



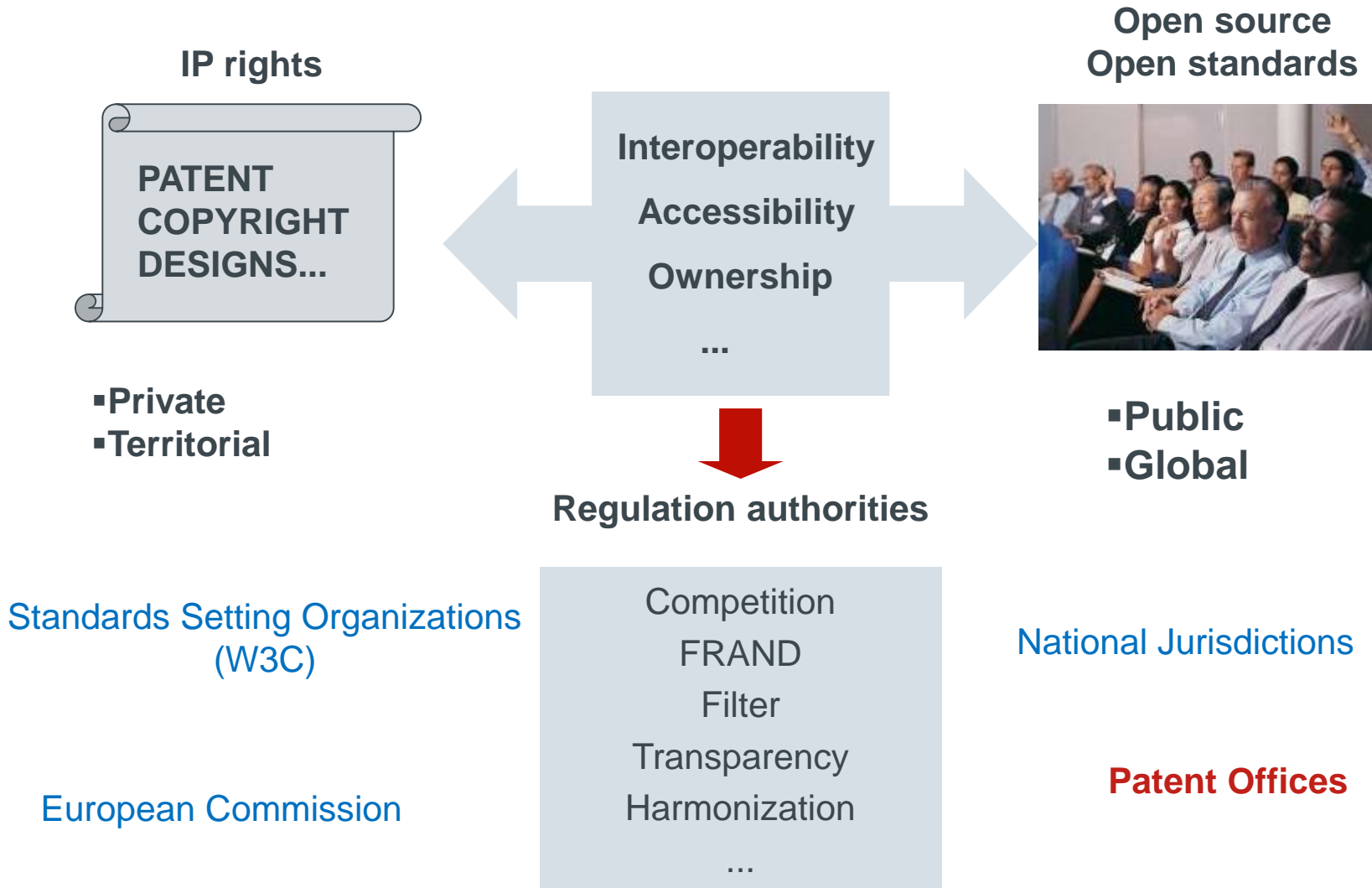
Europäisches
Patentamt
European
Patent Office
Office européen
des brevets

Intellectual property for software

Innovation in a European Digital Single Market



IP and software - potential tensions

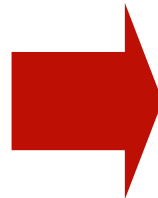


Software – What is it?

Definition:

Standard Glossary for
Engineering Terminology, IEEE,
1990.

