EUROPEAN TREND CHART ON INNOVATION

Trend Report:
"Innovation and IPR"

Covering period:
December 2000 – April 2001

EUROPEAN COMMISSION
ENTERPRISE DIRECTORATE-GENERAL
INNOVATION/SMEs PROGRAMME

The European Trend Chart on Innovation

Innovation is a priority of all Member States and of the European Commission. Throughout Europe, hundreds of policy measures and support schemes aimed at innovation have been implemented or are under preparation. The diversity of these measures and schemes reflects the diversity of the framework conditions, cultural preferences and political priorities in the Member States. The 'First Action Plan for Innovation in Europe', launched by the European Commission in 1996, provided for the first time a common analytical and political framework for innovation policy in Europe.

Building upon the Action Plan, the *Trend Chart on Innovation in Europe* is a practical tool for innovation policy-makers and scheme managers in Europe. Run by the Innovation Directorate of DG Enterprise, it pursues the collection, regular updating and analysis of information on innovation policies at national and Community level, with a focus on innovation finance; setting up and developing innovative businesses; the protection of intellectual property rights; and the transfer of technology between research and industry.

The Trend Chart serves the "open policy co-ordination approach" laid down by the Lisbon Council in March 2000. It supports policy-makers and scheme managers in Europe with summarised and concise information and statistics on innovation policies, performances and trends in the European Union. It is also a European forum for benchmarking and the exchange of good practices in the area of innovation policy.

The Trend Chart products

The Trend Chart on Innovation has been running since January 2000. It tracks innovation policy developments in all EU Member States, plus Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Liechtenstein, Lithuania, Norway, Poland, Romania, Slovak Republic and Slovenia. The Trend Chart website (www.cordis.lu/trendchart) will provide access to the following services and publications, as they become available:

- a database of policy measures across Europe;
- a 'who is who?' of agencies and government departments involved in innovation;
- a series of country reports;
- a series of six-monthly trend reports;
- a number of benchmarking reports on specific themes;
- statistical reports such as the European Innovation Scoreboard;
- regular newsletters and bulletins;
- annual reports; and
- various other publications.

The present report was prepared by **Isabelle PIERRINI** of **INBIS Ltd.** The information contained in this report has not been validated in detail by the Member States or by the European Commission.

Contact: Christophe Guichard; christophe.guichard@cec.eu.int

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1. Executive Summary

During the 20th century, the issue of Intellectual Property Rights (IPRs) followed a rapid movement from backstage to the forefront of attention and strategic importance[1]. With the rapid emergence and deployment of new technologies Intellectual Property Rights – especially patents – became essential to protect innovation.

The purpose of this report is to identify a set of general trends in the field of IPR activities and innovation, in which context the information contained in the 'Trend Chart' database can be viewed. The present paper specifically covers information reported by correspondents over the period December 2000 – April 2001. It should, however, be noted that trends over such a short timescale will often be difficult to discern as changes in this field are neither rapid nor even over time. As a consequence, this report will be focused on one of the most relevant and important matter of the intellectual property rights field – patent protection – located at the crossroads of innovation and competition.

The importance of patents will probably continue to grow in the coming years, thereby pursuing the trend which was set in the EU member States and the EU institutions a couple of years ago. Therefore, it will be interesting to analyse both at national and Community levels in which way the European institutions and all the EU member States and the "accession countries" currently deal with this issue.

In this way, our analysis will particularly take into consideration the increasing awareness that patents are essential in an innovative and competitive economy. It will also be interesting to replace the issue in its context, which implies analysing the growing importance of patents protection worldwide – more accurately – pointing out the existing competition between Europe, Japan and the United States and the need for a European harmonization of the legislation related to patent protection (e.g. Community patent, the patentability of software-related inventions). Moreover, it can be noticed that these trends are accompanied by a deeper and parallel involvement of one of the major actors in the patent protection field: the National Patent Offices. Indeed, facing these trends, the European Commission supported by the Council and the Parliament has decided to encourage changes in the roles and functions of the National Patent Offices. Undoubtedly, they are now playing a more pro-active role in the promotion and the dissemination of information on patenting.

[1] "IPR Aspects of Internet Collaborations", Workshop Report prepared by the Rapporteur Ove Granstrand in conjunction with workshop co-chairmen Dominique Foray and Paul David and a group of independent experts attending the workshop for the European Commission – Research Directorate General Directorate B – European Research Area: Structural Aspects, March 2001.

2. Introduction

At the moment, a major debate is taking place in Europe regarding the importance of protection of intellectual property rights for innovation, employment, competition and thus economic growth. The Action Plan for the Single Market, which was adopted by the Amsterdam European Council in June 1997, identified intellectual property rights as a sphere in which action needs to be taken in order to render it more effective and user-friendly, thereby making the most of the Single Market's potential in the field of innovative goods and services.

Globally speaking, in this sense, the action of the European Union has been directed either at harmonizing national law or creating unitary rights at the European level. In other terms, to reach these objectives, a harmonization of the laws of the EU member States relating to IPRs has been implemented both in order to stimulate innovation and to avoid barriers to trade. In addition, the aim of the European Union is also to create unitary systems for the protection of such rights with Community-wide effect through the filing of one single application for protection (Community patents, trade marks and designs).

Currently, the importance of implementing and reinforcing IPRs in order to accompany European innovation continues to grow, thereby continuing the trend, which was set at the end of the nineties. In this context, it has appeared that patents play a central role among the different instruments available for protecting innovation. In other words, we face an increasing awareness that patents are essential in an innovative and competitive economy. Nevertheless, it is a fact that the patent system has become complicated in Europe, with national patents existing alongside European patents and Community patents (although the Community patent system has yet to actually come into operation).

However, innovation remains vital for the viability and success of a modern economy. Even though we are now witnessing the globalisation of our economies, it is crucial to protect the fruits of innovation. In this field, despite its strengths, the European Union trails behind Japan and the United States. Improving the patent system in Europe is not, in itself, going to reverse this trend*; this can be only achieved by a fundamental reorganization of European research, as is currently under consideration.*[2] However, the patent system must under no circumstances act as a further brake on the competitiveness of European companies. Ease of obtaining patents, legal certainty, and appropriate geographic coverage: these are all essential criteria for the effective protection of innovation in the European Union.

Moreover, in another way, at national level, an additional trend has recently been identified. This trend mainly comes from the European institutions, which have decided to encourage changes in the roles and functions of the National Patent Offices[3].

Concretely, this means that the National Patent Offices are now playing a more proactive role in order to reinforce the protection and the use of patents developing new strategies or implementing new programs. The involvement of the National Patent Offices in the dissemination and the promotion of information on patenting through different information channels is increasing and it will probably continue to grow in the coming years.

[2] "Green Paper on the Community patent and the patent system in Europe", presented by the Commission on 24th of June 1997: COM (97) 314 final, 24.6.97.

[3] Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee, "Promoting innovation through patents: the follow-up to the Green Paper on the Community Patent and the Patent System in Europe".

3. Framework for analysis

The general trends identified are:

First of all, an increasing awareness that patents are essential in an innovative and competitive economy.

Second, the growing importance of patent protection worldwide. In this context, it is interesting to point out the strong competition between the European countries, Japan and the USA, and – as a response – the need for European harmonization of the legislation related to patent protection (e.g. Community patent, the patentability of software-related inventions).

Finally, the changing roles and functions of National Patent Offices. This means to analyse the more pro-active roles of National Patents Offices and the dissemination and promotion of information on patenting.

3.1 An increasing awareness that patents are essential in an innovative and competitive economy

Overall, as previously noted, strong IPRs are now associated with innovation policies. This is due to the fact that both the European institutions and several national policies aim at making patents better known as an instrument to help stimulate innovation. At present, the dominant assumption of policy-makers is that strengthening the legal protection through patents will lead to greater innovative activity and consequent benefits.

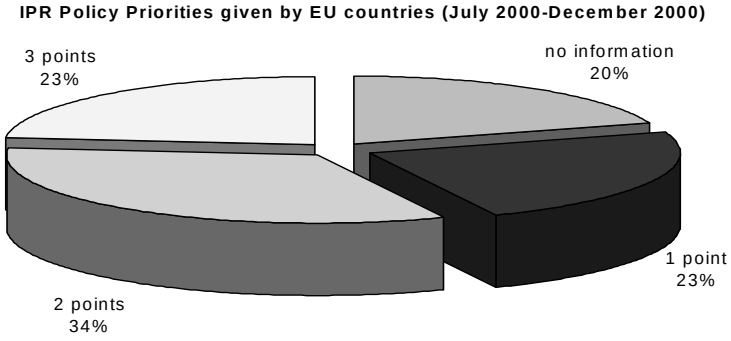
This rationale is partially based upon the Action Plan for the Single Market, adopted by the European Council of Amsterdam in June 1997. This identified industrial property as a sector where action was needed to make it more effective and accessible to the user and thereby realize the full potential benefit of the internal market in the field of innovative products and services. The Community's action in the field of industrial property is designed to demonstrate its full awareness of the link between innovation, growth and employment. In this way, on 24 June 1997, the Commission presented the Green Paper on the Community patent and patent system in Europe which has raised considerable expectations, both in industry and in the Member States.

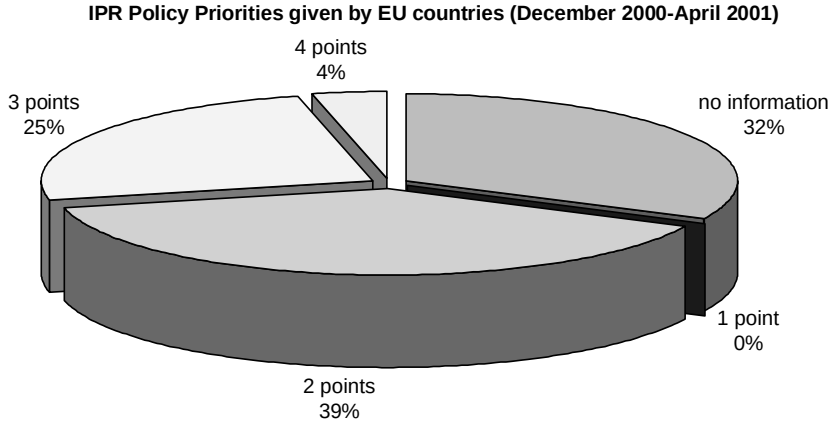
The aim of this initiative, which was part of the follow-up to the first Action Plan for innovation in Europe, was to launch a broad discussion with all the interested parties on the need to take new initiatives in relation to patents and to reflect on the nature and content of any such initiatives. The success of this approach far exceeded the Commission's expectations, from the time of its adoption, the Green Paper aroused a great deal of interest.

The general message emerging from this is the need to put greater emphasis on the practical aspects of the patent system, which should take full account of users' needs. At national level, most of the European member States consider that patents are very important instruments for promoting innovation, creativity and employment.

According to their governments, patents must form an integral part of the economic reality of enterprises, inventors and SMEs, providing them with adequate protection at a reasonable cost and with optimum legal certainty. Above all, patents should not hinder innovation. For

example, the UK government introduced a new IP portal in November 2000[4] (UK_45), designed to provide visitors with clear basic information on the full range of IPR – especially patents – and the part these play in protecting creativity and inventiveness (Cunningham, P.N. and Boden, M. *Monitoring, updating and disseminating developments in innovation and technology diffusion in the Member States – The TREND CHART: United Kingdom, Covering period: December 2000 – April 2001*, June 2000). In Spain, the Spanish Office for Patents and Trademark (OEPM) (dependent agency of MCYT) has carried out a big effort in diffusion activities and try to spread the Industrial Property culture in all sectors of the Spanish industrial scene (C. Morán, F. De Borja Domínguez, P. Lázaro and M. Camarero, *Monitoring, updating and disseminating developments in innovation and technology diffusion in the Member States – The TREND CHART: Spain, Covering period: December 2000 – April 2001).*





[4] www.intellectual-property.gov.uk

These graphs[5] underline the trend according to which there is an increasing awareness that patents - included in the IPRs – are essential for an innovative and competitive economy. Indeed, the comparison between the 2 periods (July 2000 – December 2000 and December 2000 – April 2001) shows us that:

- On the one hand, the number of EU countries that gave 1 point to IPR policy priorities has decreased from 23% for the last period to 0% for this period;

- And on the other hand, a larger number of EU countries are now giving 2 points (39% for this period instead of 34% for the previous one). The number of EU countries that give 3 points has increased by 2%. In addition, 4% of the countries give 4 points to IPR policy priorities whereas no country gave such a high figure for the previous period.

