I – INTRODUCTION

In the recent few years, the innovation and its protection has become an increasing priority for the French authorities. Abroad, such a priority was already acknowledged, in particular in the USA and in some European countries.

The French public research is not cast in one piece but comprises several categories of Public Research Organizations (PROs):

- the EPST (Etablissements Publics à caractère Scientifique et Technique), such as CNRS (Centre National de la Recherche Scientifique)¹, INSERM (Institut National de la Santé et de la Recherche Médicale)², INRA (Institut National de la Recherche Agronomique)³, INRIA (Institut National de la Recherche en Informatique et Automatique)⁴;

- the EPIC (Etablissements Publics à caractère Industriel et Commercial), such as CEA (Commissariat à l’Energie Atomique)⁵;

- the EPSCP (Etablissements Publics à caractère Scientifique, Culturel et Professionnel), including universities and public engineer schools developing their own research; there are more than 90 universities in France.

¹ www.cnrs.fr
² www.inserm.fr
³ www.inra.fr
⁴ www.inria.fr
⁵ www.cea.fr
As a matter of reference, the following table can be given, presenting the number of priority patent applications filed in France during recent years by some EPST and EPIC (source: OST 2001):

<table>
<thead>
<tr>
<th>Organizations</th>
<th>Number of priority patent applications filed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1997</td>
</tr>
<tr>
<td>CNRS</td>
<td>106</td>
</tr>
<tr>
<td>INRA</td>
<td>16</td>
</tr>
<tr>
<td>INSERM</td>
<td>61</td>
</tr>
<tr>
<td>CEA</td>
<td>197</td>
</tr>
</tbody>
</table>

Although the situation was globally improving during those years, the figures above mentioned did not clearly give a good and exact picture of the innovation which was done in those organizations; the situation was worse for the Universities where it was difficult to get figures. Concerning the Universities, it should be mentioned also that their laboratories are, increasingly « joint laboratories », i.e. laboratories under the control of both an EPST and a University. In most cases, when there was an invention obtained in such a joint laboratory, the patent application, if any, was filed only under the name of the EPST, giving therefore a totally wrong idea of the results of the Universities in terms of innovation. During the same period 1997-2000, the amount of royalties income of said organizations increased substantially, + 20% for INSERM, + 100% for CNRS, for instance.

Despite those improving results, the French public research had to face major problems:

- a lack of developed relationships with industry;
- an inadequate financial return for the PROs (which was pointed out by a report from the French « Cour des Comptes »);
- a dramatically low number of patent applications filed by the PROs.

Basically, there were both a cultural and a legal problem; the legal issue concerned more precisely the status of the researchers precluding them from developing valorisation activities outside of their laboratories: in this respect, the 1999 Law on Innovation and Research (II) greatly improved the situation.
As far as the cultural problem is concerned, it will take more time for changing the
behaviour of researchers; in order to accelerate this changing, the French authorities provided
in 2001 some recommendations (III) or guidelines.

Eventually, the formation, either basic or specialized, in the Intellectual Property field
is a key issue which is discussed in depth by the relevant ministries; no doubt that it will
necessitate a large amount of time and efforts, such a formation not being limited to the
scientific world.

II – THE LAW ON INNOVATION AND RESEARCH

In order to cope with the issue of poor relationships between the public research and
industry and to turn more efficiently the results of public research into industrial products or
services, the French authorities presented a new law\(^6\) which was adopted by the Parliament;
This law was mainly intended to promote the creation of innovative technology companies
and the transfer of public sector funded research towards industry.

The French authorities were well aware of this so far non satisfactory situation which
was adequately summarized in the presentation of said law:

« France has considerable resources in terms of science and
technology but combining these research discoveries with industrial
applications is achieved less easily than in other industrialised
countries. The shortfall in this collaboration can be seen both in terms
of the structures, in the difficulty of setting up effective partnerships
between research establishments and companies, and in human terms,
in the low level of contacts between research workers and the
economic world.

