

Business method patents



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Summary

Business methods are any subject-matter, which is, concerned more with interpersonal, societal and financial relationships than with the stuff of engineering, for example methods of marketing. Business methods were earlier excluded from patentability in both the U.S. and Europe, but since 1998 are they patentable in the U.S. Business methods are however still not patentable subject matter “as such” in Europe. In this thesis the author has made a comparison between the two legal patent-systems and tried to figure out what a business method can be. Further, the author has described differences between the two systems, which are important for understanding why business methods can be patentable in the U.S and not in Europe. Finally the author has tried to come to a conclusion on whether business methods “as such” in the future should be patentable or not in Europe.

Abbreviations

BAEPO	The Board of Appeal of the European Patent Office
C.A.F.C	The United States Court of Appeal for the Federal Circuit
EPC	European Patent Convention
EPO	European Patent Office
EU	European Union
EUR	Euro
GATT	General Agreement on Tariffs and Trade
ICC	International Chamber of Commerce
IP	Intellectual Property
PCT	Patent Cooperation Treaty
PRV	Swedish Patent and Registration Office
PL	Patentlagen (1967:837), Swedish Patent Law
TRIP	Trade Related Aspects of Intellectual Property Rights
U.S	United States of America
U.S.C	United States Code
USD	United States Dollar
U.S.P.T.O	United States Patent and Trade Office
WIPO	World Intellectual Property Organisation
WTO	World Trade Organisation

1 Introduction

In business companies on the economic global market, ideas and knowledge will develop through research and development, which are of great importance for the company's existence. These ideas and knowledge are from the beginning free to anyone who wishes to exploit them. Therefore, to be able to protect investments in research and development is it important, if not necessary, to apply for protection. Thus, protections for inventions are important. There are several ways to protect inventions, but the most common ways are by trade secret law and patent protection. Another possibility is to let the public obtain knowledge of the invention, so that no one else can patent it and thereby profit from it. The only way to legally obtain strong protection is through a patent. Patents are an important protection for inventions, but not every invention is patentable. One subject matter that is excluded in some jurisdictions is business methods, but there is an intensive discussion on whether or not to allow business method patents in Europe. The discussion began in earnest in 1998 after the State Street Bank case¹, since it hereafter became possible to patent a business method in America. The discussion has yet not reached an end, but still the possibility to patent business methods in Europe is non-existing, at least for business methods "as such". In Europe there is still no water shedding case like the State Street Bank, but we have some implications that we might be heading in the same direction. On the other hand the EPO said, in a press release last summer, that business methods "as such" still should remain unpatentable, but some protection might be obtained by claiming that the method is new, inventive and a technical method of implementing a business method, i.e. in a way "creating" a technical character.

After the leading court decision in America, the number of applications for business method patents has run high, both in America and Europe. American companies have seemingly seen and understood the opportunity and are taking advantage of the situation. They appear far more willing to take a chance and apply for business method patents, than their European competitors. What they achieve is a head start in obtaining a complete patent portfolio and perhaps a commercial advantage, which

¹ State Street Bank & Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368 (Fed Cir. 1998)

might give them a profit in the future.² European companies have to understand what is about to happen. Things that occur now will affect the future and if the American companies get too far ahead we might soon have a problem where the American companies “own” the markets. For example, American companies have a majority of European applications for computer implemented business methods. Of those reviewed in year 2000 52% were filed by U.S nationals, compared to 1996 and 1999 when only around 28% were filed by U.S nationals. Almost twice as many! If business methods will be accepted or not in the future remains untold, but European companies need to be less reluctant to apply for business method patents or they might be missing a business opportunity.³

1.1 Purpose

The purpose of this thesis is to describe and analyse the possibility to patent a business method. The purpose is not to discuss every issue concerning the patenting of business methods. Technical details and problems will be left aside. The focus will be set upon to try to determine de lege lata in this field of law, both European and U.S. I will also focus on trying to understand the main features and the policy issues of business method patents. Further on I will try to analyse what a business method can be used for. This may include the possibility to develop a company around it, in away make your company more interesting for the investors or use the patent in a business negotiation to achieve a better position. Some people say that the traditional purpose of patents is not applicable to business method patents and I will try to analyse this and come to a conclusion of my own.

1.2 Method

Traditional legal method is applied. De lege lata is described by case law in Europe by the EPC and in by case law in the U.S. I have also had the opportunity during the course of my work with this thesis to work at Ström & Gulliksson IP AB. Here I have

² Likhovski Michal, Spence Michael, Molineaux Michael, “The First Mover Monopoly, a study on patenting business methods in Europe”, Oxford Intellectual Property Research Centre, St Peter’s College, Oxford University, November 2000, at 4, 7, 45

had the possibility to discuss and see how a patent works in real life and to get feedback on my thesis. This has given me a broader view and a wider understanding of what some key issues are when analysing the notion of business method patents. I have also had the opportunity to interview a number of companies to see how they really use their patents, why they apply for patents and what their patent strategy is.

1.3 The issue

What is a business method patent?

How can it be used?

What is the purpose of business method patents?

Should business method patents be treated in another way than “normal” patents?

1.4 Delimitation

I have chosen to describe business method patents and will thereby try to leave out everything involving technical problems and software computer programs. Business method- and computer software patents are often written about together, but I will not do so since computer programs can be very technical and hard to understand when looking at concrete determinations. Instead I will look upon business methods as methods of doing something, for example providing a logistic solution in a transport company. Business method patents are hard to define but one way to define them is suggested by the EPO⁴:

“Business method patents are any subject matter, which is, concerned more with interpersonal, societal and financial relationships, than with the stuff of engineering”

³ Likhovski Michal, Spence Michael, Molineaux Michael, “The First Mover Monopoly, a study on patenting business methods in Europe”, at 7

⁴ <<http://www.european-patent-office.org.tws/appendix6.pdf>>

Part I - Background

2 General about patents

A patent is an exclusive right granted for an invention. The invention can be either a product or a process that provides a new way of doing something, or offers a new technical solution to a problem. A patent gives the owner protection for his invention, but this is limited for a particular period of time, generally 20 years.⁵ To obtain protection is one of the reasons, normally the most common, why inventors apply for patents. Patent protection implies that the invention cannot be commercially used, made, distributed or sold without the patent owner's consent.⁶ This means that the owner has the opportunity to decide who may and who may not use the patented invention during the period the invention is protected. This is the patentee's exclusive right.

But there are different ways to approach patent law. On a basic level you can either say that a patent is an agreement between the inventor and the government or it can also be considered to be the inventor's individual right to the protection of his investment. This protection is necessary because it provides incentives to individuals by offering them recognition for their originality and material reward for their profitable inventions. It also supposedly creates peace and harmony on the market, since patents make the competitors more careful to not make an infringement. These incentives encourage innovation, which in turn assures that the quality of human life continuously develops.⁷ This may be true for inventions in areas where research and development is very costly, but is it true for business method patents that I will try to analyse later?

⁵ WIPO, "Patents", www.wipo.int, August 2001 and Kocktvedgaard Mogens/Levin Marianne, Immaterialrätt, femte uppl., at 225f., Nordstedts Tryckeri Stockholm 1997

⁶ WIPO, "Patents", www.wipo.int, August 2001

⁷ Kocktvedgaard Mogens/Levin Marianne, Immaterialrätt, femte uppl., at 178f. and WIPO, "Patents", www.wipo.int, August 2001

To obtain a patent, the first step is to decide how to apply for the patent. There are three different routes⁸:

1. A Swedish national application
2. A international application via the PCT system
3. A European application via the EPO

Which route to choose is to be decided from case to case, but some important issues are; in what countries the inventor has the need for protection, what kind of fees he has to pay and when these fees need to be paid.⁹ How these different routes are performed is left aside.

The next step is to file a patent application. The application must fulfil some basic requirements, which will be examined at a patent office, either a national- (the PRV) or a regional one (EPO) by the examination department. If the application is granted, a nine-month opposition period follows during which others have the opportunity to file opposition against the patent. Once the patent has been registered nationally it will be treated as a national patent.¹⁰ See at the European patent system in general 3.1.

2.1 Patent v. Trade law

Another way to protect inventions is with trade secret law. Trade secret law protects information and inventions, which are not generally known, and gives the owner a competitive advantage by being the only one possessing that information. Trade secret law has some advantages over patent law; it can last forever, as long as other competitors do not know about it and it does not have to meet any novelty or similar requirements like patents have to, to be protected.¹¹ This way of protection is today especially good for methods for doing business, since the patenting of them is so uncertain.

