

RESEARCH INSTITUTE

cea liten

INSTITUT CARNOT Énergies du Futur

The CEA: research in service to government, the economy, and citizens

The CEA is a major research organization working in the best interests of the French State, its economy and citizens. Thanks to its strong roots in fundamental research, it is able to provide tangible solutions to meet their needs in four key fields: low-carbon energy, digital technologies, technologies for medicine of the future, defense and national security.

As the world's leading innovator among public research organizations (Clarivate 2024), the CEA acts as a catalyst and accelerator of innovation for French industry. It helps businesses in all sectors be more competitive, creating high-performance products that stand out from the crowd and developing trail-blazing solutions that lead to changes in society.

CEA-Liten: innovating for the energy transition

Founded in 2004, CEA-Liten has grown into a leading center for energy and environmental research. With a focus on the pillars of the energy transition—solar, batteries, hydrogen, sustainable chemicals and fuels—CEA-Liten is innovating to improve energy efficiency and lay the foundations for a circular economy. CEA-Liten's mission is to develop technologically-competitive and environmentally-friendly solutions and transfer them to companies operating on the energy production and distribution, transportation, industrial process, and environmental markets. As member of France's Carnot Network and the Carnot Énergies du Futur institute, CEA-Liten operates from campuses in Grenoble and Chambéry, France.

1000
scientists, engineers, technicians, and support staff

200
PhD students and post-docs

160 M€
annual operating budget



12
R&D platforms

2000
patent families in our portfolio

200
scientific publications per year

+400
R&D projects

member of
20
associations and competitiveness clusters

Why collaborate with CEA-Liten?



Save time

- Access a patent portfolio and expertise to turn new concepts into market-ready solutions faster.
- Leverage high-tech R&D equipment and software to take new products and processes from prototype to test run.

Boost your innovation capabilities

- Take advantage of our international experience innovating for the transportation, energy, manufacturing, process, and environmental industries.
- Ensure product-market fit and supply chain integration with our value-chain and lifecycle approach.

Stay ahead of competitors

- Drive your innovation process forward by working with us on your proof-of-concept and functional prototyping and scaleup challenges.
- Focus your R&D on strategic projects for a more sustainable future thanks to our market intelligence and network of partners.

Who can work with CEA-Liten?
- VSBs/SMBs
- Corporates
- Startups

Types of contracts
- Exclusive partnerships
- Multi-partner & collaborative projects
- Consortium projects and programs

CEA-Liten's strategic research areas

Solar PV



« All of our advances in photovoltaic solar energy contribute to a lower-carbon and more energy-efficient future. Higher yields and new use cases will support a sustainable energy transition and create economic opportunity in France and Europe »

Batteries



« Our strength: a holistic, system-level approach to batteries. When it comes to battery research, each component can be addressed by specific solutions that can make a big difference individually. However, we know that the whole is much greater than the sum of its parts. Our big-picture thinking positions us to support our partners, leaving the right skills and knowledge to achieve our shared objectives. »

Hydrogen and sustainable chemicals and fuels



« The transition to a more sustainable society will require massive electrification and the development of new energy vectors. At CEA-Liten, we believe that hydrogen and sustainable chemicals and fuels are vital. We are leveraging our deep knowledge of these fields and our multi-scale and multi-physics modeling and micro- and nanocharacterization capabilities to support the development and rollout of these solutions. »

Systems, grids, and energy efficiency



"The energy transition will require us to move from what is essentially a centralized energy system to a much more complex distributed system. At CEA-Liten, we address these complexities and the associated technologies and energy vectors holistically and agnostically. Our approach is to rethink tomorrow's multi-energy, multi-scale, and multi-technology energy systems. We are working with our partners to design more sustainable energy systems that use less energy and use it more efficiently. That is our vision of the energy future."

Circular economy



"With expertise spanning eco-design, custom parts manufacturing, lifecycle analysis, materials characterization and recycling, safe and sustainable technology development , CEA-Liten is supporting a more environmentally-friendly and circular economy in a variety of ways. In today's fast-paced market environment, we are developing materials, processes, and components that are sustainable, resource-efficient, and high-performance."

More information: www.liten.cea.fr/en

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Building today the society of tomorrow

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