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*****II**

DRAFT RECOMMENDATION FOR SECOND READING

on the Council common position for adopting a directive of the European Parliament and of the Council on the patentability of computer-implemented inventions
(11979/1/2004 – C6-0058/2005 – 2002/0047(COD))

Committee on Legal Affairs

Rapporteur: Michel Rocard

Symbols for procedures

- * Consultation procedure
majority of the votes cast
- **I Cooperation procedure (first reading)
majority of the votes cast
- **II Cooperation procedure (second reading)
*majority of the votes cast, to approve the common position
majority of Parliament's component Members, to reject or amend
the common position*
- *** Assent procedure
*majority of Parliament's component Members except in cases
covered by Articles 105, 107, 161 and 300 of the EC Treaty and
Article 7 of the EU Treaty*
- ***I Codecision procedure (first reading)
majority of the votes cast
- ***II Codecision procedure (second reading)
*majority of the votes cast, to approve the common position
majority of Parliament's component Members, to reject or amend
the common position*
- ***III Codecision procedure (third reading)
majority of the votes cast, to approve the joint text

(The type of procedure depends on the legal basis proposed by the Commission)

Amendments to a legislative text

In amendments by Parliament, amended text is highlighted in ***bold italics***. Highlighting in *normal italics* is an indication for the relevant departments showing parts of the legislative text for which a correction is proposed, to assist preparation of the final text (for instance, obvious errors or omissions in a given language version). These suggested corrections are subject to the agreement of the departments concerned.

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DRAFT EUROPEAN PARLIAMENT LEGISLATIVE RESOLUTION

on the Council common position for adopting a directive of the European Parliament and of the Council on the patentability of computer-implemented inventions (11979/1/2004 – C6-0058/2005 – 2002/0047(COD))

(Codecision procedure: second reading)

The European Parliament,

- having regard to the Council common position (11979/1/2004 – C6-0058/2005),
 - having regard to its position at first reading¹ on the Commission proposal to Parliament and the Council (COM(2002)0092)²,
 - having regard to Article 251(2) of the EC Treaty,
 - having regard to Rule 62 of its Rules of Procedure,
 - having regard to the recommendation for second reading of the Committee on Legal Affairs (A6-0000/2005),
1. Approves the common position as amended;
 2. Instructs its President to forward its position to the Council and Commission.

Council common position	Amendments by Parliament
Amendment 1	
Title	
DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL	DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
on the patentability of computer- implemented inventions	on the patentability of computer- controlled inventions

Justification

The term 'implemented' is misleading here, as it could give the impression that an invention can be wholly realised by a mere computer, which would mean that software could be patentable. As both the Commission and the Council have come out against the patentability of software, the scope of the directive needs to be defined so as to exclude this eventuality. What the directive should therefore cover is the patenting of inventive material devices which controlled by software.

¹ OJ C 77, 26.3.2004, p. 87.

² OJ C 151, 25.6.2002, p. 129 E.

Amendment 2
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, transparent and harmonised protection of computer-**implemented** inventions throughout the Member States is essential in order to maintain and encourage investment in **this field**.

(1) The realisation of the internal market implies the elimination of restrictions to free circulation and of **unjustified** 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 **one of the elements contributing to** the success of the internal market. **Appropriate** effective, transparent and harmonised protection of computer-**controlled** inventions throughout the Member States is essential in order to maintain and encourage investment in **all technical fields involving the use of information technology**.

Justification

Distortions in competition are harmful only when they are unjustified. States may, within their competencies, make use of these, which is something that the directive cannot prejudge.

The directive covers the patentability of technical inventions controlled by information technology.

Amendment 3
Recital 2

(2) Differences exist in the protection of computer-**implemented** inventions offered by the administrative practices and the case law of the different Member States. Such differences could create barriers to trade and hence impede the proper functioning of the internal market.

((2) Differences exist in the protection of computer-**controlled** inventions offered by the administrative practices and the case law of the different Member States. Such differences could create barriers to trade and hence impede the proper functioning of the internal market.

Justification

To be consistent with Article 1.

Amendment 4

Recital 5

(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. 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.

