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**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN
PARLIAMENT AND THE COUNCIL**

- Enhancing the patent system in Europe -

1. INTRODUCTION

A key element of the renewed Lisbon Strategy for Growth and Jobs is to improve the way intellectual property rights (IPRs) are handled in Europe, as intellectual property rights, and patents in particular, are linked to innovation, which in turn is an important contributor to competitiveness.

Patents are a driving force for promoting innovation, growth and competitiveness. A recent Commission study on the value of patents¹ which was based upon a survey of 10,000 inventors in eight Member States² assessed inter alia the monetary value of patents, the economic and social impact of patents, patent licensing, the use of patents for creating new firms and the relationship between patents, R&D, and innovation. Although there are differences between Member States and industry sectors, the overall "patent premium"³ for the reviewed Member States amounts to 1% of national GDP for the period 1994-1996 and had reached 1.16% of GDP during the period 2000-2002.

It is suggested, moreover, that there is a correlation between the use of intellectual property rights and good innovation performance. Under this assumption countries with a high innovation performance are in general characterised by high levels of patenting and the use of other rights, such as design and trademark rights.⁴ This correlation is confirmed at the sectoral level, with the sectors where more patents are issued tending to be more innovative.

The single market for patents is still incomplete. Europe has not yet been able to create a single and affordable Community-wide patent despite repeated calls by Heads of State and Government. Parallel efforts made in an intergovernmental framework level aimed at improving the existing European patent system under the auspices of the European Patent Organisation (EPO) have also been delayed.

The fragmented single market for patents has serious consequences for the competitiveness of Europe in relation to the challenges of the US, Japan and emerging economic powers such as China. The EU lags behind the US and Japan in terms of patent activity. Even in Europe, the US and Japan patent more than the EU: at the EPO 137 patents per million population are from the EU versus 143 patents from the US and 174 from Japan. The lack of critical patent mass at home translates in less patents that are filed in both the US, the EU and Japan, the so called triadic patents. Whereas Europe has 33 triadic patents per million population, the US has 48 and Japan has 102. Therefore, the US and Japan have respectively 45% and 209% more triadic patents than the EU.⁵ This is of particular concern since triadic patents are the most valuable ones and are considered the best patent indicator for innovation.⁶

Recent studies have also shown that a European patent designating 13 countries is about 11 times more expensive than a US patent and 13 times more expensive than a Japanese patent if

¹ Gambardella et al., Study on patents: "What are patents actually worth? - the value of patents for today's economy and society", available at http://ec.europa.eu/internal_market/indprop/docs/patent/studies/final_report_lot2_en.pdf.

² Denmark, France, Germany, Hungary, Italy, Netherlands, Spain, and UK.

³ The "patent premium" is the value of the patented invention net of the value of the invention if the inventor had no patent on it.

⁴ On the relationship between IP and innovation, see Annex III.

⁵ MERIT and JRD, European Innovation Scoreboard 2006 comparative analysis of innovation performance, European Commission 2006, p. 35.

⁶ Guedou, Le système de brevet en Europe, *trésor-eco* nr 9, janvier 2007, p. 3.

processing and translation costs are considered. For the total costs with up to 20 years of protection, European patents are nearly nine times more expensive than Japanese and US patents. If the analysis focuses on patent claims, the cost differences increase further.⁷

The Commission believes that in today's increasingly competitive global economy, it is not sustainable for the EU to lose ground in an area as crucial for innovation as patent policy. For this reason, and in a renewed effort to break the deadlock, the Commission launched in January 2006 a broad consultation on the future of patent policy in Europe. The objective of the consultation was to seek stakeholders' views on the existing patent system and on a patent system for Europe truly worthy of the twenty-first century. The consultation met with unprecedented interest among European users of the patent system, tallying 2515 responses from business, including SMEs in virtually all sectors of the economy, Member States, as well as researchers and academics.⁸

The results of the consultation leave no doubt as to the urgent need for action to provide a simple, cost-effective and high quality one-stop-shop patent system in Europe, both for examination and grant as well as post-grant procedures, including litigation.

Many stakeholders continue to support the Community Patent as the approach which will yield most added-value for European industry under the Lisbon strategy. However they criticise the Council's Common Political Approach adopted in 2003⁹ on the grounds of high costs of translation arrangements as well as the excessive centralisation of the proposed jurisdictional system.

As to reforms of the existing European patent system within the framework of the European Patent Convention (EPC), numerous stakeholders support a rapid ratification of the London Agreement¹⁰ and adoption of the European Patent Litigation Agreement (EPLA).

There is however, for the time being, very little support for any (further) harmonisation of substantive patent law or schemes involving mutual recognition of national patents.

If Europe wants to be at the forefront of innovation, an improved patent strategy is indispensable. The first part of this Communication focuses on the creation of the Community patent and the establishment of an efficient EU-wide patent jurisdiction. The improvement of

⁷ Bruno Van Pottelsberghe de la Potterie and Didier François, *The Cost Factor in Patent Systems*, Université Libre de Bruxelles Working Paper WP-CEB 06-002, Brussels 2006, see pp. 17 et seq.

⁸ Further information on the Commission's patent consultation can be found at http://ec.europa.eu/internal_market/indprop/patent/consultation_en.htm.

⁹ Following the agreement in the Competitiveness Council of 3 March 2003, work continued at working party level to transpose the principles of the common political approach in the proposal for a Council Regulation on the Community patent. On this basis, the Commission presented two proposals concerning the establishment of a Community patent jurisdiction on 21 December 2003. See http://ec.europa.eu/internal_market/indprop/patent/index_en.htm#patent for the common political approach, the progress in the Council working party on the Regulation and the text of the Commission proposals on the jurisdiction.

¹⁰ Ten EPC contracting states (Denmark, France, Germany, Liechtenstein, Luxembourg, Monaco, Netherlands, Sweden, Switzerland and United Kingdom) signed the Agreement dated 17 October 2000 on the application of Article 65 EPC, known as the London Agreement and published in [2001] OJEP 549. This optional instrument aims to reduce the cost of translations for the European Patent. It would reduce translation costs for an average European patent by 31% to 46%, representing savings of around EUR 2,400 to 3,600 per patent (see Annex II). For further information on, for example, the state of play on ratification and accession to the London Protocol see: http://patlaw-reform.european-patent-office.org/london_agreement/status/index.en.

the jurisdictional system for patents is considered by many stakeholders as the most important issue to be tackled as a first step. Work on a EU-wide patent jurisdiction scheme may help pave the way for progress on the creation of an affordable and legally-secure Community patent. The Commission hopes that the suggestions made in this Communication will serve to restart negotiations which have been stalled since 2004. It aims at starting a debate using the momentum of the consultation and work towards consensus on the way forward.

However, it is clear that other patent issues should also be addressed. In order to be effective, the patent system needs to be considered as a whole. The final chapter of this communication therefore addresses subjects such as the quality and costs of patents, support for SMEs, knowledge transfer, and enforcement issues including alternative dispute resolution, patent litigation insurance, and international aspects of enforcement.

Further to requests by the December 2006¹¹ and March 2007¹² European Councils, the Commission intends to present a comprehensive IPR Strategy Communication by early 2008. The IPR Strategy document will complement the present Communication and address the main outstanding non-legislative and horizontal issues in all fields of intellectual property including trade marks, designs, copyright, geographical indications, patents and enforcement.

2. THE COMMUNITY PATENT AND AN INTEGRATED JURISDICTIONAL SYSTEM FOR PATENTS

2.1. COMMUNITY PATENT

The Commission is of the opinion that the creation of a single Community patent continues to be a key objective for Europe. The Community patent remains the solution which would be both the most affordable and legally secure answer to the challenges with which Europe is confronted in the field of patents and innovation. Statistics show that in the context of overall costs (translations, registration fees, etc.) the Community patent is far more attractive than models under the present system of European patents.¹³

The Council's Common Political Approach of 2003 is criticised by stakeholders in the consultation mainly on two grounds: the inadequate jurisdictional arrangements and an unsatisfactory language regime. However, the Commission believes that a truly competitive and attractive Community patent can be achieved provided there is political will to do so.

Stakeholders in particular expressed difficulties with an overly centralised jurisdiction. These concerns should be taken into account in the work on the EU-wide patent jurisdiction system, which is dealt with in the next paragraphs.

On translation costs the Commission notes that a large majority of stakeholders criticises the Council's Common Political Approach which foresees translation of all the claims of the Community patent into all official EU languages (now 23 official languages). On the other hand, some stakeholders argued in favour of translations not only of claims but also for the

¹¹ Presidency Conclusions of the Brussels European Council (14/15 December 2006), point 29, http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/92202.pdf.

¹² Presidency Conclusions of the Brussels European Council (8/9 March 2007), point 13, http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/93135.pdf.

¹³ See Annex II.

descriptions. Many favour the Commission's initial proposal as a sound basis for an agreement. The Commission considers that it should be possible to find effective solutions and will explore with the Member States how to improve the language regime with a view to reduce translation costs of the Community patent while increasing legal certainty for all, and in particular for the benefit of SMEs. Possible options could involve fee reductions for SME's or schemes allowing for flexibility in the translation requirements.¹⁴

2.2. AN INTEGRATED JURISDICTIONAL SYSTEM FOR PATENTS IN THE SINGLE MARKET

2.2.1. The deficiencies of patent litigation in Europe

National courts are increasingly required to consider issues with a cross-border dimension when they deal with patent litigation. The globalisation of business goes hand in hand with the internationalisation of patent litigation. This holds true in particular for the European single market.

Since 1978 (and up to 2005), the EPO has granted almost 800.000 European patents of which many are still in force in Europe.¹⁵ The EPO administers a single procedure for the grant of patents. However, once a European Patent has been granted it becomes a national patent and is subject to the national rules of the contracting EPO states designated in the application. The European patent is not a unitary title; it is a bundle of national patents. There is at present no single jurisdiction for disputes on European Patents which raise issues which go beyond the borders of one state. Any infringement, invalidity counterclaim or revocation action in relation to "bundled" European patents may be subject to diverse national laws and procedures.

Consequently, claimants and defendants bear the risk of multiple litigation in a number of Member States on the same patent issue. To enforce a European patent which has been granted for several states, the patent owner may sue the alleged infringer at his place of domicile or may need to initiate several parallel infringement actions before the national courts in different countries. On the other hand, individual defendants might have to defend themselves in similar actions lodged in several states, which is particularly risky and cumbersome for SMEs. In order to obtain the revocation of a European patent, competitors or other interested persons must file revocation actions in all the states for which the European patent was granted.

The existing system with the danger of multiple patent litigation has several consequences which weaken the patent system in Europe¹⁶ and make patents less attractive, in particular for SMEs.

¹⁴ Moreover, pilot projects on machine translations of patent claims such as the ones currently applied at the EPO and the French Institut National de la Propriété Industrielle (INPI) which may reduce upstream costs and merit further consideration.

¹⁵ For detailed statistics see the EPO Annual Report 2005 available at <http://annual-report.european-patent-office.org/2005/index.en.php>.

¹⁶ See also the assessment of the impact of the European Patent Litigation Agreement on litigation of European patents, http://www.european-patent-office.org/epo/epla/pdf/impact_assessment_2006_02_v1.pdf.

First of all, it is costly for all parties involved. They must hire local attorneys and experts and pay court fees in all the countries where litigation is initiated. This is not necessarily a problem for big business. However, for many SMEs and individual inventors the costs of litigation can be prohibitive. They may have invested significant sums in obtaining a patent but then are simply not able to enforce it against infringements. This can empty the patent of any practical value.

Moreover, significant variations exist between the different national court systems and the way the courts handle patent cases. A good example of a difference in national patent litigation is that in Germany there is a separation between infringement and patent revocation actions, both at first instance and at appeal levels, whereas in other countries such as the UK, France and the Netherlands the same court has competence to hear both invalidity and infringement actions. As a result, multiple patent litigation can entail variable or possibly even contradictory results in the different States.¹⁷ Despite the recent harmonisation of measures, procedures and remedies in the field of IPR infringements under the Enforcement Directive,¹⁸ there are still important differences in national procedures and practices due to non-harmonised issues such as collecting factual evidence, cross-examinations, hearings, the role of experts, etc.

Stakeholders have in particular pointed out differences which relate to the qualifications and experience of national judges. While in some countries there are a limited number of courts exclusively dealing with patent cases, in other countries such specialisation does not exist. The consultation has suggested that these differences give rise to forum shopping. Parties choose to initiate an action before one jurisdiction on the basis that they will be treated more favourably than in another. Differences in costs (see also paragraph 2.2.2) and in the speed of proceedings have a significant impact on the choice of forum.

This entails the possibility of different application and interpretation of substantive patent law, enshrined in the EPC, relating to crucial items such as patentable subject-matter and scope of protection conferred by a European patent. In addition, there are difficulties with obtaining cross-border injunctions. Recent jurisprudence of the ECJ restricts the possibilities for national courts to take action against infringements committed by a number of companies belonging to the same group but established in various EU Member States.¹⁹

Divergent decisions on the substance of the cases cause lack of legal certainty for all involved in patent proceedings. This uncertainty has an impact on crucial business decisions relating to investments, production and marketing of patented products which must often be made on the basis of complicated assessments regarding the likely outcome of a number of cases dealt with in various jurisdictions.

¹⁷ The Epilady case is an illustration of how courts in different EPC states have come to conflicting outcomes on the same patent. As a result of different interpretations of patent claims, it was held to be infringed by the German, Dutch and Italian courts, but not by the British and Austrian courts. See for references and analysis of these cases J. Pagenberg in 24 IIC 314-345 (1993).

¹⁸ Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights, OJ L 195, 2.6.2004, p. 16.

¹⁹ Case C-4/03, Gesellschaft für Antriebstechnik mbH & Co. KG v Lamellen und Kupplungsbau Beteiligungs KG; Case C-593/03, Roche Nederland BV and Others v Frederick Primus, Milton Goldenberg, judgments of 13 July 2006 (unreported).

2.2.2. National patent litigation systems in the EU: facts, figures and costs

Patent litigation statistics

One particular difficulty for an assessment of patent litigation activity at Member State level is the lack of published statistical data that can be compared. However, from the available information, it can be established that more than 90% of current patent litigation in the Community takes place before the tribunals of just four Member States (Germany, France, UK and the Netherlands). Moreover the available figures for 2003 to 2006 show that an average of 1500 to 2000 patent infringement and invalidity actions per year are raised before first instance patent tribunals of which 60 to 70% concern European Patents. The Commission estimates on the basis of own research that 20 to 25% of first instance decisions by patent tribunals are appealed. It should also be noted that as a result of low numbers of patent cases before many national tribunals there is a tendency towards the creation of specialised tribunals at Member State level. The available statistical data indicate that there is unlikely to be enough cases for setting up two court systems hearing infringement and invalidity actions concerning European and Community patents, particularly at the appellate level.

Costs

Patent litigation in the EU is unnecessarily costly for all parties involved. This is not as severe a problem for big business as for SMEs and individual inventors, for whom the costs of litigation can be prohibitive. Moreover, studies in the US and the EU have demonstrated that SMEs face a bigger risk of being involved in litigation.²⁰ Potential litigation costs can substantially increase the risk associated with patenting R&D and thus also with innovation activity as such. Therefore, our patent strategy should involve a reduction of litigation costs for SMEs.

Litigation costs vary significantly according to the type of proceedings, complexity of the case, technical field and amounts in dispute. Litigation costs include court costs, fees of lawyers, patent attorneys or experts, costs of witnesses, technical investigations, and costs related to appeals. Translation costs must be added for proceedings in foreign jurisdictions. The differences between the national court systems in Europe and the lack of reliable data on the cost of litigation (in particular lawyers' fees) in most countries make it very difficult to assess the cost of patent litigation. The cost estimates presented in Annex IV have been generated in the course of work on EPLA²¹ and have been complemented by a recently published Commission study on patent litigation insurance²². The estimates are based on information received from practitioners. They relate to those Member States where currently most patent litigation takes place. The figures vary considerably depending on the Member State concerned.

²⁰ Gambardellea et al., Study on patents: "What are patents actually worth? - the value of patents for today's economy and society", available at http://ec.europa.eu/internal_market/indprop/docs/patent/studies/final_report_lot2_en.pdf (see page 71 of the technical report).

²¹ EPO document WPL/11/05 Rev. 1 of 16.02.2006, Annex I; http://www.european-patent-office.org/epo/epla/pdf/impact_assessment_2006_02_v1.pdf.

²² Patent Litigation Insurance – A Study for the European Commission on the feasibility of possible insurance schemes against patent litigation risks, Appendices to the Final Report, June 2006, by CJA Consultants Ltd, European Policy Advisers, Britain and Brussels, Appendix 3: Cost of Litigation per Patent in Force in 2004 by Country, pp. 47 et seq. , http://ec.europa.eu/internal_market/indprop/docs/patent/studies/pli_appendices_en.pdf.

In Germany, the overall cost for each party of a patent case with an average sum in dispute of around 250,000 € is estimated to lie at around 50,000 € at first instance and 90,000 € at second instance for both validity and infringement. In France, the cost of an average patent litigation case in the above-mentioned range lies between 50,000 € and 200,000 € at first instance and between 40,000 € and 150,000 € at second instance. In the Netherlands, the estimated cost of an average patent case varies between 60,000 and 200,000 at first instance and between 40,000 € and 150,000 € at second instance. In the UK²³ the cost of a similar case is assessed to range from 150,000 € (fast-track procedure) to 1,500,000 € at first instance and from 150,000 € to 1,000,000 € at second instance. This means that the accumulated costs of parallel litigation in these four Member States would vary between 310,000 € and 1,950,000 € at first instance and 320,000 € and 1,390,000 € at second instance.

For the Member States referred to above, an assessment of the potential financial benefit of a unified patent jurisdiction can be based on cost calculations related to a multiple patent dispute involving court cases in three of the jurisdictions concerned given that bundled patents are rarely litigated in more than three Member States.

On the other hand, the estimated overall cost for litigation before one European Patent Court would vary between 97,000 € and 415,000 € at first instance and between 83,000 € and 220,000 € at second instance.²⁴ Depending upon which three of the four Member States are considered the cost of an average case heard by a unified patent jurisdiction is estimated at 10 to 45% less than the cost of today's parallel litigation at first instance and 11 to 43% at second instance²⁵. The savings should be even more important concerning the big patent cases since they are mainly litigated before courts in the UK where the litigation costs are highest in Europe.

A unified patent judiciary should therefore result in significant cost savings provided it is created in a cost-effective manner.

2.2.3. *The way forward*

There was strong support in the consultation for a cost effective Community patent including sound litigation arrangements, while at the same time improving the current litigation system in Europe. In October 2006, the European Parliament supported this line and urged the Commission to explore all possible ways of improving the patent granting and litigation systems in the EU.²⁶ This calls for a combined effort by Member States and the Community institutions.

Recent discussions with Member States show that opinions differ on the best way forward. Currently, there are two options which have been advanced in discussions (see below, under

²³ Patent litigation costs in the UK are thus substantially higher than in Germany, France, the Netherlands and other Member States. Apart from higher lawyers and patent attorneys fees, according to the authors of the studies referred to above the high level of the UK figures seems to be related to special features of the common law system. Moreover there is a certain tendency for large international companies to take their important cases to UK, whereas SMEs tend to prefer the other three States for litigation of European patents.

²⁴ See document mentioned in footnote 16, Annex 2

²⁵ For details see the EPO document referred to above in note 16

²⁶ Resolution P6_TA(2006)0416, Future action in the field of patents
[http://www.europarl.europa.eu/registre/seance_pleniere/textes_adoptes/definitif/2006/10-12/0416/P6_TA\(2006\)0416_EN.pdf](http://www.europarl.europa.eu/registre/seance_pleniere/textes_adoptes/definitif/2006/10-12/0416/P6_TA(2006)0416_EN.pdf)

A and B). Neither of these seems to have a realistic chance of making progress since discussion of the two options have thus far led to polarisation of the positions of Member States.

However the need to improve the existing litigation arrangements has not been questioned. There also appears to be an emerging consensus from debates in the Council and the patent consultation on a number of principles related to a future Europe-wide patent court system (henceforth also "the jurisdiction"). The jurisdiction should be efficient and cost-effective with a maximum of legal certainty in litigation over the validity and infringement of patents. It should also provide an appropriate degree of proximity to the users of the system. The multinational character of jurisdiction should be reflected in its composition and common rules of procedure.

Work should therefore be undertaken, as a first step, to build consensus among Member States around these general objectives and features (see below, under C). The Commission recognises that all three options raise specific legal issues which would need to be appropriately addressed. Moreover, the final structure and details of any compromise must be in full compliance with EU-law.

A - The EPLA

The draft European Patent Litigation Agreement (EPLA) aims to establish a uniform jurisdiction for European patents. Since 1999, a working party of the contracting states of the European Patent Organisation has been working on the draft EPLA which proposes the creation of a new international organisation, the European Patent Judiciary.²⁷

The intention is to create a unified system for litigation on European patents for those EPC contracting parties that wish to join the system. The European Patent Judiciary would comprise a Court of First Instance, a Court of Appeal and a Registry. The Court of First Instance would comprise a Central Division set up at the seat of the European Patent Court. However, Regional Divisions of the Court of First Instance would be set up in Contracting States. EPLA Contracting States could file a request for setting up a Regional Division that should ensure the local presence in the first instance of the European Patent Court (with a maximum of three first instance courts per country), mainly financed by the Contracting States in question. The decisions of the Court of First Instance would be appealed to the Court of Appeal. The Register of the EPC would be responsible for co-ordinating the division of work in cases allocated to the Regional Divisions.

The European Patent Court would have jurisdiction for infringement actions and claims or counterclaims for revocation of a European patent. It would comprise both legally and technically qualified judges. Essentially, the European Patent Court would have equivalent powers of a national patent judge within a national jurisdiction. The language regime would be based on the language regime of the EPO (English, French and German).

Some Member States perceive the EPLA process as an avenue where progress could be made quickly. These countries are in favour of an active participation of the Community in the EPLA process. Involvement of the Community is required as the EPLA, an international treaty with the participation of EPC members which are non-EU countries, touches on

²⁷ See for more information on the EPLA process: <http://www.european-patent-office.org/epo/epla/index.htm>.

subjects which are already covered by EC legislation (*aquis communautaire*).²⁸ The Member States in favour of the EPLA process would thus want the Commission to ask for negotiating directives, and the Council to grant such directives, to allow the Community to enter into negotiations on EPLA.

A number of Member States take the view that creating a new jurisdiction in parallel to the Community jurisdiction would be complicated and risk creating inconsistencies. In the case of the creation of the Community patent it would lead to duplication of EU-wide patent courts.

B - A Community jurisdiction for European and Community patents

Some Member States consider that, rather than establishing an EPLA court for European patents only, it would be preferable to set up a unified court structure which could deal with litigation on both European patents and future Community patents. They advocate the creation of a specific Community jurisdiction for patent litigation on European and Community patents making use of the jurisdictional arrangements in the EC Treaty.

According to the proponents of this proposal an international agreement involving the Community would be needed in order to confer competence on the Community judiciary over European patents. Granting such jurisdiction should enable to guarantee the respect of the principles of the Community legal order in litigation relating to the validity and infringement of European patents and, once created, of Community patents.

In addition, and on the basis of Article 225a EC, a specific judicial panel for patent litigation would be created. This would include first instance courts with specialised judges located in the Member States, with appeal to the Court of First Instance. There should be uniform rules of procedure, and the Community judges should not only apply Community law but also relevant provisions of the European Patent Convention.

A number of Member States, supported by some stakeholders, seem to have the view that a EU-wide patent court established within the Community framework would not be workable in practice. It is feared that procedures would turn out to be inefficient and inadequate and it is furthermore doubted whether it would be possible to appoint technically educated judges with no full legal qualifications.

C - The Commission's compromise

The Commission considers as the main difference between options A and B to be the fact that the EPLA option is developed outside the Community context, and that the present EPLA draft only deals with European patent litigation. This would mean that a separate jurisdiction for future Community patents would be required.

The Commission believes that consensus could be built on the basis of an integrated approach which combines features of both EPLA and a Community jurisdiction as initially proposed by the Commission. The creation of a Community patent should not be put in jeopardy nor should there be duplication with two competing jurisdictions on patent litigation in Europe.

²⁸ E.g. Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights; Council Regulation (EC) No 44/2001 of 22 December 2000 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (Brussels I).

This way forward could therefore be to reflect on one single court system inspired by the principles on which consensus is emerging, and addressing the respective concerns of Member States and stakeholders.

This could be achieved by creating a unified and specialised patent judiciary with competence for litigation on European patents and future Community patents. Such a judicial system could be strongly inspired by the EPLA model, in particular as regards the specificities of patent litigation, but could allow for harmonious integration in the Community jurisdiction.

The patent jurisdiction should ensure an appropriate degree of proximity to the parties and relevant circumstances of the case. It should comprise a limited number of first instance chambers as well as a fully centralised appeal court which would ensure uniformity of interpretation. The chambers, which could make use of existing national structures, should form an integral part of the single jurisdictional system. In the context of this single, yet multinational system of litigation, the allocation of cases would be handled by the registry of the judiciary on the basis of clearly defined and transparent rules. These rules could be based on the Brussels I Regulation and other existing *acquis communautaire*.

The jurisdiction would have competence for infringement and validity actions as well as for related claims such as damages and for specific proceedings responding to the needs of stakeholders.

