The European patent system

Contents

EPC
PCT
Granting procedure at the European Patent Office
The patent system yesterday and today

Senate of Venice, 1474

"Any person in this city who makes any new and ingenious contrivance, not made heretofore in our dominion, shall, as soon as it is perfected so that it can be used and exercised, give notice of the same to our State Judicial Office, it being forbidden up to 10 years for any other person in any territory of ours to make a contrivance in the form and resemblance thereof".

Today:

- New to the world
- Up to 20 years of protection
- Publication
- Incentive to innovate and to share knowledge

The role of the patent system

- To encourage technological innovation
- To promote competition and investment
- To provide information on the latest technical developments
- To promote technology transfer
Patents as a social contract

Reveal invention (disclosure)

Patent applicant

Get exclusivity (patent)

Public

The basic principle of the patent system

Benefit the public

by making the detailed description of the invention available to everyone

18 months after filing

Benefit the owner

by preventing third parties from exploiting the invention for commercial purposes without authorisation

Valid for max. 20 years

Patents
A fair system driving knowledge transfer and innovation

Find existing technology
Learn from it
Build on it

Technological innovation
Patent application
Disclosure to the public

What is a patent?

Does a patent give you the right to exploit an invention?
- NO!

A patent is a negative right.
It gives you the right to prevent others from exploiting the invention.
It is not an enabling right.

Patents owned by others may overlap or encompass your own patent.
-> Seek a licence before commercialising

For example:

Patent A: Electric kettle
Your patent B: Electric kettle with ceramic heating elements
Patentability

Patents are granted for inventions in all fields of technology

To be patentable, inventions must

- be new
- involve an inventive step
- be industrially applicable

They must relate to a product, process, apparatus or use.

Excluded from patentability under the EPC¹

- Discoveries
- Scientific theories
- Mathematical methods
- Computer programs
- Aesthetic creations
- Business methods
- Methods for playing games
- Methods for performing mental acts
- Presentations of information

¹ See Article 52 EPC and the case law of the boards of appeal.
Exceptions to patentability as defined by the EPC

- Plant or animal varieties

- Inventions whose commercial exploitation would be contrary to "ordre public" or morality (e.g. processes for cloning of human beings)

- Methods for treatment of the human or animal body by surgery or therapy and diagnostic methods

1) See Article 53 and Rule 28 EPC.

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Patents and other IP rights

<table>
<thead>
<tr>
<th>Legal right</th>
<th>What for?</th>
<th>How?</th>
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<tr>
<td>Patents</td>
<td>New inventions</td>
<td>Application and examination</td>
</tr>
<tr>
<td>Copyright</td>
<td>Original creative or artistic forms (literary texts, music)</td>
<td>Exists automatically</td>
</tr>
<tr>
<td>Trade marks</td>
<td>Distinctive identification of products and services</td>
<td>Use and/or registration</td>
</tr>
<tr>
<td>Registered designs</td>
<td>External appearance</td>
<td>Registration</td>
</tr>
<tr>
<td>Trade secrets</td>
<td>Valuable information not known to the public</td>
<td>Reasonable efforts to keep secret</td>
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</table>
One product = multiple patents and other IP rights

<table>
<thead>
<tr>
<th>1 500 to 2 000 patents</th>
<th>Data-processing methods, semiconductor circuits, chemical compounds, etc.</th>
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<tbody>
<tr>
<td>Registered design</td>
<td>Shape of phone</td>
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<tr>
<td>Registered trade marks</td>
<td>Brand name, start-up tone</td>
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<td>Copyright</td>
<td>Software, ringtones and images</td>
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- Granting procedure at the European Patent Office
**Patents – territorial rights**

- A patent provides protection in the country where it was granted
  - One application to be filed in every country where protection is sought

**Patent Cooperation Treaty (PCT)**

Offers an (almost) worldwide centralised procedure to obtain an international preliminary examination report (IPER)

- IPER is the basis for a national/regional application
**EPO: a single patent application procedure**

1 patent application at the EPO

single granting procedure → European Patent Convention (EPC) → bundle of patents

validation in chosen member states → national patent

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**Patent Cooperation Treaty (PCT)**

- International treaty which provides a unified procedure for more than 140 countries

- Search/examination is carried out by national/regional offices acting as International Search/Examination Authority (ISA/IPEA)

- Result of the procedure is not a patent, but an International Preliminary Examination Report (IPER)

