

2026

SEED DECK

Shifting paradigm in energy storage

PIONIQ[®]



Today, batteries are ubiquitous...



LI-BASED BATTERIES ARE NOT SUSTAINABLE ON THE LONG TERM

Three structural limits :

Lack of safety

~ 25 000 battery fire incidents per year

Fragile supply chains

>70 % of refining capacity of Co, Li, graphite... concentrated in only one country

Penalty at scaling

Extremely demanding environments (dry room...) and processes

Our battery technology addresses those three challenges.



Our key features



Absolute safety



Free from critical materials



Ultra-scalable industrialization



High volumetric energy density





A new energy storage paradigm with quantum materials

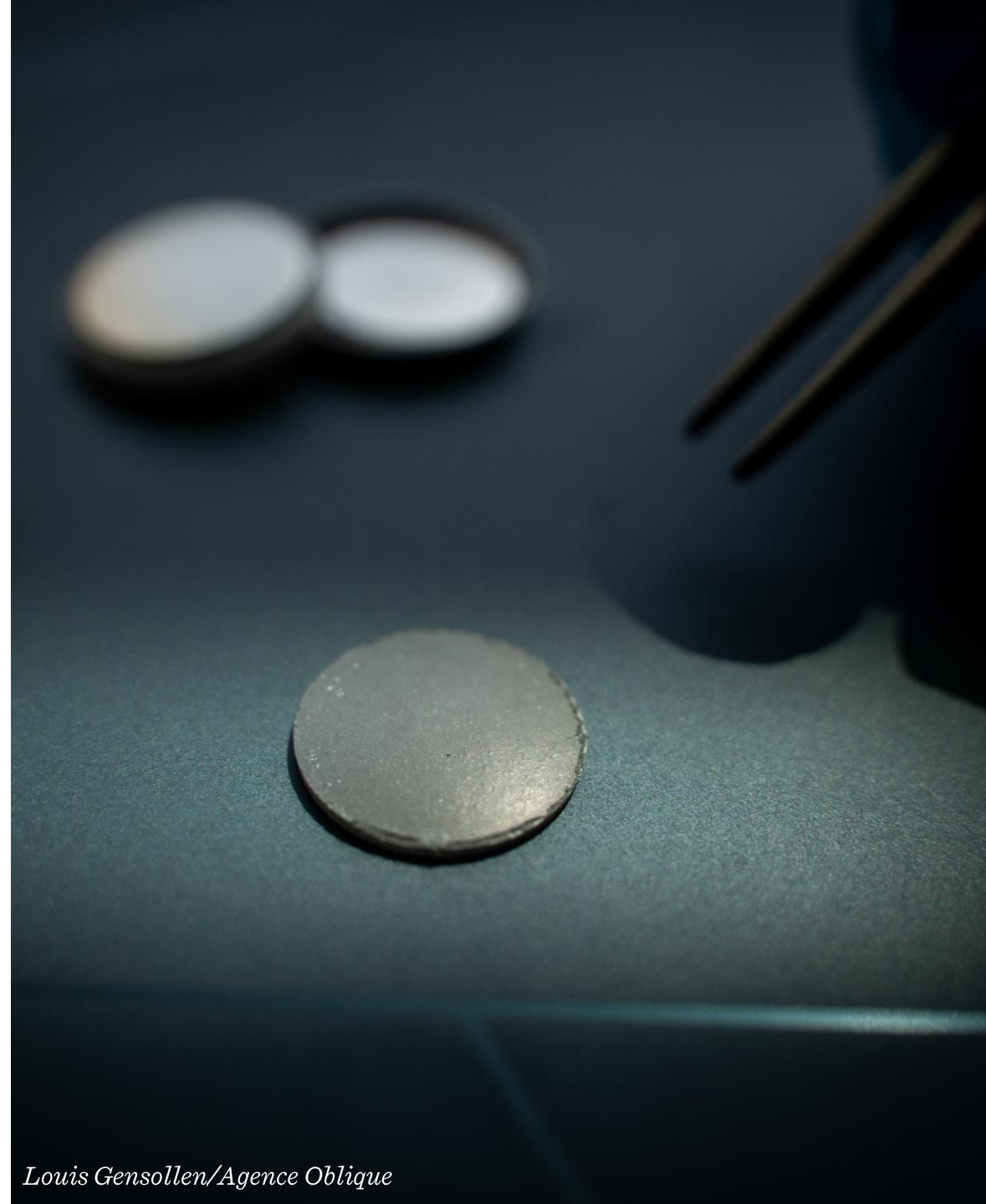


Louis Gensollen/Agence Oblique

Pioniq's technological breakthrough: the use of quantum electrolytes



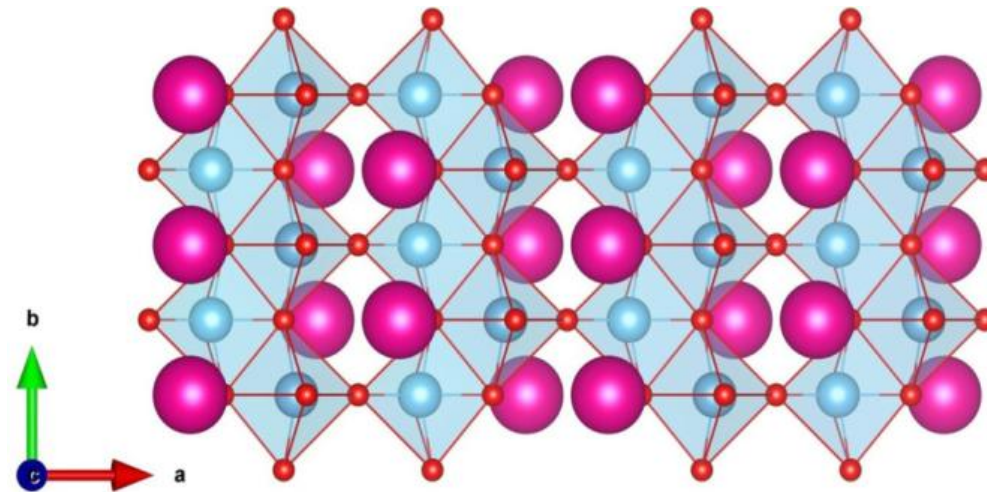
A **quantum electrolyte** is a solid-state material carrying nearly-free protons, which enables to leverage pure solid-state reactions at the electrodes