(5) Therefore, the legal rules governing the patentability of computer-**controlled** 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. 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

Consistency with Article 1.

Amendment 5 Recital 6

(6) The Community and its Member States are bound by the Agreement on trade-related aspects of intellectual property rights (TRIPS), approved by Council Decision 94/800/EC of 22 December 1994 concerning the conclusion on behalf of the European Community, as regards matters within its competence, of the agreements reached in the Uruguay Round multilateral negotiations (1986-1994). Article 27(1) of TRIPS provides that patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. Moreover, according to that Article, patent rights should be available and patent rights enjoyable without discrimination as to the field of technology. These principles should accordingly apply to computer-**implemented** inventions.

(6) The Community and its Member States are bound by the Agreement on trade-related aspects of intellectual property rights (TRIPS), approved by Council Decision 94/800/EC of 22 December 1994 concerning the conclusion on behalf of the European Community, as regards matters within its competence, of the agreements reached in the Uruguay Round multilateral negotiations (1986-1994). Article 27(1) of TRIPS provides that patents shall be available for any inventions, whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. Moreover, according to that Article, patent rights should be available and patent rights enjoyable without discrimination as to the field of technology. These principles should accordingly apply to computer-**controlled** inventions, *without prejudice*

however to the legitimate interests of software authors as regards exploitation of their work, as stipulated by Article 13 of TRIPS, since computer programs are protected under copyright pursuant to Article 10 of this agreement.

Justification

A clear distinction needs to be drawn between the protection of inventions by patent and the protection of copyright as applicable to software. Under the provisions of the TRIPS agreement, it is legally impossible for patent protection to intrude into areas where copyright protection already applies.

Amendment 6

Recital 7

(7) Under the Convention on the Grant of European Patents signed in Munich on 5 October 1973 (European Patent Convention) and the patent laws of the Member States, programs for computers together with discoveries, scientific theories, mathematical methods, aesthetic creations, schemes, rules and methods for performing mental acts, playing games or doing business, and presentations of information are expressly not regarded as inventions and are therefore excluded from patentability. ***This exception, however, applies and is justified only to the extent that a patent application or patent relates to the above subject-matter or activities as such, because the said subject-matter and activities as such*** do not belong to a field of technology.

(7) Under the Convention on the Grant of European Patents signed in Munich on 5 October 1973 (European Patent Convention) and the patent laws of the Member States, programs for computers together with discoveries, scientific theories, mathematical methods, aesthetic creations, schemes, rules and methods for performing mental acts, playing games or doing business, and presentations of information are expressly not regarded as inventions and are therefore excluded from patentability. ***This exception applies because the said subject matter and activities*** do not belong to a field of technology.

Justification

Computer programmes are not inventions within the meaning of patent law, because software is not a field of technology.

Amendment 7

Recital 8

(8) The aim of this Directive is to prevent different interpretations of the provisions

(8) The aim of this Directive is to prevent different interpretations of the provisions

of the European Patent Convention concerning the limits to patentability. The consequent legal certainty should help to foster a climate conducive to investment and innovation in the field of software.

of the European Patent Convention concerning the limits to patentability. The consequent legal certainty should help to foster a climate conducive to investment and innovation in **fields of technology and** in the field of software.

Justification

The aim of this directive is not to legislate on software patentability but on the patentability of computer-controlled inventions.

Amendment 8
Recital 9

(9) Patent protection **allows innovators** to benefit from their creativity. Patent rights protect innovation in the interests of society as a whole and should not be used in a manner which is anti-competitive.

(9) Patent protection **may allow inventors** to benefit from their creativity. Patent rights protect innovation in the interests of society as a whole and should not be used in a manner which is anti-competitive **or excessively detrimental to the innovation derived therefrom.**

Justification

Patents are not the only way of enabling innovators to benefit from their creations. Restrictions on the freedom of enterprise imposed by the patent system must be taken into account in assessing the relevance of the patent system as regards new potential areas of application.

Amendment 9
Recital 10

(10) In accordance with Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs, the expression in any form of an original computer program is protected by copyright as a literary work. However, ideas and principles which underlie any element of a computer program are not protected by copyright.

