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18 June 2003

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REPORT

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))

Committee on Legal Affairs and the Internal Market

Rapporteur: Arlene McCarthy

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PROCEDURAL PAGE

By letter of 20 February 2002 the Commission submitted to Parliament, pursuant to Article 251(2) and Article 95 of the EC Treaty, the proposal for a Directive of the European Parliament and of the Council on the patentability of computer-implemented inventions (COM(2002) 92 – 2002/0047 (COD)).

At the sitting of 27 February 2002 the President of Parliament announced that she had referred this proposal to the Committee on Legal Affairs and the Internal Market as the committee responsible and the Committee on Industry, External Trade, Research and Energy and the Committee on Culture, Youth, Education, the Media and Sport for their opinions (C5-0082/2002).

The Committee on Legal Affairs and the Internal Market appointed Arlene McCarthy rapporteur at its meeting of 25 May 2000.

The committee considered the Commission proposal and draft report at its meetings of 22 April 2002, 20 June 2002, 3 December 2002, 20 February 2003, 24 March 2003, 25 March 2003, 23 April 2003, 12 Mai 2003, 21 Mai 2003 and 17 June 2003.

At the last meeting it adopted the draft legislative resolution by 19 votes to 9, with 1 abstention.

The following were present for the vote: Willi Rothley, acting chairman; Ioannis Koukiadis and Bill Miller, vice-chairmen; Arlene McCarthy, rapporteur; Paolo Bartolozzi, Luis Berenguer Fuster (for Carlos Candal), Maria Berger, Ward Beysen, Marco Cappato (for Marie-Françoise Garaud, pursuant to Rule 153(2)), Michael Cashman (for François Zimeray, pursuant to Rule 153(2)), Bert Doorn, Raina A. Mercedes Echerer (for Ulla Maija Aaltonen), Pernille Frahm (for Alain Krivine, pursuant to Rule 153(2)), Evelyne Gebhardt, Fiorella Ghilardotti, José María Gil-Robles Gil-Delgado, Malcolm Harbour, The Lord Inglewood, Piia-Noora Kauppi (for Janelly Fourtou), Kurt Lechner, Klaus-Heiner Lehne, Neil MacCormick, Manuel Medina Ortega, Anne-Marie Schaffner, Ilka Schröder (for Michel J.M. Dary, pursuant to Rule 153(2)), Astrid Thors (for Toine Manders), Marianne L.P. Thyssen, Theresa Villiers (for Joachim Wuermeling), Diana Wallis, Rainer Wieland and Stefano Zappalà

The opinions of the Committee on Industry, External Trade, Research and Energy and the Committee on Culture, Youth, Education, the Media and Sport are attached.

The report was tabled on 18 June 2003.

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DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION

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))

(Codecision procedure: first reading)

The European Parliament,

– having regard to the Commission proposal to the European Parliament and the Council (COM(2002) 92[1]),

– having regard to Article 251 (2) and Article 95 of the EC Treaty, pursuant to which the Commission submitted the proposal to Parliament (C5-0082/2002),

– having regard to Rule 67 of its Rules of Procedure,

– having regard to the report of the Committee on Legal Affairs and the Internal Market and the opinions of the Committee on Industry, External Trade, Research and Energy and the Committee on Culture, Youth, Education, the Media and Sport (A5-0238/2003),

– having regard to the opinion of the European Economic and Social Committee,

1. Approves the Commission proposal as amended;

2. Calls on the Commission to refer the matter to Parliament again if it intends to amend the proposal substantially or replace it with another text;

3. Instructs its President to forward its position to the Council and Commission.

Text proposed by the Commission	Amendments by Parliament

Amendment 1
Recital 1

(1) The realisation of the internal market implies the elimination of restrictions to free circulation and of distortions in competition, while creating an environment which is favourable to innovation and investment. In this context the protection of inventions by means of patents is an essential element for the success of the internal market. *effective* and harmonised protection of computer-implemented inventions throughout the	(1) The realisation of the internal market implies the elimination of restrictions to free circulation and of distortions in competition, while creating an environment which is favourable to innovation and investment. In this context the protection of inventions by means of patents is an essential element for the success of the internal market. *Effective, transparent* and harmonised protection of computer-implemented inventions

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[1] OJ C 151, 25.6.2002, p 129.

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Member States is essential in order to maintain and encourage investment in this field.

throughout the Member States is essential in order to maintain and encourage investment in this field.

Justification

Investment depends not only on effective and harmonised protection, but also on transparency.

Amendment 2
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. T*he 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 t*he 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.

Legal certainty will also be secured by the fact that, in case of doubt as to the interpretation of this Directive, national courts may and national courts of last instance must seek a ruling from the Court of Justice.

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.
It is also important to underscore that the underlying aim of the Directive is to secure legal certainty and uniform interpretation and application of the law by national courts. The possibility of attaching a specialised judicial panel to the Court of First Instance under Article 220 of the EC Treaty, as amended by the Treaty of Nice, is also of interest in this connection.

Amendment 3
Recital 7 a (new)

(7a) The aim of this Directive is not to amend the European Patent Convention, but to prevent different interpretations of its provisions.

Justification

The European Patent Convention is an international instrument which can be amended only by the mechanisms provided for in the convention itself.

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.

