# **Country Profile: France**

#### 1. Political, institutional and economic framework and important actors

France is characterised by having one of the highest proportions of public GERD in the EU (second in Europe in 2000), surpassed by private GERD only in 1992. The Private Sector provides substantial funds for research and is now the larger French actor in research. The 2004 BERD was estimated at 22.4 billion Euros and the BERD/GDP ratio was 1.36%. Business expenditures on R&D are primarily concentrated in the largest companies. Those with more than 2,000 employees account for over 56% of BERD. Four industrial sectors in the R&D world accounted for 50% of BERD in 2003<sup>1</sup>.

Traditionally, the French National Research and Innovation System has been centrally controlled. The role of the Private Sector in the public research policy-making process is historically limited because national research policy decisions are centrally controlled. France is further characterised by the growing importance of regional research policies (see chapter 3), a strong networking oriented policy from the government, and the rise of formal structures that involve the Private Sector in the decision making process of public research policy. Figure 1 depicts the structure and actors of the French National Science and Innovation System.

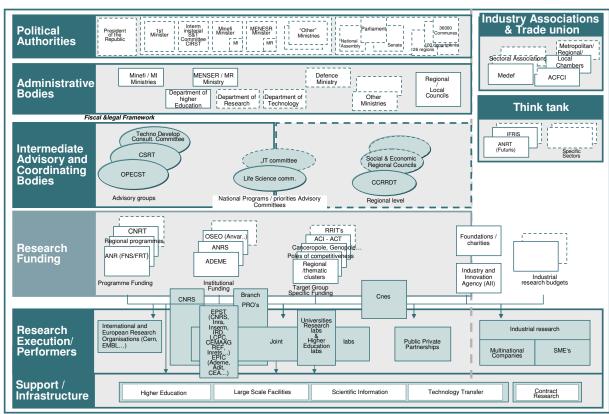


Figure 1: Structure and actors of the French National Science and Innovation System

## a. Political and governmental authorities

The top levels of the political representative framework, the President of the Republic, the Parliament and the Government, define the national research and innovation policies (main policy orientations)<sup>2</sup>. The *Ministry of National Education, Higher Education and Research* (MENESR) delegates the management of national R&D finance activities to the associated

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Source: OECD MSTI Database

Three laws constitute the overall legal, institutional and regulatory context of the French RIS: the "Law on Research Orientation" (LRO 1982), followed by a "Law on Higher Education" (Loi Savary 1984), and the "Law on Innovation" (Loi Allègre 1999).

Ministry of Research (MR). The Ministry of Economy, Finance and Industry (MINEFI), which assigns innovation policy development to the related Ministry of Industry (MI), also shares the responsibility with the MENESR for innovation related issues. Part of its budget is earmarked exclusively for 'innovation'. For research activities linked to specific domains such as Defence, Health, Agriculture, Transportation and the like, the corresponding ministry has jurisdiction over research policy in its own field. For example, the Ministry of Defence manages 10% of all French National R&D expenditures. Coordination and cooperation take place through an inter-ministerial approach, mainly on an ad hoc basis.

An *Inter-ministerial Committee for Scientific and Technological Research* (CIRST) was established in 1998. It is the decision-making and coordination institution at the governmental level, chaired by the Prime Minister. It meets once a year or at least every two years, and its conclusions establish the broad orientations of science policy.

There also exist inter-institutional coordination committees and consultative committees with Private Sectors representatives for various disciplines (for Information Society, Technological Development, Life Science, Earth Sciences and Environment...).

Two further advisory bodies are the *Parliamentary Office for Evaluation of Scientific and Technological Options* (OPECST), created in 1983, and the *Higher Council for Research and Technology* (CSRT). Following the terms of the act, the OPECST aims "to inform Parliament of scientific and technological options in order, specifically, to make its decisions clear". By mobilising Private Sector representatives and experts, OPECST "collects information, launches study programmes and carries out assessments". The CSRT is chaired by the Ministry of Research, and comprises the main national stakeholders (nearly 40 member's representative from various ministries, Private Sector representatives, researchers trade unions and organisations, Academy of Science, the regions, etc.). Its primary mission is to advise MENESR on R&D policies.

#### b. Intermediate bodies

The MR manages the main framework for programming R&D by areas, domains, themes and research organisations, via the use of the "Budget Civil de Recherche et Développement" - BCRD³. In terms of funding, the role of the government is mainly to provide incentives for collaborative research and measures to support innovation.

