

Patent på datorprogram, är det bra för Sverige?

av Erik Josefsson, ordf. FFIL.se

EPO beskriver år 2000 hur man ser på läget: Allt fler vill ha mjukvarupatent, en ny tolkning av EPC gör det möjligt att bevilja mjukvarupatent och dessutom kommer man strax att stryka datorprogram från EPC:

"Software as an expression of functionality in a computer can be more efficiently protected by patents than by copyright. Additionally, software can be used in almost any technical field. This is why industry has been recently pushing for software patents.

The European Patent Convention (EPC) does not allow patenting of computer programs "as such". Recent case law from the EPO Boards of Appeal has clarified what is a "computer program as such" and has established a new practice. Moreover, in the ongoing process of EPC revision it is envisaged to delete the exclusion of computer programs from non-patentable subject-matter. This development will be in line with the findings of the recent Green Paper of the EU Commission on the patenting system in the EU, as well as with the TRIPS agreement."

Yannis Skulikaris, EPO, "Seminar for Applicants 2000, Workshop & Abstracts"

EPO förklarar samma år för USPTO och japanska patentverket hur man tänker använda begreppet "computer-implemented inventions" om patent på affärsmetoder:

"The expression "computer-implemented inventions" is intended to cover claims which specify computers, computer networks or other conventional programmable digital apparatus whereby prima facie the novel features of the claimed invention are realised by means of a new program or programs. Such claims may take the form of a method of operating said conventional apparatus, the apparatus set up to execute the method (loaded with the program), or, following T1173/97, the program itself. 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.."

EPO 2000/05/19: Examination of "business method" applications (APPENDIX 6, Addressees : The Trilateral Offices (for information))

Revisionen av EPC i citatet ovan syftar på den s.k. Diplomatkonferensen som hölls hösten 2000. Mot all förväntan ströks inte datorprogram. Andra förslag som t ex att EPO skulle få utökade befogenheter gick inte heller igenom (tack vare Sverige faktiskt).

Antalet patentansökningar på datorprogram och affärsmetoder till EPO ökar trots detta

dramatiskt. Carl Josefsson på Justitiedepartementet hävdar i ett möte på departementet 2001 att detta är vad marknadens aktörer vill ha. Den nya tolkningen av "computer program as such" välkomnas också av bl a Jur. kand. Carl Westling. Han skriver i NIR 6/2002 i "Patent på datorprogram och affärsmetoder":

"Poängen med den av Technical Board of Appeal tillämpade helhetssynen är att undantaget i art. 52 (2) EPC förlorar sin tillämplighet. Det blir möjligt att godkänna ett patentkrav som riktar sig mot en känd dator styrd enligt ett specifikt program (vare sig det rör sig om mjuk- eller hårdvara) för att utföra eller kontrollera en process, eftersom detta inte anses som datorprogram som sådant."

Som Yannis Skulikaris förklarade år 2000 har EPO klargjort vad ett "datorprogram som sådant" är. Det klargörande domslutet T1173/97 säger:

"In order to establish the scope of the exclusion from patentability of programs for computers, it is necessary to determine the exact meaning of the expression "as such". This may result in the identification of those programs for computers as a result of not being considered programs for computers as such, are open to patentability."

Ett datorprogram som inte är datorprogram som sådant är alltså patenterbart, det gäller bara att exakt ta reda på vad "som sådant" betyder.

Undantagen är nu alltså inte längre tillämpliga, alla vill ha mjukvarupatent, och man kan få patent på datorprogram som inte är datorprogram som sådana. Så vad är problemet?

Problemet är att nationella domstolar inte nödvändigtvis tolkar patentlagen på samma sätt som EPO, vilket innebär att mjukvarupatentens juridiska status är oklar. De kanske helt enkelt inte går att använda!

Lösning: Inför ett EU-direktiv om "computer-implemented inventions" som kodifierar EPOs tolkning av EPC. Tolkningen blir då bindande för alla EUs medlemsländer (25 av de 30 som skrivit på EPC). Tolkningen är visserligen redan nu "vägledande":

"Förslaget bygger på den praxis som tillämpas av det europeiska patentverket. Detta är en rättstillämpning som redan är vägledande i Sverige och i andra stater som är anslutna till den europeiska patentkonventionen."

Thomas Bodströmden, 16 december, 2003.

men det räcker alltså inte, patentinnehavarna vill ha rättssäkerhet. Men vilka är de?

Mjukvarupatent i Sverige.

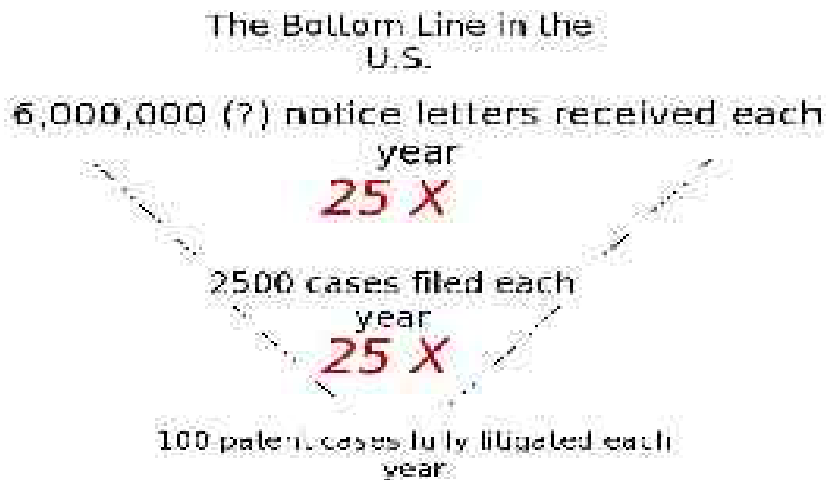
I Sverige har vi ett känt fall, Statskontoret vs. SignOn. Det handlar om ett patent på elektroniskt blanketthantering som blev beviljat av både PRV och EPO. Statskontoret har lämnat in en invändning både till PRV och till EPO och saken kommer antagligen att avgöras under året. I dagsläget är det oklart om Statskontoret har budgeterat för ytterligare patentbesvär med 24-timmarsmyndigheten och så vitt jag vet har Statskontoret inte tagit reda på om det finns fler patent som skulle kunna ställa till problem.

