Questionnaire May 2003
Q178 - Scope of Patent Protection

Answer of the Swiss Group

by K. Becker

1. Which are the technical fields involved?

1.1 Which are, in your view, the fields of technology in particular affected by recent discussions concerning the scope of patent protection?

Biotechnology and Business methods.

1.2 What makes this field/these fields of technology special compared to other fields of technology in the context of this discussion?

General Remark: The principles of patent law are applicable to all fields of technology. There is (or should not be) a special law for any field.

Both fields: Special topics prevalent for these fields are the questions of invention and discovery, and industrial applicability or utility.

Biotechnology: Ethical questions are also important, e.g. how do we have to interpret the exclusions based on “ordre public” and morality? Are inventions in the field of (human embryonic) stem cell research patentable, and to what extent? What about human-non-human chimera? Etc. There is no doubt that biotechnology is a technical field. This may not be generally accepted, but it is a logical development of modern biotechnology actually starting in the 1960’s. Biotechnology innovations require laboratories and technical skill to come forward with new and improved products and processes, i.e. inventions.
In Europe and in other countries, which have laws harmonized with the European Patent Convention, we also have to deal with the exclusion from patentability of plant and animal varieties.

Business methods: Lack of technical character. As far as business methods do not use computer programs, but are only directions on how to proceed in planning and executing business, they have to be considered as pure instructions for the human mind and are therefore not patentable under the present law, since they lack technical character. Such instructions do not deal with matter, energy, or the application of laws of nature. If such business methods use computer programs, the question has to be judged according the principles of patentability of computer programs.

(Software patents: Opposition against patentability of software stemmed from an overstretched interpretation of what is “technical”, which in turn had its origin in a fear of possible consequence of widespread software patenting.)
2. Definition of patentable subject matter

2.1 What is the definition of patentable subject matter in your jurisdiction? Do different definitions apply in various fields of technology? If so, what are the differences?

Patents are granted for new, industrially applicable inventions. What is obvious in view of the state of the art is not a patentable invention. (Art. 1 Swiss Patent Law)

There are no differences for different fields of technology.

Switzerland being a member of the European Patent Convention, the definitions of the EPC will also apply in Switzerland.

P. Heinrich (PatG/EPÜ), Zürich: Orell Füssli 1998, 1.03; gives the following definition of a (patentable) invention: „An invention is a new and non-obvious (for the person in the art), repeatable and communicable rule for an action using matter or energy (physical force, work, energy [and information ?]) in view of a particular desirable result, which is obtained directly and automatically as a consequence of such use of matter or energy [and information?]. This definition is a summary of present law and practice in Switzerland, but is under discussion with respect to “information”.

2.2 What are exemptions/exceptions from patentability?

Patents are not granted for plant and animal varieties (“Pflanzensorten und Tierarten”) and for essentially biological processes for breeding plants or animals; however, microbiological processes and products obtained by such processes are patentable. (Art. 1a).

Excluded from patentability are: (a) inventions, the use of which would be contrary to “ordre public” or morality; (b) methods of surgery, therapy and diagnosis, which are applied to the human or animal body. (Art. 2).

Switzerland being a member of the European Patent Convention, the exclusions of the EPC will also apply in Switzerland, in particular the exclusions of Art. 52(2) EPC: Discoveries, scientific theories and mathematical methods; aesthetic creations; schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers; and presentations of information.

2.3 What is the reasoning behind those exemptions/exceptions?

Plant varieties were traditionally regarded as subject matter for the Protection of Plant Varieties (UPOV type protection), and such PVP laws excluded double protection, i.e. additional protection by patents. The reasoning behind exclusion of animal races (varieties) is less clear, but at the time of signing the EPC, no one could really imagine inventions of animals.

Since the patent is granted by the state, the state was (and still is) not willing to be supportive for the use of “inventions” contrary to “ordre public” or morality.