(11) *In order to be patentable, inventions in general and computer-implemented inventions in particular must be susceptible of industrial application, new and involve an inventive step. In* order to involve an inventive step, *computer-implemented inventions* should make a technical contribution to the state of the art.

Justification

This recital restates the law, as enshrined in Article 52(1) of the European Patent Convention.

Amendment 5
Recital 12

(12) Accordingly, where an invention does not make a technical contribution to the state of the art, as would be the case, for example, where its specific contribution lacks a technical character, the invention will lack an inventive step and thus will not be patentable.

(12) Accordingly, *even though a computer-implemented invention belongs by virtue of its very nature to a field of technology, it is important to make it clear that* where an invention does not make a technical contribution to the state of the art, as would be the case, for example, where its specific contribution lacks a technical character, the invention will lack an inventive step and thus will not be patentable.

When assessing whether an inventive step is involved, it is usual to apply the

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is involved, it is usual to apply the problem and solution approach in order to establish that there is a technical problem to be solved. If no technical problem is present, then the invention cannot be considered to make a technical contribution to the state of the art.

Justification

It is important to clarify that not all computer-implemented inventions are necessarily patentable. However, computer-implemented inventions should not be excluded from patentability on the sole ground that they specify the use of a computer program. By stressing the fact that a patentable computer-implemented invention, albeit belonging to a field of technology, must make a technical contribution to the state of the art and by drawing attention to the problem and solution approach used by the patent examiners at the European Patent Office in assessing inventive step, it is intended to avoid allowing inventive but non-technical methods (including business methods) to be regarded as making a technical contribution and hence as patentable merely because they are implemented on a computer.

Amendment 6
Recital 13a (new)

(13a) However, the mere implementation of an otherwise unpatentable method on an apparatus such as a computer is not in itself sufficient to warrant a finding that a technical contribution is present. Accordingly, a computer-implemented business method or other method in which the only contribution to the state of the art is non-technical cannot constitute a patentable invention.

Justification

This recital makes it clear that it is not enough to specify the use of a computer (i.e. of technical means) to make a computer-implemented invention patentable. The invention as a whole must make a technical contribution. Ordinary data processing is not enough.

Amendment 7
Recital 13b (new)

(13b) If the contribution to the state of the art relates solely to unpatentable matter, there can be no patentable invention irrespective of how the matter is presented in the claims. For example, the requirement for technical contribution cannot be circumvented merely by specifying technical means in the patent claims.

Justification

This recital is designed to ensure that the requirement for inventive step and hence for a technical contribution cannot be circumvented through ingenious drafting of the patent claims.

Amendment 8
Recital 13c (new)

(13c) Furthermore, an algorithm is inherently non-technical and therefore cannot constitute a technical invention. Nonetheless, a method involving the use of an algorithm might be patentable provided that the method is used to solve a technical problem. However, any patent granted for such a method would not monopolise the algorithm itself or its use in contexts not foreseen in the patent.

Justification

Article 52(2)(a) and (c) of the European Patent Convention precludes the patentability of "mathematical methods" and "schemes, rules and methods for performing mental acts, playing games and doing business, and programs for computers". Since an algorithm could be a computer program or an element of such a program in isolation from its execution environment or a mathematical formula or method, it is, as such, precluded from patentablity. However, the mere use of an algorithm does not preclude patentability.

Amendment 9
Recital 13d (new)

(13d) The scope of the exclusive rights conferred by any patent are defined by the claims. Computer-implemented inventions must be claimed with reference to either a product such as a programmed apparatus, or to a process carried out in such an apparatus. Accordingly, where individual elements of software are used in contexts which do not involve the realisation of any validly claimed product or process, such use will not constitute patent infringement.

Amendment 10
Recital 14

(14) The legal protection of computer-implemented inventions *should* not necessitate the creation of a separate body of law in place of the rules of national patent law. The rules of national patent law *should* remain the essential basis for the legal protection of computer-implemented inventions *as adapted or added to in certain specific respects as set out in this Directive*.

(14) The legal protection of computer-implemented inventions *does* not necessitate the creation of a separate body of law in place of the rules of national patent law. The rules of national patent law remain the essential basis for the legal protection of computer-implemented inventions. *This Directive simply clarifies the present legal position having regard to the practices of the European Patent Office with a view to securing legal certainty, transparency, and clarity in the law and avoiding any drift towards the patentability of unpatentable methods, such as business methods.*

Justification

It is essential to make it clear that this Directive is not revolutionary and will not change the status quo as regards the patentability of computer-implemented inventions. It will, however, make for legal certainty and set clear limits as to what is patentable in this area.

Amendment 11
Recital 16

(16) The competitive position of European industry in relation to its major trading partners **would** be improved if the current differences in the legal protection of computer-implemented inventions **were** eliminated and the legal situation **was** transparent.

(16) The competitive position of European industry in relation to its major trading partners **will** be improved if the current differences in the legal protection of computer-implemented inventions **are** eliminated and the legal situation **is** transparent. **With the present trend for traditional manufacturing industry to shift their operations to low-cost economies outside the European Union, the importance of intellectual property protection and in particular patent protection is self-evident.**

Justification

The economic importance of this Directive should not be underestimated. Moreover, studies have shown a link between R&D spending, patent applications and productivity. Intellectual property protection creates and secures jobs in Europe and brings in revenue.