Keeping an invention a secret is trade secret law's biggest problem. Even if a company finds that the most profitable approach would be to keep the invention a

⁸ Koktvedgaard Mogens/Levin Marianne, Immaterialrätt, femte uppl., at 180f

⁹ Koktvedgaard Mogens/Levin Marianne, Immaterialrätt, at 189f

¹⁰ Koktvedgaard Mogens/Levin Marianne, Immaterialrätt, at 178

¹¹ Koktvedgaard Mogens/Levin Marianne, Immaterialrätt, at 193

secret, it might not choose this kind of protection, since it is very hard to keep new techniques secret. Trade secret law is primarily protected by contracts of confidentiality between the parties along with procedures that ensure that these inventions are kept secret. These mechanisms are often in the long run hard to remain secret. The key word is loyalty. Agreements can be breached, procedures might not be followed and loyalty seems to be connected to the word “profitable”. As soon as the secret is out on the market the protection is lost, since others can through reverse engineering and other methods access the information within the invention and use it to establish similar methods or inventions. This is something that would not have been legally possible if the invention had been patented.¹²

Another consideration is that if someone else applies and obtains a patent for the same invention a problem will arise. Now the person who has been using the invention by trade secret law needs to prove that the invention has been used otherwise he will be committing infringement. This is because of our first to file principle. This means that the person who is first to file a patent application will have the right to patent protection. In this case it is necessary to try to obtain either a compulsory licence to use the invention or a right of prior use. This is often very hard to obtain, since the main problem is gathering evidence that proves that the invention was used before the patent was granted. Another problem is that if a right of prior use is permitted, how wide will this right be? Usually it turns out to be rather narrow. This implies that the right of prior use will be quite restricted and in reality the invention cannot be used in a way that it was meant to be without committing an infringement. The invention might become more or less useless and of no commercial value.

In short, trade secret is protected by being kept secret and it is often successful as a way of protection, but it does not offer the same legal strength and certainty as a patent.

¹² Koktvedgaard Mogens/Levin Marianne, Immaterialrätt, at 193

3 The European patent system

3.1 General

Sweden is a member state in the European Union and thereby we are as a country bound to the Union conventions; consequently will I not discuss Swedish law. The Convention on the grant of Patents, commonly known as the EPC, establishes a procedure for granting patents for subsequent registration in the national contracting states and establishes certain standard rules governing those patents. But it is important to understand that the common legislation only regulates the granting procedure. This makes it possible for the different national patent offices to make dissimilar interpretation on the requirements for a patent, which leads to some disparity between the states in their patent practice. This is something the Union has accepted, since the only way around this problem would be to establish a community patent having identical effect in all member states.

A registered European patent has the same effect as a national patent in each of the designated EPC contracting states and is subject to the same conditions as a national patent granted by that state. National laws govern them, and their interpretation and enforcement are a matter for national courts. After a patent has been granted the public has nine months within which to object to the patent. The result of the opposition can be appealed to the BAEPPO. If there is no opposition or if the BAEPPO rules in favour of the applicant the patent becomes a bundle of national patents. At this stage each national patent can be amended or revoked by the national courts since they are not bound by EPO case law. This could lead to discrepancy that I wrote about above, even though it seems as if most EU member states try to apply the case law established by the EPO.¹³

¹³ Phillips case, RÅ 1990 ref. 84, where the Swedish Supreme Administrative Court (regeringsrätten) stated that the limitations of the patentable area shall be the same in Sweden as under the >European Patent Convention. Furthermore, the Court stated that there are reasons to give the development of the law of the E.P.O great significance and that such case law ought to be followed by Swedish courts.

3.2 The European Patent Convention

In the EPC the central article concerning patentable inventions is Art 52. According to this article, a European patent shall be granted for any inventions that are susceptible of industrial application, which are new and which involve an inventive step. These requirements will be dealt with in section 3.4. In Europe and Sweden the *leitmotif* has been technical character of an invention. In accordance with Rules 27 and 29 EPC, in order to be patentable, an invention must be of a technical character to the extent that it must relate to a technical field, must be concerned with a technical problem and must have technical features in terms of which the matter for which protection is sought can be defined in the patent claim(s). A problem is that the EPC does not give a definition of the term invention. Instead it merely includes a non-exhaustive list of subject-matter and activities which are deemed not to be inventions.¹⁴ According to Art 52(2), methods for doing business shall not be considered as inventions. However Art 52(3) specifies that claims to these kinds of non-technical subject matter be denied only if they relate to excluded subject matter “as such”. Accordingly, if non-technical subject matter gains technical character, it may become patentable. This is the primary reason why patents for methods for doing business may be allowed, even in Europe.

3.3 Agreement on Trade Related Aspects of Intellectual Property Rights

TRIPS was signed in 1995 as part of the Uruguay Round of the WTO’s GATT. Most European countries and the U.S are members of the WTO. The provisions of the WTO agreement are general and the aim is to harmonise the rules between the member states, in the long run creating a “community patent”. Today its most important issue is that it forces developing countries, which apply for membership, to establish an equal level of protection in their laws. The WTO Annex applicable to intellectual property is the TRIPS, which is an agreement between states and is not applicable to the EU as such. Sweden is a member and thereby bound by the agreement.

¹⁴ E.P.C Art 52(2)

3.4 Requirements for patentability

3.4.1 Novelty

This is a basic requirement, which states that the invention has to be new. This means that an invention must not form part of the state of the art.¹⁵ The novelty requirement disqualifies every patent application that describes an invention that was already publicly available. According to EPO case law¹⁶ the two requirements novelty and inventive step must be closely connected in accordance with the principle of “whole contents”. The principle states that an invention is not new if a practitioner finds the invention to be identical to an already applied for or patented invention. Further the invention must not in its totality be identical to anything else on the market or what has already been described in literature. This principle implies that the novelty requirement can be examined objectively.

3.4.2 Inventive step

For an invention to be considered as involving an inventive step, it must not be obvious to a person skilled in the art, with regard to the state of the art at the time of the filing date.¹⁷

A definition of the person skilled in the art is provided in EPO Guidelines C-IV.9.6¹⁸:
”The person skilled in the art should be presumed to be an ordinary practitioner aware of what was common general knowledge in the art at the relevant date. He should also be presumed to have had access to everything in the ‘state of the art’ in particular the documents cited in the search report, and to have had at his disposal the normal means and capacity for routine work and experimentation. There may be instances where it is more appropriate to think in terms of a group of persons, e.g. a research or production team, than a single person. This may apply e.g. in certain advanced technologies such as computers or telephone systems and highly specialised processes such as the commercial production of integrated circuits or complex chemical substances.”

¹⁵ EPC Art 54

¹⁶ T 0231/01 – 3.2.6, at 14

¹⁷ EPC Art 56

¹⁸ Guidelines for Examination in the European Patent Office, Part C, Chapter IV

This requirement and the requirement of novelty are closely related, since the inventive step requirement creates a real value for the novelty requirement. If an invention is not new, then the invention is not patentable. If the invention is new, it is still necessary to examine whether it involves an inventive step. In this manner, obvious modifications and known products or methods can be prevented from being patented.

3.4.3 Industrial application

Another requirement is industrial applicability.¹⁹ This stipulation is interpreted widely and includes any kind of industry. Industry shall be construed as meaning activities carried out continuously, independently and for financial gain. This requirement is closely connected with the technical character requirement.

3.4.4 Technical character

Although not an explicit requirement of the EPC, this requirement is of great importance. In accordance with the European practice; “The invention must be of a technical character to the extent that it must relate to a technical field, must be concerned with a technical problem and must have technical features in terms of which the matter for which protection is sought can be defined in the patent claim”, in order to be patentable”²⁰ and within the meaning of EPC Art 52(1).²¹ It is important to note that in this area, business methods and business methods combined with a computer program, the development is very fast, which may cause the Guidelines to lag behind. Technical character is a requirement according to the BAEP, but the Board also says that the present Guidelines may be confusing for the applicants, who might conclude that the criterion, technical character, is not required.²² To clarify the matter, the Board states that technical character is a requirement according to case law and cites a German case where it is pointed out that:

¹⁹ EPC Art 52(1)

²⁰ Guidelines for Examination in the European Patent Office, Part C, Chapter IV at 50

²¹ T 1173/97 and T 935/97

“Technical character as a distinctive criterion between patentable and non-patentable subject matter is a rather vague notion, but it applies itself.”²³

Accordingly, just because the exact meaning of a term is unclear does in itself not necessarily constitute a good reason for not using that term as a criterion. This is particularly true in the absence of a better term and especially when there is case law to clarify the situation.

