

The CNRS : a Wide Variety Of Jobs



→ A wide variety of jobs are carried out by researchers, engineers, technical and administrative staff in the service and research units of the CNRS.

→ The CNRS has 25,283 employees, of which 11,349 are researchers and 13,934 are engineers and technical and administrative staff.



The Researcher's Job



The Researcher's Duties

Producing scientific knowledge, exploiting research results (technology transfer), disseminating scientific information and training are the main duties of the researcher.

To achieve these duties, the researcher does a variety of activities, in his lab or on the field, by himself or with a team, depending mainly on his field of research and the appropriate methodologies and techniques. He

- ✓ defines research subjects,
- ✓ elaborates protocols in collaboration with engineers and technicians of his team,
- ✓ carries out experiments,
- ✓ analyzes and interprets research results,
- ✓ writes and publishes articles,
- ✓ takes part and intervenes in conferences, colloquiums and seminars,
- ✓ etc.

The Researcher's Job



The Another Researcher's Duties

In addition to these activities centered on the scientific production, the researcher supervises the work of doctoral and post-doctoral students and guest researchers. He can also devote some of his working time to teaching at the university.

He can also exploit his research results through establishing licences and patents, by contributing his consulting expertise to an existing company, or even by creating his own company to apply the results of his scientific research.

During his career, he will also becomes involved in supervising research teams, leading scientific projects and, if he wishes, managing research facilities.

The Researcher's Job



Fields of Disciplinary and Interdisciplinary Research

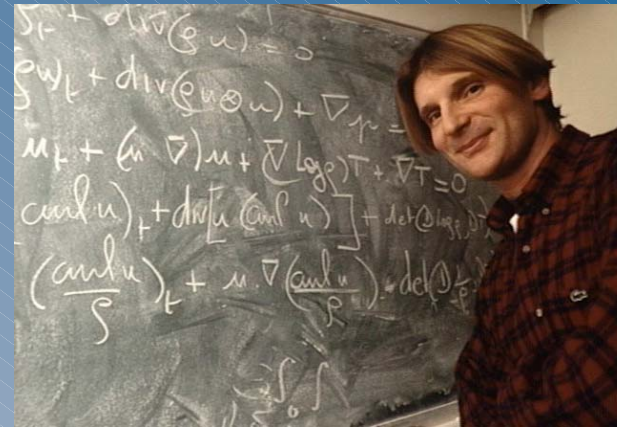
The CNRS has a strong presence in all major scientific disciplines and covers almost all research fields.

- Mathematics and physical sciences
- Communication and information science and technology
- Engineering sciences
- Sciences of the universe
- Chemical sciences
- Life sciences
- Humanities and social sciences

The Researcher's Job

Mathematics and physical sciences

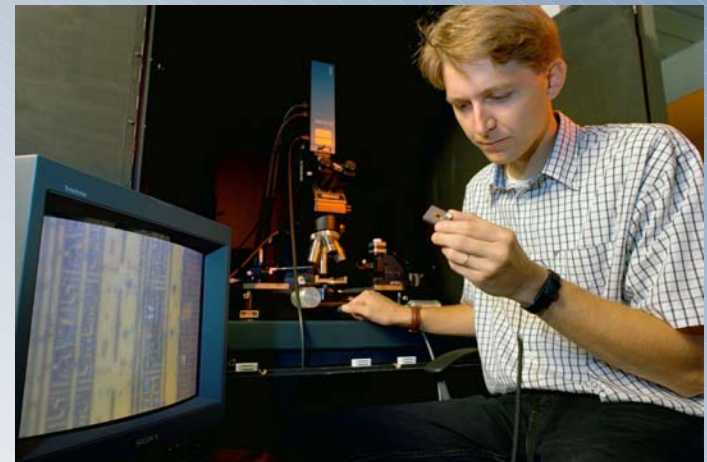
- Mathematics and their applications
- Theory and models for physical phenomena
- Nuclei and particles
- Atoms and molecules - Optics and lasers - High temperature plasma physics
- Structure and dynamics of condensed matter
- Physical and chemical properties and electronic structures of condensed matter



The Researcher's Job

Communication and information sciences and technology

- Information sciences and technologies (computer science, control, signal and communication)
- Electronic, semiconductors, photonic, electrical engineering