Thus, while experience shows that the economic utilisation of
the results of research is an important factor underpinning the
dynamism of the economy, the number of companies created every
year using the results of public sector funded research remains too
low. It is, however, precisely these companies, moreover, that have the
strongest growth potential.

The purpose of the law on innovation and research is to
reverse this trend and provide a legal context that fosters the creation
of innovative technology companies, notably by young people,
whether they be researchers, students or employees. »

available on www.legifrance.gouv.fr
This law was a substantial break in the innovation and research landscape mainly due to a substantial change in the status of the researchers (A) by improving their mobility; until then, they were strictly limited to their research in their laboratory: their status did not allow them to devote their time otherwise, but to lose their status of civil servant. As already mentioned, another issue was a deficiency of strong relationship between public research and industry; this law strengthened said relationships by introducing new provisions (B) in order to foster the cooperation between these two «worlds». Of interest also, some provisions were adopted, directed to an improved fiscal (C) and legal (D) framework for innovative companies.

A – Researchers mobility

The law cancelled the obstacle precluding the researchers from creating their own company for developing and exploiting their own research results while keeping their status of civil servant.

Nowadays, researchers, teacher-researchers, engineers, young holders of Doctorates, technical and administrative staff can be involved in the creation of a company to exploit their research work. They are also authorised to participate as a partner or manager of the new company, for a period of time at the end of which they can choose between returning to the public sector or leaving it to stay with the company. During this period, and for a maximum period of 6 years, they are secunded. They, therefore, retain their civil service status.

The law allows the original organization to pay the salary of the creator of the company during the start-up phase, and it prevents those who are involved in starting up companies from being penalised in terms of their research careers. A contract defines the links between the company and the research establishment whose work is being exploited.

Furthermore, until 1999 it was accepted that a researcher spends some limited time in providing scientific support (consulting activity) to industrial companies; the 1999 law broadened this possibility, and research staff can provide their scientific support for a company that is developing their research work, whilst remaining in the public sector; a researcher can therefore spend up to 20% of his/her time in this consulting activity.

According to the law, a researcher can not only be a consultant for a company developing his/her results but also a manager of said company: researchers and teacher-researchers can be members of the managing body of a company.

Those three possibilities (creating a company, offering consulting activity to this company, managing the company and acting as a Director of said company) are submitted however to a prior approval of the relevant PRO, following the advice given by a national committee («Comité National de Déontologie») in charge of studying the cases which are presented in accordance to Article 25.1 (creating), 25.2 (consulting) or 25.3 (managing) of the 1999 law. Since the creation of this national committee, 168 persons got the approval by the end of 2001; they were 236 on June 30, 2002. It should be noted that most of the refusals from the national committee are due to the fact that the involved researchers presented their case after the creation of the company, although the law provides clearly that the approval must be obtained before such creation.

Besides these three possibilities, the law also provides that any research employee can contribute to the capital of a company that is developing his/her research work. The share-
holding can be up to 15% of the capital of the company. The employee agrees, in return, to not take part in any negotiations between the relevant organization and this company.

**B. Cooperation between public sector research establishments and companies**

In 1999, the French authorities were of the opinion that the mobility of the researchers was necessary but not sufficient in order to foster the cooperation between public research and industry; specific provisions have therefore been included in the 1999 law. Two provisions are of a major importance, namely the incubators (1) and the SAICs, for « Services d’Activités Industrielles et Commerciales » (2).

1 - **Creating company incubators**

It appeared that there were potentially a great number of valuable projects, susceptible of leading to the creation of new companies, either spin-offs or start-ups, promoting therefore new employments in high-tech companies, which is also of significant importance. However, most of these projects failed in reaching the industrial status because they lacked various advices, either legal, technical or financial: hence the creation of incubators.

