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Committee on Industry, External Trade, Research and Energy

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OPINION

of the Committee on Industry, External Trade, Research and Energy

for the Committee on Legal Affairs and the Internal Market

on the proposal for a Directive of the European Parliament and of the Council
on the patentability of computer-implemented inventions
(COM(2002) 92 – C5-0082/2002 – 2002/0047(COD))

Draftsman: Elly Plooij-van Gorsel

PROCEDURE

The Committee on Industry, External Trade, Research and Energy appointed Elly Plooij-van Gorsel draftsman at its meeting of 27 March 2002.

It considered the draft opinion at its meetings of 3 June 2002, 25/26 November 2002, 23 January 2003 and 20 February 2003

At the last meeting it adopted the following amendments by 30 votes to 21.

The following were present for the vote: Peter Michael Mombaur, acting chairman; Yves Piétrasanta, vice-chairman; Jaime Valdivielso de Cué, ice-chairman; Elly Plooij-van Gorsel, draftsman; Gordon J. Adam (for Massimo Carraro), Konstantinos Alyssandrakis, Niall Andrews (for Seán Ó Neachtain) pursuant to Rule 153(2)), Per-Arne Arvidsson (for Guido Bodrato), Sir Robert Atkins, María del Pilar Ayuso González (for Godelieve Quisthoudt-Rowohl), Luis Berenguer Fuster, Gérard Caudron, Giles Bryan Chichester, Nicholas Clegg, Dorette Corbey (for Erika Mann), Willy C.E.H. De Clercq, Marie-Hélène Descamps (for Dominique Vlasto), Harlem Désir, Concepció Ferrer, Francesco Fiori (for Angelika Niebler), Per Gahrton (for Nuala Ahern), Norbert Glante, Alfred Gomolka (for Konrad K. Schwaiger), Michel Hansenne, Hans Karlsson, Bashir Khanbhai, Efstratios Korakas (for Fausto Bertinotti, pursuant to Rule 153(2)), Dimitrios Koulourianos (for Marianne Eriksson), Bernd Lange (for Gary Titley), Werner Langen, Rolf Linkohr, Eryl Margaret McNally, Elizabeth Montfort, Bill Newton Dunn (for Colette Flesch), Reino Paasilinna, Paolo Pastorelli, John Purvis, Bernhard Rapkay (for Carlos Westendorp y Cabeza), Imelda Mary Read, Mechtild Rothe, Christian Foldberg Røvsing, Paul Rübig, Umberto Scapagnini, Ilka Schröder (for Roseline Vachetta), Esko Olavi Seppänen, Maurizio Turco (for ... pursuant to Rule 153(2)), Claude Turmes, W.G. van Velzen, Alejo Vidal-Quadras Roca, Myrsini Zorba, Olga Zrihen Zaari.

SHORT JUSTIFICATION

Patent and copyright protection are complementary and may overlap.

In computer terms, the actual code (whether machine-readable or in a form which is intelligible to human readers) would almost always be subject to copyright protection, while any underlying technological ideas may be eligible for patent protection. A patent protecting the underlying technological ideas also protects all embodiments of those technical ideas, including embodiments implemented by means of software. So, if software is based on an underlying technical idea, and if that technical idea is protected by means of a patent, then the software is covered by both copyright protection and patent protection.

Patent law gives the holder of a patent for a computer-implemented invention the right to prevent third parties from using software incorporating any new technology he has invented (as defined by the patent claims).

In the EC legal framework as well as in the national laws, the legal protection of software is ensured as an intellectual property matter (*droit d'auteur*, *Urheberrecht*) similar to a literary work, and usually not through a patent, although Article 9 of EC Directive 91/250 explicitly allows for patent protection in addition to copyright protection.

The main text applicable is the Directive 91/250/EEC on the legal protection of computer programs. European patent law does not ignore software, however. The European Patent Convention only excludes computer programs (as well as business methods and certain other entities) "as such" from patentability.

However, many patents relating to software and related inventions have been granted for devices and processes in technical areas which cannot operate independently of the software components that they implement. The majority of these now relate to digital data processing, data recognition and representation and information handling.

This has fuelled debate on whether the limits of what is patentable are still sufficiently clear and properly applied, especially since the various national laws and the EPO do not always take account of the same criteria.