Under the auspices of the MR, several agencies are responsible for managing a number of funds through the implementation of scientific infrastructures and large project-oriented programmes. The most important of these agencies for financing public research is the new *National Research Agency* (ANR) which was created in 2005. The ANR's mission is to support the development of basic and applied research, innovation and of partnerships between the Public and Private Sectors, and to contribute to the transfer of technology produced by publicly funded research to the private economy. It attributes grants based on the open competition of project proposals judged on criteria relating to scientific and technical excellence.

The main research priorities are set forth in (1) the four-year contracts ("objectives contracts") between the MR and each of the Public Research Organisations (PROs); (2) the contracts between the MENESR and each university ("quadrennial contracts"); (3) the five-year contracts between the government and the regions (CPER - section "Research and higher education"). Several French organisations are also devoted to thematic areas, for example the CNES, which is the French Space Agency, and OSEO, which is a new agency dedicated to SMEs (Small and Medium Enterprises) and innovation. Constructed from the combination of competencies of ANVAR (French agency for diffusion activities), BDPME (SMEs Development Bank) and the SMEs Agency, OSEO (holding with the EPIC statute<sup>4</sup>) is the prime public interlocutor for all SMEs, whatever their level of development. They can benefit from OSEO-ANVAR's technical expertise, OSEO BDPME's financial expertise, and from OSEO services, anywhere in France due to the agency's strong regional presence. The Private

See page 3.

Beginning in 2006, the budget for R&D will be presented within the frame of the Inter-ministerial Commission for Higher Education and Research according to the new *Loi Organique relative aux Lois de Finances* (Lolf).

Sector is directly involved in these decision making processes with representatives in the boards or in the orientation committees.

#### c. Public Research Institutions

The main public research actors can be divided into three general groups:

- Public Research Organisations (PROs) are related to the historically important 'Large Technological Programmes', which are mainly government-driven in coordination with Large Public Companies (space, nuclear, energy, transport...). PROs are sub-divided in two main categories: (1) Industrial and Commercial Public Institutions (EPICs) like the "Commissariat à l'Energie atomique" (CEA), Ifremer (Institut Français de Recherche pour l'Exploitation de la Mer), etc. These institutions are mainly devoted to a specific area of R&D activity such as nuclear, health, information technology, etc., and a significant part of the budget comes from contracts with Private Sector; (2) Scientific and Technological Public Institutions (EPSTs), which are dedicated to academic or fundamental research. The National Centre for Scientific Research (CNRS), which covers all the academic disciplines (and a few guided research programmes as well), is the main EPST (responsible for nearly 20% of public R&D expenditures).
- Eighty five public universities financed by the MENESR have, with the same public statute, a function of higher education and research.
- Lastly, within the higher education sector, the 'Grandes Ecoles' play a significant role in research, particularly in engineering sciences.

#### d. Private Sector

The Private Sector coordinates and represents its interests through industry associations. These include (1) the Mouvement des Entreprises de France (Medef), which is the French Business Confederation providing national representation for all large, medium and small enterprises in industry, commerce and services, and (2) the Assembly of French Chambers of Commerce and Industry (ACFCI), which groups together 155 metropolitan and overseas local chambers as well as the 20 regional chambers, thus representing 1 800 000 French companies. These organisations deal with research policy issues through working groups, advisory groups, participation in decision making bodies (representatives in the boards and orientations committees), and participation in evaluation studies...

Private interests are also represented in groups like the Association Nationale de la Recherche Technique (ANRT), which is one of the main think tanks supported by the French government. ANRT gathers large companies, PROs, major French colleges of engineering, and representatives of the Ministries, giving an important place to Private Sector in the definition of national research policy. The latest proposal from the ANRT was the "Futuris initiative" (see chapter 5). In the field of research and innovation, the Commission Permanente de Concertation pour I' Industrie (CPCI) is one of the main government-Private Sector exchange frameworks, created in 1996 by the French government<sup>5</sup>.