The appeal court and the first instance chambers should work under common rules of procedure based on best practices in the Member States. This would be by using the knowledge and experience of specialised patent tribunals within the EU, for example, on taking evidence, oral and written proceedings, injunctive relief and case management. In this context, present work on the draft EPLA provides useful elements.

The patent jurisdiction should comprise both legally and technically qualified judges, who should enjoy full judicial independence and may not be bound by any external instructions.

Finally, the patent jurisdiction must respect the European Court of Justice as the final arbiter in matters of EU law, including questions related to the *acquis communautaire* and to the validity of future Community patents.

The Commission believes that if there is adequate political will, the current differences between the Member States can be overcome and an appropriate architecture for a unified and integrated EU-wide patent jurisdiction could be established.

3. SUPPORTING MEASURES TO IMPROVE THE PATENT SYSTEM

High quality legislation is a necessary but not sufficient condition for a well-functioning patent system. Alongside the importance of quality highlighted by the 2006 patent consultation, companies' strategic use and enforcement of their rights need to be improved. Furthermore, the consultation raised several issues where, in addition to legislative initiatives, non-legislative concerted actions have to be undertaken or intensified in order to bring the Lisbon strategy forward.

Many companies often still do not fully exploit the existing possibilities for protecting their intellectual property, which may impede further development towards a knowledge based economy. SMEs and universities are often not aware of how best to use their patent rights to

protect and exploit their inventions. For this reason, measures to support use of IPR including patents are vital along with affordable and effective enforcement. Only then can the IPR system provide the degree of protection needed to optimise investment in innovation. A number of the supporting measures described below are dealt with in more detail in the Commission's recent Communication on Innovation strategy²⁹ and they will also be tackled by the forthcoming Communication on IPR strategy.

3.1. QUALITY, COSTS AND EFFICIENCY OF THE PATENT SYSTEM

Whereas the quality of European patents is generally perceived to be high compared to other regions of the world participants in the 2006 consultation have stressed the importance of rigorous examination, prior art search and strict application of patentability criteria. However, concerns have been raised that a spiralling demand for patents could result in increased granting of low quality patents. This is one of the reasons that could lead to the emergence of "patent thickets"³⁰ and "patent trolls"³¹ in Europe. A high quality patent regime in the EU is an essential instrument to prevent such innovation hampering and destructive behaviour in Europe.

Alongside the issue of quality, efforts must continue to address both cost and time to delivery issues. As regards cost the gap in comparison with Japan and the USA must be significantly reduced, notably for SMEs. As regards time to delivery, the aim should be to bring the average time it takes to grant or to refuse a European patent down to three years as agreed between EPC states at the 1999 Paris Intergovernmental Conference³². Timely delivery of examined rights is particularly important bearing in mind that demand for patents continues to rise. For example, the EPO reported a 7.2% rise in patent filings between 2004 and 2005 to almost 193,000³³, and a record 145,000 applications were received under the Patent Cooperation Treaty in 2006, representing a 6.4% growth over the previous year³⁴. Similar growth levels repeated over the coming years would double the total number of applications in about 10 years.

With the increasing demand for patents, an increasing burden on examiners as well as the advances in technological developments, it is important that patent offices in Europe work together, for example, on the mutual exploitation of examination results and that they strive to maintain a high quality of granted patents. The Commission therefore welcomes recent quality improving initiatives such as the Standard for the European Quality Management

²⁹ Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, "Putting knowledge into practice: A broad-based innovation strategy for the EU", COM(2006) 502.

³⁰ A patent thicket refers to the potential problem that in view of the high number of patents necessary to produce a product, innovation in the sector is slowed down because of fear of hold-up and patent infringement litigation.

³¹ This is a new method of gaining return from a patent. "Patent trolls" are patent owners (often investors who buy patents cheaply from failed companies) who use these rights to threaten companies with infringement actions and interlocutory injunctions, forcing them into financial settlements to avoid expensive litigation. Such threats can potentially affect an entire industry sector.

³² Report of the Intergovernmental Conference of the contracting states of the European Patent Organisation on the reform of the patent system in Europe, Paris, 24 and 25 June 1999 [1999] OJEP 545 available at http://www.european-patent-office.org/epo/pubs/oj_index_e.htm.

³³ EPO Annual Report 2005 at <http://annual-report.european-patent-office.org/2005/review/index.en.php>.

³⁴ WIPO Website at http://www.wipo.int/edocs/prdocs/en/2007/wipo_pr_2007_476.html.

System produced by the Working Party set up the Administrative Council of the EPO. This provides an ideal avenue to maintain quality patent rights and tackle problem areas.

3.2. SPECIFIC SUPPORT FOR SMEs

There are indications that SMEs do not patent or use other IPR because they lack good quality advice,³⁵ or because of the high cost of patenting. It is vital that SMEs are in a position where they have enough knowledge to make an informed decision, whether they opt for patenting or other forms of IPR protection.

A patent strategy for Europe must therefore include awareness-raising activity, highlighting the advantages and benefits of the patent system, in particular for SMEs. As outlined in the Communication on Research and Innovation³⁶, the Commission will promote the use of intellectual property rights by identifying with stakeholders which actions can best be taken to support SMEs. It is a matter of making better use of existing support services, but also of designing new services that are more adapted to the actual needs of SMEs.. The Commission has just launched a project, under the PRO INNO Europe initiative, with the aim of spreading knowledge among SMEs of issues, with the focus notably on patenting. The Commission is also launching a call for proposals under the Competitiveness and Innovation Framework Programme (CIP) to implement a 3-year IPR Awareness and Enforcement Project to raise significantly the awareness and knowledge of IPR issues among SMEs, improving registration and enforcement of rights and combating counterfeiting. Regarding the cost issue, the most significant progress would of course come from the adoption of the Community patent.³⁷

3.3. KNOWLEDGE TRANSFER

It is generally felt that Europe is lagging behind and should improve its performance in knowledge transfer. In particular transnational technology transfer between enterprises in different European countries and knowledge transfer³⁸ between EU public research base³⁹ (e.g. universities) and industry needs to improve.

The Commission is presenting⁴⁰ a Communication and accompanying (voluntary) good practice guidelines on improving knowledge transfer between public research centres and industry across Europe. This will contribute to the removal of existing administrative barriers

³⁵ The most comprehensive data on the use of IPR by SMEs is from the Community Innovation Survey (CIS). CIS-4 covering the period 2002 – 2004 shows that SMEs consistently report less use of formal IP and of non-formal appropriation methods than large firms.

³⁶ Implementing the Community Lisbon Programme: More Research and Innovation – Investing for Growth and Employment: A Common Approach, COM(2005) 488 final.

