501:Beyond the U.S.—Taking Your IP Portfolio Global

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His previous experience includes serving as European in-house corporate counsel for a U.S. based multi-national technology corporation. He has experience in preparing patent applications for a broad range of technologies, but particularly for electronics and software technology, and also has specific expertise in the field of patenting ecommerce and business method related inventions. He prosecutes patent applications globally. In particular, he has extensive experience of prosecution before the European Patent Office, including experience in handling matters before the boards of appeal, and in the handling of oppositions representing both patentee and opponent.

He is a member of the Institution of Electrical Engineers, a senior member of the Institute of Electrical and Electronic Engineers, and a member of the Computer Law Association.

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The Law of Europe: Intellectual Property, Information Technology, E-Commerce

What is the "Law of Europe"? Is there *really* one set of laws for intellectual property, information technology and e-commerce, as well as for other business transactions, in Europe? Yes, there generally is.

During the course of many transactions for our clients, throughout Europe and literally from Portugal to Poland and from Scotland to Sicily, involving projects as varied as setting up pan-European employment plans, dealing with cross-border environmental law liabilities and implementing international construction projects and data protection programs, we noticed a surprising but very useful thing. The laws in Europe in those areas are substantially the same, in every country.

We have written a book, of which this article is an excerpt[*], in order to share our experiences with our clients and friends.

We believe that there are several reasons for comprehensive European legal convergence, including the legislative and judicial activities of the European Union ("EU") which, by early 2004, will have expanded to include more than 20 countries comprising about 90% of Europe's population, all subject to EU laws. Other important convergence factors are: the common economic and monetary policy which prevails throughout most of the EU; the substantial growth of multi-national business operations throughout the continent and their commercial requirements for local uniformity; and the simple fact that many local rules and exceptions only had an historical basis anyway and were of little relevance in the context of a single trading area that comprises more than 550 million people living and working in an information age.

As the following discussion of intellectual property, information technology and e-commerce illustrates, there is a "Law of Europe" and what few local exceptions survive only rarely matter.

Indeed, the law of Europe relating to intellectual property (patents, copyright, trademarks, designs, trade dress) and information technology and e-commerce is so substantially similar that little space is needed to describe the overall situation.

EU Legislation. The legislation at the EU level can be generally summarised by a review of the principal relevant Regulations and Directives. Directive 96/9/EC (database protection); Directive 91/250/EEC (protection of computer programs and software); Directive 98/44/EC (biotechnological inventions); Directive 89/104/EEC (trade mark law harmonisation) and Directive 40/94/EEC (community trade mark); Directive 2001/29/EC (digital copyright); Directive 93/98/EEC (harmonising copyright term protection); Regulation 6/2002 (designs); Directive 95/46/EEC (personal data protection); Directive 2002/58/EC (protection of personal data in electronic transmission); Directive 1999/93/EC (electronic signatures in e-commerce); Directive 2000/46/EC (supervision of electronic money institutions); Directive 2002/65/EC

[*] Excerpted from the book *Law of Europe*, © 2003, published by Eversheds, edited by Geoffrey Morson, available through www.eversheds.com/lawofeurope. The book contains 23 chapters dealing with topics ranging from the one reprinted here—Intellectual Property, Information Technology and E-Commerce—to Construction, Employment Law, Product Liability, Telecommunications and Insolvency.

(distance selling of financial services); Directive 97/7/EC (consumer products sold at a distance); Directive 85/577/EEC (consumer contracts made away from business premises); Directive 2002/38/EC (value added tax and e-commerce); Directive 2000/31/EC (framework for electronic Single Market); Regulation 733/2002 (.eu top level domain names); Regulations 1334/2000 and 149/2003 (dual-use technology exports and the Wassenaar Arrangement).

Patents. An "EU patent", valid throughout the EU, does not yet exist, although one has been proposed (July 2000) and is soon very likely to exist in fact. Meanwhile, the patent applicant may choose between (i) a national patent or (ii) multiple-EU-country patents. In the latter case, a single application to the European Patent Office in Munich is sufficient and can also provide IP coverage in Switzerland and a few other countries (Cyprus, Liechtenstein) which are not in the EU.

Each European country has its own patent statute but the terms are all substantially the same, for instance, the 1970 Austrian Patent Law, the 1984 Belgian Patent Act, the 1995 Portuguese Decree-Law No. 16/96 (Industrial Property Code) and the 1977 UK Patents Act and 1988 Copyright, Design & Patent Act, the Latvian Patent Law (April 20, 1995), the 1962 Polish Patent Act (as amended (Dz. U. of 1993, No. 26 item 118) and the 1993 Bulgarian Patent Act (all in substantial conformity with the European Patent Convention).

No EU member country allows patents for "business methods" but usually the application can be drafted to include some such indirect protection, while meeting the local requirements. In order to patented, software must show a "technical effect" (a term which not fully clarified in legislation or in case law). Plant varieties have their own form of protection (Regulation 2100/94). Species of animals cannot be protected by patents but transgenic animals can be. Methods of medical treatment may not be patented, but claims may be directed to a product when used to treat particular conditions[**].

The European Patent Office (EPO) grants a bundle of national patents, rather than a single, European-wide patent. These national patents have to be validated in each country when granted and this may mean translating the patent terms into several languages. There is still a significant cost saving over patenting separately in each country.

Most European countries have their own version of the "doctrine of equivalents", designed to give a fair measure of protection to the patentee while giving reasonable certainty to the public. Because there is no file wrapper estoppel, the Festo situation does not arise, as is may in the USA. There is also no grace period, so companies must be very careful not to lose patent rights in Europe through prior disclosure.

The New EU Accession Countries have been busy adapting their local legislation to European standards in all these fields, with Lithuania being a good example, having already enacted the following new legislation, in preparation for admission to the EU: Law on Trademarks (entered into force on 1 January 2001); Law on Layout-design (Topographies) of Semiconductor Integrated Circuits (entered into force on 1 December 1998); Act on Computer Programs (entered into force on 28 February 1996); the Industrial Design Law (entered into force on 1

[**] This subject is treated in the *Law of Europe* chapter on "Bioscience."

September 1995); the Copyright Law (part of the Lithuanian Civil Code, entered into force on 17 May 1994); and the Patent Law (entered into force on 1 February 1994).

Copyright. The rules relating to the duration of copyright protection are standard throughout the EU (70 years after the death of the author). Doctrines such as "work for hire" apply fairly uniformly but it should be noted that, in the absence of a written agreement, the copyright in a commissioned work will not automatically be the sole property of the party who ordered and paid for it. Representative examples of national copyright legislation are the German Copyright Law ("Urhebergesetz"), the French Code of Intellectual Property, the Czech Law No. 35 of March 25, 1965, on Literary, Scientific and Artistic Works (Copyright Law) (as last amended by Law No. 86 of March 14, 1996) and the Hungarian Law No. LXXVI of 1999 on Copyright (as amended by Law No. LXXVII of 2001 in respect of databases and Law No. XLVIII of 2001 on the protection of designs). Very similar legislation exists in Belgium (Database Protection Act of 31 August 1998, the Computer Program Act and the Copyright Act, both of 30 June 1994).

The EU Directive on Copyright Protection for Databases (Directive 96/9) has been implemented in many countries and offers protection, independently of national copyright law, to those who create databases.

Trademarks. Trademarks may be registered ones or unregistered ones. For registered trademarks, comprehensive EU legislation is in force (Directive 89/104, the Community Trade Mark Directive) and legislation exists in each EU member country (for example, the Austrian Trade Mark Law of 1977, the German 1994 Law on Protection of Trade Marks ("Markengesetz"), the Irish 1996 Trade Marks Act, the 1960 Swedish Trade Marks Act (as amended) and the 1962 Belgian Act on Trade Marks). Pan-EU coverage can be obtained by applying to the OHIM in Alicante, in Spain. Trademark attorneys in any European country may apply, on behalf of their clients. Unregistered trademarks are protected by the law of "passing off" in the UK and by equivalent provisions, such as unfair competition laws, in other European countries.

The ECJ has long ruled that the specific subject matter of a trademark is "the guarantee that the owner . . . has the exclusive right to use that trade mark, for the purpose of putting products . . . into circulation for the first time and is therefore intended to protect him against competitors . . . selling products illegally bearing that mark" and "to guarantee the identity of the origin of the trade marked product". *Centrafarm and de Peijper v. Winthrop* (Case 16/74, decided 31 October 1974) [1974] ECJ 1183; *Hoffman-La-Roche v. Centrafarm* (Case 102/77, decided 23 May 1978) [1978] ECR 1139.

The ECJ language about "the first time" results in situations where, having once permitted entry of its trade marked goods into any part of the EU, the owner may have exhausted its rights to prevent others from doing so at some later time. *Silhouette International Schmied v. Hartlauer Handelsgesellschaft* (Case C-355/96, decided 16 July 1998) [1998] ECR I-4799.

CE Mark. Certain products manufactured in accordance with EU standardization procedures are permitted to carry this special mark (Directive 93/68). While this is not a trade mark or IP right,

as such, it does confirm the compliance of the product with certain standards and hence operates in a similar way to a trade mark.

Somewhat similar in concept and function are EU legislative enactments which protect the geographic designation of certain specified products (such as Regulations 2081/92 and 2037/93, regarding the local origin of food having a distinct connection with the places in question).

Designs. Directive 98/71 (on "European Community Design") came into force on 20 November 1998 and Regulation 6/2002 (the "Design Regulation") has been in force since 5 March 2002, and allows for the registration of EU-wide designs with OHIM). These Regulations afford protection at the EU legislation level. They are supplemented by national legislation for the protection of registered designs. Unregistered design rights now exist in most European countries, providing protection against copying for three years after publication.

Treaties. All EU member countries adhere to the Bern Copyright Convention and almost all are signatories to the Universal Copyright Convention (but some do not adhere to the 1971 Paris amendment to the Convention). All EU member countries are members of WIPO and have agreed to the majority of conventions arising from WIPO. All EU member countries, apart from Ireland, have joined the 1989 Madrid Protocol and all, aside from the UK, Ireland and the Scandinavian member countries, have joined the 1891 Madrid Agreement. All EU member countries are signatories to the Patent Co-operation Treaty and most of them actively support the TRIPs Agreement.

Data Protection (Privacy). Data protection and privacy have particular importance in Europe, mainly thanks to various EU Directives, particularly Directive 95/46. This has been carried over into national legislation in EU member countries, in the New EU Accession countries and in Norway and Switzerland.

In many European jurisdictions, those handling personal data have to register with a state body (such as the "Information Commissioner" in the UK, the "Commission Nationale de l'Informatique et des Libertés" in France, the "Registratiekamer" in the Netherlands, the "Datatilsynet" in Norway). The obligation to register (or "notify" as it is known in some countries, with the principles of both being roughly the same) exists in most European countries. Bulgaria, Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Monaco, Poland, Romania, Slovakia, Slovenia and Switzerland all have registration requirements.

To take an example in the UK the process is known as "notification". The obligation is imposed by the Data Protection Act 1998 in the UK which follows the basic format of the EU Directive.

Section 17 of the Act says: "(1) Subject to the following provisions of this section, personal data must not be processed unless an entry in respect of the data controller is included in the register maintained by the Commissioner under section 19 (or is treated by notification regulations made by virtue of section 19(3) as being so included)."

The penalties are then set out in Section 21 which states that:

"(1) If section 17(1) is contravened, the data controller is guilty of an offence".

More worryingly for individuals this is backed up by Section 61 of the Act which says:

"(1) Where an offence under this Act has been committed by a body corporate and is proved to have been committed with the consent or connivance of or to be attributable to any neglect on the part of any director, manager, secretary or similar officer of the body corporate or any person who was purporting to act in any such capacity, he as well as the body corporate shall be guilty of that offence and be liable to be proceeded against and punished accordingly."

Substantially the same rules exist in Norway and Switzerland: Norway, the 2000 "Personal Data Act", being Act No. 31of 14 April 2000 ("Lov om behandling av personopplysninger (personopplysningsloven)", which also has a chapter on video surveillance ("Fjernsynsovervåking); and Switzerland, the 1992 "Federal Law on Data Protection" ("Bundesgesetz über den Datenschutz" (DSG), "Loi fédérale sur la protection des données" (LPD), "Legge federale sulla protezione dei dati" (LPD)).

Personal data may not generally be transferred outside the EU/European Economic Area unless the recipient country offers "an adequate level" of data protection rights for the individuals whose data is being exported. As of May 2003, only Canada, Hungary and Switzerland are on the list of approved countries.

The situation in Poland is fairly typical of the data protection regulatory framework in most New EU Accession Countries. The basic law is the Data Protection Act of 1997 (amended February 2000 and June 2001) ("Ustawa o ochronie danych osobowych") (in force since 30 April 1998). It sets up a system of registration and a state body with which to register (the "Inspector General of Personal Data Protection") and establishes rules for processing personal data, describes the rights of the person to whom the data relates and lays down principles and duties regarding the storage and dissemination of protected information, plus penalties for non-compliance. The legislation is linked to other relevant Polish legislation, such as the Banking Act (1997), the Act on Public Statistics (1995), the Tax Law (1997) and the Insurance Act (1990).

In the Slovak Republic, a substantially similar regime operates pursuant to the 1998 "Act on Personal Data Protection" (Coll. Act No. 52/1998), in the Czech Republic pursuant to Act No. 101/2000 Coll. on "Protection of Personal Data"), in Hungary pursuant to Act LXIII of 1992 on the "Protection of Personal Data" (as amended in July 1999) and in Estonia by the 1996 "Personal Data Protection Act" ("isikuandmete kaitse seadus" and the 1997 "Databases Act" ("andmekogude seadus"), with the national data protection supervisory authority being the "Data Protection Inspectorate" ("Andmekaitse Inspektsioon").

Other E-Commerce Issues. The key EU legislation in the e-commerce area is Directive 2000/31 (8 June 2000). It addresses a wide array of issues in the information age, including liabilities of intermediary service providers (Article 12), caching (Article 13), hosting (Article 14), codes of conduct (Article 16) and various provisions regarding Internet service providers (Articles 4-8) and the regulation of e-commerce contracting (Article 9).

Digital signature legislation is well underway in Europe. The UK legislation, in particular, has been responsive to industry needs for substantial freedom in the flow of e-commerce. Germany adopted a "model law", based upon Directive 1999/93 (the 1997 "Gesetz zur digitalen Signatur", "SigG", "Act on Digital Signatures") which was replaced (as from 22 May 2001) by the "Gesetz über Rahmenbedingungen für elektronische Signaturen und zur Änderung weiterer Vorschriften – Signaturgesetz – SignG" (Act on Basic Conditions regarding Electronic Signatures and Amendment of Further Provisions) and the German experience with these (although still quite limited) is being closely watched by other EU members.

In Belgium there is a group of laws dealing with these issues, namely, the E-Commerce Act of 11 March 2003, the Electronic Payment Act of 17 July 2002, the Digital Signature Acts of 20 October 2000 and 9 July 2001 and an Act of 28 November 2000 designed to prevent cyber-criminality.

The concept of cyber-jurisdiction in Europe is business-oriented and based upon traditional analogies for contract formation, with the principal focus being predictability and, hence, jurisdiction is generally founded upon the physical presence of the contracting business parties or is based upon their specific choice of law (or is determined by an analysis of where the contract was "formed"). There are specific rules for those selling over the Internet or advertising via the Internet or e-mail (please see "distance selling" Directives mentioned above).

Beyond the US - Taking Your IP Portfolio Global

ACCA's 2003 Annual Meeting
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Beyond the US - Taking Your IP Portfolio Global

1 OVERVIEW

1.1 Introduction

This document is intended to provide background and explanatory reading to accompany the 2003 ACCA Annual Conference session "Beyond the US – Taking Your IP Portfolio Global".

As a European IP practitioner, inevitably the discussion in this document leans toward a look at IP issues in Europe. However, looking at European issues gives an insight into issues which can be more generally applied to other territories outside the USA, and in general issues which need to be considered in taking an IP strategy outside the USA.

Europe is also one of the major commercial markets outside of the USA, and for that reason a look at some specific issues relating to Europe is valuable.

Where differences exist between the prosecution and enforcement of IP rights in the US and elsewhere in the world, many of the differences are manifested in Europe. Again, therefore, an analysis of Europe offers an insight into more global aspects.

1.2 Protecting Your IP

An obvious issue to discuss in relation to this session is the practicalities relating to taking the IP protection of your organization outside the USA. This is the first part of looking at a global IP strategy: what rights do you have to protect, where and why could they be protected outside the USA, and how do you get that protection.

In this document, there is discussed some of the consideration to take into account in determining whether IP protection outside the USA is appropriate, how IP protection can add value of your organization, and the practicalities of obtaining protections.

A discussion is also presented of the role of foreign IP professionals, and how those roles may differ from the wholes of the US IP professionals with which you may be more familiar.

1.3 Asserting Your IP

This document also looks at the issue of assertion of IP rights outside the USA, or more accurately what you can do with your rights once you have them. Again, these are important factors in considering the value of taking your IP rights global.

1.4 Competitor IP

This is an important part of any IP strategy, although perhaps a less obvious issue to consider. An important part of developing a strategy is to look at what your competitors are doing. There are two prime reasons for this. Firstly, can you learn anything from understanding your competitors IP strategy which can be used to adapt your own

strategy? Secondly, are your competitors protecting IP rights which could impact in a negative way on your own business?

For the second consideration, action which can be taken to be pro-active regarding awareness of competitor activity in protecting their IP outside the USA. In many territories, IP systems offer more flexibility than the US system does for preventing your competitors protecting their intellectual property.

2 MOTIVATION FOR TAKING YOUR IP GLOBAL

Intellectual property rights are territorial rights. Protection is obtained on a geographic basis, in specific territories.

Protecting an organizations IP rights in the USA offers protection for activities in the USA, but no protection for activities outside the USA. Patent protection in the USA offers protection, for example, to prevent manufacture of products in the USA, and to prevent sale of products in the USA manufactured overseas.

The answer as to why protection of IP outside the USA is valuable will vary from organization to organization, depending on such factors as the nature of that organization's business strategy, the nature of their competitor's business strategy, and the long-term goals of the organization.

2.1 Adding Value

As is discussed hereinbelow, a good global IP strategy can be formulated as part of an organizations business plan, and as part of that strategy a decision may be made as to whether this should include consideration of issues outside the USA.

In all cases, however, the IP strategy needs to be formulated to maximize the organization's revenues, reduce the organization's risk, in other words to add value to the organization.

2.2 Organizations with Multi-National Interests

For companies having multi-national interests, the desirability of multi-national IP protection to protect those interests may be very apparent: the motivation is that to enjoy the same rights of protection in foreign countries in which business is carried as is enjoyed in the USA requires similar IP rights to be obtained in those countries.

If you wish your organization to enjoy the benefits that IP protection gives you in the US elsewhere, then you need to look to obtain similar IP protection elsewhere. However, it is not always a case of duplicating the IP strategy for the US in all countries of interest. This would be one extreme of a possible IP strategy. This is particularly the case where foreign interests involve a large number of countries. A more considered strategy for obtaining IP rights in foreign territories may be required, with IP rights registered and pursued on a more elective basis.

At the other extreme, a strategy is to take no action at all to secure IP rights outside the USA. For companies having multi-national interests, the benefits of multi-national IP protection may not always be obvious. For example, a company having research and development and manufacturing facilities in the US, but a multi-national sales/distribution network, may consider that US only IP protection is sufficient for their commercial interests because this is where there "core" business is based. However, in such case some real value can almost always be obtained by registering IP protection overseas, and any associated costs justified in terms of the value that is added to the business.

Various factors must be taken into account, and different types of organizations will reach different conclusions about the correct IP strategy to support their business goals.

Even if a company only has research and development and manufacturing in the US, there are still valid reasons for considering a process to protect industrial IP rights, such as patents and designs, outside the USA.

2.3 Organizations with US Domestic Interests

For companies having only US domestic interests, where goods and services are not supplied outside the US, the desirability of multi-national IP protection is likely to be less apparent, and indeed may be unnecessary. However the decision not to protect your organization's IP outside the USA in such circumstances must be taken on an informed basis for it to be the correct decision.

From a purely commercial perspective, there is no reason why a product or service which is successful and generates revenues in the United States cannot do so in other countries around the world. Although your organization may not be interested in exploiting global markets at this instant in time, if there is potential of doing so in the long term then consideration of protecting your IP rights in foreign territories needs to be made in the short term, before opportunities to register those rights have passed.

This of course does exclude the need to consider protecting your IP rights if your organization has no intention to set up and carry out effective business operations outside the USA directly. Indeed for some businesses the risks associated with overseas expansion may be too great.

However the products and services which your organization successfully markets and sells in the USA could be successfully marketed and sold in foreign territories by agents or re-sellers, under license. Having IP protection in foreign territories means that those products and services can only be marketed and sold with a license under any IP rights. This may be, for example, by licensing the use of patents to technology, or by franchising brands. However in order to be in a position to do this, your IP must be protected in those countries.

This therefore opens up potential new streams of revenue for your organization, without your organization being exposed to the capital expenditure and financial risks associated with setting up business directly in foreign territories.

2.4 Technology is Transferable

A US organization may own technology which is protected by patents in the USA, and which relates to products and/or services provided by that company in the USA. The company may only have business interests in the USA, and may only have business plans relating to the utilization of the technology in the USA. Indeed capital costs associated with the technology may be such that contemplation of exploiting the technology outside the USA may be prohibited simply by costs.

The usefulness of technology, however, does not have any geographical limitation. If a technical innovation leads to a new product or improved product, or a way of making a new product, which leads to business success in the USA, then similar success could be forecast to be replicated outside the USA.

For example in the area of e-commerce, a great idea can be cheaply and easily copied and put into practice, without significant capital outlay, anywhere in the world. Very quickly a third party can capitalize on your own innovation, and profit from such, without any redress. Consideration for obtaining IP rights in countries where the exploitation of the idea is likely to be cheap and successful may therefore be a sound investment. The implementation of the idea does not have to be by your organization. A patent in any country is a piece of property, and can be used as any other piece of property to make money, by licensing of the patent to allow foreign companies to exploit the invention, with income through a royalty or annuity, or by selling the patent. Any patent, whether in the USA or otherwise, is an asset of the company.

Thus an IP strategy should include consideration of the portability of your organizations' IP rights, and considerations of where third parties or competitors may look to exploit those rights. BY doing so, your organization can benefit from the exploitation of those IP rights in other territories.

In specialist industries, the capital costs involved in putting an invention into practice may be prohibitive, and the only potential organizations who may be interested may already be your competitors. In such industries the geographical locations where competitors have manufacturing plants may be limited, and therefore any competitor activity to exploit your IP outside the USA can be prevented by a small number of strategic IP registrations. The semiconductor industry is one example where the construction of a fabrication plant is a huge investment, and a well-defined but small global IP portfolio can effectively be used to prevent manufacture of a product.

2.5 Brand awareness is Transferable

If an organization's products and/or services are being offered in other countries, then the organizations brand is exposed in those countries. Brand protection, and hence protection of the organizations reputation, may therefore be essential in those countries.

A US company may market goods or services under a particular brand name exclusively in the USA, and have no direct commercial activity in the USA. However protection of branding outside the USA may still be desirable, to avoid any dilution of the brand in potential future markets.

3 FORMULATING A GLOBAL IP STRATEGY

When an organization understands the value that can be added through global IP protection, then this does not mean that your organization should blindly look to obtain intellectual property protection globally. There are hundreds of countries within which various types of intellectual property can be obtained.

The crux of making the right decisions as to whether and how your organization's IP should be taken global is having the right IP strategy for your organization. The right strategy may be that there is no value to be obtained by pursuing IP protection outside the US, but that decision will only be the correct one if taken on an informed basis, as part of a review of what the organization's objectives are, and how those objectives can be achieved.

Even from the perspective of obtaining domestic protection in the US, there are many different reasons why organizations pursue protection for their IP, and those reasons differ from company to company. Many of those reasons also are relevant in determining the appropriateness of pursuing IP protection outside the USA. Indeed in formulating a global IP strategy, an organization's US IP strategy may be strengthened by considering new issues.

It is also important to note that IP strategy is not just about considering the protection of your own organizations' IP. It is also about considering how your competitor's are protecting their IP, and whether pro-active action is required in respect of your competitors activities.

3.1 What Do You Need IP For?

The first step in formulating an IP strategy, is to consider what your organization wishes to achieve by having an IP portfolio. The objectives can differ significantly between organizations.

For example, an organization may specifically wish to make revenues as an owner of IP, by licensing rights for other companies to use the IP, but not using the IP themselves. Other organizations may wish to exclusively use the IP themselves, and use the IP protection.

The value of IP rights, and the way in which IP rights can be used by your organization, is looked at in the next section.

3.2 Is some form of IP protection outside the US desirable?

Having determined the various ways in which IP rights can be used to add value and reduce risk for your organization, and thereby determined that registration of IP rights does sit with your business goals, consideration needs to be given to where, geographically, those rights can be used to obtain those goals.

This is necessarily an exercise which can be done in isolation. It may well be that for some IP rights protection outside the USA is valuable, whilst for others it is not. Thus the decision as whether any particular IP right should be registered outside the USA in most cases requires consideration on an individual basis for each IP right.

3.3 Identifying IP for protection

Of course before all these issues can be considered, any IP which may be the subject of protection must be identified. This may seem straightforward – IP which can be protected in the USA can be considered for protection outside the USA.

However in practice this is not so simple. Some territories outside the USA may offer protection for IP rights which are not protected in the USA, or alternative means for obtaining protection then offered in the USA. Therefore some understanding of the types of protection available in territories of interest is valuable.

The other side to this is that protection for certain IP rights which can be protected in the USA may not be possible in foreign territories. There is, therefore, much to be gained in formulating an IP strategy by understanding limitations imposed in any territories of interest for the protection of IP rights.

4 THE VALUE OF IP RIGHTS

IP rights can be used to add to the value of organizations in a number of ways, many of which compliment each other. Below some of the positive attributes that can be utilized with IP rights are discussed, although this is by no means an exhaustive list.

It should be noted that the positive attributes of IP rights are generally independent of territory. If a particular advantage can be gained through an IP right in the USA, then it is more than likely that a similar advantage can be gained in a foreign territory.

4.1 Property Asset

A registered IP right, such as a patent, a registered trade mark or a registered design, is a piece of property, and possession of an IP right is therefore a property asset for an organization. As an asset, it inherently adds value to the company.

Of course the value of that asset per se may be difficult to ascertain. There are many ways for valuing IP rights. For example if a patent is licensed, then the income generate by the license contributes to the value.

For company's which are technology-based, and which do not manufacture products but rather sell technology, e.g. software companies, the technology that the organization develops may be the only 'asset' of the organization. A patent protects this know-how as a tangible asset. As such, patent protection can be vital.

It is now common place for organizations looking for inward investment to be asked to demonstrate an IP portfolio. Certainly for technology companies having no clear tangible

assets, the existence of a patent portfolio is becoming essential to attracting investment. Potential partners, also, may wish to see evidence of patent protection. Often, it will be necessary to establish that IP protection is being pursued globally, in the principle territories where the technology may be exploited.

Similarly for companies providing services, the value of the company may rest in its reputation, which is direct associated with the company's brand. Protecting that brand by trade mark registration therefore provides additional protection for the brand.

Intellectual property rights add value to a business, in a very real sense.

4.2 Defensive Value

An intellectual property right generally conveys the right to use that intellectual property, to the exclusion of others. By obtaining registration for your organization's intellectual property, it is thus possible to 'ring-fence' your organizations' intellectual property, defining the area for which your company has exclusive rights.

This serves as a warning to other companies, to encroach those rights at their peril.

It can also serve as a comfort to customers. For customers, registration of IP rights can convey a mark of quality in the products and services offered by an organization. Indeed, the mark of quality may be such that a premium for the goods or services associated with the IP rights may be applied. This is particularly true of goods associated with a trade mark having an established reputation.

4.3 Generate Revenue

As assets of the organization, IP rights can be used to generate revenue directly, as opposed indirectly by allowing exclusivity in the use of the rights.

IP rights can be bought and sold, as any other property can be.

IP rights can also be licensed. Thus even if an organization does not intend to directly use the rights themselves, they may generate revenue by licensing the rights and earning revenue on a royalty or annuity basis.

This potential advantage of IP rights may be of particular use to organizations which do not intend to exploit the rights in the IP themselves, such as US organizations owning foreign IP rights.

4.4 Assertion

Owing to the exclusivity conveyed by registration of an IP right, anyone infringing an IP right can be pursued for infringing that right. Litigation will most likely be a last resort. It may be considered where a party refuses to take a license but carries out activities which infringe the IP right. Some organizations may not wish to license their IP, preferring to maintain the exclusive right for their own use. In such cases litigation maybe used to enforce the right where it is infringed.

5 IDENTIFYING TERRITORIES OF INTEREST

The main criterion in identifying territories of interest is identifying those territories in respect of which the IP rights can be exploited to extract value.

It should also be borne in mind that in many territories registration of IP rights can be cancelled if the right is not exploited over a certain period of time. Thus it is essential to consider registering IP rights in territories where some positive use of the IP right will be achieved. Having passive IP rights over a period of time may have no value.

5.1 Territories of Direct Interest

The first consideration is those territories where your organization has direct interests outside the USA.

5.1.1 R&D/Manufacture outside the USA

Territories where your organization has manufacturing or design/development (R&D) interests are clearly of prime interest.

If your organization has design/development centers in specific territories outside the USA, then serious consideration has to be given for pursuing registration of associated IP rights in those specific territories, at least for the technology resulting from those centers. This would be standard practice for many international organizations.

Similarly for territories in which manufacture takes place, consideration must be given as a priority as to whether intellectual property rights should be secured for rights associated with the products which are manufactured.

For rights associated with the manufacturing process, then the same priority applies as for rights associated with the products which are manufactured.

Seeking registration for protection of your organizations' intellectual property rights in such circumstances may be an easy decision to make, such protection being or primary concern..

5.1.2 Sale of Products Outside the US

Territories where your organization directly sells products outside of the USA are also of primary concern. This may relate to protection of technology or brands.

In territories where there is no manufacturing or research/development, but where products are sold directly, then the protection of brands is likely to be of value. This may involve protection of the company name, and product names, through trade mark registration. Packaging and get-up, and stylized presentation may also be protectable through trade marks and/or registered designs.

Where products are sold/marketed directly, and there is also manufacturing or research and development in those territories, then the protection of brands is equally of a priority, with the protection of company name being of high importance.

5.1.3 Offer of Services Outside the US

Where services, as opposed to products, are offered for sale or marketed outside the USA, then branding and company name protection is equally important as for products.

It is also possible that the services may be associated with technological innovation, such as is the case in e-commerce type services, and as such the provision of service may be analogous to the provision of products form the perspective of patent protection.

5.2 Territories Where Competitors Have Interests

Consideration of where your organization's competitors have interests can also be important in many industrial and service sectors.

5.2.1 Competitors Manufacture outside the US

If your competitors manufacture in specific territories outside the USA, even in territories where your own organization has no direct interests, it is important to consider the possibility of obtaining patent protection in such territories.

This primarily is of importance to specialist industries, those industries requiring highly skilled manufacturing expertise, or those industries requiring significant capital investment for manufacturing.

In obtaining patent protection in any territory, it is possible to prevent manufacture in that territory using the patented process or of patented products made by any process. In specialized industries, where manufacture is specialized, it therefore may be possible to prevent manufacture of the patented invention by pursuing selective patent protection in key countries where manufacturing is possible. If products cannot be made, then there is no need for concern about where they may be sold.

5.2.2 Competitors Sell Products/Services Outside the US

In relation to territories where your competitors offer products for sale, the likelihood is that they may be territories where you offer products/services for sale too. In which case, the use of IP rights becomes more important to protect your exclusivity in those markets. The registration of branding IP rights may be important, to protect against your competitors passing-off goods or services based on your organizations reputation.

5.3 Consider Future Interests

5.3.1 Potential Commercial Markets Outside the US

For start-up companies in particular, the usefulness of protection of IP rights outside the US domestic market may seem very low in terms of priority, whilst establishment of a business in the US is prioritized.

However, for technological innovation in particular, the window of opportunity to protect innovation by way of patent protection is small, but the potential benefits are long-term.

Patent protection lasts for up to twenty years from filing the application in a particular territory. Further there is only a one year period (The so-called priority year) from filing a US patent application upon which protection in other territories can be based.

Thus a decision made in the short-term, based on a concentration on domestic business interests, may have long-term consequences for establishing an IP portfolio which sits with what may become an international business.

5.3.2 Brand Value Outside the US?

The protection of trade mark rights operates in a different way to patents, in so far as trade mark registration can be secured even after the trade mark has been used.

Nevertheless, failure or a delay in registering a trade mark can leave the door open for a third party to register your trade mark in a country, before your organization has had an opportunity to establish a reputation in that country.

6 IDENTIFICATION OF RIGHTS FOR PROTECTION

In general, but with some notable exceptions, the same intellectual property rights that can be secured in the USA can be secured in other territories around the world.

Some differences do exist in terms of the way protection is sought, the legal effect of the registration of protection, and the enforcement of any rights obtained.

The laws in some countries may also differ in respect of the criteria for a particular type of intellectual property being registrable. In Europe, this is most readily demonstrated in respect of the protection of certain types of technology by patents, and in the protection offered by registered designs.

The term of protection offered may vary from country to country for each type of protection.

6.1 Patents

Patents generally exist to protect technical innovations. In general, the criteria for patentability in Europe are broadly the same in most countries as they are in the USA, with there being a requirement, to obtain a patent, for an innovation to be new and non-obvious.

However, there are certain types of subject-matter were clearer distinctions exist in the law between the USA and other countries.

One example of this is inventions pertaining to e-commerce and the Internet.

There has been a proliferation in recent years of inventions relating to methods of doing business electronically, especially utilizing the Internet. In the USA, the patenting of such inventions has been prolific. In the USA, following the decision in the *State Street Bank* case, it is not only possible to patent methods of doing business which relate to methods carried out electronically, but also to business methods *per se*.

In other countries, however, the law is different, and inventions which can be successfully patented in the USA cannot be patented.

An example of where a clear difference exists is in Europe, where the patenting of business methods *per se* is not permissible. In Europe there is a general requirement for inventions to have 'technical character'. An analysis of this 'technical character' requirement warrants an entirely separate discussion, and cannot be covered in a cursory overview here. What this does do, however, is emphasize the importance in seeking local expert advice in determining the appropriateness of pursuing protection for patents in territories outside the USA, particularly in 'contentious' areas.

In terms of differences between the USA and Europe on patenting, careful advice needs to be sort in relation to patenting any inventions which relate to methods of doing business, electronic commerce, and software.

Put quite simply, there are plenty of examples of inventions which have been patented in the USA, and which would be rejected outright if pursued in Europe. Obtaining the appropriate expert advice can avoid the need for incurring unnecessary costs in pursuing a patent application for an invention which simply cannot be patented.

6.2 Trade Marks

Trade marks can be protected by registration in most territories outside the USA in the same way as they can within the USA.

However as discussed elsewhere in this document, trade mark holders should also carefully look at what protection can now be obtained in Europe by way of registered design protection. Trade mark holders will be increasingly looking to the protection afforded by registered designs in Europe to offer a further tier of protection for their branding.

6.3 Registered Designs ("Design Patents")

What are referred to in the USA as "design patents" are commonly referred to in other territories around the world as "registered designs". Registered designs, as per US design patents, effectively protect the physical appearance of an article, as opposed to its function or utility.

Again, the use of expert local advice is important to ensure that what may well be the subject of a US design patent, may be the subject of a registered design.

In particular, however, registered design protection has recently been liberalized in Europe, and it is now possible to file registered design applications for a much broader range of subject-matter than was previously possible. It is likely that designs which cannot be the subject-matter of US design patents could be protected in Europe by registered designs.

It is also likely that rights which may be the subject of trade mark protection only in the USA, could be the subject of registered resign protection in Europe. Certainly it is now the case, given the recent significant changes in European design law, that organizations

which were previously only interested in trade mark protection are now filing application for registered designs. Any advice I give in relation to trade marks always includes a consideration of the options for protection by way of registered design.

Registered Design Right protection in Europe is again something which could be the subject of entirely separate discussion on its own.

6.4 Copyright

The protection of copyright in most countries is again similar to protection of copyright in the USA, in terms of what may be the subject of copyright protection.

In most countries, and in Europe, there is no requirement to register copyright protection: copyright protection subsists as of right.

6.5 Unregistered Designs

Unregistered designs are, in effect, a cross between copyright and registered design. The right exists in Europe, and a number of other countries.

The right protects the appearance of products or articles, but subsists automatically, requiring no registration.

7 OTHER CONSIDERATIONS IN CREATING A GLOBAL IP PORTFOLIO

There is not presented herein a definitive list of the factors which should be considered when creating a global IP portfolio. As stated elsewhere, the issues to be considered for determining an IP strategy, and creating a global IP portfolio, will vary from organization. However some further factors which are important to consider are presented below.

7.1 Costs

Costs are of course a very important aspect of determining a global IP strategy. Not only must the costs of initial filings be considered, but the costs of prosecuting any applications filed, and the costs of maintaining any rights registered, must be considered.

If a European patent application is filed, annual renewal fees are payable to the European Patent Office whilst the application is still pending, starting with the second anniversary of filing. As discussed elsewhere, in Europe a European patent application results in the grant of a 'bundle' of national patents. Once granted, annual renewal fees must be paid to the national patent offices to keep those patents in force. The amount of the annual renewal fees increases year by year, for the life of the patent.

Thus if multiple IP rights are registered in a number of countries, the annual maintenance costs can become significant.

Clearly, any global IP strategy has to operate within a budget, with the budget being set, at least part, in dependence on the returns available form the registration of the IP and the protection afforded to the organizations' interests.

7.2 Consideration of Prosecution Systems

A practical factor to consider is whether the prosecution system in a particular country possesses any characteristics – or even quirks – which should be taken into account.

7.2.1 Fairness

One consideration may be whether there is any inherent bias in the patent prosecution system of any particular country, which would make the prosecution process frustrating or difficult for a US applicant. Any issues of bias of course cannot be positively confirmed – there is no patent system in the world that I am aware of where there is a formally approved procedure that applications from foreign companies should be treated differently from domestic companies.

Nevertheless, there are many stories of perceived bias in the patent systems of various countries. None of these can be truly confirmed, but by discussion with corporate counsel at other organizations, and at conferences such as this, some information may be gleaned as to whether any country has developed a reputation for treating US applicants unfavorably.

I may well be that this can be taken into account in more selectively determining which IP rights will be pursued in a particular country.

7.2.3 Robustness

Application procedures and the rigorousness with which applications are examined vary in different countries. The European Patent Office, for example, has a reputation for conducting a thorough and comprehensive search and examination, to such an extent that in certain countries the results of the European Search and Examination can be used to secure grant of a patent. As such, a patent granted through the European patent system can be considered to carry credibility that it has been subject to a rigorous examination before grant.

In some countries, the prosecution procedure is less rigorous. This is particularly so in some European countries, where the national patent offices – effectively in competition with the European Patent Office – deliberately offer an alternative, cheaper, less rigorous, examination procedure. The downside to such systems, however, is that there may well be a question mark over the validity of any protection obtained.

Thus the quality of any protection obtained should be considered.

7.3 Difficulties in Enforcement

Each territory around the world has its own enforcement system. The procedures and costs for enforcing a patent vary from country to country, but a general statement which

applies globally is that enforcement of intellectual property rights through the courts is expensive. Certainly wherever possible, IP litigation is best avoided.

In addition the law is different in different countries, and therefore grounds for enforcing an IP right in one country may not apply in another.

There also some countries where difficulties in enforcing IP rights may be so severe that the usefulness of registering IP rights is much reduced. Some far-eastern countries, for example, have a reputation for having weak system of enforcement. However many of these countries are improving there systems and procedures, with pressure from the international community.

7.4 Difficulties in Detection

Of course for any IP right to be enforced by litigation, it must be possible to detect whether the right has been infringed. For patent rights in particular, one factor for considering whether extensive geographic protection must be the ability to be able to detect use of the technology. For example, for methods of manufacturing even reverse engineering a product may not result in detection of a patented manufacturing process. If detection of use of the patented invention by a potential infringer is difficult, then the value of having protection for the invention is reduced.

7.5 Being Flexible

The reality is that there is no fixed rule for any organization for protecting any particular IP right. For example, for one given technical innovation the correct decision may be to obtain patent protection in the US, Europe, Japan and Australia. For another technical innovation, patent protection in the US alone may be appropriate.

Every IP strategy for creating a global IP portfolio must allow for flexibility, and for taking decisions on a case by case basis. This does not mean, however, that different criteria are used in each case. A well formulated IP strategy will reach a different decision for different cases, by applying the same set of criteria.

8 COMPETITOR ELEMENTS IN AN IP STRATEGY

In formulating a global IP strategy, it is important to consider other aspects than simply protecting the IP rights of your own organization. Indeed, even if your own organization has no IP rights to protect, or no IP rights in particular categories, it does not mean that an IP strategy is unnecessary. Far from it - it is important to consider and evaluate the potential impact of your competitor's IP rights on your own commercial activities.

In some territories outside of the USA, there is provided much more flexibility for being pro-active in respect of any action taken by competitors to secure registration of intellectual property rights. This is particularly the case in Europe, and particularly the case in respect of patents.

8.1 Patents

In respect of patents, in certain territories there is the possibility to not only file an Opposition against the grant of a patent, but to file observations on the allowability of the application whilst the application is still pending. The following discussion is presented particularly from the perspective of the European patent system.

7.1.1 Third Party Observations

The European Patent Office provide specifically for third parties to file observations on the patentability of patent applications whilst they are still pending. In filing such observations, there is no requirement to identify the organization making the observations.

This allows for additional prior art to be introduced, to attempt to restrict the scope of protection ultimately granted, or to even attempt to prevent a patent being granted.

7.1.2 Oppositions

After a European patent is granted, there is a nine month period within which any third party may oppose its grant. The party must be identified. This is an opportunity to prevent a patent being registered in Europe. If the Opposition is successful, the rights in all countries designated in the European patent are lost. There are various grounds on which an Opposition can be raised, including prior art grounds, but also including more formal grounds. The cost of filing and pursuing an Opposition at the European patent Office is relatively cheap.

The European Patent Office reported that the number of oppositions filed against granted European patents increased by 50% in 2002 over the previous year.

7.1.3 Invalidity Actions

In most territories, and certainly national territories in Europe, there exists the possibility to start actions to invalidate a granted patent. Such procedures can be useful where there are concerns over the existence of a particular patent, although the procedures are likely to be more costly than a European Patent Office Opposition.

8.2 Trade marks

Most national trade mark systems allow for oppositions to be filed either pre- or post-registration, within a specific time limit. Thereafter there generally exist procedures for applying for cancellation of trade mark registrations, although such procedures may be more costly.

In Europe, the community trade mark system allows for an opposition period, and thereafter for an invalidity action to cancel a registration. As the community trade mark is a unitary right, protection is canceled throughout the European community if an opposition or invalidity action is successful.

8.3 Registered Designs

Generally, in most territories an opposition procedure does not exist fro registered design registrations. However as with trade marks and patents, procedures for applying for cancellation on the grounds of invalidity do exist.

In Europe, for the community registered design no opposition procedure exists. However an invalidity action can be brought, and as the right is a unitary one, a single successful action cancels registration in all European Community.

8.4 Watches

In order to acquire the necessary knowledge of competitor IP rights to consider taking any of the above action, watches can be put in place. Watches can monitor for the filing of applications by competitors to identify new filings, and monitor the progress of individual applications to monitor deadlines, for example, for filing Oppositions.

9 FOREIGN IP SYSTEMS

Pursuing registration for protection in any given territory generally requires filing an application with the national patent and trade mark office for that territory. The procedures are generally analogous to those that are followed before the United States Patent & Trade Mark Office, subject to local variations.

For some territories protection can be more efficiently sort by taking advantage of regional agreements which allow protection in a number of countries to be sort through a single application. A number of regional agreements exist.

In Europe, there exist regional agreements for protecting patents, trade marks, and registered designs. Such European regional agreements offer protection in parallel with protection offered through the national patent and trade mark offices.

Other international agreements exist which will be familiar to US Organizations, the USA being a member of such organizations. Examples of such international agreements are the patent cooperation treaty and the Madrid Protocol.

Filing an application for intellectual property protection in any national country is the same as filing a national application in the USA. The application is filed, and after a search and/or examination procedure, a national IP right is obtained or refused.

The time taken for the prosecution can vary significantly from country to country. For patent applications, for example, the process in most countries is slower than in the US Patent & Trade Mark Office.

In view of the existence of centralized systems for protecting IP rights in Europe, many national patent and trade mark offices try to offer an alternative service to that provided by the centralized bodies. For example, in relation to patents, many national Patent Offices in Europe try to offer a cheaper, faster alternative to the European patent system, in order to attract the filing of more applications.

The UK Patent Office, for example, has reduced its official fee schedule over recent years, to offer a cheaper alternative to the European Patent Office for obtaining patent protection in the UK. In addition, the UK Patent Office seeks to examine applications on a quicker basis than the European Patent Office, although by US standards both the national and centralized systems can operate relatively slowly in Europe. Where special conditions can be proven, it is possible to prosecute a UK patent application through to grant within one year.

10 IP PROTECTION IN EUROPE – AN OVERVIEW

An insight into the procedures and considerations of pursuing intellectual property protection outside the USA can be obtained by looking at the options available for pursuing intellectual property protection in Europe.

Europe is a good example to look at. It offers protection for all types of intellectual property via centralized routes as well as national routes. Some differences exist between laws and procedures in the USA which are illustrative of differences which may be encountered in other territories. In addition, Europe is generally an important commercial market for US organizations which have international interests, and therefore there is likely to be interest in use of the available rights for those organizations which are interesting in expanding their IP portfolio outside of the USA.

10.1 Patents

Europe offers two alternatives for obtaining patent protection, by way of national patent offices and by the way of the centralized European patent system.

An IP strategy for Europe should include some consideration of the merits of national filings versus centralized filings. There are advantages and disadvantages to each route. The characteristics of each route are discussed below, and thereafter a comparison made of the two routes.

10.1.1 Europe - National Patent Offices

All European countries have there own national patent offices. Patent applications filed through the national patent offices are examined for patentability under the national law of the particular country.

If that country is a member state of the European Patent Convention, which is the legal basis of the centralized European patent system, then the patentability provisions of that country have to be generally consistent with the patentability provisions of the European Patent Convention. Thus the tests for patentabilty should be consistent with the European Patent Office.

However even within countries which are member states of the European Patent Convention, the standard of examination can vary considerably between the national patent offices, and in some countries patent applications effectively go through a registration process. Any granted patent, however, would be vigorously assessed for

compliance with the patentability requirements if a post-grant action was to be taken under the patent.

If a patent application is pursued for the same invention through multiple national patent offices of European countries, they are examined independently. It is quite possible that the patent could be granted with claims of different scope in each country, and as such there is a strong possibility of obtaining different protection in different European countries.

A patent granted through a patent application filed at a national patent office results in the grant of a national patent in that country, which provides a right only in that country. Any enforcement of the patent post-grant requires action to be taken in the courts of that country, under the laws established in that country.

10.1.2 Europe - European Patent Office

The processing of applications filed under the centralized European patent system is handled by the European Patent Office. The European Patent Convention is the legal basis for establishing the European patent system. Any country which is a signatory to the European Patent Convention can be designated in a European patent application.

The signatories to the European Patent Convention are not limited to members of the European Union. All member states of the European Union (or European Community) are signatories to the European Patent Convention, but there are in addition many other European countries which are signatories to the European Patent Convention. The European Patent Convention is a convention which has been established independent of the European Union.

The European Patent Office offers a single, centralized route for prosecuting a patent application in Europe.

The centralized nature of the prosecution of a European patent application means that the protection offered by a granted European is consistent across all countries (subject to interpretation under different national laws).

If the prosecution of a European patent application by the Examining Division results in a decision to reject the application, that decision can be appealed to the Boards of Appeal of the European Patent Office. The Decisions of the Boards of Appeal of the European Patent Office offer guidance as to how the European Patent Convention should be interpreted, and can be used for understanding and clarifying patent practice before the European Patent Office. Decisions of the European Patent Office Boards of Appeal are final, and there is no further route of Appeal.

After a European patent is granted, there is a period (nine months) within which anyone can file an Opposition and seek to have the patent revoked or maintained in amended form. Any decision of the Opposition Division can be appealed by either party to the Boards of Appeal. Again, the decision of the Boards of Appeal is final and not open to further Appeal.

There is also an Enlarged Board of Appeal of the European Patent Office. However this is not a higher Appeal forum. The Enlarged Board of Appeal rules on points of law which are referred to it by the Boards of Appeal.

One often misunderstood characteristic of the European patent system is what type of territorial right is derived from it. A European patent application, when granted, results in the grant of a European patent. However that is not a single patent which offers protection in all countries. The granted European Patent has to be brought into effect in each individual country by taking appropriate action before the appropriate national patent offices, generally involving filing an appropriate translation with the national patent office. As such, a European Patent actually results in a 'bundle' of national patents.

The European Patent Office does not provide for any post-grant procedures other than Opposition. If the patent is to be enforced, action must be taken before the national courts of each individual country. There is no centralized European court before which a patent action can be taken.

Thus enforcement of a European patent is through the national courts. If it is desirable to take action in say three European countries under a European patent, three court actions need to be initiated.

Once granted therefore there is no unitary right, and the effect is the same as having filed patent applications in each country individually. However, the prosecution costs are of course consolidated in a singe application.

10.1.3 National patent Office Vs. European Patent Office

The European Patent Office exists in parallel with the national patent offices, and the national patent offices are effectively in competition with the European Patent Office. A patent application can be filed simultaneously with the European Patent Office and with one or more national patent offices.

From a patentability point of view, the same basis should apply for assessing an invention regardless of which route is taken. The signatories to the European Patent Convention are required to harmonize their patent law with the European Patent Convention, and as such the patentability requirements are consistent whichever route is taken.

Generally speaking, if an applicant is interested in obtaining protection in three or more European countries the European Paten Office offers the most cost-effective route.

The national courts of member states are not in any way bound by Decisions of the Boards of Appeal of the European Patent Office, and vice versa. However there is generally a common goal in Europe - at the European Patent Office, the national patent offices, and the national courts - to see harmonization of patent laws. Indeed in a number of decisions of the European Patent Office Boards of Appeal, and the national courts, express reference has been made to the desirability of reaching a decision which maintains, or moves toward, harmonization.

10.1.4 Community Patent

The "Community Patent" is a proposal which has been around since the 1970s, for a single unitary patent right covering the whole of the European Community. A draft legal basis for this convention exists. The primary difference compared to the current European patent system is that a single unitary right for the entire European Community would be obtained, which could be enforced in a single court action.

After many years as a proposal, the likelihood is that the Community Patent will become reality in the coming years, and offer a third route for obtaining patent protection in Europe. Current proposals are that a Community Patent Court, for handling issues relating to Community Patents, should be in operation by 2010.

At this stage the practicalities of the implementation of the Community Patent are not formed, and so detailed discussion of its merits and disadvantages are not possible. It is something, however, which will become increasingly talked about in the coming years.

10.2 Trade Marks

As for patents, trade mark protection can be obtained through protection in national trade mark offices and through a centralized European-wide system – the Community Trade Mark system.

In general, the examination applied on filing an application for a community trade mark is less thorough than in some European national trade mark offices, particularly the UK. More of a burden is placed on the Applicant to ensure the rights in the trade mark are valid.

At the time the community trade mark was introduced, in the early 1990s, the laws of the various member states of the European Community were amended so as to be consistent with the registration requirements for the community trade marks. As such, the registration requirements of national trade mark offices are consistent with those of the body which handles community trade mark applications.

It should be noted that coverage for a community trade mark applies only to countries which are members of the European Community, and as such is less extensive than the set of countries in respect of which protection can be obtained via a European patent.

10.3 Registered Designs

As for patents and trade marks, registered design protection can be obtained through protection in national patent and trade mark offices and through a centralized European-wide system – the Community Registered Design.

The law in Europe in relation to registered designs has been significantly changed in the last few years, and it is now possible to obtain protection for a wider range of deigns than was previously possible. Indeed, the option for obtaining registered design protection is now much more important for trade mark holders.

In Europe, it is now possible to obtain registered design protection for packaging and get-up, and any form of stylized presentation such as lettering, logos, and computer screen icons. Registered design protection has now become of interest for many organizations which previously only sort trade mark protection.

10.3.1 National Registered Designs

A registered design can be obtained in any national country by filing a registered design application in that country. The introduction of the Community Registered Design (see below) has raised the issue of whether national registered design applications are still worthwhile. They do have one particular advantage.

As discussed below, the Community Registered Design is a unitary right, and can be revoked for all European Community countries by a single cancellation action. Individual national registered designs, however, are rights in the specific country in which they are filed. To revoke a national registered design, a cancellation action would have to be successful in that country. If national registered designs are obtained in multiple countries, then multiple actions are required. The effort to revoke a registered design throughout the European Community is therefore significant and costly, and thus a national registered design may be considered to be a right which is more robust against potential attack.

10.3.2 Community Registered Designs

The Community Registered Design is a new intellectual property right which came into force in 2003. This allows for a single application for a registered design to be filed covering the whole of the European Community. Unlike the current European patent system, the right granted is a single unitary right, having effect in all European Community countries. A legal action to enforce a Community Design can be taken in a single court, and the decision has effect in all European Community countries.

Filing a European Community design application offers extremely good value for money. The cost is equivalent to filing a registered design application in just two national countries, but protection is obtained in all European Community countries.

The main drawback to the registered community design is that the right in the entire European Union can be revoked by a single successful cancellation action.

11 UNDERSTANDING THE FOREIGN IP SPECIALIST

The role of IP specialists in foreign countries may be different to the role of IP specialists in the US. The titles 'attorney' and 'agent' may not have the same meaning as they do in the US. In many territories, IP firms are more specialized than in the US, offering specific services, and the use of multiple firms may be necessary to secure the proper advice in all IP matters.

What is certain, however, is that the use of a local specialist in any territory is essential in obtaining correct and full advice. Where applications for the registration of intellectual property rights are made, in almost all cases there is a requirement for a local specialist to be appointed to represent your organization before the national patent and trade mark office. The extent of the involvement of that specialist, however, may vary.

11.1 IP specialists in Europe

Once again, Europe offers a good example to illustrate differences between the type and role of IP specialists that may be found in territories outside the USA, and those which you may be used to dealing with in the USA as a US organization.

In general, in Europe IP specialists will fall into the category of lawyer, patent attorney, or trade mark attorney. Sometimes individuals can be found who combine these roles. However the trend in Europe is, as is discussed below, for specialization.

11.2 The Patent Specialist

In Europe, unlike the USA, patent attorneys have specific expertise, and are not lawyers or general attorneys.

The general path that a patent attorney will take to qualify in Europe, is to obtain a technical or scientific specialty via a university degree, and thereafter to take up a position as a trainee with a firm of Patent Attorneys, or with an in-house corporate IP department. Study is then a mix of on-the-job training and lectures. Qualification requires sitting a series of professional examinations. In Europe, most patent attorneys will have two sets of professional qualification. A first set entitles them to be identified as a European Patent Attorney, and qualifies them to represent applicants before the European Patent Office. A second set entitles them to a national qualification in their own country, and entitles them to practice before the national patent office in their country of origin.

The typical time scale for qualifying as European patent attorney is 3_ to 4 years from commencement as a trainee in the patent profession.

In the UK, the time scale for qualifying as a UK Chartered Patent Attorney, the national qualification, is typically longer, being four or more years. Qualification as UK Chartered Patent Attorney also allows patent attorneys in the UK to represent clients in certain courts, as well as before the UK Patent Office.

In other European countries the requirements for qualifying as a national patent attorney are less onerous, and in some countries qualification can be obtained in less than a year.

Thus Patent Attorneys in Europe have specific legal expertise in the area of intellectual property, and are not qualified to advise on more general legal issues such as contracts other than at a basic level. . Of course, it is possible that in addition to obtaining a technical degree and studying to qualify as a patent attorney, an individual may additionally attend law school and qualify as a lawyer, and thereby provide advice on more general legal issues. However such animals are few and far between, given the time scales involved for achieving such qualifications. Obtaining a law degree does not offer any exemption to the training to become a patent attorney. Those few IP professionals who are both patent attorneys and lawyers will generally specialize in a specific area.

It should be noted that in the UK the term 'patent attorney' and 'patent agent' are used interchangeably, and patent agent does not have the same meaning as in the US; patent agent , historically, is the term used to refer to a patent specialist in the UK. However its use is falling out of favor particularly because of misconceptions outside the UK about what a patent agent.

Generally, a Patent Attorney in Europe will be able to advise on all matters relating to the prosecution and enforcement of patents in Europe, as well as licensing issues. In some circumstances this may be done in conjunction with a lawyer. Matters relating to Registered Design and Industrial Copyright will also fall within their area of expertise.

In Europe typically a patent attorney in private practice will work for a firm of patent and trade mark attorneys, rather than a general law firm. There has not yet been a strong trend for general law firms to specifically recruit patent attorneys. As such, the patent profession in Europe is very much along the lines of the 'IP Boutique'.

A European Patent Attorney in private practice will typically carry out the following services:

- Prepare patent applications for their clients
- Prosecute patent applications for their clients
- File Oppositions against their client's competitors patent applications
- Advise on IP strategies for their clients in Europe and globally
- Coordinate with their clients IP representatives in other territories
- Advise on validity of their client's competitors patents
- Provide watching services against their clients competitors
- Advise on licensing (Licensor and licensee) matters for their client
- Advise on enforcement matters (assertive and defensive) for their clients

11.3 The Trade Mark Specialist

As with patent attorneys, becoming a trade mark attorney in Europe requires a mixture of on-the-job training and attendance at lectures, after obtaining a degree at university. The subject of the first degree is not necessarily important, as the technical expertise associated with patent work is not necessary. Increasingly, however, trainee trade mark attorneys are recruited after having been to law school and obtained a law degree. It is therefore more common for trade mark attorneys to be lawyers and trade mark attorneys. However, in becoming trade mark attorneys they specialize in matters of trade mark practice. The time taken to qualify as a trade mark attorney in the UK is typically 3 to 4 years.

There is no set of professional examination to qualify as a European Trade Mark Attorney. European Trade Mark Attorneys are expected to qualify to practice in their own country, and that together with an appropriate level of experience enables them to earn the tile of European Trade Mark Attorney.

11.4 The IP Lawyer

The IP lawyer is an individual who has attended law school and obtained the necessary qualification to practice law. These qualifications will differ from country to country in Europe. In the UK, legal practitioners may be solicitors or barristers. A lawyer is an individual who has graduated law school, whereas a solicitor is a law graduate who has obtained in addition the necessary practical experience to practice in their own right. Barristers are, in effect, equivalent to trial lawyers. However the term 'IP Lawyer' can

conveniently be used to refer to those individuals who have the appropriate legal training to practice in the specialized are of IP Law.

An IP lawyer's involvement tends to relate to contractual matters and contentious matters. IP lawyers are not generally involved in the prosecution of patent applications, that being the domain of the Patent Attorney. Similarly oppositions and invalidity actions, and attending hearing on such matters, would be the domain of the patent attorney.

Where IP lawyers particularly become involved in Europe is in licensing matters and litigation, although this is by no means the extent of their involvement.

In licensing matters, the IP lawyer will often work together with the patent attorney, in assessing the scope of protection afforded by patents and determining the relevance to competitor activities. Similarly the Patent Attorney and IP lawyer will often work together in litigation matters.

11.5 Jurisdiction

For IP professionals in Europe, the extent of their involvement is limited by the national jurisdictions. Whilst a patent attorney can handle Europe-wide patent prosecution and opposition at the European patent office, litigation falls under individual national jurisdictions, and thus a patent attorney, and an IP lawyer, can only advise in details in respect of their own country. Thus Europe wide litigation may involve the use of multiple IP professionals across different countries.

For the enforcement of the Registered Community Design, and in the future the Community Patent, this is not the case however, a single forum being able to reach a decision which is enforceable across the European Community. Where courts exist in multiple countries to enforce such centralized rights, this allows for the potential of forum shopping.

Further Reading: Patenting Software & Business Methods in Europe

CONTENTS

1. THE PATENT SYSTEMS IN EUROPE

There are two routes to obtaining patent protection in Europe. Patent applications can be filed through the national patent office of any individual country, or through the European Patent Office.

The following is a discussion of some of the main characteristics of the two systems, which is helpful for considering strategic and practical issues in relation to patenting software and business method related inventions in Europe. It should be kept in mind, however, that this is a simplistic overview.

1.1 National Patent Offices

All European countries have there own national patent offices. Patent applications filed through the national patent offices are examined for patentability under the national law of the particular country.

If that country is a member state of the convention establishing the European Patent Office, then the patentability provisions of that country have to be generally consistent with the patentability provisions of the European Patent Convention. Thus the tests for patentabilty should be consistent with the European Patent Office.

The standard of examination can vary considerably between the national patent offices, and in some countries patent applications effectively go through a registration process. Any granted patent, however, would be vigorously assessed for compliance with the patentability requirements if a post-grant action was to be taken under the patent.

If a patent application is pursued for the same invention through multiple national patent offices, it is possible that the patent could be granted with claims of different scope in each country, and as such there is a strong possibility of inconsistent protection in different countries.

A patent granted through a patent application filed at a national patent office results in the grant of a national patent in that country, which provides a right only in that country. Any enforcement of the patent post-grant requires action to be taken in the courts of that country, under the laws established in that country.

1.2 The European Patent Office

Certain European countries, including all countries which are members of the European Community, are signatories to the European Patent Convention, the legal basis for the establishment of the European Patent Office.

The European Patent Office offers a single, centralized route for prosecuting a patent application in Europe. There are currently twenty-seven countries which are signatories to the European Patent Convention, and which can therefore be designated in a European patent application.

The centralized nature of the prosecution of a European patent application means that the protection offered by a granted European is consistent across all countries (subject to interpretation under different national laws).

If the prosecution of a European patent application by the Examining Division results in a decision to reject the application, that decision can be appealed to the Boards of Appeal of the European Patent Office as of right. The Decisions of the Boards of Appeal of the European Patent Office offer guidance as to how the European Patent Convention should be interpreted, and can be used for understanding and clarifying patent practice before the European Patent Office. Decisions of the European Patent Office Boards of Appeal are final, and there is no further route of Appeal.

After a European patent is granted, there is a period (nine months) within which anyone can file an Opposition and seek to have the patent revoked or maintained in amended form. Any decision of the Opposition Division can be appealed by either party to the Boards of Appeal. Again, the decision of the Boards of Appeal is final and not open to further Appeal.

There is also an Enlarged Board of Appeal of the European Patent Office. However this is not a higher Appeal forum. The Enlarged Board of Appeal rules on points of law which are referred to it by the Boards of Appeal.

A European patent application, when granted, results in the grant of a European patent. However that is not a single patent which offers protection in twenty seven countries. The granted European Patent has to be brought into effect in each individual country by taking appropriate action before the appropriate national patent offices, generally involving filing an appropriate translation with the national patent office. As such, a European Patent actually results in a bundle of national patents.

The European Patent Office does not provide for any post-grant procedures other than Opposition. If the patent is to be enforced, action must be taken before the national courts of each individual country. There is no centralized European court before which a patent action can be taken.

Thus enforcement of a European patent is through the national courts. If it is desirable to take action in say three European countries under a European patent, three court actions need to be initiated.

1.3 Choosing a Route

The European patent Office exists in parallel with the national patent offices, and the national patent offices are effectively in competition with the European Patent Office. A patent application can be filed simultaneously with the European Patent Office and with one or more national patent offices.

From a patentability point of view, the same basis should apply for assessing an invention regardless of which route is taken. The signatories to the European Patent Convention are required to harmonize their patent law with the European Patent Convention, and as such the patentability requirements are consistent whichever route is taken.

Generally speaking, if an applicant is interested in obtaining protection in three or more European countries the European Paten Office offers the most economic route.

Some of the pros and cons of the two routes particularly in relation to choosing a strategy for patenting software and business method inventions are discussed further later in this document.

For the purpose of the present discussion patentability – at least from the point of view of prosecuting a patent application – is discussed from the perspective of the European Patent Office. This is beneficial not least because the Boards of Appeal of the European Patent Office have effectively led the way in formulating a framework in Europe for determining the patentability of software and business method related inventions.

The national courts of member states are not in any way bound by Decisions of the Boards of Appeal of the European Patent Office, and vice versa. Therefore no consideration of the patentability of software and business method related inventions in Europe is complete without some consideration of the enforceability of those granted patents in the national courts.

However there is generally a common goal in Europe - at the European Patent Office, the national patent offices, and the national courts - to see harmonization of patent laws. As such, there is no significant difference in the way, so far, in which these types of inventions have been assessed across the different forums. Indeed in a number of decisions of the European Patent Office Boards of Appeal, and the national courts, express reference has been made to the desirability of reaching a decision which maintains, or moves, toward harmonization.

2. THE LAW AT THE EUROPEAN PATENT OFFICE

The legal basis for the patentability of European patent applications is the European Patent Convention (EPC). Associated with the European Patent Convention are a set of Rules (the Implementing Regulations). This legal basis is enhanced and interpreted by the decisions of the Boards of Appeal of the European Patent Office.

The areas of the European Patent Convention relating to the patentability of software and business method inventions is discussed in this section. As well as looking at what the law says, this section also looks at how that law must be interpreted in the light of decisions reached by the Boards of Appeal of the European Patent Office.

2.1 Patentability: The Exceptions

Article 52 of the EPC deals with the definition of a patentable invention. In particular Article 52(1) sets down that:

- *European patents shall be granted for any inventions which are susceptible of industrial application, which are new, and which involve an inventive step.*

However Article 52(2) of the EPC goes on to specifically exclude certain inventions from being patentable inventions. The specific exclusion of relevance to this discussion is that contained in sub-paragraph (c):

- *The following in particular shall not be regarded as inventions …*

  Schemes rules and methods for performing mental acts, playing games or doing business, and programs for computers…

So, on the face of it, business methods appear excluded from patentability. Similarly computer programs appear excluded from patentability, and by inference software generally may appear excluded from patentability.

The wording of this exclusion clause has been the subject of much discussion amongst IP practitioners and policymakers in Europe in recent years, prompted by two decisions of the Boards of Appeal of the European Patent Office in relation to two patent applications filed in the name of IBM, which decisions are discussed further hereinbelow.

It has been suggested by a number of people that it is this definition in the European Patent Convention which has led to the view – widely held both inside and outside Europe – that 'business methods' and more particularly 'computer programs', which can be more generally considered 'computer-implemented' inventions, are not patentable in Europe.

As the following discussion will set out, this is not in fact the case. Whilst it will be seen that the freedom to patent 'business methods' and 'computer programs' in Europe does not go as far as it does in the US, it is nevertheless not as prohibitive as commonly believed.

Where the line can be drawn between patentable and non-patentable inventions in Europe is, it has to be said, difficult to identify precisely. There are certainly examples of inventions where it is difficult to predict with any certainty whether a European patent will result. However the following discussion hopefully provides some understanding of the general principles which are applied in determining where that line should be drawn.

2.2 The Exceptions: Interpretation

Two key decisions of the Boards of Appeal of the European Patent Office in relation to patent applications filed in the name of IBM (T935/97 and T1173/97 – commonly known as 'the IBM decisions') have placed significant emphasis on a proviso included in Article 52(3):

- *The provisions of paragraph 2 shall exclude patentability for the subject-matter or activities referred to in that provision only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such.*

The key term in this clause is *as such*. This is discussed below in relation to both the patentability of computer programs and business methods.

2.2.1 Computer Programs

In the IBM decisions the Boards of Appeal of the EPO have confirmed that what are excluded from patent protection under the EPC are computer programs *as such*, or *per se*. More specifically, a claim to a computer program is not excluded from patentabilty if it has 'technical character'. Technical character, in relation to computer programs, is discussed further later in this document.

2.2.2 Business Methods

As regards the business methods exclusion, this was not specifically mentioned in the IBM decisions. Nevertheless it is my view that the same reasoning applies, and the exclusion applies only to business methods *as such*.

This reasoning has now effectively been confirmed by the Boards of Appeal of the EPO in a decision relating to an invention which was directed to a pension scheme provision (T931/95 – commonly referred to as 'the Pension Scheme decision'). This confirms that the presence of technical character cannot result in an invention being rejected as being directed to excluded subject-matter.

In fact the Pension scheme decision perhaps goes a bit further than the IBM decisions, in clearly defining a boundary between determining whether a claim has technical character, and determining whether a claim is obvious. In the IBM decisions, as discussed in section Z below, the inference was that the issue of determining whether a claim was to a computer program *per se* was directly linked to establishing a difference over the art (though not necessarily an inventive difference). In the Pensions scheme case, it was made clear that the two had to be addressed separately. The approach taken in the Pensions scheme case has been approved by a decision in the Germany courts (Decision of the German Federal Supreme Court of Justice (case XZB 15/98, Sprachanalyseeinrichtung, 11th May 2000).

2.3 Summary

Thus the use of the term 'invention' in Article 52(1) EPC in conjunction with the exclusion provisions of Article 52(2) and (3) EPC, which mentions subject-matter that 'in particular shall not be regarded as inventions within the meaning of paragraph 1', is to be understood as implying a requirement for an invention to have technical character. If an invention has technical character it cannot be rejected by the European Patent Office as being directed to excluded subject-matter.

3. TECHNICAL CHARACTER

3.1 Technicality

Having established that an invention cannot be considered as excluded subject-matter if it has technical character, consideration needs to be given as to what technical character actually is.

There is an established requirement for "technical character" or "technicality" for a patentable invention at the European Patent Office.

The European Patent Office Rules (the Implementing regulations of the European Patent Convention) state that an invention must:

- Relate to a technical field [R. 27(1)(a)]
- Solve a technical problem [R. 27(1)(c)]
- Be defined in terms of technical features [R29(1)]

These requirements for 'technical character' apply to all inventions, including software and business methods. Various decisions of the Boards of Appeal of the EPO (e.g. T1173/97 and T935/97) have confirmed this requirement for technical character. These decisions have stated that, in general, an invention may be an invention within the meaning of Article 52(1) EPC if, for example:

- A technical effect is achieved by the invention; or
- Technical considerations are required to carry out the invention.

Having stated this, however, it has also been stated in a decision of the German Courts (German Federal Supreme Court of Justice, case XZB 15/98, *Sprachanalyseeinrichtung*, 11th May 2000) that the term 'technical character' is not a clearly defined term.

All the above references to 'technical' in fact convey more meaning than simple 'technical character'. For example solving a technical problem is more of a consideration for assessing inventive step than ensuring the invention does not relate to excluded subject-matter. This section is concerned with determining the meaning of 'technical character' to avoid objections purely on the grounds of excluded subject-matter.

So for a computer program or business method invention, the question that needs to be addressed is whether the invention represents a computer program or method of doing business as such, or whether it has technical character. To avoid a rejection on the grounds of the subject-matter being excluded from patentability, it is necessary to ensure that the invention has technical character.

The issue of establishing technical character in software inventions has most recently been addressed in the IBM decisions. In respect of business method inventions, the issue was most recently assessed in the Pension Scheme decision. Both of these decisions took a different approach to the issue of assessing technical character. The two approaches are discussed below.

3.2 Methods of Doing Business – Technical Character

The Boards of Appeal of the European Patent Office have confirmed (T931/95) that a computer system suitably programmed for use in a particular field – even if that field is the field of business and economy – has the character of a concrete apparatus in the sense of a physical entity, and is thus an invention within the meaning of Article 52(1) EPC.

This distinction with regard to the difference of assessing whether the subject-matter of a claim is excluded from patentability defines a difference between a method of doing business and an apparatus suited to perform such a method, and is based on the wording of Article 52(2)(c) EPC, according to which "schemes, rules and methods" are non-patentable categories in the field of economy and business, but the category of 'apparatus' in the sense of 'physical entity' or 'product' is not mentioned in Article 52(2).

This means that if a claim is directed to an entity such as apparatus, the formal category of such claim does in fact imply physical features of the claimed subject-matter which may qualify as technical features of the invention concerned, and thus be relevant for determining its patentability.

As such, an objection that the invention should be rejected as being specifically excluded from patentability can be readily avoided by simply ensuring the language of the definition of the invention encompasses some form of physical means: e.g. a mechanical means, an apparatus means, a computer system, a network.

However a claim directed to an apparatus for controlling a business method may, for example, be considered to be an organizational structure. Further a claim directed to a means may not necessarily be interpreted as being directed to a hardware element, or hardware functions, or combined hardware/software functions. Its scope may include organizational subunits and substructures for performing any particular function having an economic character or business character. Thus a claim, when read in isolation, may be amenable to being construed as claiming a method for doing business only, i.e. as such, and which therefore cannot be regarded as an invention within Article 52(1) EPC, according to Article 52(2)(c) and 52(3) EPC.

However by clearly conveying such apparatus and means to be technical means, a straight objection can be avoided. Thus, for example, the apparatus and means may be clearly defined as a suitably programmed computer or system of computers, including computer means.

However there is a precedent (Decision T767/99 – Pitney Bowes) that even when the definition of the invention can convey non-technical elements, if the specification clearly teaches that those elements are technical then that is sufficient to convey technical character.

What this does tell us is that methods only involving economic concepts and practices of doing business, i.e. pure business methods, do not have technical character and therefore do not inventions within the meaning of Article 52(1) EPC and are not patentable.

3.3 Computer Programs – Technical Character

Programs for computers may be more generally considered as a form of computer-implemented invention. The term 'computer-implemented invention' is intended to cover claims which involve computers, computer networks, or other conventional programmable apparatus whereby prima facie the novel features of the invention are realized by means of a program or programs.

The execution of a program will always have physical effects (e.g. the transmission of signals within the computer). The established case law (again reference is made to the IBM decisions and T769/92 Sohei) takes the view that such normal physical effects are therefore not in themselves sufficient to lend a computer program technical character. This takes the view that using technical means for a purely non-technical purpose and/or for processing purely non-technical information does not necessarily confer technical character on individual method steps or on the method as a whole.

However if a computer program is capable of bringing about, when run on a computer, a further technical effect going beyond the normal physical effects then this further technical effect ensures that the invention is not excluded from patentability. This further technical effect may be known in the prior art, and therefore is not a requirement to establish inventive step. However it does at least seem to require a comparison of the invention with the state of the art, and therefore is the beginning of establishing inventive step.

Thus the IBM decisions effectively propose a 'contribution' approach to determining whether subject matter is excluded for being a computer program. That is, the question that needs to be addressed to establish technical character is: what is the technical contribution of the invention to the art?

3.4 Comparison of Technical Character: Computer Programs & Business Methods

It will be noted from the above that the assessment of technical character in the Pensions Scheme decision in relation to a business method case is different from that in the IBM decisions in relation to a computer program case.

Applying the analysis of the Pensions scheme case in a computer program setting, technical effect is conveyed merely by the simple technical effect of causing an electrical current, provided of course the computer system itself forms part of the claim. It is arguable, therefore, that the Pensions Scheme case can now lead us to deduce that for a computer program technical effect is achieved by simply running the program on the computer, and there is no requirement for technical contribution.

