

# Computer-Implemented Inventions

EPO

Sept 2013



# European Patent Convention

## What is an Invention?

### Patentable Inventions

European patents shall be granted for

- **any inventions, in all fields of technology,** → A.52(2)(3)  
provided that they
- are new → A.54
- involve an inventive step and → A.56
- are susceptible of industrial application → A.57

Art. 52(1)

# European Patent Convention

## What is NOT an Invention?

The following, in particular,  
**shall not be regarded as inventions:**

- a) discoveries, scientific theories, 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;

A.52(2)

...only to the extent to which a European patent application relates to such subject matter or activities  
**as such.**

A.52(3)

# Terminology

## " Software Patent "

- The colloquial expression "Software Patent" is misleading as it suggests that source/object code is patentable
- Program code is protected by copyright which protects only the expression and implementation of a particular program code whereas a CII patent protects the underlying idea, i.e. the solution to a technical problem

## Computer-Implemented Inventions (CII) :

- An invention whose implementation involves the use of a computer, computer network or other programmable apparatus, whereby features of the claimed invention are realised by means of a computer program.
- Examples: web-client on a mobile phone, ABS system

# What is an Invention?

There is no positive definition of the term "invention" in the EPC.

**EPC**  
European Patent  
Convention

**Interpretation**

**Guidelines**  
for Examination in  
the EPO

**Case Law**  
of the  
Boards of Appeal

# Interpretation

## Non-Inventions

- Narrow Interpretation
- Activities falling within the notion of a **non-invention** would typically represent purely abstract concepts devoid of any technical implication.
- A non-invention has no technical character

T 258/03 - HITACHI

# Technical Character

Further requirement for patentability  
**implicitly** contained in the EPC:

the invention must be of "**technical character**"  
to the extent that it

- must relate to a **technical** field → R.42(1)(a) EPC
- must concern a **technical** problem → R.42(1)(c) EPC
- must have **technical** features in terms of which the matter for which protection is sought can be defined in the claim → R.43(1) EPC

*Guidelines, C-IV 1.2*

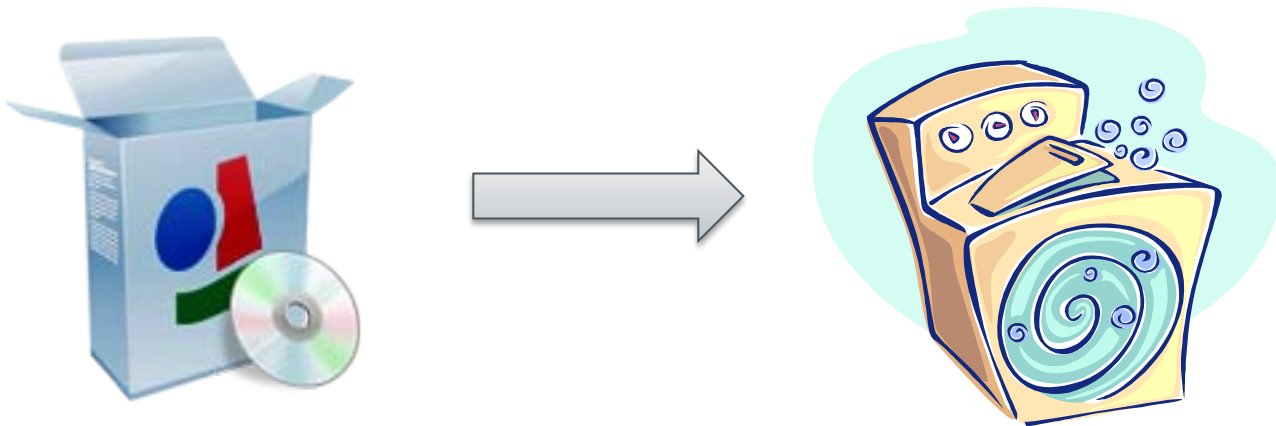
- no general definition of „technical“

=> interpret grey areas

series of individual Board's of Appeal decisions

# Interpretation

- for computer programs and computer program products
- A computer program may be considered as an invention within the meaning of Art. 52(1) EPC if the program has the potential to bring about, when running on a computer, a **further technical effect** which goes beyond the normal physical interactions between the program and the computer (Guidelines, G-II, 3.6)
- The normal technical effects like flow of electrical current are not sufficient to establish a technical character



