SAFE LiMOVE

advanced all Solid stAte saFE LIthium Metal technology tOwards Vehicle Electrification

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https://safelimove.eu/

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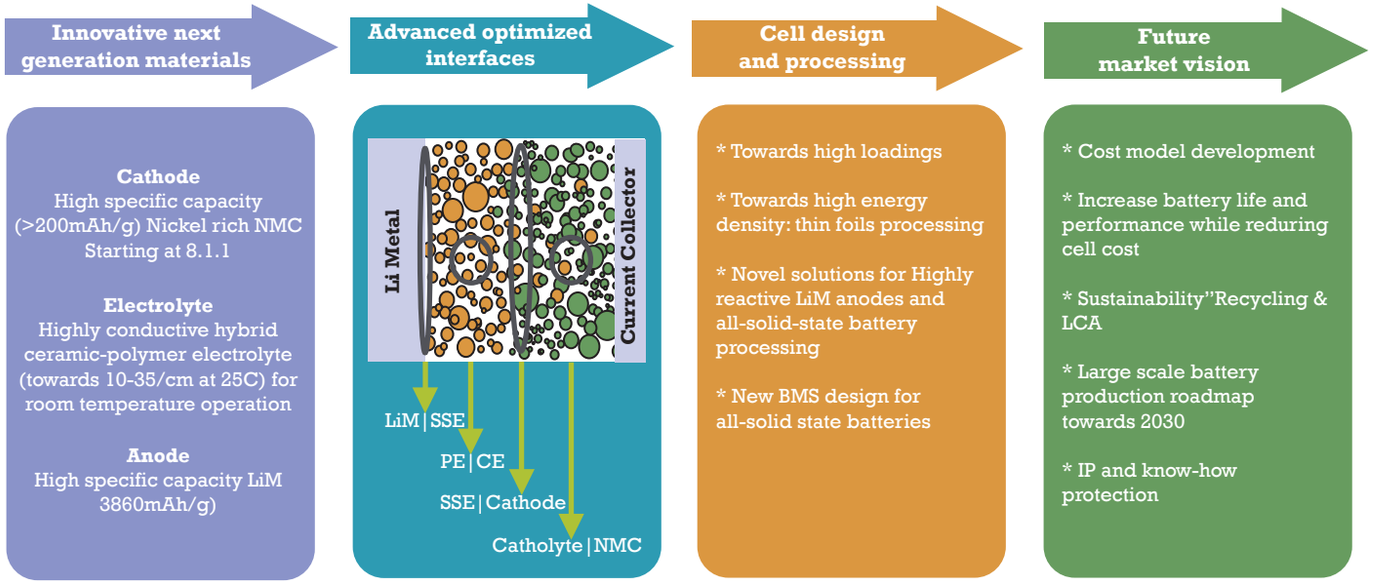
- Acronym: SAFELiMOVE
- Duration: 48 months
- Start date: 1 January 2020
- Total Budget: 7.8M
- EC Funding: 7.8M

OBJECTIVES

More and more automotive manufacturers are introducing BEVs (battery electric vehicles) and PHEVs (plug-in hybrid electric vehicles) into the automotive market. However, the technological and commercial competitiveness of batteries is one of the main challenges that must be overcome if millions of EVs are to be launched in the near to mid-term.

SAFELiMOVE aims at developing a new cost-effective (< 100 € /kWh from a high volume production perspective towards 2030), room temperature operating all-solid state battery technology. This technology will increase the energy density (450 Wh/kg and 1200 Wh/L), the safety and affordability of EVs, and meet the requirements of driving autonomy, cycle life, charging time required by EV users.



RESULTS

SAFELiMOVE delivers innovations in five main technology areas:

1) nickel-rich layered oxide cathode materials;
2) high specific capacity Li-metal anode materials;
3) advanced hybrid ceramic-polymer electrolyte with improved ion conductivity at room temperature;
4) interface adoption for effective Li transport by surface modification and/or over-coatings;
5) knowhow creation for the development of scale up production of all-solid-state batteries