Amendment 12
Recital 17

(17) This Directive **shall** be without prejudice to the application of the competition rules, in particular Articles 81 and 82 of the Treaty.

(17) This Directive **should** be without prejudice to the application of the competition rules, in particular Articles 81 and 82 of the Treaty.

Justification

It is bad draftsmanship to couch recitals as normative provisions.

Amendment 13
Recital 18

(18) **Acts permitted under** Directive 91/250/EEC on the legal protection of computer programs by copyright, in particular provisions thereof **relating to** decompilation and interoperability, **or the**

(18) **The rights conferred by patents granted for inventions within the scope of this Directive shall not affect acts permitted under Articles 5 and 6 of** Directive 91/250/EEC on the legal protection of

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provisions concerning semiconductor topographies or trade marks, shall not be affected through the protection granted by patents for inventions within the scope of this Directive.

computer programs by copyright, in particular *under the* provisions thereof *in respect of* decompilation and interoperability. *In particular, acts which, under Articles 5 and 6 of Directive 91/250/EEC, do not require authorisation of the rightholder with respect to the rightholder's copyrights in or pertaining to a computer program, and which, but for Articles 5 or 6 of Directive 91/250/EEC, would require such authorisation, shall not require authorisation of the rightholder with respect to the rightholder's patent rights in or pertaining to the computer program.*

Justification

Unlimited patent protection for software could make it illegal under patent law to engage in reverse engineering practices employed by software developers to achieve interoperability as currently permitted under the exceptions in the Software Copyright Directive. Therefore future EU legislation related to software patents must include an explicit exception to patent rights in order to ensure that developers of software can continue to engage in the same acts to achieve interoperability under patent law as they are allowed to today within the limits of copyright law.

The Council's common approach of 8 November 2002 is supported and clarified by a reference to Articles 5 and 6 of Directive 91/250/EEC.

Amendment 14
Article 2, point (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 the performance of which involves the use of a computer, computer network or other programmable apparatus and having one or more features which are realised wholly or partly by means of a computer program or computer programs;

The expression "prima facie novel" is unclear and could add an initial additional requirement to assess novelty at the commencement of the examination procedure.

Amendment 15
Article 3

Article 3 *(deleted)*

Computer-implemented inventions as a field of technology

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

This article is unnecessary and unclear in scope. It would be difficult to put into effect, and might lead to unpredictable results. It might be construed as extending the scope of patent protection.

Amendment 16
Article 4

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.	*In order to be patentable, a computer-implemented invention must be susceptible of industrial application and new and involve an inventive step. In order to involve an inventive step, a computer-implemented invention must make a technical contribution.*
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.	Member States shall ensure that a computer-implemented invention *making* a technical contribution *constitutes a necessary condition of involving an inventive step*.

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.

The technical contribution shall be assessed by considering the state of the art and the scope of the patent claim considered as a whole, which must comprise technical features, irrespective whether or not such features are accompanied by non-technical features.

Justification

Produces greater clarity.

Amendment 17
Article 4a (new)

Article 4a

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, network or other programmable apparatus. Accordingly, inventions involving computer programs which implement business, mathematical or other methods and do not produce any technical effects beyond the normal physical interactions between a program and the computer, network or other programmable apparatus in which it is run shall not be patentable.

Justification

This, in conjunction with the corresponding recital, provides clarification that simply specifying technical means is not enough for patentability. There must be a technical contribution. It also makes it clear that the computer implementation of a business method simpliciter is not a patentable invention.

Amendment 18
Article 5

Member States shall ensure that a computer-implemented invention may be claimed as a

1. Member States shall ensure that a computer-implemented invention may be

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product, that is as a programmed computer, a programmed computer network or other programmed apparatus, or as a process carried out by such a computer, computer network or apparatus through the execution of software.

claimed as a product, that is as a programmed computer, a programmed computer network or other programmed apparatus, or as a process carried out by such a computer, computer network or apparatus through the execution of software.

2. A claim to a computer program, on its own, on a carrier or as a signal, shall be allowable only if such program would, when loaded or run on a computer, computer network or other programmable apparatus, implement a product or carry out a process patentable under Articles 4 and 4a.

Justification

The new Article 5 (2) makes it clear that program claims are in principle of a declaratory nature. They are only allowable if the computer-implemented invention claimed, usually a method for processing data, meets all the requirements of a patentable invention, i.e. is new, involves an inventive step and is industrially applicable. However, such claims are necessary in view of efficient enforcement of patents for such inventions, taking account of the fact that this kind of invention normally is put into practice by creating an appropriate program which is then marketed using data carriers, by downloading etc. Program claims do not confer broader or different protection than does the underlying patented invention claimed as a process or product. Such claims simply state that an appropriate computer program is a preferred embodiment of the protected invention.

