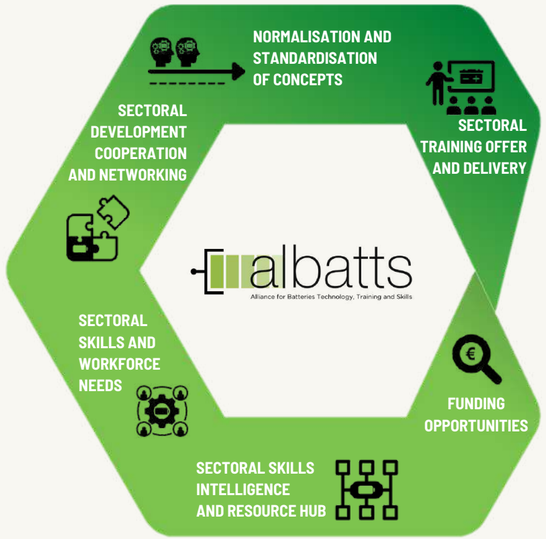
SECTORAL SKILLS INTELLIGENCE & STRATEGY FOR THE EUROPEAN BATTERY SECTOR

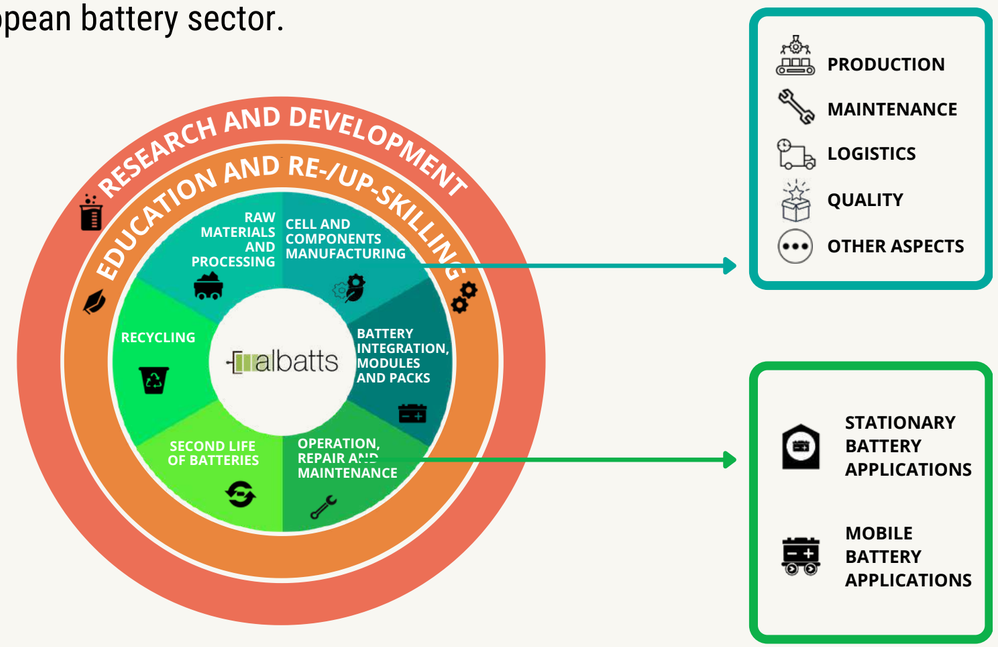
D3.10 – Sectoral Skills Intelligence and Strategy – Release 2

This is the **second** release of the sectoral skills intelligence and strategy **covering the whole European battery value chain from raw materials to recycling of batteries in terms of skills needs, job roles needs and recommendations**.



Readers will find designated actions needed in the sector to boost the overall re-/up-skilling activities as well as cooperation, information sharing and provision and many more.

The report also provides quantitative and qualitative overviews of the skills and the job roles needs per identified areas of interest consisting of the battery value chain steps, as well as specific aspects of production, quality or safety tailored to the battery production or other processes that are happening within the European battery sector.



This factsheet provides a summary of the report in what regards **second life of batteries**.

