Innovation Law

The French Law for innovation and research of July 1999 set up a favourable framework for the participation of researchers in the creation or development of innovative technology companies. It enables them to participate as associates or managers in a new company, in the activity of a company or to provide scientific assistance and even participate in a board of directors or a board of supervision.

Other measures implemented by the ministry of Research aim to set up innovative companies, strengthen the partnership between public research and companies, develop industrial research, namely through the research tax credit, and support companies which hire young researchers.

The involvement of researchers in the activity of innovative companies

Over the last three years 293 people from public research have been approved by the Commission on Professional Conduct enabling them to take part in a business project according to the different cases provided for by the Law for innovation and research:

- 93 under section 25-1, of the law to participate as an associate or a manager in a company;
- 179 under section 25-2, to offer their scientific assistance;
- 20 under section 25-3, to take part in the board of a company.

Creation of innovative companies

With a view to encouraging the setting up of innovative companies, the ministry of Research has implemented three additional incentive measures since 1999:

- The national competition for helping in the setting up of innovative technology companies

Implemented in 1999, this competition was held for the fourth year in 2002. In three years 6,664 applicants have taken part in this contest; 1,454 projects have been selected by regional panels of judges and 1,002 have been rewarded by the national panel of judges, including 568 for “emerging” projects and 434 for “creation – development” projects. Up to now, all of these projects have given rise to the effective setting up of 466 companies. Other companies, following on from the 2002 competition in particular, should be created over the coming months.

It is estimated that, for the four years in which the competition has been held, the number of companies set up may exceed 600.

Furthermore, according to the last survey carried out with the winners of May 2001, 2300 jobs had been created in the new companies set up at the end of 2002, i.e. an average of 5 jobs per company.

- Incubators

They focused more on the “soft” support to the entrepreneurs (market analysis, business plan drafting, hiring process, finances…) than on the hard service (real estate, office services). In most cases they do not allocate office or laboratory space to the projects.

Thirty one (31) incubators were selected by the Committee on Commitments for Calls for Projects in March 1999: “Incubation and pre-venture capital of technological companies” for government support over a 3 year
period. At the end of 2002, 30 incubators were operational. They had already received 773 projects, i.e. 85 % of their three year objective (850 projects).

Among the 773 projects received at the end of 2002, 344 companies have been set up (37 % incubated projects) and around 1 300 jobs have been created in these companies. Furthermore, it is worth taking note of the synergy between the national competition for the setting up of innovative technology based companies and incubators. In fact, 309 of the sponsors received in the incubators were winners of the national competition and their projects represent 40 % of the incubated projects.

– Pre-venture capital

Within the framework of the same call for projects in March 1999, three national theme-based pre-venture funds - biotechnologies and information and communication technologies -, in addition to seven regional pre-venture funds were selected. They represent pre-venture capital financing worth 135.34 million euros i.e. 91.61 million euros for national funds and 43.74 million euros) for regional funds. The government’s donation to the pre-venture capital i.e. 22.87 million euros has been multiplied by 7. The three national pre-venture funds as well as three regional pre-venture funds are operational and have made their first investments. Three other regional pre-venture funds are in the advanced creation phase.

Global assessment of incentive measures for the setting up of innovative companies

Three and a half years after the Law for innovation and research, the new legal framework and the three incentive measures – competitions, incubators and pre-venture funds – will have given rise to the setting up of at least 760 innovative companies. Out of this total, 33 % of creators are involved in more than one measure: for example, incubator and competition or competition and research staff approved by the Commission on Professional Conduct or competition and pre-venture funds, etc.

The different measures have produced the first positive and rapid effects for the setting up of innovative companies. The economic effects are quicker than the initial forecasts as the number of new companies and new jobs is growing.

Furthermore, the different incentive measures are complementary. The winners of the competitions set up companies which are able to be supported for a period of time by an incubator. The pre-venture funds, both regional and national, supply venture capital to companies set up by competition winners or by research staff approved by the Commission on Professional Conduct.

The technological fields concerned

The incentive measures affect all sectors of activity, however the life sciences with biotechnologies in addition to information and communication technologies are more particularly concerned.

With the competition’s fourth year to a rebalancing of the sectors of selected projects took place in favour of electronics and telecommunications (the second in order of importance and the first sector in terms of “creation” projects) and so-called “traditional” sectors like chemistry and materials. IT services have generally decreased. The biotechnologies sector is in third place. However the share of “emerging” projects in biotechnologies has increased considerably and should lead to future creations.

With regard to the projects accommodated in the incubators, we generally observe a predominance of the life science/biotechnology sectors (37 % of projects), followed almost equally by the information and communication technologies sector (29 %) and technologies for engineers (27 %).

Likewise, the distribution according to the sector of activity of research staff taking advantage of the Law for innovation and research is very similar: 46 % in software technology and 37 % in the life sciences.