Funds from private non profit foundations are contributing less than 0,1% of overall French research investment. This is why the government decided in 2003 to promote existing and new research foundations, through several new measures: new legal statutes for foundations, acceleration of the process of recognition of "public utility foundations", new fiscal treatments to encourage charities, and the creation of a new public funding agency with 150 million euros. This kind of measure is an example of a new model of joint research activities between

The CCIP's role is to inform the authorities and the opinion on the situation of industry in France

and on its contribution to the development of the economy and employment, on the necessary actions as regards industrial policy and innovation, and the impact of the public policies on industry. The CPCI is chaired by the Minister in charge of Industry. Its vice-president is the president of the Group of the industrial federations. Private sector is largely represented by the presidents of most industrial associations, unions, and federations. Administration is also represented (representatives of few Ministries: Defence, Economy, Budget, Agriculture, SMEs, Research, Foreign Affairs...).

public authorities and the Private Sector. These new enticements have attracted many French companies to invest in research on problems of interest for society as a whole. Hence, 10 new research foundations were created in 2004 and 15 new foundations have already deposited a request candidature this year. Today, the combined funding for research foundations by the MR and the Private Sector was more than 61 million Euros.

# 2. National research policy decision processes and Private Sector involvement

As mentioned above, the national public research policies, in particular for funding programmes, are defined at the top level of the political representative framework: the government (MR and MI) and the President of the Republic<sup>6</sup>. There are a variety of structures and mechanisms enabling consultations<sup>7</sup> with stakeholders to support the decision-making process, but in fact, there is neither a comprehensive nor a systematic approach and few formalised procedures in this respect. Among those structures and mechanisms, one can distinguish the following categories of councils: parliamentary entities, think tanks, governmental advisory committees, boards of public institutions of higher education and research, boards of industrial and technology associations, accreditation and/or evaluation bodies and joint Private and Public Sector committees.

#### Instigation and design stages

The need for important research policy action is identified and defined by the government and by the President of the Republic. The MR and the MI maintain an intensive dialogue about research and innovation policy issues with stakeholders, including representatives of the Private Sector.

Proactive Private Sector contributions to the initiation and design stages of public research policy are mostly driven by industry associations (Medef, ACFCI) through ad hoc working group invitations or by individual experts (using white papers, press statements, consultations, studies, etc.). A recent example of interactions between the government and the Private Sector was the organisation of two national forums, which included Private Sector representatives, to debate the role of research and innovation in the French economy and society: the National Innovation Plan (2002-2003) related to CPCI, and the Futuris initiative undertaken by ANRT. With CPCI or ANRT, representatives of industry can express their views on initiatives taken by the MI and the MR and formulate propositions (see chapter 5).

A second example is the recent Report commissioned by the President of the Republic to Jean-Louis Beffa<sup>8</sup>. A task force of 12 personalities, including industrialists, experts and two trade unionists, assisted him. Following the recommendations of the Beffa report, the President of the Republic and the government decided to implement "industrial innovation stimulation programmes". These renew a previous version of the "major industrial programmes" scheme, administered by a new "Industrial Innovation Agency" (AII), created by decree in 2005 (August 25), with a budget of EUR 1,5 billion for three years.

See the "chantiers prioritaires" based on the presidential campaign context, according to the presidential program, the national effort for R&D can be related to specific areas: cancer research, transportation safety, security...).

In France, the research dialogue and forum with public research sector take place within ad hoc national consultations (the "Colloque de Caen" in 1956, the "Assises nationales" in 1981, the "Consultation nationale" in 1994 and 2003, the "Etats-Généraux de la recherche" in 2004). Those dialogue constitutes an important dimension of the national scene of interaction between private and public actors related to research and innovation, although their importance lies less in their direct outputs than in the issues they brought to the forefront and the "cultural" changes they promoted.

In a letter dated September 30, 2004, the President of the French Republic commissioned a study of the conditions necessary for an evolution of industrial policy. In this report, the examination of the modalities of new initiatives promoting scientific and technological programmes has been supplemented by an analysis of the modes of governance most likely to guarantee the coordination of public authorities and private initiatives. The aim of this report is to describe the means of selection, management and implementation of such programmes.

In any case, the design and implementation of national research policies (e.g. funding programmes) after policy formulation, falls under the responsibility of the MR (with an important role the ANR) and the MI (for innovation policy). The MR and the MI finance concerted incentive actions (ACI), concerted thematic actions (CTA), technological research and innovation networks (RRIT), as well as some measures in favour of innovation.

## Implementation stage

With regard to the implementation stage, formal Private Sector interaction mainly concerns the activities of the MR and the ANR. The ANR supports research projects on a competitive basis (public research programmes and partnership programmes), using scientific and technical excellence criteria. Research project selection is undertaken by review boards that comprise both Public and Private Sector experts. Operational management of funding programmes is delegated to PROs, and higher education organisations. The Private Sector is not formally involved in the operative management of such programmes, nor of their related funding activities. For the ANR's partnership programmes, Private Sector organisations may only be responsible for the scientific work and the evaluation procedures of the overall programme. The other forms of interaction with the Private Sector are mainly related to public innovation policy (fiscal support, the CIFRE convention, the young innovative enterprise, the creation of the 'uni-personal society of risk investment' - SUIR, etc.).

