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# Educating the next generation

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## SUMMARY

- 1. Introduction : General presentation**
- 2. Main activities of education**
- 3. Organisation of the INSTN**
- 4. Conclusions**

# 1. Introduction : General presentation

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## ➤ A higher education Institution

- Created in 1956 within the French Nuclear Research Organisation (CEA)
- Placed under the joint supervision of the French Ministry of Education and Research and the French Ministry of Industry

## ➤ An institute providing highly qualified students and professionals with specialised education and training in all disciplines related to energy or non-energy nuclear applications

## 2. The INSTN's missions

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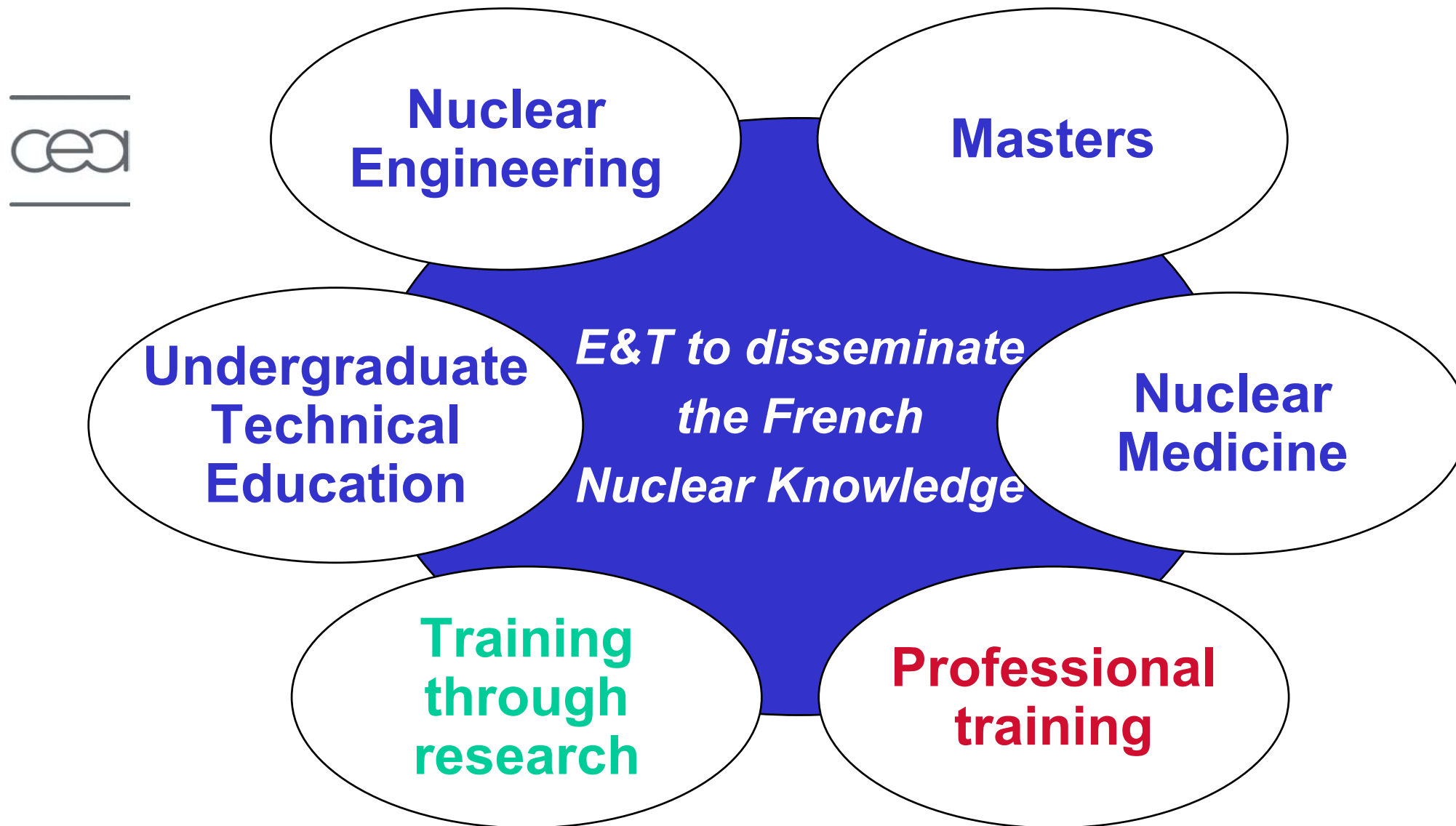


➤ **The INSTN, together with other CEA branches, is responsible for :**

- Organising National and European academic courses in close connection with universities and engineering high schools
- Organising training sessions for professionals at all levels,
- Establishing collaborations, in the field of nuclear science and technology teaching, between :
  - universities, higher education institutions, engineering colleges and other scientific institution on the one hand
  - And the CEA on the other hand

## 2. The INSTN's activities

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## **2.1. Initial training (1)**

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**General feature with few exceptions : nuclear related disciplines, for energy or other applications, are not taught in France at undergraduate or graduate level.**

