

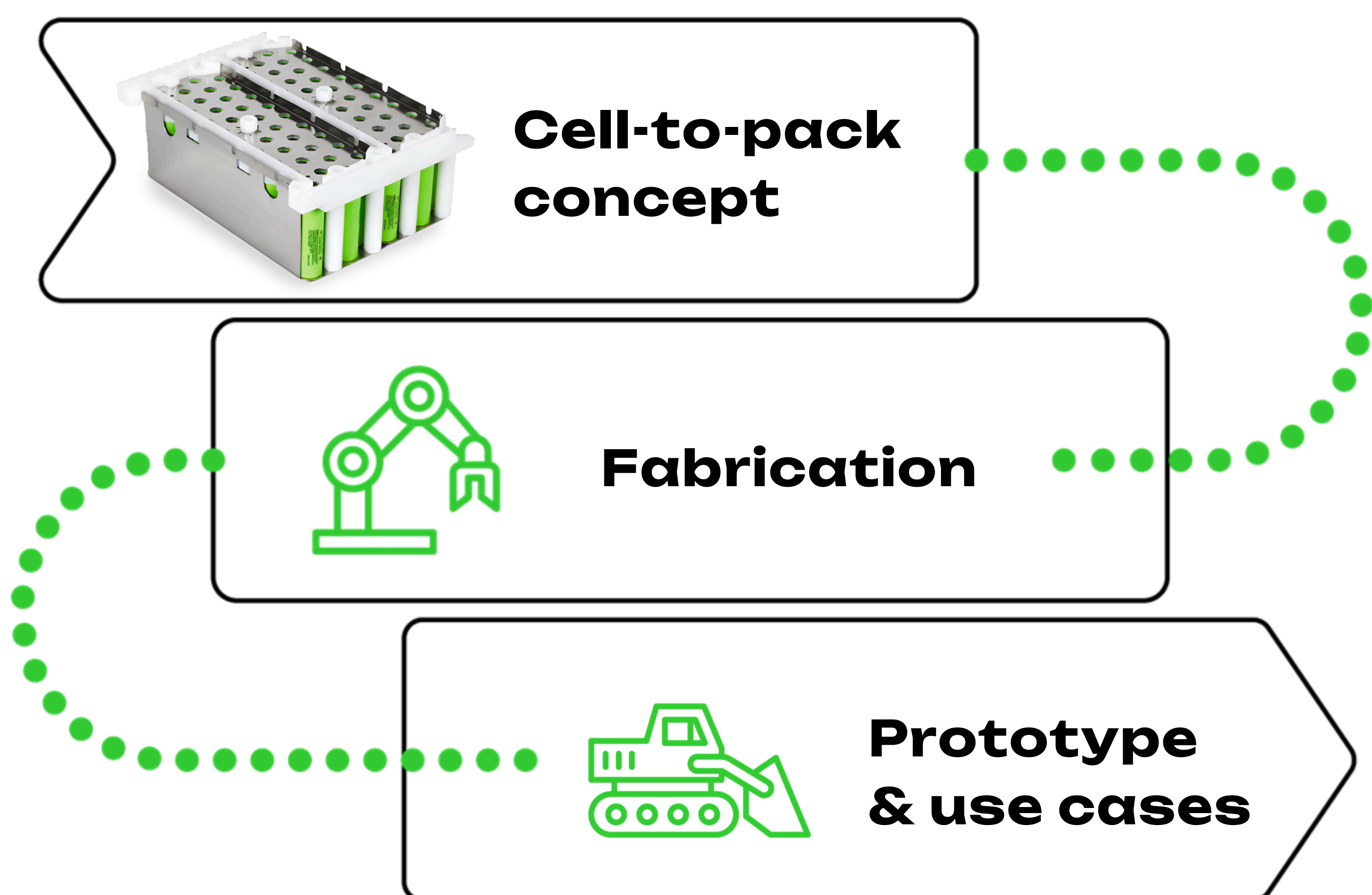
BATSS

Safe efficient battery system based on advanced cell technology

Grant agreement ID: 101103821

Implementation

Based on the **MacroCell** modular concept, we build tailored Battery Systems (BS) to be demonstrated in our use cases through a prototype that defines BS requirements for improved safety.



Safe-by-Design

Our unique **SbD** approach during the R&D process ensures that every aspect of our BS meets the highest safety standards, from design to end-of-life (EoL).

Use cases

Tested concept through 5-10 kWh prototype of up to 400 V, to define requirements for improved safety.



Construction vehicle



Leisure boat



VOLTstation®

1st life

2nd life

Innovations in the Battery System

Thermal

- Adaptation of FLEXcooler® for improved cost, efficiency, time, weight and safety.
- Optimised TMS through 1D/3D modelling.

Mechanical

- Reduced cell materials to optimise cost, weight, and resistance.
- Improved safety barriers.

Electrical

- Customisation of busbars.
- Bidirectional DC-to-DC converter for higher output voltage.
- Improved SiC based power switch to avoid power losses and ensure reliability.
- Printed and US sensing for wireless predictive BMS.
- Battery Passport and EoL software.



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