Ett annat svenskt fall är OM-gruppen som sökt patent på ett elektroniskt börshandelssystem. PRV och Patentbesvärslagen har avslagit ansökan. Trots avslaget betalar OM-gruppen fortfarande in förnyelseavgifter för patentet till EPO (man har lämnat in samma ansökan där). Man förväntar sig antagligen att EPO ska bevilja patentet, trots de svenska avslagen. Det är intressant att notera att Patentbesvärslagen i domen refererar till EPOs olika sätt att bedöma patentbarhet och att två olika bedömningar var möjliga i det här fallet: ett där börshandelssystemet utgör en uppfinning enligt 1 § första stycket PatL och ett där börshandelssystemet inte uppfyller villkoren i 1 § PatL.

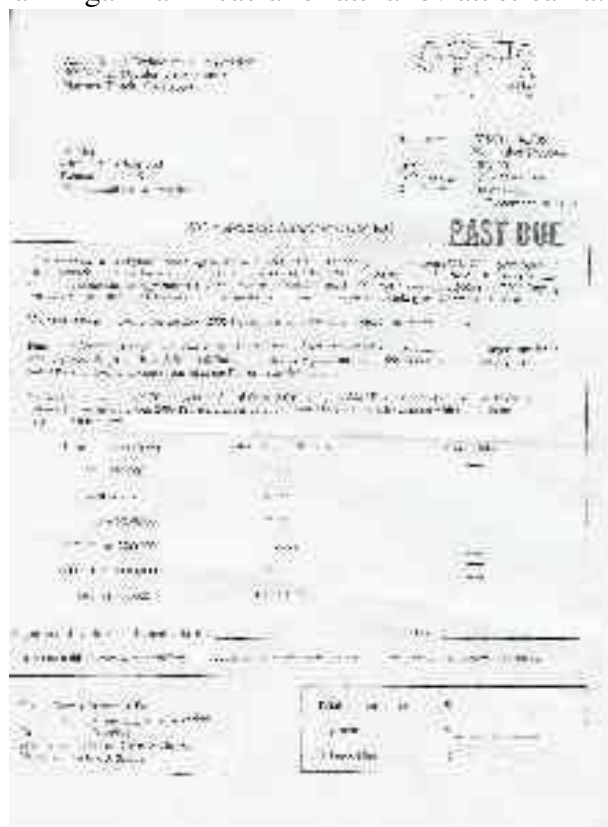
Patentsituationen domineras i Sverige, liksom i andra EU-länder, i ökande grad av amerikanska och japanska bolag. I debatten refereras ofta till "status quo", men i verkligheten är det snarare tal om en dramatisk förändring. Tabellerna nedan visar en uppskattning av antalet mjukvarupatent som beviljats respektive sökts vid EPO där sökanden angivit att man vill att patentet ska gälla i Sverige:

GRANTED		PENDING	
=====		=====	
Siemens	665	Microsoft	882
IBM	505	Matsushita	824
Sun	354	Alcatel	703
Alcatel	322	Sony	674
Philips	241	Nokia	613
AMD	211	Siemens	531
AT&T	186	Samsung	504
Nippon	154	Sun	470
Digital	137	Ericsson	458
Ericsson	118	Canon	441
....Microsoft	86	Philips	425

Hade vi "status quo" borde åtminstone den inbördes ordningen mellan företagen vara någorlunda lika mellan Granted och Pending. Eller?



Falska fakturor är ett känt problem. Men hur är det med falska patentanspråk? Är det någon som vet hur många “hotbrev” som skickas ut per år i Sverige? Jag vet inte. Ovan en uppskattning av amerikanska förhållanden. Nedan en faktura till ett litet webbhotell i Landskrona som får räkningar från Acacia för att få lov att streama:



Med ett direktiv som kodifierar EPOs praxis ges ökad rättsäkerhet till...

... patentinnehavarna?

EPOs "praxis" är dessvärre inte entydig. Kommissionens tolkning av EPOs besvärskammares beslut ("praxis") som står i förordet till direktivet från 2002 talar för sig själv (sidan 7):

"När det gäller att avgöra vilka datorrelaterade uppfinningar som kan anses ha "teknisk karaktär" kan man dra slutsatsen av det nyligen avgjorda målet Controlling pension benefits system att alla program som körs i en dator definitionsmässigt är tekniska (eftersom datorn är en maskin) och därmed tar sig förbi den knepiga frågan om huruvida de är "uppfinningar" eller inte".

Men i ett avgörande från 17 mars i år (Catalina - T531/03) kritiseras "Controlling Pension Benefits System" av EPOs besvärskammare själv med orden:

"It was acknowledged in T 258/03 [Hitachi] that such a liberal assessment of the presence of technical character [as in Pension Benefits] has as a consequence that the question of technical character is answered in affirmative even when the technical means involved are trivial, such as the act of writing using pen and paper"

Slutsats från experterna:

"One can conclude that the Council envisages a kind of codification of an essential part of the current EPO case law. This implies not only that this case law will be implemented in the national law of the EU Member States, but that its inherent lack of legal certainty will be codified as well." http://www.droit-technologie.org/1_2.asp?actu_id=1078

Grunderna måste återställas.

Jag menar att datorprogram inte är uppfinningar i patenträttslig mening. Produkter och processer inom alla områden av tillämpad naturvetenskap är patenterbara, oavsett om de stöds av datorprogram eller inte, men sådana datorprogram inte patenterbara i sig.

Även om en dator är teknisk, alltså själva lådan, bildskärmen, hårddisken etc, så använder vi datorer till icke-tekniska saker. Som att skriva mail till exempel. Mail är konstruerat utifrån matematiska modeller och ideer om kommunikation. I grunden är det fråga om prestationer inom databehandlingsområdet. Jag menar därför att databehandlingsområdet inte ska räknas som ett tekniskt område (i patenträttslig mening).