Nevertheless, it is important to mention that all the countries are not concerned in the same way by this trend from which awareness that patents are essential in an innovative and competitive economy is increasing. Indeed, it is necessary to mention that the "accession countries" have various specific characteristics that justify their IPR standards being sometimes different to those of the EU Member States. As an example, at present, in Poland, policy makers do not realize the value of an efficient patent system to the innovation potential, which could be stimulated by a simplification of the patent system (simplification of application and patenting procedures and decreasing or abolition of application fees: The Economist Intelligence Unit Ltd., *Monitoring, updating and disseminating developments in innovation and technology diffusion in the Member States – The TREND CHART: Poland, Covering period: December 2000 – April 2001).* As a consequence, Poland has a relatively low number of patent applications, compared to the EU. For instance, in Poland, in 1995 only 22,089 patent applications were filed and in Spain (i.e. in a country of a similar potential) 71,251 applications.

However, some "accession countries" are implementing reforms that are likely to outline new laws on patents – through the adoption of laws on competitiveness and public support to enterprises according to EU standards – and finally to outline the economic strategy in the run up to EU accession.

In view of this, changes concerning the patent protection are expected from all the actors of the Single market. In this context, introducing a unitary patent to cover the entire Community has become a political priority; it falls within the framework of community action designed to adjust and simplify the regulatory environment for enterprises operating in Europe. Such action is also necessary to maintain the competitiveness of innovative enterprises in the Community and is an instrument which should make it possible to provide greater protection for research results, thereby encouraging such research and its commercial exploitation.

Nevertheless, patents protection is now associated with innovation policies, although this assumption is not without controversy – there are increasing signs that patents, as a result of their prominence in policy debates, are also becoming the focus of more critical attention, from a variety of sources.

[5] These graphs are based on the table 1*: "Comparison of Intellectual Property Rights Policy Priorities around Europe"* (Annex of this report).

3.2 The current state of the European harmonization of the legislation related to patent protection

In the context of the Single Market, several characteristics of the European patent protection system have proved problematic. Firstly, it was generally agreed that the structure of the European patent system was too complex. As a consequence, this "legal tool" dedicated to protect innovation has been under-used. Secondly, it was underlined that the non-patentability of software-related inventions distorted the competition between Europe, Japan and the United States in the software industry.

In response to these difficulties and within the framework of the Action Plan for the Single Market and the First Action Plan for Innovation in Europe, the European Commission has outlined a series of concrete measures to improve the procedure for obtaining patent protection in the European Union[6]. These measures included a proposal for a Regulation to establish a unitary EU patent valid throughout the European Union, a proposal for a Directive on patent protection inventions related to computer programmes, an interpretative Communication on freedom of establishment and freedom to provide services for patent agents and a pilot action to support efforts by National Patent Offices to promote innovation.

These series of measures have been used as the basis for the current European harmonization of the legislation related to patent protection.

3.2.1 The Community patent: a response to the existing complexity

Until now, patents have been awarded either on a national basis or through the European Patent Office (EPO) in Munich, which grants so-called European Patents. These are essentially a bundle of national patents. The EPO offers a single application and granting procedure and so saves the applicant the trouble of having to file with a series of National Patent Offices. But each Member State may still require that, in order to be legally valid in their territory, the European patent must be translated into their official languages. Moreover, in the case of disputes, it is national courts that are competent so that, in principle, there can be 15 different legal proceedings, with different procedural rules across the Member States and with the risk of different outcomes. In addition, the costs of translation mean that it is currently significantly more expensive to patent an invention in Europe that it is in the United States or Japan. As a consequence, EU countries are facing an increasing competition from Japan and the United States. Until now, Europe is far behind these countries in terms of the protection of innovation through patents.

This trend is corroborated by the figures mentioned in the European Innovation Scoreboard 2001[7], which indicate that:

- The EU mean of the number of EPO patent applications in high tech classes per million population is 17.9 whereas this number respectively is 64.8% and 53% higher for the United States (29.5) and Japan (27.4);
- The EU mean of the number of USPTO patent applications in high tech classes per million population is 11.1 whereas this number is more than 7 times higher for the United States (84.3) and Japan (80.2).

[6] LAB news, May-June 1999, p.10.
[7] The European Innovation Scoreboard is reproduced in the Annex of this report.

When added to the potential inconvenience of working with a variety of different legal systems in case of disputes, the current system is a significant barrier to research, development and innovation.

Both as a response to the existing complexity and in order to compete with Japan and the United States, the European Commission proposed on 5 July 2000 the creation of a Community Patent to give inventors the option of obtaining a single patent legally valid throughout the European Union. The proposal would significantly lessen the burden on business and encourage innovation by making it cheaper to obtain a patent and by providing a clear legal framework in case of dispute. The Lisbon and Feira European Councils cited the creation of a Community Patent as an essential part of Europe's efforts to harness the results of research to new scientific and technological developments and so contribute to ensuring a competitive, knowledge-based economy in Europe. The Summits recommended that the Community patent should be available at the end of 2001[8].

Under the Commission's new proposal for a Council Regulation, Community Patents would be issued by the European Patent Office, National and European Patents would coexist with the Community patent system, so that inventors would be free to choose which type of patent protection best suited their needs. In terms of concrete advantages, this proposal would provide for a Community Patent system that was both affordable and legally certain.

However, a large part of the EU member States have shown some reluctance facing the introduction of the Regulation relating to the introduction of a Community Patent. At the moment, the correspondents have not provided a lot of information on this topic. Nevertheless, it seems that political issues are still acting as an important brake in some EU member States those that were not satisfied by the proposal made by the European Commission. As an example, France did not agree with the principle according to which a Community patent would be registered and would become valid after its registration in one of the three languages (English, French and German) of the European Patent Office. Due to the fact that now 70% of the European patents are registered in English, 20 % in German and the last 10% in French; France tried to defend its national language and thereby it was strongly opposed to this point of the proposal made by the European Commission.

3.2.2 The patentability of software-related inventions: a major solution to improve the position of Europe facing the competition with Japan and the United States

It is necessary to stress that the legal landscape surrounding patentability of software-related inventions has changed dramatically over the last several years. The digital environment is one of the most promising in terms of innovation and economic developments and the ability for Europe to position itself on this market will impact substantially on its economy and wealth.

In this context, Europe needs to remove the current ambiguity and the legal uncertainty which surrounds the patentability of software-related inventions if it wants to support innovation in this field and not to bar European companies from access to those markets. Some important economic actors think that in the absence of such patentability, Europe risks losing the global innovation race in this high technology sector. Thereby if rapid action is not undertaken, this

[8] "Commission proposes the creation of a Community Patent": www.europa.eu.int/comm/internal_market/en/intprop.

market will be dominated by Europe's main trading partners, in particular Japan and the USA where there are no restrictions on patenting software-related inventions[9].

In this way, in a Communication of February 1999[10], the Commission identified the need for legislative action regarding patent protection for software-related inventions. The current legal situation is unsatisfactory because it lacks clarity and legal certainty. Computer programs "as such" are excluded from patentability. Yet, thousands of patents for technical inventions using a computer program have been granted by national patent offices and by the European Patent Office (EPO). Furthermore, while the national and EPO provisions setting out the conditions for granting such patents are similar, their application in practice varies considerably. This situation has adversely affected investment and innovation in the software sector and has also had a negative impact on the functioning of the Internal Market.

Harmonization of national patent laws on the issue is therefore necessary. This should provide greater transparency for European companies, especially for SMEs. It should also improve the competitive position of the European software industry in relation to its major trading partners. The need to improve the competitive situation is all the more urgent because of the increasing distribution and use of computer programs on a worldwide scale via the Internet.

In this context, on 19 October 2000, the European Commission launched consultations via the Internet on the patentability of computer-implemented inventions. However, the correspondents have been unable to provide much information on this topic – possibly due to political considerations. The single clear tendency that can be stressed is that even though all the EU Member States seem to be very concerned by this issue, they have not succeeded in adopting a common position yet.

3.3 The changing roles and functions of National Patent Offices

The adoption of the Green Paper on the Community Patent and the Patent system in Europe in 1997 has led to continue the consultation of the interested parties. At this time, the consultation showed clearly that the National Patent Offices should be retained and should continue to play an important role. The European Parliament believes that the national offices will continue to play the same role and to enjoy the same powers in relation to the national and European patent as at present; it also considers that these offices should play a fundamental role in disseminating and promoting the system of Community patents, in particular as regards the access by SMEs to this instrument[11].

In this way, most European countries have developed a tendency to simplify the administrative procedures related to acquiring IPRs, especially patents. Some National Patent Offices have made an effort to go beyond their traditional role of administering patent applications, to develop a pro-active awareness raising campaign about the importance of patents.

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[9] *"Patentability of computer-implemented inventions consultations paper by the European Commission"*, UNICE, 15th December 2000.

[10] www.europa.eu.int/comm/internal_market/en/intprop/indprop/99.htm

[11] *"Promoting innovation through patents: The follow-up to the Green Paper on the Community Patent and the Patent System in Europe"*, Communication from the Commission to the Council, the European Parliament and the Economic and Social Committee, COM (1999) 42 Final, 5 February 1999.

3.3.1 Greater proactivity in the roles of National Patent Offices

National Patent offices are changing their roles from being repositories of information to active marketing. New communications and computing technologies are making a revolution possible: patent databases are being made available on-line, and search technologies make identification of relevant information far faster and cheaper.

To achieve this greater exploitation of information, a parallel activity is also occurring: programmes to increase awareness of the availability and nature of the patent databases. The European Patent Office and several National Patent Offices have major programmes to increase knowledge and awareness of the databases, and are adopting a more pro-active role in the patent process. In particular, SMEs are being targeted as under-users of the information[12].

Nevertheless, it is necessary to bear in mind that even though this trend is general, some National Patent Offices go further in their changes of roles and functions than others do. For this reason, we can separate them in two groups according to which step of the process they are. This means that on the one hand, we can distinguish some EU Member States, which are implementing their new National Patent Office and/or its new tasks. And, on the other hand, there are some EU countries, which already have a National Patent Office and are in the process of broadening its roles and functions.

Concerning this first group of countries, some countries give us relevant examples. In this sense, it is interesting to note that Italy has decided to create a specific organization for patents. Indeed, Italy is going to implement a New Agency for Industrial Property (see the White Paper of the Ministry of Industry: P. Magnatti, *Monitoring, updating and disseminating developments in innovation and technology diffusion in the Member States – The TREND CHART: Italy, Covering period: December 2000 – April 2001*). In Portugal as well, following its reorganisation, the National Institute for Industrial Property (INPI) has decided to be more active and flexible, with a more pro-active role (V. Corado Simoes, *Monitoring, updating and disseminating developments in innovation and technology diffusion in the Member States – The TREND CHART: Portugal, Covering period: December 2000 – April 2001*). In this way, since the beginning of 2001, the Portuguese National Institute for Industrial Property is in charge of the implementation of the Industrial Property Use Incentive System (PT_18).

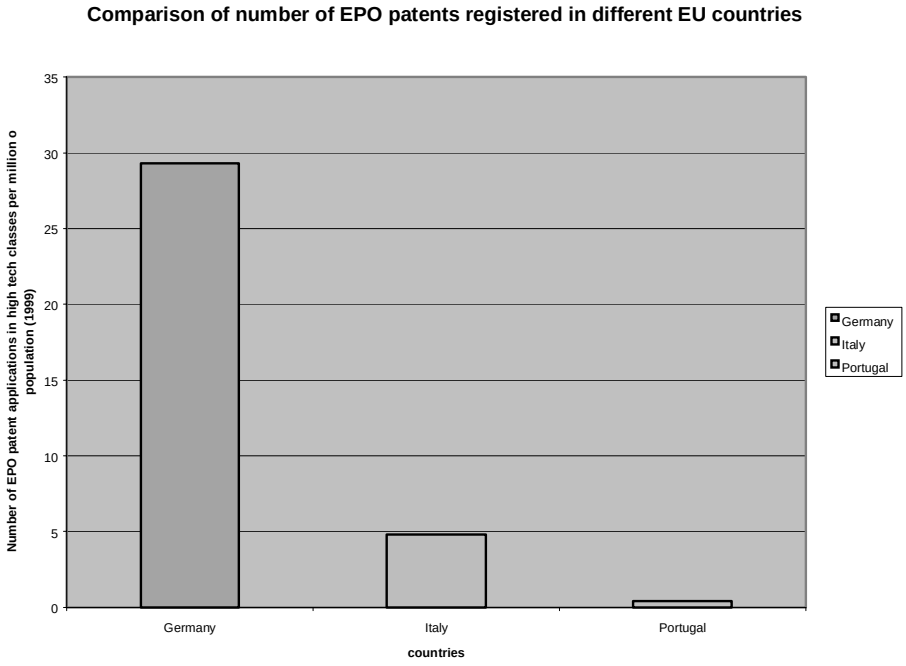
Germany provides an interesting illustration of the second group of EU member States in which the governments have decided to widen their roles and functions. In Germany, there are various promotion programmes to strengthen the use of intellectual property rights by industry, university and public research organisations: individual inventors, small enterprises, and researchers from public science and research may apply for financial aid for patenting activities (DE_06). This programme is administered by the Fraunhofer Patent Office of German Research. It offers state loans for innovative inventors in order to support them receiving a patent for an innovation. The Patent Office also helps to market and sell the new product. In addition, in Germany, there is a huge network of Patent Information Centres (DE_07). They give SMEs access to scientific and technological information essential for innovation management in companies. Therefore, a nation-wide network of patent-information-centres has been set up. The patent-information-centres offer various types of support such as access to original documents and support of the companies' own information

[12] This trend was partially analyzed in the previous IPR Thematic Report covering the period from July 2000 to December 2000 written by Isabelle PIERRINI (INBIS Ltd.).

