

The Patentability of Computer-Implemented Inventions

Introduction

In response to the consultation process launched by the European Commission in relation to the patentability of computer implemented inventions, the European Affairs Office of General Electric hereby wishes to submit its observations on the Commission's consultation paper.

The General Electric Company currently employs about 82,000 people in Europe, in a number of businesses present in more than 75 locations. All of our businesses -small, medium and large- increasingly rely on computer-implemented innovations. Consequently, the issue of appropriate protection for such innovations is of paramount importance.

The European Affairs Office is located in Brussels and its main tasks consist in promoting GE as a European partner to the European institutions and national governments. It further provides advice to the GE businesses on key trade and regulatory initiatives at the EU level and aims at implementing interactive teamwork between the EU institutions and GE businesses in order to provide business input into European policy making.

We welcome the consultation launched by the European Commission with a view to defining the scope and contents of a legislative action to harmonise and increase the transparency of the patentability criteria for computer-implemented inventions in Europe.

The need for harmonisation

We share the Commission's view that the differences in the interpretation of the various European patent laws, necessitate some form of harmonisation. The differences can be seen in the widely diverging practices of the various patent offices in Europe, and the discrepancies in court decisions. Such inconsistencies render it difficult to obtain appropriate patent protection for innovators in general. This difficulty is most felt by small and medium size companies who do not always have access to the excessively complex legal advice imposed by the current situation.

The scope of harmonisation

We believe that the elements contained in the consultation paper generally provide the appropriate basis for the needed harmonisation. They are consistent with the general criteria applicable to determine the patentability of any invention and fully meet the requirements of the TRIPS agreement.

Nothing would justify a more restrictive approach, which would discriminate against the particular type of invention referred to as "computer-implemented". In such a field, designers have two choices: either implementing a special purpose machine or other instrumentality to perform a particular task, or programming a general purpose computer

to perform the same task. We see no justification to treat one type of innovation differently from the other.

In the same way, we do not support a more liberal approach. Namely, the lifting of the traditional requirement of a technical effect or contribution. The absence of such requirements would result in the possible granting of patents on purely theoretical concepts.

Therefore, a balanced approach regarding the patentability of computer-implemented innovations is required, ie allowing patents for computer-implemented innovations which demonstrate a technical effect.

The impact of the preferred approach

a) on innovation in software and underlying knowledge and techniques

In software applications, as in any other field of business, a sustained level of innovation requires some form of protection for the innovators. The patent system has, for more than a hundred years, provided the most adequate form of protection for innovations in all fields of technology. One major advantage of the patent system, is that while it rewards the innovator for what he has contributed to the society's welfare, it ensures that the knowledge and techniques at the basis of the innovation, are made publicly available. Once publicly disclosed further research can be conducted towards greater innovations. In fact, this reward for public disclosure is sometimes presented as the very reason for the patent system's existence. The approach retained by the Commission in the consultation paper ensures that the mentioned benefits will also accrue in the field of computer-implemented inventions.

b) on the ability of SMEs to enter the market of innovative software tools and services and the market of innovative applications of software

On this point we fully subscribe to the conclusions of the independent study conducted by the Intellectual Property Institute upon request of the Commission. Possession of intellectual property rights in general, and more particularly patents, helps independent developers and SMEs to raise finance to develop and market their innovations. In addition, it empowers SME's when entering a field where major players are active (cf. study report, section I, page 2, last paragraph). In that context, the need for a clear and consistent approach to the issue of patentability is even stronger for SMEs as the expert advice which large companies have, SMEs often do not have at their disposal. The balanced approach proposed by the Commission, which we support, is of particular interest to SMEs as a more restrictive approach might prevent them from getting access to the protection they need, while a more liberal approach might expose them to a flood of patents of excessively broad and ill-defined scope.