Det syns tydligt i kommissionens ursprungliga förslag att man velat räkna "datorimplementerade uppfinningar" som tillhörande ett teknikområde (termen "teknikområde" kommer från TRIPS). Men eftersom det är uppenbart att ett datorprogram är en datorimplementerad lösning, innebär det att olika innovativa sätt att skicka mail räknas till samma kategori prestationer som innovativa sätt att bromsa en bil (i patenträttslig mening).

Även om det är ett steg tillbaka att återvända till den tolkning av patentlagen som tillåter patent på ABS-bromsar, men inte patent på one-click-shopping, så tror jag att det är ett steg i rätt riktning. Faktum är att resonemangen bakom den gränsdragningen har kommit tillbaka, bl a i tysk rätt. German Federal Court of Justice skriver i beslutet "Kommunikationslösung" år 2004:

"The problem is not technical, because it does not require the use of controllable forces of nature to achieve a causally overseeable success"

Grundtanken är alltså att kunskapen man får när man gör experiment skiljer sig från den kunskap man får när man löser korsord, eller söker primtal. Eller uttryckt i på juridiska:

"A field of technology is a discipline of applied science in which knowledge is gained by experimentation with controllable forces of nature."

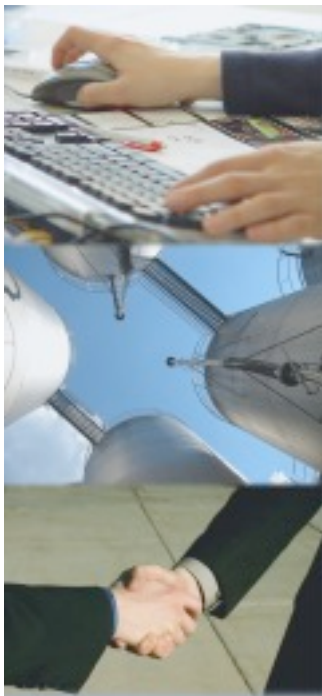
Det är alltså sådan kunskap vi behöver patentsystemet till så att kunskapen kommer fram. Har vi bara det klart för oss blir gränsdragningsproblematiken betydligt enklare eftersom vi vet vad vi vill uppnå. Uppgiften blir mycket svårare om man bestämmer sig för att både äta kakan och ha den kvar, dvs att kodifiera praxis för att undvika mjukvarupatent.

Ändringsförslagen som antogs av europaparlamentet i september 2003 drog en tydlig gräns för det patenterbara området, härledd från principerna bakom EPC istället för EPOs tolkning av EPC. Första veckan i juli 2005 är det dags igen. Valet europaparlamentarikerna står inför är att antingen kodifiera praxis (genom att inte rösta alls) eller att rösta för att återställa patentsystemets grunder.

Erik Josefsson, ordf. FFII.se
Strasbourg, 8 juni, 2005

Bilaga: "The Economic Majority Against Software Patents"

Se även: www.economic-majority.com och www.ffii.org och www.ffii.se



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The Economic Majority Against Software Patents

526 companies

14,870 employees

1,390,000,000 euro turnover

30 testimonies

<http://www.economic-majority.com>



The Foundation for a Free
Information Infrastructure

The Economic Majority Against Software Patents

<http://www.economic-majority.com>

The European Commission says that there is an “economic majority” in favour of software patents. This is what they concluded from a consultation in 2000, where more than 90% of the respondents were against software patents, but those that were in favour were claimed to have greater weight “in terms of investments and jobs”.

“SMEs are crucial providers of pathbreaking innovations, but would be most adversely affected by patentability.”

— Deutsche Bank Research

The signatories of the following declaration would like to make it clear that the Commission was wrong and are supporting their vote by donating funds to the work of the FFII.



Declaration

Our enterprise is worried about plans to legalise patents on software solutions (“computer-implemented inventions”).

- We rely on software copyright. We need to be sure that we own what we write.
- We need to be sure that we can publish and distribute our own programs.
- We need to be sure that, as long as we respect the rules of copyright, we can run any software on any office or network computer.

We urge legislators to confine the patent system strictly to the limits of applied natural science. In principle, only knowledge which had to be obtained through costly experiments with forces of nature should be eligible for the broad, slow and expensive monopoly protection which the patent system offers.



Terje Laugerud
CEO of CIBER Europe

“Having 1200 consultants designing and writing millions of lines of code and thousands of software processes each year, software patents will simply be counterproductive and counter innovative. I am very concerned about a future, governed by software patents, where we as a service vendor will be asked by customers to guarantee we have not broken or violated any software patents before we hand over a bespoke solution.”

Studies and statistics show: Most companies only stand to lose from software patents

Small and Medium Enterprises are the **backbone of the digital economy**, accounting for more than 70% of the jobs and taxes in Germany, with an upward trend.

Economic studies have shown that the patent system in general is of questionable value as an instrument for promoting innovation, and that software patents in particular are dreaded by most players in the field.

A **recent German survey** shows that most players, including large software companies, expect far more disadvantages than advantages from software patentability.

"In its current form, the directive would be damaging for SMEs."

— Hans-Werner Müller, UEAPME Secretary General

The **patent statistics** themselves show a strong concentration of patents in the hands of a few large corporations, particularly from the US and Japan. These corporations cross-license their portfolios to one another and create cartels to exclude smaller players.

The **Eurolinux Petition** has collected 400,000 signatures, among them more than 3000 of software company CEOs. It is the largest number ever to have been gathered by a petition on an IT policy related subject.

SME Associations

The major European SME associations have expressed opinions similar to ours.

- **CEA-PME**: supports EP 1st reading (The alliance of associations behind this statement represents 1.5 million member SMEs)
- **UEAPME**: supported EP's restart request (UEAPME represents 10 million SMEs)



Aiste Kesminaitė
CEO of Programmers
of Vilnius

"We develop a lot of open source software which benefits the community and allows people to have better tools for their work. Software patents will make it expensive and time consuming to develop open source software as the need to buy the use of a particular idea will force us to close our code and stop releasing it for the benefit of others."