According to the 1999 law, higher educational and research establishments can set-up incubators for the purpose of providing premises, equipment and material for those hoping to create companies or for young companies. This measure encourages in particular, the creation of high technology companies by research staff and students.

As of January 1st, 2002, 31 national incubators were selected in the different French areas and have been officially recognized; since 1999, 239 innovative companies have been created after being incubated.

Besides the creation in incubators, the 1999 law also put in place a national competition promoting the creation of innovative companies, either coming from an incubator or not; the winners receive a financial consideration.

Since the creation of the competition, around 500 companies have been created, which represents around 2800 employments.

2 – **Creating SAICs**

Before 1999, most of the EPSCT and EPIC had their own TTO, either as an internal service or as a subsidiary (for instance FIST was the TTO of CNRS); the situation was completely different in universities where there was, but in some limited cases, no TTO or similar service. When preparing the 1999 law, the French authorities considered that it was of major importance for the universities to create such a service, which implied to have qualified personnel.

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7 More information can be reached through [http://France.incubation.free.fr](http://France.incubation.free.fr) or from [www.recherche.gouv.fr/technologie/mesur/incub](http://www.recherche.gouv.fr/technologie/mesur/incub)

8 See [www.recherche.gouv.fr/technologie/concours](http://www.recherche.gouv.fr/technologie/concours)
people: there were no such people inside the universities and it was necessary to find them outside, with a difficulty to offer them an attractive salary, which was quite clearly impossible to have for a civil servant; therefore it was necessary to create a structure able to hire qualified people with a salary corresponding more or less to the one offered outside.

Furthermore, such a structure should be flexible and reactive in order to take rapid decisions; the public accounting rules were also difficult to apply for such a reactive structure.

The 1999 law therefore created those SAICs coping with above mentioned difficulties.

According to the 1999 law, universities and research institutes could create SAIC to manage their research contracts with companies or with other public sector bodies. These services could also cover activities such as patent management, service provisions and editorial activities. As already mentioned, more flexible budgetary and accounting regulations have been implemented, allowing for the carrying out of these activities on a business footing and also for the recruitment of contracted staff.

However, it took some time to put in place those SAICs, because it was necessary to give a definition of which industrial and commercial activities were involved and therefore submitted to a taxation; this was not easy and still the problem is not completely solved.

Some PROs, preferred not to have a SAIC, giving their preference to a subsidiary. It should be reminded that, from January 1, 2003 all the industrial and commercial activities of these subsidiaries will be submitted to the same taxation as the one which is applicable on the income of industrial companies. For the SAICs, only some of said activities, deemed as profitable, will be submitted to said taxation; to give an exemple, the financial compensation from an R&D agreement will not be considered as profitable when the IP results are owned or at least co-owned by the PROs while such a compensation will be deemed as profitable in case the industrial partner is the owner of said results (in that case the R&D agreement is considered as a service agreement, falling within the scope of profitable and taxable operations).

Finally, implementing Decrees were published in 2002 concerning the functioning of those SAICs; during an experimental phase which started early 2002, 5 universities were selected (Le Havre, Paris 13, Rennes 1, Lille 1, Saint-Etienne), and 8 further establishments were selected by the end of April 2002 (Nancy 1, Paris 11, Paris 6, Caen, ENS Lyon, INP Toulouse, INSA Toulouse, Rennes 2). This experimental phase shall be terminated early 2003.

Those experimental SAIC have been publicly funded; in 2002, a total amount of 1 608 334 Euros has been allocated to them.

Besides these two major provisions (researchers mobility and cooperation between public sector research establishments and companies), the 1999 law also provided other improvements, both in the fiscal (C) and legal (D) sectors, for which only a summarized presentation will be done herebelow.