#### Assessment/revision stage

As in most countries, there is strong demand from societal actors for objective evaluations of public policy. But assessment is still a weak point in the French system. A systematic approach to using evaluation as an input to new public research policies does not yet exist, even though evaluation techniques are progressively becoming more important within the landscape of French public policy, in particular in the field of public research policies since the Law on Research Orientation (LRO) was passed in 1982. In the field of evaluation, the main actors are two national committees, established at the central political level for the evaluation of higher education institutions (CNE - 1984) and for all other S&T public operators (CNER - 1989). Those public committees today have only a consultative role, and the Private Sector is not represented in them.

Recently, this demand for accountability has been embodied in the newly enacted Organic Law for Finance Laws (e.g. Lolf), which has become effective in 2006 and will reinforce the control of parliament over the state budget of research and development, as in other areas of state activity.

Experts from the Private Sector tend to be active within assessments activities. Examples include the participation of Private Sector experts in the 'visiting committees' (which contribute to the PRO evaluations) or in the mechanism of goal-contract ("objectives contracts") assessments. Private Sector representatives can also be mobilised within the evaluation activities of the Scientific, Technical, and Pedagogical Mission (MSTP)<sup>9</sup> and of the ANR activities. In this case, an evaluation committee (less than 20 members) is established for each financed research programme. The concerned committee is preferably constituted with equal representation from academic and private research representatives. The members are selected "intuitu personae" and the support organisation (PROs, higher education organisation) cannot be represented in a majority way.

# **Observations: Possible barriers and current initiatives**

Within the decision making processes of public research (mainly under the responsibility of the Public Sector), involvement of the Private Sector essentially concerns the instigation and design stages, as well as the assessment activities (in a role of provider of expertise). In a context marked by important reforms which have a direct impact on research and innovation policies (valorisation of the research potential, decentralisation, reform of the public admini-

MST is a section of the MR that focuses on functions of expertise and evaluation, particularly for incentive actions supported by MR.

stration), recent developments in innovation policy are characterised by the adoption of financial and tax incentives.

The potential barriers to a more efficient Private Sector involvement and the resulting improvement of the quality of decisions are related to the characteristics of the French Science and Innovation System. They include a relative weakness of regional decision making bodies despite the decentralisation process, poor university autonomy, and the separation between Universities (with both higher education and research objectives, but no possibility to select their students), and the "Grandes Ecoles" / engineering schools (with a primary mission focused on high-level formation of selected "elites").

Interactions seem to work well through the intervention of agencies acting at local and regional levels (ANRT, ANVAR, CPCI, etc.; see Chapter 3). In recent years, Public and Private Sectors have increased their interactions, working towards the development of research networks, clusters, regional 'technopoles', and S&T parks.

Two recent examples illustrate the progress achieved in Private Sector involvement: The 'poles of competitiveness' policy (2005) and the "Futuris" initiative (foresight exercise) launched in 2002 by the initiative of the ANRT, and supported by the Prime Minister<sup>10</sup>. In these two examples, most actors of the French Science and Innovation System are represented, including those of the Private Sector. The objectives are to provide technical provisions to jointly encourage new research and innovation initiatives as in the first case, and as in the second case to build a common strategy for the French Research and Innovation System

# 3. Other important examples of policy decisions with Private Sector involvement Decentralisation process

At the regional level, the 26 regions ('territorial communities' since 1982) have the mission to contribute to regional economic and social development, with direct competences in the fields of education, training and territorial planning covering economic development and research. The Law on Research Orientation (LRO) of 1982 defines a specific role for the Regional Councils (RC) (elected regional bodies) in research funding, allows the possibility for public research institutions to have private affiliates, and allows for the creation of public joint venture organisations for research ("Groupement d'Intérêt Public" - GIP), where Private Sector representatives can be members of the board.

The regional councils influence R&D development by providing aid to companies, constituting or supporting research and technological intermediaries (scientific and innovation parks, poles or clusters), establishing innovation and technology transfer centres, providing research allocations, and supporting European activities dealing with these items. But the intensity of these activities varies considerably because each region makes its own decision on how much of its budget to devote to R&D and innovation.