(10) In accordance with Council Directive 91/250/EEC of 14 May 1991 on the legal protection of computer programs, the expression in any form of an original computer program is protected by copyright as a literary work. However, ideas and principles which underlie any element of a computer program are not protected by copyright, **because they are algorithms which are comparable to mathematical methods or methods of presenting information.**

Justification

Programme design principles cannot be patentable as they are comparable to mathematical proofs.

Amendment 10
Recital 11

(11) In order for any ***invention*** to be considered as patentable it should have a technical character, and thus belong to a field of technology.

(11) In order for any ***innovation*** to be considered as patentable it should have a technical character, and thus belong to a field of technology. ***It must also be capable of industrial application, be new and involve an inventive step.***

Justification

Reminder of the conditions for patentability.

Amendment 11
Recital 12

(12) It is a condition for inventions in general that, in order to involve an inventive step, they should ***make a technical contribution to the state of the art.***

(12) It is a condition for inventions in general that, in order to involve an inventive step, they should ***show a significant difference between the overall technical features in the patent claim and the state of the art.***

Justification

This definition of an inventive step is tautological, as any technical contribution already involves an inventive step. The initial wording creates confusion between the criteria for technical expertise and inventiveness. If there is no technical expertise, a patent cannot be granted, regardless of any inventive criterion. Otherwise an invention would only need to be new in order to pass the inventiveness test, which could lead to a serious decline in the quality of patents granted and result in patent offices being overwhelmed by patent applications for trivial inventions.

Amendment 12
Recital 13

(13) Accordingly, ***although a computer-implemented invention belongs to a field of technology, where it*** does not make a technical contribution to the state of the art,

(13) Accordingly, ***an innovation which*** does not make a technical contribution to the state of the art ***is not an invention***

as would be the case, for example, where its specific contribution lacks a technical character, it will lack an inventive step and thus will not be patentable.

within the meaning of patent law.

Justification

For the purposes of patent law, inventions must entail a technical contribution.

Amendment 13

Recital 14

(14) 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, data processing method or other method, in which the only contribution to the state of the art is non-technical, cannot constitute a patentable invention.

(14) Accordingly, whilst computer-controlled inventions belong to a field of technology, because their technical contribution lies outside the software that controls them, implementation on an apparatus such as a computer of an otherwise unpatentable method such as a business method, data processing method or other method, in which the only contribution to the state of the art is non-technical, cannot under any circumstances be considered a technical contribution. Accordingly, an implementation of this kind can under no circumstances constitute a patentable invention.

Justification

The initial wording is open to misunderstanding, since it implies that there could be a contribution to the state of the art that is not technical. The new wording draws a distinction between what is technical and what is not.

Amendment 14

Recital 15

Not applicable to the English version

Amendment 15

Recital 16

(16) 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 should not monopolise the algorithm itself or its use in contexts not foreseen in the patent.

(16) Thus, an algorithm or computer program are inherently non-technical and cannot constitute a technical invention. Nonetheless, a technical procedure controlled by a computer programme may be patentable, if the process has characteristics which make it a technical contribution, besides the normal interaction between the program and the computer. However, any patent granted for such a technical process may not establish a monopoly on the algorithm or the program itself, as programs as such cannot be patentable, as stated in particular in Article 52(2)(c) of the European Patent Convention.

Justification

The initial wording is unhelpful as it fails to stipulate that the method in question must be a technical process. It should not be possible to draw the conclusion that methods other than technical methods can be patentable.

Amendment 16 Recital 16 a (new)

(16a) Methods for processing data represented in digital form are by their very nature algorithms and are therefore inherently non-technical. However, if information from the physical world is not captured in order to be represented digitally, a physical process for processing such information in hardware could have a technical character.

Justification

This definition illustrates the nature of digital data-processing performed by computer programmes, which may in no case be patented. It also makes it possible to maintain the scope for patenting inventive technical processes for which the nature of the signals used is significant as regards the desired result: for example, electrical voltage to power an engine; pressure changes to power a hydraulic piston, etc, since what matters in these cases is the result of controllable physical interactions not the processing of information regardless of the physical carrier used.