C. The fiscal framework for innovative companies
• **Liberalising the BSPCE scheme**

The law liberalises the company founder’s share warrants (BSPCE, for Bons de Souscription de Parts de Créateur d’Entreprise) scheme so that all new and expanding companies are covered. The scheme, which allows the purchase of shares in a company at a price fixed in advance, is restricted to companies created less than 15 years ago. The law on innovation and research has reduced from 75% to 25% the share of the company capital that must be held by physical persons when the warrants are issued. The law also extends the benefit of BSPCE to companies registered on the new market.

• **Liberalising the FCPI scheme**

The innovation investment fund (FCPI, for Fonds Communs de Placement dans l’Innovation) scheme has also been further improved in order to enable these funds to invest in all innovative companies.

These funds, which attract personal savings into new innovative companies by means of tax incentives, can now invest in any company approved by ANVAR, provided that this company is not more than 50% owned by an existing company.

• **Making research tax credits more valuable**

Finally, the provisions of the 1999 law with regard to research tax credits (CIR, for Crédit d’Impôt Recherche) should promote the recruitment of research staff. As a matter of fact, the operating costs rate, set according to the staff costs, has been increased to 100% for companies employing a young Doctorate holder. This new provision will enable companies to cooperate with a highly qualified person capable of providing them with the latest advances in a specific field. This completes the adaptations that were made to the CIR by the 1999 Finance Bill in order to promote innovative companies (notably the immediate reimbursement of the tax credit). It is to be noted that this CIR is not limited to small entities although MSE (medium sized entities) with less than 40 millions EUROS of revenues take particularly advantage of this measure ; in 2000 the CIR amounted 529 millions EUROS, concerning 6344 companies which declared a total amount of research expenses of 10,25 billions EUROS.

D. **The legal framework for innovative companies**

• **Extending the scope of the simplified joint stock company (SAS, for Société par Actions Simplifiée) scheme**

The current status of limited liability companies is not particularly suited to the needs of young risk companies with high growth potential. The simplified joint stock company scheme (SAS) has been extended so that all innovative companies can benefit from it.

• **The scheme gives real flexibility :**
* Greater contractual freedom suited to the rapid expansion of these companies and enabling the rapid modification of the capital structure and the relationship between the shareholders;

* The possibility of issuing preference voting shares enabling the founders to maintain control over the company without limiting the access to new capital;

* The reduction in formalities for companies with limited administrative resources and called on to make quick decisions; and

* The possibility of forming a company with a single partner.

III – **THE RECOMMENDATIONS FOR THE ADOPTION OF A CHART OF INTELLECTUAL PROPERTY**

Immediately after the implementation of the 1999 law, it appeared to the French authorities that it was necessary to focus the attention of PROs, particularly of universities, on the protection and exploitation of the results of their research, under the framework of said law.

As a matter of fact, and mainly due to a cultural environment, the researchers were not familiar with IP issues, leaving some of their results without any protection, which rendered almost impossible their future development and exploitation by an industrial partner.

Similarly, it appeared appropriate to the French authorities to point out the importance of being professional when negotiating with an industrial partner.

Therefore the ministry of research prepared some recommendations or guidelines concerning both the protection of the results and the partnership with industrial companies.

Such recommendations were prepared by associating members of the ministry, of PROs and members of industry in order to have a common position for the adoption of said recommendations by the French authorities.

Since March 2002, a presentation of said recommendations has been done in more than 20 areas (French administrative areas), and the remaining areas will be visited in the first half of 2003. As a matter of fact, it is important to explain why such recommendations have been prepared and to receive the comments and the criticisms of the users; among such criticisms, the lack of means (human or financial) is often put forward.

Those recommendations were sent in June 2001, to all the Presidents of the PROs; the goal of said recommendations was not to impose any policy to those establishments, but to draw the attention of said organizations to the key issue of adopting such a policy based upon the guidelines contained in said recommendations; it is to be noted that more and more universities, EPST and EPIC are adopting a Chart based on those recommendations which are
directed to six issues dealing with internal situation but also with external partnership including industry\(^9\).

