Climate, environment and circular economy | CO2 capture, utilization and storage | Environmental monitoring | Renewable energies | Wind Energy | Geothermal energy | Hydrogen | Energy storage | Responsible oil and gas | Basins and reservoirs modeling and simulation | Enhanced oil recovery (EOR) | Risers and flow lines

Carnot IFPEN Ressources Energétiques

The Carnot IFPEN Ressources Energétiques (RE) brings together 14 of IFP Energies nouvelles' laboratories. Awarded the Carnot label in 2020, it maintains strong ties with the socio-economic world, both in France and internationally, and actively contributes to the Carnot Institute network.

The Carnot IFPEN RE addresses the challenges associated with the energy, ecological and digital transition.

- **Develop renewable energies**: **wind energy**, **geothermal energy**, **hydrogen (storage and transport)**, their integration in electricity networks via **energy storage**, as well as the **sustainable uses of the subsurface in the context of the energy transition**,.
- **Minimize the climate impact of industrial activities**, via the **capture, utilization and storage of CO_2** (CCUS), **industrial and environmental monitoring**, a better understanding of the role of **soils in the environmental transition**, the **management and treatment of water resources** , as well as the characterization of **microplastics in the environment**.

- Support its industrial partners in their quest to **minimize the environmental impact** associated with the production of fossil energies: **oil reservoir characterization and management**; **offshore drilling and production** operations.
- **Seize the opportunities offered by digital technology** to develop new products, services or business models by supporting industry through their **digital transformation** process and the implementation of **participatory science** initiatives.

The Carnot IFPEN RE has extensive experience operating within the framework of industrial partnerships. In 2021, it had a portfolio of more than 130 active contracts (contractual or collaborative research, technical services, active operating licenses), of which more than half with international partners.

Carnot IFPEN RE website: www.carnot-ifpen-re.com

The Carnot IFPEN Ressources Energétiques' R&D themes:

- Wind energy, particularly offshore
- Geothermal energy
- Hydrogen: storage and transport
- Energy storage
- Sustainable uses of the subsurface in the context of the energy transition
- CCUS & negative emissions
- Industrial and environmental monitoring
- Soils and the environmental transition
- Water: resource management and treatment
- Microplastics in the environment
- Digital transformation
- Participatory sciences
- Oil reservoir characterization and management
- Offshore drilling and production

Did you know?
At national, European and international level, the Carnot IFPEN RE is actively involved in 34 publically funded collaborative projects, placing it at the heart of a dense research partnership network.
The Carnot network is a multidisciplinary R&D network. It is made up of 39 french public research structures, representing 20% of the public research workforce and 55% of companies' R&D contracts.

News

Innovation and Industry

News September 2021

The French Corrosion Institute and IFPEN sign a framework partnership agreement relating to the energy transition

Press release

Renewable energies | Responsible oil and gas

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CO2 capture: Lhoist joins ArcelorMittal France, IFP Energies nouvelles, Axens and TotalEnergies in the dinamX project

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