Amendment 19
Article 6

Acts permitted under Directive 91/250/EEC on the legal protection of computer programs by copyright, in particular provisions thereof *relating to decompilation and interoperability, or the provisions concerning semiconductor topographies or trademarks, shall not be affected through the protection granted by patents for inventions within the scope of this Directive.*

The rights conferred by patents granted for inventions within the scope of this Directive shall not affect acts permitted under Articles 5 and 6 of Directive 91/250/EEC on the legal protection of computer programs by copyright, in particular *under the* provisions thereof *in respect of decompilation and interoperability.*

Justification

Unlimited patent protection for software could make it illegal under patent law to engage in

reverse engineering practices employed by software developers to achieve interoperability as currently permitted under the exceptions in the Software Copyright Directive. Therefore future EU-legislation related to software patents must include an explicit exception to patent rights in order to ensure that developers of software can continue to engage in the same acts to achieve interoperability under patent law as they are allowed to today within the limits of copyright law.

The Council's common approach of 8 November 2002 is supported and clarified by a reference to Articles 5 and 6 of Directive 91/250/EEC.

Amendment 20
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 21
Article 7

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.	7. 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, *especially small and medium-sized enterprises,* and electronic

commerce.

Justification

It is essential to monitor the impact of the patentability of computer-implemented inventions on small and medium-sized undertakings.

Amendment 22
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*

Amendment 23
Article 8, point (d) (new)

(d) whether difficulties have been experienced in respect of the relationship between the protection by patents of computer-implemented inventions and the protection by copyright of computer programs as provided for in Directive 91/250/EC and whether any abuse of the patent system has occurred in relation to computer-implemented inventions;

Justification

Concerns have been expressed about the impact of the Directive on copyright protection for

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software and the exceptions for interoperability provided for in Directive 91/205/EC. This provision would also allow the Commission to monitor any abuse of the patent system in this area.

Amendment 24
Article 8, point (e) (new)

(e) whether it would be desirable and legally possible having regard to the Community's international obligations to introduce a "grace period" in respect of elements of a patent application for any type of invention disclosed prior to the date of the application;

Justification

It has been strongly argued that a grace period is necessary to avoid an inventor being deprived of his or her invention when it has been made public before applying for a patent, for instance in order to test its attractiveness to the market. It is maintained that this would be particularly useful for innovative SMEs and cooperation between universities and industry. However, such an innovation could not be introduced solely for patents for computer-implemented inventions without a prior study of its impact and its compatibility with the Community's international obligations under, for instance, TRIPs.

Amendment 25
Article 8, point (f) (new)

(f) in what respects it may be necessary to prepare for a diplomatic conference to revise the European Patent Convention, also in the light of the advent of the Community patent;

Amendment 26
Article 8, point (g) (new)

(g) on how the requirements of this Directive have been taken into account in the practice of the European Patent Office and in its examination guidelines.

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Amendment 27
Article 8a (new)

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Article 8a

In the light of the monitoring carried out pursuant to Article 7 and the report to be drawn up pursuant to Article 8, the Commission shall review the impact of this Directive and, where necessary, submit proposals for amending legislation to the European Parliament and the Council.

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Amendment 28
Article 9, paragraph 1, first subparagraph

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1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive not later than ***[DATE (last day of a month)]***. They shall forthwith inform the Commission thereof.	1. Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive not later than ***eighteen months after its entry into force.*** They shall forthwith inform the Commission thereof.

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Justification

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It is necessary to specify the date by which the Directive should enter into force.

EXPLANATORY STATEMENT

1. The need for a directive

The proposal under consideration is not revolutionary. The patenting of computer-implemented inventions is not new. Indeed, patents involving use of software have been applied for and granted since the earliest days of the European patent system and it is now estimated that 15% of all applications for patents received by the EPO relate to computer-implemented inventions[1]. This means that of the over 110,000 applications received at the EPO in 2001, more than 16,000 will have dealt with innovation in computer-related technologies. Moreover, activity has increased significantly in recent years: applications in the specific area of "computing" rose 25% from 5,057in 2000 to 6,816 in 2002 (provisional EPO data), which compares with only 2220 in 1995. Similar rises are also seen in telecommunications and other areas which are heavily dependent on computer programs. A similar picture is provided by the national patent offices. In France, telecommunications and informatics accounted for around 12% of total patent applications and, in the UK, 810 out of a total of 12,517 published applications related to calculating, counting, checking, signalling and data-handling, a significant proportion of which probably relate to computer-implemented inventions.

What the proposal for a directive sets out to do is to provide a restrictive restatement of the law as it has been applied by the Boards of Appeal of the European Patent Office, in order to ensure that patents for computer-related inventions are granted on the same basis everywhere in the European Union and that the national courts deal with contested patents on the basis of uniform principles. Furthermore, once there is a Community directive, the Court of Justice will have jurisdiction to give preliminary rulings. What the proposal for a directive is concerned with above all is a concern which is consistently taken up by this committee, that of legal certainty. What it seeks to avoid in particular is small software houses being confronted with poorly granted patents for obscure or obvious patents.

In drawing up her report, the rapporteur has taken over ideas put forward by the committees consulted in such as way as to ensure that the resulting text is compatible with the Community's obligations under international law. The rapporteur has also carefully weighed the arguments put forward by industry and the open source community, some members of which have expressly stated their support for this plan to provide clarity and a clear explanation of when patents will be granted in this field.

The rapporteur considers that her amendments constitute a balanced view, which reflect the status quo and draw a line between what can and cannot be patentable. In her opinion, they represent a moderate, coherent approach, consistent with the Community's international obligations.