The Chart is part of the valorisation policy of the PROs leading to maximize the social and economical impact of the results derived from said organizations in order to create employment, to facilitate the creation of new companies and to give an answer to the needs of the Society.

This is the reason why the Minister in charge of the Research sent, with the recommendations, a cover letter to said Presidents of PRO, pointing out that the valorisation of said results must:

- be developed in a professional and trustworthy climate in the partnership with companies ;
- guarantee the visibility of the results, the thankfulness towards the teams and the development of new research agreements ;
- guarantee the follow-up of inventions, both in the interest of companies and institutions ;
- warrant the remuneration of the institutions and motivate the teams through incitave measures ;
- participate in the attractivity of the French territory in the worldwide competition.

These recommendations, in a first part, reminds to the PROs that there are different possibilities for protecting and exploiting the results of said institutions taken alone or in collaboration with private or public partners, including industrial ones.

According to the nature of the results, different means are indeed available which are listed for the attention of the PROs:

- the results covered by the industrial property can be either protected by the filing of an application or by keeping the secret ; according to the field, one must address to the patent system, the plant variety certificate system or the semi-conductor products protection. The protection of know-how should be considered and exploited through a confidentiality agreement ;

- the results of literary and artistic property are also considered, concerning in particular software and data basis ; a specific reference is made to the exploitation of software through GPL (General Public License), the institution remaining the one in charge of deciding upon the way of protection and exploitation ;

- the collection of biological samples which fall within the scope of protection of the data basis mentioned above ;

- the living matter constitutes a peculiar field due to the rapid international evolution in the relevant regulation (including the European Directive 98/44) ; the revision of the French « Bioethic » laws will deal with such an issue.

Having reminded those principles enabling the PROs to select the best possible protection for their research, there are two major issues in said recommendations dealing with the ownership of the results (1) in case those latter are obtained either in one PRO or

\(^9\) see www.recherche.gouv.fr/technologie
involving several PROs or concerning a joint-laboratory as already mentioned, and with the partnership including an industrial company (2).

1. **Principles related to the ownership of the results**

   The recommendations clearly insist on the fact that the PRO will be preferably the owner of their results, or at least, the joint-owner of said results (the French legal situation concerning the ownership of the results will be envisaged in point IV.1 below).

   According to the recommendations, this principle of being the owner, or the joint-owner of said results will:

   - facilitate the follow-up and the visibility of inventions;
   - allow the institution either to get back the right to exploit, should the industrial partner fail in doing so, or to have partnerships with other industrials in different fields;
   - allow to better negotiate their valorisation, should the industrial partner modify its shareholding or its strategy;
   - promote the creation of new companies by reference to the law on innovation and research.

2. **Application of such principles in case of a partnership**

   In order to promote the relationship between PROs and industry, some recommendations (A) and cautions (B) are presented to the PROs, alerting them on the importance of this issue.

**A. Recommendations**

   The principle of the ownership, or at least of the joint ownership, is strongly recommended, it being reminded that a joint ownership agreement must be signed by the parties.

   As a matter of fact, a distinction can be envisaged between the ownership of the invention and its exploitation; the full ownership for the industrial partner can be also envisaged, should the invention be limited to the very specific domain of the partner. However, in this latter case, a financial compensation should be negotiated, besides the payment for the cost of the research.

   Those principles shall apply taking into consideration:

   - what has been brought by each party;
   - the way most appropriate for the valorisation of the results;
   - the great variety of situations faced by the institutions;
   - the necessity for concluding the agreement within a reasonable period of time (with a clear distinction for high value valorisation and more current ones for which the negotiation delays should be shortened).
In case of a joint ownership agreement involving several institutions, only one institution shall be the contact with the industrial partner and shall be in charge of the administration of the agreement.

This issue is probably the most difficult to be accepted by industry, probably because there is a cultural environment for industry, but also a lack of professionalism from some PROs; the role of the French authorities, through their recommendations, is precisely to modify this cultural environment and to improve the professionalism of PROs.