4 The American patent system

4.1 General

In many ways the U.S patent system is similar to the European. But there are differences, even if they are small. To begin with there is a difference at the basic starting point. In the U.S the Congress has a constitutional power to promote the Progress of Science and the Useful Arts by securing the grant of patents.²⁴ The Patent Act of 1952 was passed with this power and has established the criteria for patentability of inventions. What is patentable is to be found in U.S Patent Act Section 101, which states:

“Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.”

In general, it can be said that the U.S.P.T.O will allow patents for “inventions” if they are novel, not obvious and useful. This will be explained later on. As is generally accepted, offering a monopoly on basic tools of science is said to contradict the constitutional mandate; it hinders rather than promotes the progress of science and the useful arts.²⁵ Therefore several exceptions have been created, for example for abstract ideas, natural phenomena, laws of nature, and mathematical algorithm²⁶. Even under U.S patent law business methods were long thought to be not entitled for patents. But since 1996 when the exclusion of business methods from patentability was removed

²² The Board sees some contradiction in the Guidelines between, on the one hand, the last sentence in C-IV, 2.2 and on the other hand, the earlier part of the same paragraph, but case law may clarify the issue, T 931/95

²³ German Federal Court of Justice (BGH), XZB 15/98, “Sprachanalyseeinrichtung”

²⁴ United States Constitution Article 1, Section 8, Clause 8

²⁵ *Diamond v. Diehr*, 450 U.S. 175, (1981) at 185

from the guidelines for examination in the U.S. Patent and Trademark Office²⁷ and the famous State Street Bank case in 1998, the opportunity to patent business methods has changed. Finally the Supreme Court has acknowledged that patents can extend to “anything under the sun made by man”²⁸. This seems to be quite a breakthrough, but you have to bear in mind what is said above, about granting patents over basic tools of science.²⁹

4.2 Requirements for patentability

There are three substantive requirements for a U.S patent.

4.2.1 Utility

This means that the invention must be useful, be of real value and be in the technological arts.³⁰

4.2.2 Novelty

The invention must be literally different from the body of already existing knowledge called prior art.³¹ The invention has to be new. Prior art can be:

- Printed publications for example articles, speeches, treaties, brochures etc.
- Patents, in any language, everywhere in the world
- Public use of the invention
- The invention has been out for sale, or a license has been agreed upon publicly.

The novelty requirement disqualifies any patent application that describes an invention that was already known to society.

²⁶ Gottschalk v. Benson, 409 U.S. 63 (1972) and Diamond v. Diehr, 450 U.S. 175, (1981) at 185

²⁷ Examination Guidelines for computer-related Inventions, 61 Fed. Reg. 7478 (1996), reprinted in The Patent and Trademark Office, U.S. Dept of Commerce, Manual of Patent Examination Procedure 2106 (6th ed., 2d.rev., July 1996). The Guidelines were adopted pursuant to In re Beauregard 53 F. 3d 1583 (Fed. Cir., 1995)

²⁸ Diamond v. Chakrabarty, 447 U.S 303, 206 U.S.P.Q 193 (1980) at 309-310

²⁹ Love J. John, Coggins W. Wynn, “Successfully preparing and prosecuting a business method patent application”, AIPLA Spring 2001, at 7

³⁰ 35 U.S.C § 101 and Manual – for the handling of applications for patents, designs and trade marks throughout the world, Supplement No. 87, September 2000, at 7

³¹ 35 U.S.C § 102 (a) and Manual – for the handling of applications for patents, designs and trade marks throughout the world, Supplement No. 87, at 6

4.2.3 Non-obviousness

This is what in European law is called an inventive step. It refers to the difference between the invention and the prior art, which must not have been obvious to a person of ordinary skill in the relevant art, at the time the invention, was made.³² See above 3.4.2 Inventive step.

5 Differences between the American and the European patent laws

One of the basic differences is on what principle the patent system is based. In the U.S. it is *the first to invent* who will have the right to patent protection, while it in Europe is *the first to file* who will have the right to patent protection. This makes it possible and in many cases important to publish the invention before claiming it for a patent, in the U.S..³³ This also makes it somewhat easier for the inventors and researchers since they often publish their work in technological/academic journals without having any regard to commercialising the invention. In some ways the U.S system creates confusion, since it may be hard to decide who invented the invention first. In this situation the European patent system creates lesser uncertainty about who should receive the patent protection, namely the person who is first to file.³⁴

Another difference is the lack of certain requirements in the U.S patent law, which we have in Europe. To begin with the U.S system has no industrial applicability requirement, but instead they has something called enablement.³⁵ This means that the inventor, in the application, has to be able to describe how to create the invention. The description must be made in the best possible way, in such clear, concise, and exact terms that a person, skilled in the art, should by following the instructions be able to

³² 35 U.S.C § 103

³³ Koktvedgaard Mogens/Levin Marianne, “Immaterialrätt”, at 180

³⁴ Fredriksson Filip, “Software Patent and the need of education and research in intellectual capital management”, at 6f

³⁵ 35 U.S.C §112

obtain the same effect. This “without having to undergo undue experimentation”³⁶. The corresponding article in the EPC is Art 83. I believe that the American enablement requirement is more stringent, since the description should provide the so called best mode, while the EPC article only states that the application has to be sufficiently clear and complete. As mentioned above under 4.2.1, there is also the utility requirement, which in some ways corresponds to the European industrial applicability.

The U.S patent system also lacks the technical character necessity. This is probably the biggest difference between the two systems. The technical character can in other words be described as providing a technical contribution to the art. The U.S system is more focused on the concrete use of the invention, see the utility claim above.

One last but not least important difference between the two systems is the fees for a patent. In Europe the total cost of an average patent (8 states, 10 year term) has been estimated to be 29 800 EUR or 283 100 SKr (1 EUR = 9.50 SKr). This includes EPO fees (filing, examination and grant phases), translation in the contracting states, national renewal fees and professional representation.³⁷ As is discussed below, this is much more expensive than comparable protection in the USA and certainly affects applicants when applying for a business method patent, since this area is so insecure. This is especially true in these times when the world economy is entering a lower phase and many businesses need to cut back. Further the European system has a one-tier fee system and does not make difference between small and large businesses. In the U.S there is a two-tier fee system. There is a difference between so-called “small entities” and others. The category small entities may be considered as:³⁸

1. **Persons:** An inventor or other individual, who has not assigned, granted, conveyed or licensed, and is under no obligation under contract or law to do anything mentioned before. Further, the person cannot have transferred or be

³⁶ Grusd Jared Earl, “Internet Business Methods: What role does and should Patent law play?”, Virginia Journal of Law and Technology, Fall 1999 at 72

³⁷ European Patent Office, 1999

³⁸ Manual – for the handling of applications for patents, designs and trademarks throughout the world, Supplement No. 87, at 37

under an obligation to transfer some rights in the invention to one or more parties, who does not qualify in one of the three categories.

2. **Small business concerns:** Any business where the number of employees, including affiliates does not exceed 500 persons. The business should not have assigned, granted, conveyed or licensed, and is under no obligation under contract or law to do so. Further the business should not have transferred any rights or be under an obligation to transfer any rights in the invention to one or more parties who may not qualify as a small entity.
3. **Non-profit organisations:** Any non-profit organisation, which has not assigned, granted, conveyed or licensed, and is under no obligation, under contract or law to do so, or has transferred any rights or be under an obligation to do so to anyone who may not qualify as a small entity.

“Others” refers to everything else. It is very important to understand that any attempt to fraudulently establish status as a small entity, or pay fees as such, shall be considered as a fraud and may lead to the caducity of the application or the forfeiture or unenforceability of the patent.

