

Patentability of Computer-Implemented Inventions Consultations Paper by the European Commission

Consultation Response of ICL PLC

1 Introduction

We are pleased to present our considered response to the Consultation Paper on the Patentability of Computer-Implemented Inventions. The views expressed in this paper are those of ICL plc ("ICL").

2 ICL

ICL is a global IT services company. It designs, builds and operates information systems and services for customers in the retail, finance, government, telecoms, utilities and travel markets. The company has operations in over 40 countries and employs over 22,500 people. The majority of its operations are located in the United Kingdom and other European Union member states.

Transformed from a manufacturer of computers, today ICL improves business performance and competitiveness through services focused on electronic business, enterprise applications and the implementation and outsourcing of IT infrastructure. In the course of its operations ICL generates a number of innovative solutions to technical and commercial problems and assists its customers to do the same. As such ICL believes it is well-placed to comment on the issues surrounding the patentability of computer-implemented inventions with knowledge of the different considerations and interests at stake.

3 Structure of Response

ICL's response addresses firstly some observations concerning software patents generally, then related observations concerning business method patents and finally, in two further sections, its response to the questions posed in the Commission's paper and the proposed key elements.

4 Particular Observations concerning Software

4.1 Clarity of legal position

The current position creates substantial confusion. There is widespread misunderstanding of the effect of the words “as such” at the end of the exclusion in the current Convention (Arts. 52(2), (3)), such that there is a popular view that software cannot be subject to patent protection. This misunderstanding means that organisations who hold this view or who are advised to this effect both fail to obtain protection for their innovation to the fullest extent that the law permits and risk infringing the rights of third parties through failing to appreciate the range of rights that such parties may have. One collateral benefit of the current consultation exercise is the enhanced level of understanding across a broader range of organisations and their advisers that publicising the issue has created, although the effect of this publicity will diminish over time.

4.2 Patents and Copyright

(a) Different aspects protected

There is a view that copyright is a sufficient and adequate means of protection for software programs. We do not agree with this view, nor the view that copyright, in arising automatically and hence requiring no expenditure to secure, offers better value for money in terms of protection than patents.

There is a misconception that patents are prohibitively expensive to secure; our view is that the typical cost of obtaining a patent at a few thousand pounds represents a fraction of the other development and marketing costs associated with bringing a software product to market. There is similarly a view that defending a patent in litigation is expensive; it cannot be denied that to maintain an action up to and beyond a full trial at first instance can entail a matter of hundreds of thousands of pounds, but this can be said of many commercial actions and certainly copyright actions are not notably cheaper to maintain than any other commercial action.

Furthermore while the view that copyright protects the expression of an idea but not the idea itself is somewhat of an over-simplification, it is generally true that copyright is apt for protecting the expression of an idea in a computer program - it protects the code and preparatory materials in a piece of software. What it does not do is to protect the underlying solution to the problem that the software was created to fix. For example, in the case of the much debated US patent granted to Amazon in respect of its one-click on-line purchasing scheme, copyright alone would not have protected this scheme since it would be possible to emulate the effect of the scheme without reproducing any of the particular expression of the scheme as found in the programming code giving effect to the scheme nor the visual representation of the scheme as set out on the screen. By contrast, granting a patent in relation to an invention confers on the holder of the relevant patent the ability to prevent the underlying idea being exploited by third parties without his consent. (It is acknowledged that the Amazon patent is criticised as being insufficiently novel and non-obvious, and we refer below to the requirement for rigorous examination of patents, but it is referred to here as a well-known patent which well illustrates the different level of protection conferred by the different regimes.) We refer below in a separate context to the additional protection that a patent gives as compared with copyright.

(b) Different types of protection

The protection afforded by copyright is in essence a right to prevent copying – no infringement is created by independent production of the same material. A patent by contrast permits the right-holder to control or prevent the reproduction of the same product or process even if the

reproduction is unwitting. There are well-rehearsed reasons why the level of protection afforded is different in each case; it suffices to state that the different level of protection given to patentees does enable them to operate in a particular market in the confidence that the fruits of their innovation cannot be eroded by latecomers to the market simply emulating their innovation.

We are of the view, therefore, that in order to confer on innovators the protection that intellectual property rights confer in respect of all of their range of innovations, it is necessary to accord patent protection on computer software, provided that the general requirements for patentability are satisfied.

4.3 TRIPs Agreement

The provisions of the TRIPs agreement should be taken into account in determining the outcome of this consultation. The Agreement stipulates that patent protection should be conferred on all inventions, regardless of the technology in which they manifest themselves. It is our view that this mandates that software should benefit from patent protection and further that business methods, where there is a technical effect, should also be capable of patent protection. The disadvantage of not giving this protection is that the EU will not be able to comply with TRIPs and the message that this will send to other would-be signatory states would be that the EU does not regard compliance with TRIPs as part of its overall strategy for intellectual property recognition. We fear that this would have negative connotations both in the IT industry and more broadly.

4.4 SMEs

Much is made of the requirements of SMEs in relation to this debate and indeed it is to be recognised that theirs is a substantial contribution to the generation of innovation and indeed prosperity in the EU economies. Nonetheless the importance to the EU economies in terms of innovation, wealth creation and the provision of employment of larger enterprises should not be overlooked and ICL trusts that the views of larger enterprises such as itself will be attributed commensurate weight.

We believe that for the many SMEs operating in the software industry, the option for them to obtain patent protection confers on them an important and valuable asset. Especially when such enterprises are looking for external finance - typically venture capital - the possession of relevant patents for their principal products would enable them to demonstrate to the investor that the position they occupy in their market is not one that can be eroded by competitors' simply copying their product; the patent of course confers on them a market position which is proof even against independent development of the same idea.

A further benefit of the patent to the SME is that it acts as a leveller in the competitive playing field. Without the benefit of protection the SME is vulnerable to large organisations and their ability to achieve by marketing expenditure and leverage in their market a market position that their innovation may not merit. With the protection the SME may prevent this from happening – or enter into a negotiation with a larger company for their exploitation of the SME's innovation, on a balanced basis.

4.5 Other Industries' Use of Software

It should be noted that while the majority of attention has been focussed on the effect of the granting of patents for software upon the information technology industry, in fact software is an all pervasive medium used in many industries as incidental parts of other products; the motor vehicle industry is just one example where the software used in engine management does not correspond to the type of software that is used on a desktop PC. In the case of that industry innovation in engine management systems may manifest itself in traditional

“hardware” solutions or in “software”, a choice which ought to be driven by technical considerations; we do not believe it would be to the advantage of that industry or its participants to create a position whereby the form of the innovation was determined by the granting of protection in one case and not in the other. There are many other instances where the creation of software is similarly only part of the industry.

4.6 International Competition

While ICL would certainly support the view that the solution the EU adopts should be one which best reflects the requirements of the EU members inter se, it draws attention to the international position. We have referred above to obligations arising out of TRIPs. The commercial position should also be considered in terms of international trade. The US in particular represents the largest source of competition for EU businesses, and their largest market outside the EU. We do not believe that it is to the advantage of European businesses to trade at the disadvantage that would be created where the US companies can protect their innovations on their domestic markets but freely exploit European invention in the Europeans’ domestic market.

4.7 Examination

Some of the patents granted in the United States in respect of software and business methods have been of controversial validity. We do not think that this of itself is a valid reason for denying patent recognition to such inventions; the existing jurisprudence in European states contains a host of cases where, on judicial examination, a patent has been declared invalid in respect of inventions across a range of technologies. It is a necessary and sufficient condition in this regard that as rigorous an examination of applications is undertaken in this field as with inventions in other technologies. It would be unfortunate if perceived shortcomings in the application of patent examination processes in other territories were to determine the underlying legal principles. One important criterion – and perhaps one that could be addressed at the detailed level of implementation – would be that the mere clothing of a known business method with a known, obvious technical effect should be regarded as not having the necessary inventive step to attract patent protection.

5 Business Methods

5.1 Applicability of Considerations Relating to Software

It is ICL's view that many of the considerations identified above demonstrate a cogent case for the availability of patent rights both in connection with software innovations but also in connection with business methods that have a technical basis. Many of the observations presented above have equal applicability in the field of business methods as in the field of software inventions.

5.2 Differing Types of Business Method

As an initial proposition ICL distinguishes between (1) business methods that have no technical basis, (2) business methods that have a technical basis but the innovatory step is not technical in nature and (3) business methods where the innovatory step is technical in nature. Some commentators describe both (1) and (2) as "pure" business methods; we believe this is misleading as the difference between these two categories is more distinct than between (2) and (3) or indeed (3) and other technological inventions.

5.3 "Pure" Business Methods

ICL does not support the granting of patents in respect of properly called (category 1) business methods. These inventions, since they have no technical basis, do not amount to an invention in any technology as required by TRIPs. They would amount not to a logical working-out of the patent process, as might be said of the other categories, but rather to an entirely new and radical extension of this process.

5.4 Technical effect

ICL does however support the granting of patents in respect of both category (2) and (3) types of business method patent. As far as category (3) - business methods where there is a technical contribution in the novel part of the invention - we believe that there is little doubt that the TRIPs agreement mandates that these inventions are given the benefit of patent protection. Furthermore if such inventions are expressly excluded from the benefit of patent protection we believe that difficult and controversial questions of characterisation would arise where (as in the Amazon one-click case) an innovation could be regarded as being either a software or a business method innovation (assuming that patent recognition is granted for software; if not, then other issues of characterisation may arise).

In relation to category (2), where the technical effect is not necessarily found in the novel part of the invention, but in any part of the invention, we similarly believe that the invention should qualify for patent protection. To distinguish in treatment category (2) and category (3) type innovations would, in our view, entail dissecting the claim into its technical and non-technical parts, and then ignoring the non-technical part for the purposes of assessing whether there has been the necessary inventive step. It is our view that the uncertainty this produces is undesirable and that the claimed invention should be considered as a whole when assessing inventive step. The long-standing practice of the European Patent Office (at least in its decisions prior to the recent pensions case) is to undertake a two stage process; determining whether the patent claim relates to an "invention" within the meaning of the European Patent Convention, which involves considerations of technical effect or technical contribution and then determining whether the invention is obvious, that is whether the invention would as claimed have been obvious to a person skilled in the art, in the light of the prior art. We believe this process represents the most logical approach to the analysis of an invention for patentability.

6 Section 1 questions / key elements

6.1 Section 1(a) questions

In relation to the first set of questions (scope of harmonisation), ICL considers that for the reasons set out in detail below, the first option (harmonisation on the lines of the key elements) is not entirely desirable. ICL equally does not believe that a more restrictive approach as canvassed by the second bullet point would be desirable, but rather prefers an approach which takes a slightly more liberal view than the first bullet point sets out. We do not believe that the approach adopted by the US authorities is necessarily desirable in every case and therefore does not wholly support the third bullet. Consequently ICL can only respond to the first set of bullet points by making reference to its detailed responses to the key elements, set out below.

6.2 Section 1(b) questions

In relation to the second set of questions (impact of harmonisation), ICL judges that the impact of its preferred option would be as follows:-

- (a) **innovation in software and underlying knowledge and techniques.** The bargain offered by patent protection, namely the granting of a monopoly in exchange for disclosure of information concerning an invention, and the conferral of protection on qualifying innovations, will incentivise innovators to make investment in research and development of software and thereby increase the level of software development derived from EU active businesses.
- (b) **SMEs' ability to enter the market.** As indicated above the market position that SMEs can derive from their possession of a patent enables them to compete on a more even footing with larger organisations who can bypass the need for genuine innovation with marketing leverage. Furthermore the availability of protection and of a definitive asset will facilitate the SMEs' access to third party financial investment.
- (c) **open source software.** It is notable that in many cases (such as the GNU licence operated by the proprietors of the Linux operating system) the rights conferred by copyright are used by the creators of open source software to control the exploitation and use of such software, thereby ensuring the continued existence of that software and its derivatives as "free and open". We believe that similarly the availability of patent protection (which is optional – once brought to market the software concerned will constitute prior art, precluding subsequent patents from being granted in relation to it) will not operate so as to restrict such software and may even be capable of being used to promote the development of such software.
- (d) **European software industry globally.** In order to compete internationally, especially with the USA, we believe it imperative that the European businesses can operate on a level playing field and this includes operating in a comparable legislative environment. This is conferred by ICL's preferred approach.
- (e) **General Development of Information Society.** For the reasons mentioned above we believe that formal recognition of the granting of patent protection for software and appropriate business methods will foster development of the Information Society.

6.3 Key Elements

- i. **Patent protection granted.** ICL supports this element subject to the proviso that it should not be read exhaustively; that is, the term "computer-implemented invention"

should not be read as being the only way in which software or business methods (the latter containing a technical effect) may manifest themselves.

- ii. **Patent and copyright.** ICL disagrees with this element in its current form. ICL urges that where a patent is granted in respect of a software invention, any software program making unauthorised use of that patent should be treated as an infringing work and the only practical way in which this can be effected is to ensure that the protection conferred by a patent extends to such programs, whether in source code or object code or other form. If an invention is considered worthy of patent protection then the degree of protection conferred should not be limited such that a change of carrier can permit a third party freely to appropriate the invention for its own use; accordingly the element should be revised so that it is not restrictive of the form in which a program might appear and hence be protected – and indeed if the claims are such that a non-software implemented product or process would otherwise infringe, the inventions should not be denied protection through any artificial limitation in the scope of protectable programs. The fact that a right-holder may have a choice of actions in a given case (between patent and copyright) exists in relation to other industries and does not create any difficulties in application.
- iii. **Non-obvious technical contribution.** As set out in some detail above, ICL believes it is inappropriate to dissect a patent claim in the fashion that this element would require. It would require the patent authorities to treat software in a fashion entirely separately from other technologies, which does not appear to be logical nor in conformance with TRIPs.
- iv. **Implied technical contribution.** As set out above, ICL's preferred approach would obviate the need to apply principles of construction such as that implied by this element; ordinary principles of patent claim examination would be sufficient to determine patentability.
- v. **Business methods analysis.** ICL believes that the invention must be assessed as a whole in order to determine the presence of technical effect; endeavouring to identify technical contribution as a discrete strand within this analysis does not produce desirable examination practices.
- vi. **Claim of invention.** The wording of this element may lead to the understanding that it makes the claims as to product and process mutually exclusive, or seeks to make it an exhaustive statement of the only types of claims that may be made in respect of computer programs (and see above for our view on the expression "computer-implemented invention"). We do not believe that this is an appropriate limitation, as it will reward one type of innovation and not another purely on the basis that one has, for technical reasons, been expressed in one technology and the other in a different one. Especially given the platform-neutral nature of many of the considerations referred to in this paper and doubtless those of other contributors, we believe that attributing different commercial outcomes in what (regarded in technical terms) amounts to a random fashion would have a detrimental effect both on the economic effects of formalising patent recognition for software and business method development, and potentially cause the technical, innovating community, to hold the patent system in less than entire esteem.
- vii. **General patent law.** ICL concurs that general patent law should underpin any specific provision made in a Directive.

7 Contact details and permissions

7.1 Contact details

The author of this response may be contacted at:-

Intellectual Property Department
ICL
Cavendish Road
Stevenage
Hertfordshire
SG1 2DY
United Kingdom

7.2 Permission

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