Informal interactions between Public and Private Sector representatives are important at the regional level, facilitated through a series of organisations that work to bring together the concerned actors. Such organisation include: *Regional Innovation and Technology Transfer Centres* (CRITT), *Technological resource centres* (CRT), which provide scientific and technological services), *National Technological Research Centres* (CNRT)<sup>11</sup> which bring together public research laboratories and private research centres, and the *Network for Technological development* (RDT, réseau pour le Développement Technologique), aimed at sharing information and expertise between 21 regional networks of institutional actors (ANVAR, regional delegations of MR and MI, Chambers of commerce and Industry/CCI, prefects...) with the function of exchanging and providing information to the benefit of SMEs. One can also mention the *Regional Consultative Committees on Technological Research and Development* (CCRRDT), which were created in 1982. In many regions, it is the most important regional

See Chapter 5.2

<sup>&</sup>lt;sup>10</sup> For details see Chapter 5.3 and the separate case study on Futuris as part of this report.

consultative committee, which gathers members from public and private companies and organisations that carry out technological research and development activities.

# "Poles of competitiveness" policy

As mentioned above, French research and industrial competitiveness is traditionally driven by the strong activities of geographically centred research organisations (clusters, regional 'technopoles', S&T parks, etc.). Generally underpinned by local synergies between industry, research and training communities, these research agglomerations are established near a centre of academic excellence and managed at a local level. Some of them can be very active, for example Sophia Antipolis (Nice), Eurasanté (Lille), and Minatec-Crolles II (Grenoble), etc.

In order to improve its competitiveness, France has launched a wide-ranging industrial strategy focusing on the key factors of industrial competitiveness, particularly R&D-led innovation. This recent strategy highlights the importance of competitive research clusters. Pursuant to the decisions adopted by the French government (2002), the inter-ministerial committee for regional planning and development (CIADT) agreed to implement this policy and defined a series of measures to promote clusters (committee meeting - September 2004). The CIADT specifically decided to select clusters via an open solicitation of projects procedure. Project proposals contained contributions from the main actors in the future clusters (businesses, research centres and higher education hubs) already established for the "poles of competitiveness" need to develop on a pre-existing basis of supply of services, finance and infrastructures.

After the open call procedure, more than 100 potential "poles of competitiveness" were identified by the DRIRE (regional delegation of the State in the regions), and 67 of them (such as Crolles II in Grenoble) received the label of "pole of competitiveness" in the summer of 2005. Those poles are then eligible for a series of tax exemptions, social rebates and significant amounts of public aid (investment in infrastructures and research, etc). ANRT and OSEO are implicated in the funding of the "poles of competitiveness" projects. The private-public partnership's projects should be supported through a contractual framework between the State, the local authorities and Private Sector representatives. Actually, a second open call procedure is in process.

Two other recent joint activities between the Public and Private Sectors should be mentioned: the technological research and innovation networks (RRITs), which are, for a limited number of sectors, one of the main measures promoting co-operation between research bodies, universities and enterprises, and the recent policy in favour of development of Research Foundations (see chapter 1).

#### 4. Overview: Types and extent of Private Sector involvement

Previously, most formal involvement of Private Sector actors took place without participation in policy decisions (initiated by policy makers), even if, through several forms of dialogue (national consultation and forum), the government maintained a general exchange of views with the Private Sector and the main Industrial representative bodies (Medef, CG-PME, "professional federation's representatives"…).

There is no systematic method or formal procedure to stimulate and assist professional communications and mobility between the Private and Public Sectors. However, the Law on Innovation (1999) encourages mobility of researchers towards industry. Researchers, professor-researchers, engineers, young holders of doctorates, technical and administrative staff are now permitted to be involved in the creation of a company to exploit their research work. They are authorised to participate as a partner or manager of the new company for a period at the end of which they can choose between returning to the Public Sector or remaining with the company they founded.

At the operational level, prominent examples of formal involvement of the Private Sector concern the preparation of white papers (parliamentary entities, think tanks, and govern-

ments' advisory committees) and formal involvement in advisory boards (research policy formulation councils, boards of higher education and research, industrial and technology associations, accreditation and/or evaluation bodies, joint private/public committees, etc.).

The other prominent examples of formal involvement are related to the ANRT, ANVAR, and CPCI activities, as well as the growing R&D evaluation and foresight exercises (e.g. FutuRIS, the successive Key technologies exercises, AGORA 2020 for Transports, INRA 2020 for Agro-industries, etc.).