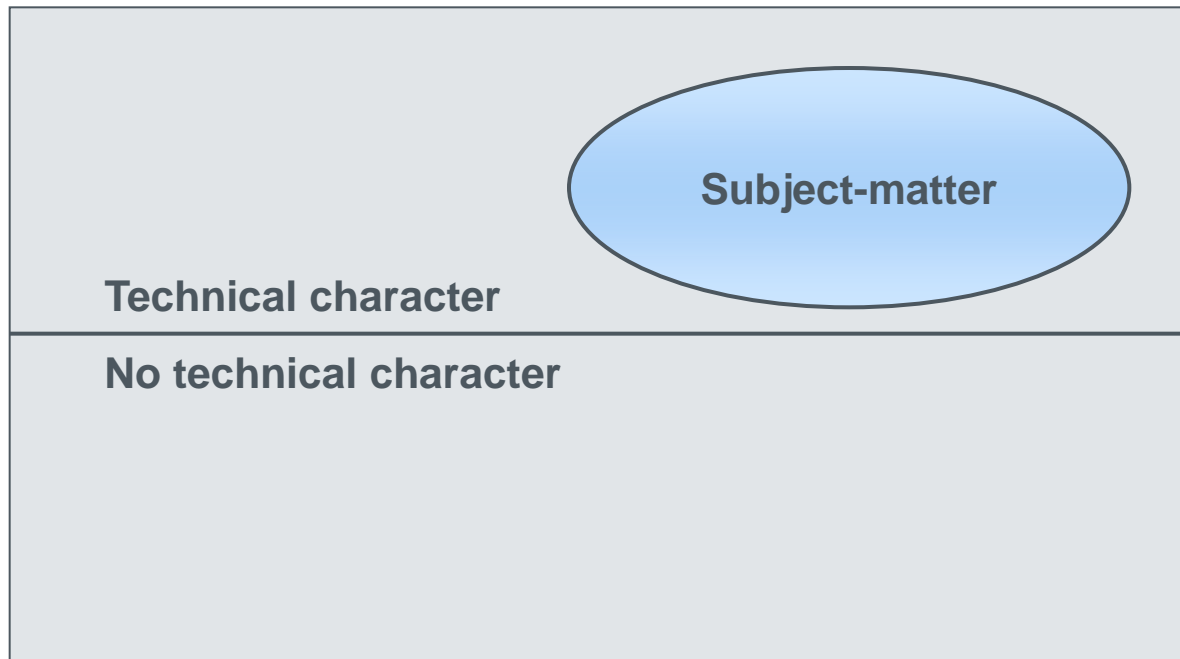


# Computer Programs

<b>further technical effect</b>	<b>no further technical effect</b>
control of a brake in a car	aesthetical effects of music or a video
faster communication between mobile phones	new rules for an auction scheme
secure data transmission (encryption of data)	selling and booking sailing cruise packages
resource allocation in an operating system	calculation of a pension contributions

# EPO Practice: Exclusion

- ✓ Subject-matter *is not* excluded from patentability
- × Subject-matter *is excluded* from patentability



At least one feature has technical character =>  
subject-matter has technical character.