In this respect, the Pensions Scheme decision appears to offer some clarification. The Boards of Appeal criticized one aspect of the Guidelines for Examination, which suggests that in assessing whether an invention relates to excluded subject-matter it is necessary to consider the difference between the invention and the prior art. This is effectively the contribution approach for assessing technical character in computer programs established in the IBM decisions.

In the Pensions Decision the Board expressed agreement with the following passages of the Guidelines of Examination:

- *The basic test of whether there is an invention within the meaning of Article 52(1) is separate and distinct from the questions as to whether the subject-matter is susceptible of industrial application, is new and involves an inventive step [C-IV, 2.2 (last sentence)].*

The Board indicated, however, that it was not in agreement with the first part of C-IV, 2.2, which was apparently in contradiction with the latter part quoted above. This part of the Guidelines sets out the application of the 'contribution' approach to determining whether there is an invention within the meaning of Article 52(1):

- *The examiner should disregard the form or kind of claim and concentrate on its content in order to identify the real contribution which the subject-matter claimed, considered as a whole, adds to the known art. If this contribution is not of a technical character, there is no invention within the meaning of Article 52(1).*

The Board took the view that this confused the requirement for invention with that of novelty and inventive step, and was not an appropriate test.

As such, in the Pensions Scheme decision is it clearly stated that the issue of excluded subject-matter is separate to the issue of obviousness. Thus the test for determining technical character is apparently much more straightforward even for computer program related inventions.

However, as will be seen from further discussion below, in practice it may in any event be expedient to move straight on to the issue of assessing inventive step, which inherently requires an assessment of technical considerations.

Nevertheless, it is worthwhile noting that the grounds on which a patent application is objected to should be clear, and a rejection on the grounds of excluded subject-matter should be relatively easy to predict.

4. INVENTIVE STEP

Once it has been established that the invention, as defined in the claims, does have technical character and is therefore not excluded on the grounds of being a computer program or business method per se, then the next step to consider, as with any other invention, is whether the invention meets all other requirements for patentability. In particular it needs to be considered whether the invention is new and non-obvious.

Regarding the issue of novelty, this is reasonably clear-cut, and does not offer any interesting aspects for the assessment of business method and software inventions.

The issue of whether an invention is non-obvious, i.e. possesses an inventive step, is the key consideration. Once again, the issue of technical character comes into play. Whilst we have established above that the test for technical character in order to avoid an objection of excluded subject-matter is in effect a simple one, on the issue of inventive step it becomes more subjective.

In effect we have to return to the concept of 'technical contribution'. An invention must provide an inventive technical contribution to the art (or an inventive technical effect). This requirement is for all fields of technologies, and is not peculiar to business methods or software.

Determination of whether an invention provides an inventive technical contribution to the art, in the field of software and business methods, is where a certain amount of vagueness starts to creep in.

Bearing in mind that even the German Supreme Court have acknowledged that judging technical character, and consequently technical contribution, is a vague matter, it is beneficial to consider a number of case studies to get some perspective of how this issue is addressed in practice.

5. CASE STUDIES

These case studies are not split according to 'software' inventions or 'business method' inventions. As will be seen, consideration of business method inventions leads in many cases to considerations of software issues – hence a general view that these types of inventions can be considered generally as 'computer implemented inventions'.

The Case Studies generally relate to Decisions of the Boards of Appeal of the European Patent Office. It should be noted that there are plenty of examples of granted European patents which would appear to relate to computerized business method techniques and which there would be a strong argument do not provide a technical contribution over the known art.

However looking at such patents would be misleading in determining what is allowable in Europe. Before the advent of the *State Street Bank* case in the US, and the consequent need for Europe to look at itself over similar issues, it is clear that computer-implemented business method inventions were being granted at The European Patent Office. Whether this was through a lack of clear guidance within the Examining Division is unclear, but certainly in the last few years the case Law of the Boards of Appeal of the EPO have set guidelines such that the Examining Division ought now to have a more consistent approach.

Those granted patents which are of interest, therefore, are mainly those that have been opposed, and subsequently ended up before the Boards of Appeal, or those which have been appealed after rejection by the Examining Division. It is only after consideration before the Boards of Appeal that meaningful inferences can be drawn as to how such inventions are being treated in Europe.

Cases decided before the Courts of the national countries are also very relevant in this respect. However examples from this source are thin on the ground., although one of the case studies relates to such a case.

5.1 Case Study 1 - Subscription Purchase

5.1.1 Reference Information

Forum:	EPO Examining Division
Publication No:	1016012 (corresponds to US 5,926,796)
Decision No:	NA
EP Status:	Application Pending

5.1.2 The Invention

The Invention relates to a method of purchasing a subscription for a periodical. It can be easily understood by reference to claim 12 of the US patent which recites:

> *A method of establishing a subscription to a periodical, comprising the steps of:*
> *receiving a request to purchase an issue of a periodical;*
> *offering to sell a subscription to the periodical at a subscription rate;*
> *receiving an acceptance in response to the steps of offering; and*
> *providing the issue of the periodical as an issue of the subscription.*

5.1.3 Technical Character

This claim would appear to have no technical character, simply being a purchase technique or business method which could be carried out by human interaction. Such a claim could be expected to be rejected, in Europe, as being directed to subject-matter which is excluded from patenting.

5.1.4 Comment

It should be noted that other independent claims in the application do have recitation of apparatus which would convey technical character, in the context of a system having components. Whether they would offer a technical contribution, however, is a different matter. It would appear that the implementation of such a method in a computerized format, e.g. for internet purchases, could be considered within the routine of a skilled practitioner. On the face of it there would not appear to be a technical obstacle, or problem, to computerising this method, and therefore there would not be an obvious technical contribution.

However there could be something novel in the apparatus for implementing the method, it's architecture or control which could provide a basis for a technical contribution.

Nevertheless consideration of US claim 12 is interesting as an example of a claim which would probably be considered excluded subject-matter in Europe.

The PCT application from which the European application is derived includes an extensive amount of material and is not just related to purchasing periodicals. It may well be that claims equivalent to US claims will not be pursued in Europe.

Substantive examination of this application has not yet begun before the EPO, and it will be interesting to see how it develops.

5.2 Case Study 2: Pensions Scheme

5.2.1 Reference Information

Forum:	EPO Boards of Appeal
Publication No:	0332770
Decision No:	T931/95
Date of Decision:	8th September 2000
Decision:	Patent Revoked

5.2.2 Invention

This invention relates to a novel pension scheme, implemented on a computer system. The drawings of the application did not show an apparatus of any kind, not even a computer system. The description made reference to the computer system, but no details were discussed and there was no suggestion that it was anything other than a standard computer system.

5.2.3 Technical Character

This is the Pensions Scheme decision discussed above, where the Boards of Appeal established that technical character was conveyed by the application to a computer apparatus of the method, even if the method was purely a business one.

5.2.4 Inventive Step

The Boards of Appeal stated that the improvement envisaged by the invention according to the application was essentially an economic one, i.e. lies within the field of economy, which therefore cannot contribute to inventive step, i.e. does not provide a technical contribution. The regime of patentable subject-matter is only entered with the programming of a computer system for carrying out the invention. The assessment of inventive step has thus to be carried out from the point of view of a software developer or application programmer, as the appropriate person skilled in the art, having the knowledge of the concept and structure of the improved pension benefits system underlying schemes of information processing as set out for example in the method claims.

As the technical features of the apparatus claimed are functionally defined by precisely those steps of information processing which form part of the knowledge of the skilled person, and the application of computer systems in the economic sector has already been a general phenomenon at the priority date of the application, it was concluded that the claimed subject-matter does not involve an inventive step.

5.2.5 Technical Contribution

The issue of assessing technical contribution appears to be well set out in this decision in relation to this particular type of invention. It would seem that applying a new business method to a known computer system, where the application of similar business methods to computers is known, does not confer a technical contribution.

This does raise the issue, though, of whether the application of the new business method to a computer may have offered a technical contribution if it had not previously been

known to computerize similar types of known methods. However in such case it would probably be necessary to establish that a technical problem associated with such computerization had been identified and overcome.

5.3 Case Study 3: Remote Delivery of Retail Banking Services

5.3.1 Reference Information

Forum:	EPO Opposition Division
Publication No:	0504287
Date of Decision:	17th May 2002
Decision No:	NA
Decision:	Patent Revoked, decision being appealed.

5.3.2 Invention

The invention related to connecting a home terminal to an existing financial network, such as the ATM network, which home terminal in a preferred embodiment mimics to some extent the terminal provided by standard ATMs and thereby obtains user friendliness. The invention seeks to provide a practical architecture for providing comprehensive banking services (including paying bills to selected payees) in the home over standard dial-up phone lines via an ATM network.

5.3.3 Technical Character

The Board accepted that the invention as defined in the claims was a computer-implemented invention, and not a method of doing business per se, and was therefore not excluded from patentability.

5.3.4 Inventive Step

It was established that the closest prior art was such that the only difference between the main claims and the prior art was that the invention identified home terminals connected to the network whereas the prior art identified point of sale terminals. The ATM structure was taken as the closest prior art, rather than existing home banking structures. The Board took the view that the function of the home terminals was the same as the POS terminals, and the only difference was in their location. No technical obstacle had to be overcome in order to replace the POS terminals in the prior art with home terminals.

5.3.5 Technical Contribution

The position here that the use of home terminals in place of POS terminals required not technical obstacle to be overcome relates to the issue of addressing a technical problem. Overcoming a technical obstacle inherently requires identifying a technical problem. If it can be shown that a technical problem has to be overcome, and therefore it is not a straightforward substitution of one thing for another, a technical contribution can be established.

5.4 Case Study 4: Coupon Distribution

5.4.1 Reference Information

Forum:	Paris Court, Revocation Action
Publication No:	European Patent No. 0173835
Date of Decision:	21st June 2002
Decision:	Patent Valid

5.4.2 Invention

The invention relates to a system for distributing coupons. In the prior art, coupons were distributed to a customer at a point of sale. The coupons were distributed to customers who had already purchased the product or a similar product to which the coupon related. In the invention, the coupon was not for the product just bought, but for another product triggered by the product just bought..

Claim 1 defines the invention as follows:

> *Apparatus for printing a reimbursable coupon in a retail store following the purchase of an article, the system comprising:*
> *-a plurality of terminals at the check-out locations at the customer exit, each having means for reading the product codes of the articles purchased in a customer order;*
> *-a store control unit with which the terminals can communicate, the store control unit having access to an article-registration file comprising the price and other information for each article of product;*
> *-a means for identifying in the client order a trigger product, which has been pre-selected for triggering the printing of a coupon and a means for automatically printing at least one discount coupon for a product to which the coupon operation is applicable.*

Claim 12:

> *For use in a point-of-sale system of a retail store having a plurality of terminals at the check-out locations at the customer exit, each having a means for reading the product codes of the articles purchased in a client order, and a store-control unit with which the terminals can communicate, the store control unit having access to an article-registration file containing the price and other information for each article of product, a method for printing a reimbursable coupon following the purchase of an article, the method comprises the steps of:*
> *-identifying in the client order a trigger product which has been pre-selected for triggering the printing of a coupon;*
> *-associating the trigger product with a coupon operation and automatically printing at least one discount coupon for a product to which the coupon operation is applicable.*

5.4.3 Technical Character

The judgment confirmed that the claim was not directed to unpatentable subject-matter, as the claims defined an apparatus comprised of elements.

Regardless of the reasoning for the judgment, we can consider why such a claim should be allowable under European patent law. There can be no question that the invention has technical character.

5.4.4 Inventive Step

It is stated in the description of the specification that the apparatus defined in the claims is not new: the equipment is standard equipment provided by various manufacturers. Thus the invention lies, if it lies anywhere, in the software running on the apparatus causing the apparatus to operate in a way which is not conventional. Prior art was cited in the case to attempt to prove the invention obvious. However it was established that none of the prior art disclosed the apparatus used in such a way, and inventive step was proven.

5.4.5 Technical Contribution

This is an example of a case where software (programmed in effect to perform a business method) causes known apparatus to operate in a different way. Technical contribution is proved by a new use or operation of a known apparatus, which use is caused by software operating on the system.

5.5 Case Study 5: Personalized Instructional Aid

5.5.1 Reference Information

Forum:	EPO Boards of Appeal
Publication No:	0586487
Decision No:	T446/97
Date of Decision:	22nd June 2001
Decision:	Remitted to Examining Division for new prior art issues

5.5.2 The Invention

This invention related to an 'instructional aid' for assisting a person to emulate a predetermined movement – particularly a golf swing. The system includes an image data capturing device (a digital camera and associated control hardware) which scans and stores image/data signals of the person's golf swing. This may be video images and biomechanical data obtained from pressure sensors and the like. A transceiver transmits the image/data signals over a communication network to a remote computer. The remote computer contains a database which stores in digital form image signals and bio-mechanical data of a number of pre-selected swings. The computer analyses the persons image/data signals against image/data of a pre-selected swing and generates in digital form further visual images/data signals which can be transformed so as to assist or enable a person to be able to emulate the preferred swing. Voice comments may be added to the images.

There is no suggestion that the technical apparatus used in the implementation of the invention is anything other than standard equipment. No novelty therefore resides in the various apparatus elements themselves.

5.5.3 Technical Character

There was consideration as to whether the invention related to the presentation of information and was therefore excluded from patentability on the same grounds as would exclude a business method or computer program. However it was determined that the invention clearly defined technical means other than a mere computer program.

It was also considered whether the invention could be considered to relate to a mental act. The invention may be considered to be no more than the same as the comparison of a golf swing normally carried out by a golf coach. However this was considered not a valid objection, as the system involved storing more reference swings than could be reliably stored in a coach's memory, and involved also the play back of a visual image, which could not be done by a coach.

No objection therefore arose on the grounds of excluded subject-matter, and this clearly consistent with the 'technical character' approach which would confer technical character simply by presence of apparatus.

5.5.4 Inventive Step

The main prior art was a similar instructional aid in which a person's golf swing was filmed and digitized. The Board identified three differences:

a. The prior art created a standardized 'model' golf swing based on an averaged assessment of a number (e.g. fifty) professional golfers. The invention merely selects one professional golfer assessment for comparison with a person.

b. In the prior art a teacher provides verbal instructions, whilst in the invention pre-stored words or phrases are played back as instructional dialogue.

c. In the prior art bio-mechanical data is captured separately to the capture of the video information (e.g. height and weight recorded separately). In the invention this is recorded at the same time as the student is performing the movement for video capture, e.g. using pressure sensors. It should be noted that there was no distinction between the types of mechanical data, which was not claimed.

It was decided by the Board that the invention was not obvious in the light of this prior art.

5.5.5 Technical Contribution

The Board's conclusions make no reference to where the technical contribution can be found in the difference between the invention and the prior art, just saying that the invention is not obvious. It is therefore unclear as to whether the issue of technical contribution has been considered fully. Consider each difference in turn.

a. The difference here would have to rely on the comparison. In order to achieve the 'model' the prior art must store all the individual assessments. So what it does not do is take an individual assessment and compare it to a pupil. Is there really any technical difference in comparing a 'model' assessment rather than in comparing a

single assessment? Whilst clearly the result being compared is different in the invention, it is difficult to see where the technical contribution lies in this step. It is difficult to see that this feature solves a technical problem.

b. The difference here is that there are pre-stored answers associated with each individual expert in the invention, which are replayed back to the student. In the prior art the coach apparently talks over the replay. The invention therefore does require organization of data in the computer system, storage of such data, and retrieval and transmission of such data. Whilst this is all clearly technical, the technical contribution, or more particularly the technical problem solved, is more difficult to specify.

c. Here the difference is that the nature of the input data is different. The bio-mechanical data is received in combination with the visual images. Thus the nature of the data inputs to the system is different from the prior art. This offers a technical difference in so far as the analyzed data is certainly different. It can also be considered to offer a technical advantage in speeding up the capture of all the necessary data.