Example of quantum electrolyte: hydrated $M_2Ti_2O_5$ $M = (Rb, K, \dots)$

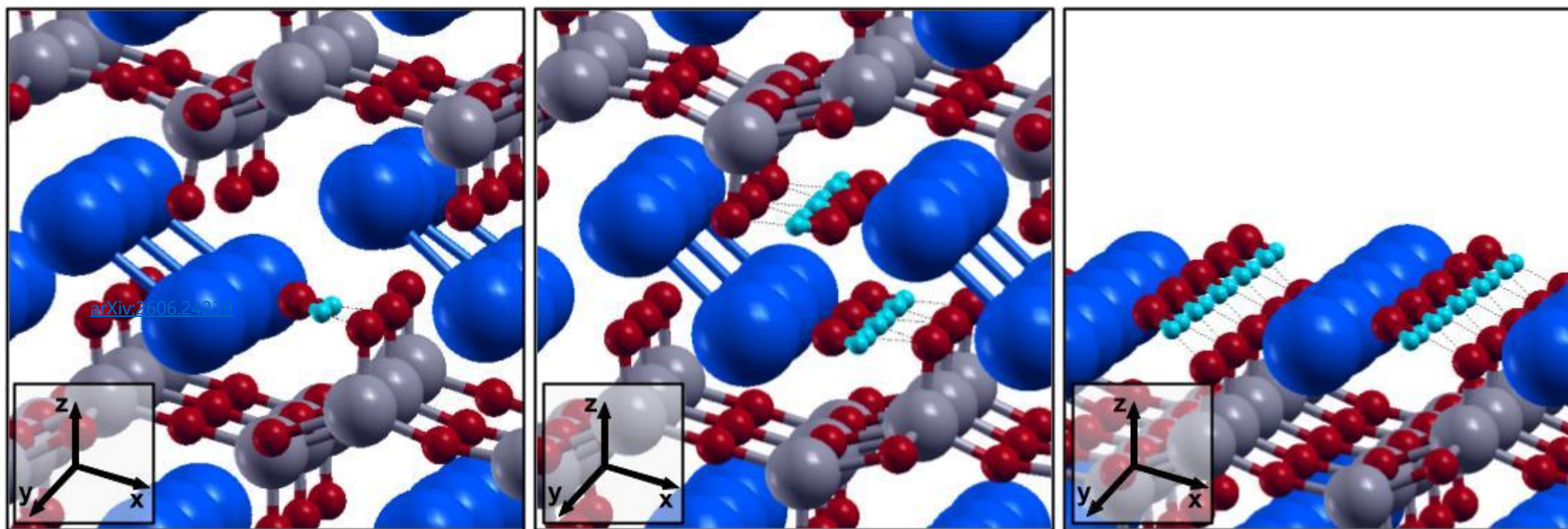


protected by 3 families of patents



A NEW STATE OF MATTER : 1D-WATER

Advanced simulations reveal that water molecules are uniquely self-organized into 1D structures.



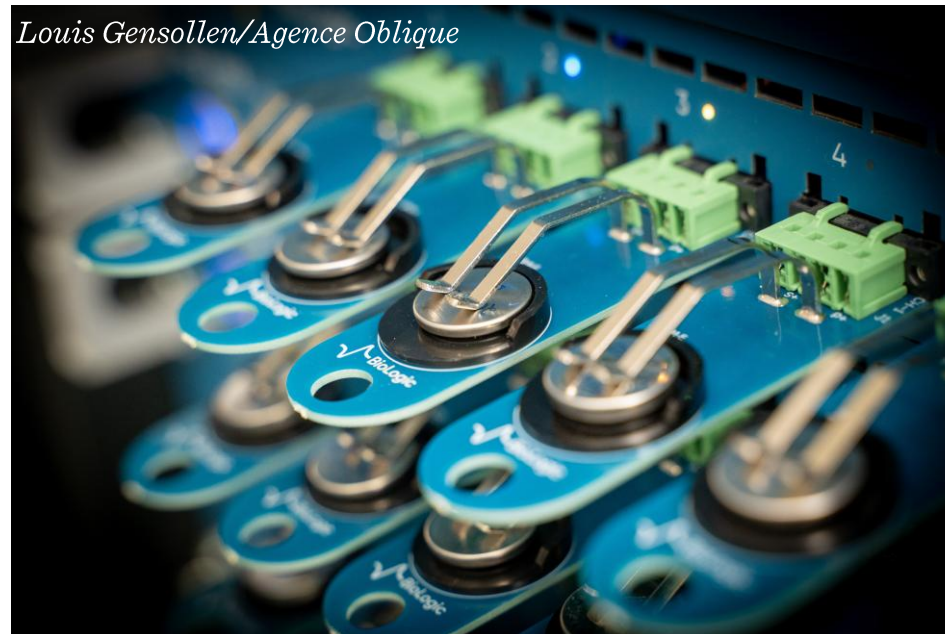
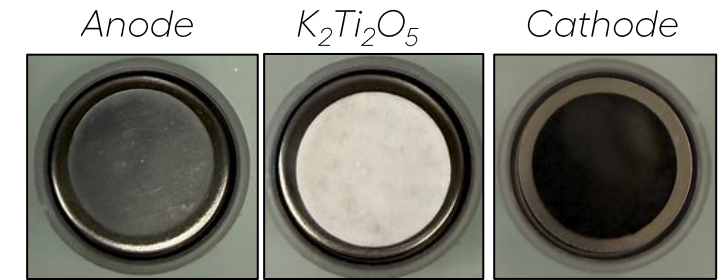
G. Benas et al., *Phys. Chem Chem Phys*, 27, 9537 (2025)

