



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 Énergétiques



**The Carnot IFPEN Ressources Énergétiques (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<sub>2</sub> (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](http://www.carnot-ifpen-re.com)

The Carnot IFPEN Ressources Énergétiques' 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



Innovation and Industry

News

June 2021

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

[Press release](#)

Climate, environment and circular economy

CO2 capture, utilization and storage



Innovation and Industry



News

February 2020

## Two Carnot Institutes labeled at IFPEN

[Press release](#)

Climate, environment and circular economy

Renewable energies

Sustainable mobility

Responsible oil and gas

Carnot IFPEN Ressources Energétiques

Link to the web page :