2. The need for patent protection

It should first be pointed out that computer-implemented inventions cover such devices as

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[1] 17,030 out of the 110,025 patent applications received by the EPO in 2001were classified to the two areas most closely reliant on software, namely 10,719 for electric communications and 6,311 for computing. Most of these applications, as well as many classified to other areas, will be for computer-implemented inventions.

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mobile phones, intelligent household appliances, engine control devices, machine tools and computer program-related inventions.

Secondly, there is no disagreement, even in the open-source community, that the law of intellectual property should protect computer programs. The controversy is how software should be protected: only by copyright or also by patent. A workable distinction is that a patent protects the practical application of knowledge, ideas or know-how, whereas copyright is not concerned with practical effects, but rather protects the expression of works (in the case of software, the code, in whatever form) against unauthorised reproduction or commercial exploitation. But there is a feeling that "copyright protects too little and patents ... risk protecting too much"[1]. Copyright protection is considered to have limitations as a means of protecting more than the actual coding of a computer program and there are misgivings lest patent protection should lead to patents being granted for inventions which do not satisfy the traditional criteria. The proposal for a directive as amended by the rapporteur resolves this dilemma reasonably and subtly.

It is simply not true that patents are not at present applied for and granted for software-related inventions in Europe, as witness the figures set out in section 1. This fairly widespread misapprehension springs from the express exception for computer programs as such in the European Patent Convention and national statute law. In fact, what the EPC says is that computer programs "as such" are not patentable, which is reasonable and justified because a computer program "as such" is protected by copyright.

What copyright does is protect the expression, the actual lines of code written by programmer. What it offers is the right to prohibit the copying or commercialisation of that code. It is simple to obtain and long lasting and perfect protection against piracy (unauthorised copying and distribution of copies).

But opyright does not protect the ideas underlying software, what the software does within a machine, or how a machine under software control interacts with its environment. If such a process were to involve the solution of a technical problem in an inventive way (that is, in a way which is new and not obvious to a skilled person), then a patentable invention would be present. This is what is meant by a computer-implemented invention. The grant of a patent for such an invention is completely consistent with the normal principles of European patent law. It would be wrong to discriminate against software developers by refusing them the patent protection available to other inventors when all the conditions for patentability are present.

3. The rationale behind the directive and the need for a strict definition of patentability
Practice to date at the EPO has evolved over a succession of decided cases in the direction of what some consider to be a liberalisation of the criteria for patentability, as a result of which they will now grant patents for computer-implemented inventions provided they make a "technical contribution". However, this has resulted in the complaint that too many applications for patents for computer program patents are for trivial inventions or make an insufficient contribution in relation to the state of the art and that examination of these questions tends to take second place to "the rather sterile and philosophical issue of whether or not the alleged invention confers a 'technical effect'"[2].

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[1] Trevor Cook, Partner, Bird & Bird, in BSC, Review 2003, Computing in the 21st Century.
[2] *Ibid.*

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Far from being radical, the Commission's proposal - which the rapporteur endorses whilst seeking to tighten it up further - aims to counter any extension of the scope of patent protection for software while resisting the call to exclude patent protection altogether.

Indeed, the proposal for a directive sets out to avoid irreconcilable conflict with established practice at the EPO, while "subtly changing the nature of the investigation ... from the sterile one of exceptions into one of obviousness" thus answering "one of the major criticisms of most computer-implemented inventions"[1], while retaining the criterion of "technical contribution". Thus it focuses on whether claims are for bona fide inventions. The rapporteur's amendments would also very clearly exclude the grant for patents for non-inventive business methods. As a result, the directive would not lead to patents being granted for otherwise unpatentable business methods simply because use of a computer is specified in the claims.

4. The impact on small and medium-sized software developers
European business does not operate in a vacuum. Computer-implemented inventions are increasingly important, yet many of the 20,000 patents for software-related patents already granted in Europe are in non-European hands. Indeed, we would do small and medium-sized European software developers a disservice if we were either to leave matters as they stand, or if we were to attempt to ban all patents for such inventions, thus potentially putting our software developers at a disadvantage when they seek to compete in the US. Moreover, a study conducted by the Intellectual Property Institute in London has found that "the patentability of computer-related inventions has helped the growth of computer program-related industries in the US, in particular the growth of small and medium enterprises and independent software developers into sizeable indeed major companies"[2].

Nobody in Europe can have any interest in seeing the destruction of small European software developers. On the contrary, large corporations are often dependent upon the innovativeness of small businesses and patents allow them to turn their creativity to good account, as witness the world-wide non-exclusive licence recently granted to a US multinational by a ten-person company located in an employment blackspot in south-west England in respect of all of their voice-recognition software patents.

Apart from allowing such companies to exploit their inventiveness, the directive as amended by this report would impose a requirement on the Commission to keep the sector under review and report to Parliament, in particular as regards the impact on small and medium-sized businesses, any difficulties in respect of the relationship between patent-protection of computer implemented inventions and copyright protection and the desirability and legal feasibility of the introduction of a grace period. Accordingly, the directive would not only improve on the present situation as regards patentability of computer-invented inventions by affording greater legal certainty and uniformity in the law across Europe, it would also mandate the European Commission to keep a watching brief on the sector, while paying special attention to the small and medium-sized business sector.