M. Arnaud et al. (ArXiv:[2606.24239](https://arxiv.org/abs/2606.24239)), PhD thesis

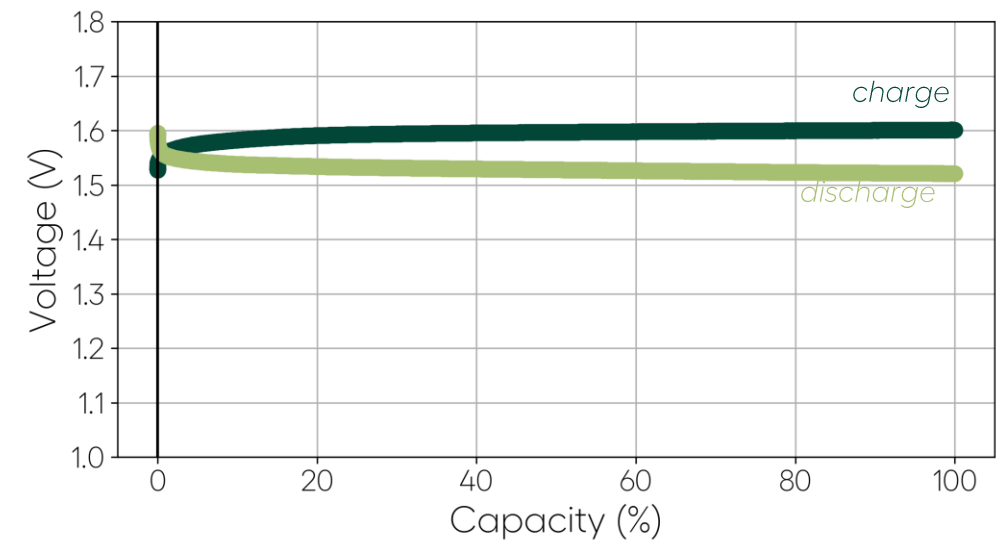
*Technology readiness on small
format batteries*