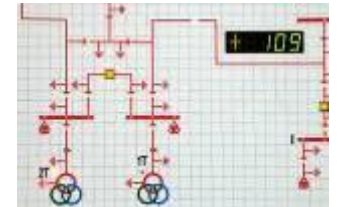
A combination of
computer instructions
and data definitions



that enable computer hardware
to perform computational or control
functions.

Program code is not only literal,
but also **performs a function.**

```
@OPEN.DBS,  
1  
  
OPEN.DBS  
%Z.zcus.db.M.db@facility,"LAB">DB,  
%Z.link.db({"LAB."_DB},"0","B"),  
%Z.zcus.db.M.db@facility,"OE">DB,  
%Z.link.db({"OE."_DB},"0","B"),  
%Z.zcus.db.M.db@facility,"PHA">DB,  
%Z.link.db({"PHA."_DB},"0","B"),  
%Z.zcus.db.M.db@facility,"RAD">DB,  
%Z.link.db({"RAD."_DB},"0","B")
```



Copyright – unauthorised copying is not permitted

Challenging questions:

Is copyright infringed if the functional parts of the software code are copied?

How should literal and functional features be distinguished in software?



Jurisprudence is not uniform:
Generally the functionality of a computer program
cannot be protected by copyright

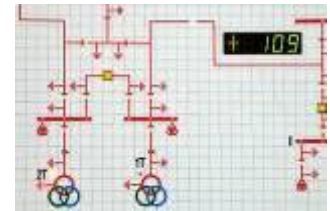


Filter to prevent inappropriate patent protection

- Patents can offer protection for the functional elements of software if a claim meets the patentability requirements.
- However, the patentability requirements **depend on the jurisdiction**.

In Europe:

The claim as a whole must define a technical solution to a technical problem.



Example:

A method for encouraging customers to be loyal buyers by giving a discount on future purchases.



If the claim has **no technical character** at all



then it is **excluded** from patentability under Art. 52 EPC.

Technical: yes – but: inventive?

Example:

A system having at least one server computer in communication with a computer network ...

- means for establishing if a customer has previously purchased online ...



conventional hardware
carrying out the tasks in an
obvious way

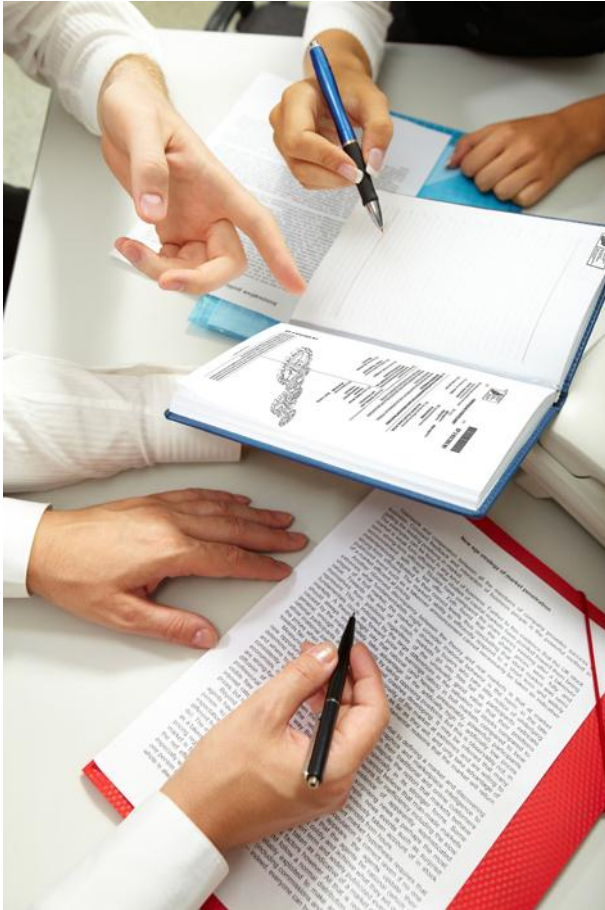
Technical difference:
inventive?
Art. 56

Technical character:
yes

Technical character: ?
Art. 52(2)(3)

Refused

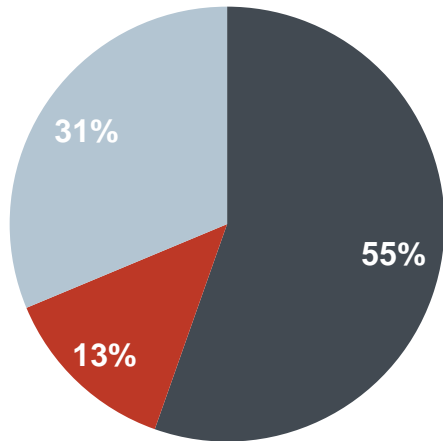
Patentability Filter - European Patent Office