The exclusion of methods of surgery, therapy and diagnosis seems to be ethically motivated. Another aspect is the difficult enforcement of patent rights in this field.

The exclusions of Art. 52(2) EPC used not to be regarded as “technical”. See the particular discussion on computer programs (as such).
What is the effect of this definition on activities concerning patent protection?

Is the scope of protection sufficient or does it lack opportunities for further protection? This includes economic aspects for the users as well as for the public in general regarding various technologies.

The present scope of protection might be regarded as sufficient. However, the existing discrepancy between Europe and the USA (and Japan) causes uncertainty for users and third parties, and discriminates against European (and Swiss) industry. Therefore, a certain harmonization in the scope of protection is desirable, which means enlarging the scope in Europe and/or restricting it in the US.

Some feel that the lack of proper protection for computer programs is a disadvantage for European (and Swiss) users.

There is a considerable group which thinks that what we see with business method patents is but one example of a “new way to be successful”. Why should there not be a “privilege” (patent or other) for innovation (including non-technical) where economical value is created? The discussion about whether the “technical character” has to be connected with the novel or non-obvious part of an innovation seems to be out of step which such a development.

If the scope of protection is not sufficient, how does this affect the users’ policy on patenting? Does this also have an impact on research policy?

The general feeling is that (large) industry uses the system in different jurisdictions to the extent possible. A direct impact of scope of protection on research policy is not really observable. However, universities, single inventors and small businesses are certainly handicapped, and do not make best use of the patent system due to the complexity and differences in possible scope of protection.

Scope of protection is only one aspect. Enforceability is another difficult question which has at least a comparable impact on users’ policy on patenting.

What are obstacles from political or social sources outside the purely legal field which play a role in research and patenting?

Various NGO’s including representatives of churches are heavily lobbying against modern methods of biotechnology (e.g. resulting in genetically modified food, or genetically modified animals) and any change of Swiss patent law in the direction of better protection for biotechnological inventions. Switzerland actually intended to harmonize its law with the European Directive on the protection of biotechnological inventions, but there is substantial opposition against this project with arguments comparable to those used in e.g. Germany or France.

The “open source community” is trying to prevent improvement of scope of protection of computer inventions. Research in software seems to be desirable, but patenting of research results is not.

Together with these openly communicated arguments, some further fears of economic domination by the US may be at the source of opposition against broadening of patentable subject matter.

How should new kinds or categories of inventions be treated? Should there be an enlargement of patent protection? If so, what are the reasons?

Patentability requirements for new categories of inventions (new technical fields) should not be different from existing categories of inventions. In particular, new technical fields should not be the subject of exclusions and discrimination.
3.5 If you find the range of patentable subject matter too wide, how should it be limited? What would be the reasons for such a limitation? What do you see as the positive effects of such a limitation?

In general, the range of patentable subject matter is not regarded as too wide.

A few voices consider limitation of compound claims for DNA or proteins to the particular disclosed function desirable.

4. Further points of discussion

4.1 Which upcoming problems do you see specifically as a result of a change of the scope of patent protection regarding the requirements for patentability, in particular novelty and inventive step?

We see no basic problem as a result of change of scope, which could not be solved on the long run. There will always be a learning curve for examiners and the classical situation of different practice and experience in different jurisdictions.

4.2 What are specific problems of the granting proceedings (search, examination) if the scope of patent protection is enlarged?

Changes in scope will take some time, and will always have a short term negative impact on the quality of search and examination. There will always be some “silly” patents granted, and the community will ridicule the Patent Office having granted it. The main problem for patent offices is the adaptation of the available search documentation.

4.3 What do you see as possible solutions for these problems? Would further harmonization of the laws help to solve such problems and, if so, in which way?

Further harmonization of laws is important. If a change of scope of protection then has to be implemented, the corresponding office should focus training of examiners in the field in order to get controlled and reliable examination and thereby supporting legal certainty.