THE FIRST-EVER BATTERY FEATURING A QUANTUM ELECTROLYTE



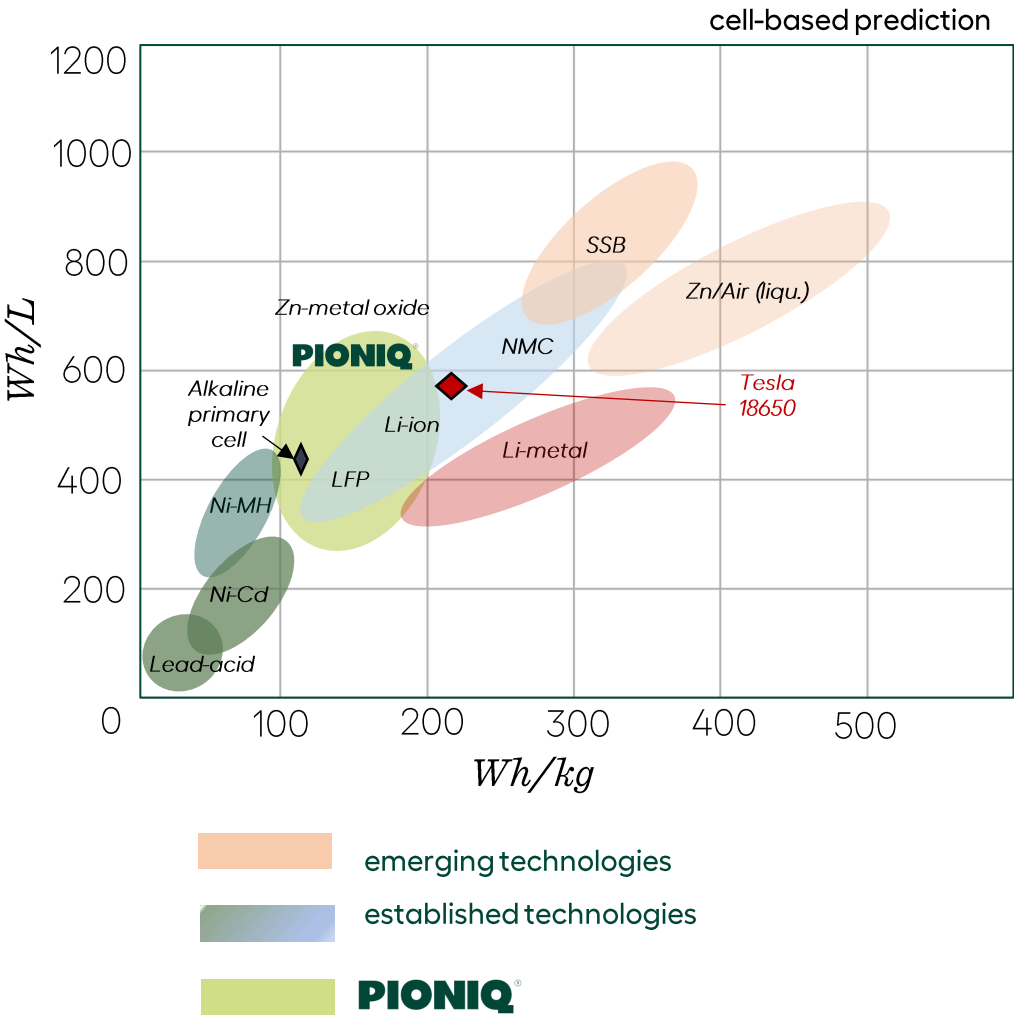
Cyclability on 1st gen prototypes



Metrics comparison



ZINC ELECTRODES: PERFORMANCE EXPECTATIONS



Estimations for typical device parameters

Chemistry	Zn/QE/metal oxide	LFP (Li-ion)	NMC (Li-ion)
Specific energy (cell)	100 to 210 Wh/kg	130 to 180 Wh/kg	180 to 320 Wh/kg
Volumetric energy density (cell)	300 to 650 Wh/L	300 to 350 Wh/L	400 to 750 Wh/L



High volumetric energy density

*Our products, roadmap and
go-to-market strategy*

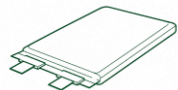


A MATERIAL PLATFORM FOR ENERGY POWERING THE NEXT ERA

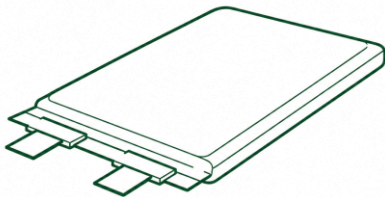
First generation of products :
Rechargeable microbatteries



