



Europäisches
Patentamt
European
Patent Office
Office européen
des brevets

The European Patent Office

Facts and Figures



Dominique Winne Examiner (ICT) 7 November 2017

Who am I?

- § Dominique Winne (BE)
- § Ph.D. in Image Communication
- § Joined EPO in 2004 as patent examiner
- § technical field:
 - H04N1/38-64 (colour correction/halftoning)
 - G06K9 (pattern recognition)
- § chairman of examining divisions – coach – instructor

What is the European Patent Office?

- Other markets, e.g. the US, have one patent office – 1 fee for all states
- Each European country has a patent office, each requiring fees

§ Why does it exist?

- To provide a single procedure for the grant of patents for its member states

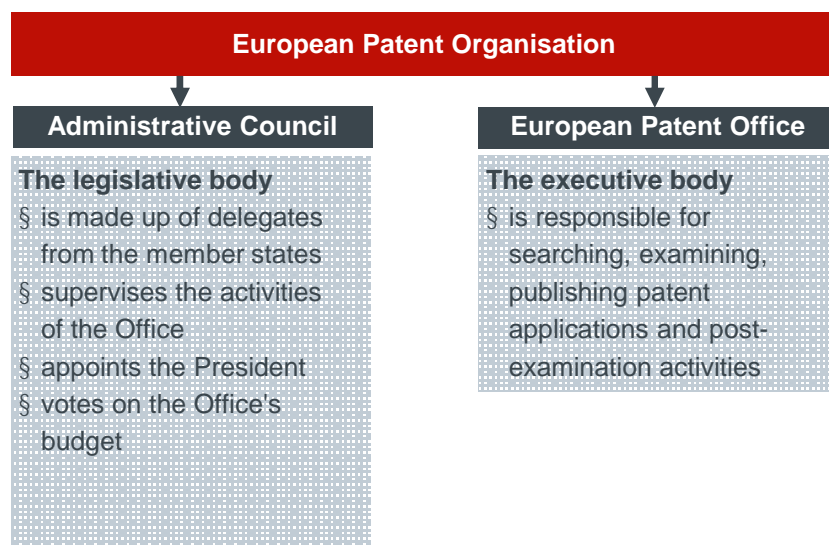
§ How does it exist?

- It is an intergovernmental organisation
- The European Patent Convention (EPC) sets out its rules of function and administration
- It is financed through the income it generates from fees, not taxes

European Patent Office

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Structure of the European Patent Organisation



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The functions of the European Patent Office



§ We provide patents with protection

- for up to 38 EPO member states, 2 extension and 2 validation states
- based on a single application

§ We are also responsible for

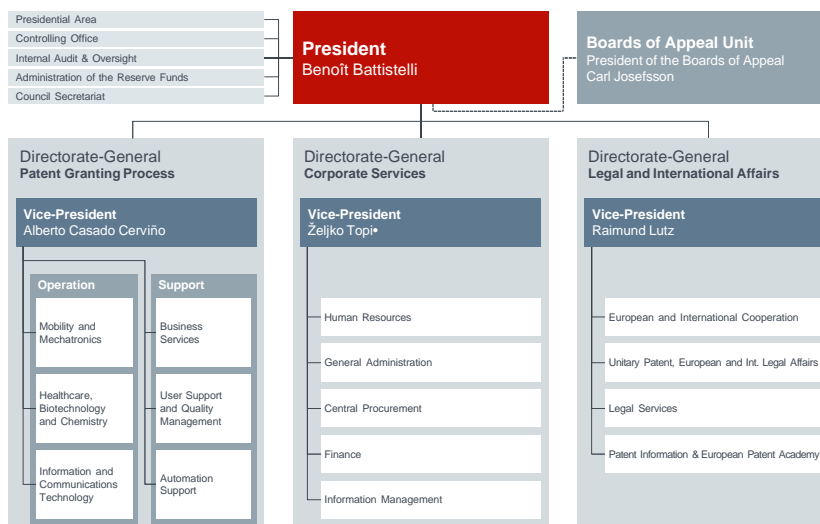
- limitation and revocation proceedings by patentees
- opposition proceedings by third parties
- appeal proceedings before the boards of appeal
- the European Patent Academy

§ The EPO makes **all patent documents** available to the public

European Patent Office

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Structure of the European Patent Office



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Our history

1973



5 October 1973



1977



2013

Diplomatic Conference in Munich

Signature of the European Patent Convention (EPC) by 16 countries

Entry into force of the EPC in 7 countries
Foundation of the European Patent Organisation
Foundation of the European Patent Office

Celebration of 40 years of the EPC

More on www.epo.org

European Patent Office

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Seven founding states in 1977

Belgium • Germany • France
 Luxembourg • Netherlands
 Switzerland • United Kingdom



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... 17 member states in 1992 ...

