

Note From the European Parliament's Rapporteur, Arlene McCarthy MEP

The Proposal for a Directive on the Patentability of Computer-Implemented Inventions.

What is the current situation?

The patenting of computer-implemented inventions is not a new phenomenon: patents involving the use of software have been applied for and granted since the earliest days of the European Patent Office (EPO).

Applications are on the increase not only to the EPO but also to national patent offices in member states. Fifteen per cent of all applications for patents relate to computer-implemented inventions. Out of over 110,000 applications received at the EPO in 2001, 16,000 will have dealt with inventions in computer-implemented technologies.

Concern has been raised that with certain EPO and national court rulings, if matters are left as they stand, Europe may be drifting towards extending the scope of patentability to inventions which traditionally would not have been patentable.

If the EU does not take the step to develop its competence with regard to computer-implemented inventions, then the EPO and its boards of appeal will continue to be the main arbitrators of the law. This will side step the democratic scrutiny of the EU.

What are the aims of the proposal?

To harmonise and clarify the law relating to patentability of computer-implemented inventions.

To stop expansion of the patents system, and stem the current drift towards broadening the scope of innovation in software that can be patented.

To ensure that patents for computer-implemented inventions are granted on the same footing across the European Union and that national courts can deal with contested patents on the basis of uniform principles and within an EU legal framework.

To create an EU directive which has the advantage of providing a high degree of legal certainty and uniformity across the Union. A body of authoritative, binding European case law will also be able to build up, since the Court of Justice will have jurisdiction to give preliminary rulings allowing accountability and enhanced transparency of decision making.

How important is software to the EU economy?

Software development is a major European industry: in 1998 the value of the EU software market was €39 billion.

Computer programmes are now used almost everywhere, for example for operating and controlling washing machines, lifts, automotive gear boxes and video recorders, as well as in the core areas of information technology, digital data processing, data recognition, representation and storage.

Inventions engendered as a result of R&D in the field of software are important to the EU economy.

At a time when many of our traditional industries are migrating to Asia, and when we Europeans are having to rely on inventiveness to earn our living, it is important for us to have the revenue secured by patents and the licensing out of ideas.

What sort of programmes will the Directive cover?

Thousands of patents have been granted by the European Patent Office and by Member States' national offices for technical inventions which involve computer programmes: currently as many as 15% of patents granted involve software.

During this time all sectors of the software industry, including the open source movement, have developed strongly. Patents are available only for programmes that offer a new technical solution.

What sort of programmes will be excluded?

Programmes which produce an aesthetic outcome, components of programmes (code sequences) which of themselves do not deliver any technical solution, algorithms and underlying programming ideas will not, as now, be patentable.

Programmes which underpin non-technical inventions will also not be patentable, in particular those concerned with non-technical business methods (such as "reverse auction" arrangements) along with the methods themselves. Although these are widely patented in the United States, in Europe it has been shown that there to be no case for such extension of patents in Europe.

The EU directive should therefore provide a restrictive statement of the law. Software programmes that produce merely an aesthetic outcome, a component of programmes (code sequences) which themselves do not offer a technical solution, algorithms, underlying programming ideas and programmes that underpin non-technical inventions, should not be patentable.

What would the situation be without the EU directive?

As current law is not clear, uncertainty and lack of transparency would remain. This uncertainty is a brake on growth in the industry, and is allowing the scope of what is patentable to expand, contrary to wishes expressed throughout the EU.

Most patents in Europe are granted by the European Patent Office (EPO) who, facing well-drafted applications and the need to offer applicants the benefit of the doubt, are contributing to a slow but discernible drift towards wider patenting. Failure to adopt this directive will allow this to continue and will deny the patent authorities in Europe a clearer platform on which to operate. Failure to adopt will also mean that the EPO may act by itself, thus side-stepping the debate and democratic scrutiny of the EU route.

With regards to calls for abolishing, within the EU, all patents on computer-implemented inventions, EU companies would be at a severe disadvantage in the global market place if they were not able to apply for a patent over their invention.

What international agreements and conventions need to be taken into account?

The EU has obligations under international agreements and conventions that deal with patenting of computer-implemented inventions. Two such obligations one must keep in mind are the European Patent Convention (EPC) and the Trade-Related Aspects of Intellectual Property Rights (TRIPS).

Under Article 52(1)-(3) of the EPC, and hence under national law, all patentable inventions must be novel, involve an inventive step and be capable of industrial application.

Additionally, Article 27 of the TRIPs agreements states;

"Patentable Subject Matter "

1. Subject to the provisions of paragraphs 2 and 3, 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**. Subject to paragraph 4 of Article 65, paragraph 8 of Article 70 and paragraph 3 of this Article, patents shall be available and patent rights enjoyable without discrimination as to the place of invention, **the field of technology** and whether products are imported or locally produced.

2. Members may exclude from patentability inventions, the prevention within their territory of the commercial exploitation of which is necessary to protect order public or morality, including to protect human, animal or plant life or health or to avoid serious prejudice to the environment, provided that such exclusion is not made merely because the exploitation is prohibited by their law.

3. Members may also exclude from patentability:

(a) diagnostic, therapeutic and surgical methods for the treatment of humans or animals;

(b) plants and animals other than micro-organisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective sui generis system or by any combination thereof. The provisions of this subparagraph shall be reviewed four years after the date of entry into force of the WTO Agreement."

How do patent and copyright protection differ?

Copyright and Patents are two types of rights that compliment each another whilst having different functions and scope.

A patent protects an invention and copyright protects the particular expression of a computer programme, ie the actual lines of code written by a programmer.

Copyright gives the right to prohibit the copying or commercialisation of that code as an intellectual creation, but 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.

What are the objectives of the report?

There is a need to ensure that patents for computer-implemented inventions are granted on the same footing across the European Union and that national courts can deal with contested patents on the basis of uniform principles and within an EU legal framework.

An EU directive should not allow the extension of patentability, but neither should it exclude patent protection altogether. Small software developers should not have to face a minefield of poorly granted patents for obscure or obvious patents.

The directive must allow open source software to flourish. Indeed many large corporations rely on the inventiveness of small business. They too must be able to turn their creativity into returns on their investments. Small companies and open source software developers should be able to exploit their inventiveness. The report will include a review clause to ensure that the European Commission monitors and reports on the impact of the EU directive for SMEs and software developers.

With Europe having no powers to prevent a gradual drift towards the patentability of business methods as witnessed in the US, software developers only recourse then would be to bring proceedings in national courts which would only leave in place the present fragmented and uncertain environment for business and industry.

Arlene McCarthy MEP