Amendment 17
Recital 17

(17) The scope of the exclusive rights conferred by any patent is defined by the claims, as interpreted with reference to the description and any drawings. Computer-**implemented** inventions should be claimed **at least** 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.

(17) The scope of the exclusive rights conferred by any patent is defined by the claims, as interpreted with reference to the description and any drawings. Computer-**controlled** inventions should be claimed **solely** with reference to either a product such as a programmed apparatus, or to a **technical** 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 **technical** process, such use will not constitute patent infringement.

Justification

Software on a carrier cannot be patentable.

Amendment 18
Recital 18

(18) 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 with a view to securing legal certainty, transparency, and clarity of the **law** and avoiding any drift towards the patentability of unpatentable methods **such as obvious or non-technical procedures and** business methods.

(18) The legal protection of computer-**controlled** 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-**controlled** inventions. This Directive simply clarifies the present legal position with a view to securing legal certainty, transparency, and clarity of the **legislation** and avoiding any drift towards the patentability of unpatentable methods **in particular inherently non-technical methods such as algorithms, software, data processing methods or educational or** business methods.

Justification

Correcting the terminology.

Amendment 19
Recital 19

(19) This Directive should be limited to laying down certain principles as they apply to the patentability of such inventions, such principles being intended in particular to ensure that inventions which belong to a field of technology and make a technical contribution are susceptible of protection, and conversely to ensure that those inventions which do not make a technical contribution are not susceptible of protection.

deleted

Justification

This recital adds nothing to the preceding ones and is poorly drafted, giving the impression that there may be such a thing as non-technical inventions.

Amendment 20
Recital 20

(20) The competitive position of Community 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 Community, **the importance of intellectual property protection and in particular patent protection is self-evident.**

(20) The competitive position of Community industry in relation to its major trading partners will be improved if the current differences in the legal protection of computer-**controlled** inventions are eliminated and the legal situation is transparent. **The** present trend for traditional manufacturing industry to shift their operations to low-cost economies outside the Community, **as well as the requirements for sustainable and balanced development, are factors to be taken into account when determining an appropriate level of intellectual property protection and in particular patent protection for technical inventions and copyright protection for software. The level of this protection, as well as the monopolistic effects it might create should be determined in a manner that will not prejudice the dynamics of competition and cross-fertilisation which are the key to the development of innovative small and medium-sized enterprises in the European**

Union with easy market access, which will serve to ensure the Community's future competitiveness.

Justification

Recalling the Lisbon objectives and the methods needing to be applied in this connection.

Amendment 21

Recital 22

(22) The rights conferred by patents granted for inventions within the scope of this Directive should not affect acts permitted under Articles 5 and 6 of Directive 91/250/EEC, 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 those Articles, would require such authorisation, should not require authorisation of the rightholder with respect to the rightholder's patent rights in or pertaining to the computer program.

(22) The rights conferred by patents granted for inventions within the scope of this Directive should not affect acts permitted under Articles 5 and 6 of Directive 91/250/EEC, 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 those Articles, would require such authorisation, should not require authorisation of the rightholder with respect to the rightholder's patent rights in or pertaining to the computer program. ***Furthermore, wherever the use of a patented technique is needed for the conversion of conventions used in two different computer systems or networks so as to allow communication and exchange of data between them, such use should not be considered to be a patent infringement.***

Justification

To ensure that interoperability can be maintained.

Amendment 22

Recital 23

(23) Since the objective of this Directive, namely to harmonise national rules on the

(23) Since the objective of this Directive, namely to harmonise national rules on the

patentability of computer-**implemented** inventions, cannot be sufficiently achieved by the Member States and can therefore be better achieved at Community level, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary to achieve that objective,

patentability of computer-**controlled** inventions, cannot be sufficiently achieved by the Member States and can therefore be better achieved at Community level, the Community may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty. In accordance with the principle of proportionality, as set out in that Article, this Directive does not go beyond what is necessary to achieve that objective,

Justification

Consistency with Article 1.

Amendment 23 Article 1

This Directive lays down rules for the patentability of computer-**implemented** inventions.

