Institutions and **organizations:** Who does what?

Act of 30 December 1991: this has set the framework, for 15 years, in France, for research work on the management of long-lived, high- or intermediate-level waste, conducted along three directions (partitioning–transmutation, disposal, and storage).

Act of 28 June 2006: the French Act setting out the program for sustainable management of radioactive waste and materials, organizing further research on the management of long-lived, high- or intermediate-level waste, setting the following milestones: by 2012, to arrive at an assessment of industrial prospects for partitioning–separation pathways, with a prototype facility to be commissioned by end 2020; select a disposal site, to be put into operation by 2025; and set up, by 2015 at the latest, new storage facilities. The Act further provides for the specification, by 2008, of solutions for the disposal of graphite, radium-bearing, and tritiated waste, and of sealed sources.

ANDRA (Agence nationale pour la gestion des déchets radioactifs): the French National Agency for Radioactive Waste Management, as set up by the **Act of 30 December 1991**, is a public-sector industrial and commercial establishment, charged with the long-term management of radioactive waste in France. It publishes the National Inventory of Radioactive Waste and Recoverable Materials.

ANL (Argonne National Laboratory): the first US National Laboratory (1946), and one of DOE's main research centers. Managed by the University of Chicago, it is active in the areas of basic research, large instruments, energy, the environment, and security.

ANR (Agence nationale de la recherche): the French National Agency for Research, a public-sector administrative establishment (set up in 2005 as a public-interest group), charged with funding research projects, selected on scientific and economic criteria.

Areva: a French industrial group, 79% of its equity being held by CEA (83% of voting rights). **Areva NP** (formerly Framatome–ANP, with a 34% holding by German manufacturer Siemens) is a world leader in reactor design, and construction – with its engineering subsidiary **Areva TA** (Technicatome) – and the provision of nuclear energy services. **Areva NC** (formerly Cogema) covers the full gamut of fuel-cycle-related services

ASN (Autorité de sûreté nucléaire): the French Nuclear Safety Authority, under the aegis of the French Ministries charged with the Environment, Industry, and Health; its remit is the control of nuclear safety and radioprotection in France, with support, in particular, from the French Institut de radioprotection et de sûreté nucléaire (**IRSN**).

CNRS (Centre national de la recherche scientifique): a public-sector establishment of scientific and technological character, carrying out its research activity in all fields of knowledge.

CRIEPI: the Central Research Institute of Electric Power Industry (Japan).

CSNSM (Centre de spectrométrie nucléaire et de spectrométrie de masse): based at Orsay (Essonne *département*, near Paris) this is a multidisciplinary combined research unit, coming under **IN2P3** (**CNRS**) and **Paris–Sud** (**Paris XI**) **University**. It is involved in many collaborations, in France (**CNRS**, CEA, CNES), as with other countries, and with industry (**EDF**, Alcatel–Lucent...).

DOE (Department of Energy): the United States federal department responsible for energy.

EADS Astrium: the subsidiary bringing together the space activities of the EADS Group, active in aerospace and defense.

EDF: industrial group, set up around French utility Électricité de France, present in all areas of power generation and distribution (deregulated activities, with respect to production, retail, and trade, or regulated in the areas of transport and distribution), but equally in the gas supply chain.

EIA (Energy Information Administration): a **DOE** agency, having the remit of drawing up reports, collecting data, and publishing statistics on energy issues for the United States Administration.

ENEA (Ente per le nuove tecnologie, l'energia e l'ambiente): the Italian National Agency for New Technologies, Energy and the Environment.

Eskom: nationalized utility, responsible for production, and distribution of 95% of power used in South Africa. It is the main equityholder in Pebble-Bed Modular Reactor (Pty) Ltd, promoting the PBMR high-temperature reactor project.

Euratom: set up in 1957 by the so-called Euratom Treaty, the European Atomic Energy Community contributes to the development of nuclear energy in the European Union.

European Commission: one of the key organs of the European Union, it oversees the implementation of the texts adopted by the Council, and has sole power to propose legislation. It has broad powers to steer common policies. In the area of science of technology, its instrument is the Framework Program (**FP**7, covering the years 2007–13).

Forschungszentrum Karlsruhe (FZK): a scientific and technology research center, set up by the Federal Republic of Germany and the Land (State) of Baden-Württemberg, active in five areas: the structure of matter, the Earth and the environment, health, energy, and key technologies.

Framework Program: see **European Commission**.