Second generation of products :
Large-format battery technology



Typical capacity : 1 to 100 mAh
Dimensions : mm size

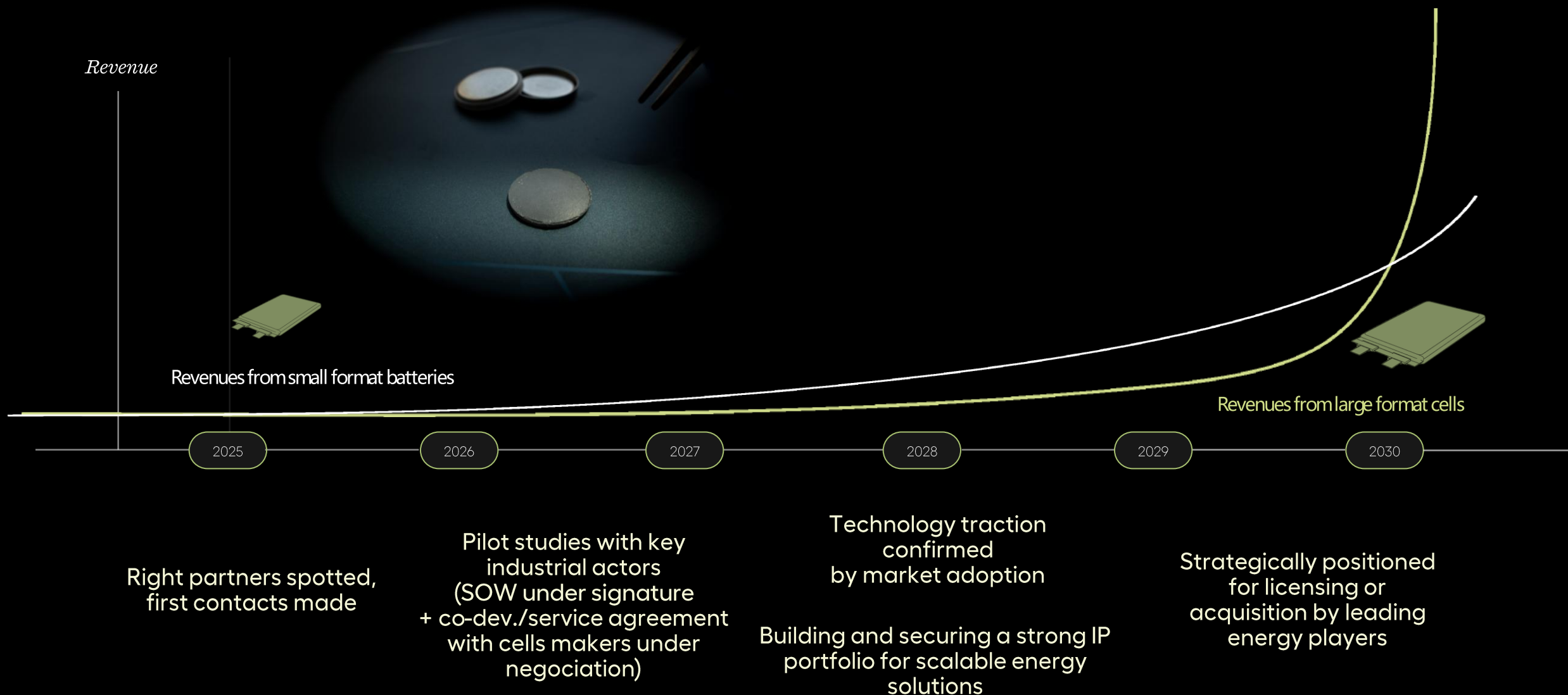


Gravimetric energy density : 210 Wh/kg
Volumetric energy density : 650 Wh/L

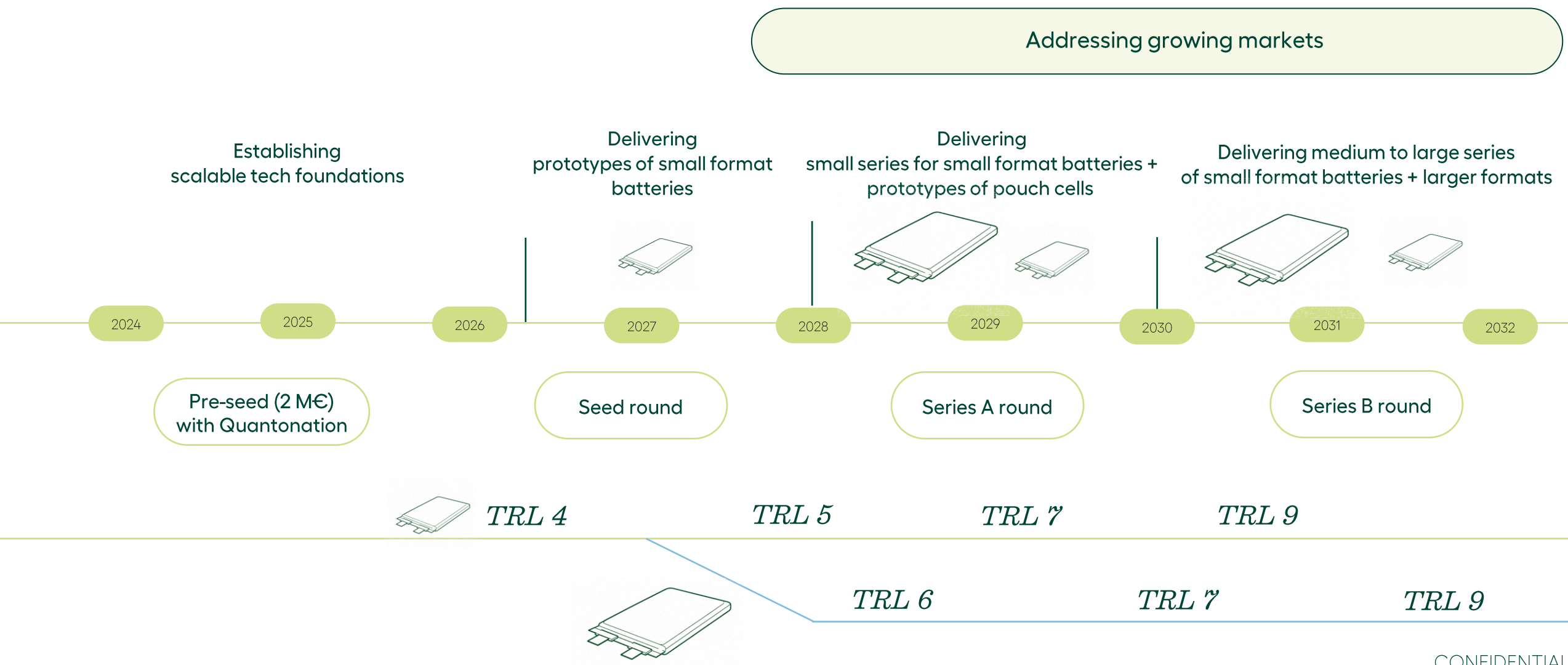
Applications	critical electronic systems
Key features	safety miniaturization integrability

Applications	stationary storage, BBUs for data centers...
Key features	safety cost life cycle

OUR GO-TO-MARKET STRATEGY



OUR GLOBAL ROADMAP



Who are we?





Visionary leaders
building the *new*
energy storage
paradigm

Brigitte Leridon (PhD), CEO

- 25+ YEARS AT CNRS/ESPCI LEADING CUTTING-EDGE RESEARCH IN QUANTUM AND ADVANCED MATERIALS
- VISIONARY SCIENTIST-ENTREPRENEUR
- LEAD INVENTOR OF THE CORE IP
- PUBLIC SCIENCE ADVOCATE WITH STRONG MEDIA PRESENCE (RADIO, PRESS)

Clément Barraud (PhD), COO

- QUANTUM MATERIALS PHYSICIST WITH DUAL EXPERIENCE IN START-UP & VC
- EX-CSO AT HAPPY ELECTRONS x VC KINETIC (UK)
- TRUSTED ADVISOR TO VCs AND TECH INVESTORS ON EMERGING TECHNOLOGIES

Rémi Federicci (PhD), CTO

- NANOMATERIALS SCIENTIST WITH DEEPTech R&D EXPERTISE
- FORMER R&D PROJECT LEADER
- CO-INVENTOR OF THE CORE IP
- BRIDGING FUNDAMENTAL RESEARCH & PRODUCT DEVELOPMENT

C-level



Brigitte Leridon
CEO (PhD)



Rémi Federicci
CTO (PhD)



Clément Barraud
COO (PhD)



Cécile Lamy
CFO

R&D



Samantha Bourrioux
Chief of Products (PhD)



Gaëlle Khalil
R&D scientist (PhD)



Alissa Johnson
R&D scientist (PhD)



Morgan Guilleux
R&D scientist (PhD)



Chakrya-Anna Chhuon
R&D scientist (PhD)



Sophia Akkari
R&D scientist (PhD)



Killian Dénoue
R&D scientist (PhD)



Richard Lemeunier
R&D technician



Romaïssa Akil
R&D engineer

Our advisors



Michel Ullidemolins
(PhD)
Battery industrialization
expert



Benjamin Delsol (PhD)
IP strategist



Sylvain Franger (PhD)
Battery characterization
expert



Christel Laberty (PhD)
Solid state battery
expert

AWARDS AND PRIZES



Deep Tech Pioneers by Hello Tomorrow
Finalist of the Global Challenge



Tech for Change label (Vivatech)



THEY TALK ABOUT US :



“The female founders in quantum that should be on your radar.”

“16 French startups to watch, according to VCs”



<https://www.leparisien.fr/environnement/eponge-capteuse-de-co2-batterie-sans-lithium-ces-innovations-qui-feront-du-bien-a-la-planete-19-11-2025-LIXJVNRTGJGVHIDTCMJINOJNVA.php>



<https://www.usinenouvelle.com/editorial/innovation-la-start-up-francaise-pioniq-developpe-des-batteries-solides-sans-materiaux-critiques-grace-a-la-physique-quantique.N2237661>



Palmarès des 100 start-ups où investir

https://www.challenges.fr/entreprise/start-up/pioniq-technologies-une-micro-batterie-rechargeable-sans-materiaux-critiques_601146



Palmarès des inventeurs de l'année 2025

https://www.lepoint.fr/sciences-nature/cette-start-up-qui-veut-revolutionner-le-stockage-d-energie-18-02-2025-2582666_1924.php

OUR PARTNERS AND SUPPORTS

Funding



Supports



OUR R&D AND PRE-INDUSTRIALIZATION PARTNERS

R&D and
processes



Targets for the upcoming seed phase



SEED MAIN DELIVERABLES

Structure of the seed round

EQUITY	6-8 M€
NON-DILUTIVE	2-3 M€
TOTAL	8-11 M€

2 M€ already committed by Quantonation

Additional execution levers

Pre-industrialization studies

Outsourced engineering studies to accelerate readiness for scale-up and de-risk the path to industrial deployment

Strategic team expansion

Business-oriented hires to compress the time to market