Some argue that the fact that the European industry does not enjoy the legal protection of patents, as is the case in the USA, is detrimental to its expansion and competitiveness. But many observers and industry leaders in the USA emphasise the drawbacks of software patents in their home market.

On the other hand, the opponents of any mention of software in patent law fear that software patents may become the general rule, thus creating permanent legal uncertainty about the use of algorithms and technical solutions that currently circulate freely or the creation of bottlenecks limiting innovation.

The proposed Directive will not make it possible to patent computer programs "as such". In broad terms, nothing will be made patentable which is not already patentable. The objective is simply to clarify the law and to resolve some inconsistencies in approach in national laws.

However, it is clear that, despite the Commission's claims, it paves the way to a broader use of patents as a model for protecting computer software. Two types of questions remain open: the political expediency of such a move, and, if patentability is regarded as politically desirable, the criteria for defining the borders of patentability in such a way that abuses and perverse effects are avoided.

In our view, therefore, the scope of the Directive - if it is ultimately adopted - should be strictly

limited to unequivocal cases where any adverse effects would not jeopardise the usefulness of the protection.

Finally, it should be noted that patents and copyright are not the only instruments for protection: designs, models and trademarks enjoy specific protection schemes and, even in the field of technical inventions, patents are flanked by the more flexible system of utility models. There is therefore no conceptual impediment to the development of ad hoc protection schemes suited to the specificities of computer software: patents may often be dispensed with.

AMENDMENTS

The Committee on Industry, External Trade, Research and Energy calls on the Committee on Legal Affairs and the Internal Market, as the committee responsible, to incorporate the following amendments in its report:

Text proposed by the Commission¹

Amendments by Parliament

Amendment 1 Recital 5

(5) Therefore, the legal rules *as interpreted by Member States' courts* should be harmonised *and the law governing the patentability of computer-implemented inventions should be made transparent*. The resulting legal certainty *should* enable enterprises to derive the maximum advantage *from patents for computer-implemented inventions* and provide an incentive for investment and innovation.

(5) Therefore, the legal rules *governing the patentability of computer-implemented inventions* should be harmonised *so as to ensure that* the resulting legal certainty *and the level of requirements demanded for patentability* enable innovative enterprises to derive the maximum advantage from *their inventive process* and provide an incentive for investment and innovation.

Justification

The object of any law relating to patenting is not to ensure that patent-holders enjoy an advantage: the advantage granted to the patent-holder is only a means of encouraging the inventive process for the benefit of the society as whole. The advantages granted to the patent-holder must not work against this ultimate objective of the patent principle.

Amendment 2 Recital 7 a (new)

¹ OJ C 151E of 25.6.2002, p.129-131.

(7a) Parliament has repeatedly asked the European Patent Office to review its operating rules and for the Office to be publicly accountable in the exercise of its functions. In this connection it would be particularly desirable to reconsider the practice in which the Office sees fit to obtain payment for the patents that it grants, as this practice harms the public nature of the institution.

In its resolution¹ on the decision by the European Patent Office with regard to patent No EP 695 351 granted on 8 December 1999, Parliament requested a review of the Office's operating rules to ensure that it was publicly accountable in the exercise of its functions.

¹OJ C 378, 29.12.2000, p. 95.

Justification

Parliament has repeatedly said, in a number of resolutions, that the European Patent Office's practices need reforming. The European Patent Office is not a European Union institution. Parliament has raised the question of its accountability in the past.

Amendment 3 Recital 7 b (new)

(7b) While software plays an important role in a number of industries it is also a basic form of creativity and self-expression. Software is, in addition, a field of specialised engineering and a basic human activity, with more than 10 million professional developers throughout the world and tens of millions of people creating software for one purpose or another. Independent developers and small businesses play a fundamental role in innovation in this area. It follows that the means employed to boost investment in largely software-based industries should not lead to jeopardising the capacity of all concerned to become active creators and

innovative users of software, and in particular that patents should not permit the monopolisation of tools for self-expression, creativity, and the dissemination and exchange of information and knowledge.

Justification

Self-explanatory.

Amendment 4

Recital 11

(11) Although computer-implemented inventions are considered to belong to a field of technology, in order to involve an inventive step, in common with inventions in general, they should make a technical contribution to the state of the art. *deleted*

Justification

Consistency with Amendment 9 by the draftsman. The technical nature of computer-implemented inventions must be proved and not taken for granted.