General Atomics: an industrial group, set up in 1957 around nuclear technologies. It draws on its expertise with respect to the fuel cycle, airborne sensors, electrical power, electronics, telecommunications, and lasers.

Generation IV International Forum (GIF), or Gen IV Forum: the outcome of an initiative launched by DOE in 2000–2001, bringing together countries (Argentina, Brazil, Canada, China, France, Japan, the Republic of Korea [South], Russia, South Africa, Switzerland, the United Kingdom, United States, and **Euratom**) conducting investigations on a new generation of nuclear systems, affording advantages in terms of economics, improved safety, waste minimization, and proliferation resistance.

GNEP (Global Nuclear Energy Partnership): an integral part of the United States' Advanced Energy Initiative, this seeks to enable wider use, worldwide, of nuclear energy, while promoting nonproliferation. This partnership involves the development of closed cycles, and reprocessing.

IAEA (International Atomic Energy Authority): an intergovernmental agency, working, under the aegis of the United Nations, for the peaceful uses of nuclear power, and compliance with the Nonproliferation Treaty.

IEA (International Energy Agency): a semi-autonomous agency, coming under **OECD** (the **Organization for Economic Cooperation and Development**), its role being to advise on energy policy issues.

IFMIF (International Fusion Materials Irradiation Facility): a project intended to characterize materials to be used in the DEMO fusion reactor (see **ITER**). Under the aegis of the extended cooperation agreement, concluded in 2006 with the European Union, IFMIF is to be built in Japan.

IN2P3: the **CNRS** National Institute of Nuclear Physics and Particle Physics.

INERI (International Nuclear Energy Research Initiative): a research program promoted by the **DOE** Office of Nuclear Energy (Sandia National Laboratories).

INET (Institute of Nuclear and New Energy Technology): an offshoot of Qinghua (Tsinghua) University (China), active in particular in the area of high-temperature reactors.

INPRO (International Project on Innovative Nuclear Reactors and Fuel Cycles): launched in 2000 by **IAEA**, the main goal of this program being to develop a methodology for the assessment of innovative nuclear systems, with regard to safety, proliferation resistance, the environment, and waste management.

Institut Von Karman (IVK): this educational and research organization, set up in 1956 in Belgium, is active in aerospace, fluid dynamics, turbine engines, and propulsion.

INSTN (Institut national des sciences et techniques nucléaires): a state higher education establishment, coming under CEA oversight, under the aegis of the French Ministries charged with Education and Industry, its remit being in particular to pass on the knowledge gained, and expertise developed within CEA.

ITER (International Thermonuclear Experimental Reactor): a program having the goal of demonstrating, from 2016, the feasibility of magnetic-confinement fusion energy. The partnership involves the European Union (**Euratom**), Japan, China, India, the Republic of Korea (South), Russia, and the United States. It will pave the way for the DEMO project, which will have the remit of demonstrating the ability to build an electricity production reactor.

ITU (Institute for Transuranium Elements): based in Karlsruhe (Germany), this is one of the seven institutes coming under the European Union's **Joint Research Center**.

JAEA (Japan Atomic Energy Agency): set up in 2005, through the merger of **JAERI** (Japan Atomic Energy Research Institute) and JNC (Japan Nuclear Cycle Development Institute).

Laboratoire de composites thermostructuraux (LCTS): a combined research unit, set up in a partnership bringing together **CNRS**, SNECMA (**Safran** Group), CEA and Bordeaux-I University. Set up in 1988, this is a major player in the area of high-temperature, ceramic-matrix composites.

NEA (the **OECD Nuclear Energy Agency):** set up in 1957 under the name European Nuclear Energy Agency, by the Council of the then Organization of European Economic Cooperation (OEEC), later coming under the **OECD** Council, with the purpose of assisting in civil nuclear energy development.

ORNL (Oak Ridge National Laboratory): together with **Sandia National Laboratories**, one of **DOE**'s main research centers.

Paris–Sud–Orsay (Paris-XI) University: one of the largest scientific centers in France, with 46 laboratories based at Orsay and Gif-sur-Yvette (Essonne *département*, near Paris), involving more than 700 researcher–lecturers from Paris–Sud University, and 700 researchers from **CNRS**.

Safran: a French industrial group, its main activities being in the areas of aviation and aerospace propulsion (SNECMA), and electronics and communications (SAGEM). SPS (SNECMA Propulsion solide) is a subsidiary of the group.

World Nuclear Association (WNA): a private-sector organization seeking to promote the peaceful uses of nuclear energy.