

**CEA / Liten**

French Alternative Energies and Atomic Energy Commission / Liten, Grenoble, France



**ABOUT**

Located at CEA Grenoble and INES (Chambéry) centers, CEA / Liten is dedicated to the energy transition. It is spearheading the EU's efforts to limit dependency on fossil fuels and reduce greenhouse gas emissions in three key areas: renewable energy, energy efficiency/storage and development of materials, spanning the entire value chain from the development of materials to pre-industrialization.

Its activities focus on several key areas: solar energy, network management, batteries storage and hydrogen in order to improve energy efficiency and circular economy approach. CEA-Liten covers a wide range of applications in energy production and distribution, transportation, industrial processes, and environment markets.

CEA / Liten strategic research axes are the following:

- Renewable energy production: high performance photovoltaics, photovoltaics everywhere,
- Storage and flexibility solutions: batteries, hydrogen vector,
- Systems, networks and energy efficiency: energy systems and networks, thermal energy management, power electronics,
- Circular economy: eco-innovative materials and process (additive manufacturing, processes and assemblies, structural electronics), chemistry and recycling, carbon circular economy.

The institute is able to draw on the strength of 12 purpose-built technology platforms as well as over 1000 scientists, technicians and support staff. The combination of this enviable array of equipment and the scientific expertise of CEA-Liten's scientific teams results in a powerful R&D tool that can help overcome complex technological hurdles and help build the products, components and industrial processes of the future.

**EXPERTISE**

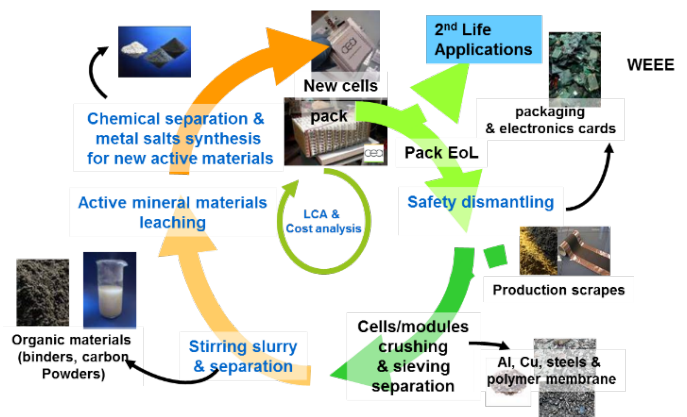
CEA / Liten knowhow is based on:

- Material science and engineering driven by applied technological development (from modelling to processing, prototyping & scaling up),
- Eco-design of materials without (or with low content of) CRM,
- Strong teams on fine materials characterisation,
- Integrated approach from material to system applied to technological development (thanks to devoted platforms)
- Technico-economic & environmental assessment (e.g. LCA) on developed technologies.

**FACILITIES & SERVICES**

CEA Grenoble hosts several technological platforms including industrial tools to support an integrated approach on specific applications. One of them is dedicated to material efficiency where production scrap or EoL products are treated to valorise the most valuable substances contained in it, such as CRM. The secondary raw materials are qualified in other local platforms (Battery, printed electronic, powder metallurgy...)

- Lab scale facilities for recycling (dismantling, material preparation, sorting, hydro/iono-metallurgy, validation & testing of recovered materials)
- Material (nano-)characterisation facilities strongly linked with European installation (ESRF, ILL)



**MORE INFORMATION**

Website: [www.cea.fr](http://www.cea.fr)  
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