Belgium • Germany • France
 Luxembourg • Netherlands
 Switzerland • United Kingdom
 Sweden • Italy • Austria
 Liechtenstein • Greece • Spain
 Denmark • Monaco • Portugal
 Ireland



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... 25 member states in 2002 ...

Belgium • Germany • France
 Luxembourg • Netherlands
 Switzerland • United Kingdom
 Sweden • Italy • Austria
 Liechtenstein • Greece • Spain
 Denmark • Monaco • Portugal
 Ireland • Finland • Cyprus
 Turkey • Bulgaria • Czech Republic
 Estonia • Slovakia • Slovenia



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... 32 member states in 2007 ...

Belgium • Germany • France
 Luxembourg • Netherlands
 Switzerland • United Kingdom
 Sweden • Italy • Austria
 Liechtenstein • Greece • Spain
 Denmark • Monaco • Portugal
 Ireland • Finland • Cyprus
 Turkey • Bulgaria • Czech Republic
 Estonia • Slovakia • Slovenia
 Hungary • Romania • Poland
 Iceland • Lithuania • Latvia
 Malta



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Today ... an area with over 650m inhabitants

38 European member states

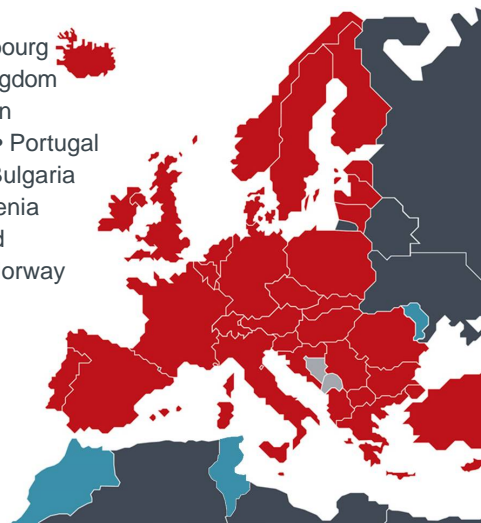
Belgium • Germany • France • Luxembourg
 Netherlands • Switzerland • United Kingdom
 Sweden • Italy • Austria • Liechtenstein
 Greece • Spain • Denmark • Monaco • Portugal
 Ireland • Finland • Cyprus • Turkey • Bulgaria
 Czech Rep. Estonia • Slovakia • Slovenia
 Hungary • Romania • Poland • Iceland
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

Two European extension states

Bosnia-Herzegovina • Montenegro

Three validation states

Morocco • Republic of Moldova
 Tunisia (as of 1.12.2017)



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Our five locations in Europe



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Our staff



Munich	3 784
The Hague	2 659
Berlin	266
Vienna	102
Brussels	4
Total	6 815

Around 60% are patent examiners

Source: EPO data on 31.12.2015

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Our staff: a multicultural working environment



§ Over 30 different nationalities

§ Three languages for working in and for communicating with applicants:

- English
- French
- German

Three possible routes to file a patent

Route	National	European	International
Via	National offices	European Patent Office or national offices	International Bureau or European Patent Office or national offices
Valid in	One country	Up to 38 countries + 2 extension states + 2 validation states	Up to 148 countries
In brief	Applications are filed with the relevant national office and are valid for that state only	One single application in DE/EN/FR for all EPC contracting states Same legal effects as national patents	An international patent procedure, not an international patent After the international phase, applicants can choose to enter the national/regional phase in various states