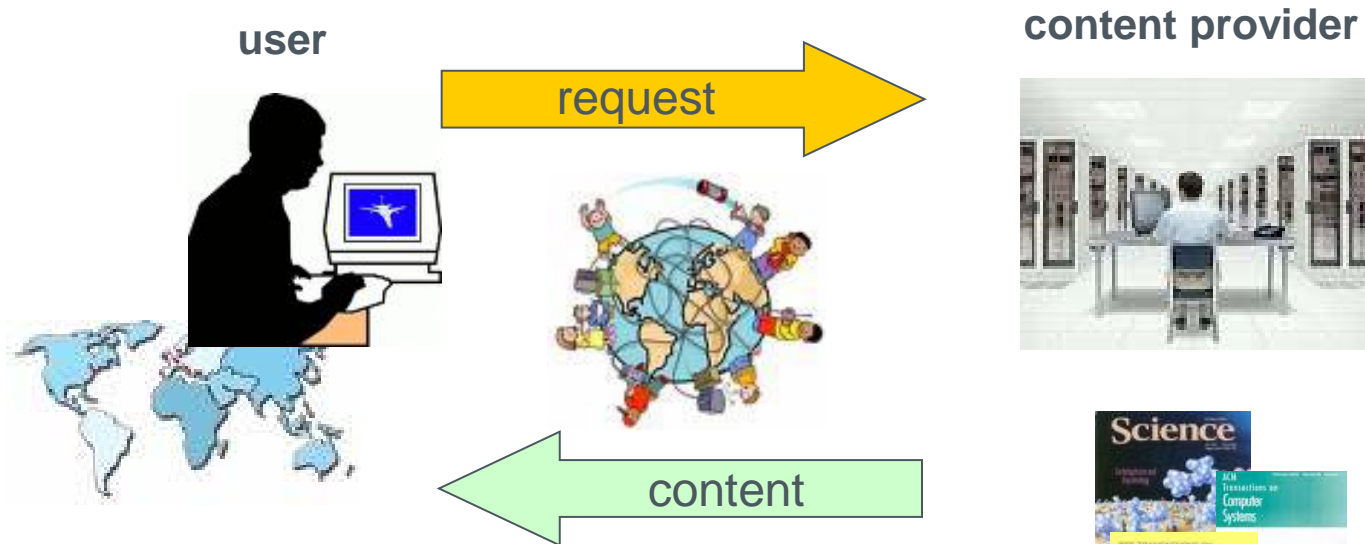
# Inventive step: Technical and Non-Technical Features

- Features making no contribution to technical character cannot support the presence of inventive step.
- Only **technical features and aspects** are taken into account.
- It is irrelevant whether a **non-technical aim** was known before the priority date of the application, or not.

*T0641/00 (COMVIK); T0154/04*

# Example

"A method of controlling payment and delivery of content"



Regulation: access to content is free

- if user is from a country with GDP < limit value AND
- if the requested content is scientific content



# Example I: Exclusion

A method of controlling payment and delivery of content, the method comprising:

- a provider receiving a request for content from a user;
- the provider accessing content information describing the requested content;
- the provider accessing regulation information describing at least one regulation that is related to the payment and the content information of the requested content and to geographical information of the user;
- determining the geographic location of the user;
- the provider determining whether the requested content satisfies the at least one regulation;
  - if so, delivering the requested content to the user for free;
  - if not, transmitting a payment request to the user.

Non-technical process/ aspects

Clearly Technical Aspects

none

# Example I: Exclusion

The subject matter of the claim defines purely a business or administrative method and does **not** have a **technical character**.



objection under Article 52(1)  
because the claim constitutes subject-matter in the  
sense of Article 52(2) & (3)