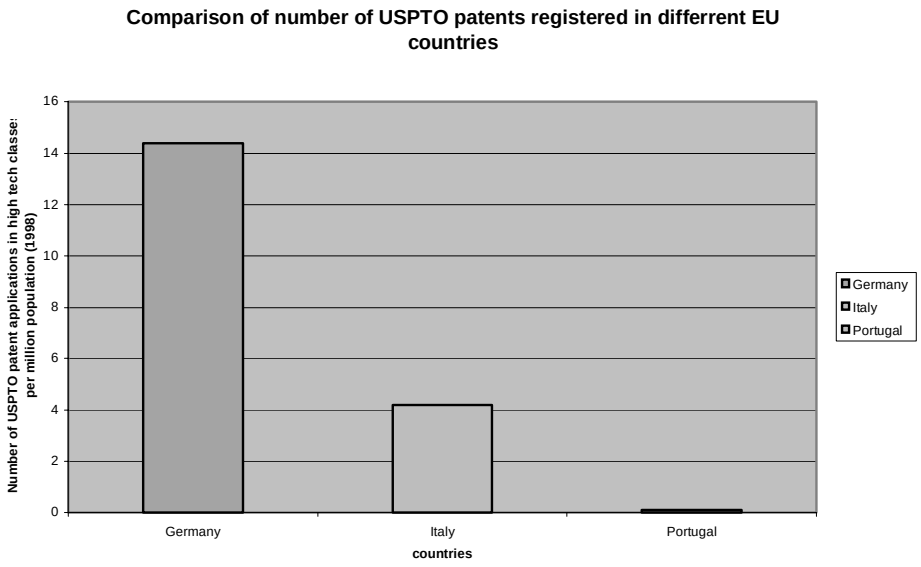
search, copies of patent documents and other papers, free consultation of patent agents, lectures on the services of the patent-information-centres.

Generally speaking, in addition, we can underline that the EU Member States – Germany is an example – which are one step further than the first group of countries (represented by Italy and Portugal) in the process of implementing more proactive roles and functions for their National Patent Office – also have an advance on the first group resulting from their higher numbers of patents registration. Indeed, some figures extracted from the European Innovation Scoreboard 2001[13] allows us to stress out this double trend:

- During the year 1999, respectively for Germany (2nd group), Italy and Portugal (1st group), the EPO registered 29.3; 4.8 and 0.4 millions EPO patent applications in high tech classes per million population.
- And, during the year 1998, the USPTO respectively registered 14.4; 4.2 and 0.1 millions USPTO patent applications in high tech classes per million population (see graphs below).



[13] Previously mentioned: see the correspondent table 4 (of the Annexes).



It is necessary to underline that it is difficult to assess the effectiveness of these changes and shifts in behaviour in the absence of any benchmarking information on the performance of the services and functions of these Patent Offices0.

Nevertheless, it appears that the roles and functions of National Patent Offices continue to change. National Patent Offices of the EU members have a broad vision for creating partnerships with a view to promoting a favourable environment to use industrial property mechanisms, and particularly patents.

3.3.2 The dissemination and the promotion of information on patenting

Currently, it is interesting to notice that the changing roles and functions of National Patent Offices not only consist of more proactive roles on their behalf but are also taking the shape of a new trend. In this way, we are now witnessing this new trend consisting of the dissemination and the promotion of information on patenting by the National Patent Offices through different means and especially the Internet. Indeed, the benefits of using the Internet to manage IP better also seem to have been recognised. Perhaps this trend is the most interesting of all to analyse due to the fact that most of the EU Member States are participating in its emergence.

If most of the EU member States are playing a role in the dissemination and the promotion of information on patenting, it can be underlined that they do not exactly act in the same way or at the same speed. For this reason, we can split them into two groups according to which step of the process they are at. This means that on the one hand, we can distinguish some EU Member States which have already implemented many tools intended for the dissemination and the promotion of information on patenting inside as well as outside of their country. And, on the other hand, some EU countries are still defining or implementing these tools.

First of all, concerning the EU Member States that have already implemented several tools intended for the dissemination and the promotion of information on patenting, it is important to point out that the main tool used is the Internet through independent or the National Patent Offices' web sites. As an example, the United Kingdom Patent Office has developed an

Intellectual Property Portal website (UK_45).[14] This Portal provides access to specific detailed queries, frequently asked questions, and the latest news relating to IP issues. It has been designed to evolve and be responsive to users by allowing them to nominate relevant sites they have found useful – thus contributing to the growth of the knowledge base (Cunningham, P.N. and Boden, M. *Monitoring, updating and disseminating developments in innovation and technology diffusion in the Member States – The TREND CHART: United Kingdom, Covering period: December 2000 – April 2001*, June 2000). In another way, in Denmark, in continuation of the Government's business strategy, a project aiming at improving companies' and researchers' access to patents databases has been launched. The intention is to facilitate single site access to all Danish patents and utility models, and to assemble all information related to patents on a CD-ROM/DVD (DK_10). An Internet database will also be developed. The project will run to the end of 2003 (S. Jensen, *Monitoring, updating and disseminating developments in innovation and technology diffusion in the Member States – The TREND CHART: Denmark, Covering period: December 2000 – April 2001*). Germany gives another example with the INSTI sub-programme AKPat (DE_62). Its aim is to establish an Internet platform, which contains all the competencies in the field of patenting available at higher education institutions in Germany, such as institutes and researches with experience in patenting, study courses on patenting, patent-related training, and the various services provided by intermediaries (G. Licht and C. Rammer, *Monitoring, updating and disseminating developments in innovation and technology diffusion in the Member States – The TREND CHART: Germany, Covering period: December 2000 – April 2001*). On April 24th 2001, a new on-line patent database was introduced by the German Patent and Trademarks Office (DPMA), available under www.depatisnet.de. This Internet-based information service offers free access to about 25 million patent files, including all German patents since 1977, and full text for all German patents since 1987.

Second, some EU Member States are defining or implementing web sites in order to disseminate or to promote patenting. For example, Belgium recently identified a series of proposals in order to improve the protection and the exploitation of IPR such as the creation of an on-line filing of patents (A. Reid, *Monitoring, updating and disseminating developments in innovation and technology diffusion in the Member States – The TREND CHART: Belgium, Covering period: December 2000 – April 2001*). In the same way, Luxembourg implemented a web site, which enables access to the legal and regulatory documents and provides information on the lodging procedures. Soon, its intellectual property department will be able to register the lodging of trademarks and patents (B. De Haeck, *Monitoring, updating and disseminating developments in innovation and technology diffusion in the Member States – The TREND CHART: Luxembourg, Covering period: December 2000 – April 2001*).

However, in comparison with the first group of EU countries (for which the main examples given were Denmark and the United Kingdom) – it can be stressed that even though patents are already protected, for the second group of countries (examples given were Belgium and Luxembourg) the major common objective is to improve the protection of innovation using patents. In other terms, the emphasis is mainly put on the promotion of patenting.

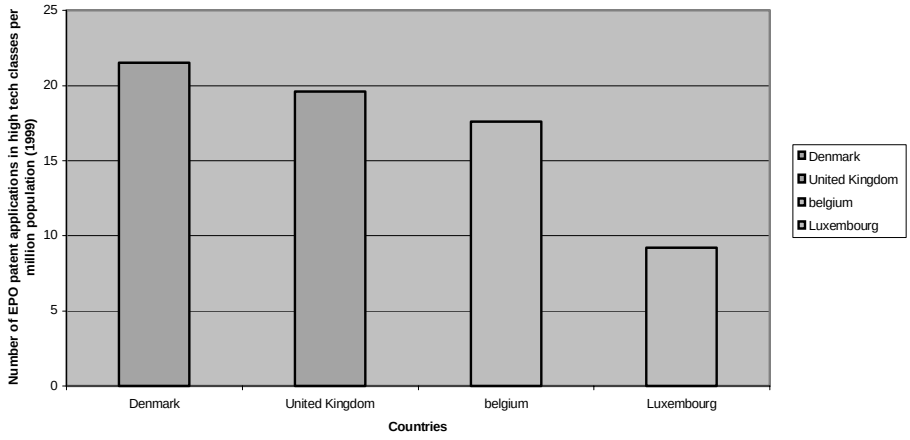
Some figures extracted from the European Innovation Scoreboard 2001[15], corroborate this trend:

[14] As the direct result of a report from the Intellectual Property Group of the Government's Creative Industries Taskforce.

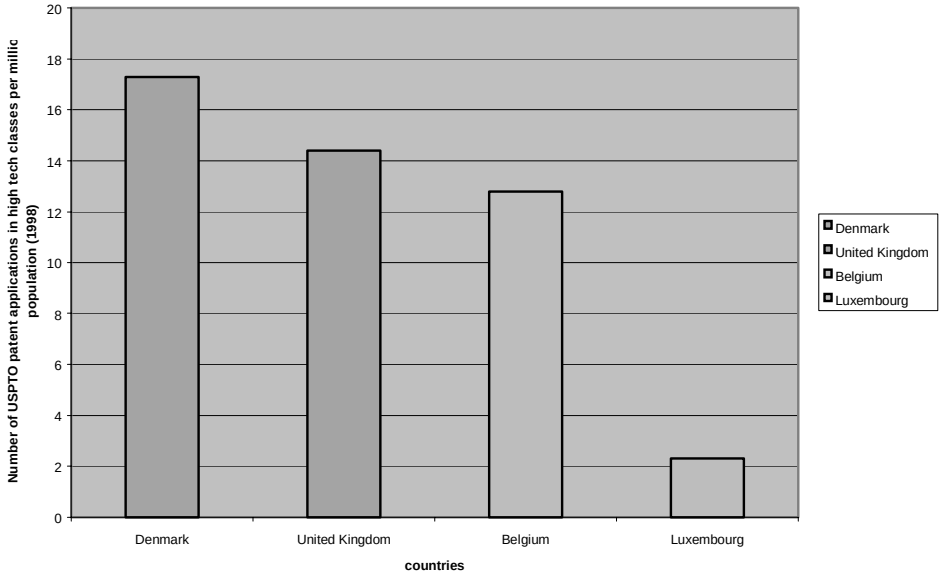
[15] Previously mentioned: see the correspondent table in the previous section.

- During the year 1999 – respectively for Denmark, the United Kingdom (1st group), Belgium and Luxembourg (2nd group) – the EPO registered 21.5 and 18.9 millions; 17.6 and 9.2 millions EPO patent applications in high tech classes per million population.
- And, during the year 1998, the USPTO respectively registered 17.3 and 14.4 million; 12.8; and 2.3 millions USPTO patent applications in high tech classes per million population (see graphs below).

Comparison of number of EPO patents registered in different EU countries



Comparison of number of USPTO patents registered in different EU countries



Generally speaking, it is important to underline how much IPRs, innovation and high-technology are linked, i.e. the growing interaction between the three sectors. It is an interesting example of innovation and high technology at the disposal of IPRs and especially patents' promotion and dissemination through the Internet.