Other Associations

Several big national IT-industry associations, such as **PRO** from Poland, **ATI** from Spain, **ASSOFT** from Portugal, **ISZV** from Hungary, **SEPE** from Greece and **KODA** from Slovenia, have taken a strong stand against software patents, in line with our position. In other cases associations were unable to adopt a unified position due to a split between the majority of members and those members who pay most of the fees and dominate the work in the patent law committees.

Supporters

Although the campaign has not yet been widely publicised, it has already gained the support of a significant number of companies.

Supporting companies:	526
Total employees:	14,870 (specified by 369 companies)
Total annual turnover:	1,391,261,255 EUR (specified by 251 companies)
Total of contributions pledged:	128,458 EUR (specified by 109 companies)

How you can help us

Registering as an SME supporter of the FFII is essential to helping the campaign against software patents. Your support sends a clear signal that we represent your concerns on this issue. In addition your financial assistance helps ensure that our work campaigning against software patents can continue. We advise those SMEs who are concerned about how the directive will affect them to become more directly involved.

More information

On the website <http://www.economic-majority.com> you can find an overview of all public supporters, a registration form to join the campaign, background information and links to related websites.



Thomas Wünsche
CEO of EMS-Thomas
Wünsche

"In our fields of activity, automatisisation technology and automotive electronics, a substantial part of the development effort flows into the software. Approximately 80% of our developers are software developers, and the innovation capability of our enterprise depends greatly on software. In this area copyright appropriately protects us against imitation. Competitors who try to circumvent copyright by reverse engineering or with clean room implementations come far too late in quick markets such as ours."

2005-05-30

PM

Till: Jan Å Johansson, Junilistans Brysselkansli
Från: Therese Kreuer
Ärende: Diskussion om patent på datorrelaterade uppfinningar, Bryssel den 16 juni

Inledning

Vi må inte se dem med blotta ögat men datorer och datorprogram finns i princip inbyggda i alla de tekniska lösningar vi omger oss med. Det sägs att 98 % av alla världens datorenheter ingår i inbäddade system dvs. där datorn inte syns och det inte framstår som självklart att en dator ingår som en del i ett system eller produkt. Även om inte alla dessa inbäddade system är patenterbara ger detta ändå en bild av hur datorer på ett eller annat sätt finns i de saker vi har runt omkring oss och att direktivförslaget om patent på datorrelaterade uppfinningar berör ett mycket stort antal teknikområden. Idag är datorprogram av avgörande betydelse inte bara inom IT-sektorn utan i lika hög grad inom andra teknikområden – från traditionell verkstads- och processindustri till hemelektronik-, bioteknik- och läkemedelsindustrin.

Dagligen sker ett omfattande och resurskrävande arbete med att ta fram nya produkter och tekniska lösningar och betydelsen av patent är stor. Trots att många hävdar att utveckling av datorprogram inte är så kostsam att patentskydd av denna anledning inte behövs, lägger företag som Ericsson och Scania ner 90 % respektive 30 % av sina betydande FoU budgetar på mjukvarurelaterad FoU. Det är dock inte bara stora företag som investerar i kostsam och komplex FoU. I en av Svenskt Näringsliv genomförd kartläggning av de fördelar och nackdelar som små- och medelstora företag upplever med immateriella rättigheter framkom att många såg patent som en förutsättning för att gå vidare med en idé och våga satsa på en kostsam och komplex utvecklingsprocess. Patent visade sig också viktigt för dessa företag att kunna få riskkapital, växa, investera och skapa nya jobb.

Bakgrund

Med datorrelaterade uppfinningar avses innovationer där datorprogram - eller "mjukvara" - som en del av uppfinningen är med och bidrar till en teknisk lösning. Det är redan idag möjligt att få patent på datorrelaterade uppfinningar om de har teknisk karaktär. Syftet med Kommissionens förslag från 2002 är inte att inskränka eller utöka denna möjlighet utan att tydliggöra och harmonisera den redan gällande lagstiftningen. Näringslivet har inget emot en sådan harmonisering.

Tyvärr tog ärendet en drastisk vändning vid Europaparlamentens första läsning 2003. I stället för att harmonisera lagstiftningen, som var den ursprungliga tanken, föreslog

parlamentet ändringar som drastiskt inskränkte möjligheten till patent för tekniska lösningar innehållande datorprogram. Rådet antog i mars 2005 några av parlamentets förslag men avvisade dem man ansåg vara skadliga. Rådets förslag har nu gått vidare till parlamentet för en andra läsning och ett avgörande i plenum beräknas till den 6 juli i år.

Svenskt Näringslivs inställning

Frågan är mycket viktigt för europeiskt näringsliv. Direktivförslaget är tekniskt och juridisk komplicerat och Svenskt Näringsliv välkomnar mot denna bakgrund flera av de ambitiösa försök till förbättringar av direktivet som vissa medlemmarna av Europaparlamentet bidragit till genom sina ändringsförslag i andra läsningen.

En distinktion som inte alltid görs i debatten är skillnaden mellan patent på datorrelaterade uppfinningar och patent på själva datorprogrammet (datorprogram "som sådana"). I det första fallet handlar det om innovationer där mjukvara som en del av uppfinningen är med och bidrar till en teknisk lösning och i det andra om patent på själva programkoden. Vad Svenskt Näringsliv förespråkar är patent på datorrelaterade uppfinningar. Datorprogram "som sådana" däremot är idag undantagna från patentskydd i Europa och detta undantag anser vi ska gälla även fortsättningsvis.