This Directive lays down rules for the patentability of computer-**controlled** inventions, ***sometimes also known as computer-implemented inventions.***

Justification

The term 'implemented' is misleading here, as it could give the impression that an invention can be wholly realised by a mere computer, which would mean that software could be patentable. As both the Commission and the Council have come out against the patentability of software, the scope of the directive needs to be defined so as to exclude this eventuality. What the directive should therefore cover is the patenting of inventive material devices controlled by software.

Amendment 24 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, the invention having one or more features ***which are*** realised wholly or partly by means of a computer program or computer programs;

(a) "computer-**controlled** invention" means any invention the performance of which involves the use of a computer, computer network or other programmable apparatus, the invention having one or more ***non-technical*** features realised wholly or partly by means of a computer program or computer programs, ***besides the technical features which any invention must possess;***

Justification

An invention must have technical features. A piece of software may not have such features, but rather serves to control the invention. This amendment underlines these facts.

This amendment reproduces and supplements Article 2(a) adopted at first reading.

Amendment 25
Article 2, point (b)

(b) "technical contribution" means a contribution ***to the state of the art*** in a field of technology ***which is new and not obvious to a person skilled in the art. The technical contribution shall be assessed by consideration of the difference between the state of the art and the scope of the patent claim considered as a whole, which must comprise technical features, irrespective of whether or not these are accompanied by non-technical features.***

(b) "technical contribution", ***also called 'invention'***, means a contribution to a field of technology.

Justification

Article 3 is a more appropriate place for a definition of patentability conditions, since it deals specifically with that question. An invention is equivalent to a technical contribution, which, besides its technical nature, must therefore be new, non-obvious, and capable of industrial application, as specified in Article 3.

Amendment 26
Article 2, point (aa) (new)

(aa) 'Technical' means 'belonging to a field of technology'.

A new teaching about the use of controllable forces of nature, under the control of a computer program and beyond the technical devices required to implement the program, is technical.

The processing, handling, representation and presentation of information by computer program are not technical, even where technical devices are employed for such purposes;

Justification

A number of definitions need to be provided if the directive is to achieve its goal of legal clarification.

The second paragraph reaffirms the patentability of innovatory material devices controlled by software, such as washing machines, ABS braking systems, etc.

The third paragraph, which is consistent with the provisions of the TRIPS Treaty, will avoid patents being requested for software, even if this is in conjunction with technical devices. Clearly, if the technical devices used are themselves innovatory, a patent application may be submitted.

This amendment takes up and refines the ideas contained in Article 2(a) and (b) as adopted at first reading.

Amendment 27 Article 2, point (bb) (new)

(bb) ‘Field of technology’ means an industrial field of application requiring the use of controllable forces of nature to obtain predictable results in the physical world;

Justification

This provides a positive definition of the concept of ‘field of technology’ for the purposes of patent law. Fields of technology belong to the physical world and are characterised by the need to use physical interaction to achieve the desired result, such as the movement of a vehicle, the emission of a laser beam, etc.

This amendment reintroduces and supplements the amendment to Article 2(c) adopted at first reading.

Amendment 28 Article 2, point (bc) (new)

(bc) ‘Information processing method’ means any processing method handling digitally represented information, whatever the nature or origin of what it represents. These methods include digital information processing as such, but also the handling, representation or presentation of such information.

Justification

This definition illustrates the nature of digital data processing performed by computer programs, none of which may be patentable. It also enables inventive technical processes, where the nature of the signals used is significant as regards the desired result, to remain patentable: e.g. electrical voltage to drive an engine, pressure differences to drive a hydraulic piston, etc., since here what matters is the result of controllable physical interaction and not the processing of information regardless of the physical carrier used.

Amendment 29

Article 3, paragraph - 1 (new)

Member States shall ensure that inventions are patentable irrespective of whether or not they use computerised means and that, conversely, no one may patent algorithms, software or information-processing methods, whether or not they are combined with technical mechanisms.

Justification

The amendment stipulates that the scope of patentability cannot be altered by the presence or absence of data-processing devices in the proposed technical solution. Legitimately patentable inventions will remain so, such as a new ABS system producing better braking than previous generations.

This amendment reproduces and refines Article 5 as adopted at first reading.

