SCALE UP & MANUFACTURING
KEY DIFFERENTIATORS AND STRENGTHS

1. In-house pilot production line
   From molecule design to production, under one roof

StoreDot solution: Design for Process

- **Pilot line:**
  A full operating pilot line managed by a strong team of professionals, with diverse equipment and process units, all designed to meet the industry requirements and deliver new solutions.

- **Active material production flexibility:**
  Developed a unique process for particle size reduction of the active material.

- **Quality measurements:**
  Employing both common practices and proprietary analytical instruments to allow fast development of a stable process, prediction of process failure and full sync with the manufacturer.

- **Process transfer:**
  StoreDot has successfully produced EV grade A-samples with EVE Energy and is currently transferring the latest formulation to produce B-samples.
2. Design to Process: rapid development from lab to production

Holistic approach, efficient development, minimal time to market

StoreDot has optimized a comprehensive development cycle, from the chemistry formulation through testing to scaling up to sample production, under one roof. The combination of research, cell design capabilities and in-house full scale pilot production line, allows us to provide a fast, efficient and scalable technology.

What is “design to process” approach?

This approach allows us to take any innovative formulation, new chemistry and design, and use it to build functioning battery cells adapted to the standard production lines used by all commercial battery manufacturers. This method significantly shortens the time from the end of development to production of batteries by all accepted standards, and therefore significantly reduces time-to-market.

Innovative chemistry, standard production technology

1 NANO PARTICLES
Nanoparticles and proprietary organic compounds are prepared and characterized

2 MATERIAL MIXING
The electrode materials are mixed and prepared (slurry)

3 COATING & DRYING
The slurry is coated and dried on a metallic foil which is the current collector

4 CALENDARING
Rolling the coated foils under pressure to achieve desired porosity

5 CUTTING ELECTRODES
The electrodes are punched or cut into desired shape

6 CELL ASSEMBLY
The electrodes are stacked together with a separator between them which usually is based on a multilayered polymer

7 ELECTROLYTE FILLING
Injection of electrolyte with conductive salt, degassing and pouch sealing

8 FORMATION
Charging and discharging the cell for the first time to achieve optimal formation

Quality measures

- Repeatability
- Standardized process
- High accuracy
- Process prediction

Standard production process allows for use of existing production lines

StoreDot’s XFC technology can be easily mass produced as our development process is industrially oriented, simple, scalable and fully compatible with existing lithium-ion battery technologies.
3. Substantial learning curve – proven process

We have successfully worked through several processes of transferring our technology from development to production scale

Incubation, funding & research

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>Achieved 30-second full mobile phone charge</td>
</tr>
<tr>
<td>2018</td>
<td>Battery manufacturing agreement with EVE</td>
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Serial breakthroughs

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2019</td>
<td>Achieved world’s first full 5 minutes charge of a scooter</td>
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<tr>
<td>2020</td>
<td>Mass-production readiness of small form-factor sample</td>
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<tr>
<td>2021</td>
<td>Energy density of 300 Wh/Kg, XFC capabilities of 0-80% in 10 minutes, silicon-dominant anode, reached development milestone of &gt;700 cycles</td>
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<tr>
<td>2022</td>
<td>Shipped EV battery A-samples to global EV OEMs for evaluation</td>
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Commercialization

<table>
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<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2024</td>
<td>100in5 Extreme Fast Charging EV battery launch</td>
</tr>
<tr>
<td>2028</td>
<td>100in3 High Energy Density battery launch</td>
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Following a successful transfer from in-house development to our manufacturing partner of the first generation of our XFC cells, we showcased the technology on a system level in a live demonstration of a 2-wheeler and a drone in 2019/2020.

A-sample 30Ah cells: time period from lab to EV FF

- **1-interface Cells**
  - 3-6 months scale-up
  - Chemistry screening and performance evaluation

- **3Ah Prototypes**
  - 5-7 months scale-up
  - Testing winning formulations in a prototype cell design

- **30Ah, A-Samples**
  - EV prototype cell validating our technology on a relevant scale

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4. Manufacturing partner

StoreDot has been working with EVE Energy since 2018 to rapidly increase technology readiness level and production maturity.

High volume manufacturing joint venture

Collaboration with EVE Energy

- Signed partnership securing sample production and long-term framework to achieve mass-production capacity in 2024
- Currently producing EV form-factor cells
- Utilizing existing Li-ion manufacturing lines for mass production of StoreDot XFC
- Well established process transfer methodology
- StoreDot’s pilot line directly scalable to EVE’s line, or any common industrial line
- Continuous joint development – from first generation and now EV grade battery cells
- EVE plans production of StoreDot cells starting in 2025

We work closely with the team at EVE to scale up all our technologies and produce engineering samples, on our way to mass production.

- 01/2022 Validation batch
- 04/2022 Successful sample production
- 06/2022 Safety validation
- 07/2022 A-samples functionality evaluation by EV OEMs

3 months - First batch ready

A-samples produced by EVE after development readiness of 3 months only
5. Flexibility of form factors

StoreDot is developing its cells to suit different form factors, allowing flexibility towards customer's design.

**Pouch**
StoreDot’s main focus in recent years has been on pouch cells. Our pilot line and EV samples (A & B) are based on a typical form factor of 300X100mm. We offer flexibility in dimensions according to customer requirements.

**Prismatic**
StoreDot technology is suitable for scaling up production of prismatic cells based on OEM requirements.

**46XX Cylindrical**
We have developed prototypes of 46XX cell based on our innovative chemistry, and are exploring the cooling requirements while scaling up the technology.

**21700 Cylindrical**
We have developed prototypes of 21700 cells based on our innovative chemistry, and are exploring scaling up the technology.