Rådets förslag handlar som sagt inte om att utöka möjligheterna till patent. Parlamentets förslag skulle däremot innebära stora förändringar. Många av de 256 st. ändringsförslag som lagts i den andra läsningar skulle radera det patentskydd som Europa haft under lång tid. De mest allvarliga ändringsförslagen handlar om att begränsa tolkningen av begreppet "uppfinning" och "teknik" så att uppfinningar utesluts från möjligheten till patentskydd bara för att de innehåller datorprogram. Andra ändringsförslag säger uttryckligen att bearbetning av eller "hantering, bearbetning, återgivning och visning av information" inte ska utgöra uppfinningar alternativt att de inte ska tillhöra ett teknikområde även när tekniska anordningar används i sådant syfte. Dessa ändringsförslag omfattar i princip all datorrelaterad verksamhet, eftersom all digital teknik baseras på information och datahantering. Den digitala teknikens byggstenar, "1:or och 0:or" är just "information" eller "data". Den praktiska effekten av en sådan begränsning blir att alla system som använder datorprogram för att registrera information om fysiska ting (såsom temperatur, hasigheter, osv.), som sedan används för att kontrollera andra fysiska realiteter i exempelvis bilar, analysapparater, maskiner, tillverkningsprocesser etc. utesluts från skydd. Det handlar således om att exkludera patentskydd för exempelvis:

- Broms- och stabilitetssystem i fordon och motorstyrningssystem för renare och bränslesnålare motorer
- Programmering och utveckling av styrsystem i industrirobotar
- Styr- och säkerhetssystem inom process- och skogsindustri och energiproduktion
- Analysutrustning för exempelvis livsmedel och medicin
- Tekniska lösningar i hushållsapparater
- Kommunikationssystem mellan olika mobilnät
- System för bildhantering i digitala kameror och överföring av digitala bilder

En annan viktig kategori av ändringsförslag är de som berör vilka patentkrav som skall tillåtas och undantag för interoperabilitetssyften, dvs. möjligheterna för olika system att kommunicera och samverka.

För er som är intresserade av att läsa mera om dessa ändringsförslag bifogas vårt positionspapper. I detta dokument redogör vi mer ingående för Svenskt Näringslivs inställning till de grundläggande frågorna bakom Parlamentets ändringsförslag.

Avslutande reflektioner och tankvärda frågor

Vissa påstår att grunden för de patent som idag meddelas för datorrelaterade uppfinningar är skakig. Mycket av den kritik som förts fram mot direktivförslaget handlar om att man anser att det har beviljats datorrelaterade patent som inte borde ha beviljats eller att vissa patent fått ett alltför brett skyddsomfång.

Om så är fallet är det givetvis inte bra. Näringslivets inställning är att om ett system som har så stor betydelse för Europa och dess näringsliv har brister så måste det givetvis förbättras. Vi anser däremot att det är fel att försöka åtgärda problemen genom att ta bort eller inskränka möjligheten till patent på datorrelaterade uppfinningar. Detta skulle drastiskt ändra förutsättningarna för det Europeiska näringslivet och försvåra för dem i den globala konkurrensen. Detta vore som att sänka dem som befinner sig på en flotte bara för att flotten inte flyter som det var tänkt!

Några frågor som kan vara intressanta att fundera kring inför den 16 juni är:

1. Varför ska uppfinningar som löser ett tekniskt problem med hjälp av ett datoprogram enbart på denna grund uteslutas från möjligheten till patentskydd?
2. Små och medelstora innovationsföretag baserar ofta hela sin verksamhet på ett eller fåtal patent. Hur ska dessa företag klara sig om grunden för deras verksamhet raseras?
3. Utan möjligheten att täcka sina kostnader för FoU avtar intresset för att ta fram nya lösningar och produkter. Hur ska enskilda innovatörer och företag som satsar tid och pengar på komplex utveckling kunna skydda sina investeringar om de inte kan patentera sina uppfinningar?
4. ”Open-source”- lösningar är en affärsmetod bland många andra. Patent en annan. Näringslivet välkomnar konkurrens mellan olika affärsmodeller och konstaterar att ”open-source”-modellen har utvecklats vid sidan av rådande patentregler. Varför ska Europa då lagstifta bort möjligheten till en affärsmodell till förmån för en annan? Borde det inte vara upp till varje enskild företagare, myndighet och privatperson att avgöra vilken modell de anser passar dem bäst?
5. För att få patent måste uppfinnaren offentliggöra sin uppfinning så att andra kan ta del av denna. Utan patentskydd skulle många företag istället vara

tvungna att hålla sina innovationer hemliga. Är detta en utveckling att föredra?

6. I dagens patentlagstiftning finns ingen definition av begreppet ”teknik”, då detta ansetts olämpligt mot bakgrund av svårigheterna med att kunna ta fram en definition som inte är låst i förhållande till den intensiva tekniska utvecklingen. Många som är kritiska till patent på datorrelaterade uppfinningar hävdar dock att begreppet ”teknik” måste definieras. Hur ska en sådan definition utformas så att den även omfattar vad som är teknik om exempelvis 10-20 år?
7. Reglerna för patentskydd i Europa är redan idag strängare än i exempelvis USA. Hur ska europeiska företag kunna konkurrera på världsmarknaden om de inte kan skydda sina uppfinningar på sin hemmamarknad medan konkurrenterna kan det?
8. Vid ett seminarium i parlamentet sa en riskkapitalist att om patentskyddet inskränks i Europa skulle de istället söka sig till småföretag i länder där skydd ges. Med tanke på småföretagens betydelse för Europa och deras behov av patentskydd för att attrahera riskkapital - är det rätt att inskränka möjligheten till patent?

Therese Kreuer
Svenskt Näringsliv

EP proposed amendments for the second reading of the directive on the patentability of computer-implemented inventions

- Comments by the Confederation of Swedish Enterprise

The proposed directive for computer-implemented inventions is of vital importance to European industry since it affects many different categories of innovations. To change the current legal basis for patentability by limiting the possibility to patent inventions which can be implemented by computer programs and the possibilities to enforce this kind of patents would severely damage the patent platform on which European industry is built. Companies, especially SMEs, would become an easy target for copying, which would be detrimental to the competitiveness of European industry.

Against this background, the Confederation of Swedish Enterprise welcomes the ambitious attempts made by the members of the European Parliament to improve the proposed directive. We will support a proposal that strikes an acceptable balance, provides legal clarity while avoiding any drift towards patents for business methods or computer programs which do not provide any technical contribution to the state of the art.