Amendment 30

Article 3

In order to be patentable, a computer-implemented invention must be susceptible of industrial application and new and must involve an inventive step. In order to involve an inventive step, a computer-implemented invention must make a technical contribution.

In order to be patentable, a computer-controlled invention must, in addition to being technical in nature, be new, susceptible of industrial application and involve an inventive step. The inventive step shall be assessed by consideration of the difference between the overall technical features in the patent claim and the state of the art, irrespective of whether or not such features are accompanied by non-technical features.

Justification

The wording used by the Council is tautological, in that it defines as a condition for the inventive step the fact that the invention should entail a technical contribution, in other words that it should belong to a field of technology, be new and involve an inventive step. In order to escape this chain of reasoning, an explicit definition is needed of the concept of an inventive step, with reference to the contribution the invention makes. This contribution must derive solely from its technical features, otherwise a patent application referring to the use of inventive software to control technical but not inventive devices could result in the issuing of a patent which would in fact be solely for software.

This article reintroduces and refines the substance of Articles 2(b) and 4 adopted at first reading by Parliament, where this type of reasoning was also used.

Amendment 31 Article 4, paragraph 1

1. A computer program as such cannot constitute a patentable invention.

1. A computer program as such, ***on any carrier or in the form of a signal***, cannot constitute a patentable invention.

Justification

The second paragraph of the Council's text is ambiguous, since it authorises software patentability provided the software produces 'technical effects', an expression which in EPO practice means the capacity to resolve a specific problem, which is precisely what any software is intended to do.

Accordingly, a computer program alone or on any carrier may not be claimed as an invention, as this would be tantamount to authorising software patentability on the grounds that the software itself possessed patentable technical features, which cannot be the case. Only claims for a computer-controlled invention as a process or as a software-controlled device are therefore legitimate.

Amendment 32 Article 4, paragraph 2

2. 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, whether expressed as source code, as object code or in any other form, which implement business,

2. Member States shall ensure that data processing is not considered to be a field of technology within the meaning of patent law, and that innovations in the field of data processing are not considered to be inventions within the meaning of patent law.

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

The second paragraph of this article is identical to Article 3 as adopted by the European Parliament at first reading. It ensures that the directive is consistent with the provisions of the TRIPS Treaty by clearly stipulating that software is not a field of technology within the meaning of patent law. However, the material components and devices which make up computers will of course remain patentable when they are innovative.

Amendment 33
Article 5, paragraph 1

1. 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.

1. Member States shall ensure that a computer-**controlled** invention may be claimed **only** as a product, that is as a **device controlled by** a programmed computer, a programmed computer network or other programmed apparatus, or as a **technical** process **controlled** by such a computer, computer network or apparatus through the execution of software.

Justification

A computer programme on its own or on any carrier may not be claimed as an invention, as this would be tantamount to authorising software patentability on the grounds that the software itself possessed patentable technical features, which cannot be the case. Only claims for a computer controlled invention as a process or as a software-controlled device are therefore legitimate. It is preferable to talk of a computer-controlled device rather than simply a programmed computer as this would again give the impression that software on its own may constitute an invention.

The first paragraph is similar to Article 7(1) adopted by Parliament at first reading

Amendment 34
Article 5, paragraph 2

2. A claim to a computer program, either on its own or on a carrier, shall not be allowed unless that program would, when

2. In accordance with Article 3, Member States shall ensure that the use of information processing methods can

loaded and executed in a programmable computer, programmable computer network or other programmable apparatus, put into force a product or process claimed in the same patent application in accordance with paragraph 1.

never constitute a direct or indirect patent infringement.

Justification

This second paragraph, which is not an additional restriction but rather a consequence of the definition of technicality introduced in Article 2, guarantees freedom of information. It reproduces and refines the meaning of Article 7(3) adopted by Parliament at first reading, drawing on the definition of information processing method included in the amendment to Article 2(e) new.

Amendment 35
Article 6 paragraph 1 a (new)

1a. Member States shall ensure that, wherever the use of a patented technique is needed for ensuring conversion of the conventions used in two different computer systems or networks so as to allow communication and exchange of data content between them, such use is not considered to be a patent infringement.