INFORMATION
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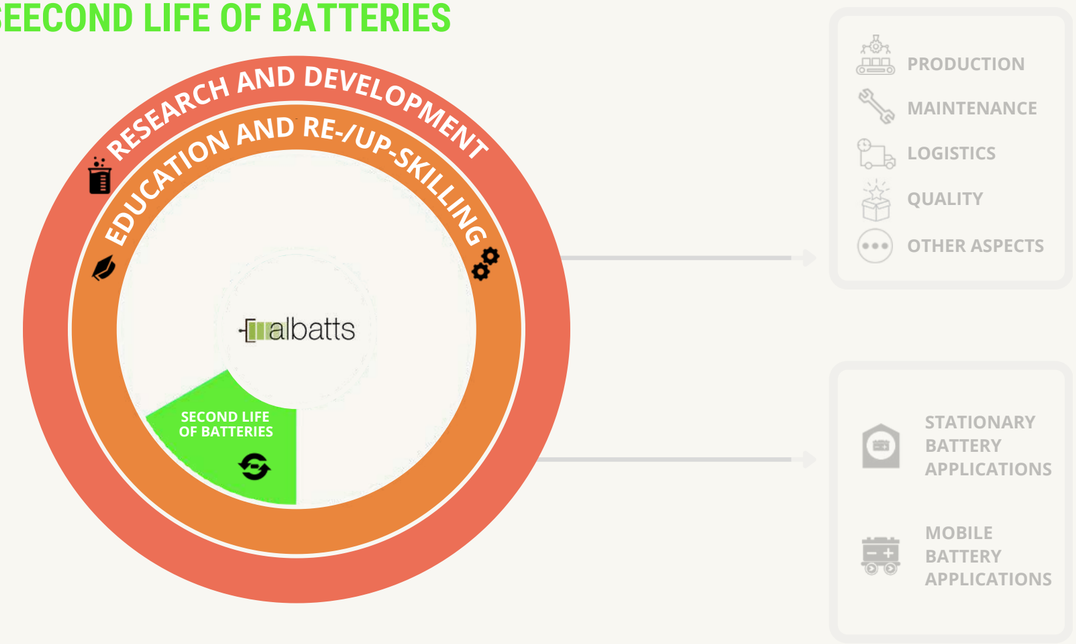
SEECOND LIFE OF BATTERIES



STAKEHOLDERS/COMPANIES/PROJECTS

Car maker	Second life initiative
BJEV	EV-charging, backup power
BMW	Grid-scale energy storage, EV-charging
BYD	Grid-scale energy storage, backup power
Chengan	Backup power
Daimler	Grid-scale energy storage, C&I energy storage
General Motors	Remanufacturing,
Great Walll Motor	Backup power
Hyundai	Grid-scale energy storage, C&I energy storage
Nissan	Remanufacturing, C&I energy storage, EV-charging

Car maker	Second life initiative
Mitsubishi	C&I energy storage
PSA	C&I energy storage
Renault	EV-charging, residential energy storage, grid-scale energy storage
Tesla	Remanufacturing
Toyota	C&I energy storage, grid-scale energy storage (NiMH)
SAIC	Backup power
Volkswagen (Audi)	C&I energy storage
Volvo	Residential energy storage
Volvo Cars	Residential energy storage
Yin-Long	Backup power, C&I energy storage

The development of **SECOND LIFE** applications of (mainly) EV batteries is expected to rise consistently because the number of decommissioned vehicles will increase as sales skyrocket. Importance will be gained as well due to various reasons and challenges, such as storage, recycling, grid stabilization, and green energy harvesting which are a must given the massive decarbonisation plans of the European Union, as stipulated in the Paris Agreement and the subsequent documents. Furthermore, escalating energy prices will bolster the alternative solutions aiming at improving energy efficiency and cost mitigation.

EV batteries are likely to be repurposed as a part of the stationary application due to the aforementioned and other requirements needed to achieve feasible production costs as well as testing and safety standards.

Currently, the collection of batteries for repurposing is done mainly by manufacturers (or in partnership with third-party operators). Independent collection networks are still in their infancy, mainly because of the low volumes available and the associated risks with handling spent/defective batteries. However, this trend will likely develop in another direction as the new innovative technologies will make the diagnosis of batteries and cells much easier and more accurate.

TARGET GROUPS: Stakeholders that are active in the implementation of second life applications, policy makers.