Of course, a specific treatment is envisaged for consultant agreements, research prestations, where the ownership is up to the partner ordering such research or consultancy i.e. where there is no inventive work involved in working up said agreements.

B. Cautions

Some cautions are recommended to the PROs in case of a partnership with industry, according to which a special care has to be given for:

a) the ownership of the results, bearing in mind that in case of the joint ownership agreement this latter must be concluded at the time of conclusion of the R&D agreement, taking into consideration:

- the scientific and/or legal results (patents…) existing prior to the R&D agreement;
- the field and the domain of the collaboration;
- the full cost of the program;
- the development plan precising which party will bear the cost for protecting the invention, including in foreign countries and which one will be responsible for initiating infringement suits and for bearing its cost.

b) the licensing, and more particularly in case of the granting of exclusive licenses; in that latter case, it is recommended to be particularly careful in the definition of the domain, in the fixing of a minimum of annual royalties and in the possibility of transforming the exclusivity into a non-exclusivity, should the invention not be exploited properly in a given period of time.

Among the different relationships between PROs and industry, a specific attention has been paid to spin-off or start-up companies. For them, the above mentioned principles must be adapted in order to take into consideration the major importance of the ownership of research results and the lack of funds for said companies; two situations have to be distinguished:

- the results have been obtained by the institution before the creation of the spin-off or of the start-up; in that case, the institution must, in principle, keep the ownership of said results and grant an exclusive license to the start-up; it is to be noted that some investors are very reluctant in granting funds to a spin-off or a start-up company having only an exclusive license: those investors will demand for a full ownership for this company.
- the results are obtained after the creation of the spin-off or of the start-up; a collaboration agreement shall be concluded between the spin-off or start-up and the institution, possibly with a joint ownership system.
In both cases, it can be envisaged to assign the rights to the start-up, should such a solution be the most appropriate way for the valorisation of the results; the counterpart of said assignment can be for the institution in receiving shares of the start-up.

Besides these principles related to the ownership of the results and the application of such principles in case of a partnership, the recommendations deal with the organization of intellectual property (3) in order to promote a better professionalism in the PROs, while satisfying with the aim of public research, namely to increase the general knowledge.

3. Organisation of Intellectual Property

As a matter of fact, it is important to conciliate the respect of intellectual property and the need to inform the public; this is more particularly important in case of inventions in relation with sensitive fields, such as biotechnologies.

Therefore some measures are presented and will be emphasized in a near future.

A. Care to be taken in order to get a good protection of the results

- The researchers, in a broad sense, must be sensitized to intellectual property issues in order to not disclose unreasonably their results; they must be aware also that they are not the owners of said results, those latter being owned by their institution. They have the right to have their name mentioned on the patents. The general manager, or president, of said institution has the responsibility in filing a patent application, or applying for a plant variety certificate, a utility model or filing an application concerning a software.

As a result, the researcher will be informed that he/she is not entitled to:

- decide on his own upon the filing of patent applications covering his/her inventions;
- leave the industrial partner to file such patent applications;
- preclude the filing of a patent or a plant variety certificate application by his/her institution through unreasonable disclosure.

- the use of laboratory books shall be developed and mandatory;

- the filing of a patent application is not, as such, a goal, but the preliminary step before the valorisation of the results; such a filing will be justified only in the presence of a market, possibly in a medium term. Therefore, a patent should be abandoned in case it is not exploited within a reasonable period of time.

This part of the recommendations will need some time before being fully enforced.

B. Organisation of valorisation services
The creation of such services in the public institutions is a key issue; the provisions of the law on innovation and research should facilitate the creation of such services, possibly through the form of SAIC;

- the staff of those services must have an adequate and adapted profile; it must be trained in the writing of agreements. A practical experience, a good knowledge of intellectual property issues and an experience in litigation are requested;

- the negotiation of agreements and licenses shall be done with a strict collaboration of lawyers, specialists in intellectual property, specialists in the technical field, specialists having a good practice of industry;

- the institutions having a limited patent portfolio might be interested in involving partners, most generally at a local level;

- specific mechanisms must be set up in order to facilitate the articulation between those services and laboratories: liaison persons should be nominated.