Justification

Unimpeded interoperability implies not only that it has to be possible to carry out any reverse engineering operations needed in order to establish the specifications of the communication protocols and interfaces with which communication is to take place, but also that it must in fact be permissible to manufacture and market interoperable products.

The second paragraph of Article 6, permitted under Article 30 of the TRIPS Agreement, is necessary to avert the serious distortions of competition on the internal market which might arise if the marketing of interoperable products invariably constituted an infringement of patent claims.

The text of paragraph 6(2) corresponds exactly to ITRE Amendment 15, which became JURI Amendment 20 and was adopted at first reading in slightly amended form as Article 9.

Amendment 36
Article 8, point (a)

(a) the impact of patents for computer-**implemented** inventions on the factors referred to in Article 7;

(a) the impact of patents for computer-**controlled** inventions on the factors referred to in Article 7;

Justification

To be consistent with Article 1.

Amendment 37
Article 8, point (d)

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

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

Justification

To be consistent with Article 1.

Amendment 38
Article 8, point (f)

(f) the aspects in respect of which it may be necessary to prepare for a diplomatic conference to revise the European Patent Convention;

deleted

Justification

As it is not the aim of this directive to amend the European Patent Convention or to call into question the non-patentability of software, as is explicitly stated in Recital 8 of the text adopted by the Council, it is quite inappropriate to call for the European Patent Convention to be revised.

Amendment 39
Article 8, point (g)

(g) the impact of patents for computer-**implemented** inventions on the

(g) the impact of patents for computer-**controlled** inventions on the development

development and commercialisation of interoperable computer programs and systems.

and commercialisation of interoperable computer programs and systems.

Justification

To be consistent with Article 1.

EXPLANATORY STATEMENT

With the tabling of amendments to the Council common position on the patentability of computer-controlled inventions, the procedure relating to this important topic is drawing to a close.

After more than twenty wide-ranging hearings and the consideration of several dozen amendments, the debate has taken clear shape to a large extent, at least in the eyes of your rapporteur.

Some, though not all, major companies in the sector have embarked on an extensive strategy of applying for, purchasing and defending patents for computer-controlled inventions, increasingly overstepping the line between what constitutes a technical contribution and what does not, in the hope of eventually securing inclusion in the patent of the software that enables the invention to be controlled by a computer. This strategy is possible in the United States, where there is no legislation on this subject. In Europe it is not, since the Munich Convention prohibits it, while the case law of the European Patent Office remains cautious and somewhat uncertain.

The only way of meeting the requirements of these companies to enable them to consolidate and extend this strategy would be to revise the 1973 Munich Convention so as to delete Article 52-2, the gist of which is that software is not patentable.

No-one is contemplating this option and no-one wants it. In its common position the Council quite rightly took the opposite view, following the line taken by the Commission. Your rapporteur's proposal is to support the Council position in principle. A piece of software is no more patentable than a musical chord or a combination of words. As a group of related mathematical formulae, it is a product of the human mind in the realm of ideas. And the free movement of ideas is a founding principle of our civilisation.

We shall therefore be unable to avoid a conflict of sorts over this matter. However, just because someone has broken the law or wishes to break it, there is no reason why Parliament should be obliged to legalise what amount to effective and deliberate infringements.

The Council's position is firmly established: a directive is needed to clarify and stabilise the law; anything technical in nature is patentable under normal conditions; and software is not patentable. Now since your rapporteur proposes that Parliament support this position, it only remains to examine and, if possible, improve it.

The directive is a short one, containing 12 articles, of which the last six are purely procedural, as indeed is the first, which merely defines the directive's scope.

There are only two difficult issues, determining what is patentable and what is not and interoperability. As the solution to the former question will largely determine how the latter is resolved, it has been the almost exclusive focus of debates, discussions and work hitherto.

The difficulty lies in the fact that software is increasingly interwoven into all the systems which contribute to a computer's calculations and serve to draw practical conclusions and that this is on the one hand prompting operators - in order to make life simpler but also to increase their income - to consider software as part of an invention and to patent it in its own right, while on the other hand making it more difficult for legislators and judges to draw a clear and strict line between the two areas. And, of course, any ambiguity will open up a loophole in the law sufficient to create a grey area, opening the way for software patenting. Our aim is simply to clear up all ambiguities.