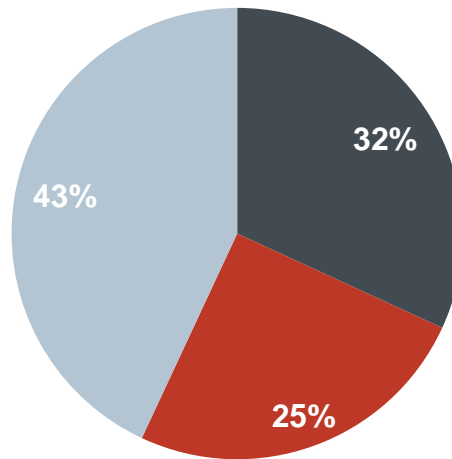
- Panel of **three expert examiners** take into account the search report and the **requirements for patentability** of the EPC
- Basis for search report **technical** features solving a technical problem
 - e.g. smart grids/load distribution, payment systems/security etc.
 - search including standards, OSS documents
- **Non-technical** features
 - cannot contribute to inventive step
 - mere interaction with technical elements is not enough

Grant rates 2014

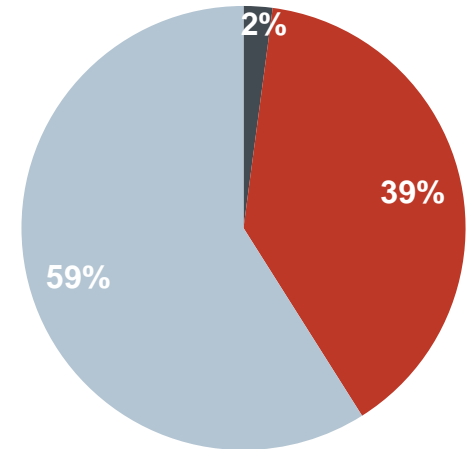
Information & Computer Technology



Computers



Business Methods



■ Grants by 1st Examiner (AGRA) ■ Refusals ■ Withdrawals

Conclusion: IP protection for software in Europe

- Abstract ideas in a computer program **not protected per se**
- **Copyright** protects the concrete expression of a computer program, but not functionality
- **Patents** can protect functional aspects of software (Computer Implemented Invention)



Filter 1: the invention must be of **"technical character"**

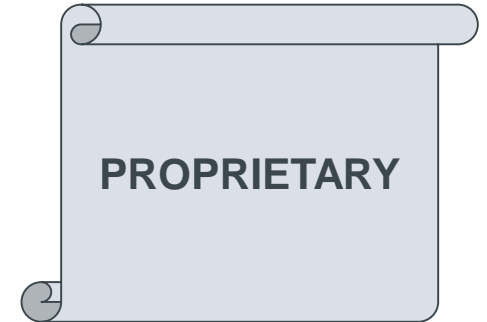
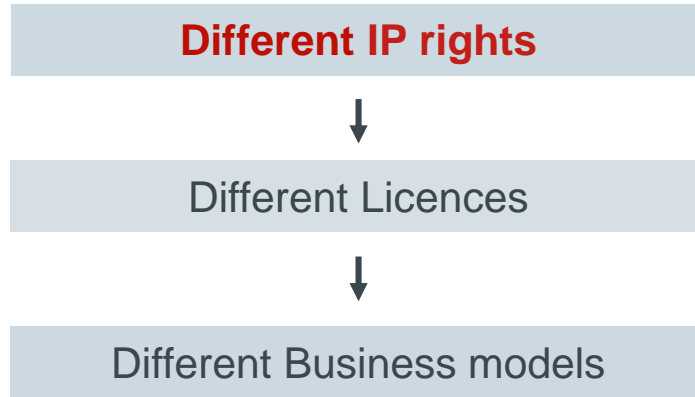
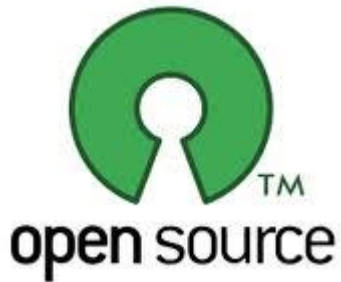


Filter 2: technical solution must be new and inventive over prior art, at the EPO including also **open source and standards related documentation**

Patents can be prevented also by defensive publications



Open or proprietary?



Open source ecosystems use patent pools

Patent-rich companies use open source