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A glance over the European battery ecosystem: initiatives, future development, and applications. Is Italy following the lead?

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The European Commission has set ambitious targets in the new Green Deal. Moreover, by 2050, renewables could reach as much as 87% of the electricity mix. Cheap renewables and flexible demand will pave the way at a better exploitation of all storage technologies. Batteries will have a pivotal role to shift the power system away from fossil fuels to a cleaner society around variable renewables and emissions-free energy.
On this regard Europe had put in place many actions covering the entire value chain and all levels of technology readiness. Many initiatives and projects are running with the goal to strengthen the competitiveness and the resiliency of Europe towards the energy&energy storage market. At national level actions have been established by Italian Governments to set the roadmap toward a better industrial exploitation by, e.g., participating to both Important Projects of Common European Interest (IPCEI) on Batteries and enhancing the stakeholder commitment on the entire battery value chain. On the other hand, national R&D projects on electrochemical storage has been funded since 2003 by "Ricerca di Sistema Elettrico" (RdS) framework programme as strategic projects for Italy.
RdS is the R&D activity aimed at technical and technological innovation for the electricity sector in general in order to improve its economy, safety and environmental compatibility, ensuring the country sustainable development. R&I activities on the entire battery value chain is the key to implement the energy transition of Italy.