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[1] *Ibid.*
[2] http://www.europa.eu.int/comm/internal_market/en/indprop/comp/studyintro.htm

EN

In this connection, your rapporteur would urge the Commission to consider creating a support network for small and medium-sized enterprises in order to assist them in benefiting from the protection of intellectual property.

5. The economic importance of patentability of computer-implemented inventions for European industry

Although no consolidated data seem to exist concerning royalties for patents paid in Europe, the important thing about patents as far as companies are concerned is the protection of their R&D investments. Ericsson files more than 1,000 patents every year and almost all of them are computer-implemented inventions. Nokia estimates that 60-95% of their patent applications are for such inventions, whilst Alcatel estimates that 60 % of their inventions are for computer-implemented inventions and that the trend is upwards. In order to value how important patent protection is for a company, it is not unusual for companies with major R&D programmes to measure their patenting (internal) costs as a percentage of their R&D spend. Some companies spend as much as 5-10% of their R&D on patents. This means that companies with substantial software-related R&D can be estimated to be spending as much as perhaps 10% of their overall R&D budgets on patenting. Moreover, academic studies have shown a link between R&D spending, patent applications and productivity.

6. Specific observations and conclusions

As regards some specific amendments put forward in the other committees, the rapporteur considers that she should make two specific observations. First, the test laid down in the *Rote Taube* case antedates the European Patent Convention, but it is significant that the drafters of the Convention chose not to include it as part of the definition of patentable subject-matter. The imposition of a specific interpretation of that test must be rejected, as it would not be relevant to all inventions or appropriate in all situations. Secondly, the proposal to provide for grace periods is a valid one, but such a proposal could not be made solely for computer-implemented inventions and needs to be considered in the light of the European Union's international obligations under TRIPs. She has therefore included an amendment to cater for this concern in her draft report.

In the rapporteur's view, there are only two choices: either to approve the Commission's proposal, possibly with amendments, such as her own, consistent with the European Patent Convention and TRIPs, or to reject it. If the Commission's proposal is rejected, the European Patent Office and its Boards of Appeal would remain the principal arbitrators of the law and there would be nothing to prevent a gradual drift towards the patentability of business methods and the like, as has been witnessed in the United States.   There would therefore continue to be uncertainty and a lack of transparency and there would be no Community competence in this area. Also software developers' only recourse would be to bring proceedings in their national courts and all the indications are that national courts, would tend to follow the case law of the Boards of Appeal in Munich. Lastly, software developers could not benefit from the interoperability exceptions provided for in Article 6 of the proposed directive, thus risking infringement proceedings.

Your rapporteur strongly commends the amendments set out in her draft report.

21 February 2003

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 Rovsing, 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 a 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.

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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 Commission[1]	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. T*he 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 t*he 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.

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[1] OJ C 151E of 25.6.2002, p.129-131.

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Amendment 2
Recital 7 a (new)

(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 resolution[1] 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.

[1]OJ 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

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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 draftswoman. The technical nature of computer-implemented inventions must be proved and not taken for granted.

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(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".

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

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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	(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.	(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.

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22 January 2003

OPINION OF THE COMMITTEE ON CULTURE, YOUTH, EDUCATION, THE MEDIA AND SPORT

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))
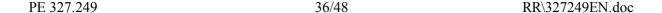
Draftsman: Michel Rocard

PROCEDURE

The Committee on Culture, Youth, Education, the Media and Sport appointed Michel Rocard draftsman at its meeting of 26 March 2002.

It considered the draft opinion at its meetings of 10 December 2002 and 21 January 2003.

At the latter meeting it adopted the following amendments by 16 votes to 13, with 1 abstention.

The following were present for the vote: Michel Rocard (chairman),Vasco Graça Moura (vice-chairman), Mario Mauro (vice-chairman), Michel Rocard (draftsman), Nuala Ahern, Konstantinos Alyssandrakis, Ole Andreasen, Pedro Aparicio Sánchez, Juan José Bayona de Perogordo, Christopher J.P. Beazley, Danielle Darras (for Martine Roure pursuant to Rule 153(2)), Marielle de Sarnez, Raina A. Mercedes Echerer, Janelly Fourtou, Geneviève Fraisse, Marie-Hélène Gillig, Ruth Hieronymi, Ulpu Iivari, Lucio Manisco, Miquel Mayol i Raynal, (for Eurig Wyn pursuant to Rule 153(2)), Pietro-Paolo Mennea, Domenico Mennitti, Juan Ojeda Sanz, Doris Pack, Roy Perry, Christa Prets, Feleknas Uca, Kathleen Van Brempt, Stavros Xarchakos, Sabine Zissener and Myrsini Zorba.

SHORT JUSTIFICATION

Copyright protects intellectual creation, of course, and this committee was involved in the adoption of the recent directive on copyright. Patents protect inventions. But what is a patent? The website of the European Patents Office, established in 1973 in Munich, gives the following definition: 'A patent is not a stamp of technical excellence. A patent does not give its owner the right to make use of his invention. A patent is not a guarantee of commercial success. A patent gives its owner the right to prevent others from commercially using his invention' (EPO, Facts and Figures 2001).

