



NAATBATT 2023

Solvay

Feb 2023

SOLVAY

in BATTERY MATERIALS

We are **LEADING**

- In **electrode binders**
- **Separator coatings**
- Advanced **electrolyte ingredients**

We are **COMMITTED**

- To deliver **solutions** for next **generation** batteries
- To provide **environmentally responsible** solutions
- To enable **circular economy**



MARKET EXPERIENCE

More than 20 years in battery materials

TECHNOLOGY LEADERSHIP

- Specialty Polymers
- Fluorine Chemistry
- Advanced Inorganic Materials
- Composites
- Metal extraction

Collaborative **INNOVATION**

with the **KEY LEADERS** in the value chain

GLOBAL PRESENCE

supporting customers locally

Our global footprint and cutting edge technical capabilities to serve you locally with high quality products and safe supply



PARIS FRANCE
Next-gen batteries, inorganic chemistry

BRUSSELS BELGIUM
Next-gen batteries, modeling, processing

BOLLADE ITALY
Polymer synthesis and characterization
Battery mono-cell prototyping testing
Sales & Technical support

SEOUL SOUTH KOREA
Battery cell prototyping up to 1 Ah
Electrolyte formulation testing
Sales & Technical support

TOKYO JAPAN
Sales & Technical support

LYON FRANCE
Solvents, Additives, Salts
Sales & Technical support
Battery ingredients Production plant

TAVAUX FRANCE
Battery ingredients (PVDF) Production plant

WEST DEPTFORD (NJ) USA
Sales & Technical support
Battery ingredients (PVDF) Production plant

● Sales & Technical support, Plant
● Research, Application



- Strong application **knowledge**
- In depth **scientific capabilities** & testing **infrastructure**
- **2 application labs** (Asia, Europe) to support customers locally

► Widespread **industrial footprint**

► Strong innovation **ecosystem** with leading institutes and start-ups

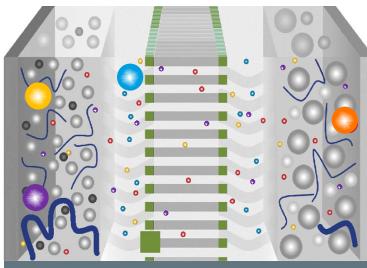
Leveraging our leadership in fluorine chemistry



A **portfolio** to meet our customer's ever more demanding requirements



ENERGAIN®
Solvents, specialty additives and formulation instructions for
• high energy density
• high voltage
• long cycle life
• enhanced safety
• temperature stability
in advanced anodes (Si, Li) and cathodes (Ni rich)



LiFSI, LiTFSI, M-TFSI
Lithium salts to improve
• power density
• fast charging
• temperature performance



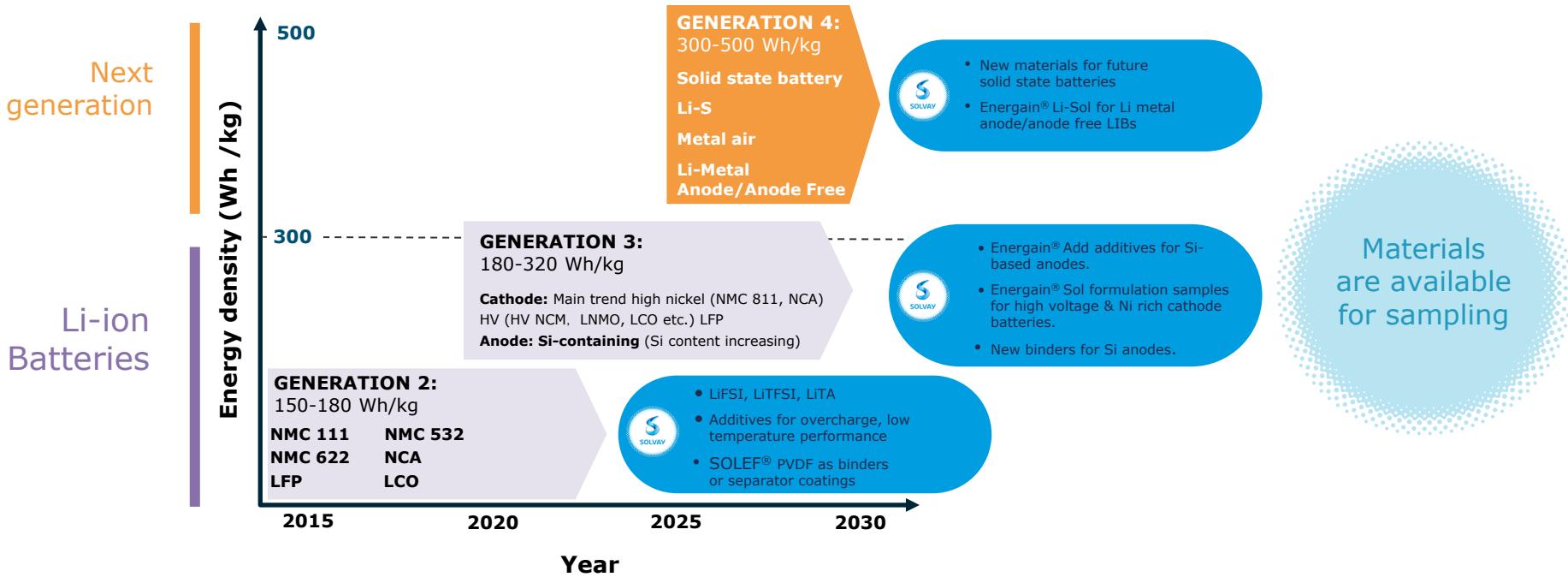
SOLEF® PVDF
Binders to improve energy density and battery cycle life in
• cathodes (NCA, NMC 811, etc)
• catholytes,
• polymer electrolytes,
• solid state batteries.



SOLEF® PVDF
Separator coatings to improve
• battery cycle life



Our innovative portfolio addresses the current and future challenges of the battery industry



SOLVAY BATTERY MATERIALS for today, tomorrow and the future

PORTFOLIO OF ENABLING MATERIALS

Solvay has a robust portfolio of products and technologies for battery materials, serving the battery industry for more than 20 years

COLLABORATIONS & PARTNERSHIPS

Solvay strives to establish long-lasting collaborations & partnerships with our customers as well as with leading academic institutes and start-ups around the world

RESPONSIBLE SOLUTIONS

Solvay is engaged in providing environmentally responsible solutions and enabling the circular economy of batteries



Solvay is COMMITTED

- to serving the growing demand for battery materials **with timely investments** in production capacity
- to **developing new chemistries** for current and next gen batteries with **scale, quality and cost**
- to being the **reference in advanced materials** for Battery and Automotive OEMs