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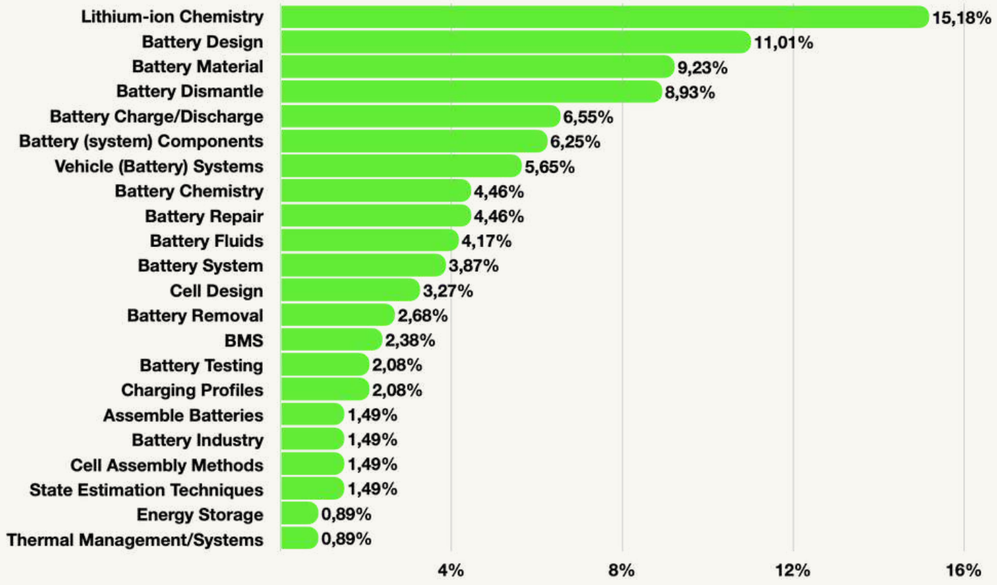
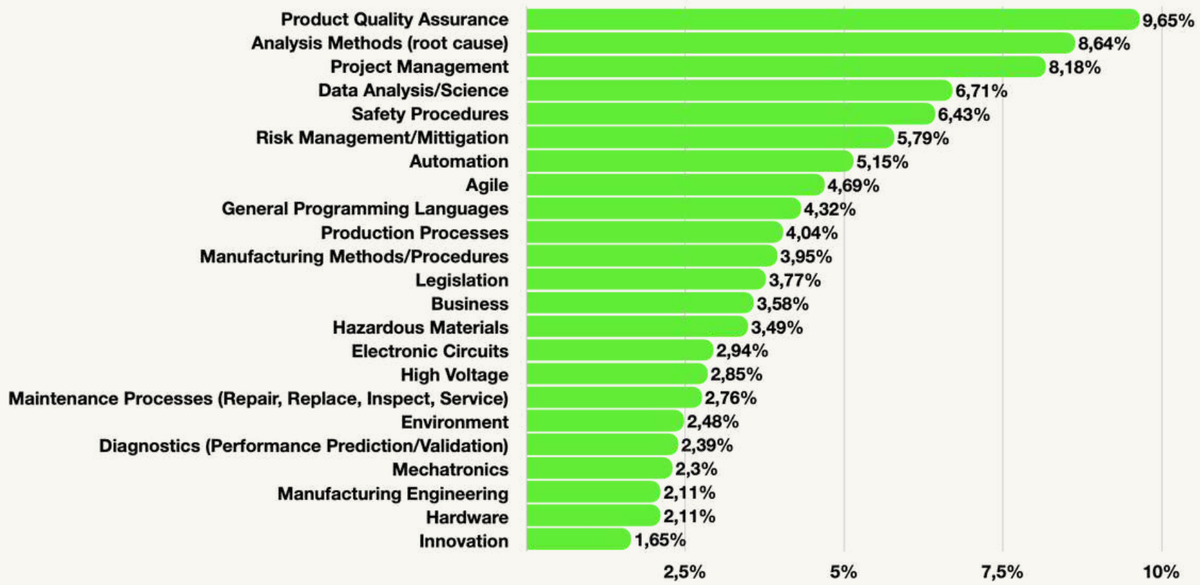
GO TO REPORT

SKILLS, COMPETENCES & KNOWLEDGE NEEDS

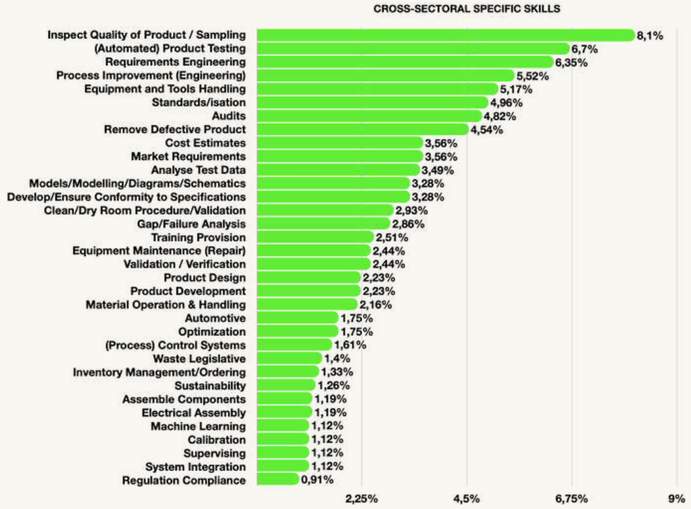
SECTOR SPECIFIC COMPETENCE



CROSS-SECTORAL SPECIFIC KNOWLEDGE



CROSS-SECTORAL SPECIFIC SKILLS



ACADEMIC COMPETENCE

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CONSIDERATIONS / RECOMMENDATIONS

Good practices on cooperation and networking on second life application of batteries – this may include various projects, some of them involving vehicle manufacturers, such as:

¨Nissan and Green Charge Network partnership – EV batteries into BTM storage systems in the USA;

Mercedes-Benz– second-life battery storage for a recycling plant in Germany;

Mercedes and Beijing Electric Vehicle partnership – energy storage system based on used EV batteries in China;

Hyundai Motor Company and UL partnership to explore the safe deployment of used EV batteries for stationary energy storage in North America.

LINKS & RESOURCES

- Sectoral Skills Intelligence and Strategy - Second Life of Batteries
- See the list of the ALBATTS **SKILLS CARDS**

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