It should be added here that the excessive costs currently incurred when obtaining European patents and the difficulties encountered in their consistent and predictable enforcement, are other major obstacles for SMEs. In this respect, the Commission's proposal for a Community patent is a quite welcome step forward, as are the other current efforts to reduce translation and to establish a common European patent court.

c) on the creation and dissemination of free/open source software

Open source software is a business model in which software developers make the source code of their programs available to others, generally against an undertaking of reciprocity. By doing so, they obtain the advantage of a very fast and effective dissemination and enhancement of their software platforms. Due to different market and competitive environments, other developers rely on a business model which is based on a proprietary rights. Both business models are perfectly legitimate and every player needs to be able to use one or the other depending on the particular circumstances at a given time. In both models, however, there is no reason whatsoever why a player should be allowed to use other players' innovations free of charge. In that respect, open source software developers are in exactly the same position as proprietary software developers; neither are authorised to exploit patented innovations of others without permission.

d) on the position of the European software industry in global competition

The European software industry has been suffering from the legal uncertainties surrounding the patentability of computer-implemented inventions. Unless a strong effort is made towards a clearer and more consistent definition of the criteria for their patentability, the current trends are likely to augment and the gap between Europe and its major business partners to widen. The problem, however, is not limited to the software industry in the strict sense. All industries suffer from the same lack of understanding of the exact status of computer-implemented inventions. In many of our businesses in Europe, we find that engineers refrain from disclosing their software related innovations because they have been taught that such innovations were not eligible to patent protection. On this point too, we share the view expressed in the independent study that the deletion of the outdated exclusion of "computer programs as such" in Art. 52 (2) and (3) of the European Patent Convention would be a major step towards a more transparent system, consistent with the proposal made by the Commission.

e) on the general development of the information society

There are two aspects in the relationship between software developments and the information society. Firstly, continued innovation in software applications is an essential condition for the further development of the information society. As already discussed above, a sustained level of innovation can only be achieved if patent protection is available for the relevant innovations. Secondly, computer-implemented innovations in many fields of technology are more and more often distributed through telecommunications networks, such as the Internet. If innovators cannot rely on intellectual property rights, particularly on patent rights, to prevent their innovations from being pirated, it is quite likely that the electronic commerce in software goods and services will be severely limited. The approach proposed by the consultation paper, which we support, strikes the right balance between the need to offer sufficient protection for true innovations (i.e., those that embody an inventive step) and the necessary freedom to make use of ideas and concepts that lack the inventive step, for developing further the information society knowledge and techniques.

Additional comments on the Commission's approach

1. With respect to section ii of the consultation paper "The complementary nature of patent and copyright protection"

While we share the Commission's view that the literary aspects of a computer program (the "expression" of the program) must be carefully distinguished from the technical aspects of the corresponding computer-implemented invention, we would like to point out that it is not quite appropriate to express the distinction as "Patent protection for a computer-implemented invention does not extend to the expression of a computer program based on that invention ...". Any computer program, meeting all the features or steps of a validly patentable computer-implemented invention, as claimed, comes within the protection afforded by the patent, whatever the particular form of expression retained for the program code. The explanatory comments make this point fairly clear. We believe that section ii. should preferably state that the literary aspects of a computer program cannot provide the basis for a patent infringement claim. Claims of infringement based on copying the expression of the program should be treated under the copyright law. This is the same concept as for aesthetic aspects of products, which cannot be the subject of a valid patent claim but must be treated under the industrial design law.

2. With respect to section vi. of the consultation paper "The possible claims"

The list of possible claims in this section is unduly restrictive. In particular, it should be possible to claim a computer-implemented invention as a computer program intended for use in conjunction with a computer, whether it is recorded on a tangible medium, such as a floppy disk, a CDROM or any other form of storage medium, or as available for downloading from a telecommunications network. Restricting the possible product claim to the programmed computer would in many cases deprive the patent of any value. Often it is only the end user who performs the actual combination of the software with the hardware, the latter coming from a different source. Requiring the inventor to claim the computer-implemented invention only as the general purpose computer as programmed would mean that the inventor would have recourse only against end users. As such the true infringer, the supplier of the software product, would avoid responsibility. This issue is a major requirement for an efficient protection, which the EPO Board of Appeal has recognised in the Computer program I and II cases.

We welcome any comments or questions should you wish to further discuss any aspect of the present submission.

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