4. Annexes

4.1 Tables

Table 1: Comparison of Intellectual Property Rights Policy Priorities around Europe

Countries	**Points** *July 2000 – December 2000*	**Points** *December 2000 – April 2001*
Austria	2	2
Belgium	1	2
Bulgaria	3	3
Cyprus	2	2
Czech Republic	1	1
Denmark	2	
Estonia	3	3
Finland	2	2
France	2	2
Germany	1	2
Greece	2	1
Hungary	-	-
Iceland	-	
Ireland	-	2
Israel	3	
Italy	2	2
Latvia	1	1
Liechtenstein	-	
Lithuania	1	3
Luxembourg	2	3
The Netherlands	-	2
Norway	1	3
Poland	3	3
Portugal	2	2
Romania	3	3
Slovakia	1	1
Slovenia	3	4
Spain	-	2
Sweden	2	2
The United Kingdom	3	3

Comparison of Intellectual Property Rights Policy Priorities around Europe

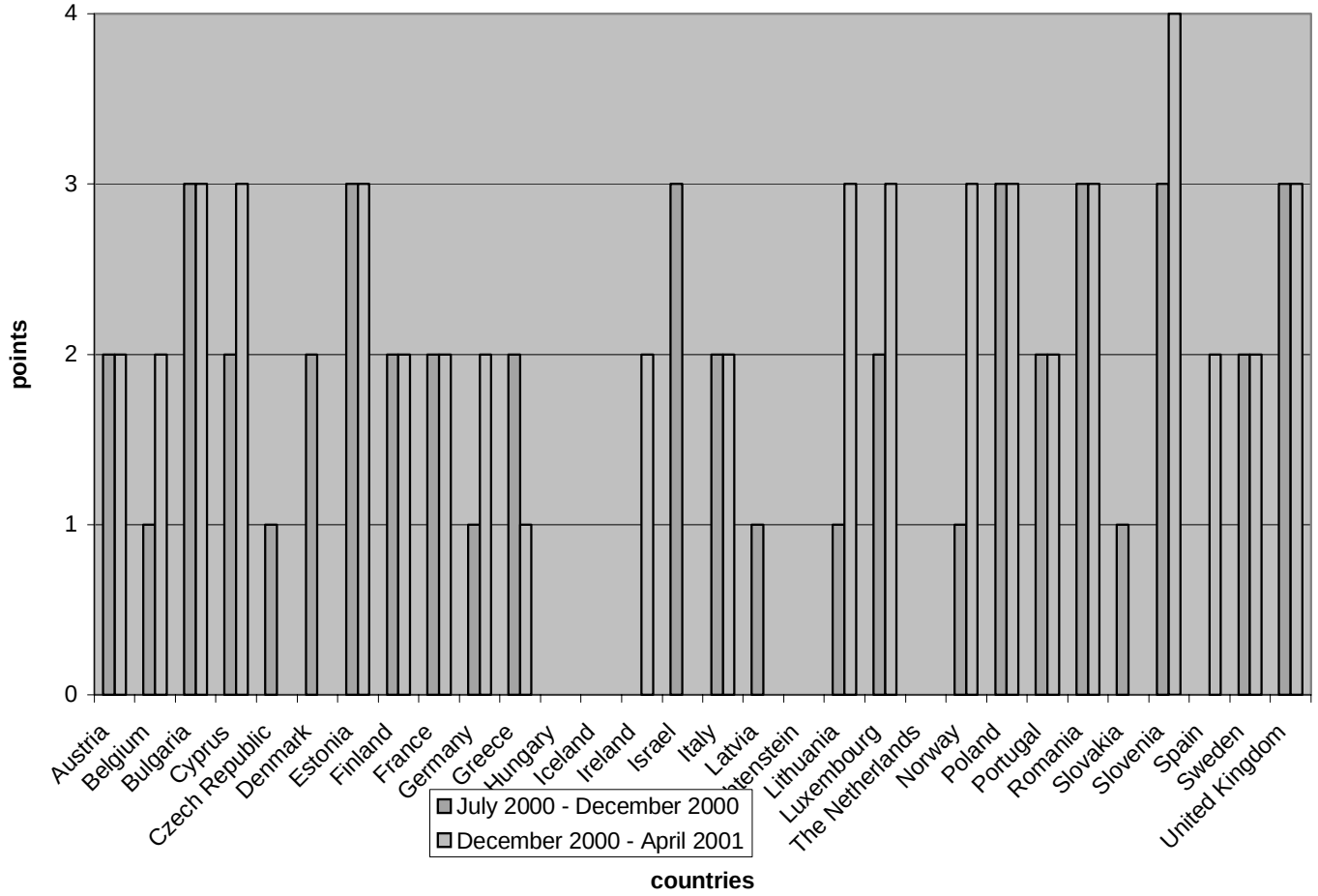
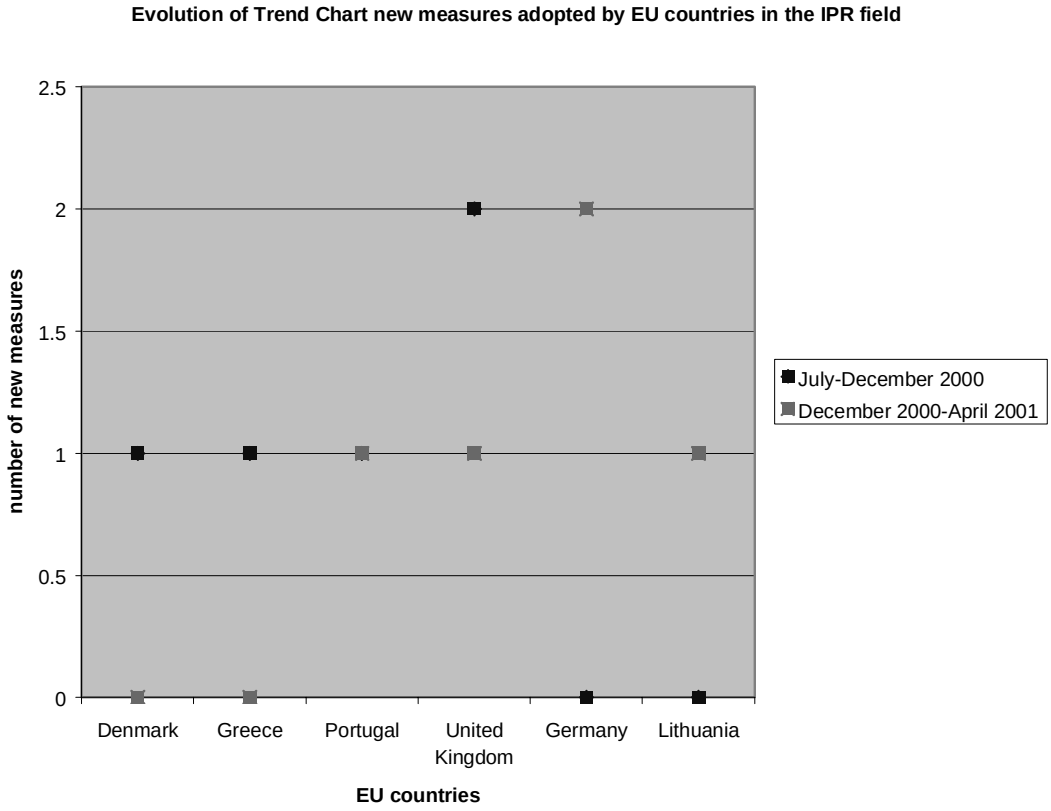


Table 2: List of TREND CHART new measures concerning Intellectual Property Rights

Countries	New Code	Title	Started date
Austria	-	-	-
Belgium	-	-	-
Bulgaria	-	-	-
Cyprus	-	-	-
Czech Republic	-	-	-
Denmark			
Estonia	-	-	-
Finland	-	-	-
France	-	-	-
Germany	DE_62	INSTI AKPat	2001
	DE_63	INSTI Innovation Action	2001
Greece	-	-	-
Hungary	-	-	-
Iceland			
Ireland	-	-	-
Israel			
Italy	-	-	-
Latvia	-	-	-
Liechtenstein			
Lithuania	LT_09	Law on Protection of Intellectual Property in import and exports of goods	2000
Luxembourg	-	-	-
The Netherlands	-	-	-
Norway	-	-	-
Poland	-	-	-
Portugal	PT_18	Industrial Property Use Incentive System (SIUPI)	2000
Romania	-	-	-
Slovakia	-	-	-
Slovenia	-	-	-
Spain	-	-	-
Sweden	-	-	-
The United Kingdom	UK_52	Fund for commercialisation of IP in PSREs	2001



This graph illustrates the evolution of Trend Chart new measures adopted by EU countries in the IPR field for:

- The period from July to December 2000,
- And the period from December to April 2001.
- It can be noticed that:
- Only a small number of countries adopted new measures during this one-year period (6 countries out of 30),
- The EU countries that adopted new measures remain more or less the same from the 1st to the 2nd period,
- And finally, the number of new measures is the same for the two periods (5 new measures[16]).

[16] The previous table (table 2: List of Trend Chart new measures concerning Intellectual Property Rights) gives an overview on the new measures and the next table (List of templates related to IPRs) contains further information on these new measures.

Table 3: List of Datasheets related to IPRs

Country	Instruments	Date	Description (from overview of template/datasheet)	Modality of operation	Targets
Austria	AT_16 Technologiemarketing Austria (TecMa)	1998	TecMa was established to promote commercial applications for intellectual property developed by Austrian scientists. TecMa locates industrial partners, provides financial assistance during the patenting phase and offers consulting services with regard to the exploration of R&D results.		Scientists at universities and research institutions; private inventors
Austria	AT_19 FWF Impulse Projects (1997-2000)	1997	Impulse projects are designed to improve the transfer of knowledge between Austrian universities and industry as well as to stimulate R&D in the business sector. The Federal Ministry of Science and Transport (BMWV) bears the cost of employing a Post-Doc scientist for at least a year. An additional goal is to help young scientists to get in touch with corporate R&D.		Young scientists SMEs.
Belgium	BE_5 PIIE – Office for Industrial Property	N/K	PIIE delivers various services around the information on patents, trademarks and models. PIIE has the following mission: Favour industrial property protection Promote the interest of enterprises active in Belgium in the field of IPR Administer demands for national, EU and international patents Deliver Belgian patents Diffuse the information related to IPR and notably the technical information contained in patents Represent Belgium' position in international bodies dealing with IPR. In the context of innovation support, and beyond the traditional role of administering IPR, important roles of this service are, first, to open access to the sources of technical and strategic information contained in patents, to the large public of economic actors, and second, to conduct awareness-raising activities in the field of IPR.		Large Companies/ Large Industrial Companies Research Institutes SMEs/Industrial SMEs

Country	Instruments	Date	Description (from overview of template/datasheet)	Modality of operation	Targets
Belgium	BE_10 Support for intangible investment	N/K	The economic expansion laws, modified by regional decrees, organise the possibility for regional governments to grant subsidies to enterprises that carry out investments in the region. Besides material investments for the running of the actual activity of the company, of particular interest to innovating enterprises is the possibility to obtain subsidies for immaterial investments in relation to future activities of the companies. The types of immaterial investment covered are: -Market studies, studies for the commercialisation of new products -R&D for new products, processes, and the development of prototypes -Acquisition of patents, trademarks, property rights -Investment in quality management Investment for training and education. The rules for the subsidies differ according to the sector of activity, the type of financing, and the nature of the enterprise (starter, existing enterprise, enterprise created by a young entrepreneur). Eligible enterprises should have maximum 40 employees (for commercial enterprises), 50 employees (for other enterprises), and 70 employees in some specific cases. The amount of the subsidy is expressed as a percentage of the investment programme costs. An increase in the subsidy is granted if the investment is considered has having important economic impacts on the region. The rate of support varies between 9% (basic rate) and 24% (rate for the starters) of the investment programme. There are some sectoral restrictions for the support, and the intervention can only be granted for investments of a certain size.		???
Belgium	BE_18 (Vl) University Interfaces (1998-2001)	1998	The Flemish government supports the interface activities of the universities, for the following activities: -Stimulation of co-operation between university and industry - Promotion of the creation of spin-off companies - Valorisation of research results in industry - Dealing with IPR in universities. The Flemish government devotes a yearly budget of 50 Mio BF for this support.		Universities
Belgium	BE_45 IPR to universities	1998	Since 1998, Walloon Universities and HEI have received the property or R&D programmes financed by the Walloon government. In addition, since 1999, the Walloon government reimburses the costs of patenting for universities, for research projects financed by the Region.		Research Institutes Universities

Country	Instruments	Date	Description (from overview of template/datasheet)	Modality of operation	Targets
Belgium	BE_47 University Interfaces	1998	Since 1998, the Walloon government supports the reinforcement of the university-industry interfaces with specialised personnel in charge of fostering the valorisation of research results in industry. This measure has been taken in order to stimulate the exploitation of research results by universities.		Large Companies/ Large Industrial Companies SMEs/Industrial SMEs Universities
Belgium	BE_50 Support for immaterial investment	1971	The economic expansion laws, modified by regional decrees, allow for the possibility for the regional government to grant subsidies to enterprises that carry out investments. Besides investments in buildings and equipment, of particular interest to innovating enterprises is the possibility to obtain subsidies for immaterial investments (acquisition of patents and licences).		Individuals Large Companies/ Large Industrial Companies SMEs/Industrial SMEs
Cyprus	CY_4 Law 16(I)/98, No. 3234 Patent Law and amendment under No. 21(1) of 1999	1998	The Law 16(I)/98 has been in force since 1/4/98 and the amendment under No. 21(1) of 1999 has been in force since 19/3/99. The objective of this law is the protection of intellectual property. This law makes a harmonisation with the European Union's legislation.		All the Research Community
Denmark	DK_10 IPscore®	2000	IPscore is a management tool that can be used by companies to manage and evaluate their patents and trademarks.		Large Companies/ Large Industrial Companies Public Authorities/ Organisations SMEs/Industrial SMEs
Finland	FI_10 Technology transfer from universities and research organisations (1999-2001)	1999	Enhance transfer of technologies from universities and research institutions to the market place; build best practices to all Finnish universities and to the university-industry interface; concentrates on identifying, evaluation, commercialisation and licensing of novel innovations.		Public Authorities/ Organisations Universities
France	FR_32 INPI's Innovation Awards	1991	Every two years, the National Institute for Intellectual Property(INPI) organises the INPI's innovation awards to promote SMEs and research institutes which have successfully used patents for business or innovation development		Research Institutes SMEs/ Industrial SMEs