Below, we discuss the practical effects of certain groups of proposed amendments. Our aim is to contribute to a better understanding of this very complex dossier and the practical effects of proposed amended articles. In order to limit the material and make it apprehensible, we have not commented upon amendments for recitals.

We have chosen to focus on three areas addressed in a large number of amendments and which are of particular importance to Europe's competitiveness. These areas are:

- A. Definitions of "invention", "technical contribution" and "industry"
- B. Allowed forms of patent claims
- C. Exceptions intended to ensure interoperability

At the end of this document, we have listed amendments (relating to articles) which we find acceptable.

A. Definitions of "invention", "technical contribution" and "industry"

A number of the proposed amendments seek to ensure that patents for computer-implemented inventions are not granted for non-technical inventions. Industry has no objection against this over-riding purpose, since this is the existing praxis for European Patents today. However, many of the amendments go much further than this acceptable objective and are unacceptable since they introduce requirements

which would severely limit the patentable field. Some amendments also confuse different concepts of patent law in a way which would lead to legal uncertainty.

In the following, we will comment on different types of amendments concerning three important groups of definitions:

- 1) *What is an invention?* (“*invention*”, “*technical*”, “*field of technology*”)
- 2) *What is a “technical contribution”?*
- 3) *What is “industry”?*

1) What is an invention?

An important feature of European patent law is that in order to belong to the patentable field, an invention must have “*technical character*”. This distinguishes European patent law from US patent law, where no such requirement exists.

The technical character requirement means in practice that an invention must comprise technical features. It may also be a mix of technical and non-technical features, but if there are no technical features at all, there is no invention in the sense of patent law. An invention comprising the use of computers and software can be regarded as technical due to the fact that technical apparatus (=hardware) is used, and can thus be an invention.

However, this does not mean that the invention is *patentable*. Inventions are not patentable only because they use technical means. As an example, a new engine belongs to the patentable field but is not necessarily patentable. In order to be patentable, the invention must be new, involve an inventive step and be susceptible of industrial application. The assessment of inventive step involves the concept of “technical contribution” and is discussed below.

Current European patent law does not include a positive definition of “invention” or “technical”. The reason is that it is impossible to give general definitions which will not be outdated by development. Such definitions can never foresee the development of science and technology, and the definitions would have to be amended by changes of the patent law. Instead, some things are listed which as such are *not* inventions in the sense of patent law. Examples include scientific discoveries, mathematical methods and computer programs. This does not mean that they can never be part of a patentable invention – if a newly discovered chemical compound is used to make a pharmaceutical product, it is used in a technical way and can be an invention.

The exclusion of computer programs “as such” can be found in the European Patent Convention (EPC) and in national patent laws that have been harmonized with the EPC. Under this definition, new and non-obvious technical inventions that may be implemented by means of computer programs are currently patentable and should in our opinion continue to be so. This because the manner in which an invention is realised or could be realised (hardware or software) should not in itself determine whether such an invention could be patented or not. Therefore, amendments, which state that programs for computers are not inventions in the sense of patent law, without the “as such” definition are not acceptable since they would make the

exception much broader than is the case today. (Amendments 99, 100, 101).

Over time, patent offices and courts have used different approaches to determine what is an invention. One such approach is the “forces of nature” doctrine, developed by German courts over 30 years ago. Under this doctrine, the “forces of nature” concept is used as an example of when an invention is regarded as technical, but not as the only definition thereof. It is therefore not suitable to introduce it as an absolute requirement in patent law.

Also, this doctrine is not very helpful since the technical development has made it rather outdated. In the technical environment of today, where nano-technology and biotechnical inventions change our apprehension of natural forces, the “forces of nature” requirement can comprise anything or nothing – it has become as dependant upon interpretation as the law itself. In principle, anything that results in the movement of electrons can be said to involve “forces of nature”. Introducing this requirement into patent law would therefore not lead to increased legal clarity but rather the opposite.

However, it is clear from the wording of some amendments and their justifications as well as from statements by certain MEPs that in many cases, the “forces of nature” requirement is intended to limit the definition of “technical” compared to the current situation in Europe. The definition is meant to exclude inventions which are implemented by software in an existing technical system, i.e. improvements of the braking systems in a car. This would leave important R&D without protection and is consequently not acceptable. (Amendments 26, 27, 68, 70, 71, 74, 76)

Some amendments even seek to limit the interpretation of “invention” and “technical” so that inventions should be disqualified from belonging to the patentable field simply because they comprise the use of software. This is of course not acceptable to industry and is also – as follows from the background given above - fundamentally wrong from a patent law perspective. (Amendment 29)

Certain amendments explicitly state that “data processing” or the “processing, handling, and presentation of information” do not constitute inventions, alternatively do not belong to a field of technology, even when technical devices are employed for such purposes. These definitions encompass virtually all computerized activities, since all digital technology is based on information and data handling . The basic building blocks of all digital technology, the “1:s” and “0:s”, are in fact “information” or “data”. The effect would be to exclude for example systems where computer programs are used to register information about physical realities (such as temperature, speed, flow etc), information which is later used to control other physical realities in cars, machines, manufacturing processes etc. It would also exclude innovations in image, speech and sound processing. Such amendments would take away patent protection in huge areas of industry, such as telecommunications, diagnostic equipment and consumer electronics. (Amendments 26, 32, 60, 86, 92, 93, 95, 110, 114)

There are further amendments stating that data processing solutions are not considered to be patentable inventions merely because they improve efficiency in the

use of resources within data processing systems. This is unacceptable since improving efficiency is one of the most common technical problems that is solved by inventors: doing things in a better way, using less resources, etc. The proposed amendment therefore strikes broadly against new and non-obvious technical inventions which are today patentable. (Amendments 111, 112, 113, 115)

2) What is a “technical contribution”?