# 5. Selected useful examples of transferable approaches and experiences

The following examples represent typical approaches used in France with the potential to be applicable in other countries<sup>12</sup>:

#### 5.1 The National Innovation Plan (2003)

The National Innovation Plan is a nation-wide consultation (see chapter 2) of businesses and researchers conducted in 2003 throughout France by means of a detailed questionnaire and a dedicated Internet site. Several thousand people (professionals, researchers, company directors, etc.) were able to give their reactions and suggestions directly or indirectly through their representative bodies about a list of measures. Over the four months of consultation, representatives of the ministries (Industry and Research) also personally met more than a hundred company directors, innovation experts and individuals in charge of research in businesses and higher-education establishments. The results of the exercise, presented at a conference ('Innover pour construire' in December 2003), showed very strong support for the government's proposals, which are seen as an important step forward: an average of 80% of those who expressed their opinion were in favour of the proposed measures.

The National Innovation Plan is composed of measures in seven main areas, aimed at encouraging innovation and the development of creative enterprises. This plan was recently issued by the CPCl's<sup>13</sup> (working groups of the section entitled "innovation"), where the Private Sector is represented by the presidents of most industrial associations, unions, and federations. The government is also represented by some of its ministries (Defence, Economy, Budget, Agriculture, SMEs, Research, and Foreign Affairs). The plan was presented in 2003 to the council of ministers followed by a national consultation. This type of exercise allowed the government to obtain suggestions and remarks that contributed to the drafting of a more comprehensive project. It requires a substantial cooperation between each of the main public and private representative actors in the field of research and innovation.

The National Innovation Plan proposed a series of measures in seven main areas, aimed at encouraging innovation and the development of creative enterprises. The plan calls upon the adoption of two new company legal statuses: The 'Business Angel Uni-personal Company' (SUIP), which provides an adequate instrument for business angels to invest in young enterprises (fiscal exemptions to promote private investment), and the 'Young Innovative Enterprise' (JEI), which must be less than eight years old, and must allocate at least 15 % of its total expenses in R&D expenditures. If existing or new companies can qualify as JEI, they are entitled to specific tax exemptions (income tax and labour tax). The other measures focus on other tax reductions related to R&D and innovation, such as the 'corporate tax credit for R&D expenditures' (CIR) measure, the reinforcement of the role of the ANVAR in agreement with the regions (regional councils), the improvement of local public support to innovation, the development of public-private research and R&D co-operation (private valorisation of public scientific research), articulation of French R&D programmes with European actions in this field (ERA, RDFP, Eureka), and the development of industrial and research clusters.

Representative examples to highlight good practices. Not intended to serve as a comprehensive list and description.

This CPCI is divided into six sections: taxes, innovation, international, job market, sustainable development, prospective. For research and innovation questions, the "innovation" section meets approximately six times a year, and gathers about 20 people (from the Private Sector, Ministries, including MR, agencies and think tanks).

# 5.2 The growing support networking strategy: technological research and innovation networks and National Technological Research Centres

Two main examples illustrate the growing support networking strategy by sector or geographical area: the creation of Thematic Research and Innovation Networks (RRITs) in 1999 and the National Technological Research Centres (CNRTs) in 2000. RRIT is one of the forms of state action, related to the 1999 Finance Law, which reinforces the necessity of promoting co-operation between research bodies, universities and enterprises. The RRIT is a catalyst for the mobilisation of existing resources and instruments and operates on a call for tender procedure. The principal objective is to improve the relationship between public research and the socio-economic sector in order to respond to the issues raised by manufacturers and service companies, overcome technological obstacles, step up the use of new technology and formulate research and innovation policy. Each of the RRIT is composed of a set of enterprises, laboratories, experts and representatives of the public administration. They are all organised in a similar way, based on a standard governance framework, which includes an advisory committee (orientation committee with a president from the Private Sector), an executive office, a secretariat, and an experts pool (peer evaluation). Each RRIT organises annual conferences, workshops, implements web sites, and produces reports.

Since 2000, the government has also established CNRTs, which are localised within identified regions. The objective is to support the main Public and Private Sector R&D actors in one particular field, with the aim to promote the creation or the consolidation of SME networks at the local level. CNRTs are combined with the regional support system in order to help to draw together regional strategies and priorities in the field of innovation and bring together the main regional actors. Aiming at achieving the same objective, cluster activities in the regions are being developed in tandem. This organisation implies that national measures are adapted to the regions, but the initiative continues to take place at the national level. However, this does not mean that the initiatives of regional actors are ignored. Regional actors, wishing to implement an innovation programme at the regional level, can contact the regional representatives of the national government and make specific demands.