As a conclusion, it must be pointed out that the Research Minister who signed the cover letter of said recommendations on June 13, 2001 insisted on the increasing importance of improving the professionalism of the valorisation staff in the public institutions.

IV – OTHER LEGAL ISSUES

1. Ownership of inventions involving salaried inventors, in particular from the public sector

A. Right to title

The right to title is clearly established by the French CPI («Code de la Propriété Intellectuelle») in its Article L 611-6 which provides that

« The right to the industrial property title referred to in Article L.611-1 shall belong to the inventor or his successor in title. »

A specific treatment has been given to those inventors who are salaried persons having an employer; in this respect the Article L.611-7 of the French CPI\(^{10}\) which makes a distinction among the various situations which can be summarized in the following table, but which applies to both the inventors from the private or the public sector.

\(^{10}\) see www.legifrance.gouv.fr

<table>
<thead>
<tr>
<th>Inventions realized by a person:</th>
<th>Right to title</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a)</strong> in the execution of a work contract comprising an inventive mission corresponding to his/her effective functions or of studies explicitly entrusted to him/her.</td>
<td><strong>Employer</strong> has full right to title</td>
</tr>
<tr>
<td><strong>b)</strong> the conditions of case a) are not fulfilled, but the invention falls within the field of activity of the employer’s company, or uses knowledge or specific means of said company.</td>
<td><strong>Employee</strong>, but employer is entitled to have the ownership assigned to him</td>
</tr>
<tr>
<td><strong>c)</strong> all other cases</td>
<td><strong>Employee</strong></td>
</tr>
</tbody>
</table>

In all the cases a), b), and c) the employee must inform on the invention the employer and this latter has to confirm the classification of the invention proposed by the inventor (case a) or b) or c)). In case of disagreement a national committee (CNIS – Commission Nationale des Inventions de Salariés) arbitrates the case.

However, we are facing a difficulty in the PROs where inventors can be researchers but also trainees, students or post-docs. When those students, trainees or post-docs receive a financial compensation (a salary or something similar), they will be considered as salaried persons and therefore their inventions, when realized according to case a), will be owned by the PRO employing them. The situation is much more complex when those persons are not salaried, since in that case Article L.611-7 of the French CPI does not apply and therefore only the Article L.611-6 of the French CPI is applicable: this means that the patent application will be filed under the sole name of the trainee, student, or post-doc when the work has been done only by him/her, or jointly with the names of researchers from the PRO if they have been also involved. Such a situation could be developed in the future and solutions are now studied in order to cope with this problem.

Furthermore, Article L.611-9 of the French CPI gives some precision concerning the right of the inventor to be named:

« The inventor, whether salaried or not, shall be named as such in the patent; he may also oppose such identification. »

**B. Co-ownership (Joint ownership)***
There is more and more a situation when an invention has been realized by several inventors coming from different PROs (or PROs / industry) ; in that case, when applying the Article L.611-6 above mentioned, the patent application will be filed under the names of the different employers, resulting in a joint-owned title.

The French CPI provides possibility for such joint ownership of patents ; its Article 613-29 stipulates the rights and obligations of the joint owners.

However, the provisions contained in this article are very demanding (unanimous position from all joint-owners for some acts and/or decision from a Court) ; this is the reason why many people are still against the joint-ownership system. But, it is always possible for the future joint-owners to derogate from this Article L.613-29, and also from Articles L.613-30 and L.613-31 (relinquishment of his share by a joint owner), by concluding a joint ownership agreement, freely negotiated, comprising rights and obligations contractually accepted by the joint owners.