Article 52 of the European Patent Convention stipulates that patentable inventions must be new, involve an inventive step and be susceptible of industrial application. Computer programmes (and other products such as business models and mathematical methods) are not considered to be inventions and are therefore not patentable. However, the question is highly complex and controversial (see the recent study by the European Parliament's DG IV), as demonstrated by the fact that the proposal for a directive concerned has generated a wide-ranging debate, including open criticism, especially from some of the sectors directly involved.

What is at stake?

With the launch of the Lisbon process, Europe has set itself the ambitious objective of attaining levels of excellence in the framework of a knowledge-based economy. In considering the debate on the patentability of inventions relating to computer programmes, this broader objective must be kept in mind, while seeking to determine what measures will be most effective, not only in achieving, but also in maintaining supremacy in this sector.

The approach which the Committee on Culture should adopt to this debate is a simple one – it should defend to the hilt creative freedom and the importance of intellectual contribution and the widest possible circulation of ideas. Since the dawn of time, civilisations have always progressed through the coming together of ideas and their ability to spread. Even in the age of computers and the internet this remains true. Accordingly, any legal measures which help to ensure respect for and protection of authors and inventions are welcome, provided they do not make the system too inflexible or cumbersome, leading it to become paralysed and increasingly out of date.

This approach is not out of step with the way the problem is viewed in the economic sector, which is incapable of saying with any certainty whether the introduction of patents for computer programmes will have solely beneficial effects and not entail drawbacks for the sector's development in the medium and long term.

Given that the informatics sector is a fulcrum for the economic and cultural development of our societies, any attempt to bring legal order to this field should be undertaken in a far-sighted manner and with the utmost caution.
As regards the legal aspects, for instance, and given that any innovative component software is the latest in a long line of previous software products and innovations and cannot develop without interacting with them, patentability risks giving rise to a climate of instability that could itself trigger a dramatic rise in the number of disputes. Only big business would be able

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to hold their own in such a climate.

It is a well-known fact that 97% of the world's recognised patents belong to developed countries and only 3% to countries in the South. Making this new type of human knowledge in the form of software patentable risks exacerbating the situation, making access for the countries of the South more difficult still and causing a serious political problem.

In attempting to address all of these baffling issues it might be tempting to propose the radical solution of rejecting or blocking the directive. However, rather than leave the matter pending, perhaps it would be preferable to help establish a legal framework that is as clear and balanced as possible.

AMENDMENTS

The Committee on Culture, Youth, Education, the Media and Sport 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 Commission[1]	Amendments by Parliament

Amendment 1
Recital 7 a (new)

	(7a) Software plays a key role in many industries and, moreover, is a fundamental means of creation and expression.

Justification

None.

Amendment 2
Recital 7 b (new)

	(7b) In its resolution (published in OJ C 378, 29.12.2000, p. 95) on a decision by the EPO with regard to patent No EP 695 351 granted on 8 December 1999,

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[1] OJ C 151, 25.6.2002, p 129.

the European Parliament demanded a review of the EPO to ensure that it becomes publicly accountable in the exercise of its functions.

Justification

The EPO is not an EU institution and concerns have previously been raised about its accountability.

Amendment 3
Recital 7 c (new)

(7c) At the same time software is a specialised field of engineering and an important human activity, with more than 10 million professional software developers worldwide and tens of millions of people who develop software in one capacity or another.

Justification

None.

Amendment 4
Recital 7 d (new)

(7d) An increasing amount of information and knowledge is intrinsically linked to the software through which it is created, expressed, disseminated and put to use.

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Justification

None.

Amendment 5
Recital 7 e (new)

(7e) Independent software developers and small businesses make a crucial contribution to innovation in this area.

Justification

None.

Amendment 6
Recital 7 f (new)

(7f) This situation, in which there is a huge number of innovators and technology influences basic cultural activities, marks a completely new departure in the history of patents and requires specific precautions as to the manner in which patents are applied in this area.

Justification

None.

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Amendment 7
Recital 7 g (new)

(7g) It follows, therefore, that the means used to encourage investment in software-intensive industries ought not to serve to jeopardise the potential of anyone to become an active developer and innovative user of software.

Justification

None.

Amendment 8
Recital 7 h (new)

(7h) In particular patents must not allow monopolies to be established over means of expression, creation, dissemination and exchange of information and knowledge.

Justification

None.

Amendment 9
Recital 7 i (new)

(7I) The various software components or levels are highly interdependent and, therefore, the greatest possible care should be exercised in respect of the extent of the protection afforded by patents, in order to ensure that markets

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remain competitive and open.

Justification

None.

Amendment 10
Article 2, point (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 **technical solution the implementation 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;

Justification

The definition of a 'computer-implemented invention' is the key point of the directive. All computer programs could be considered patentable under the directive as it now stands, provided that the patentability claims were carefully worded. It is vital to confine patentability to the physical and material sphere. Nothing belonging to the non-material sphere (information, knowledge) should be patentable.

Amendment 11
Article 2, point (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 to the state of the art in a technical field which is not obvious to a person skilled in the art. **The use of natural forces to control physical effects beyond the digital representation of information belongs to a technical field. The processing, handling, and presentation of information do not belong to a technical field, even where technical devices are employed for such purposes.**

Justification

There is general agreement on the need to distinguish computer-implemented inventions that

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can be patented from those which cannot, because they do not belong to a technical field. The reference to natural forces is not sufficient in itself; the crucial issue is the nature of the effects for which those natural forces are used. The use of physical effects in computers to manipulate information must not serve to justify the patentability of algorithms or interfaces.