Amendment 5

Article 2, letter (a)

(a) “computer-implemented invention” means any invention the performance of which involves the use of a computer, computer network or other programmable apparatus and having one or more *prima facie* novel features which *are* realised wholly or partly by means of a computer program or computer programs;

(a) “computer-implemented invention” means any invention *susceptible of industrial application* the performance of which involves the use of a computer, computer network or other programmable apparatus and having one or more novel features *which constitute a technical contribution, and other features whether novel or not, and have to be* realised wholly or partly by means of a computer

program or computer programs;

Justification

The initial definition of patentability is too broad. A computer-implemented invention should not be considered patentable simply because a computer is used or because the program, performed on a programmable apparatus that is not novel itself, is novel. A technical contribution is required. It is the technical aspect which characterises an invention as opposed to an idea. This distinction is of the utmost importance, not only from a theoretical legal point of view, but above all to guarantee that competition in an economic sector is not hindered by the monopolisation of a given business method or practical knowledge by one operator only on a given market.

Amendment 6
Article 2, letter (b)

(b) “technical contribution” means a contribution *to the state of the art in* a technical field which *is not obvious* to a person skilled in the art.

(b) “technical contribution” means a contribution, *involving an inventive step to* a technical field which *solves an existing technical problem or extends the state of the art in a significant way* to a person skilled in the art.

Justification

The conditions of inventive activity and advancement of the art are fundamental in order to avoid the patenting of trivial "inventions".

Amendment
Article 3

Member States shall ensure that a computer-implemented invention is considered to belong to a field of technology.

Deleted

Justification

The wording of the proposal makes it simply impossible to discuss the technical nature of a claimed invention. This condition has to be proved, and not taken for granted.

Amendment 8
Article 4, paragraph 1

1. Member States shall ensure that a computer-implemented invention is patentable on the condition that it is susceptible of industrial application, is new, and involves an inventive step.

1. Member States shall ensure that a computer-implemented invention is patentable **only** on the condition that it **makes a technical contribution as defined in Article 2(b)**.

Justification

This wording makes the article consistent with the previous amendments.

Amendment 9
Article 4, paragraph 2

2. Member States shall ensure that it is a condition of involving an inventive step that a computer-implemented invention must make a technical contribution.

Deleted

Justification

This wording becomes redundant as a result of the previous amendments.

Amendment 10
Article 4, paragraph 3

3. The technical contribution shall be assessed by consideration of the difference between the scope of the patent claim considered as a whole, **elements of which may comprise both technical and non-technical features**, and the state of the art.

3. **The significant extent of** the technical contribution shall be assessed by consideration of the difference between **the technical elements included in** the scope of the patent claim considered as a whole and the state of the art. **Elements disclosed by the applicant for a patent over a period of six months before the date of the application shall not be considered to be part of the state of the art when assessing that particular claim.**

Justification

In a rapidly moving field such as that of the software and software-related industries, where most inventions come from SMEs, sometimes very small and young which rely more on cross-

fertilisation than on law firms' advice, a so-called "grace period" is necessary to avoid that an inventor is deprived of his/her invention when s/he has made it public a few weeks before applying for a patent, usually so as to test the invention's attractiveness to the market. The reference to a grace period overlaps with an on-going debate in general patenting law, as a similar concept exists in some legal systems (in particular the US), but not in the European Union legislation nor in the rules of the European Patent Office. Introducing patentability of software inventions in Europe, while depriving the inventors of the flexibility of early communication would create an unnecessary bottleneck at the expense of innovative SMEs and of university-enterprise co-operation.

Amendment 11
Article 4, paragraph 3a (new)

3a. Exclusions from patentability

A computer-implemented invention shall not be regarded as making a technical contribution merely because it involves the use of a computer, or other apparatus. Accordingly, inventions involving computer programs which implement business, mathematical or other methods, which inventions do not produce any technical effects beyond the manipulation and representation of information within computer-system or network, shall not be patentable.

Justification

The rule that an invention, whatever its scope, is only regarded as being an invention for the purposes of patent law when it has real effects on the real world, is a fundamental principle of patent law, as constantly confirmed over decades both in legislation and judicial decisions.