## 2.1. Initial training (2)

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### ➤ At post graduate level :

- Nuclear engineer, delivered by INSTN
- Medical physicist as meant by the IAEA BSS appendix 2, delivered by INSTN
- Masters in cooperation with French and European Universities or Engineering colleges (ENEN network or Erasmus project on Decommissioning and waste management)
- Specialities for medical doctors and pharmacists

### ➤ At undergraduate level :

- Professional "licence", technician degrees

## **2.2. Professional training**

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- **In technical or non-technical areas**
- **Durations : a few days to several weeks**
- **No strict boarder between initial and professional E&T : modularisation**
- **INSTN is certified ISO 9001**

## 2.3. The INSTN's "customers"

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- **Students, engineers, medical doctors, pharmacists :**
  - French,
  - From EU countries (networks
  - From any other country (IAEA, WNU)
  
- **Staff of CEA, of French nuclear companies, of government agencies, Grammar school teachers ...**
  
- **Foreign professionals (from EU countries, through IAEA)**

## **2.4. The INSTN's teachers**

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- **CEA researchers and experts**
- **French and foreign University teachers**
- **French and foreign engineers and experts from the industry, from the medical sector, from regulatory agencies**

## **2.5. Some numbers for 2003**

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- **Initial training : # 1000 teachers for # 700 students**
  
- **Professional training : 650 sessions, for 7800 trainees and a total duration of 2900 days**

## 2.6. INSTN resources

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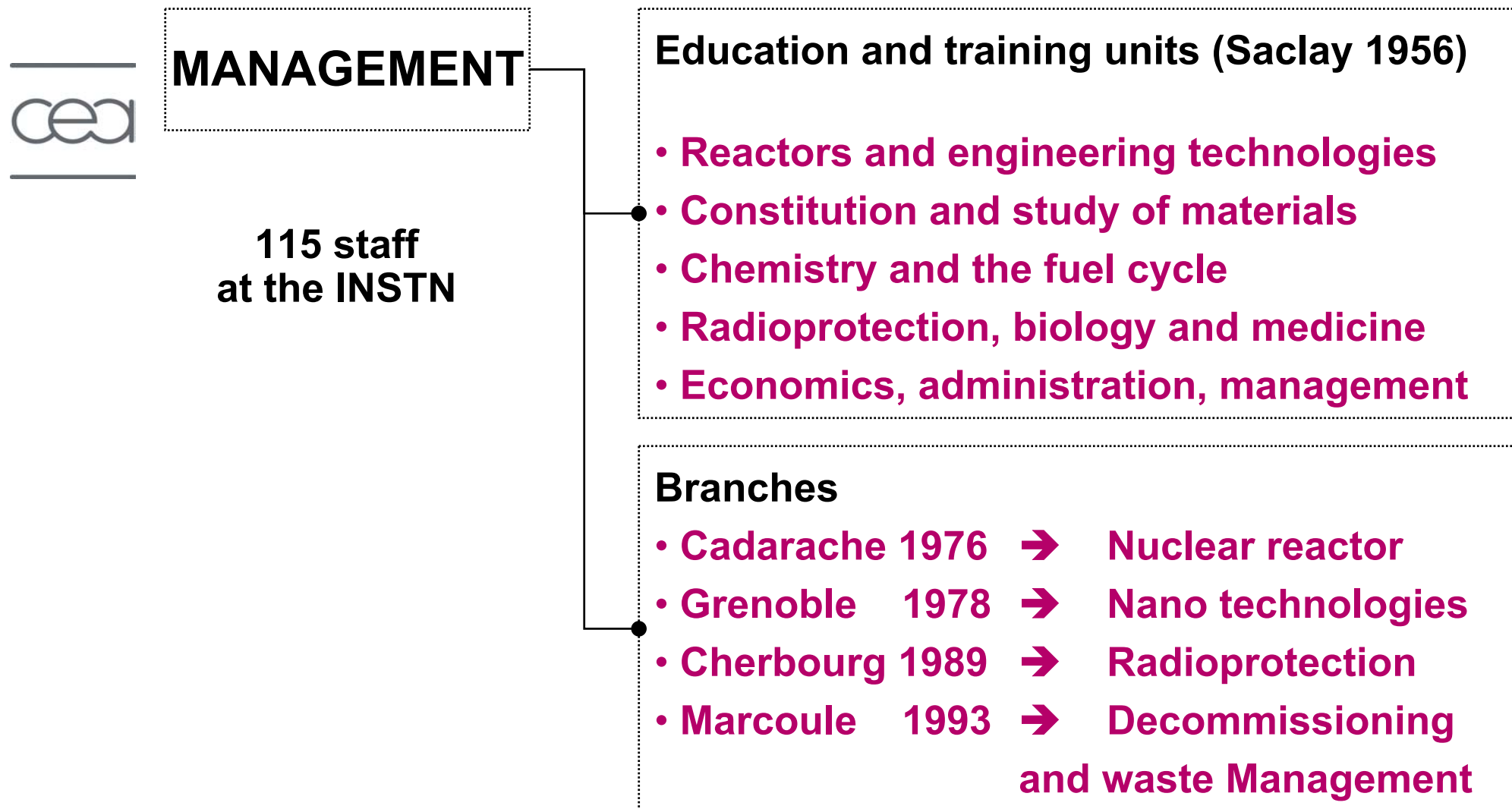