As described above, one of the requirements for a patentable invention is the inventive step. The inventive step includes the need for the invention to make a “*technical contribution*”. In this assessment, only features which contribute to the technical character of the invention may be taken into account. If the technical problem is addressed by a method which circumvents the problem using non-technical features rather than solving it, there is no technical contribution.

Also, if the features are standard and well known, there is no inventive step and consequently no patentable invention. This means that an invention comprising the use of computers and software can be considered technical since technical apparatus is used. But if the technical apparatus is standard equipment, used in a way which is routine for professionals in the field, it is not patentable. In that case, there is no technical contribution and therefore no inventive step.

Under current European practice, this “technical contribution” requirement is part of the assessment of whether the invention represents an inventive step. This is confirmed in articles 2 (b) and 3 of the Council’s Common Position.

A number of proposed amendments to these articles seek to define “invention” as being the same as “technical contribution” or to introduce the “technical contribution” concept into the assessment of whether an invention has technical character. This is a confusion of concepts which would cause legal uncertainty. (Amendments 25, 57, 60, 61, 62, 63)

Some amendments introduce the “forces of nature” concept into the assessment of technical contribution. For reasons given above, we do not believe that this concept is helpful for clarification, since it in itself needs interpretation. Also, if given the interpretation proposed by several MEPs, it could lead to a limitation of what is patentable. (Amendments 59, 60, 61).

In a few amendments, it is stated that a technical contribution must involve an inventive step. Also this is a confusion of concepts. (Amendments 87, 88, 89)

Certain amendments suggest that the assessment of inventive step should only take into account purely technical features. This is a limitation compared with current practice, where all features that contribute to the technical character of the invention are considered in the inventive step assessment, whether they are in themselves technical or not. An example of such a non-technical feature giving technical character to an invention is a computer program controlling the fuel injection into an engine. While this software in itself is non-technical (and thus not patentable as

such), it should be considered in the assessment of whether the invention as a whole has inventive step. (Amendments 30, 91)

3) What is “industry”?

As mentioned above, a requirement for patentability is that the invention is susceptible of industrial application. The term “industrial” has since a long time been given a wider meaning in patent law than in regular speech and includes basically all forms of commercial activities. In the German language, the term “gewerblich anwendbar” is used.

Certain amendments seek to redefine this term by requirements on “automated production” and/or “production of material (or tangible) goods”. The requirement for “automated production” excludes all production of products which are assembled manually, such as airplanes, cars or mobile phones. The “material goods” requirement would for example exclude companies who develop software, even for use in material devices. This is a severe and unacceptable limitation of what is regarded as “industrial”. It should be understood that such a definition would be applicable for all types of inventions, not only CII:s. (Amendments 75, 81, 82)

In other amendments, it is stated that the production of “information goods” is not an “industry” in the sense of patent law. The definition is very unclear but could be interpreted extremely widely to encompass e.g. the printing of newspapers, thereby excluding new inventions for such production from the patentable area. (Amendments 76, 78, 79)

Generally, it is unwise to change or introduce new definitions to a term such as “industry”, the interpretation of which has developed for a long time. Any new definitions will take time to interpret, and this leads to a long period of legal uncertainty.

The proposed amendments suggesting alternative definitions of “invention”, “technical contribution” and/or “industry” would

- **increase legal uncertainty by introducing new, unclear definitions and by mixing existing ones**
- **limit the possibilities to protect inventions which are implemented by software in existing technical systems**
- **exclude innovations concerning e.g. control systems, image processing and sound processing, thereby taking away patent protection in huge areas of industry, such as telecommunications, diagnostic equipment and consumer electronics.**
- **limit what is regarded as “susceptible of industrial application”, thereby excluding many uncontroversial inventions (in all areas, not only CII:s) from patentability.**

The amendments which cannot be accepted since they seek to redefine fundamental concepts of patent law are consequently: 25-27, 29- 30, 32, 57, 59-64, 68, 70-71, 74-76, 78-79, 81-82, 86-89, 91-93, 95, 99-101, 110-115.

B. Allowed forms of patent claims

A patent protects the claimed technical solution as whole and not certain parts of it. A computer program may be part of a patented solution but it is never the computer program in itself that constitutes the technical solution. In patent law, patent claims and what constitutes a patentable subject matter are two diverse things. This reassures that continued allowance of computer program claims is not the same as allowing patents for computer programs as such. Hence, Art. 4a.1 stating that “a computer program as such cannot constitute a patentable invention” and Art 5.2 allowing “a claim to a computer program” in the Council’s proposal do not contradict each other.

Sometimes is it necessary to have a claim that covers the computer program that is a part of the patented solution. This has to do with the possibility to enforce the right in an effective way and does not extend patent protection to “pure” computer programs. According to Art. 5.1 and 5.2 of the Council’s proposal, computer program claims are *only* permitted if “that computer program, when loaded and executed in a computer, programmed computer network or other programmable apparatus, put into force” the product or process claimed in the patent application. Hence the patent application must contain product or process claims in order for a computer program claim to be allowed and this computer program claim must put into force the claimed product or process.

In practice, the aim of Art. 5.2 is to make it possible for the patent holder to stop a person who commercially and without permission from the rightholder offers for sale computer programs which activate a patented product or a process when run on a computer. The patent holders already have this possibility, since computer program claims are presently allowed both within EPO and in national jurisprudence (e. g. the German Bundesgerichtshof decision of Oct. 17, 2001, in case X ZB 16/00, GRUR Int., 2002, p. 323 and the Swedish patent SE-552658-C2).

These rules have, to our knowledge, not caused computer program developers or consumers any practical problems and it should be stressed that only commercially supply of computer programs to persons that will use the program to execute a patented invention constitutes an infringement. The end user is free to use the computer program for private use. This follows from general patent law.

Since claims have to do with enforceability, restrictions on claims would cause immense legal uncertainty regarding already approved patents containing computer program claims. These already granted patents would become partly unenforceable which is equal to expropriation.