Tax assistance for industrial research: research tax credit

This incentive passed in 1983 aims at encouraging an increased research effort by companies. Large
industrial groups and, above all, SMB take advantage of it. The research tax credit (RTC) represents an amount of 529 million euros tax assistance for 2000 which is the last financial year with available information. It concerns 6,344 companies (including 1,514 subsidiaries representing 864 groups).

This assistance corresponds to research expenses amounting to 10.25 billion euros for reporting companies. This level has been more or less maintained for 3 years. The amount of R-D for companies which benefited from this credit tax was 6.63 billion euros in 2000.

Between 1992 and 2000, almost 4.3 billion euros were injected into the French economy through this measure. The research tax credit is particularly favourable to SMB with a turnover of less than 40 million euros; they spend 17% on overall research and development and obtain 34% of the granted research tax credit.

The public research – business partnership

Research networks and Technological Innovation (Les réseaux de recherche et d’innovation technologiques – RRIT)

At present, 16 networks have been set up in the fields of the environment, space, aeronautics, life sciences, information technologies and sciences, computing, telecommunications, etc. with one forerunner in 1996 (PREDIT), one in 1998, five in 1999, five in 2000 and four in 2001. Their main vocation is to improve the partnership between public research and the socio-economic sector in order to answer the problems posed by industrialists and to remove the corresponding obstructions, to accelerate the use of new technologies and to structure research policy.

We can observe an increase in the actions by the Ministry of Research since 1998. Between 1998 and 2000, 16 networks were financed for a total amount of 299 million euros concerning 707 projects. In 2002, the ministry financed all 16 networks with a commitment of 80.2 million euros for around 131 projects.

National Technological Research Centres (Les centres nationaux de recherche technologiques – CNRT)

Fifteen National technological Research Centres (CNRT) have been approved to date by the Ministry of Research. CNRT encourage cooperation between government research laboratories and research centres belonging to large industrial groups and are partially financed within the framework of joint National-Regional program contracts. Their major role is to structure the territory and sponsor projects at a European level.

Technological Research Teams (Les équipes de recherche technologiques – ERT)

In order to assist the development of technological research within universities, the Ministry of Research set up in 1999 the Technological Research Teams within the framework of the contractualisation of higher education institutions. Forty one (56) ERT have been approved since 1999, including three in economic, human and social sciences.

These ERT take part in the system implemented to develop research partnerships between the social and economic world and public research.

SMB technological Support Structures

Over the years, the ministry of Research has implemented more than 200 Regional Innovation and Technology Transfer Centres (CRITT), amongst which we can distinguish Technological Resource Centres (CRT) carrying out services for SMB and, within the framework of the U3M plan and the joint National–Regional governments Program Contracts, Technological Platforms (PFT) based on local business communities. The aim of these structures is to develop the quality of services dedicated to companies and, in particular, SMB.

At the end of 2001, forty (40) structures had received the Technological Resource Centres label awarded by
Finally, the aim of the regional Technology Development Networks (RDT) set up across the country is to support the development of small and medium size businesses, through consultancy and making contacts. It is a cooperative operation, jointly and equally financed by the regional authorities and by the government in all the regions.

**The integration of young diploma holders in companies**

Alongside various awareness campaigns aimed at young researchers in the world of industry, the Ministry of Research has developed a set of measures enabling companies to find a suitable response to their need, according to the stage of development of their project and their capability to integrate new skills. This provides companies, especially SMB, with the opportunity of integrating research personnel whatever their level: technicians with CORTECHS, internships in companies, technological research diplomas, CIFRE, Post-docs.

In 2002 all of these measures concern:

- 281 research conventions for senior technicians in SMB (CORTECHS);
- 40 technological research diplomas (DRT) or conventions for engineers;
- 820 industrial training conventions through research (CIFRE) signed with a company;
- 75 post-docs in SMB

**Regional aspect of support for technological development**

Overall, the action of the Ministry of Research has a strong regional dimension. In terms of incentives for setting up companies, the national contest gives priority to winners from all the regions; the 31 incubators and the 7 regional pre-venture funds selected by calls for projects in 1999 are distributed across the country and have a federating effect with local authorities.

Cooperation between government research laboratories and research centres belonging to large industrial groups works across the country through National Technological Research Centres (CNRT) and Technological Research Teams (ERT) which have been created within the framework of the contractualisation of higher education institutions.

Furthermore, the SMB technological support structures, namely the CRITT (209), CRT (40) and PFT (50), cover the 22 regions and overseas dependencies. Regional Innovation and Technology Transfer Centres (CRITT) appeared during the 1980’s and were set up at the instigation of the Ministry of Research in partnership with local authorities.

The government’s initiative was relayed by the Government – Region Program Contracts which namely include the CNRT and CRITT including Technological Resource Centres (CRT), Technological Platforms (ERT), Technological Development Networks (RDT) and CORTECHS conventions.