

FRANCE
by
Gilles Leclerc

R&D Expenditures 1997

27.9 billion \$US purchasing power parities

R&D/GDP 1997

2.23%

Industry	<u>R&D Performed 1996</u>
Government	61.5%
Higher Education	20.3%
	16.8%

<u>R&D Funded 1996</u>
48.5%
41.5%

World Share of Publications 1996

5.3%

Share of Co-authorship with
Canada 1996

7.1%

1. Overview of Science and Technology in France

France has a long tradition of superior achievement in science, science culture and science education, and ranks fourth among the world's leaders in science. France is still the leader in the basic disciplines of mathematics, physics and chemistry. In the life sciences, French groups such as the Institut Pasteur and INSERM (Institut national de la santé et de la recherche médicale) [National Health and Medical Research Institute] are conducting key research in molecular genetics, immunology and hormonology. French institutions, such as Généthon in Évry and INSERM participate in international human genome research. The vitality of French research has also contributed to the creation of a dynamic pharmaceutical and biotechnology industry (Pasteur-Mérieux, Genset, Rhône-Poulenc). The Institut national de recherche agronomique (INRA) [National Agricultural Research Institute] is very active in plant and animal biology research. In the agri-food sector, France is the world's second-largest exporter of agri-food products and services, and has developed top-notch expertise in food conservation and safety and crop protection. In the earth sciences, French teams also participate in major international undersea exploration and drilling programs. France is also pre-eminent in space research, with its SPOT earth observation satellites and major satellite telecommunications programs (Stentor, Skybridge). And with Airbus and Ariane, France is the United States' only major aerospace rival. France controls and operates the entire nuclear power industry, and with the CEA (Commissariat à l'énergie atomique) [Atomic Energy Commission] operates a major nuclear energy research centre. Finally, research in the humanities and social sciences conducted in universities and several centres of excellence (Écoles normales supérieures, CNRS, (Centre National de Recherche Scientifique) [National Scientific Research Centre] École des hautes études en sciences sociales, etc.) benefits from a long French tradition of excellence in history, archeology and sociology, to name but a few.