Advanced lightweight battery systems optimized for fast charging, safety and second-life applications

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Modular concept scalable to different types of vehicles **aimed at creating advanced battery pack designs and systems**

Innovative cooling technologies that deliver lower battery temperatures during operation and charging **to ensure an extended life-cycle**

Lightweight modular solutions designed following an **eco-design approach to allow subsequent disassembly, recycling and reuse**

Advanced remote control, maintenance and troubleshooting of each battery module through **a flexible advanced Battery Management System (BMS) that ensures safety** even at higher peak energy densities

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+50% An **improvement of the Peak Energy Density** by around 50%.

+15% A 15 to 20% **improvement over the full lifecycle**.

-20% A 20% **weight reduction of the battery system**.

Allow for fast charging while maintaining or improving battery capacity and useful life.

-25% A 25% **charging time reduction** with a 150 kW charger.

Extensive knowledge improvements in thermal management systems and second life / recycling.

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Do you have concerns with battery range, cost, long-term reliability and excessive charging times? ALBATROSS has a sustainable solution!

The proposed solutions will develop the next generation of battery packs for electric vehicles (EVs)

The technological developments will centre around a combination of smart battery modules along with lightweight multi-material structures, delivering an unprecedented level of safety and performance

The solutions will allow for a proper industrial integration and significant life-cycle improvements beyond existing solutions

- **Significant improvement in the performance of EVs**
- **Overcome the uncertainty of range**
- **Bigger attractiveness of EVs** with reduced charging times and extended battery life
- **In line with Circular Economy goals**
- Improved **dismantling and reuse / recycling approaches**

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