Three ways to start the European procedure

European route

Applicant files a direct European application
= 1st filing

National route

Applicant files a
national application

Applicant files a
European application
= 2nd filing¹⁾

International route

Applicant files a
PCT application

Application enters
European phase

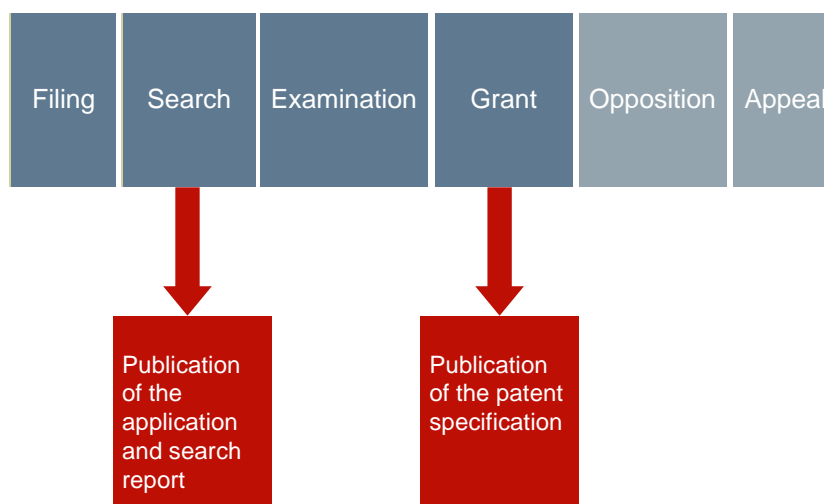
**European
search and
examination
procedure**

¹⁾ By claiming priority of an earlier application filed with a national office within 12 months.

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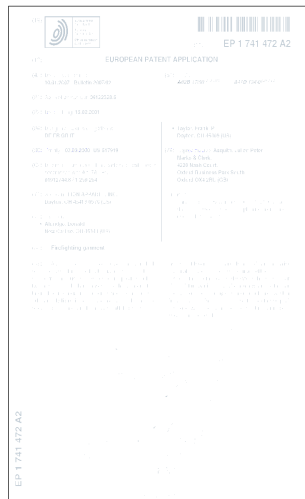
Basic steps in the European grant procedure



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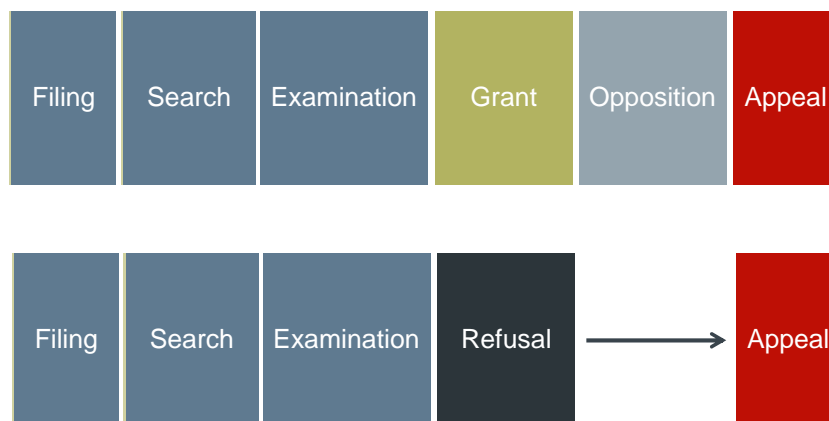
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Our products: European patent documents



- § **Title** of the invention, name of the inventor
- § **Document type:** Application or Patent (A or B publications)
- § **Detailed description of the invention:** how it is constructed, how it is used, benefits compared with what already exists
- § **Claims** providing a precise definition of what the patent protects
- § **Drawings, Sequence Listings**
- § **Abstracts:** summary of the invention • particularly useful for search engines

Basic steps in the European grant procedure



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**.

The EPO also processes international (PCT) applications



§ We act as a **receiving office for international applications** (PCT)

§ We carry out approximately:

- **38%** of all international search procedures
- **56%** of all international preliminary examinations

§ The EPO delivers the international search report **within 3 months***

* From the date of receipt of the application by the International Searching Authority.

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Operational core activities in the grant procedure: Statistics 2016

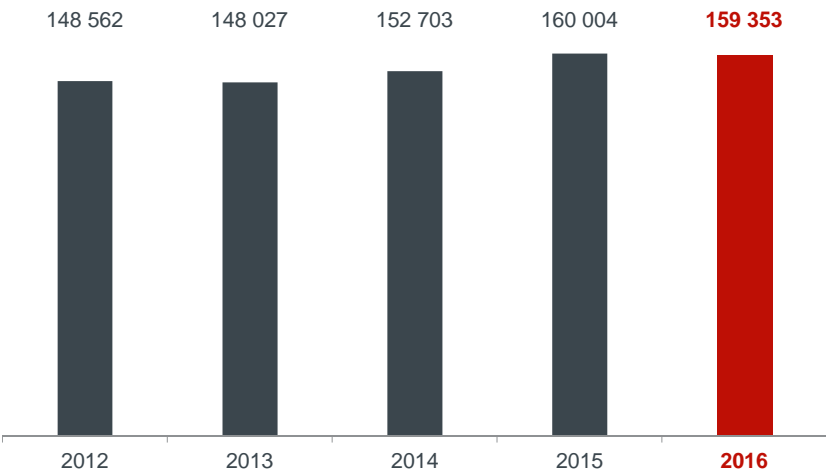
Filing	Search	Examination	Grant	Opposition	Appeal
296,227 ¹⁾	244,689 ⁴⁾	147,119 ¹⁾	95,940	4,102 ³⁾	2,229 ³⁾
159,353 ²⁾	133,544 ²⁾	137,939 ²⁾			

¹⁾ Direct European filings under the EPC and international filings under the PCT ²⁾ European applications ³⁾ Completed decisions ⁴⁾ European, PCT and searches on behalf of national offices and third parties (Source: Annual report 2016)

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Total European patent applications in 2016

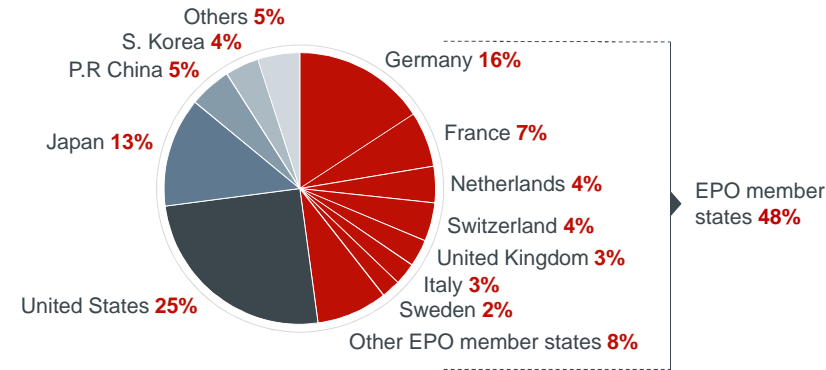


Applications are the files for which applicants have decided to request a European patent from the EPO. They are a direct measure of the explicit interest of innovating firms to assert their patent rights on the European technology market (Direct European applications and international (PCT) applications entering the European phase).

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Origin of European patent applications in 2016

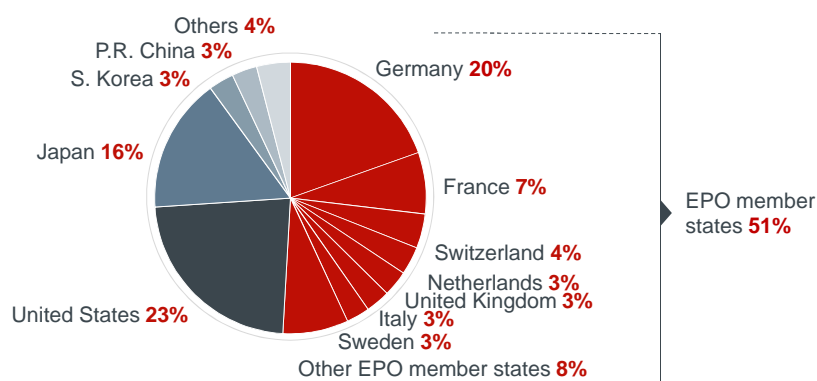


Analysis based on European patent applications filed with the EPO (Direct European applications and international (PCT) applications entering the European phase).
Statistics are based on the first-named applicant.
EPO: the 38 member states of the European Patent Organisation, including EU28

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Granted patents in 2016



Analysis based on granted patents published in 2016. Statistics are based on the first-named patentee.
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Technical fields with the most applications in 2016

TOP 10

		2016	Change	
1	Medical technology	12.263	-2,1%	↓
2	Digital communication	10.915	-1,2%	↓
3	Computer technology	10.657	2,9%	↑
4	Electrical machinery, apparatus, energy	10.293	5,1%	↑
5	Transport	8.402	3,6%	↑
6	Measurement	7.442	-3,8%	↓
7	Engines, pumps, turbines	6.301	-0,5%	↓
8	Organic fine chemistry	6.189	-4,0%	↓
9	Biotechnology	5.754	-5,0%	↓
10	Pharmaceuticals	5.744	0,3%	↑

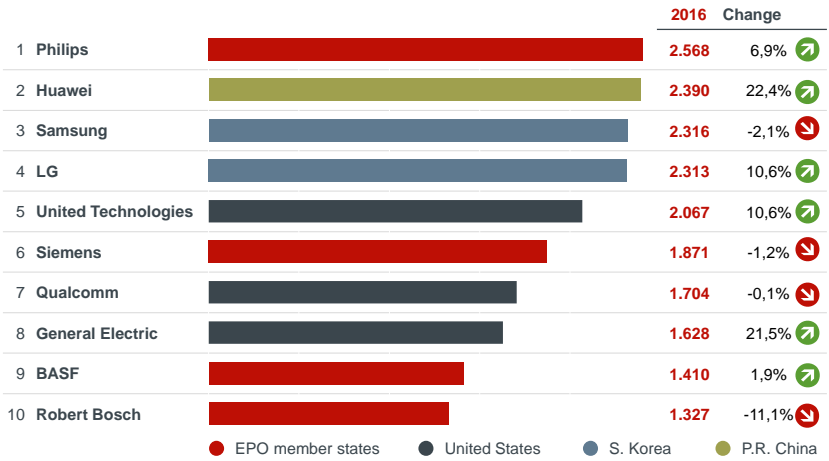
Analysis based on European patent applications filed with the EPO (Direct European applications and international (PCT) applications entering the European phase).

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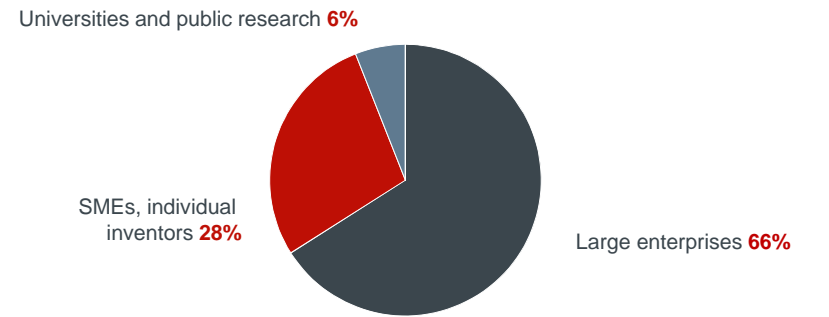
Top EPO applicants in 2016

TOP10



Analysis based on European patent applications filed with the EPO (Direct European applications and international (PCT) applications entering the European phase). Statistics are based on the first-named applicant.
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Applicant categories in 2016



Source: Annual report 2016.
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Objectives of the unitary patent

**A less expensive
and less cumbersome
patent system for Europe**

**/E Facilitates access to patent protection
for SMEs and research centres**

**/E Makes Europe more attractive for
innovation and investors**

/E Boosts Europe's competitiveness

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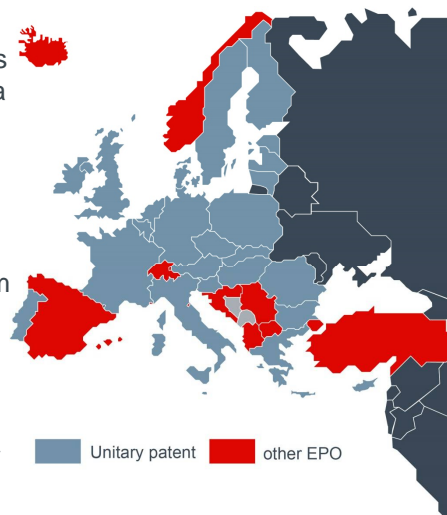
The unitary patent and the EPO member states

