The strategic role of batteries for the energy transition

Francesca DE GIORGIO, CNR

Lithium-ion batteries (LIBs) are one of the most key enabling technologies to boost the green energy transition and to address the UN Sustainable Development Goal n. 7 "Ensure access to affordable, reliable, sustainable and modern energy for all". It is foreseen that Europe will have a 16% share of the 2.5 TWh global battery market by 2029 compared to less than 6% of todays 450 GWh. Therefore, the creation of a competitive and sustainable battery cell manufacturing value chain in Europe is a strategic imperative. 250 B€/year in 2025 is the European market worth for the battery value chain.

The Batteries' "Important Project of Common European Interest" (IPCEI) is one of the most challenging Industrial political initiatives that EU Commission launched to support research and innovation on batteries in a structured and coordinated way , to accelerate the upscaling of pre-commercial projects along the battery value chain: from the extraction of raw materials, design and manufacturing of battery cells and packs to the recycling and disposal in a circular economy, with a strong focus on sustainability. The two IPCEI on Batteries have a total funding capacity of around 6 B€ and involve companies and research centres from more than ten EU Member States that will collaborate to achieve the strategic EU autonomy in a vital sector for Europe.

A general overview of the IPCEI is here presented with a particular focus on how Manz is contributing to develop research and innovation in the IPCEI framework.