At least the third feature may seem to offer a technical contribution on its own. However it is notable that the Board referred to all three elements. Without a clearer explanation from the Boards of Appeal, it is difficult to predict their reasoning in this case, but it is noted that most emphasis was placed on the third feature.

What can be seen, however, are that there are technical differences, and moreover a number of technical difference. Therefore it is possible what may – at least in part - provide a technical contribution here is the volume of technical difference, as opposed to the weight of those differences. Several adaptations would have to be made to the prior art to arrive at the invention.

5.6 Case Study 6: System For Processing Mail

5.6.1 Reference Information

Forum:	EPO Boards of Appeal, from Decision of Opposition Divison
Publication No.	0575109
Decision No:	T767/99
Decision Date:	13th March 2002
Decision:	Patent Maintained

5.6.2 The Invention

The invention relates to a technique for reducing the amount of mail that is submitted to a local post office and reducing the effort required by a local post office. A mailer (mail processing unit) sorts mail and separates local mail from non-local mail, identifies the destination of the non-local mail, and puts such in a tray in accordance with the destination thereof. The mail destined for each destination is processed in accordance with the departure time of a transportation system so that the mail will be received just-in time by a common carrier. The non-local mail is then forwarded to the common carrier by the mailer and the common carrier delivers mail to a transporter, e.g. an airplane, destined for a postal distribution system

5.6.3 Technical Character

The Opponent alleged that the invention was a method of doing business: all the elements of the claims were effectively normal business procedures carried out by a van driver looking at his watch and loading the van on time.

The Board took the view that the invention was directed to a system for processing mail that included mechanical apparatus, e.g. for sorting mail. The claims therefore had technical character and were not excluded subject-matter.

5.6.4 Inventive Step

The Board construed the problem to which the invention was addressed as being that of the prior art practice of processing mail in numerical zip code order. This results in a lower effective throughput in a given time period, because the time spent processing local mail unnecessarily early tends to prejudice the delivery of non-local mail. Which needs to be dispatched sooner to meet flight times. The solution is to replace the numerical zip code system with a just-in-time sequence which increases the number of early non-local deliveries without prejudicing local deliveries.

The prior art was a mailer system which sorted mail according to zip codes, and provided such sorted mail to a post office.

5.6.5 Technical Contribution

The Board took the view that the means for shipping local mail included means for printing labels, means for labeling trays. Such mailing process and the just-in time sequence is implemented by the computer controlling mailing apparatus process.

The Board considered the technical problem to be solved to be that of improving the mailer system the prior art, which was achieved in the invention by enabling the mail processing system to take account of common carrier departure times to produce and operate a just in time process

5.6.6 Claims

It is worth looking at the claims in this case. They do appear to encompass the possibility of human activity. However the Boards of Appeal took the view that they were limited to technical features.

1) Apparatus for mailer processing of mail comprising
   a) A processor means
   b) Means for sorting mail and separating local mail from non-local mail;
   c) Means for traying the non-local mail; and
   d) Means for delivering mail trays from the mailer to a common carrier, characterized in that said processor means has or contains mail lists and time of departure data fro a transportation system, the apparatus further including means for shipping non-local mail to the common carrier in accordance with the times of departures of the transportation system so as to meet a just-in-time sequence for mail.

6. A method of mailer processing of mail including the steps of having a mailer sort mail in accordance with the zip code designation thereof, separating local mail from non-local

mail, providing mail destination data to the mail trays, and determining the routing of the mail trays through a transportation system; said method being characterized by:
(a) determining the times of departures of the transportation system; and
(b) delivering non-local mail from the mailer to a common carrier in accordance with the times of departures of the transportation system so as to meet a just-in-time sequence for the mail.

5.7 Case Study 7: Computer Window Display

5.7.1 Reference Information

Forum:	EPO Boards of Appeal, from decision of Examining Division
Publication No:	0767419
Decision No.	T 935/97
Decision Date	T935/97
Decision:	Patent Allowed

5.7.2 Invention

The invention relates to a data processing system having a display and an operating system. Information is displayed within a first window on the display using information display software. The process detects a second window displayed within the display at a location that obscures a portion of the information displayed in the first window. Utilizing the operating system, the process notifies the information display software and that the portion of the information of the information within the first window is obscured by the second window. The information display software displays, in the first window, the portion of information that had been obscured by the second window. Thus the information in the first window previously obscured by the second window maybe viewed in the first window by the data processing system user.

This is one of the IBM decisions discussed above, where the contribution approach to technical effect was discussed. It was considered that the software caused a technical effect beyond that of a normal computer program.

5.7.3 Inventive Step and Technical Contribution

The position in this case was simply that the software running on a computer – a standard computer – brought about a technical effect which went beyond that of the normal physical activities of a computer system.

The computer software does not have to cause an apparatus or machinery to behave in a different way in order to achieve technical effect:- the technical effect can be caused on the computer itself.

6. SOFTWARE INVENTIONS: TECHNICAL CONTRIBUTION

The case studies above have given some insight as to how the EPO – and the national patent offices and courts - evaluate technical contribution. However it has also given

some insight into the fact that technical contribution is not necessarily that straightforward a characteristic to define.

In this section a more detailed consideration of technical contribution for software inventions is presented. The following section looks at considerations for business method inventions. However before looking at either category in detail, some general discussion of technical consideration is considered.

From a legal perspective, it has been established, again before the Boards of Appeal of the EPO (T93/605), that a technical contribution may generally arise, for an invention, in:

- The problem to be solved
- The implementation of the solution
- The function of that implementation
- The effects of that implementation.

With this in mind, in this and the following section some general consideration is given to considering a framework or guideline for establishing technical contribution in the specific context of software and business method inventions.

6.1 Issues to Consider for Software

To establish an inventive step for a software invention, it is necessary to identify if the software is capable, when running on a computer, of a technical effect going beyond normal physical effects. This is known as a further technical effect.

A further technical effect which lends technical character to a computer program may be found, for example, in the control of an industrial process, in processing data which represents physical entities, in the internal functioning of the computer itself or a computer's interface under the control of the program and could, for example, affect the efficiency of the process, the management of computer resources required, or the rate of data transfer in a communication link.

The requirement for technical character is met if technical considerations are required to carry out the invention. Such technical considerations must be reflected in the claimed subject-matter. Once technical character is established, then technical contribution must be established to evidence inventive step.

6.2 Technical Advantages

In assessing technical contribution, consideration needs to be given as to what advantages a system or apparatus running the software offers. For example, consider the following advantages that may be offered by software inventions:

- Does the software require less memory space, or have effects on other aspects of the system operation which result in less memory use?
- Does the software allow the system to operate more quickly?
- Does the software improve the reliability of the system?

- Does the software improve the usefulness or user friendliness of the system?
- Does the software cause the system to have an improved or new function?
- Does the software cause the system to provide a new result?

The software can provide a technical contribution by having these effects on the computer system itself or on an apparatus controlled by the computer system, even if the apparatus or the computer system is itself known.

Establishing some form of technical effect as discussed above clearly places the invention in the realm of offering a technical contribution.

If in the creation of software technical considerations are involved – as they are involved in a mechanical or electronic design – then any such technical considerations may form the basis for patentability.

6.3 Technical Problem

It is also important to remember that one of the key issues in relation to technical contribution is establishment of a technical problem in the prior art which the invention solves. The technical problem can be considered to be the reverse of the above advantages, e.g. the prior art arrangements are slow, require large memories.

7. BUSINESS METHODS: TECHNICAL CONTRIBUTION.

Below is considered some example theoretical scenarios which set out the factors to be considered in determining whether a 'business method' patent is patentable. It can be understood from the following that in many cases the issues as to whether a 'business method' invention is patentable ultimately comes down to, in many cases, a consideration of software and computer implementation issues. As such the preceding section is directly relevant for business method inventions as well.

7.1 Scenario 1

The invention constitutes a pure business method, which business method is new and non-obvious relative to other known business methods. The novel business method does not need any equipment or apparatus, such as a computer system, for its implementation.

Such an invention has no technical character, and under European patent law should be expected to be rejected outright as a pure business method.

Such a patent application can be rejected under this ground alone, without even considering novelty and inventive step, and therefore the fact that the business method itself is new is irrelevant.

7.2 Scenario 2

The invention constitutes a business method but it is defined in the context of an apparatus, for example a computer system for carrying out the business method. The

business method is not new, and the apparatus is not new. However the business method has not before been implemented using the apparatus.

Such an invention is not excluded from patentability under Article 52(2). The invention has technical character at least by virtue of its implementation on an apparatus such as a computer system.

Consideration therefore turns to inventive step. For the purpose of inventive step, it is necessary to determine the difference between the invention and the closest prior art. In this example the difference between the invention and the prior art is the computerization of a business method.

The question then is whether the computerization of the business method offers a technical contribution to the art.

Obvious

If the computerization of other similar business methods is known, or the computerization of the business method merely requires the application of routine skill, then the computerization of the business method is obvious, and not patentable.

Non-Obvious

In order to establish that the implementation of the business method by way of computerization is not obvious, it is effectively necessary to establish that a technical problem has to be overcome in order to computerize the method, which in practice may mean that the apparatus has been modified or adapted to be controlled in a different way.

7.3 Scenario 3

The invention constitutes a new business method defined in the context of an apparatus such as a computer system for carrying out the business method. The business method itself is new (as in scenario 1), and the computer system itself is known (as in scenario 2). However the computerization of the business method is not known, the business method being new.

Such an invention is not excluded from patentability under Article 52(2). The invention has technical character at least by virtue of its implementation on an apparatus such as a computer system.

Consideration therefore turns to inventive step. For the purpose of inventive step, it is necessary to determine the difference between the invention and the closest prior art. In this example the difference between the invention and the prior art is two-fold: the provision of a new business method; and the computerization of the business method.

The new business method does not provide any technical contribution, and as such cannot be considered in determining inventive step.

What has to be considered in determining inventive step is whether the computerization of the business method is obvious. To determine this, factors taken into account would be whether the prior art business methods in the same business fields have been computerized.

Obvious

If they have, this would point toward the computerization of the method being obvious.

Non-Obvious

If they have not, then there may be a technical contribution in computerizing the business method. As in scenario 2, this would require identification of a technical problem.

7.4 Scenario 4

In this scenario, consider an example of a business method implemented on a computer system, which business method is not new, and the computerization of which method is not new, but which computer system is new in itself.

Such an invention is patentable if the computer system itself may be patentable by virtue of its structure and the functionality of the computer program which is required to implement the business method.

In the scenario where the business method is new, and the apparatus is new but obvious, there may be a possibility that the field of business could be used to help establish technical character. This would almost be establishing technical contribution by volume of difference: new apparatus, and new application (i.e. new business method). This is something of a grey area.

8. TECHNICAL CONTRIBUTION: PRACTICAL TIPS

When preparing patent specification for filing in Europe, the emphasis has to be on technical character and technical contribution, and in particular on technical problem and technical solution.

8.1 Claim Drafting

In my experience, the EPO Search Division or more prepared these days to refuse to search an application on the basis that it contains excluded subject matter. For this reason, it is important to ensure that the claim is presented in such a way as to maximize any impression of technical contribution.

It foes without saying, from the foregoing discussion, that the invention has to be claimed on the basis of its technical contribution.

For claim drafting, the following points should be kept at the forefront.

8.1.1 Method Claims

- Functionality
    - Determine the underlying functionality that allows the technical contribution made by the software to be achieved, and claim that functionality in method claims.
        - Think in terms of flow diagrams, not computer code.

- Have a flow chart corresponding at least to claim 1 in the Figures.
- Have a flow chart or series of flow charts corresponding to the full set of claimed embodiments.
    - Flow charts can help formulate the functionality that needs to be claimed.

8.1.2 Apparatus Claims

- Structure
    - Determine the underlying structure that allows the technical contribution made by the software to be achieved, and claim that structure.
        - If there is a novel apparatus, then clearly that needs to be claimed.
        - If there is not a novel apparatus, claim a 'means for' corresponding to the method claims.
            - Include an illustration of the means in the Figures as 'functional blocks'

8.1.3 Program Code

- Do not attempt to claim the program code itself.
    - It is not acceptable in the claims, as it points toward a lack of technical character as a computer program *as such*.
    - Construct a flow chart representing the functionality of the program code.
        - Use that flow chart to construct the method claims
        - Use that flow chart to construct a functional block diagram
            - Use that functional block diagram to construct 'means for' claims

8.1.4 Characterized Format

The European Patent Office favor a two-part form of claim, the so-called characterized claim, in which the first part of the claim represents the prior art and the second part the invention. I would not normally as a matter of practice initially file independent claims in Europe in two-part form. I would normally wait until the closest prior art was known, and indeed I would normally resist using the two-part form.

However, for software and business methods there are advantages to using the two-part form. If an apparatus (or system) claim can be filed with a structural feature in a characterized clause, or a means for carrying out a functional feature, then it would be more difficult to argue against lack of a technical contributions and, more significantly, more difficult to refuse to search the claims.

Similarly for any method claims, draft in two-part form with a clear functional characteristic in the characterizing part.

- Use the characterized format

- Apparatus claims
  - …characterized in that the apparatus comprises … [structural feature]
  - …characterized in that the apparatus comprises … means for [functional feature]
- Method claims
  - …characterized in that the method comprises the step of … [functional feature]

8.2 The Description

8.2.1 Content

Clearly the description must provide support for the claims. Where functional features are claimed, include a corresponding flow diagrams. Where 'means plus' claims are used, have functional blocks representing the means, and showing connections and where appropriate signal flows. In summary, the description preferably needs to include:

- Apparatus
- Flow Charts (representing functions)
- Functional Apparatus ('means for')

8.2.2 Technicality

The inventions should preferably be described functionally. Any technical effect or advantage must be emphasized. Where an advantage of the invention is referred to, refer to such as a

- Technical advantage
- Technical solution

Where functional effects or results are referred to, refer to such as:

- Technical effect
- Technical result

8.2.3 Technical Problem

In particular it is advantageous to make an explicit statement of a technical problem in the background to the invention. In my experience the Search Division of the EPO are generally refusing to search applications on the basis that a technical problem cannot be identified. When this happens the Search division do not ask for the claims to be amended or clarified, they ask for the technical problem to which the invention relates to be set out or explained.

I therefore consider it essential to include in the 'Background to the Invention', after discussion of any prior art, an explicit statement setting out the technical problem to which the invention relates. For example:

- 'The present invention addresses the technical problem of …'
- "The prior art is associated with the technical problem of…"

Such a statement should reduce the chances of the search divison of the EPO refusing to search the claims.

