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Generation IV Forum

cap@nergies

For more information: www.capenergies.fr

Nuclear fission

Nuclear Fusion

New Energy Technologies

Environmental
Biology and
Biotechnologies

Safety Security

Impact on the environment

 An establishment of the National Institute of Nuclear Sciences and Techniques (INSTN)

The INSTN awards three state-approved degrees: one for an engineer in Atomic Engineering and two others for technicians in radioprotection. It also organises study sessions dealing with nuclear sciences and techniques for professionals.

Multiple French and international scientific collaboration

- With universities and establishments of higher learning: joint research, facilities and equipment offered, short term interships for trainees and PHD students
- In different European and international research programmes.

300 temporary scientific collaborators on an average each year at the CEA Cadarache Research Centre

 Since its inception, Capenergies has expanded considerably and now covers the entire Provence-Riviera region, Corsica, Monaco and the islands of La Réunion and Guadeloupe

The Capenergies Competitiveness Centre was created in November 2005 following an initiative launched by the CEA, the EDF and the Corsican Agency for Economic Development. Its prime objective is to develop innovative projects aimed at mastering energy consumption and to define non-Greenhouse gas energies that will promote nuclear and alternative energies.

Capenergies: More than 430 firms, research laboratories and training centres from the energy sector. Almost 150 innovative projects have found financing (350 M€)



- The AREVA Group has 3 establishments operating on the Centre:
- **AREVA NC** ensures the cleaning and dismantling of the Plutonium Technology Workshop.
- **AREVA TA** is in charge of all technical and operational aspects involved in running the facilities that deal with nuclear propulsion.
- AREVA NP Intercontrôle conducts non-destructive tests on components taken from nuclear plants

Approximately 650 employees on the site

• The Institute of Radioprotection and Nuclear Safety (IRSN)

The IRSN is the technical expert for the Nuclear Safety Authority in the fields of radioprotection and nuclear safety.

Approximately 350 employees present on the site

• The ITER Organisation

An international organisation created by treaty, in charge of the design, construction and operation of the experimental fusion reactor, ITER.

Approximately 450 employees on the site at the end of 2009.







Reactor

6007

the experimental Jules Horowitz

Decree authorising the creation of

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Commissioning of the CEDRA facility designed for the interim storage of radioactive waste packages before their removal to a geological repository

2005
Cadarache is chosen to be the site of the ITER fusion reactor by all the partners concerned

1988 Start-up of TORE SUPRA Tokamak with supraconducting magnets Creation of the Cadarache Research

1963

Commissioning of the Pégase reactor
Validation of French natural uranium nuclear
fuels

Commissioning of the Rapsodie reactor

The first French fast reactor

1959

CAD KRACHE A concentration of energies Nuclear fusion and fission energy New energy technologies Environmental **Biology and Biotechnologies** 



energie atomique • energies alterna

## Cadarache is one of the most important technological research and development centres for energy in Europe

Its activities, distributed throughout Acting as backup to the centre, various research platforms, focus on nuclear fission, nuclear fusion, new energy technologies (hydrogen, solar, the site, the management of its biomass) and fundamental research in the field of vegetal biology.

there is a whole range of services organised to ensure the safety of nuclear waste and nuclear materials and its sanitary and environmental surveillance.

Cadarache is one of the ten research centres of the French Atomic and Alternative Energies Commission (CEA).

Half of the basic nuclear facilities existing within the entire CEA infrastructure are located on the Cadarache site.



## The site (ITER excluded)

- 1600 ha with 900 enclosed within the site
- 480 buildings 20 of which are Basic Nuclear Facilities including one Basic Nuclear Facility involving National Defence

## Nearly 5500 employees (ITER excluded)

- 2100 CEA
- 1000 The AREVA Group and the IRSN Institute
- 300 temporary collaborators: PHD students from both France and abroad Postdoc students
- 350 other collaborators working on a full-time basis: apprentices, temporary employees and trainees for internships.
- 1700 subcontractors minimum: their number may vary according to the scale of the projects currently underway.