In the U.S the total average cost for a patent (10 year term, one country), which includes U.S.P.T.O fees, renewal fees and professional representation, for a small entity, is about 7 400 USD or 77 700 SKr (1 USD = 10.50 SKr), which is much lower than for a European patent. For a “large entity” the cost would be almost twice as much.³⁹ The cost for a European patent is almost 3 _ times more! It is important to note that 39% (about 110 400 SKr) of the costs for a European patent is related to translation in the contracting states! This is something that is obviously not applicable in the U.S market. Further the European patent, as described here, is valid in 8 different countries while the U.S patent only is valid in one country. On the other hand the difference in population is not very large. The U.S market has 270 million inhabitants and the 8 largest countries in Europe (Germany, United Kingdom, France, Italy, Spain, Holland, Greece and Belgium) have together approximately 330 million inhabitants.⁴⁰ Given these facts, it is easy to understand why American companies and inventors are much more willing to take a chance and apply for a business method

³⁹ United States Patent and Trademark Office, December 2001

⁴⁰ European Union on the Internet, www.europa.eu.int/, December 2001

patent. The costs for a patent plays a large role, and since the cost is so low in the U.S it will not ruin the business even if the patent turns out to be of no commercial value to the company.

These facts, along with the U.S constitutional power to patent “anything under the sun made by man” and the non exclusion of business methods in the guidelines for examining a patent,⁴¹ make the U.S patent system much more liberal and innovative when dealing with new areas of subject matter. As we can see, even if Europe was to allow patents on business methods, some important differences between the systems would still remain.

Part II - Business method patents

6 Patenting of business methods

6.1 What is a business method?

This notion is notoriously hard to define. The EPO suggest that a business method is any subject matter, which is concerned more with interpersonal, societal and financial relationships, than with the stuff of engineering.⁴² In the U.S, *in re Schrader* judge Newman argued that the concept was too “fuzzy” to form part of the law.⁴³

An additional definition can be found in U.S statutory law. According to the U.S Business Method Patent Improvements Act of 2000 a ”business method refers to: 1) a method of: (a) administering, managing, or otherwise operating an enterprise or organisation, including a technique used in doing or conducting business; or (b) processing financial data; (2) any technique used in athletics, instruction, or personal skills; and (3) any computer-assisted implementation of a systematic means described [in (1)] or a technique described in [(2)]. The term ”business method invention” is

⁴¹ Examination Guidelines for computer-related Inventions, 61 Fed. Reg. 7478 (1996), reprinted in The Patent and Trademark Office, U.S. Dept of Commerce, Manual of Patent Examination Procedure 2106 (6th ed., 2d.rev., July 1996). The Guidelines were adopted pursuant to *In re Beauregard* 53 F. 3d 1583 (Fed. Cir., 1995)

⁴² <<http://www.european-patent-office.org/tws/appendix6.pdf>>

⁴³ 22 F.3d 290, 297, 30 U.S.P.Q. 2d(BNA)1455, 1461 (Fed. Cir., 1994)

defined as "(1) any invention which is a business method (including any software or other apparatus); and (2) any invention which is comprised of any claim that is a business method".⁴⁴ But there is still nothing that specifically characterises a business method claim from other kinds of claims. The Federal Circuit has, however, stated that claims drawn to a method of doing business should not be categorised as a "business method" claim; instead the claims should be treated like any other claims.⁴⁵ This is also the official position in Europe.⁴⁶

Business methods include activities such as:

Methods of marketing

Methods of accounting

Methods of inducing consumers to buy

Methods of creating new markets and trading

It is especially in the financial services and in relation to computer programs and internet-businesses that applications for patents have been most frequent.⁴⁷ In these areas it has been shown to be possible to motivate the technical character necessary in Europe and in many cases computer programs and business methods seem to be related to each other. It also has, in this area, been and continues to be technical advances from which business methods can benefit

6.2 Are Business Methods patentable?

This question is not easy to answer. This has been discussed in detail through the years and the subject is still on the "map", even though business methods have been around for quite some time. The one thing, in Europe, that is for sure is that a way of doing business "as such" cannot be protected. However, some protection for business methods may be obtained by claiming a new, inventive, technical method of

⁴⁴ Lehman, Lee and Xu – Newsletters, vol. 1, No. 1 – September 14 2001

⁴⁵ Love J. John, Coggins W. Wynn, "Successfully preparing and prosecuting a business method patent application", s' at 1

⁴⁶ Guidelines for Examination in the European Patent Office, Chapter IV 2.2, June 2000 and Vicom/Computer-related invention [1987] 1 OJEP 14 (T208/84)

⁴⁷ Likhovski Michal, Spence Michael, Molineaux Michael, "The First Mover Monopoly, a study on patenting business methods in Europe", at 9

implementing a business method.⁴⁸ The biggest difference between Europe and the U.S. is, as said above, that in Europe we don't have the landmark case, State Street Bank, to confirm patentability. A further difference lies in the technical character requirement. The business method will be dealt with in another way in Europe than in the U.S, since, in contrast to the U.S patent law, the EPC and Sweden explicitly exclude business methods from patentability.⁴⁹ Once an invention has been found to have technical character and has fallen within the patentable area, then the examination will be alike both in Europe and America.

The introduction of computer programs and technology has created complexity for the courts. Before this introduction, courts could fairly easily distinguish the abstract from the concrete, but now it has become difficult and almost too hard. From here on and after it was almost unavoidable that business methods that had a technical effect would be declared to be within the realm of patentable subject matter. Computer technologies have made it possible and were vital to the issuance of those patents.⁵⁰

6.2.1 Europe

The EPC excludes patentability of methods of doing business “as such”, as does the PL. The “as such” qualification implies that a method of doing business is in itself too abstract and does not possess a technical character. But in relation to Internet and computer technology the business methods might achieve technical effect and thereby an application is to be examined in accordance with standard procedure. The business method will then lie within patentable subject matter and be patentable as long as the application fulfils the other general requirements of novelty, inventive step and industrial applicability. It is important to note that the mere use of a computer does not in itself provide an invention with the necessary technical character. As a rule, when the program produces a technical effect when run on a computer such that claims to the computer programmed in this way would be allowable, then the claims to the program will be approved.⁵¹ In other words the invention as a whole should

⁴⁸ A. a, at 3

⁴⁹ EPC Art. 52 (2a)

⁵⁰ Likhovski Michal, Spence Michael, Molineaux Michael, “The First Mover Monopoly, a study on patenting business methods in Europe”, at 13

⁵¹ Vicom/Computer-related invention [1987] 1 OJEPO 14 (T208/84)

solve a technical problem, or make a technical contribution to the prior art, in a non-obvious way.⁵²

6.2.1.1 The Sohei Case

Case law in this area in Europe is not very comprehensive. The most famous case is probably the Sohei case.⁵³ This case was about a computer system, handling financial and inventory management information. Thus, even if the Board could find technical character there was the underlying problem of a business method that is excluded from patentability.⁵⁴ The invention had a technical difficulty. The data needs to be processed in the computer before the program can go further in its handling and this produces a technical character. This had to be taken into account. The Board stated that this implies occurrence of a technical problem to be solved and the technical features for solving the problem. Accordingly, the invention was within the patentable area.

Now there was the underlying problem of what the end use of the invention was, a business management tool. The Board did not attach any focus to the end use of the system. Instead the Board stated that generalised claims relating to such a system would be allowable even if features excluded from patentability were added to the system. Further, a technical invention should not lose its technical character only due to the fact that it is used for a non-technical purpose. Thus, even though the Board knew what the invention needed to be patented as, a computerised business method, it considered the invention to be patentable. Of course this presupposed that all the other requirements for patentability were fulfilled.

The conclusion of the case has to be that claims for computer implemented business methods shall be treated as any other computer implemented inventions. This is also, as mentioned above, the position of the EPO and the ICC, see also a recently published report, which states:

⁵² Likhovski Michal, Spence Michael, Molineaux Michael, “The First Mover Monopoly, a study on patenting business methods in Europe”, at 34.