Amendment 12
Article 3

Computer-implemented inventions as a field of technology Member States shall ensure that a computer-implemented invention is considered to belong to a field of technology.	***deleted***

Justification

It is generally agreed that this article is unnecessary and could give the mistaken impression that all software-related inventions can be patented.

Amendment 13
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 on the condition that it is susceptible of industrial application, is new, ***non-obvious,*** involves an inventive step**, *and belongs to a technical field***.

Justification

It is important to draw a border between technical inventions, which belong to the material world and are patentable, while computer programs as such are protected by copyright like mathematics, ideas, information ... (European Patent Convention 1972).

Amendment 14
Article 4, paragraph 2

2. Member States shall ensure that it is a condition of involving an inventive step that	2. Member States shall ensure that it is a condition of involving an inventive step that

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a computer-implemented invention must make a technical contribution.

a computer-implemented invention must make a technical contribution*, that is to say, it must impart a new lesson in the relationships of cause and effect involved in the controlled use of natural forces*.

Justification

The changes are intended to ensure that patentability applies only to technical fields and are in line with the amendment to Article 2.

Amendment 15
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 technical contribution shall be assessed by consideration of the difference between the scope *of the technical features* of the patent claim considered as a whole and the state of the art.

Justification

The wording in the proposal for a directive paves the way for patentability of inventions of a technical nature whose innovative features do not, however, extend beyond non-technical aspects. This is clearly unacceptable.

Amendment 16
Article 5

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

Member States shall ensure that *the forms of claims in respect of* a computer-implemented invention *may be made only to the effect that the invention is a product*, that is a programmed computer, a programmed computer network or other programmed apparatus, or a *technical production* process *controlled* by such a computer, computer network or apparatus through the execution of software.

Justification

The present wording of Article 5 is confusing because a 'process carried out by a computer' could be taken to denote any piece of software if that software were claimed to produce the technical effect of displaying information on a computer screen, which in reality is what a computer is designed to do. A process carried out by computer has no technical effect in itself. The purpose of the changes is to ensure that no computer process can be patentable as such.

Amendment 17
Article 5 a (new)

Article 5a

Member States shall ensure that the processing, handling, dissemination, and presentation of information in whatever form do not constitute a direct or indirect patent infringement.

Justification

The object of the changes is to ensure that patents are not broadened out to excess. It should be permissible to use the functions of similar software systems when their applications are designed to serve different purposes. If that were not the case, research and innovation would be in danger of being obstructed by legal actions brought when similar software was alleged to be counterfeit.

Amendment 18
Article 5 b (new)

Article 5b

Member States shall ensure that the use of a computer program for purposes not requiring the use of the technical contributions claimed in the patent does not constitute a direct or indirect patent

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infringement.

Justification

The object of the changes is to ensure that patents are not broadened out to excess. It should be permissible to use the functions of similar software systems when their applications are designed to serve different purposes. If that were not the case, research and innovation would be in danger of being obstructed by legal actions brought when similar software was alleged to be counterfeit.

Amendment 19
Article 5 c (new)

Article 5c

Member States shall ensure that whenever a patent claim mentions features entailing the use of a computer program, an operational and well-documented reference run of that program is published as part of the patent description without any restricting licensing terms.

Justification

Just as, whenever an innovation is claimed in the research field, the details are published and discussed among fellow researchers, so should an invention be shown to be technically effective at the time when the patent application is filed.

Amendment 20
Article 6

Acts permitted under Directive 91/250/EEC on the legal protection of computer programs by copyright, in particular provisions thereof relating to decompilation and interoperability, or the provisions concerning semiconductor topographies or trade marks, shall not be affected through the protection granted by patents for   **deleted**

***inventions within the scope of this
Directive.***

Justification

See justification for the new Article 6a.

Amendment 21
Article 6 a (new)

Article 6a

***The rights conferred by patents granted for
inventions within the scope of this Directive
shall be without prejudice to acts permitted
by way of exception under
Directive 91/250/EEC on the legal
protection of computer programs by
copyright, in particular the acts specified
and described in the closed list set out in
Articles 5(2) and (3) and 6 of
Directive 91/250/EEC.***

Justification

*Under Directive 91/250/EEC on the legal protection of computer programs by copyright,
persons who have legitimately acquired such programs may perform certain acts that would
otherwise be covered by copyright, in particular the acts of reproduction and translation,
which are 'indispensable to obtain the information necessary to achieve the interoperability
of an independently created computer program with other programs' (see Article 6). The
directive has established a delicate balance between the interests of rightholders and those of
parties seeking to develop interoperable programs. The proposal for a directive on the
patentability of computer-implemented inventions must not call that balance into question.
The amendment proposed to Article 6 has the advantage of being clearer than the more
general wording of the Commission text, not least because it specifies the relevant provisions
of Directive 91/250/EEC.*

Amendment 22
Article 8, point (c a) (new)

***(ca) whether the powers delegated to the
EPO are compatible with requirements for
harmonisation of the EU legislation,
together with the principles of transparency***

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and accountability.

Or. en

Justification

None.

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