#### 5.3 The 'Futuris' initiative

The Futuris initiative is a three years national Foresight exercise (2003-2005). It is organised under the auspices of the ANRT, and supported by the prime minister. It involves a multitude of actors from Public Sector research, innovation-oriented enterprises, industry associations, policy makers and other stakeholders in order to debate and to build a strategy for the French Science and Innovation System in the European context. Co-financed by ANRT and industrialists, FutuRIS offers a platform aimed at exploring possible scenarios for the 2020 time horizon. It was the first time that such a foresight exercise with a systemic approach and a strategic dimension took place in France (For details see the FUTURIS case study as part of this study).

Appendix 1: Overview of identified instruments for Private Sector involvement and their use in France

Instrument		Inten- sity of use	Initi- ated by	Used for	Used in				_
					Instigation	Design	Implement.	Review	Examples and remarks
General dia- logue	Insight studies, roadmapping, foresight	Occa- sional	Public Sector	Awareness & identification of emerging technologies & trends	<b>~</b>	<b>&gt;</b>	>	<b>~</b>	Key Technology Exercise (1995, 2000, 2005)
	Conferences	Occa- sional	Both sides	Discussion platform / consensus	<b>&gt;</b>	>			Innovation Plan 2003
	Brainstorming / task forces	Occa- sional	Both sides	Identification of priorities and possible policy actions	✓	✓			Beffa Report
Informal decision involvement	Evaluation studies	Regular	Public Sector	Programme review, identification of policy need	<b>&gt;</b>			<b>✓</b>	CNER, CNE
	Advisory groups	Regular	Public Sector	Participation in design, evaluation, etc.	✓			✓	CSRT, OPECST
	Informal consultations		Public Sector	Exchange of viewpoints between stakeholders / Consensus	✓	<b>\</b>	<b>~</b>	✓	
	Formal consultations	Occa- sional	Both sides	President of the Republic, Ministers	<b>√</b>	( <b>√</b> )			Report Beffa
Formal decision involvement	Task force	Regular	Public Sector	Decision involvement	✓	>		<b>✓</b>	CCIP
	Participation in decision making bodies (observer status)	Regular	Both	Decision involvement	<b>√</b>	<b>\</b>	<b>~</b>	<b>~</b>	RRITs, Partnership programmes (ANR)
	Participation in decision making bodies with (co-) decision right	Not common	Public Sector						
	Administrative / supervisory boards	Regular	Public Sector	Stimulation of joint Public- Private Sector initiatives		<b>~</b>	<b>~</b>	<b>~</b>	RRITs
Joint activities	Initiation of networks	Regular	Both sides	Sharing of cost / risks			✓		
	Co-financing of projects / programmes	Growing	Both sides	Pooling of resources			>		Pole of competitiveness, CNRT, CRT, RRITs, spin off / Gip
	Public Private Partnership								
Staff interaction	(Temporary) Staff exchange								
	Staff mobility	Frequent	Private Sector	Express views, recommend changes, influence decisions	<b>✓</b>	(✔)			Beffa report, Conseil d'analyse economique (CAE)
Unsolicited contributions	Statements, studies, white papers, etc.	Occa- sional	Private Sector	Initiate / facilitate dialogue with public sector	✓	<b>\</b>			Futuris
	Dialogue platforms	Frequent	Private Sector	Initiate / support research in desired areas			<b>~</b>		Foundations, Individual contracts
	Research funding	Occa- sional	Public Sector	Awareness & identification of emerging technologies & trends	✓	✓	✓	✓	Key Technology Exercise (1995, 2000, 2005)

Table 1: Overview of instruments used for Private Sector involvement

# Appendix 2: Selected relevant sources and literature

#### 1. General and country information

Cordis, *L'organisation de la recherche en France*, available at http://www.cordis.lu/france/fr/org.htm

Esterle Laurence & Thèves Jean (2005), ENIP-Country Report *National Report on S&T Data; Indicators Production France*", Observatoire des Sciences et des Techniques

European Trend Chart on Innovation, *Annual Innovation Policy Trends and Appraisal Report France 2004-2005* 