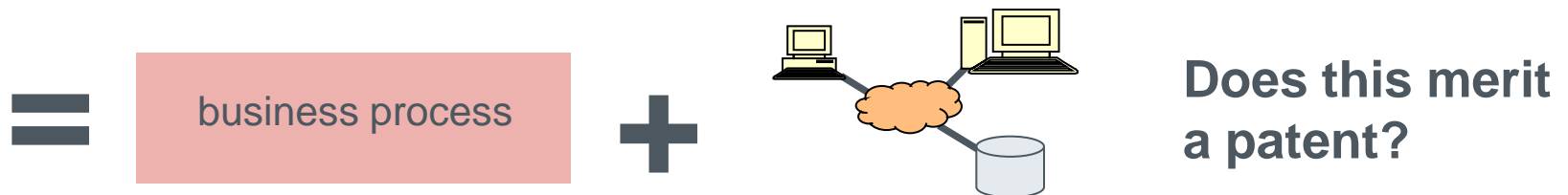


Search report:  
Declaration under Rule 63

## Example II: Computer-implemented business method

A **computer-implemented** method of controlling payment and delivery of content within a **computer system** comprising a **user terminal**, a **provider server** and a **database** which are connected via a **communication network**, the method comprising:

- the provider **server** receiving a request for content from the user **terminal**;
- the provider **server** accessing **in the database** content information describing the requested content;
- the provider **server** accessing regulation information **in the database** describing at least one regulation that is related to the payment and the content information of the requested content and to geographical information of the user;
- determining the geographic location of the user;
- the provider **server** determining whether the requested content satisfies the at least one regulation;
  - if so, delivering the requested content to the user **terminal**
  - if not, transmitting a payment request to the user **terminal**.



# Example II: Computer-Implemented + Business Method

## Clearly Technical Aspects

A computer implemented method comprising:

- a server receiving data from a terminal over a communication network;
- the server accessing data in a database;
- the server processing the accessed and received data;
- the server transmitting the processing result to the terminal;

## Non-Technical Aspects/Process

Same business process  
as in Example I

At least one feature has technical character

→ subject-matter has technical character

→ search is performed (**only technical features are searched**)

→ assessment of novelty and inventiveness



## Example II: No Inventive Step

Technical character: yes

Non-technical aspects: yes



Closest prior art: computer system comprising a server, database, and a terminal which are connected via a communication network

Differences: **business method (=requirement specification): "ordering content and calculating its price"**

Objective technical problem: automate said business method on said computer system

Skilled person: data processing expert, no business knowledge

Solution: implementation/automation is considered obvious



objection under Article 56 EPC  
because the claim of Example II is not inventive

## Example III

- A **computer-implemented** method of controlling payment and delivery of content within a **computer system** comprising a user **terminal**, a provider **server** and a **database which are connected via a communication network**, the method comprising:
  - the provider **server** receiving a request for content from the user **terminal**;
  - the provider **server** accessing **in the database** content information describing the requested content;
  - the provider **server** determining the geographic location of the user;
  - the provider **server** determining, based on the content information and the user location, whether the requested content satisfies some location related criteria;
    - if so, delivering by the provider **server** the requested content to the user **terminal**
    - if not, transmitting by the provider **server** a payment request to the user **terminal**;
  - wherein the geographic location of the user is determined by the IP address of the user terminal **using method steps x, y, z**.

=

business process

+

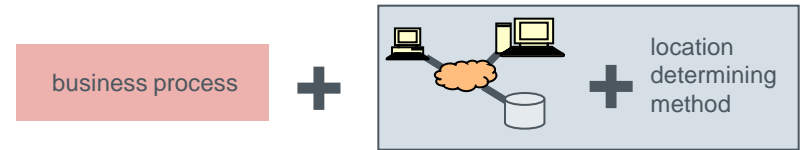


+

location  
determining  
method

# Example III: Inventive Step

Technical character: yes  
 Non-technical aspects: yes



Closest prior art: computer system comprising a server, database, and a terminal which are connected via a communications network capable of determining the location of user.

Difference:
 

- 1) **said business method (non technical)**
- 2) **method steps x, y, z to determine location**

Objective technical problem:
 

- 1) automate said business method
- 2) find alternative method for determining geographic location of use

Skilled person: data processing expert, no business knowledge

Solution:
 

- 1) automation is obvious
- 2) obvious?