Country	Instruments	Date	Description (from overview of template/datasheet)	Modality of operation	Targets
Germany	DE_6 Erfinderförderung at the Patentstelle Deutsche Forschung/Inventors aid at the Patent Office German Research	N/K	The Fraunhofer Patent Office of German Research offers state loans for innovative inventors in order to support them receiving a patent for an invention. The main aim of this measure is to support the commercialisation of patents with a high market potential. The Patent Office also helps to market and sell the new product. Prerequisites are a technical realising ability and a high degree of economic value. Support may also by provided for prototypes and models.		Individuals Researchers SMEs/ Industrial SMEs
Germany	DE_7 Patentinformationszentren / Patent Information Centres	N/K	The program allows SMEs to have access to scientific and technological information that are essential for innovation management in companies. Therefore has been set up a nation-wide network of patent-information-centres. The patent-information-centres offer various types of support/subsidies: · Access to original documents and support of the companies‘ own information search · Copies of patent documents and other papers · Free consultation of patent agents · Lectures on the services of the patent-information-centres (at cost) · Some patent-information-centres are entitled to examine patent applications		N/K
Germany	DE_8 INSTI KMU Patentaktion / INSTI SME patent initiative	1996	The measure has four major goals: - Reduce barriers in SME with respect to the use of patents as information source and an instrument to protect property rights, and to improve the innovation capability of SME - Increase the number of qualified patent applications by SME - Improve the use of patent information by SME - Improve the conditions at SME for the commercialisation of patents		SMEs/ Industrial SMEs
Germany	DE_24	1994 to 2002	The programme aims to stimulate innovation in Germany by contributing to an innovation-friendly environment as a base for increased innovation activities. The nation-wide network consists of mainly private INSTI-partners from the field of innovation and patent consulting.		Individuals Research Institutes Researchers SMEs/Industrial SMEs, Universities

Country	Instruments	Date	Description (from overview of template/datasheet)	Modality of operation	Targets
Germany	DE_49	1996	Increased integration of patent knowledge in engineering and natural sciences university education (INPAT) is a special support measure which aims to improve student's knowledge on patent system issues and the use of patent databases. It gives financial support to higher education institutions for introducing compulsory courses on patent legislation as well as for training junior academic staff as "information agents" and in using patent databases. The measure ended at December 31, 2000.		Other Universities
Germany	**DE_62 AKPat**[17]	2001	The aim of the INSTI sub-programme AKPat is to establish an internet platform which contains all the competences in the field of patenting available at higher education institutions in Germany, such as institutes and researches with experience in patenting, study courses on patenting, patent-related training, and the various services provided by intermediaries (consulting, commercialisation, information, support). The platform should provide researchers an ease access to the patenting-relevant know-how and thus increase patent-based activities at HEIs.		Universities
Germany	**DE_63 INSTI Innovation Action**	2001	The INSTI Innovation Action aims at enabling enterprises and start-ups to establish internal innovation processes on a permanent base, i.e. as a continuous part of their entrepreneurial and business activities. Higher education institutions and public research organisations will be supported in planning and implementing a patent and commercialisation management. Enterprises and science institutions may receive direct financial support for consuming innovation and patent related consulting services offered by members of the INSTI Innovation e.V. (association) which was established at the end of 2000.		Research Institutes SMEs/ Industrial SMEs Universities
Greece	GR_34 Law 2697 "Certify of Locarno's settlement for the International classification of the Industrial Design and Models"- Athens, March 31, 1999.	1999	By this Law it is adapted the international classification for the industrial plans and patterns. The international classification includes: - A catalogue of the categories and sub-categories. - An alphabetic catalogue of the products in which plans and patterns are embodied - Clarifications Countries which adapt the above law compose a Specific Union.		Large Companies/Large Industrial Companies SMEs/Industrial SMEs

[17] **The new measures concerning the period from December 2000 to April 2001 are in bold.**

Country	Instruments	Date	Description (from overview of template/datasheet)	Modality of operation	Targets
Greece	GR_1 Investment Law - Promotion	1990	The main goals of the new general development law are the attraction of investment activities in industry and tourism, the efficient networking of new incentives for investment in order to create employment, the promotion of a healthy environment for competition and to support convergence of the Greek economy with that of the other EU States. In particular for the case of IPR, the law will support expenses for the creation of a prototype of an invention that has been registered in the Greek patent office, expenses for the international registration of the invention, expenses for the renewal of the international registration for five years (if industrial investment takes place which is more that ten times the level of expenses for the registration).		Large Companies/Large Industrial Companies SMEs/Industrial SMEs
Greece	GR_42 Awards and Financial Support for Inventors	2000	Awards will be awarded to Greek citizens' outstanding inventions, in order to reward inventors for their contribution to technological development and to diffuse inventions to the larger public. Financial support will be given to inventors, to cover registration costs for industrial property rights or to cover costs for participation to international conferences or exhibitions.		Researchers
Iceland	IS_2 Committee on Intellectual Property Rights	1998	A temporary committee on intellectual property rights, and more particularly patent protection activity of the Icelandic technological society has been set up. The main goals of the committee are twofold:? Investigate what the reasons are for very poor results by the nation with regards to innovation measured by number of patents issued per capita.? Put forward suggestions for how the patent activity/awareness of individuals, industry and educational and research institutions. The background for this work is very poor results of Icelandic citizens, industry and institutions with regard to number of patents issued per capita. The average number of issued patents have been little less than two per year total per 280,000 inhabitants. This appears to be 10 – 20 times less than how our comparing nations score. As OECD and many others use this measurement (number of patents issued to national inhabitants) at least as one measurement of the R&D activity, the Ministry of Industry and Trade is concerned about this. The first preliminary report of the committee is expected to be released in October/November 1998.		Export industry, especially the high-tech sector. R&D institutions and higher educational institutions

Country	Instruments	Date	Description (from overview of template/datasheet)	Modality of operation	Targets
Ireland	IE_6 Protection of Copyright - Copyright Bill	1999	To regularise the protection and licensing of IPRs in software and other copyright material on the Internet and other media.		Internet-based companies and individual authors
Italy	IT_28 Decree 3 December 1999 concerning the definition of both the conditions of admission and the general rules for the administration of the Guarantee Fund for SMEs ex art. 2, comma 100, letter a), of Law 23 December 1996, no. 662 (purchasing of patents, licences and technical know how)	1999	The Decree specifies both the conditions of admission and the general rules envisaged by Article 13, Comma 2 of the Decree issued by the Ministry of Industry together with the Ministry of Treasury no. 248 31 May 1999 for the administration of the Guarantee Fund for SMEs ex art. 2, comma 100, letter a), of Law 23 December 1996, no. 662. The Fund can cover the expenditure linked to the technology transfer activities through the purchasing of patents, licences and technical know how.		SMEs/Industrial SMEs
Lithuania	**LT_09 Law on Protection of Intellectual Property in import and exports of goods**	2000	-		-
Luxembourg	LU_3 Technology Watch Centre	1994	The CVT started its activities in 1994 as a pilot project under the initiative of the Intellectual Property Division of the Ministry of Economy and in close collaboration with the European Patent Office. In 1996, the public research centre Henri-Tudor established the CVT as one of its departments. The CVT's main objectives are increasing awareness of national and regional companies to the growing importance of industrial information and assistance in setting up their information management process. The CVT assist national and regional companies in searching, gathering, treating, analysing and managing scientific, technical and technico-economical information.		Large Companies /Large Industrial Companies SMEs/ Industrial SMEs
Norway	NO_17 Assistance – Applications for Patents in Norway and Abroad – In Development/Prototype	N/K	The objective of the measure is to facilitate and encourage independent inventors and SMEs in applying for patent in Norway and/or abroad (as well as assistance in development/prototype).		Individuals Large Companies/Large Industrial Companies SMEs/Industrial SMEs

Country	Instruments	Date	Description (from overview of template/datasheet)	Modality of operation	Targets
Portugal	PT_16 Company Modernisation Incentive System (SIME)	2000	Promotion of company development, by supporting modern and competitive company strategies, and stimulating strategic competitiveness factors, namely in the areas of internationalisation, innovation, quality, environment, energy and upgrading of human resources skills.		Large Companies/ Large Industrial Companies SMEs/Industrial SMEs
Portugal	**PT_18 Industrial Property Use Incentive System (SIUPI)**	2000	Promoting invention, creativity and innovative activities by companies as well as by entrepreneurs, independent inventors and designers, and research institutions.		Individuals Large Companies/ Large Industrial Companies Other Research Institutes
Slovenia	SL_1 Young Researchers Program	1985	Rejuvenate the human capital in S&T, foster innovation and research		Graduates
Spain	ES_1 CDTI Financial Support	1978	The 'Centro para el Desarrollo Tecnológico Industrial' (CDTI) (Centre for the Development of Industrial Technology) is a Public Business Institution dependent on the Spanish Ministry of Industry and Energy that promotes innovation and technological development by Spanish companies. Since 1978 CDTI has as its purpose to encourage industry competition in Spain by developing the following activities: Technical-economical assessing and funding of R&D projects developed by companies; Providing support for Spanish involvement in international R&D programmes; Promoting international technology transfer and providing support to technology innovation. Due to its legal status, CDTI is ruled by private law in its relationships with third parties. This puts CDTI in a position to offer fast activity and flexibility in its support services for the development of business R&D projects, exploiting technologies developed by the company at the international level, and offering technological-industrial supplies to national and international scientific and technological organisations. Consequently, CDTI grants companies its own financial aid and eases access to third parties for research and development projects both at the national and international level. CDTI also gives support to companies for exploiting, at an international level, technologies developed by them. For this, CDTI Technology Promotion Projects, its outside network of offices and representatives, and the Iberoeka		Large Companies/Large Industrial Companies SMEs/Industrial SMEs

Country	Instruments	Date	Description (from overview of template/datasheet)	Modality of operation	Targets
			projects. Finally, CDTI manages and supports Spanish companies' fulfilment of industrial contracts with a high technological content generated by different national and European organisations such as the European Space Agency (ESA), European Laboratory for Particle Physics (CERN), European Synchrotron (ESRF), Hispasat and Eumetsat. CDTI assesses and finances R&D projects developed by companies – regardless of their activity field and size. The budget for projects financed by CDTI usually ranges from Ptas 40 to 250 million. This amount includes fixed assets (laboratory, pilot plant, etc.) staff working on the project, equipment, and other costs involved. Any Company having the technical capability to develop a Technology Research Project, Technology Development Project or Technology Innovation Project and the financing capability to cover 30% of the total budget for that project with its own resources, can obtain financial aid granted by CDTI as credits. Financing offered by CDTI consists of interest-free credits, which cover up to 60% of the total budget for the project. CDTI only supports projects that are technically and economically feasible, but it does not require real guarantees for granting these credits. This financing comes from the Centre's own resources, resources of the R&D National Fund and the European Regional Development Fund (ERDF). From 1978 to 1995 CDTI financed projects for a total amount of 450,000 MPtas, with a CDTI contribution of 170,000 MPtas. 57,000 MPtas had been paid back by the end of 1995. The CDTI contribution for the technology development of companies is 9,495 MPtas for the period 1994-1999.		
Spain	ES_19 INFO XXI: The Information Society for all (2000)	2000	INFO XXI is an strategic initiative of the Spanish Government aimed at implementing Information Society in Spain, in order that its citizens and enterprises can take part in its development and take advantage of its potential to improve social cohesion, quality of life and work and economic growth.		Individuals Public Authorities/ Organisations Researchers Students in upper secondary schools

Country	Instruments	Date	Description (from overview of template/datasheet)	Modality of operation	Targets
UK	UK_12 In-house presentations to larger companies to raise awareness amongst businesses		Part of UK Patent Office's marketing strategy Visits delivered by Patent Office marketing executives to companies identified by in-house marketing database and support team. Addresses lack of knowledge of IP in UK companies; in particular loss of competitiveness of UK companies in international markets because of ineffective use of IPR and lack of coherent IP policy.	Awareness and training	larger companies
UK	UK_13 Intermediaries' Workshops		Part of UK Patent Office's marketing strategy Ultimately a development of 1/2-day and one-day training courses for industrial liaison officers in universities, company staff and Business Link personnel and of the public Roadshows which were aimed directly at decision makers in SMEs. The present approach involves training business advisers who act as multipliers in giving advice to companies.	Awareness and training	general business advisers, in particular Business Link staff, solicitors, accountants and bankers but not professional IP consultants such as patent and trade mark agents.
UK	UK_14 Project with Bournemouth University		Part of UK Patent Office's marketing strategy. Distance learning/awareness package for students	Awareness and training	UK undergraduates across many disciplines : science, technology, engineering, law, business, etc.
UK	UK_15 Projects with Association for University Research and Industrial Links (AURIL)		Part of UK Patent Office's marketing strategy. Carries forward previous work with industrial liaison officers (ILOs) in universities (lectures, training courses) at a more strategic level. Three levels: creation of materials to educate/assist ILOs; creation of section for use by AURIL members on Patent Office Website; assessment of IP policies in UK universities leading to the establishment of guidelines	Awareness and training	Industrial liaison officers and others involved in the commercial exploitation of IPR in UK universities
UK	UK_16 Work with PR Company		Part of the UK Patent Office's marketing strategy as set out in its Corporate Plan. The use of a specialised PR company to develop media material and to ensure its effective dissemination	Improving the legal and regulatory environment in the UK.	Large Companies & SMEs