- IPER is the starting point for a further national/regional application
### PCT application procedure

- **Filing of priority** e.g. US
- **International Search Report (ISR)**
- **PCT Filing** e.g. EPO
- **Publication of application + ISR**
- **Withdraw without publication?**
- **12 months**
- **18 months**
- **22 months**
- **30-31 months**
- **National/regional phase** (request for examination)

### IP evaluation process

<table>
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<th>1st milestone</th>
<th>2nd milestone</th>
<th>3rd milestone</th>
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<tr>
<td>Evaluation</td>
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<tr>
<td>( t_0 )</td>
<td>( t_{I2} )</td>
<td>( t_{30/31} )</td>
</tr>
<tr>
<td>Priority filing</td>
<td>Internationalisation (PCT/EP route)</td>
<td>Nationalisation (PCT route)</td>
</tr>
</tbody>
</table>

- \( t_0 \): Patent priority filing: start of priority year
- \( t_{I2} \): Deadline for internationalisation: 12 months after \( t_0 \)
- \( t_{30/31} \): Deadline for nationalisation: 30/31 months after \( t_0 \) (PCT route)
Contents

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Basic steps in the European grant procedure

- Filing
- Search
- Examination
- Grant
- Opposition
- Appeal

- Publication of the application and search report
- Publication of the patent specification
Filing

- The applicant prepares a description of the invention, one or more claims and (optional) drawings.
- The application is filed online, by fax or by post.
- The patent office checks the documentation for compliance.
- A date of filing is allocated.

Search

- Examiners search for the state of the art at the date of filing.
- They search in databases containing millions of patent and non-patent documents.
- They use the results of the search to determine whether an invention is new and involves an inventive step.
- They then issue a search report and a preliminary opinion on patentability.
Publication

- Patent applications are published on Espacenet, 18 months after the date of filing (or earliest priority date).
- The search report is also published.
- Third parties can submit observations at any time prior to grant.

Over 90 million patent documents accessible to the public on epo.org/espacenet

Examination

- Applications are examined by a panel of three expert examiners.
- The examiners check that the scope of protection is limited to what is actually patentable.
- They take into account the search report and the requirements for patentability of the EPC.
Outcome

- If the requirements of the EPC are met, the patent is granted.
- If not, the application is refused (with the possibility of appeal).
- All granted European patents are published.

For information on the legal status of applications go to epo.org/register

Opposition

- Any person may oppose a European patent within nine months of its publication.
- In 70% of opposition decisions, the patent is upheld either as granted or in amended form.
Appeal

Appeals against decisions taken during grant and opposition proceedings are decided on by the EPO’s independent boards of appeal.

They can be filed within two months after the date of notification of the decision.

The grounds for appeal must be provided within four months of that date.

The European grant procedure in more detail (1)

Applicant

- European patent application
- Filing and formalities examination

EPO

- Search and search report together with preliminary opinion on patentability
- Substantive examination
- Refusal or withdrawal of application
- Grant of European patent

Public

- Observations by third parties
- Possible withdrawal of application

Validation in designated states
The European grant procedure in more detail (2)

Applicant
- Refusal or withdrawal of application
- Substantive examination
- Grant of European patent
- Limitation or revocation proceedings
- Appeal proceedings

EPO
- Validation in designated states
- Opposition proceedings

Public
- Publication of the patent specification
- Validation in designated states

BIBLIOGRAPHIC DATA

and

ABSTRACT
Parts of a patent - example

**DESCRIPTION**

**Summary of prior art**

**Problem solved**

At least a way to solve it
The public can use patent documents to

- find out what technology already exists and build on it
- keep track of what other inventors and companies are doing
- avoid infringing other people’s patent rights
- check out where an invention is patented, and where it is not
All patent documents are accessible free of charge on epo.org

Espacenet
Over 100 million patent documents, easily searchable

Patent Translate
Automatic translation between English and 31 other languages, including Chinese, Japanese, Korean and Russian.

Key facts about Espacenet

- Most visited area of our website, with around 20 million visits every year
- A worldwide collection of patent data
- For beginners and experts
- Automatic translation of documents between English and 31 other languages, including Chinese, Japanese, Korean and Russian.
Time to watch an online video!

Watch the highlights of the European Inventor Award 2016

https://www.youtube.com/watch?v=pAIE_2p3nm4

Thank you for your attention!