⁵³ General purpose management system/Sohei (T/769/92) [1995] 1995 OJ EPO 525

⁵⁴ EPC Art 52(2)

“Insofar as the scheme for examination is concerned, no distinctions are made on the basis of the overall purpose of the invention, i.e. whether it is intended to fill a business niche, to provide some new entertainment, etc....”⁵⁵

In the report there is an examination scheme and this requires that, when examining a computer implemented business method, first the subject matter is presumed not to be excluded from patentability.⁵⁶ Second the subject matter of the claim is examined for novelty and inventive step. Once an application for a special method of implementing a business method is found to have the necessary technical character and a patent is obtained, the patent is not confined to the particular technical effect in the specification.⁵⁷

Interesting is also that in the report examiners are no longer supposed to search for further technical effect. The EPO gives two reasons for that. First it is confusing for both the applicants and the examiners and second the EPO anticipates that the exclusion of software from patentability will be lifted in the near future. This will cause the further technical effect test to be obsolete. The search for an inventive step ensures that only if an objective technical problem is overcome, in a non-obvious manner, then a patent will be granted.⁵⁸

6.2.1.2 The Pension System Case

This case was published as late as in September 2000 by the BAEPPO and the case is about the application of business methods under the EPO and emphasises the importance of technical character under the EPC system.⁵⁹ The patent claim had been refused and the appeal was directed towards this rejection. The patent claim was directed towards:

⁵⁵ Report on Comparative Study Carried Out Under Trilateral Project B 3b Appendix 6, at 4, www.european-patent-office.org/tws/appendix6pdf (last visited at 010830) and the I.C.C “Policy statement”, at 1.

⁵⁶ EPC Art 52 (2) and (3)

⁵⁷ Report on Comparative Study Carried Out Under Trilateral Project B 3b Appendix 6, at 5.

⁵⁸ Id, at 5 and 6

⁵⁹ The Pensions System Case, (T 0931/95)

“A method of controlling a pension benefits program by administering at least one subscriber employer account on behalf of each subscriber employer’s enrolled employees, each of whom is to receive periodic benefits payments”.⁶⁰

The Board stated that technical character is a silent requirement, which is necessary for the invention if it is to fall within the purpose of Art 52 (1) EPC, see above Technical character 3.4.4. Further, the Board noted that the application dealt with schemes, rules and methods for doing business without any technical problem being solved. The Board concluded that the pension system had no technical effect and did not contribute to prior art and, thus, was not patentable.

6.2.2 The United States of America

In the United States it has been possible since 1998 to patent a business method.⁶¹ Business methods used to be excluded from patentability, but in 1996 the exclusion was removed from the new guidelines. The new rule stated that claims should not be categorised as business methods, instead they should be treated as any other claims. The new guidelines reflected much of judge Newman’s thoughts in the *In re Schrader*, where she opined that the business method exception is weakly defined, redundant and superfluous and continued to argue that the rule was obsolete.⁶² But still some thought that a way of doing business was too abstract and fuzzy and therefore not patentable. Later in 1996 computer programs that make a computer work in a particular way and which are encoded on a memory device, for example a floppy disk, were clearly patentable. From here on and after it was to be anticipated that business methods that could be computerised would be declared to be within the sphere of patentable subject matter, since any distinction between computerised business methods and other kinds of computerised processes became too difficult.⁶³

⁶⁰ Id, at 3

⁶¹ Manual – for the handling of applications for patents, designs and trade marks throughout the world, Supplement No. 87, September 2000, at 8

⁶² 22 F.3d 290, 297, 30 U.S.P.Q. 2d (BNA) 1455, 1461 (Fed. Cir., 1994)

⁶³ Likhovski Michal, Spence Michael, Molineaux Michael, “The First Mover Monopoly, a study on patenting business methods in Europe”, at 17, and Examination Guidelines for computer-related Inventions, 61 Fed. Reg. 7478 (1996), reprinted in The Patent and Trademark Office, U.S. Dept of Commerce, Manual of Patent Examination Procedure 2106 (6th ed., 2d.rev. July 1996). The Guidelines were adopted pursuant to *In re Beauregard* 53 F. 3d 1583 (Fed. Cir. 1995)

Finally the State Street Bank Case was delivered and hereafter it has become possible to patent any business method, which is new, non-obvious and useful.

6.2.2.1 State Street Bank v. Signature Financial Group Case

More and more business methods were implemented with computer software and used in the e-commerce arena. It was just a matter of time before the court would have to make a ruling in a case concerning computer software combined with a business method, where the business method would be the dominant issue. Finally the ruling in the State Street Bank Case came. It is important to note that Judge Newman's dissent in the *In re Schrader* laid the grounds for the Court, rendering it possible to take the decision it made.

The patent claim was a "Data processing System for Hub and Spoke Financial Services Configuration".⁶⁴ The district Court, which is a lower court, concluded that the patent claim was invalid, since it was directed to an abstract mathematical algorithm and a business method. Furthermore the Court said that the claim was expressed too broadly. The patentees appealed to the C.A.F.C, which reversed the decision and remanded the case for further consideration. To begin with, the Federal Circuit overturned the physical element requirement of the *Freeman-Walter-Abele test*. First the Federal Circuit said that mathematical algorithms are not patentable as long as they are just abstract ideas, but if any transformation of data takes place which results in a useful, concrete and tangible result, then it is a practical application of an algorithm rather than a mere abstraction.⁶⁵ The Court noted that this claim constituted a practical application of a mathematical algorithm and the algorithm produced a useful, concrete and tangible result and therefore the claim was proper object of patent law.⁶⁶ That a mathematical algorithm may be part of patentable subject matter as long as the claimed invention is applied in a "useful" manner follows earlier decisions made by the Court.⁶⁷ What turned up in the end was to the Court irrelevant.

⁶⁴ State Street Bank & Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368 (Fed. Cir. 1998)

⁶⁵ Id. at 1373-77

⁶⁶ Id.

⁶⁷ In re Allapat, 33 F. 3d 1526, 31 USPQ2d 1545 (Fed. Cir. 1994) and Diamond v. Diehr, 450 U.S. 175, (1981)

Then there was the problem that the claim contained a business method. Here the Federal Circuit followed the new guidelines and ended the business method exception. It held that business methods are statutory subject matter and are subject to the same standards of patentability. In a way it was almost like the Court had no other choice than to rule in this way, since the earlier decisions were leading towards this. Those decisions documented a struggle to distinguish the abstract processes as such from the processes that were carried out through machines, which are patentable.

In short, business methods are now patentable and when examining a patent-application the concentration should be at the substance of the invention instead of the form of the claim.

6.2.2.2 AT&T v. Excel Communications

If there were any doubts regarding business methods and the patentability of them in American patent law after the State Street Bank case, they were put aside in the AT&T case⁶⁸. The notions that business methods would only be patentable if the method were practised together with a “machine” were put to rest in the U.S after this decision. The claim concerned the validity of a patent on an invention that was designed to operate telecommunications systems with multiple long-distance service providers. The system contains local exchange carriers (LECs) and long-distance service (interexchange) carriers (IXCs). The LECs provide local telephone service and access to IXCs. Each customer has an LEC for local service and *selects* an IXC, for example AT&T or Excel, to be its primary long-distance service carrier (PIC). This provided differential billing treatment for subscribers.

The Court stated that “physical transformation” could be misunderstood. In the first place, it is not an invariable requirement, but merely *one example* of how a mathematical algorithm can bring out a useful application and thus not a requirement for patentability. The Court cited the Supreme Court:

⁶⁸ AT&T Corp. v. Excel Communications, Inc., 172 F. 3d 1352 (Fed. Cir. 1999)

“When [a claimed invention] is performing a function which the patent laws were designed to protect (e.g., transforming or reducing an article to a different state or thing), then the claim satisfies the requirements of 35 U.S.C 101.”⁶⁹

The C.A.F.C went on and noted that the invention was based on a basic mathematical algorithm principle, but the claimed invention did not exclude others from using that principle, only if using it in the same way. Further the Court applied the reasoning in the Alappat and State Street concerning method claims:

“That the scope of 35 U.S.C 101 should be the same regardless of the form – machine or process – in which a particular claim is drafted”⁷⁰.

With this it concluded that the data indicator represented a way to facilitate differential billing of long-distance calls, which is a tangible, useful and concrete result and thus the invention pertained to patentable subject matter. The invalidity of the patent was reversed and the case remanded for further proceedings in the district Court.

6.3 Arguments for and against business methods

The debate around business methods and whether such patents should be patentable or not, is still going strong. In the U.S., business methods are patentable and so the discussion is not very comprehensive, while such patents in Europe are excluded from patentability and, thus the debate is strong. The debate is full of arguments and I will give further details about them here below. I will split up the arguments in two groups, arguments for and arguments against.

