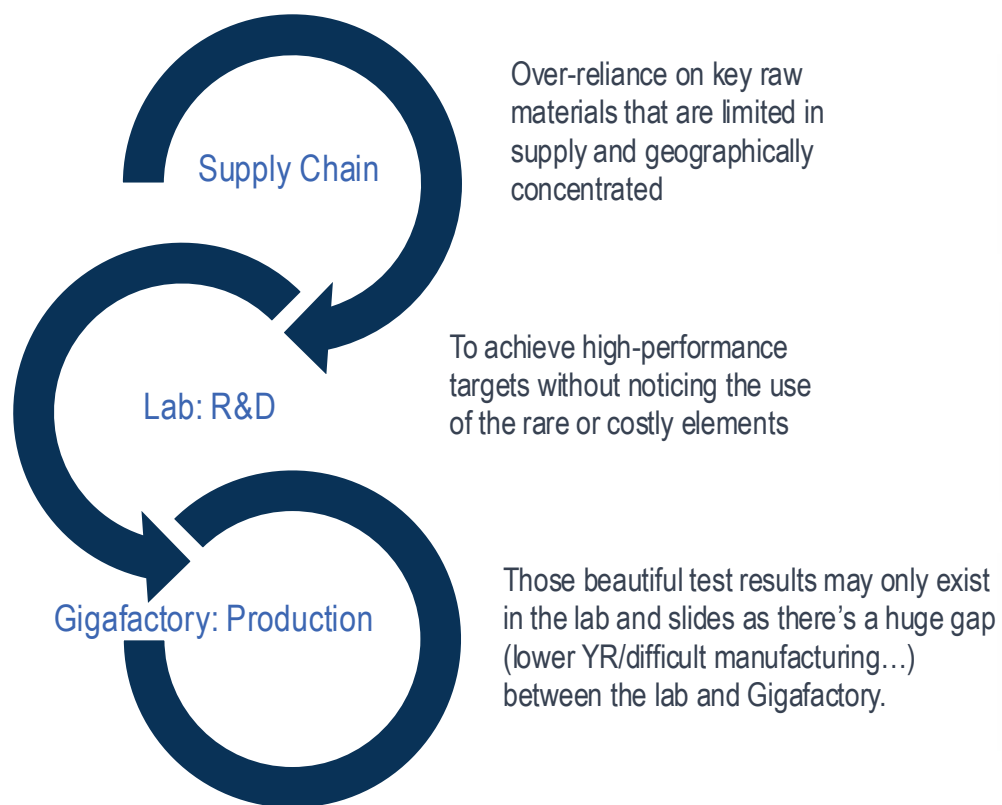


TOP-TIER STRATEGIC BACKERS

Series E+ Investors

INDUSTRY CHALLENGES & OUR SOLUTION: THE THREE PILLARS

INDUSTRY PAIN POINT



HOW WE WORK?

1

LOWER RAW MATERIAL BARRIERS

Gradually reducing reliance on scarce critical minerals and shifting to readily available raw materials with stable, diversified supply chains.

2

PROPRIETARY MATERIAL FORMULATION

Optimizing the interaction of multiple materials to achieve high performance while avoiding rare and expensive metals that are fiercely contested by competitors.

3

DESIGN FOR MANUFACTURABILITY (DFM) MINDSET

Designing from the outset for multi-GWh scale mass production and high yield rates, rather than developing in an ideal lab environment only to find it unmanufacturable.

Anything Is Possible

HOW DO WE IMPLEMENT THE THREE PILLARS **THROUGH FOUR TACTICS?**

By leveraging our massive manufacturing dataset accumulated over a decade of scaling pilot lines to GWh-level mass production. We integrate all manufacturing data into a single Integrated Decision Engine that simultaneously performs four core functions:

01 MATERIAL SCREENING

Because the models do not transfer across chemistries, every new architecture requires its own carefully curated dataset of structures, cycling curves, impedance spectra, and synthesis outcomes.

02 PROCESS DEVELOPMENT & SCALE-UP

- The AI we use is not plug-and-play.
- We have over a decade of manufacturing data from pilot operations.
- We don't keep our data scientists in a silo; we embed them directly on the manufacturing floor with the chemists and process engineers, closing the loop instantly.

03 GIGAFACTORY MASS PRODUCTION

- Material screening that already incorporates manufacturability scores.
- Real-time process optimization from mixing to calendering, fed by thousands of sensors.
- Defect detection at full production rate in real time, so a bad cell is pulled before it consumes any more material or energy downstream.

04 SUPPLY CHAIN INTEGRATION

Domain-specific models that already know the process window can reject candidate materials whose supply chains are fragile or whose processing physics or chemistry cannot be scaled.

Recycling and second-life optimization close the loop with AI sorting, purity prediction, and upcycling design.

COLLAPSING THE DISTANCE FROM LAB TO LINE

THREE DEFINING PROPERTIES OF AI MODEL IN CHEMISTRY



Data Hungry

Every model needs a large volume of proprietary production data, and there is no clever architecture that removes that requirement.



Chemistry-Specific

Models do not transfer across chemistries or across product generations. The interfaces, the failure modes and the processing physics are different.



Boundary Condition Constraints

A model is only reliable inside the operating envelope it was trained on. Push it to outside that envelope and it will give you a confident, wrong answer.

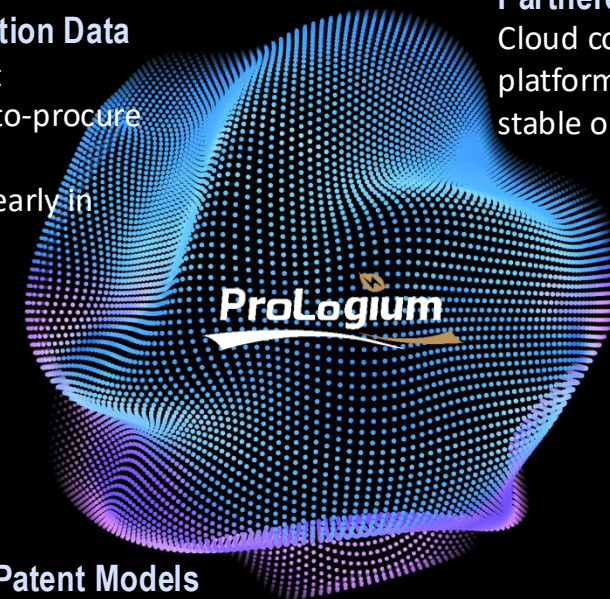
A PROPRIETARY AND CONTINUALLY-ITERATING AI MODEL

Continuous Accumulation of New Mass Production Data

Ensure AI does not recommend hard-to-procure or unstable raw materials/recipes early in R&D.

Partnered Data Infrastructure

Cloud computing, MLOps platforms; build an efficient and stable operational base.



Proprietary Core Patent Models

Material screening, process control, yield prediction; build core technical barriers.

KEY RESULTS & VALUE REALIZATION

Integrated Execution

Powered by proprietary electrochemical data and on-site teams, a single decision engine simultaneously optimizes materials, processes, defect detection, and yields.

Strategic Independence

Structurally decreases dependency on scarce upstream materials.

The Data Flywheel

Converts every production cycle into training data for next-generation technological self-iteration, accelerating R&D and scaling continuous growth.