The criteria are simple, well known and undisputed. For an invention to be patentable, it must constitute a technical contribution that is susceptible of industrial application and new and involves an inventive step.

Here a problem arises with definitions. The Council's proposed definition is to be found in Article 2(b): "Technical contributions" means a contribution to the state of the art in the field of technology which is new and not obvious to a person skilled in the art. The technical contribution shall be assessed by consideration of the difference between the state of the art and the scope of the patent claim considered as a whole, which must comprise technical features, irrespective of whether or not these are accompanied by non-technical features.'

Clearly, these semantic variations define the word 'contribution' rather than the word 'technical'. Standard dictionary definitions of the latter word do not seek to define the field it covers in a legally restrictive manner by comparison with other fields. Nevertheless, there are a number of constants. Technology is universally defined as the set of ordered processes, scientifically developed, which are used to produce a work or a given result or to investigate and transform nature. Common to all these definitions is an implicit reference to the physical world, the palpable, or the real, in clear opposition to the world of ideas or the immaterial world. After much research, this criterion seemed to be the only one making it possible to draw a clear distinction between what belongs to the field of technology and what does not.

Yet criterion still needed to be put into words. We could have drawn a distinction between the material and the immaterial. However, the word 'matter' is used too frequently in opposition to the word energy. A light or radio-electric signal of the kind frequently produced at the end of a software-controlled computer calculation to produce a given result, is undeniably part of the real world, but consists of energy rather than matter. However, case law would hesitate to consider energy as matter! To overcome this drawback, a distinction could be drawn between the physical world and the virtual world. Yet here again the word 'physical' has too many connotations linking it to the palpable, whereas the production of a signal that is perfectly real but not palpable forms part of a system that would clearly be patentable from the point of view adopted by both the Convention of Munich and the Council common position of 7 March 2005.

As a result, the wording 'new teaching about the use of controllable forces of nature, under the control of computer program and beyond the technical devices required to implement the program, is technical' appears to be the most comprehensive and clear way of defining the scope of what is meant by 'technical'. The use of matter in the systems and devices which link the software to the real world upstream and downstream is included in this definition, since in all cases the matter concerned is not inert but is activated by energy.

The wording in question, which was formulated almost 30 years ago by a German Court, has never been adopted but nor has it ever been annulled by the Federal Court. It has already been incorporated into Swedish, Polish and Japanese law.

This was the purpose of the basic amendment, which partially takes up and improves the wording adopted by Parliament at first reading. It is included in Article 2 ‘Definitions’, forming a new paragraph (c).

Given that what a definition excludes is as important as what it defines, your rapporteur felt it vital to include in paragraph 2(c) a second subparagraph (also included in Amendment 5) designed to make it clear that the definition given in the first paragraph covers the non-technical nature of certain aspects and therefore their non-patentability: ‘The processing, handling, representation and presentation of data by a computer program are not technical, even if technical devices are used for this purpose’.

This clarification is necessary because, even though it appears to repeat the first subparagraph, it deals explicitly with a number of ambiguous situations thrown up by our hearings. In particular, it has the advantage of fully clarifying the relationship between the legal system proposed here and the TRIPS Treaty.

Adopting a wording of this kind which clarifies the whole subject area, prompted the realisation that the directive’s actual title could be ambiguous. The expression ‘computer-implemented invention’ might give the impression that an invention can be wholly realised simply by a computer, which would mean that software could be patentable. To avoid giving this impression, your rapporteur proposes that the directive’s title be changed to ‘on the patentability of computer-controlled inventions’.

Once this point has been established, all the other amendments flow from it. In every case for the recitals and in most cases for the operative text, the amendments are corrections or improvements to the wording. In some cases, Amendments 7 and 8 for example, they are examples of application. Finally, Amendment 14 is a necessary consequence of the definition adopted for interoperability, which needs to be maintained, although it no longer covers software, which, as has been confirmed, is not patentable.