Unitary patent states

Austria • Belgium • Bulgaria • Cyprus
Czech Republic • Denmark • Estonia
Finland • France • Germany
Greece • Hungary • Ireland • Italy
Latvia • Lithuania • Luxembourg
Malta • Netherlands • Poland
Portugal • Romania • Slovakia
Slovenia • Sweden • United Kingdom

Other EPO member states

Spain • Iceland • Switzerland
Norway • Turkey • Monaco
San Marino • Liechtenstein • Croatia
Serbia • Albania • Former Yugoslav
Republic of Macedonia



Unitary patent other EPO

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Basic principles of the unitary patent

- § Based on a **European patent** granted by the EPO under the EPC
- § **Unitary effect** extends to the 26 EU member states **currently** participating, at the patent proprietor's request
- § Registered by the EPO **in one single administrative step**
- § An **additional option for patent proprietors**, alongside the existing European and national patent systems
- § Can be **combined with the European patent** to cover up to 40 European countries
- § **Uniform litigation system**

Concrete benefits

- § Protection in **one single step** for the 26 states currently participating
- § **Simplified registration** procedure instead of 26 different validations
- § **Simplified and cost-effective** renewal fee payment
- § **No post-grant translation** required (after initial transition period)
- § **Centralised register** maintained by the EPO
- § **Uniform litigation system** affording greater legal certainty

Language arrangements for post-grant translations

§ For a transitional period of up to 12 years:

- If the patent is granted in French or German,
a translation into English will be required
- If the patent is granted in English,
a translation into one of any of the EU languages will be required

§ At the end of the transitional period:

- No translation required anymore

§ Patent Translate is providing machine translation in 32 languages,
free of charge

Language arrangements for applications



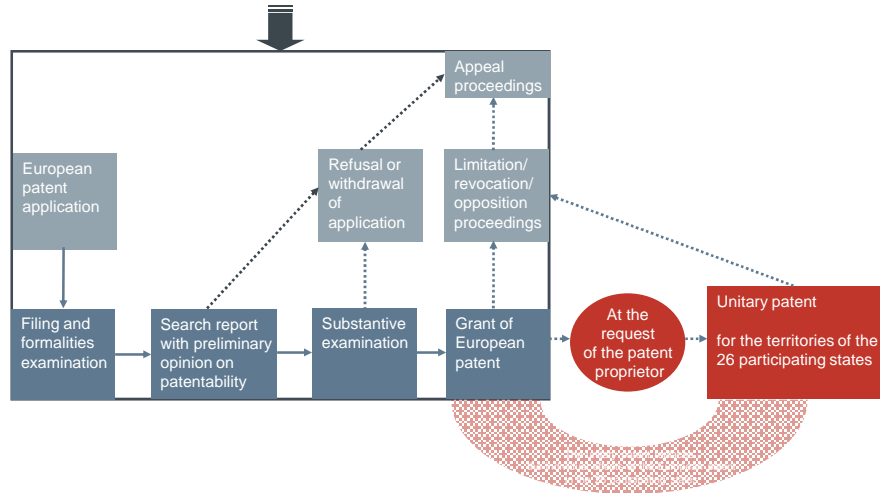
Translation costs will be reimbursed

§ for SMEs, universities, public research organisations from the EU

§ if the application is filed in an EU language other than English, French or German

The European patent with unitary effect

Same grant procedure as for classic European patent



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When will it all start?

§ European applications already "in the pipeline" today might be given **unitary effect if granted after the system starts**

§ **Minimum of 13 states** • including GB, France & Germany • must ratify the Agreement on a Unified Patent Court before the unitary patent system comes into effect



§ First unitary patents will cover only the states which have ratified the UPC Agreement, then more as states accede

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<https://www.youtube.com/user/EPOfilms>

§ via Youtube:

<https://www.youtube.com/watch?v=YJKpyid60qk>

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Who can apply?

Engineers and scientists who are nationals of EPO member states and who have the necessary language skills

In which technical fields?

Opportunities exist in a whole range of technical fields

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Thank you for your attention!