This possible derogation results from Article L.613-32 of the French CPI.

The recommendations referred to in point III above are clearly in favour of this derogation, provided the joint-ownership agreement is signed as early as possible, with the R&D agreement for instance. Such joint-ownership agreement will include among other clauses, provisions related to the decision of filing a patent application, or any other IP title, of extending the priority filing in foreign countries, of licensing the title, with a clear statement of who will bear the cost of those different actions.

Some industrial partners are still reluctant for this joint-owner system, but others have already signed a general agreement with CNRS including such system.

2. Financial incentive measures for inventors from the public sector

According to Article L.611-7 of the French CPI, an additional remuneration is provided for the inventors entitled to beneficiate from this article (case a) of the table page 14 above) ; this provision applies only to those inventors from the private sector where said additional remuneration is often limited, or very limited. In case of conflict, case can be brought before the CNIS mentioned above.

Above mentioned Article L.611-7, in its §5, provides that the situation of inventors from the public sector will be envisaged later on ; this was done only in 1996, through two Decrees dated October 2, 1996 n° 96-857 and 96-858 which were modified by two recent Decrees n° 2001-40 and 2001-41\textsuperscript{11}

The Decree n° 2001-40 is directed on the additional remuneration, as refered to in Article L.611-6 mentioned above, for those persons who are inventors ; this additional remuneration is 50% of the net revenues received by the establishment employing said inventors up to a fixed amount (around 60 000 Euros/year) and 25% of said revenues above said amount.

\textsuperscript{11} Decrees n° 96-857, 96-858, 2001-40 and 2001-41 are available on www.legifrance.gouv.fr
According to the Decree n° 2001-41, a similar remuneration in terms of percentages and fixed amount is available for those persons having participated in the creation of software, plant varieties and know-how.

It is to be mentioned that the categories of persons entitled to receive such an additional remuneration are expressly listed in those Decrees.

Nevertheless, those Decrees are not fully satisfactory for the following reasons:

- the inventors, researchers in PROs, who are not specifically mentioned in said Decrees are not entitled to receive any additional remuneration;
- as already mentioned, inventors who are not salaried persons are not entitled either to receive an additional remuneration according to said Decrees, but, on the other hand, must be considered as joint-owners, which is a rather complex situation;
- there is a different treatment for inventors who are researchers for PROs entitled to the additional remuneration, for inventors who are working in PROs but who are not entitled to such remuneration and for inventors from the private sector, with often a very limited additional remuneration if not only a « moral » consideration.

One must be very careful in this kind of complex situations where, in the same scientific R&D program, future inventors from different origin are working together, and will received later on substantially different additional remuneration.

V – CONCLUSION

The 1999 law on innovation and research, followed by the 2001 recommendations were a strong message for the PROs to improve the protection and the exploitation of the results derived from the public research. Of course, PROs must be seconded in this task which is completely new for some of them. The French authorities are conscious that a lot of efforts has to be made to reach the goal fixed by these texts.

But these efforts should not be limited to the PROs but will extend to industry; this is the reason why, on December 11, 2002, Nicole Fontaine, in charge of Industry, and Claudie Haigneré, in charge of Research and new technologies announced jointly new measures in favour of innovation.

Among these measures, some can be cited:

- new legal status for business angels.
- under specific conditions, recent innovative companies will beneficiate a tax reduction.
- investments in R&D will lead to possible tax reduction; the CIR will be revised.
- further measures will be taken in order to foster the cooperation researchers/industry, to acknowledge the researchers’ efforts devoted to innovation, to give said researchers an incentive to file more patent applications.

12 Full text available on www.recherche.gouv.fr/plan-innovation or on www.industrie.gouv.fr/plan-innovation
measures will be taken in order to have more students attracted by science and innovation.

Interestingly, all these measures are on the websites mentioned in footnote 12, and any interested person can comment those measures. A new law on innovation could therefore be prepared in Spring 2003.