

Why Europe needs “Software Patents”

By Fredrik Egrelius*

Introduction

R&D activities require investments in the form of financial and human resources. Investors require some kind of return in order to produce these resources. In a market where inventions cannot be protected in order to yield a return on the invested resources, very few would be prepared to make those investments available. The possibility of protecting inventions is therefore crucial for maintaining any European R&D investment policy.

Since patents are public, they stimulate technology transfer and knowledge-sharing between companies, which accelerates innovation. Without patent protection, companies would not disclose their inventions which would result in less R&D cooperation.

Although there might be problems with the existing European patent system and arguably a valid case for a broad general debate on the issue, it would be a mistake to confuse that debate with the current discussion surrounding the proposed Directive on the Patentability of Computer-Implemented Inventions (CIIs). So far, the CII-discussion has been poorly understood and proposal brought forward in this debate jeopardizes European competitiveness

Computer-Implemented Inventions

Today, computer-implemented inventions are at the heart of all different kinds of technology. They are a very significant force behind innovation in most industry sectors, covering healthcare, telecommunications, mobile phones, cars, aviation and consumer electronics just to mention a few. A modern car may, for example, include up to 80 processors. The current system works well in that it stimulates competition, innovation and creativity.

Drawing upon the experience from the automotive industry almost a third of patents belongs to the CII field. For example in Scania's newest vehicles that figure is close to 50% and similar conditions apply to other companies in the automotive industry.

CIIs used in the automotive industry are for example solutions in engine control systems that enable engines to be more efficient while using less fuel and road safety systems that control anti-lock functions and stabilise vehicles in emergency situations.

Patent must protect inventions

In 2002 the European Commission presented a proposal for a Directive on the Patentability of Computer-Implemented Inventions. The main objective was to codify existing rules and harmonise implementation in the Member States.

The directive is often referred to as the “Software Patent Directive”, which in itself is misleading, as it suggests that all types of software could in future be patentable for the first time once the Directive enters into force. In fact, CIIs are already patentable, and industry has been patenting them since the 1970s. Furthermore, it is not today, nor will it under a new Directive, be possible to patent software as such. A CII must belong to the field of technology, have a technical character and be susceptible to industrial application in order to be patented.

The misleading nickname has also contributed to spreading the misinformation that software companies are the main stakeholders of the Directive when in fact it is the manufacturing industry that applies for an overwhelming majority of CII patents.

During the process surrounding the Software Patent Directive several proposals has been brought forward that goes beyond established practise. These could be harmful to competitiveness and to future European innovation. An example of this is the definition of what constitutes a patent – as suggested in Parliamentary amendments - is far too narrow and would restrict the roll out of new technology. The definition of “industry” also fails to incorporate recent technological changes. Moreover, excluding areas such as data processing from the patentable fields of technology would rule out any future protection for computer-controlled systems.

The Council’s position confirms the existing practice of the European Patent Office, which has served European inventors and consumers well. It maintains and clarifies the Commission’s intention of providing legal clarity while avoiding altering copyright protection or broadening the scope of patentability towards business methods or algorithms. It ensures that investments in R&D and product development may continue in European companies. It is not a movement towards the US patent system.

Some claim that copyright would suffice to protect inventions, that patents would be unnecessary. This is however, a misgiving suggestion as copyright only protects copying of the actual software, i.e. the actual code in which software is written, whereas a patent protects the underlying technical function caused by the software. The lion’s share of R&D investments is spent on the technical function and concept, not the specific expression, of a CII. It is generally quite easy to work around the copyright-protected specific program, minor modifications such as changing the programming language could be sufficient. Thus,

a system based purely on copyright protection would facilitate the copying of inventions, with little effort, and without the necessary R&D investments.

Conclusions

Any legislation that fails to take into account the current business-practise and is based on old assumptions and on old definitions could severely jeopardise the competitiveness of technology-based European companies.

Legislation that removes patent would make it impossible to protect inventions that are necessary in numerous computer-controlled systems. Furthermore, it would put European industry and suppliers at a significant competitive disadvantage vis-à-vis competitors in the US and Japan, who still benefit from patent protection.

This would lead to Europe becoming the only advanced economy in the world where CIIs are not patented. European companies would be uniquely exposed, vulnerable and likely to have their best inventions stolen. The licensing of CII patents would be an impossibility across Europe.

As a consequence, the viability of European industry would be seriously affected. It is difficult to see how this development would support the EU's ambition of improving Europe's economic competitiveness.

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