### Unique equipment :

- **Training reactor, ULYSSE**
- **Reactor simulators for normal and accidental operational conditions**
- **Computers and Industry codes**
- **Physics and chemistry active laboratories**
- **Radiation protection training facilities**

### 3. Organisation of the INSTN

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### 3. INSTN Locations

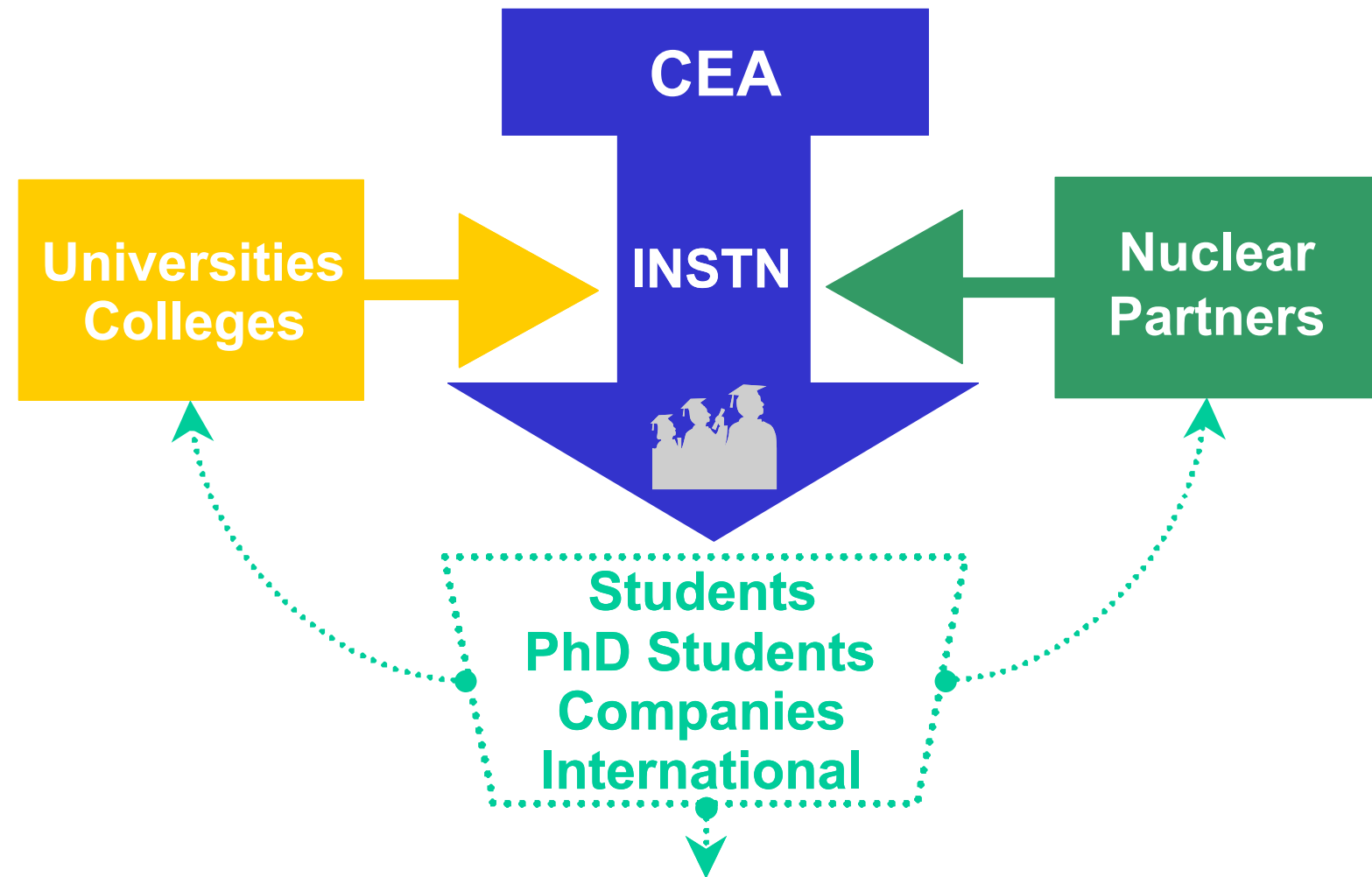


## 4. Conclusions

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### The INSTN : interface of knowledge diffusion





## 4. Conclusions

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- **The INSTN's mission : teaching and training through networking**
- **Culture of sharing knowledge and information within an organized community of actors**
- **The development strategy of the institute is based on :**
  - **Cooperation development and organization**
  - **Quality management**
  - **Sharing of practices and resources (e-learning)**
  - **Pedagogical engineering**

➤ **INSTN : an institute of Knowledge Management**