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Patenting Software-related Inventions according to the European Patent Convention

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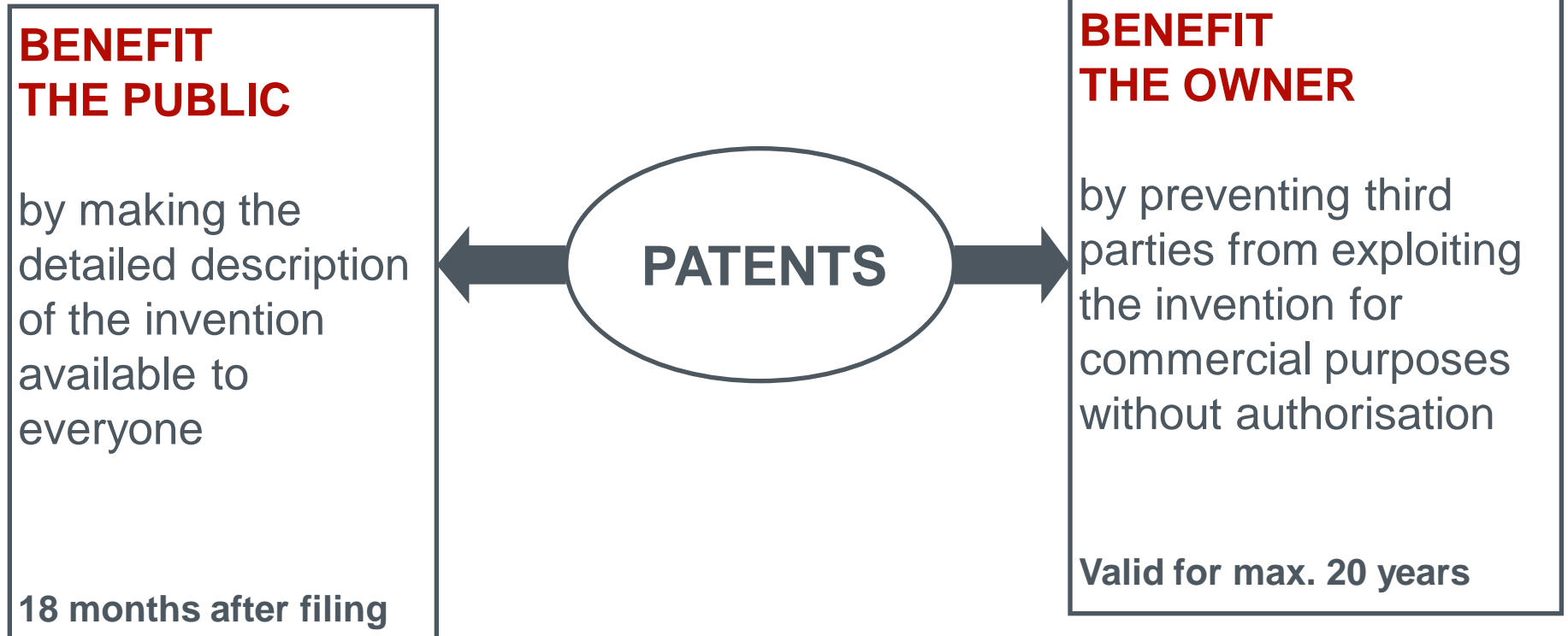
European Patent Office
The Hague, The Netherlands



under which conditions are software-related inventions patentable in the European patent system?

- the legal provisions in the European Patent Convention (EPC)
- the practice in the European Patent Office (EPO)
- the difference with US practice

The basic principle of the patent system in general



The European Patent Office (EPO)



- **Second-largest intergovernmental institution** in Europe (ca 7000 employees), with 38 member states, created to put to practice the European Patent Convention (EPC)
- Not a European Union institution
- **Self-financing**, i.e. revenue from fees covers operating and capital expenditure

Function of the European Patent Office (EPO): the basics

- centralized patent granting procedure operated by the EPO for all or part of the 38 member states, with possibility of appeal
- centralized opposition after grant operated by the EPO with possibility of appeal
 - this is as far as the political consensus in Europe could go
- after that: de-centralized (i.e. national) litigation in front of national courts of the member states (infringement, nullity)

EPO practice in general

- there are certain requirements for patentability: **novelty**, **inventive step**, **industrial applicability**, and "**technical character**" (the latter not explicitly in the European Patent Convention, but recognized as an implicit requirement by case law)
- **novelty**: no patents are granted for already existing same subject-matter (i.e. same as the so-called "state of the art", i.e. whatever technical implementation existed before the filing)
- **inventive step**: no patents are granted for subject-matter which is obvious to a skilled person in the light of the "state of the art" (i.e. similar or easily derivable from the "state of the art")

EPO practice in software-related inventions: the requirement of technical character

- **technical character:** no patents are granted for business, economic, mathematical, aesthetic or similar subject-matter, regardless of how this subject-matter is implemented, e.g. in software (Article 52(2) and (3) EPC)
- no patents are granted for subject-matter that does not possess a "technical character", e.g. does not solve a technical problem

Article 52 European Patent Convention (version EPC 2000)

Patentable inventions

1) European patents shall be granted for any inventions, in all fields of technology, provided that they are new, involve an inventive step and are susceptible of industrial application.

(2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1:

(a) discoveries, scientific theories and mathematical methods;

(b) aesthetic creations;

(c) schemes, rules and methods for performing mental acts, playing games or doing business, and **programs for computers**;

(d) presentations of information.

(3) Paragraph 2 shall exclude the patentability of the subject-matter or activities referred to therein only to the extent to which a European patent application or European patent relates to such subject-matter or activities **as such**.

what does this all mean for software?

- software: can be used for both technical and non-technical applications

straightforward cases:

- **technical:** control of an anti-lock braking system, implementation of a ground collision avoidance system in an aircraft, or a system for identifying the best connection of a mobile device with an antenna while moving
- **non-technical:** a pyramid sales promotion scheme, a method to optimize the profit from an investment portfolio, or a method to minimize amount of tax due from a plurality of assets

borderline case: forgotten file attachment

Method to warn user about forgotten file attachment in an e-mail

- user writes e-mail, hits the "send" button
- software checks e-mail for indication that user intended to attach file
- if check positive and no file attached, software pops up a window with a warning message
- user can now attach and send

how does the US practice differ from the European practice?

- **different legal system:** common law, litigation-based system in US vs civil law system in Europe
- **partly different main requirements:** tangible, useful and concrete (US) vs technical character (Europe)
- **exclusions** based on case-law (US) vs exclusions in the European Patent Convention
- US patents **challenged** mainly (but not exclusively) in the courts, outside the US Patent and Trademark Office (District Courts, Court of Appeal for the Federal Circuit, Supreme Court)
- EPO patents **challenged** both within the EPO (Opposition, Boards of Appeal) as well as in front of the national courts

Thank you for your attention

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