Larédo, P., *Evaluation in France: a decade of experience*, Policy Evaluation in Innovation and Technology: Towards Best Practices, OECD Conference held on 26-27 June 1997 (http://www.oecd.org/dataoecd/3/55/1823558.pdf)

OCDE (2004), Les partenariats public-privé pour la recherche et l'innovation: une évaluation de l'expérience française (http://www.recherche.gouv.fr/rapport/pppfrance.pdf)

OECD, OECD Science, *Technology and Industry Outlook 2004, Country Response to Policy Questionnaire*, Paris, 2004 (http://www.oecd.org/dataoecd/31/23/34242028.pdf)

#### 2. Important actors

http://www.services-publics.fr/ Official gateway to the French civil service

http://www.elysee.fr Presidency of the Republic

http://www.assemblee-nationale.fr Parliament http://www.senat.fr Senate

http://www.senat.fr/opecst/english.html Parliamentary Office for Evaluation of S&T Op-

tions

http://www.premier-ministre.gouv.fr
Government Portal – Prime Minister
http://www.industrie.gouv.fr/
Ministry (delegate) in charge of Industry

http://www.education.gouv.fr Ministry of National Education, Higher Education

and Research

http://www.recherche.gouv.fr/ Ministry in charge of Research

http://www.defense.gouv.fr Ministry of Defence

http://www.recherche.gouv.fr/drrt/drrt.htm DRRT (Délégations Régionales à la Recherche

et à la Technologie)

http://www.drire.gouv.fr DRIRE (Directions régionales de l'industrie,

de la recherche et de l'environnement)

http://www.evaluation.gouv.fr/ Official gateway to the evaluation of the French

public policy

http://www.ccomptes.fr Auditor-General's Department

http://www.cne-evaluation.fr/ National Committee for Evaluation

http://www.cner.gouv.fr/ National Committee for Research Evaluation

(CNER)

**Country Profile: France** 

#### 3. Other

http://www.anrt.asso.fr/index.jsp National Association for Technical Research

http://www.oseo.fr/ Oséo (Holding of ANVAR and BDPME)

http://www.anvar.fr Oseo Anvar

http://www.bdpme.fr Oseo BDPME (Bank for SMEs)
http://www.medef.fr/staging/site/page. French Business Confederation

php

http://www.futuris-village.org/ Futuris initiative

http://www.gip-anr.fr/ National research Agency (ANR)

http://www.anrt.asso.fr/ ANRT (Association nationale de la recherché

technique)

http://www.recherche.gouv.fr/techno-

logie/reseaux/index.htm

Réseaux de recherche et d'innovation technolo-

giques

http://www.senat.fr/opecst/ Office parlementaire d'évaluation des choix

scientifiques et technologiques

http://www.acfci.cci.fr/ ACFCI - Assemblée des chambres françaises de

commerce et d'industrie

http://www.recherche.gouv.fr/plan-

innovation/

National innovation plan 2003

http://www.competitivite.gouv.fr/ Website for promotion and development of the

« poles of competitiveness »

#### 4. Glossary of terms used

AII Industrial Innovation Agency
ANR National Research Agency
BERD Business expenditure on R&D
CEA Commissariat à l'énergie atomique

CIADT Interministerial committee for regional planning and development (Comité in-

terministériel de l'aménagement et du développement du territoire)

CIRST Committee for Scientific and Technological Research

CNES French Space Agency (Centre National des études spatiales)

CNRS National Centre for Scientific Research

CPCI Permanent consultative commission for Industry (Commission permanente de

concertation pour l'industrie)

CPER Contracts between the State and the regions (Contrats de Plan Etat-Régions)

CSRT Higher Council for Research and Technology
EPICs Industrial and Commercial Public Institutions
EPSTs Scientific and Technological Public Institutions

GERD Gross domestic expenditure on R&D

Ifremer French Research Institute for Exploitation of the Sea

Lolf Law for Finance (Loi organique relative aux lois de finances)

LRO Law on Research Orientation (1982)

MENESR Ministry of National Education, Higher Education and Research

MI Ministry of Industry

# **Country Profile: France**

Minefi Ministry of Economic, Finance and Industry

MR Ministry for Research

OPECST Parliamentary Office for Evaluation of Scientific and Technological Options

PROs Public Research Organisations

#### 5. Further information and feedback

This country profile has been prepared by a team of the Observatoire des Sciences et des Techniques (OST) under the leadership of Ghislaine Filliatreau. For further information and feedback, please contact the responsible authors under Ghislaine.filliatreau@obs-ost.fr