6.3.1 Arguments for business methods

Proponents of business methods argue that the exclusion in law is unjust. They claim that business methods are economically desirable, since they encourage innovation in important economic sectors, which not yet have been fully exploited. Further arguments are that the material reward to the inventors should be the same as offered to inventors for other inventions.⁷¹ Business method patents are not different from

⁶⁹ Diamond v. Diehr, 450 U.S. 175, (1981), at 192

⁷⁰ AT&T Corp. v. Excel Communications, Inc., 172 F. 3d 1352 (Fed. Cir. 1999), at 1358

⁷¹ Likhovski Michal, Spence Michael, Molineaux Michael, “The First Mover Monopoly, a study on patenting business methods in Europe”, at 30

other patents and should therefore not be excluded from patentability. Why treat various inventions differently, when the final goal is the same, namely material reward for the inventor and encouragement and development of the economic market!

6.3.2 Arguments against business methods

Proponents of the exclusion are not convinced about the benefits of allowing business method patents. The argument against such patents seems to be made in four ways.⁷²

The first argument reads that business methods are too abstract to form part of the law. Such patents will upset the balance between reward for innovation and the demands of free competition, since the patents will enlarge the patent monopoly. This might explain why things like mortgage bonds; tracking stock and loyalty programs should not be patentable.

Secondly, the high social costs are pointed out. All patents incur costs, for example they make products more expensive and scare off competitors from entering that specific market. But, it has been argued that business methods result in higher costs than other patents. Such patents are said to directly restraining the conduct of competitors, which may be imposed by crippling multiple royalty fees. Since it seems to be so hard to decide the extent of such patents protection, the patents are more likely to stop competition than to aid it.

Thirdly, the proponents of exclusion mean that patents are unnecessary as incentives for the development of business methods in general. Usually, the competitive advantage to be gained from an improved business method would be enough to encourage incentive.

Lastly, the supporters of the exclusion wonder if patents really increase overall social welfare. The proponents of exclusion mean that many inventions would have been produced any way, albeit later in time, even if patenting were not possible. The possibility to patent does create some activity, but how much is uncertain. Some papers in the U.S. even show that patents have repressed innovation in particular

⁷² A.a at 30-32

areas, for example the software area.⁷³ Patents create a monopoly, which in some cases inhibit innovation, but in other cases seem to enhance it. The question is whether business methods add to welfare or not. If not, then patenting of business methods would just be a wasteful race to invent, creating an unmotivated monopoly.

A problem is that it is so hard to verify these arguments. Firstly, there is no accepted methodology to evaluate business methods and their impact on the social welfare. Secondly, the debating parties still argue about what causes innovation and how patents affect inventing.⁷⁴ The question remains whether it is economically preferred to wait and see how the result turns out in the U.S, or if the European companies should act now. I believe that European companies should act now, since business method patents are inventions and should be patentable like any other invention that fulfils the requirements. This would now appear to be happening in Europe.

6.4 Summary

Business methods are patentable in the U.S., while they are not in Europe, at least not “as such”. Law and legal practice have shown that such patents are accepted in America, but not in Europe. In Europe business methods “as such” are excluded from patentability by law, but if a technical character exists then the business methods fall within the patentable area and should be examined in the same way as any other patent. It is important to know and understand that there is still a large scepticism against patents like these, and the necessity of making them patentable. Still, European companies apply for business method patents, since they otherwise might be missing a business opportunity.

Last but not least is to be remembered that the mere fact that a business method patent has been issued does not necessarily mean that the patent will stand in a legal challenge. Of course, courts usually follow their earlier decisions, but it cannot be guaranteed that the court will follow the rules they set out in *State Street Bank* and *AT & T* cases. For Europe this remains to be seen, since a technical character in some

⁷³ Id.

⁷⁴ Likhovski Michal, Spence Michael, Molineaux Michael, “The First Mover Monopoly, a study on patenting business methods in Europe”, at 32

cases might have been simply created by the patent attorney, which in turn creates legal uncertainty from the beginning. This might, in the long run, make the business method patents more insecure than other patents, which on the other hand can imply that such patents can and will be applied and used in another way.

7 Infringement

If someone without the consent of the proprietor uses a patented invention, for example by producing a patented product, then the person violates the patentee's exclusive right. In other words, infringement is committed. Determining if someone has infringed a patent is often a very subjective matter, leading to protracted and costly negotiations between the parties and, eventually, the court. Infringement can be made in different ways, for example directly or indirectly. Direct infringe is made by breaking the patentee's exclusive rights, which are for example that the invention cannot be commercially used, made, distributed or sold without the patentee's consent. Then the person is liable as an infringer. Infringement can also be made indirectly. This means that it is not possible to offer, use, import or market a product, which has been produced through a patented procedure, without permission. Another way to commit an infringement is by just offering or providing material for something substantial in the invention, to someone who is not authorised to practise the patented invention in a country in which the patent is in force. The supplier either knows or it is obvious under the circumstances that the material is meant for that illegal purpose. Then the person is liable as a contributory infringer.

When determining if infringement is at hand the following scheme could be followed. By following this basic model all relevant questions are answered and the patent attorney can be sure to have covered all from the beginning.

The model has the following flow sheet⁷⁵:

- 1 Does protection exists?
 - 1.1 When did the protection come into existence?
 - 1.2 For how long does the protection exist?

- 2 Does the protection cover this situation?
 - 2.1 The exclusive rights content?
 - 2.2 The exclusive rights extent?
 - 2.3 Restrictions in the exclusive right?
- 3 What different sanctions can be made applicable?

When assessing infringement, account must be taken of variances in national practice. Firstly, the determination of infringement must be done according to the law in the country where the alleged infringement has been committed, which makes it possible for differences in legal practice. Secondly, there is no common legal practice, either throughout Europe or U.S. There are some guiding principles where attempts have been made to harmonise the patent laws, but there are still large differences, especially regarding the interpretation of the patent claims. As will be explained later, European practice can be divided into three different categories. The first category contains legal practices that, in many ways, are similar to U.S practice and, thus relatively strict. An example is the U.K. The second category, which is more liberal, contains legal practices where it is possible to expand the patent claims, for example the German practice. Finally the third category contains legal practices that are some where in between the two first mentioned, and here Sweden is found.

If an infringement is suspected, the first course of action is to establish whether the invention is protected. If yes, the next step is to consider the extent of patent protection. Here a second problem arises. The extent of protection is determined by the terms of the claim.⁷⁶ For help, the description and drawings can be used to interpret the claims. But when the comparison is made the patent will be looked upon from its claims while the product or invention that is supposed to have violated the patent is tangible and genuine.⁷⁷ This comparison may be fraught with difficulty.

The claims can either be looked upon rigidly or softly or in-between. In Europe, all such interpretations are used and even if the EPO has tried to harmonise the interpretation of claims by encouraging the middle path, nothing can be taken for sure.

⁷⁵ Petrusson Ulf, Det industriella rättsskyddets betydelse för näringsidkaren, Göteborgs Patentbyrås Skriftserie nr 2, at 15.

⁷⁶ EPC Art 69

Sweden would seem to have chosen the middle way. The practice is done in accordance to words like common sense and overall impression. Equivalence is a guiding principle in Sweden as well as in the rest of Europe. Equivalence helps to determine the patent's extent of protection. The principle states that technical changes that are equivalent do not result in the other invention falling outside the patent's extent of protection. In other words, the principle makes it possible to extend the patent's extent of protection to items falling outside the literal wording of the claims. The property right must remain reasonable and should be determined through tangible and competent judgement. Due to the inherent subjectivity of the notion of equivalence, care must be taken when assessing infringement through equivalence. According to European practice, some differences seem to be withstanding the harmonisation and only the future holds the answer.⁷⁸

The U.S has a more rigid interpretation of the patent claim, and thus the possibility to assert that what is not claimed is disclaimed. Equivalence is practised and, according to U.S legal practises, decisive when determining infringement is if the substitute performs substantially the same function in substantially the same way to obtain the same result.⁷⁹ If these three requirements are fulfilled infringement is at hand, even if it falls outside the literal wording of the patent claims.⁸⁰ This was later confirmed in another case⁸¹, but in a recent case decision from year 2000⁸² the court has limited the practice of equivalency. The C.A.F.C stated in their opinion that if an amendment has been made during prosecution that narrows the claim and supports patentability, this will terminate the use of the doctrine of equivalence. Accordingly, if an infringer shows that this is the case, then it is up to the patentee to prove that this was not the case if he later wants to be able to use the doctrine of equivalence to show infringement. Otherwise the literal wording of the claim will be used as the base from where the infringement is determined. This is a significant limitation which will affect all enforceable patents if the Supreme Court rules in favour. The case has been accepted by the Supreme Court, which will make a final decision sometime between

⁷⁷ Koktvedgaard Mogens/Levin Marianne, "Immaterialrätt", at 239.