Amendment 12
Article 5, letter (a)

Member States shall ensure that a computer-implemented invention may be claimed as a product, that is as a programmed ***computer, a programmed computer network or other programmed apparatus***, or as a process

(a) Member States shall ensure that a computer-implemented invention may be claimed ***only*** as a product, that is as a programmed ***device***, or as a ***technical***

carried out by such a computer, computer network or apparatus through the execution of software.

production process.

Justification

The effect of patents is to ensure an economic monopoly. It should not deter development and pursuit of innovation by competitors.

Amendment 13

Article 5, letter (b) (new)

(b) Member States shall ensure that the production, handling, processing, distribution and publication of information, in whatever form, can never constitute direct or indirect infringement of a patent, even when a technical apparatus is used for that purpose.

Justification

The terms ‘production, handling, processing, distribution and publication’ take more account of cases of patent claims for commercial methods (in fact the processing of information) that exist in the United States and should not exist in the European Union. Similarly, ‘even when technical apparatus is used for that purpose’ was added to ensure that the performance on any apparatus of programmes that do not contribute to any technical process cannot be considered patentable. Otherwise any generic software running on a programmable apparatus with novel features could be patentable, which is explicitly prohibited by the 1973 European Patent Convention, as mentioned in Recital 7.

Amendment 14

Article 5, letter (c) and (d) (new)

(c) Member States shall ensure that the use of a computer program for purposes that do not belong to the scope of the patent cannot constitute a direct or indirect patent infringement.

(d) Member States shall ensure that whenever a patent claim names features that imply the use of a computer program, a well-functioning and well documented reference implementation of such a

program shall be published as a part of description without any restricting licensing terms.

Justification

The effect of patents is to ensure an economic monopoly. It should not deter development and pursuit of innovation by competitors.

Amendment 15 Article 6 a (new)

Article 6a

Member States shall ensure that wherever the use of a patented technique is needed for the sole purpose of ensuring conversion of the conventions used in two different computer systems or network so as to allow communication and exchange of data content between them, such use is not considered to be a patent infringement.

Justification

The possibility of connecting equipments so as to make them interoperable is a way of ensuring open networks and avoiding abuse of dominant positions. This has been specifically ruled in the case law of the Court of Justice of the European Communities in particular. Patent law should not make it possible to override this principle at the expense of free competition and users.

Amendment 16 Article 7

The Commission shall monitor the impact of computer-implemented inventions on innovation and competition, both within Europe and internationally, and on European businesses, including electronic commerce.

The Commission shall monitor the impact of **patent protection for** computer-implemented inventions on innovation and competition, both within Europe and internationally, and on European businesses, including electronic commerce.

Justification

What impact patents for computer-implemented inventions will have on innovation and competition will depend not on the granting of patents as such, but on how patent-holders enforce their patent protection.

Amendment 17

Article 8, letter (c a) (new)

(ca) whether the powers delegated to the European Patent Office are compatible with the requirements arising from the harmonisation of European Union legislation and with the principles of transparency and responsibility.

Justification

Self-explanatory.

Amendment 18

Article 8, letters (b) and (c)

(b) whether the rules governing the determination of the patentability requirements, and more specifically novelty, inventive step and the proper scope of claims, are adequate; and

(c) whether difficulties have been experienced in respect of Member States where the requirements of novelty and inventive step are not examined prior to issuance of a patent, and if so, whether any steps are desirable to address such difficulties.

(b) whether the rules governing the determination of the patentability requirements, and more specifically novelty, inventive step and the proper scope of claims, are adequate; and

(c) whether difficulties have been experienced in respect of Member States where the requirements of novelty and inventive step are not examined prior to issuance of a patent, and if so, whether any steps are desirable to address such difficulties, ***and***

Justification

The Commission report should discuss any difficulties that have arisen with the relationship between patent protection by means of computer-implemented inventions and the protection of computer programs by means of copyright law, as laid down in Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs.

Amendment 19

Article 8, letter (c a) (new)

(ca) any difficulties that have arisen with the relationship between protection by means of patents on computer-implemented inventions and the protection of computer programs by means of copyright law, as laid down in Directive 91/250/EEC.

Justification

The Commission report should discuss any difficulties that have arisen with the relationship between patent protection by means of computer-implemented inventions and the protection of computer programs by means of copyright law, as laid down in Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs.