



Interreg



EUROPEAN UNION

Danube Transnational Programme

Knowing IPR

General information on EU patent and EPO patent grant procedure

Training module (Last update 07/2020)

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European Patent Convention (EPC) and EU patent

- ▶ The EPC has established a single European procedure for the grant of patents on the basis of a single application and created a uniform body of substantive patent law in order to provide protection for inventions in the [contracting states](#).
- ▶ In each contracting state for which it is granted, a European patent gives its proprietor the same rights as those conferred by a national patent granted in that state.

Note: If an applicant plans to protect his invention in at least three or four contracting states to the EPC, it is worth applying for an European patent.

Patentable inventions

- ▶ European patents shall be granted for any inventions, in all fields of technology, provided that they meet the following requirements:
 - Novelty ([Article 54 of the EPC](#)): considered new if it does not belong to the state of the art
 - Innovative step ([Article 56 of the EPC](#)): not obvious to a skilled person, meaning that the innovation relies on an effort by a skilled and qualified person
 - Susceptible of industrial application ([Article 57 of the EPC](#))

Note: The EPC provides a non-exhaustive list of items that may be not regarded as invention such as programs for computer, plant and animal varieties and methods of treatment of human and animal body by surgery.

Patent language and cost

- ▶ European patent can be filed in any language. However if a patent is filed in a language other than French, German and English (official languages of EPO) a translation into one of the official languages needs to be filed
- ▶ Fees are charged for filing, search, designation of contracting states, claims, examination, grant and printing. The overall cost of obtaining an European patent may also include fees for the service of a patent attorney and cost related to the translation of the patent.



Patent application and its components

- ▶ A patent application is made up of 5 parts:
 1. A request for patent grant that shall contain a petition for the grant, the title of the invention and the name, address and nationality of the applicant, and the designation of the inventor ([Rule 41 of the EPC](#))
 2. An abstract ([Rule 47 of the EPC](#))
 3. A description ([Rule 42 of the EPC](#))
 4. Drawings ([Rule 46 of the EPC](#))
 5. One or more claims: the claim(s) should define the matter for which protection is sought in terms of the technical features of the invention ([Rule 43 of the EPC](#))

Syntax used for patent documents

- ▶ The syntax for patent documents identification number is **country code** + **publication number** or **application number**: EP 0927553. The country code is made up of 2 letters and indicates where the patent was filed or granted.
- ▶ The identification number may be completed with a 2 letter identification code. The different types of codes are presented in the table here.

International patent classification (IPC)

- ▶ Every patent is classified using the [International Patent Classification \(IPC\)](#). There are 70,000 different IPC codes that cover technical areas.

Note: The main sections (highest level of hierarchy of the classification) are as follows: A – Human necessities; B – Performing operations, Transporting, C – Chemistry, Metallurgy; D – Textiles, Paper; E – Fixed constructions; F – Mechanical engineering, lighting, heating, weapons, blasting; G – Physics; H – Electricity.

- ▶ The [Cooperative Patent Classification \(CPC\)](#) is another classification system that can be regarded as an extension of the IPC. It contains one additional section “Y” on new technological developments and cross-sectional technologies.

Patent families

- ▶ A patent family is defined as a collection of patent applications covering the same or similar technical content related to priority claims.

- ▶ The EPO uses 2 types of patent families:
 1. DOCDB simple patent family: a collection of patent applications covering the same technical content.
 2. INPADOC extended patent family: a collection of patent applications covering similar technical content.

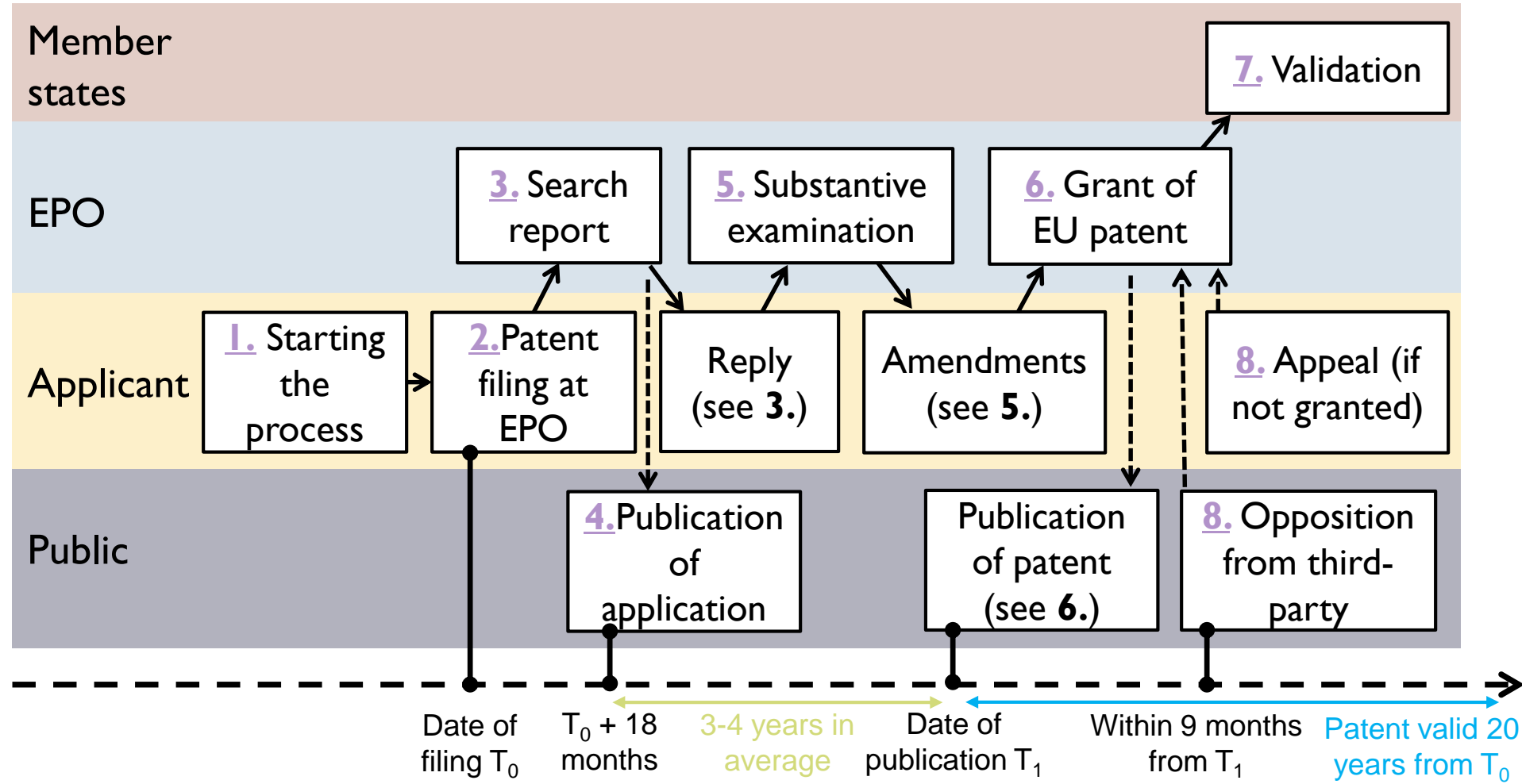
Note: The definition of patent families may be different from one patent database to the other.

EPO patent trends 2019

- ▶ The demand for European patent has been steadily increasing since 2012. In 2019, the EPO received 181,000 applications, 4% more than the year before.
- ▶ Almost half of the applicants are companies based in Europe with German applicants accounting for 15% of all applicants. US firms represent 25% of all applicants, while together companies from Japan, China and South-Korea account for 24%.
- ▶ Digital communication, computer technology and transport are the 3 fastest-growing fields in 2019.

[Link to the Patent Index 2019 on the EPO's webpage](#)

The EPO grant procedure (simplified version)



[Link to a more complete overview on the EPO's webpage](#)



1. Starting the process

- ▶ It is strongly recommended to use the services of a patent attorney. The risks of making mistakes and having the applications refused because of formal errors it high.
- ▶ A patent attorney will be able to advise the applicant on the best route for the company and the invention based on the business plan, intended market and the available funds. The attorney will also check if the documentation is conform to the official requirements.



2. Patent filing at the EPO

- ▶ EPO applications can be filed at the EPO in Munich, its branch at The Hague or its sub-office in Berlin. If the law of the member state so permits, the application might also be filed at competent authorities of contracting states.

- ▶ Applications must be filed in written form either in person, electronically, by postal services or by fax.

Notes: 1. There is a reduced filing fee for application filed online.

2. The date of filing, also known as priority date, is the date on which the documents are received at the EPO ([Rule 40 of the EPC](#)).

3. Patent protection in other countries can be applied for at any time during the next 12 months after date of filing.



3. Search report

- ▶ A search report is sent to the applicant, listing and including copies of all prior art documents found by an experienced examiner and regarded as relevant to your invention.
- ▶ The report will often include an initial opinion on the patentability of your invention.
- ▶ Once the search report and opinion is received, the applicant can decide either to withdraw the application if the chance of success are considered to small or pursue the procedure and amend the application to reflect results of the search report.



4. Publication of application

- ▶ The European patent application is published 18 months after the date of filing or the earliest priority date.
- ▶ All European patent applications, European search reports and European patent specifications are published electronically on the [EPO publication server](#).
- ▶ The publication date also marks the start of the six-month period for the request for examination (see 5.) and for the payment of various fees (examination, designation..)

Note: Once the application is published, the public can follow the state of the proceedings via the [European Patent Register](#).

5. Substantive examination

- ▶ If substantive examination is requested by the applicant, EPO examiners will check if the invention and application meet the requirements of the European Patent Convention.
- ▶ A consultation will take place between the examiners and the patent attorney appointed by the applicant. This process may result in the re-drafting of key parts of the application.

Note: An application can only be amended at 2 points in time: when the applicant receives the search report (see **3.**) and when she/he gets the examination results.



6. Grant of EU patent

- ▶ The EPO decides - on the basis of the responses to the changes requested by the examiners – if the application meets the requirements of patentability.
- ▶ The decision is reported in the European Patent Bulletin and the decision to grant takes effect on the date of publication.
- ▶ Oral proceedings can be requested by the applicant to ensure that a party has a final opportunity for its case to be heard by the EPO before a decision is taken.



7. Validation

- ▶ Once the patent is published, the patent has to be validated in each designated state within a specific time limit to enforce it. The validation may consist in paying additional fee to translate the whole patent or part of it.
- ▶ A guide to the law and practice of the EPC contracting states, extension and validation states applicable to European patent application is available [here](#).



8. Opposition and appeal

- ▶ Up to nine months after the patent has been granted, anyone may give the EPO notice of opposition to the patent.

Note: Reasons for opposition may be that the patent does not disclose the invention completely or that the patent's subject extends beyond the content of the application.

- ▶ The applicant can file an appeal against decisions of the EPO. An appeal has a suspensive effect, meaning that the contested decision is not yet final.

Note: The time limit for filing an appeal is 2 months from the date of notification of the contested decision. The reasons must be filed within 4 months.



References & Appendix

References

- ▶ European Patent Office (EPO): The European Patent Convention, 16th edition / June 2016, <https://www.epo.org/law-practice/legal-texts/epc.html>
- ▶ European Patent Office (EPO): E-learning module – How to get an European patent, https://e-courses.epo.org/wbts/htgaep_en/index.html
- ▶ European Patent Office (EPO): Services and support – FAQ, <https://www.epo.org/service-support/faq/own-file.html#faq-199>
- ▶ European Patent Office (EPO): European Patent Guide: How to get a European patent, https://www.epo.org/applying/european/Guide-for-applicants/html/e/ga_ai.html
- ▶ European Patent Office (EPO): European Patent Guide: Searching for patents – Helpful resources, <https://www.epo.org/searching-for-patents/helpful-resources/first-time-here/definitions.html>
- ▶ Mewburn Ellis: Article on oral proceedings, <https://www.mewburn.com/law-practice-library/oral-proceedings>

Appendix 1 - Contracting states of the EPO

Map showing the geographic coverage of European patents as of 1 November 2019

■ Member states (38)

- Albania
- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czech Republic
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Iceland
- Ireland
- Italy
- Latvia
- Liechtenstein
- Lithuania
- Luxembourg
- Malta
- Monaco
- Netherlands
- North Macedonia
- Norway
- Poland
- Portugal
- Romania
- San Marino
- Serbia
- Slovakia
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey
- United Kingdom

■ Extension states (2)