⁷⁸ GRUR Int. 1993 (Epilady I-XI)

⁷⁹ Graver Tank and Mfg. Co v. Linde Air Prods. Co, 339 U.S at 605

⁸⁰ Koktvedgaard Mogens/Levin Marianne, "Immaterialrätt", at 247.

⁸¹ Jenkinson Co v. Hilton Davis Chemicals Co, 117 S.Ct. (1997), at 1040

⁸² Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., a/k/a SMC Corporation, and SMC Pneumatics, Inc., 95-1066, Fed. Cir. (1999)

December year 2001 and June year 2002. Until then is it important to have the case in mind since, if the change will come through, all legal practice will change. Note that many organisations have been very critical towards the decision and have filed briefs supporting the reversal of the Federal Circuit decision.

If equivalence would appear to be at hand, the next thing to do is to see if there are any restrictions in the patent. If there are no restrictions, infringement is probably committed. The last thing to do is to decide what sanctions are reasonable and can be carried out.

7.1 Defence

There are possibilities to assert different defences if accused of infringement. To begin with, the defendant can simply assert that there is no infringement. Secondly, the defendant can assert invalidity of the patent. This is the most common defence, but it is actually a counter suit. The burden of proof lies on the party asserting invalidity.

A third defence is to plead prior use. This is possible in Europe and U.S, but will lead to different results. In the U.S the prior use defence will, if accepted, make the patent invalid, since the patent system is based on the first to invent principle. The U.S. legal practice has made it possible to use a prior use defence, with a different result, for business method patent infringements.⁸³ If an infringement action is started after November 29 1999, the defendant may adduce as defence that he had actually already, in good faith, exercised the subject matter in practice and commercially used it. The defendant must have done this at least one year before the filing- or priority dates and cannot have abandoned such use. The defendant cannot have derived the base for the subject matter from either the patentee or persons in privity with the patentee, if this kind of defence should be used. The extent of the defence only concerns the specific subject matter and variations in quantity or volume. Improvements are also accepted as long as they do not infringe additional specifically claimed subject matter of the

⁸³ Manual – for the handling of applications for patents, designs and trade marks throughout the world, Supplement No. 87, at 56

patent. The burden of proof of the defence lies on the defendant.⁸⁴ Further, the possibility to transfer or license this kind of defence is strictly limited. As seen, this kind of defence is generally very hard to use, but it is at least a possibility.

In Europe a prior use defence will lead to the infringer either obtaining a right of prior use license or not. The patent will not be invalid just because some one else has been using it, as long as it has not been commercialised and made available to the public, thereby creating a novelty bar.

Part III - Discussion and Conclusion

8 Discussion

In Europe and the U.S., there are commercial and economical desires for business methods patents. The industry and the “players” in the open market want to be able to exploit and gain from the financial winnings of business methods. Innovations need to be protected. Financially, it has been continuously proven that businesses that have know-how and sell brand-products and patented products or methods enjoy better competitiveness when it comes to gaining or keeping market share. The open market is becoming more global each day and at the same time the value of the commercial products tends to be more connected to the value of the share of the immaterial investment, which is increasing.⁸⁵ Thus, the main commercial prerequisites for patenting of business methods are present and therefore it is to be expected that more such patents will be registered in the future. As said before, business methods are patentable in the U.S, so the author will leave that discussion here. In Europe, on the other hand, is it still necessary to discuss whether business methods should be patentable at all or not. They are still explicitly excluded from patentability “as such” both in the EPC⁸⁶ and national laws⁸⁷, and need to have a technical character along

⁸⁴ Id

⁸⁵ The European Commission, “The Green Paper on the community Patent and the Patent System in Europe”, at 4

⁸⁶ EPC 52(2)

⁸⁷ PL 1:1:3

with all the other mentioned requirements to be patentable. Many arguments can be found both for and against business methods, see above 6.3, Arguments for and against business methods, some better than others. The author believes that business methods will become patentable, but the question remains to what extent. Even if the exclusion of business methods were to be removed, there is still the problem with the technical character requirement. This requirement would also have to be removed, which is not easily done or motivated. Jakob Pade Fredrikssen, patent attorney in Denmark, believes that business methods “as such” will become patentable. He says that the pressure from the industry and the actors in the open market is so hard on the legislators to make business methods patentable. This, combined with the desire from those actors to be able to fully exploit the economical value of business methods, will in the future make them patentable.⁸⁸ The necessarily legal and practice alterations will be carried out and business methods will become patentable “as such”.

Another consideration in this context is why is patent protection sought and why is it granted? Perhaps patent protection is a way for society to promote technical enhancement through incentives? Traditionally, patent protection could be seen as a monopoly given by society, but since the commercial use of patents is changing, so is the view on why patent protection is sought. Still, it is clear that patent protection is something that should be earned and not something that is self-served. Usually development of “inventions” comes without patent protection, but of course this kind of protection is encouraging for inventors. Competition is something that is really encouraging for creating new and better inventions. The difficult thing is to keep the balance between patent law and competition/anti trust law. The author believes that a monopoly should only be granted for a reason, which is the preferable selection when balancing between these two subject matters. Creating an unnecessary monopoly would only restrain rather than promote the development of new ideas.

Business method patents might, as the author said above, be used in another way than “normal” patents. Of course, most patents can be used in the different ways described below. Business methods have in some cases a contrived technical character, and in other cases are they probably legally insecure and thus run the risk of having a weaker

⁸⁸ Meeting in February 2002

legal strength. The author's hypotheses are that most applicants are too unaware of the possibilities when using a patent, but that this is changing over time in a positive way. The author believes that the majority of the applicants are using a patent strategy, but that they still do not know what they are going to do with, or how to use it on, a business method. Most companies are using the patents in a traditional manner, even though that manner might not be suitable for those patents. "Traditional manner" includes actions like to protect the invention, to protect a specific market, as a competitive advantage, as a security for credit, for contractual patent licensing, etc.. To find out if the author's hypotheses were right or wrong, the author has interviewed a number of companies.⁸⁹

Patents can be used in different ways and for different purposes. Firstly there are the more traditional ways, and secondly patents can be used in a more commercial manner as a strategic resource, for example to establish a large patent portfolio, which can be used for negotiations. The company applies and gathers a lot of patents, even if these patents' extent of protection is very narrow. The company then has these patents to trade and deal with when negotiating with competitors, either one specific, a kind of cross licensing, or a number of competitors. IP-portfolios, especially those that include business methods, are hard to evaluate, since those patents might be insecure both legally and commercially. Therefore many companies stockpile these patents in a portfolio and use them in negotiations, instead of exploiting and finding the commercial possibilities and value of business methods.

The patent can be used to create and build a company around the invention.

When using the patent for marketing, the company/person lets the open market know that they/he have/has either applied for a patent or obtained a registered patent. This imparts a sense of quality, and shows the market that the company/person have/has quality, high development and is new thinking. This can be used in marketing and is a good competitive advantage.

Business methods can seem to be abstract and something almost made up for a person who has not seen or worked with that kind of invention. A patent can in this case clarify and make the invention more tangible to that person, for example a financial investor. If the inventor/company has a patent to show to the investor, then the invention may be deemed to be more concrete and the investor might understand the

⁸⁹ The questionnaire can be found in Annex I

value of the patent, thereby wanting to support it financially. There are really no limits for how to use a patent, except for the imagination and creativeness.

The results of my telephone-interview were not surprising.⁹⁰ In many ways, the author's hypotheses turned out to be correct. It seems that most companies are still walking in their old shoes, even if they are becoming more aware of the opportunities available with business methods and other patents. Most companies who generate inventions have a patent strategy. This strategy is based on, for example, what the competitors do, the number of patents applied for in relation to how much is spent on research and development, to keep the market open and so on. Some companies have a special patent strategy for business methods, but usually they do not have a special strategy, since business methods are supposed to fit in to the company's regular patent strategy. In some cases, this strategy is not at all suitable for the business methods and those patents will then get a false start.