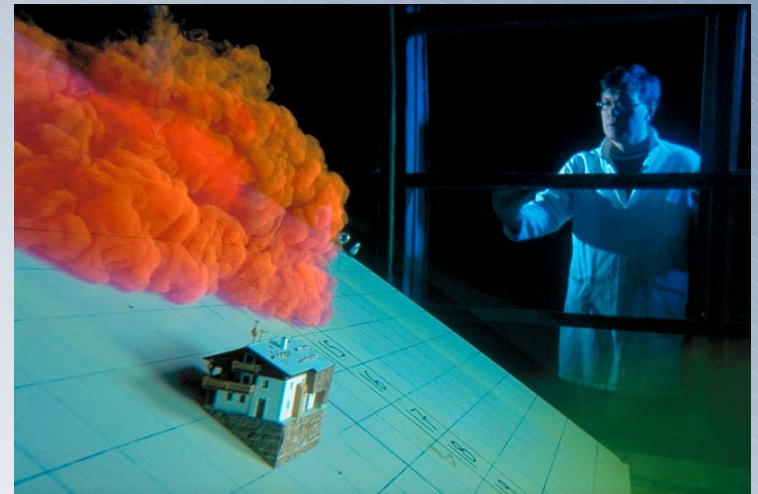


The Researcher's Job



Engineering sciences

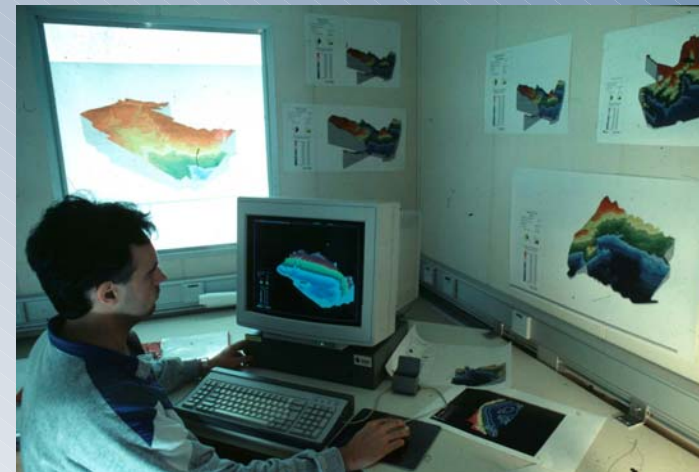
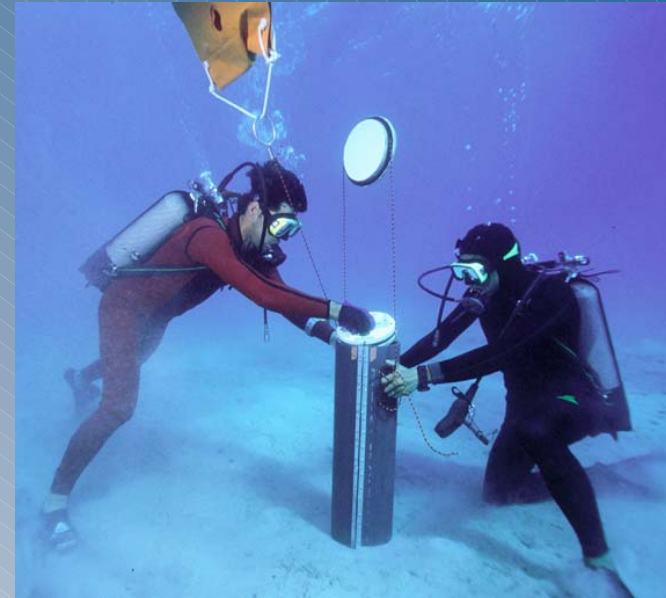
- Mechanical engineering – material science and engineering, acoustics
- Energy – fluid mechanics – chemical engineering



The Researcher's Job

Sciences of the universe

- The structure, history and evolution of the Earth
- The Earth's oceans, atmosphere and land surface
- Theory, modeling and laboratory experiments in earth sciences and solar system physics
- From the solar system to the distant universe



The Researcher's Job

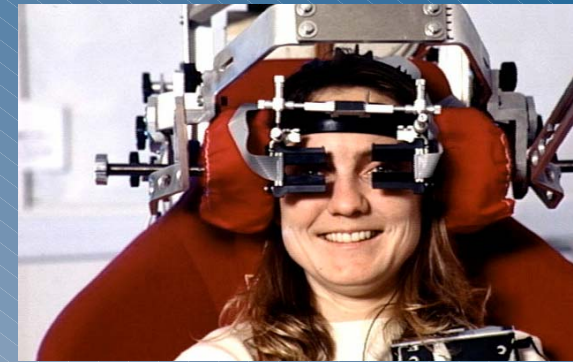


Chemical sciences

- Complex molecular systems
- Molecules : synthesis and properties
- Molecules : structures and interactions
- Transition elements : interfaces and catalysis
- Solid state processing, characterization and modeling



The Researcher's Job



Life sciences

- Biomolecules : structure and action mechanisms
- Biomolecules : structure-function relationships
- Drugs design and therapy : knowledge and tools
- Genomes – structures, functions and regulations
- Cellular biology – viruses and parasites
- Cellular interactions and cell signaling
- Life functions and regulations
- Plant biology
- Biology of development and reproduction
- Mental functions – integrative neuroscience – behaviours
- Biological diversity, populations, ecosystems and evolution



The Researcher's Job

Humanities and social sciences

- Man and his environment : evolution, interactions
- Ancient and medieval societies and cultures
- The emergence of the modern world
- Representations – languages – communication
- Philosophical thought – literature and classical studies – arts and art history – history and philosophy of sciences and techniques
- Sociology – norms and rules
- Economics and business administration
- Unity of man and cultural diversity
- Space, territory, society
- Political science and sociology of organizations



The Researcher's Job

Interdisciplinary fields

The CNRS strives to develop collaboration between specialists from different fields of expertise. The CNRS interdisciplinary programs and activities offer a gateway into new domains of scientific investigation and enable the CNRS to address the needs of society and industry. Some examples of these new fields are:

- Physics and chemistry of the interaction and biological assemblings
- Bio-Informatics, mathematics and biological systems modelization
- Cognition, language, information, processing : natural and artificial systems
- Ecosystems in Continental, Environments
- Particle Astrophysics

Jobs of Engineers, Technicians and Administrative Staff

The Work of Engineers, Technicians and Administrative Staff

The CNRS engineers, technicians and administrative staff assist the researchers. Their activities vary substantially to the field in which they work.