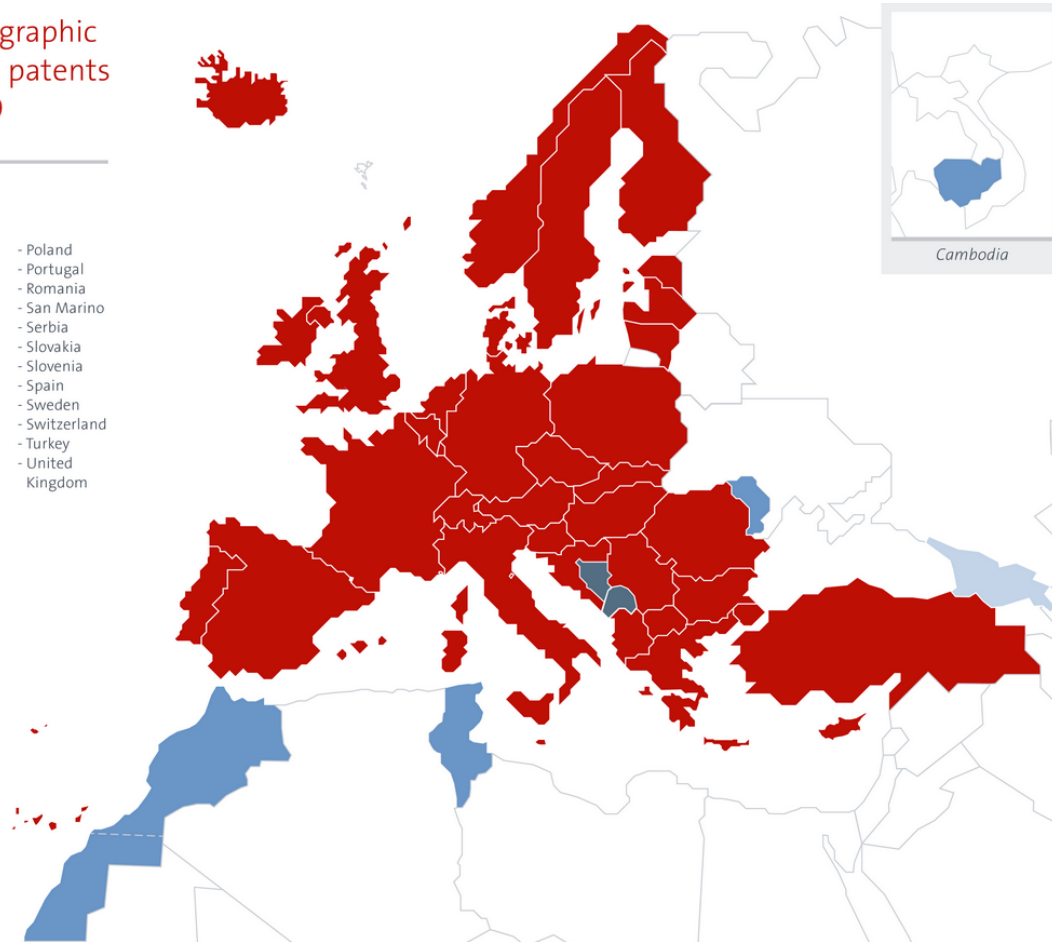
- Bosnia and Herzegovina
- Montenegro

■ Validation states (4)

- Agreement in force*
- Cambodia
 - Republic of Moldova
 - Morocco
 - Tunisia

■ Future validation states (1)

- Agreement signed but not in force yet*
- Georgia



[Link to the original document on the EPO's webpage](#)

Appendix 2 – Meaning of codes attached to patent identification number

A document - EU patent application		B document – EU patent specification	
A1	European patent application published with European search report	B1	European patent specification (granted patent)
A2	European patent application published without European search report (search report not available at the publication date)	B2	New European patent specification (amended specification)
A3	Separate publication of the European search report	B3	European patent specification (after limitation procedure)
A4	Separate publication of the European search report	B8	Corrected title page of a B document, ie. B1 or B2 document.
A8	Corrected title page of an A document, ie. A1 or A2 document.	B9	Complete reprint of a B document, ie. B1 or B2 document.
A9	Complete reprint of an A document, ie. A1, A2 or A3 document.		

Supplementary correction code	
W1	Supplementary correction code indicating the first (1st) corrected version of a patent document
W2	Supplementary correction code indicating the second (2nd) corrected version of a patent document

Interreg Danube project Knowing IPR

- ▶ Information on the Interreg project Knowing IPR can be found on the following page:

<http://www.interreg-danube.eu/approved-projects/knowing-ipr>



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