³⁷ It is also important to note that the USA, Japan and Korea have adopted legislation which cut by half the costs of patenting for SMEs compared to large enterprises.

³⁸ Contract research, collaborative and co-operative research, licensing, pooling of resources, publications and exchanges of skilled researchers between the public and private sectors.

³⁹ Public research organisations represent about one third of the total R&D activity in Europe. Prior to 2003 enlargement, 80% of public R&D was spent in the 1500 research universities in Member States (see European Commission (2001), "Benchmarking Industry-Science Relations – The Role of Framework conditions", Final Report, Vienna/Mannheim, and Mark O. Sellenthin, "Who should own University Research – An exploratory study of the impact of patent rights regimes in Sweden and Germany on the incentives to patent research results", June 2004.

⁴⁰ Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions – Improving knowledge transfer between research institutions and industry across Europe: embracing open innovation, COM(2007) 182

and will provide guidance on how ownership and exploitation of R&D results and associated IPR can be best combined with the fundamental aims of public research organisations. In particular, it will propose increased interaction between public sector researchers and industry, and better quality of knowledge transfer services in Europe.

3.4. ENFORCEMENT OF PATENT RIGHTS

An appropriate legal framework and incentives to use patents need to be complemented by affordable and effective enforcement. Right holders often do not have enough legal and funding resources to enforce their patents against alleged infringements. Furthermore, in the global economy, it is crucial that businesses in Europe can adequately enforce their rights outside the territory of the EU. On the other hand, SMEs, in particular, find difficulties to continue their activities when they are unduly accused of infringing patents by big industries and are looking for easier and cheaper ways to defend themselves.

3.4.1. Alternative Dispute Resolution (ADR)

Traditional litigation in cross-border patent disputes involves multiple procedures in multiple jurisdictions and carries the risk of lengthy procedures, inconsistent outcomes and high litigation costs. An EU-wide patent jurisdiction as explained above would considerably improve the situation in Europe in all of these respects.

Parties, and in particular SMEs, are continually on the lookout for alternative, cheaper and more effective methods of resolving their patent and other IPR disputes. Efforts are therefore being made on the national and international basis to establish alternative dispute resolution (ADR) systems and encourage, if not require, parties to engage in mediation, conciliation or arbitration prior to seeking judicial remedies.

In their replies submitted to the 2006 patent consultation, many stakeholders, in particular SMEs, brought up the issue of introducing ADR methods into the future patent landscape in Europe. Suggestions ranged from making use of existing systems such as the World Intellectual Property Organisation Arbitration and Mediation Centre to designing a *sui generis* Community alternative dispute resolution system.

Whilst the Commission has already made in October 2004 a proposal for a Directive on certain aspects of mediation in civil and commercial matters⁴¹ it will further examine the usefulness and added value of ADR systems in the field of IPRs, and in particular for patent issues. The examination will focus on possible time and cost savings ADR may bring on the potential benefits in accommodating specific characteristics of intellectual property disputes, including patent disputes.

3.4.2. Patent litigation insurance

One possible means of ensuring access to or an adequate defence in patent litigation for SMEs can be patent litigation insurance (PLI). However, attempts by the private sector to provide insurance schemes have rarely been successful up to now.

⁴¹ COM (2004) 718 final, 22.10.2004.

The Commission services commissioned a study on PLI in 2001 and a follow-up study was published in June 2006. A public consultation on the recent study closed on 31 December 2006, receiving 28 responses which are currently being analysed. However, it can already be concluded that the overall reaction from stakeholders in relation to the mandatory system proposed in the follow-up study is sceptical.

3.4.3. *International aspects*

Enforcement of IPR remains a major problem at international level. Preliminary results from a major study being carried out by the OECD indicate that the value of counterfeit and pirated goods traded internationally in 2004 was €140 billion⁴². Although much work has already been done to raise international standards to those prevailing in the EU, the Commission will continue to focus on the priority actions to protect rights holders, including patent holders, in territories outside the EU.

The German presidency of the G8 Group of Major Industrialised Economies has recently proposed a three-track approach to advance IPR enforcement at a global level. This approach consists of advancing and, if possible, finalising in 2007 the implementation of the 16 July 2006 St. Petersburg Statement on Combating IPR Piracy and Counterfeiting⁴³, involving the business communities of the G8 countries in enforcement efforts and engaging the O5 group of emerging economies (Brazil, China, India, Mexico and South Africa) in a "constructive dialogue" at the forthcoming Heiligendamm summit.

Moreover the current presidency of the EU has made transatlantic relations one of its top priorities. The new initiative on a Transatlantic Economic Partnership covers *inter alia* IPR protection. It would build on existing initiatives such as the EU-US summit held in Vienna in June 2006 where the EU and US launched an Action Strategy to combat piracy and counterfeiting in third countries.

The Commission shares the view that there is a need for improving regulatory and non-regulatory dialogues with the Community's international partners, including co-ordinated efforts to protect intellectual property. Protection of IPRs and the fight against counterfeiting and product piracy must be stepped up internationally.

4. CONCLUSION

The Commission strongly believes that an improved patent system is vital if Europe is to fulfil its potential for innovation. For this reason, the Commission has set out its proposals for the way forward for a reform of the patent system in Europe and is proposing supporting measures in this Communication. The purpose of this Communication is to revitalise the debate on the patent system in Europe, in a way which encourages Member States to work towards consensus and real progress on this issue. Making the Community patent a reality and at the same time improving the existing fragmented patent litigation system would make the patent system significantly more accessible and bring cost savings for all who have a stake in the patent system. In parallel supporting measures to maintain and, where necessary, improve the quality and efficiency of the current system, together with targeted measures to improve

⁴² Report by John Dryden, Deputy Director Science Technology and Industry OECD, to Third Global Congress on Combating Counterfeiting and Piracy, Geneva January 30 2007, figure originally quoted was US\$176 billion.

⁴³ Statement on IPR Piracy and Counterfeiting available at <http://en.g8russia.ru/docs/15.html>.

SME access, should ensure that Europe's patent system will play its role in boosting innovation and competitiveness in Europe. The EU must also engage actively with its international partners to increase awareness of IP issues and proper and balanced enforcement of them. By providing the basis for Member States to agree concrete actions, the Commission aims to provide a solid basis for progress on patent reform in other areas, especially as regards the Community patent and the litigation system.

The Commission will work with the Council and Parliament to build consensus on the way forward. When broad consensus is achieved, the Commission will take the necessary steps for implementing the agreed strategy and make relevant proposals.