Country	Instruments	Date	Description (from overview of template/datasheet)	Modality of operation	Targets
UK	UK_17 Central Enquiry Unit (CEU), Internet Website, Publicity Literature		Part of UK Patent Office's marketing strategy. Creation of a centralised service in the Patent Office to give general advice and information on all aspects of IP. Literature was originally unattractive but has been developed to be readable, informative and up to date	Awareness and training	Any enquirer but particularly lone inventors, companies and (for specialised information) IP professionals
UK	UK_25 Abolition of patent fees		Three main measures: Abolition of the patent application fee; Reduction of the costs of Patent Office services overall by 20 per cent; and Posting the patent application form on the Internet	Cost reduction	SMEs
UK	UK_33 Reform of the taxation of intellectual property		A Technical Note by the Inland Revenue. To consider the ways in which current tax rules relating to intellectual property maybe reformed, to make them simpler, to embrace all forms of IP and to simplify the arrangements for the taxation of royalty payments	Change in Taxation rules	
UK	UK_37 The Biotechnology Exploitation Platform Challenge (BEP Challenge)		Aims to anchor the benefits of publicly funded bioscience research in the UK. Encourages syndicates of universities, academic institutions and intermediaries with complementary bioscience research to work together and build portfolios of intellectual property. In particular, it aims at securing the necessary skills to: audit existing intellectual property in bioscience departments in academic institutions and identify commercial opportunities by matching portfolios of intellectual property with potential industrial markets	Pump priming for organisations providing information and advice in biotech exploitation.	Biotech sector
UK	UK_45 V Intellectual Property (IP) Portal	2000	The IP Portal is a gateway site on IP. Its intention is to generate an interest and awareness of IP. It provides users with basic facts and more detailed information. It is suitable for both novices and professionals alike. There are frequently asked questions, latest IP-related News and over 1000 links to Government and IP-related web sites. The Portal has been designed to evolve and be responsive to users by allowing them to nominate relevant sites they have found useful – thus contributing to the growth of the knowledge base.		Individuals Large Companies/Large Industrial Companies Managers Other Public Authorities/Organisations Research Institutes Researchers SMEs/Industrial SMEs Universities

Country	Instruments	Date	Description (from overview of template/datasheet)	Modality of operation	Targets
UK	UK_48 Database of Technology Offers	2001	The project, due to be set up in Autumn 2000, but not yet realised, is intended to provide a clearing-house offering technology available for licensing across the university sector.		Graduates Large Companies/ Large Industrial Companies Managers Public Authorities/ Organisations Research Institutes Researchers SMEs/ Industrial SMEs Universities
UK	**UK_52 Fund for commercialisation of IP in PSREs**	2001	-	-	-
Slovenia	SL_1 Young Researchers Program		rejuvenate the human capital in S&T, foster innovation and research		Graduates

Table 4: Extracts from the European Innovation Scoreboard 2001[18] (indicators, sources and years)

2.	**Knowledge creation**		
2.3	Number of EPO patent applications in high tech classes per million population	EUROSTAT, EPO	1999
2.3a	Number of USPTO patent applications in high tech classes per million population	EUROSTAT, USPTO	1998

No	Indicator	Yr[19]	So.[20]	EU	S	FIN	UK	DK	NL	D	IRL	F	A	B	L	E	I	GR	P	US	JP
2.3	EPO h-tech pats /pop	99	1,3	17.9	**22.9**	**80.4**	18.9	**21.5**	**35.8**	**29.3**	*13.3*	20.2	*9.8*	17.6	*9.2*	*2.5*	*4.8*	*0.5*	*0.4*	**29.5**	**27.4**
2.3b	USPTO h-tech pat/pop	98	1,4	11.1	**29.5**	**35.9**	**14.4**	**17.3**	**19.6**	**14.4**	*3.8*	13.3	*5.6*	12.8	*2.3*	*1.0*	*4.2*	*0.5*	*0.1*	**84.3**	**80.2**

EU overall performance: status and trends[21]

No	Indicator	EU Mean	EU leaders			US	JA	EU overall trend[22]	Within EU variation[23]	Trend[24]
2.3	High-tech EPO patents/population	17.9	FIN:80.4	NL:35.8	D:29.3	29.5	27.4	Improving	High (104.1)	Decreasing convergence (53%)
2.3a	High-tech USPTO patents/pop.	11.1	FIN:35.9	S:29.5	NL:19.6	84.3	80.2	Improving	High (92.7)	Decreasing convergence (156%)

Notes: Survey Indicators (except for the summary index) that are more than 20% above or below the EU average are highlighted in **bold** or *italics* respectively. For indicator 4.6, countries are marked in bold if their share increased.

[18] Information extracted from the Preliminary Draft document used as an input for the "European Innovation Scoreboard 2001" – April 2001 – prepared under the "European Trend Chart on Innovation".
[19] Most recent data available.
[20] Data sources: 1= Eurostat, 2 = OECD *Education at a Glance*, 3 = EPO, 4 = USPTO, 5 = EVCA, 6 = FIBV, 7 = Eurobarometer, 8 = US National Telecoms and Information Administration, 9 = EITO, 10 = Community Innovation
[21] Information extracted from the Preliminary Draft document used as an input for the "European Innovation Scoreboard 2001" – April 2001 – prepared under the "European Trend Chart on Innovation".
[22] Based on the change in the EU mean over time.
[23] Based on the Coefficient of Variation for the most recent year (standard deviation(SD) /mean*100).
[24] Based on the change in the SD over time. The percentages refer to the change in the SD: an increase means that the SD is increasing, which decreases convergence.

4.2 Extracts from Country Reports April 2001

AUSTRIA

The protection of intellectual property rights attracted only little attention by Austria's policy-makers in the past. IPRs, as a general rule, belong to the employer (i.e. the Republic of Austria) , but universities showed in general only little interest in exploiting their research results, exceptions may be institutes with joint-research activities. The only measure with regard to IPR is the TecMa initiative (AT_16) carried out by the Innovation Agency. Its goal is to support scientists applying for a patent and promote the exploitation of their inventions.
The present situation concerning IPRs is seen as not being satisfactory as it does not create funds for financing universities. IPRs of university research belong to the Republic of Austria which is usually not interested in exploiting them. Consequently the right to exploit IPRs falls back to the researcher and does not contribute to finance universities.

BELGIUM

The **Federal** Government is responsible for the management of the Belgian patent system. An effort is made by the Federal Office for intellectual property rights, to go beyond its traditional role of administering patent applications, to develop a pro-active awareness-raising campaign about the importance of patents. A recent policy note by the Federal Minister for Economy reiterates the intention of the government to improve the protection and exploitation of IPR in Belgium. A series of proposals are identified including: the reduction of the legal insecurity by the application of a "grace period" allowing the author of a publication to request a patent; changes to the law of 1984 concerning the patents on inventions by employees allowing a legal entity to request a patent on behalf of an employee (with provisions for the remuneration of the employee); measures to reduce the cost of patenting (research tax reduction, etc.); on-line filing of patents; provision of additional personnel for Federal funded research centres and university interfaces to carry out prospective analysis in high technology sectors;

At the regional level, the various governments have taken steps to encourage researchers and companies to apply for patents and protect their research results. The **Flemish** government funds interface structures universities with the aim of ensuring, amongst other activities the commercialisation of research results and IPR protection in universities.

The **Walloon** government has also taken a series of steps to increase awareness of and encourage the protection of IPR, notably patents. The measures have taken in order to stimulate the exploitation of research results by universities include the granting of IPR rights to Walloon Universities and institutes of higher education for the results of R&D programmes financed by the Walloon government; the reimbursement of patent application costs to universities resulting from research projects financed by the region; the reinforcement of university-industry interfaces with specialised personnel able to advise in matter of IPR and patents.

In addition, the acquisition of patents or technology licences by firms is support by several tax or grants/loan schemes as part of an R&D project. Technology watch and patent search services are provided by a number of organisations and also by the technological attachés of the collective research centres.

BULGARIA

In January 2001, the Parliament ratified two new treaties of the World Intellectual Property Organisation (WIPO), the treaty on copyright signed in Geneva on December 20, 1996 and the Treaty on Sound recording and artists' performance signed on December 20, 1996. In March 2001, the Protocol of the Madrid Treaty on registration of trademarks was ratified. As from January 2001, the practical application of the Government's Ordinance on measures to protect intellectual property rights at border crossings entered into force. The Ordinance introduced tight controls of imports infringing intellectual property rights. With the latest governmental acts, the Bulgarian intellectual and industrial property legislation is considered as fully harmonised with EU regulations and with the WTO Agreement on Trade related Aspects of Intellectual Property Rights (TRIPs).

State authorities have increased the control of software in companies and the first infringement cases have been sent to the Courts. Among the companies using pirate software are also foreign subsidiaries operating in Bulgaria. Despite the measures undertaken, 80% of all software is still pirate software according to the regional office of Business Software Alliance (BSA).

CYPRUS

The Cypriot patent law was adopted in April 1998 (Law Nr. 16 (I) 98), which is of specific interest for the RTDI environment [CY_4]. A recent amendment under No. 21(1) of 1999 has entered in force since 19.3.1999. As Cyprus has recently joined the European Patent Convention and the law is compatible with most European Patent norms, no harmonisation problems are expected in this area. Up to 1997 patents in Cypriot origin have been mostly registered under the UK patent system.

THE CZECH REPUBLIC

Progress has been made in the field of protection of intellectual property rights. A new Copyright Act has been adopted. Also the protection of rights of performing artists, producers of phonograms and broadcasters have been strengthened.

A further step in the field of industrial property rights was taken with the adoption of the new Act on industrial property in December 1999. The Patent Law and several other laws on Trademarks, Utility Models and Topographies of Semiconductor Products were amended.

DENMARK

No new specific measures have been introduced under this heading within the period under review.

In January 2000 a new law on patents came into action making it possible for universities, research institutions and public hospitals to take over the rights to inventions of their employees and negotiate terms of rights with companies. At the same time the institutions are obliged to further the commercial use of inventions. An appropriation of DKK 58 million (approx. €7.8 million) covering the period 2000-2003 has been given to support implementation of the Act. The establishment of new infrastructures at universities in support of the Act is believed to have considerable strategic significance.

ESTONIA

Estonian laws are already well advanced to enable protection of intellectual and industrial property rights. The main problem is enforcement, the administrative capacity to fight piracy and counterfeiting of goods. From the end of 2000, the Government has in concerted effort with police forces considerably increased the efforts to fight counterfeiters.

Police raids have increased considerably in frequency since November 2000 to market places known for selling counterfeited goods. All in all, goods for EEK 10m (€640,500) were confiscated in 2000, of this half in December. In November, a special task force was reinforced (doubling members to 10) at the Tallinn Police Office to fight piracy. The main impediment remains the lack of resources (in police) and the insufficient knowledge of intellectual property issues in courts.

The Government has reinforced efforts against piracy through radical changes in the legislation governing leasing, intellectual property rights and consumer protection. Changes to the law on leasing give the lessor right to terminate the leasing contract with the lessee in case the latter has violated the law. Changes to the law governing intellectual property rights and consumer protection allow the withdrawal of trading licenses from legal entities selling pirated goods before court decision. After such decision the license can be withdrawn for five years.

As piracy is an international phenomena, efforts are taken to impede the import and export of counterfeited goods. The Government is discussing draft laws governing market regulation and impeding import and export of counterfeited goods. To date, the provisions were included in the Customs Law but effective enforcement regulation was lacking. The new law regulates measures to be taken against violations against patent rights, useful model rights etc. in addition to counterfeited goods.

Training is provided, to customs officials and economic police officials, in co-operation with organisations representing intellectual property rights on how to detect counterfeited goods.

FINLAND

Following increasing attention drawn to issues related to IPR, especially in the university sector, the Ministry of Education set up a committee (the so-called Lindqvist committee) in 1998 to clarify the problems and prospects that researchers are facing in this field. The basic recommendation of the committee was that the level of competence in IPR issues and the exploitation of research results more generally should be enhanced at the universities and the Academy of Finland. More specifically, the committee recommended that the laws governing IPR should be amended so that researchers and lecturers at universities and other similar institutes would essentially enjoy the same rights as those enacted in private sector firms (The Ministry of Education 1998).

The views of the different stakeholders were somewhat divergent on the committee proposals to amend the law on employment inventions. Therefore the Ministry of Education decided not to propose an amendment to the law in the near future. Since then, a number of the bodies involved have proposed setting up a new committee, but so far the situation is unchanged. (Kangaspunta 2001).

One concrete measure relating to the transfer of technologies from universities and research organisations to the market has already been enacted. The focus is on licensing and the management of IPR at the universities (FI 10).

In 1998 an international evaluation was conducted on the promotion of independent inventions and their commercialisation (Zegweld et al. 1998). Among other things, it was recommended that there should be more coherence and networking between the organisations involved in the promotion of inventiveness/innovation – Tekes, Sitra as well as the Academy of Finland – and that inventors and research organisations (including universities) should be given full responsibility of their inventive activities, including the commercialisation of research results. The costs of these activities should form an integral part of the costs of research. It was also envisioned that supporting organisations, also in the private sector, should have a more important role as providers of high value added services in matters related to IPR.

Recently, the Academy of Finland has published on their web pages a guide for researchers on IPR (www.aka.fi).

FRANCE

The national operator is the National Institute for Intellectual Property (INPI)(see web site: http://www.inpi.fr/inpi/ under the supervision of the MINEFI. They are in charge of:
- elaborating texts, laws and regulations for intellectual property
- granting of patents
- providing public information in the field of intellectual property.

In January 2001, the Institute has created an Observatory of Industrial Property in Lille. This Observatory will study the rules and practical experiences of Industrial Property in France and other countries, and the main trends in this field. It will also make some researches on indicators that can be used for Industrial Property.

It has to be underlined that intellectual and industrial property was one of the four fields pointed out by the MEDEF in its report on innovation (see 0.4) where some progress has to be done. Only 20% of French Innovative SMEs have taken out a patent. The MEDEF suggests two ways in order to improve the situation: to modify the legislation (harmonisation, take into account the ICT services sector…), and to develop education and culture about intellectual and industrial property both in companies and in business schools.

Every two years the Institute organises the INPI's innovation awards to promote SMEs which have successfully used patents for business development (FR 32).

GERMANY

Fostering the use of intellectual property rights is addressed in German innovation policy both in the filed of legislation (IPR regulation) and via promotion programmes. In recent years, there was a debate on the usefulness of the so-called "*Hochschullehrerprivileg*" (the exclusive right of university professors to have ownership rights on intellectual property produced by them and to commercialise their inventions). An increasing number of stakeholders argues that an efficient commercialisation of university based demands a change in current regulation. Professor should be urged to inform the university about inventions made. The right of using inventions and parts of the income out of licenses should be transferred to the

university administration. Moreover, some argue that Germany should seek to re-introduce a newness clause which allows publication of inventions made in scientific journals without destroying the ability to apply for a patent later.

On October 30th 2000, the joint Commission by the Federal Government and the Länder on Education Planning and Research Promotion (BLK) decided to change IPR regulation for universities (see DE_59). Researchers will lose their exclusive right on inventions while university administrations get the right to commercialise inventions made by university researchers. In future, university professors should receive two thirds of licensing incomes compared to 100 per cent today. Effective changes in the respective law ("*Arbeitnehmererfindungsgesetz*", § 42) is expected to take place in the second half of 2001.

Furthermore, several industry managers argue that the German "*Arbeitnehmererfindergesetz*" (law which guarantees a certain part of the profits from invention to the inventor even if the invention is made on the job) is counterproductive in stimulating inventions in large corporations.

There are various promotion programmes to strengthen the use of intellectual property rights by industry, university and public research organisations:

Individual inventors, small enterprises, and researchers from public science and research may apply for financial aid for patenting activities (DE_06). This programme is administered by the Fraunhofer Patent Office of German Research. It offers state loans for innovative inventors in order to support them receiving a patent for an innovation. The Patent Office also helps to market and sell the new product. Prerequisites are a technical realising ability and a high degree of economic value. The form of support is presented as a state loan without interest requirements. The loan has to be repaid only in case of revenues. Marketing of the product is carried out by the Patent Office only and in case of success the Office is entitled to receive a quarter of the revenues.

There is a huge network of Patent Information Centres (DE_07) in Germany. They give SMEs access to scientific and technological information essential for innovation management in companies. Therefore has been set up a nation-wide network of patent-information-centres. The patent-information-centres offer various types of support such as access to original documents and support of the companies' own information search, copies of patent documents and other papers, free consultation of patent agents, lectures on the services of the patent-information-centres.

The INSTI-Network (DE_24) financed by the BMBF offers various promotion programmes in the field of intellectual property rights (IPR). The network consists of INSTI-partners from innovation and patent (patent agents, regional patent-information agencies, information brokers, regional invention agencies, management consultants, agencies for technology, transfer offices in higher education and research institutions), forming a nation-wide office-network allowing SMEs to use expert information from all INSTI-partners.

The INSTI SME patent initiative (DE_08) aims at activating SMEs which so far have not submitted any patent applications, but for which the patent system is of value. It offers funding to facilitate a grasp of the patent system and to ease searches and information to demonstrate to SMEs the operational value of patent applications and the patent system. The INSTI Inventors Clubs (DE_47) offer a network of support and promotion to stimulate the

creative potential of inventors, to exchange experience and provide advice for inventors and young creative individuals.

Other programmes within the INSTI-network are Innovation Market (DE_40), Tour d'Innovation (DE_39), INTRA (innovation training, DE_48), INPAT (DE_49) and two newly introduced programmes: AKPat (DE_62) provides an Internet-based platform for higher education institutions and researchers which gives an overview on patenting-related competence at higher education institutions, including supportive infrastructure. AKPat especially attempts to bring together the divergent intermediary commercialisation infrastructure at higher education institutions. The INSTI Innovation Action (DE_63) gives support to innovative enterprises and start-ups in order to optimise their innovation activities and to establish a permanent culture of innovation. Several individual measures are offered, including innovation workshops, innovation checks, technology evaluations, innovation coaching, patent searches, and consulting services in the fields of IP, exploiting new business fields, commercialisation strategies, and market monitoring.

GREECE

No changes observed in the legislation for the protection of intellectual and industrial property during the period studied.

HUNGARY

Participation in the 5th EU Framework Programme (HU_06, HU_07) ensures that the protection of intellectual and industrial property is handled with more importance.

IRELAND

Software piracy continues to be an area of concern for the main software producers and the new copyright legislation covering these issues has now been enacted. This remains a particular problem in a 'small country' context, with people being afraid to 'whistle-blow' although there are indications that this may be changing.

ICELAND

A temporary committee on intellectual property rights and patent protection activity was set up in 1998. The main goals were to investigate the reason for the very low level of patent applications in Iceland, and to put forward suggestions to redress the situation.

The background for setting up the committee was that the number of patent applications in Iceland is much lower than in otherwise comparable countries (only around 20 to 45 patents from the 280,000 population are applied for yearly).

In a Policy Statement the Government emphasises that it will "stimulate the activities of small and medium sized enterprises and support business pioneers". This will be achieved through clearer rules for protection of patents and use of intellectual property.

ITALY

This is an emerging task for this Government's innovation policy. In fact a new Agency for the Industrial Property (envisaged by the Bassanini Law and described in the recent White Paper elaborate by the Ministry of Industry) is going to be implemented.

LATVIA

The Latvian Patent Office is an independent organisation under the supervision of the Ministry of Justice (operates since 1992, and employs 36 persons currently). In 1999, 1,914 trade marks were registered, 53 industrial designs patents and 107 patents for invention were granted, 74 European Patents, 47 PCT (Patent Co-operation Treaty) Patents and 3,860 International trade marks have been applied to Latvia. During 1999, 30 appeals against the decisions of the Patent Office and 160 oppositions (mostly against the registration of trademarks) were filed with the Board of Appeals of the Patent Office. In the same period the Board of Appeals examined 17 appeals and 167 oppositions (all oppositions against trademarks registration). During the first five months of 2000, 1,088 trademarks were registered, 33 industrial designs patents and 70 patents for invention were granted.

In 1992, the Government adapted a decision on the provisional (transitional) schedule for the protection of industrial property rights. In 1993, Latvia joined the convention Establishing the World Intellectual Property Organisation, re-established its membership of the Paris Union by way of accession to the Stockholm Act of the of the Paris Convention for the Protection of Industrial Property, and acceded to the Patent Co-operation Treaty. In 1994, the Government signed an agreement with the European Patent Organisation "On the Extension of European Patents to Latvia". To ensure that industrial property rights are granted and protected, Latvia re-established the National Patents Office in 1992. Later, in 1993, a special institution was established for the purpose of granting rights in the field of plant variety protection.

LITHUANIA

On December 21, 2000, Seimas passed the *Law on Protection of Intellectual property in import and export of goods*. This law aims to protect intellectual property specifically in the field of import and export of goods by regulating actions of customs in import and export procedures, as well as customs actions with goods which were acknowledged by a court's decision as manufactured in breach of intellectual property rights.

This is a very important measure fighting import and export of so called "piracy" products, mainly illegal copies of software, music and video production.

LUXEMBOURG

The greatest transformation in the production structure of an economy involves the passage to an intangible economy. At the root of this major trend is the movement towards knowledge as the foundation of the wealth of society, companies and the nation. The management of knowledge, and technological knowledge in particular, has become extremely important. The management of intellectual property is a strategic arm in any company to appropriate the results of their research or their know-how accumulated over the course of time.

Electronic commerce, which is an integral part of the trend towards an intangible economy, for its part demands an appropriate legislative and regulatory framework. The year 2000 will have been marked by intensive work on the framework for this new intangible economy currently emerging.

The Directorate of Intellectual Property and Rights, within the Ministry of the Economy, is the competent authority in Luxembourg to deal with patent applications. The lodging of trade

marks and designs or models may also take place with that authority, which will transmit them to the Benelux Trade Mark Office or the Benelux Office of Designs and Models, solely competent for registration.

The Luxembourg patent, which has a maximum life of 20 years from the date of lodging, is a patent for registration, that is to say that the invention is not examined as to its patentability. This characteristic constitutes a guarantee of rapidity and simplicity.

A European patent application may also be lodged at the Directorate of Intellectual Property and Rights, which will transmit it to the European Patent Office.

A web site enables access to the legal and regulatory documents and provides information on the lodging procedures. Soon, the intellectual property department will be able to register the lodging of trademarks and patents online. At the beginning of 1996, the Ministry of Economy, which incorporates the Industrial Property Directorate (which promotes protection, issues national patents and manages national, European and international applications) started a pilot project with the PRC Henri Tudor involving the creation of a technological watch centre whose main objectives are:

- provision of technological and industrial property documents and data bases for consultation purposes;
- supporting the activities of the intellectual property department of the Ministry of Economy;
- awareness of companies (mainly SMEs) to the need for technological watch and intellectual property protection;
- development of strategic information processing and analysis tools (data processing);

The technological watch centre recently became a permanent resource centre of the PRC Henri Tudor and assists companies in reaching strategic decisions that may lead to forms of innovation. **(template LU-3)**

THE NETHERLANDS

The Innovation Scoreboard in section 0.1 of this report indicates that the number of H-T patents/population in the Netherlands is high. The Dutch score is more than 20 per cent above the average EU score. This largely reflects the commercialisation of knowledge by Dutch firms, in particular the large multinationals like Philips. The *Concurrentietoets 2000* points out that the use of academic research within patents is limited.[25] The previous reports announced increased attention for encouraging IPR policies in universities. However, there are no signs that any concrete measures have been launched in this respect.

NORWAY

The Norwegian Patent Office (NPO) offers protection for inventions, trademarks and designs and offer information services, guidance and training in the area of industrial property rights. The annual budget is about NOK 154 million (€19 million, 2001). According to the State Budget (St.prp.nr.1 2000-2001 Ministry of Industry and Trade, pp. 56), the long term goal of NPO is to finish the management of individual patent applications within three years, unless the applicant asks for a faster progression, and assists the Office in the process. Today the

[25] Ministry of Economic Affairs, *Toets op het Concurrentievermogen 2000: Op de drempel van het nieuwe Millennium*, The Hague, 2000.

average patent application process is five years. Another objective is to give the first preliminary pronouncement within six months. The response time of 1999 was 6.4 months. The Patent Office is working hard to reduce the amount of time used in managing applications. Unfortunately the backlog is growing and the Office does not believe it will be able to remedy the situation this or the next year. Hopefully, the implementation of the new ITC systems will help in the longer run.