The **engineers** define the technical characteristics of important scientific projects and lead them from their development to their implementation. They develop prototypes, original equipment and instrumentation, as well as new methods and techniques. They are responsible for the development and the implementation of the experiments, as well as the analysis and interpretation of the results.

Jobs of Engineers, Technicians and Administrative Staff

The Work of Engineers, Technicians and Administrative Staff

The **technicians** assist the researchers and the engineers. They carry out and control experiments, take measurements, initiate tests and apply experimental protocols. They are involved in the maintenance of all equipment and instrumentation.

In the CNRS service and research units, the **administrative staff** is responsible for managing and administering research (secretary, administration, human resources, etc).

Jobs of Engineers, Technicians and Administrative Staff

Professional Fields of Activity

At the CNRS, more than 200 different professions for engineers, technicians and administratives are to be found. The CNRS classification of engineering, technical and administrative jobs has resulted in the designation of eight professional fields of activity :

- Life sciences
- Chemical sciences & materials sciences
- Engineering sciences & scientific instrumentation
- Humanities and social sciences
- Computer sciences & scientific computation
- Documentation, publishing, communication
- Land/property, logistics, prevention
- Administration & management



Jobs of Engineers, Technicians



Life sciences

- Biology (methods and technology developments in the areas of cellular biology, molecular biology, structural biology, genetics, proteomics...)
- Animal and plant biology
- Characterization of natural systems
- Clinical studies and epidemiology



Jobs of Engineers, Technicians



Chemical sciences & materials sciences

- Synthesis and analysis of molecular structures
- Chemical synthesis
- Chemical analysis
- Materials development, treatment & characterization

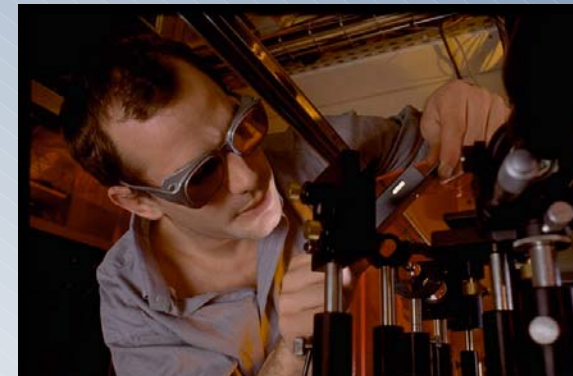


Jobs of Engineers, Technicians

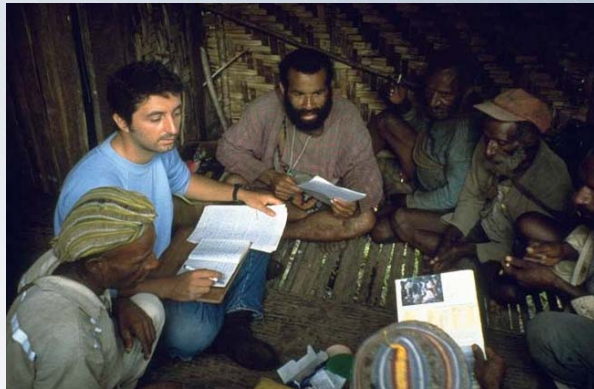


Engineering sciences & scientific instrumentation

- Electronics
- Electrical engineering
- Mechanical engineering
- Precision optics, glassworks
- Scientific instrumentation and experimental techniques



Jobs of Engineers, Technicians



Humanities and social sciences

- Sociology
- Psychology
- Economics
- Political sciences
- Demography
- Law
- Geography
- Analysis of Archives
- Archaeology



Jobs of Engineers, Technicians

Computer sciences & scientific computation

- Systems, networks and telecommunications
- Information systems, development and database management
- Development of data-processing applications
- Scientific computation : modeling, statistics...



Jobs of Engineers, Technicians



Documentation, publishing, communication

- Documentation, library Science
- Translation
- Publishing
- Graphic arts
- Printing & reproduction
- Audio-visual, multi-media
- Communications



Jobs of Engineers, Technicians

Land/property, logistics, prevention

- Land/Property restoration/maintenance
- Logistics and general procurement services
- Restauration
- Health & safety/occupational health



Jobs of Engineers, Technicians and Administrative Staff



Administration & management

- Secretary
- Administration
- Human resources management and development
- Financial and countable management
- Studies and projects
- Legal expertise
- Technology transfer
- International relations





CENTRE NATIONAL
DE LA RECHERCHE
SCIENTIFIQUE

Observatoire des métiers