

KEY MESSAGES AND NEEDS

FOR THE DEVELOPMENT OF THE ROADMAP FOR THE EU BATTERY SECTOR



These key messages and needs emerged from the main findings on sectoral intelligence following the workshops organized in January 2021 with the purpose of discussing the EU battery sector needs within the following themes: (1) electronic vehicles manufacturing and battery integration – future qualifications needed; (2) stationary energy storage in grids and telecom applications: safety and future job roles and skills; (3) battery cell manufacturing – job roles and skills; and (4) vessels of the future: maritime batteries – job roles and skills. The complete Analysis of Future Needs is [in our website](#) under Project Publications.

MOBILE APPLICATIONS

KEY MESSAGES

- Electrification is considered to be the main technological solution to achieving carbon neutrality in transport by 2050 in accordance with the Green Deal objectives.
- An important number of jobs in the supply chain is likely to be lost due to electrification of the vehicles.
- Demand for the electric vehicles is on the rise.
- Assembly capacities are growing constantly which brings about a shortage of skilled professionals and consequent skills and competences.
- Renewable energy and maritime electrification is a perfect combination for maritime investments in electrification.

NEEDS

- To stimulate the battery production in the EU and overcome consequent staff and competence shortage it is important to roll out and support dedicated projects and initiatives such as:
 - European Battery Alliance;
 - The European Skills Agenda and Pact for Skills;
 - Automotive Skills Alliance;
 - European Battery Innovation – IPCEI;
 - DRIVES, ALBATTTS and other Blueprint projects.
- Shortage of skilled workforce and consequent competences must be addressed on the national and regional level as well:
 - Implementation of greener policies;
 - Support for battery producers should be encouraged.
- Charging infrastructure in Europe needs to be improved.

This covers the maritime applications and port charging infrastructure as well.

STATIONARY APPLICATIONS & SAFETY

KEY MESSAGES

- EU initiatives and update of regulations, namely on the environmental and energy fields, are an incentive to the development of the energy storage business and its integration.
- New business models are boosting the sector development, namely integration of renewables, electrification and new market design and new technologies such as 5G cellular networks and IoT devices.
- Lithium-ion is and will be the leading technology for stationary battery storage due to the decreasing production costs.

NEEDS

- A wide range of competence is needed from a variety of fields and domains.
- Battery safety needs development and should be prioritized:
 - New technologies and techniques are needed as well as competences.
 - Safe product development and guidance on legislation and standards should be improved.
- Cooperation across different fields of knowledge is critical to develop sustainable businesses in energy storage domain.
- Update of the regulation concerning the batteries and waste batteries is needed.

BATTERY MANUFACTURING

KEY MESSAGES

- New job roles will emerge due to the different combinations of competences from various fields and sectors.
- Requirements for high-quality batteries from the automotive industry will create a competitive market composed of European companies and manufacturers.

NEEDS

- Mass adoption of specific education requirements and skills will be needed for raising battery manufacturing industry.
- Raw materials will be critically needed as the demand for batteries is rising:
 - Demand for the low emission and sustainable anode material with low cost for Li-ion batteries
 - Material sourcing in Europe should be supported

COMPETENCE, TRAINING & EDUCATION

KEY MESSAGES

Sharing information is crucial for the development of competence needs in the EU battery ecosystem.

NEEDS

- Experts in the battery field should be mobilized.
- Interdisciplinary education programmes for VET and Higher Education should be rolled out.
 - This requires adaptation of curricula overall as well as adaptation to digital skills and competences.
- Academia, VET and industry should cooperate via standardized approach on:
 - apprenticeships programmes;
 - internships;
 - projects.
- Attractiveness of the sector should be fostered.
- Clear roadmap for re-skilling and up-skilling towards new needs should be developed.
- Re-skilling and up-skilling instruments should be implemented and used, such as:
 - onboarding in factories;
 - digital and specific seminars for industry;
 - standardized online courses;
 - training of trainers;
 - access to learning infrastructure for SME's and other target groups;
 - centres of excellence.