In 1997 NPO started planning the so-called SANT-project (*Saksbehandling med anvendelse av ny teknologi* – "Application decisions through the use of new technology"). This was mainly caused by the back log problem, but also by the increasing use of electronic patent administration in other countries (cf. WIPO's development of a global IT-system for patents). The SANT-system is to be used by the Patent Officers in their internal work as well as in their interaction with customers and applicants in Norway and other countries. It is considered especially important to help small and medium sized companies acquiring relevant information. The SANT investments for the period 1998 – 2001 has been estimated to 40 mill kroner (€5 million). It is estimated that the SANT programme will be completed in the spring of 2002. Then information on Norwegian patents, trademarks and designs will be accessible electronically for external users.

A major objective for NPO has been to increase the public's interest in – and knowledge of – industrial rights. The main measures have been courses, trade fair participation and co-operation with other public intuitions targeting industry, including the Research Council of Norway and the Industrial Fund (SND). The Patent Office is to help the Universities of Oslo and Trondheim in their teaching of industrial intellectual property rights. During the year 2000, the NPO formulated a Customer Service Charter to enable customers to become acquainted with services. The Service Charter can be found at the Web site. The Office is developing its Web site in order to provide more updated information. During 2000 much of the site was translated into English. The Patent Board arranged seven external courses in 1999. At the same time the Office started a campaign targeting small technology intensive companies in the counties of Østfold and Telemark. In 2000 there were campaigns covering Nordland and Akershus. The overall goal of increasing the proportion of Norwegian applications has not been achieved. In 2000, the NPO received 6,700 patent applications, an increase of 2 percent compared to the previous year. The number of international applications filed under the Patent Cooperation Treaty (PCT) also continues to increase, and now constitutes 64 percent of all incoming applications. The number of national applications filed by foreign companies continues to fall and represents about 16 percent of incoming applications. The number of applications filed by Norwegian residents remains stable at about 20 percent. Europe is moving towards a more centralized handling of applications for industrial property rights. Efforts continue to develop new patent regulations, which will create a common patent system for the EU area. As the system will also include procedures for legal reconsideration of earlier decisions, it is doubtful whether Norway will be able to join. The European Patent Office (EPO) will be responsible for administering these regulations, in addition to the European Patent Convention (EPC). Norway is neither member of the EPO or the EPC. One of the main reasons for Norway not being party to the EPC, is a reluctance to accept the EC directive on Biotechnological Inventions. Norway has, however, endorsed the WTO-agreement on trade-related aspects of intellectual property rights (TRIPs). (*NPO Annual Report 2000*).

It seems that Norwegian Companies does not take full advantage of the protection patents and the registering of trademarks and designs can give. 80 per cent of the patent applications handled by the Norwegian Patent Board is from foreign applicants. The previous government

underlined the need to increase the companies' knowledge of intellectual property rights, and to improve the quality of patent applications. In 1999 the Patent Board implemented an information programme targeted towards small enterprises.

POLAND

Poland has a relatively low number of patent applications, compared to the EU. The main reasons are deterring bureaucratic procedures, relatively high fees charged for application and a low number of application paths. Poland does not have access to the RE and RPE procedures which are the main vehicles, used in European patent applications. For instance, in Poland, in 1995 only 22,089 patent applications were filed and in Spain (i.e. in a country of a similar potential) 71,251 applications.

However, comparisons of GERD (total R&D expenditure) with the number of patents granted within a given country yields surprisingly good results for Poland. For one patent granted to Polish residents in 1995, GERD amounted to $ 0.967bn at PPP (approximately Zl 4.21bn, €1.05bn). The comparable figure for Spain was $8.015bn at PPP (approximately Zl 34.87bn, €8.67bn).

At present, policy makers do not realise the value of an efficient patent system to the innovation potential, which could be stimulated by a simplification of the patent system (simplification of application and patenting procedures and decreasing or abolition of application fees).

For trademarks and copyrights the situation is more satisfactory. The latest legislation has considerably strengthened copyright protection in Poland and has contributed to curtailing piracy.

The law on protection against unfair competition protects Polish and foreign companies from such activities as:

- Attempts to convince the public that the goods or services originate from elsewhere than the true producer or supplier.
- Damaging the company image by providing unchecked information or publishing its trade or technological secrets.

PORTUGAL

The publication of SIUPI, the Industrial Property Use Incentive System, was the main action launched in this field (see PT 18). SIUPI falls under Measure 2.2. of POE and is aimed to foster inventive activity, creativity and innovation by companies as well as by independent inventors and designers and research institutions. SIUPI provides support to several activities related to the access and use of industrial property rights, namely the following: formulation of demands for patents, utility models and industrial models and designs, both in Portugal and abroad; formulation of demands for trademark registration, when associated with the other rights previously mentioned; the maintaining of patents and other rights granted up to two years before the application for support; and the design and implementation of prototypes and pilot plants for the exploitation of patents already held. In connection with the activities indicated above, support may also be provided for techno-economic feasibility studies and for the use and commercialisation of inventions. Incentives may reach 50% and 70% of eligible expenditures in the cases of existing companies and of individual inventors/designers and

entrepreneurs in a pre-company phase, respectively. The system is managed by INPI, the National Institute for Industrial Property.

It should be recalled that, in the context of POE partnerships and public initiatives programme, INPI is developing partnership projects with other institutions of the national system of innovation, in order to promote an environment favourable to the use of industrial property mechanisms.

Another measure with implications for industrial property is SIME, the Company Modernization Incentive System (PT 16). As mentioned in the previous report, SIME defines as eligible expenditures those concerning "the acquisition of patents, licences of exploration and technological knowledge, patented or not", in the context of investment projects, and namely "investments in innovation and technology".

ROMANIA

The Governmental Decision 58/1998, which provides the legal framework for the protection of intellectual and industrial property was elaborated by the National Agency for Science, Technology and Innovation and the Agency for Intellectual and Industrial Property protection.

The State Office for Inventions and Trademark (OSIM) is the first Romanian institution that will be integrated into the EU. This is very important given that the foreseen legal form for the new European Patent System adoption is a regulation under the European Union Treaty and that Romania has to assimilate to the Acquis. As of July 1, 2002 Romania is going to become a full member of the European Patent Convention.

BASA (The organisation against IT piracy) has together with private IT companies (Microsoft Romania, Softwin, etc.) pursued a publicity and public awareness campaign against software piracy. So far, about 20 companies have been fined for abuses.

This is a first positive step towards strengthening the Protection of Intellectual and Industrial Property System. However, implementation of the legal system is not yet very efficient. One can still easily find pirated software on CDs on sale in Bucharest.

The need for a tougher regulatory system is being signalled by the private sector.

SLOVAKIA

No measures have been announced within this category.

SLOVENIA

The Slovenian Intellectual Property office has migrated from the Ministry of Science and Technology to the Ministry of Economy. While its function essentially remains the same, such shift is to take advantage of the synergies among the different aspects of intellectual and industrial property rights.

Below is a list of international treaties in the field of industrial design in force in Slovenia:

- Agreement on Trade-Related Aspects of Intellectual Property Rights
- Paris Convention for the Protection of Industrial Property
- Convention Establishing the World Intellectual Property Organization

- "PCT" Patent Cooperation Treaty
- Budapest Treaty on the International Recognition of the Deposit of Micro-organisms for the Purposes of Patent Procedure
- International Convention for the Protection of New Varieties of Plants
- Hague Agreement Concerning the International Deposit of Industrial Designs
- Locarno Agreement Establishing an International Classification for Industrial Designs
- Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks
- Madrid Agreement Concerning the International Registration of Marks
- Protocol to the Madrid Agreement Concerning the International Registration of Marks
- Nairobi Treaty on the Protection of the Olympic Symbol
- Strasbourg Agreement Concerning the International Patent Classification
- Vienna Agreement Establishing an International Classification of the Figurative Elements of Marks

Below is a list of international treaties in the field of copyright in force in Slovenia:

- Berne Convention for the Protection of Literary and Artistic Works
- Universal Copyright Convention
- Geneva Convention for the Protection of Producers of Phonograms Against Unauthorized Duplication of Their Phonograms
- Rome Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organisations
- WIPO Copyright Treaty
- WIPO Performances and Phonograms Treaty

The Slovenian Intellectual Property Office (SIPO), part of the Ministry of Science and Technology, continues to be in charge of industrial property, including the protection of patents, industrial designs, trade marks, copyright and related rights, and the collective administration of authorship and is signatory to all important international agreements in the field of intellectual property.

SPAIN

Commercialisation and exploitation of technological innovation is also a priority in the IV NP. The Spanish Office for Patents and Trademark (OEPM) (dependent agency of MCYT) has carried out a big effort in diffusion activities and try to spread the Industrial Property culture in all sectors of the Spanish industrial scene.

SWEDEN

Swedish law allows researchers at universities to keep the ownership of patents. This constitutes an exception from the general regulation on patents on ideas developed by employees. This feature has been under debate for some years for several reasons. The case for passing ownership rights to higher education institutions is based on the argument that this would give universities an incentive to become more active in promoting commercialisation of research results, and that universities as organizations are better equipped than individual professors to look after intellectual property rights.

Those advocating keeping ownership with individual researchers note that there is a potential conflict of interest between academic freedom of communication and economic efficiency. Here they argue first that professors should not be coerced into secrecy agreements etc. against their will, and in the case where a researcher chooses to commercialise results, the university should be able to monitor that he or she keeps a proper balance between academic values and economic efficiency, rather than being involved as a party in any transaction.

The issue of patent ownership in higher education institutions was raised again in the government research bill of September 2000[26]. The current conclusion of the government is to await evaluations of the Danish experience, which implies that no legal changes will be envisaged in another couple of years.

During the 1990s, Forskarpatent (Patents & Exploitation Offices) was set up at the major universities in Sweden to assist the researchers in the patenting and licensing processes. The Patents & Exploitation Offices supply consulting and training activities in IPR matters, evaluate technology disclosures from higher education institution staff for the commercial possibilities of the disclosures, apply for patents and license them to industry if possible.

THE UNITED KINGDOM

The Government, in response to one of the key findings of the Baker Report[27], has announced a drive to support the links between research and innovation at PSREs (Public Sector Research Establishments). Whilst aimed more specifically at the general exploitation of research (Section 3.4), it is mentioned here as improvements in the handling of IP are also highlighted. The key measures include: publication of new guidelines on IP ownership and management for government (published in February 2001); changes to the Civil Service Management Code to enable civil service scientists to benefit from helping to exploit their work commercially, (e.g. through equity in spin-out companies); an awareness campaign to follow up the publication of new guidance on incentives for staff at PSREs[28]; and, to help bridge the gap in finance for seed investments, the Government has allocated £10 million (€1.67 million) to a new fund for commercialising IP, aimed at PSREs including Research Council institutes and the NHS (UK_52). The latter forms the cornerstone of an interdepartmental action plan[29], which sets out a range of measures to support PSREs in their mission to exploit the results of their work. The action plan is set out in full in the Government's response to the Baker Report[30]. The closing date for proposals is May 2001 and winners will be announced in the late summer.

The benefits of using the Internet to manage IP better have also been recognised. As reported in the previous report, the Association for University Research and Industry Links (AURIL), has launched a clearing-house offering technology available for licensing across the university sector, the Database for Technology Offers (UK_48). In addition, the Government

[26] Proposition 2000/01:3 Forskning och förnyelse (Government Bill - Research and Renewal)

[27] *Creating Knowledge-Creating Wealth: Realising the Economic Potential of Public Sector Research Establishments*. Published 1999. Available at www.hm-treasury.gov.uk/docs/1999

[28] Good Practice Guidance for PSREs and Staff Incentive Schemes (July 2000)

[29] See Cunningham, P.N. and Boden, J.M. *Monitoring, updating and disseminating developments in innovation and technology diffusion in the Member States - The TREND CHART: United Kingdom, Covering period: November 1999 – June 2000*, July 1999.

[30] *The Government's Response to the Baker Report "Creating Knowledge-Creating Wealth": Realising the Economic Potential of Public Sector Research Establishments*, Office of Science and Technology and HM Treasury, Cabinet Office. July 2000.

introduced a new IP portal[31] in November 2000, designed to provide visitors with clear basic information on the full range of IPR and the part these play in protecting creativity and inventiveness. The Intellectual Property Portal website (UK_45), was developed by the UK Patent Office as a direct result of a report from the Intellectual Property Group of the Government's Creative Industries Taskforce. The Portal provides a range of access to specific detailed queries, frequently asked questions, and the latest news relating to IP issues. It has been designed to evolve and be responsive to users by allowing them to nominate relevant sites they have found useful – thus contributing to the growth of the knowledge base.

Consultations are underway between Universities UK (the representative body of heads of UK universities), AURIL and the DTI in defining a framework for the management of IP in universities, to promote guidance for the Higher Education sector, and to develop new ways of sharing best practice. Universities UK is expected to publish this guidance by the end of 2001.

At the European level, the Government is anxious to see adherence to the Lisbon timetable for the introduction of regulation relating to the introduction of a common Community patent.

[31] www.intellectual-property.gov.uk