ANNEX I

Cost Structure of direct patent filings and maintenance, 2003

	EPO-3¹	EPO-13²	USPTO	JPO
Hypotheses	EURO	EURO	US\$	JP Yen
Type of firm	all	all	large	all
Median number of claims	18	18	23	7
Time to grant (number of months)	44	44	27	31
Designated countries for protection	3	13	1	1
Number of translations ³	2	8	0	0
Procedural fees				
Filing	160	160	225	16000
Search	690	690	375	
Design. States (75 per country, up to 7)	225	525		
3 rd year of application	380	380		
4 th year of application	405	405		
Examination	1,430	1,430	150	168,600
Granting	715	715	1,300	
Claim tax ⁴	320	320	54	28,000
Administrative cost	250	250	300	
Translation cost ⁵	3,400	13,600		
Validation cost	95	1,700		
TOTAL Procedural cost	8,070	20,175	2,404	212,600
	EURO	EURO	EURO	EURO
Procedural costs without translation	4,670	6,575	1,856	1,541
Procedural costs with translation	8,070	20,175	1,856	1,541
External services cost⁷				
	12,500	19,500	8,000	4,000

After grant				
Maintaining costs 10 years (fees)	2,975	16,597	2,269	2,193
Maintaining costs 20 years (fees)	22,658	89,508	4,701	11,800
TOTAL filing process⁶	20,570	39,675	9,856	5,541
TOTAL 10 years	23,545	56,272	12,125	7,734
TOTAL 20 years	43,228	129,183	14,556	17,341

Source: Van Pottelsberghe and François (see footnote 2).

1. The three EPC member countries that are the most frequently designated are Germany, the United Kingdom and France.

2. According to the EPO annual report of 2003, 13 countries that are effectively designated for protection by more than 60 per cent of the patent applications: Germany, United Kingdom, France, Italy, Spain, The Netherlands, Sweden, Switzerland, Belgium, Austria, Denmark, Finland and Ireland.

3. Only 8 translations would be required for an effective protection in 13 countries, as some countries accept applications written in English or share a common language with other countries (The Netherlands, Belgium, Switzerland).

4. The cost per claim is € 40 if more than 10 claims are included in an EPO patent application; US\$ 18 if more than 20 claims are included in a USPTO patent application; and Yen 4000 for the claims included in a patent application at the JPO.

5. It is assumed that translation costs are of € 1,700 per language. This amount includes the translation and attorney's intermediation.

6. These cost estimates for the EPO correspond to the cost of the so-called EP-direct applications (a patent directly applied at the EPO). They should be considered as a lower bound of the average patent, as they do not include the costs associated with national priority applications (from an EPC member state or from abroad) or with PCT applications.

7. There is no existing comparison of external services costs in the US, Japan and Europe. The Roland Berger (2005) survey provides a reliable estimate for applications at the EPO (see table A1 in the appendix). The assumption base is € 8,000 for a patent and € 1,500 per designated state (for the EPO). As the patents applied at the JPO are much smaller (7 claims against 18), half the base cost has been assumed, i.e. € 4,000.

ANNEX II

TRANSLATION COST MODELS

Model	Translation costs	
	Cost per patent ⁴⁴ (in euros)	Percentage compared to current EP translation costs
European patent (under current system for average EP)	12448 ⁴⁵	100 %
European patent system under London Agreement for average EP ⁴⁶	8800 ⁴⁷ (filed in DE or FR)	71 %
	8800 ⁴⁸ (filed in EN)	71 %
Community Patent (under Common political approach of March 2003) ⁴⁹	7140 ⁵⁰	57 %
Community Patent (Commission proposal: translation of claims into the other two EPO languages)	680 ⁵¹	5 %

⁴⁴ Calculations assume that an average patent has 16 pages of descriptions and 4 pages of claims, with translation cost of € 76 per page for description and € 85 per page for claims (based on figures at time of Common political approach of March 2003; EPO study in August 2004 prepared by Roland Berger Market Research available at

http://www.european-patent-office.org/epo/new/cost_anaylsis_2005_study_en.pdf, see pages 141 to 150). This assumes that an average European Patent designates 13 States (the States designated by a majority of European patent applicants): DE (designated by 98 % of the EP), FR (93 %), UK (92 %), IT (76 %), ES (61 %), NL (59 %), SW (57 %), CH (55 %), BE (54 %), OS (53 %), DK (51 %), IE and FIN (50 %), with NL, SW and DK selecting English as preferred language under the London Agreement. An EP covering all EU Member States would require translation into 21 other languages costing 32676 euros.

⁴⁵ 4 pages of claims x 85 euros x 8 languages (2 of the 3 EPO languages + IT, ES, NL, SW, DK, FIN) + 16 pages of descriptions x 76 euros x 8 languages.

⁴⁶ Since IT, ES, BE, OS and FIN are not signatories to the London Agreement, they would still require a full translation. NL, SW and DK are assumed to select English as preferred language under the Agreement.

⁴⁷ 4 pages of claims x 85 euros x 8 languages + 16 of descriptions x 76 euros x 5 languages (IT, ES, FIN, EN, FR or DE).

⁴⁸ 4 pages of claims x 85 euros x 8 languages + 16 of descriptions x 76 euros x 5 languages (IT, ES, FIN, FR, DE).

⁴⁹ From 1 January 2007, the Community patent would cover 27 Member States. The claims would be available in all official Community languages (except, under the current transitional period, in Irish). Therefore, each Community patent would require translation of the claims only into 21 languages.

⁵⁰ 4 pages of claims x 85 euros x 21 languages.