8.2.4 Technical Solution

Complimentary to the statement of the technical problem in the background to the invention, I would recommend a statement be included in the summary of the invention stating a technical solution. For example, as part of the normal summary of invention:

- Thus the present invention provides a technical solution by … [apparatus feature, functional feature, means for feature]…'

The EPO requires the Summary of invention to include statements identical to the independent claims, and I would recommend including such statement of technical solution immediately after the statement corresponding to the independent claims.

9. STRATEGY CONSIDERATIONS

In addition to considering how software and business method inventions should be drafted to place them in the most favorable position for examination, some consideration should also be given to the most appropriate forum for pursuing protection in Europe.

9.1 Filing Strategy

The EPO has the advantage of a centralized examination system.

It also has the disadvantage of a centralized opposition procedure. Oppositions can be file relatively cheaply, and can result in all protection in Europe being revoked. Most national patent offices do not have an opposition system, and an action to seek invalidity of the patent would have to be initiated once granted, which is more burdensome and costly than an Opposition to a European patent, particularly when there are multiple national patents.

The national patent offices can also offer speedier routes to a granted patent. For example in the UK a patent can be granted within a year on an expedited basis.

A single national application in say the UK< together with a co-pending European application, can offer the advantage of obtaining one patent quickly and with no possibility of Opposition, whilst the European application is pending.

For commercially important inventions, dual filing at the EPO and at least one national patent office should be seriously considered

9.2 Competitor Issues

As the European Patent Office offers a centralized opposition procedure, this is the most effective way to attack a competitor patent. After the Opposition period expires a patent can only be invalidated by initiating an invalidity action in individual countries.

It may therefore be appropriate to consider placing competitor patents under watch. It is clear that the Examining Division of the EPO have clearly allowed inventions which have subsequently been revoked on Opposition and Appeal. The EPO cannot therefore be relied upon to ensure that the a granted patent is properly valid, and use of the Opposition procedure to prevent competitor patents being granted should be considered.

10. THE FUTURE IN EUROPE

10.1 Amendments to European law?

There is a common belief amongst SMEs in Europe that all computer-implemented inventions are excluded from patentability in Europe. This is not the true position, and thousands of patent for computer-implemented inventions have been granted in Europe over the years.

The removal of the specific exclusion of 'programs for computers' to remove any misunderstanding due to Article 52 was proposed at a European Diplomatic conference in November 2000, on the basis that this would provide a statute which would more accurately reflect the situation in Europe, and indeed reflect current EPO practice. However the proposal was not accepted, apparently on the basis that it was not appropriate to do so without further consultation and assessment of any potential economic impact.

It is therefore unlikely that such an amendment will be made to the European Patent Convention, certainly not in the medium term. There are currently draft proposals to amend the European Patent Convention under consideration, and these proposals do not include removal of the explicit exemption to computer programs. It is unlikely that such a controversial issue (certainly controversial in Europe) would be added in the revision stage, and therefore there is no realistic prospect on the horizon of a change in legislation.

National law in Europe is generally driven now by the EPO, and the need to ensure harmonization means that no country would unilaterally change their laws. Any national law changes are likely to be to ensure harmonization with changes to the EPC.

10.2 The European Directive

There is a draft Directive for the patentability of computer-implemented inventions currently going through the legislative process before the European Parliament and the European Commission. The 'Proposal for a Directive of the European Parliament and of the Council on the Patentability of Computer-Implemented Inventions' was published in February 2002. If the European Community ultimately adopts the Directive, it will have a

binding effect on all member states, which will be obliged to amend their laws to be consist with the Directive. The aim of the Directive is to obtain consistency and harmonization within Europe in relation to 'computer-implemented inventions'. The process for approval for the Directive is potentially long.

This may sound like an interesting development, but in reality it is not. The Draft Directive effectively sets out a view of the patentability of computer-implemented inventions which is consistent with the current approach taken by the EPO and apparently being adhered to by the patent offices and courts of the national countries. At this stage it is difficult to see what impact its adoption would have. Indeed there is a school of thought that the Directive should not be adopted for the reason that it simply maintains the status quo.

The Directive was apparently originally intended to propose an approach in Europe consistent wit the US, with a view to providing a level playing field between the US and Europe. However the European Commission is constrained by the provisions of the EPC, which effectively prohibit any Community action which would lead to a 'radical departure' from the status quo on Europe. The Directive aims to harmonize the position in Europe but without leading to a sudden change beyond the current position. It is for this reason that in practice the Directive can do little more than confirm the current procedures practiced before the EPO.

10.3 A Mood for Change?

There is a polarized opinion in Europe when it comes to the issue of software patents. On the one side is those in favor of patents for software inventions, primarily made up of the IP community, large industry and government, concerned by the developments in the US and having a desire to have similar provisions. On the other are, primarily, start-up companies and software engineers – the 'open-source' movement – who do not want the patent system to be used in the software field. This side of the argument is represented quite vigorously in Europe by the EuroLinux alliance (www.eurolinux.org). The EuroLinux alliance are a well-organized group who have successfully and vociferously lobbied for their voice to be heard, and would appear to now carry some significant influence.

Indeed the lobbying of the EuroLinux alliance, and the anti-software patent camp in general, is such that it is unlikely at this stage that the Draft Directive will be adopted. A large number of Members of the European parliament are apparently opposed to the Directive, as is at least one government (France).

Further Reading:
The Community Registered Design

CONTENTS

1. What is a Community Registered Design?

The Community Registered Design has been created by European Community legislation, specifically by Regulation EC No. 6/2002.

A registered design is generally directed to protecting the physical appearance or shape of something. It is not related to utility or usefulness. A registered design is a monopoly right, allowing the proprietor of the registered design to exploit the right to the exclusion of all others. A registered design may co-exist with other rights, such as an unregistered design right and copyright. A Community Registered Design can co-exist with national registered designs in countries within the European Union. It is possible to file and register a Community Registered Design and a national Registered Design in a particular country. A Community Registered Design may also co-exist, and thereby have a close legal and commercial relationship, with trademarks and introduces a potentially useful new range of protective rights for IP more recently protected in the EU by trade marks.

2. The Essential Nature of a Community Registered Design

The Community Registered Design is a single design registration, of unitary character for the European Union which extends automatically to all EU Countries and is enforceable in all EU Countries (Article 1 of the Regulation). There is a centralised registration procedure at the Office for Harmonisation in the Internal Market (OHIM) which already examines Community Trade Mark Applications. The new Community Registered Design law comes into effect on 1st April 2003. However, at present it is possible to file applications, directly at the UK Patent Office for example, and the applications will be post-dated to have a filing date of 1st April 2003.

A Community Registered Design may claim the priority of a design application filed elsewhere in a Paris Convention country in the preceding 6 month period (Article 41). The earliest priority that can be claimed on 1st Aril 2003 is 1st October 2002. Any design patents filed on or after 1st October 2002 in the US may form the basis of a claim to priority for a Registered Community Design.

A single application for registration is filed, which is examined, and, if successful, registered. The examination is effectively only a formal one. If registered, the right applies to all European Union countries automatically. There is no requirement to take action to effect protection in those countries, as there is with a European patent. There are currently 15 member states of the European Union, and this is set to expand to 28 in the coming years. A broad territorial right is thus obtained with a single filing. The Community Registered Design is enforceable in all countries of the European Union.

For litigation of a Community Registered Design, a single action may be brought before a Community Design Court, the result of which is applicable throughout the European Union (Articles 80 and 81). There is thus no requirement for multiple actions in parallel countries.

3. Characteristics of a Registrable Community Design

The Community Registered Design offers protection for a much broader range of designs that can be protected than has traditionally been possible under the Registered Design laws of some European Union countries. Community Registered Design protection is therefore now likely to be of interest to a much broader range of industries and economic sectors than hitherto, and Community Registered Designs are expected to be filed by companies and organizations who previously would not have contemplated doing so.

Under the previous Registered Design law in some European Union countries, traditionally designs could not be obtained for designs which were dictated by function, as there had to be some feature in the design specifically based on eye appeal. The Community Design does not specifically require "eye appeal" to be registrable, and although a Community design cannot subsist in features of appearance of a product which are dictated solely by its technical function (Article 8(1)), there is more scope for protecting functional designs. Thus companies and organizations who have traditionally filed designs may now have the opportunity to obtain registration for a broader range of designs than previously.

There is no requirement for industrial application of a registrable design to a product. Therefore designs for products such as artistic works, and other one-off works, which traditionally have been excluded from Registered Design protection in some countries, can be registered. Component parts of a complex product can be registered, e.g. the wheels of an automobile.

Whilst applications filed should identify a product to which a design is applied, the design is not limited in its protection to that product. The product is only referenced by way of example.

4. Definition of the Term "Design"

The term "design" is defined as:-

> the appearance of the whole or part of a product resulting from the features of, in particular, the lines, contours, colours, shape, texture and/or materials of the product itself, and/or its ornamentation (Article 3(a)).

Thus a very broad range of designs is likely to be registrable, and it appears that logo, device or graphic trade marks can be protected by a Community Registered Design to the extent that the appearance of a product results from those features. There is now a clear need for companies and organisations looking to protect their trade marks in Europe to consider additionally applying for a Community Design Registration. This is particularly so because, unlike with trade marks, a Community Design Registration gives a right which can be enforced without the need to show copying or confusion.

The registration of the design gives protection for all goods with a single filing. The design is not limited to a particular 'article', as was traditionally the case in most European countries.

5. Definition of the Term "Product"

The term "product" is defined as:-

> any industrial or handicraft item, including inter alia parts intended to be assembled into a complex product, packaging, get-up, graphic symbols, typographic typefaces, but excluding computer programs (Article 3(b)).

The term 'product' is therefore defined very broadly. It expressly includes items more usually associated with trade mark protection – get-up, packaging and graphic symbols.

There is no requirement for industrial applicability, because the definition of a product specifically includes handicraft. Protection may therefore be sought for one-off works. A product also includes parts intended to be assembled into a complex product, which is composed of at least two replaceable component parts permitting disassembly and re-assembly of the product (Article 3(c)). For example an automobile is a complex product, the replaceable component parts including wing mirrors, wheels, etc.. The component parts however must remain visible during normal use of the complex product by the end user (Article 4(2) and (3)). There is no requirement for a design to relate to a product which is made and sold separately.

6. Design Not Limited to a Product

A design itself is registrable (Article 4(1)), not as applied to a specific product, and so protection extends to any product which incorporates the design, provided the design is not the product itself. In the application, the product(s) on or in which the design is intended to be used or applied must be identified, but this will not affect the scope of protection.

7. Requirements for Protection of a Design

There are three requirements for protection of a design (Article 4(1)), that

- the design must fall within the definition of the term "design"
- the design must be novel
- the design must possess individual character.

Failure to meet the first requirement would constitute a ground of refusal of the Community Design application.

The examination of the application will essentially be a formal one, and searching for 'prior art' to determine novelty and individual character will not be carried out.

8. Novelty

There is a 12 month grace period which excludes, for the purpose of determining novelty, any disclosure by the designer or his successor anywhere in the world one year prior to the date of filing, or the priority date if claimed (Article 7(2)). Such a disclosure in the grace period does

not invalidate the design registration. There is no requirement to disclose any prior publication during the grace period on filing of the application.

Novelty is absolute (Article 5(1)(b)) – a publication of an identical design anywhere in the world prevents registration. Designs are deemed to be identical if their features differ only in immaterial details (Article 5(2)). This is likely to be along the lines of 'variants commonly known in the trade'

However, if the publication was not one which someone working in the Community could have been expected to know of, then it does not count as novelty destroying (Article 7(1)).

9. Individual Character

The possession of individual character is the requirement for a design to have a material difference in the overall impression of the design produced on an informed user compared to any prior design made available to the public (Article 6(1)). The designer's degree of freedom in developing the design is to be considered in assessing the "individual character" of the design (Article 6(2)).

An informed user is likely to be someone familiar with or working in a similar area of product design or practice, and is the person who judges individual character. This may be a consumer for consumer goods, or may be a more expert individual in other circumstances.

10. Prosecution of the Application and Registration of the Design

The time period from filing date to registration is expected to be about three months. The design is published on registration (Article 49). If a request is made at the time of filing, the publication can be deferred to up to a maximum of 30 months from the priority date (Article 50(1)). This may be advantageous where the marketing of a product is unlikely to take place immediately, to maintain commercial secrecy of the design. The registration process is effectively a formalities examination, and no novelty search will be performed.

Once registered, the registration date is the date of filing (Article 12). The design is registered for an initial period of five years. This is renewable in five year blocks up to four times. The maximum duration of a Community Registered Design is thus 25 years from the filing date.

11. Infringement

The scope of protection conferred by a Community Design includes any design which does not produce on an informed user a different overall impression (Article 10(1)). The designer's degree of freedom in developing the design is to be considered in assessing the scope of protection (as for the assessment of "individual character" of the design) (Article 10(2)).

The Community Registered Design gives the holder the exclusive right to use the design and to prevent any third party not having his consent from using it (Article 19(1)). Use is defined to cover, in particular, making, offering, putting on the market, importing, exporting or using of a

product in which the design is incorporated or to which it is applied, or stocking such a product for those purposes.

This right is not limited to a particular product incorporating the design.

There is an explicit provision (Article 21) for the exhaustion of rights in respect of products put on the market in the Community by the holder of the Community Design or with his consent.

12. Invalidity

There is an extensive list of grounds for invalidity (Article 25), some of which are restricted to certain parties:

- not a design
- does not have requirements for protection (novelty and individual character)
- features dictated solely by function or for fitting to another product (unless a modular system)
- contrary to morality or public policy
- holder not entitled
- design in conflict with an earlier design application (Community or in a national Member State) not published until after the priority date
- the design uses a distinctive sign the use of which is prohibited by law (Community or in a national Member State)
- unauthorised use of a copyright work
- improper use of badges, emblems, etc.

The invalidation, or cancellation, procedure provides for a centralized procedure to cancel a Community Registered Design. There is no requirement to pursue cancellation in each country separately. A single successful cancellation action causes the loss of protection in all European Union countries.

Amendment of the Community Registered Design is possible during invalidity proceedings, possibly leading to a partial disclaimer (Article 25(6)). Cancellation by the Proprietor is possible.

13. Property Issues

A Community Registered Design can only be assigned in respect of all European Union countries, due to its nature as a unitary right (Article 1(3) and Article 28).

However, a Community design may be licensed for the whole or part of the Community (Article 32(1)). Therefore, licences can be granted on a country basis, with a particular licence only applying in respect of certain countries.

14. Unregistered Community Design

The new law also recites provisions (Article 1(2)) for a parallel design right, the Unregistered Community Design, which can co-exist with a Community Registered Design. This right can be obtained automatically without any registration procedure, but only if the design was made in the European Union. Similar validity and infringement provisions apply as for Community Registered Designs, with the important proviso that for infringement the contested use must result from copying the protected design (Article 19(2)).

An Unregistered Community Design is valid for three years from the date the design was first made available to the public (Article 11).

15. Summary

The new Community Registered Design provides a number of advantages over prior national law in the European Union:

- broad range of products protectable
- broad rights conferred by registration
- broad territorial protection with a single application/registration
- quick registration procedure
- relatively inexpensive

Of particular significance is the broader opportunity for applicants to:

- consider filing design applications relating to new products being launched in Europe previously not considered for design protection
- consider filing design applications to complement any trade mark protection in Europe