Limitations to the possibility to use computer program claims would hence:

- **change the present legal situation**
- **make enforcement of patents much more difficult**
- **render the economical benefit of patents limited in an unacceptable way**
- **permit backdoor infringement and piracy**

- **make already granted patents containing computer program claims unenforceable which is a kind of expropriation**

The proposed amendments that would exclude computer program claims can therefore not be accepted, and these are: 34, 117-121, 126, 128-132.

As to amendment **127**, it is a good attempt but needs further improvement before it can be accepted and therefore we prefer the wording used in the Council's proposal. The reason for our concern with this amendment is the use of the word "main claim" since this term has no legal meaning in most European national patent laws nor in the EPC. Further it would have been better to refer to "the same application" instead of "the same patent".

We would encourage the Members of the European Parliament **to adopt amendment 133** since it uses the term "put into effect" of the claimed product or process instead of the expression "put into force" used in the Council's proposal. This explains in a better way what a computer program claim is about.

C. Exceptions intended to ensure interoperability

As stated in Council Directive 91/250/EEC on the legal protection of computer programs, computer programs are protected by copyright. As in other intellectual property rights legislations, Directive 91/250/EEC include exceptions to otherwise restricted acts. Example of exceptions mentioned in Art. 5 of the said directive is the right "to observe, study or test the functioning of the program in order to determine the ideas and principles which underlie any element of the program if he does so while performing any of the acts of loading, displaying, running, transmitting or storing the program...". Another important exception is the one in Art. 6. for interoperability - the ability of two or more systems or components to exchange information and to use the information that has been exchanged.

Industry has accepted these exceptions and we support the Council's proposal reassuring that the exceptions mentioned in Art. 5 and 6 of Directive 91/250/EEC shall not be affected by rights conferred by patents for computer-implemented inventions. This provision reassures that it will continue to be allowed to use computer programs for reverse engineering and interoperability purposes under the conditions in Art 5 and 6 of Directive 91/250/ECC.

As mentioned, industry does not oppose the exemptions for interoperability in Directive 91/250/EEC. What we opposed is first, that to our knowledge, it has not been established that interoperability is a problem that should be addressed by new legislative measures. To propose limitations of patent protection for interoperability-related purposes without such findings is in conflict with the Treaty Establishing the European Community. According to Art. 3(h) of the Treaty, the approximation of laws may only be carried out to the extent required for the functioning of the common market and there are the principles of subsidiarity and proportionality in Art. 5.

Secondly, even if there was a problem with patents and interoperability, it would be wrong to propose exceptions that go as far as taking away all patent protection and allow free use of patent protected inventions for interoperability-related purposes. It is often said that patent law shall strike a fair balance between the right holder and third parties. To open up for others to use the patented technology without paying the inventor for his research and development efforts can hardly be called a fair balance.

The Member States of the European Union are further obliged to comply with the TRIPS agreement. TRIPS Article 30 prescribes that limited exceptions to the exclusive rights conferred by a patent may only be allowed if “such exceptions do not unreasonably conflict with a normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent owner, taking account of the legitimate interests of third parties.” A total exception for interoperability can not be said to comply with this requirement.

A way to solve a possible misuse of the patent holder is to follow TRIPS Art. 31. This article provides the possibility for Member States to grant an authorisation if a voluntary license cannot be obtained. There shall then be an individual assessment of the situation and the patentee must be granted adequate remuneration. This provision strikes a fair balance and reassures access to necessary technology.

Additionally, some of the provisions proposed regarding interoperability would be applicable even if it were possible to obtain a voluntary, reasonable and non-discriminatory license (RAND). There are also amendments that would effect already granted patents and hence have a retroactive effect as well as amendments having a scope that covers patented techniques without any limitation to computer-implemented inventions (e.g. amendment 35).

To undermine patent protection for interoperability-related purposes would hence:

- **contradict the Treaty Establishing the European Community**
- **constitute an unfair balance since the inventor will not be compensated for his research and development efforts when the invention is used for interoperability purposes**
- **contradict Article 30 of the TRIPS agreement, prescribing that only limited exceptions to patent protection that do not take away normal exploitation possibilities are allowed.**

The proposed amendments that impair patent protection for interoperability-related purposes or have too broad definitions can therefore not be accepted, and these are: 35, 145-147, 149, 151-152, 155-157 and 159-160.

We welcome the constructive attempts to find workable solutions, such as in amendment **148, 150, 153 and 154**. These amendments are based on a compulsory license and thereby ensure payment for the patentee's R&D investments and requires an individual assessment of the situation. There is however room for further improvement before they can be accepted and none of these amendments are acceptable if amendment 66 is adopted.

Amendment **148** should relate to interoperability between computer programs rather than devices, and “essential for enabling“ should be changed to a more restrictive wording, such as “indispensable for“.

In amendments **150** and **153** it ought to be expressed that a compulsory license should only be granted when the public interest so requires.

Amendment **154** is welcomed if the first sentence is omitted. The reason why we argue that the first sentence shall be omitted is that the proposal is self-contradicting. The first sentence constitutes that use of a patented technique for interoperability-purposes shall be for free and not constitutes an infringement. With such an exception, the patent holder does not have any rights left which can be licensed, a right provided for in the second sentence. Further, the first sentence is a type of interoperability exceptions that is much too broad and far-reaching. The patent protection is fully taken away in these situations. This is a very fundamental interference with the patent holder’s basic rights which can only be justified if there is proof that the existence of such rights severely affects the functioning of the market. We do not believe that there is any evidence of such severe problems and it is consequently not legitimate to introduce general, far-reaching limitations in the rights conferred by patent law.

The second sentence of amendment 154 sets out a much more balanced way of addressing possible interoperability problems. This solution is in line with the provisions in Article 31 of the TRIPS Agreement (described above).

Other interoperability-related amendments that are unacceptable are amendments **66, 69, 80**. This definition of “interoperability“ is far too broad, in that a large part of computer-implemented inventions would be affected by this definition. With this definition, many things that a computer generally do would be considered as interoperability and all computer ”communication“ would be about interoperability.

Acceptable amendments relating to articles

56, 72, 94, 96, 108-109, 133, 136, 138-139, 142, 161-162, 165-168, 170-172, 175-177, 180.