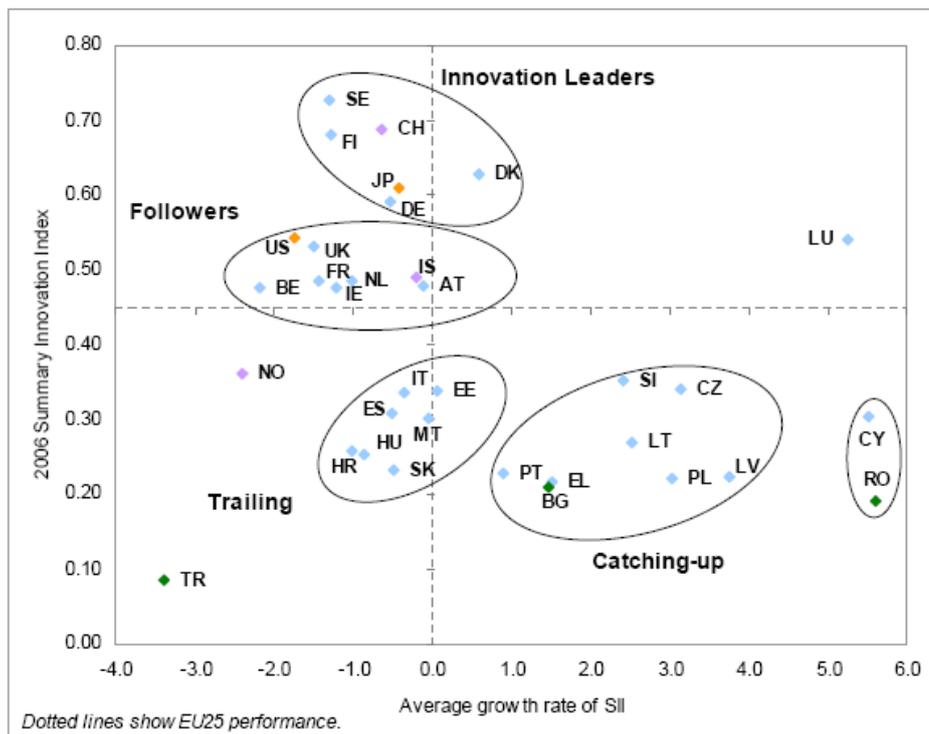
⁵¹ 4 pages of claims x 85 euros x 2 languages.

ANNEX III - IPR AND INNOVATION PERFORMANCE

Based on the Summary Innovation Index score and its growth rate, European countries can be divided in four groups or clusters⁵²:

- Switzerland, Finland, Sweden, Denmark and Germany make up the group of “*innovation leaders*”.
- France, Ireland, United Kingdom, Netherlands, Belgium, Austria, and Iceland are all “*innovation followers*”.
- Countries “*catching up*” are Slovenia, Portugal, Czech Republic, Lithuania, Latvia, Greece, Poland and Bulgaria.
- Countries “*trailing*” are Estonia, Spain, Italy, Malta, Hungary, Croatia and Slovakia.

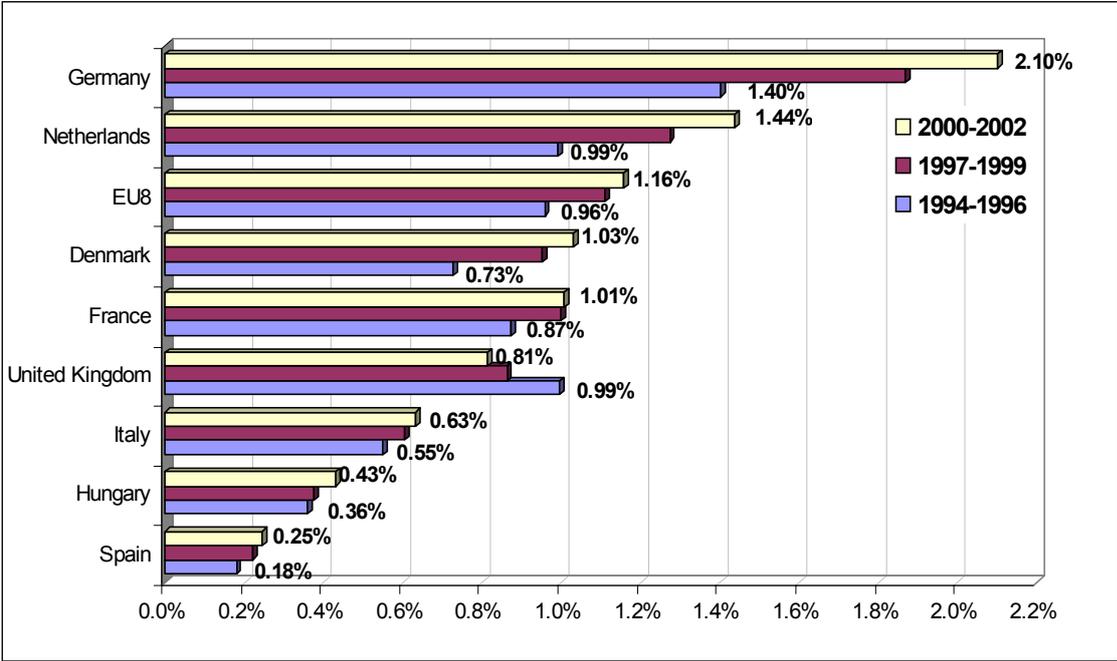
Cyprus and Romania form a separate fifth cluster of fast growing, catching-up countries. This is not considered a real cluster as Cyprus is one of the smallest EU countries and Romania is starting from a very low level of innovation performance. Luxembourg, Norway and Turkey do not fit into any of these groups.



Current performance as measured by the SII is shown on the vertical axis. Relative to EU25 growth performance of the SII is shown on the horizontal axis. This creates four quadrants: countries above both the average EU25 trend and the average EU25 SII are forging ahead from the EU25, countries below the average SII but with an above average trend performance are catching up, countries with a below average SII and a below average trend are falling behind, and countries with an above average SII and a below average trend maintain their lead but are growing at a slower rate.

⁵² European Innovation Scoreboard 2006 published by Pro Inno Europe, an initiative of DG Enterprise and Industry (see <http://www.proinno-europe.eu>)

To compare innovation performance with patenting activity, the figure below shows the aggregate value of patents in selected Member States as percentage of GDP over periods from 1994 to 2002⁵³. In general, better innovation performance in a Member State correlates with greater patent value in that country.



⁵³ "Study on evaluating the knowledge economy what are patents actually worth? The value of patents for today's economy and society" – report from CERM Foundation (Italy) for DG Internal Market of the European Commission, available on: http://ec.europa.eu/internal_market/indprop/patent/index_en.htm#studies

ANNEX IV

Patent litigation costs in selected Member States

Member State	Cost of 1 st Instance (€)	Cost of 2 nd Instance (€)
UNITED KINGDOM *	150,000 to 1,500,000	150,000 to 1,000,000
FRANCE	50,000 to 200,000	40,000 to 150,000
NETHERLANDS	60,000 to 200,000	40,000 to 150,000
GERMANY**	50,000	90,000

The figures for France, the Netherlands and Germany relate to an average case with a sum in dispute of +/- 250,000 €

*Average case. Sum in dispute > 1,000,000 €

**Cost for both validity and infringement. In Germany, invalidity and infringement actions are heard before separate courts.

Source : EPO Doc. WPL/11/05 Rev. 1, 16.02.2006, p.14 et seq. (see footnote 9)