Exploiting the patents is also something that needs to be improved. Most companies have improved their use of patents, but some ways to use the patents still seem to be "unknown". At least the companies seem to be unwilling to leave the "traditional use" of patents for a more advanced and commercial, and in some cases, better way to use the different and new patents, like business methods. "Traditional use" of patents might not be suitable for business methods, since, as the author mentioned above, these patents might have a weaker legal strength.

The last questions were not easy to answer. Regarding the first of the two questions, the normal answer was that they believed that business methods should be protected in the patent category. The last question was even harder. Most did not answer at all, since they thought it was too hard and those who did answer said that some alterations needed to be done, but did not give any example of what kind of alterations that were to be carried out.

As mentioned above, business methods might have a weaker legal strength, which makes it important to discuss if such inventions should be protected in another way than within the patent protection category.

⁹⁰ The questionnaire can be found in Annex I

Petty patents (utility models) or, as they are called in Germany, Gebrauchsmusterschutz, is a form of protection with a shorter term of protection, though it is cheaper and easier to obtain since i.a. the inventive step requirement is lower. Up to now, this kind of protection can only be sought nationally. The European Commission presented a Greenbook on Utility Models in 1995, which includes some principles concerning those patents in the future within the EU⁹¹ to try to harmonise practice. According to Art 3, methods of doing business are excluded. This is also the case in most other countries that have this kind of protection. Sweden does not offer this kind of protection. Due to the exclusion clause, it would therefore seem that this category is out of question for business methods.

Another way would be to create a whole new category of protection. This is probably, according to me, not a good solution, since business methods are a kind of invention. Having several different categories of protection for different *inventions* would only create even more uncertainty in the market. In addition, there would have to be some kind of determination of each category to be able to apply with the right invention in the right category. This is something that would not be easily done and would only be confusing for the applicants and patent examiners.

A third possibility would be to keep the business methods within the patent category, but alter the examination scheme for these kinds of patents. A way would be to raise the inventive step requirement and perhaps have a reversed burden of proof for novelty. This would imply that the too abstract business methods would remain unpatentable. Furthermore, if unsure whether the business method lacks novelty, the applicant would have to prove that that is not the case. This would make it easier for the examiners and only new and “good” business methods would be patentable. For the author this seems to be the best alternative. Of course the problem determining what a business method is remains, but at least this seems to be the most reasonable thing to do.

⁹¹ KOM (95) 370

9 Conclusion

There is an ever-increasing focus on the commercial value of business methods and thus the need to protect them from unlawful competition. More and more patents include business methods in one way or another, but it is important to note that many of the new business methods patent applications are fabrications to create business method inventions. It is also vital to see that even though some of the applications may be fabrications they still become patents which might affect European companies' possibilities and actions on the open market. Another aspect is that many companies seem to feel almost forced to apply for patents, including business methods, just to be competitive and to keep the market open. If one company applies, then everybody else needs to apply. One can ask if this is something that promotes the social welfare, which is one of the cornerstones of patenting. Ultimately, the American companies' head start might affect the whole open market in a way that makes it almost impossible for the competitors to act without committing an infringement. The European competitors might lose some of their competitiveness and this may "blow up" in their faces later on. To end this thesis I can say that today business methods "as such" are not patentable, but if a technical character is added a patent might be granted. Of course, this presupposes that all the other requirements are fulfilled. In the end it all is up to one person – the patent attorney. If the attorney is very good, then the actual technical character is not so important, since the attorney has the possibility to create and describe the patent claim in a way such that the claim fulfils all the necessary requirements, including technical character. The author believes that in the future business methods "as such" still will remain unpatentable in Europe. It is a too large modification of the European patent law and practice to be carried out. Further, he believes that some requirements will be altered, for example the inventive step requirement will be raised and perhaps a reversed burden of proof for novelty will be introduced. If unsure whether the business method lacks novelty, the applicant would have to show that that is not the case. This would remove some of the workload for the examiners and make their job easier, which in the end results in only new and "good" business methods becoming patentable and registered. For the author this seems to be the best and only working alternative.

Bibliografhy

Litteratur

Koktvedgaard Mogens/Levin Marianne, Immaterialrätt, femte uppl., Nordstedts tryckeri, Stockholm 1997.

Manual – for the handling of applications for patents, designs and trade marks throughout the world, Supplement No. 87, September 2000.

Petrusson Ulf, Det industriella rättsskyddets betydelse för näringsidkaren, Göteborgs Patentbyrås Skriftserie nr 2, Göteborg 1991.

Articles/Studies

European Union on the Internet, www.europa.eu.int/, December 2001

FICPI Information, “Status of Festo Corp. v. Soketsu Kinzoku”, December 2001.

Fredriksson Philip, “Software Patent and the need of education and research in intellectual capital management”.

ICC, Policy statement, ”Software and business method patents”, 2001

Grusd Jared Earl, “Internet Business Methods: What role does and should Patent law play?”, Virginia Journal of Law and Technology, fall 1999.

The European Commission, “The Green Paper on the community Patent and the Patent System in Europe”

Likhovski Michal, Spence Michael, Molineaux Michael, “The First Mover Monopoly, a study on patenting business methods in Europe”, Oxford Intellectual Property Research Centre, St Peter’s College, Oxford University, November 2000

Love J. John, Coggins W. Wynn, “Successfully preparing and prosecuting a business method patent application”, AIPLA Spring 2001

Promoting innovations through patent – The follow up to the Green Paper on the community Patent and the Patent System in Europe.

“Report on Comparative Study Carried out under Trilateral Project B3b”, trilateral technical meeting Tokyo June 2000

W.I.P.O, “Patents”, www.wipo.int, August 2001

Guidelines

Guidelines for Examination in the European Patent Office

Examination Guidelines for computer-related Inventions, 61 Fed. Reg. 7478 (1996), reprinted in The Patent and Trademark Office, U.S. Dept of Commerce, Manual of Patent Examination Procedure 2106 (6th ed., 2d.rev., July 1996).

Legal Cases

U.S

AT&T Corp. v. Excel Communications, Inc., 172 F. 3d 1352 (Fed. Cir. 1999)

Diamond v. Chakrabarty, 447 U.S 303, 206 U.S.P.Q 193 (1980)

Diamond v. Diehr, 450 U.S. 175, (1981)

Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., a/k/a SMC Corporation, and SMC Pneumatics, Inc., 95-1066, Fed. Cir. (1999)

Jenkinson Co v. Hilton Davis Chemicals Co, 117 S.Ct. (1997)

Gottschalk v. Benson, 409 U.S. 63 (1972)

Graver Tank and Mfg. Co v. Linde Air Prods. Co, 339 U.S

In re Allapat, 33 F. 3d 1526, 31 U.S.P.Q. 2d 1545 (Fed. Cir. 1994)

State Street Bank & Trust Co. v. Signature Financial Group, Inc., 149 F.3d 1368 (Fed

European

GRUR Int. 1993 (Epilady I-XI)

Pensions System (T 0931/95)

Sohei (T/769/92)

Contacts

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Annex - 1

Questionnaire about patents in general and business method patents

1. Does your company have a patent strategy?
 - 1.1 If yes, what are the fundamental principles in that strategy?
2. Does your company apply for a specific number of patents per year?
 - 2.1 If yes, how did you work out that number?
3. Why did the company apply for these patents, for example due to competitors, to protect the invention, to protect the market, or for any other reasons?
4. How does your company use the patents, for example licensing, negotiations, making the invention more tangible for the investors and so on?
 - 4.1 Have you discovered any other way to use the patent since it was registered and you started to use it?
5. Has your company applied for any business method patents?
 - 5.1 What kind of business method patents?
 - 5.2 Have any of them been granted yet?
 - 5.3 Do business method patents fall within the normal patent strategy, or do you have a special strategy for them?
 - 5.4 For what reasons did the company apply for business method patents, for example we have been told to do so, because of competitors, to protect the market and so on?
6. Does your company use the business method patents in the same way as the other patents?
7. Do you believe that business methods should be protected by another kind of protection than patent protection, perhaps a category of their own?
 - 7.1 If no, do you believe that the examination procedure of a business method should be altered or be the same as for other patents?