Europäisches Patentamt
European Patent Office
Office européen des brevets

40 YEARS 1973–2013 EUROPEAN PATENT CONVENTION
Innovation matters

The European Patent Office

An introduction to the EPO and the European patent system

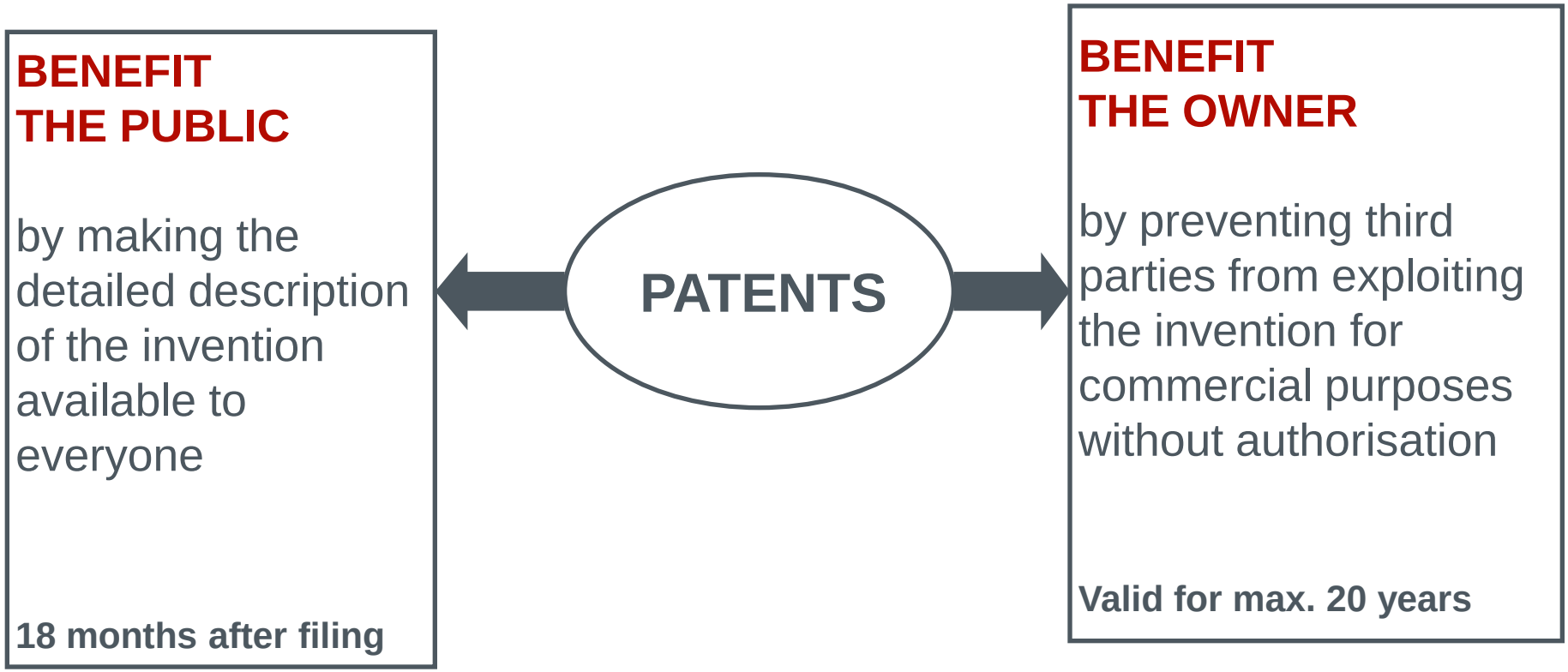
Jesus Roldan Andrade, EPO

27 September 2013

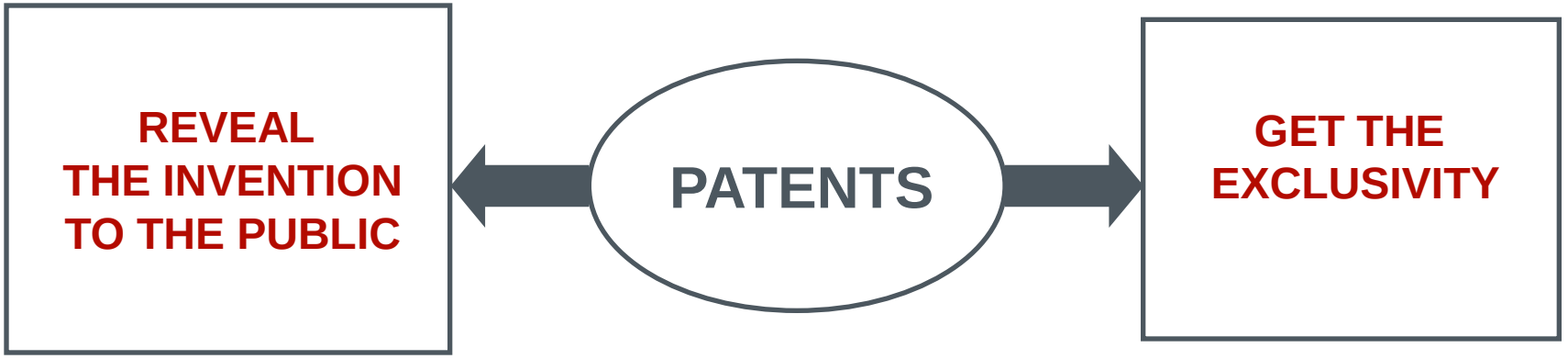
Contents

- **The patent system**
- Basics
- About us
- Statistics
- Contact
- Granting and publishing patents
- Quality patents
- Patents for the public
- Training and awareness-raising events

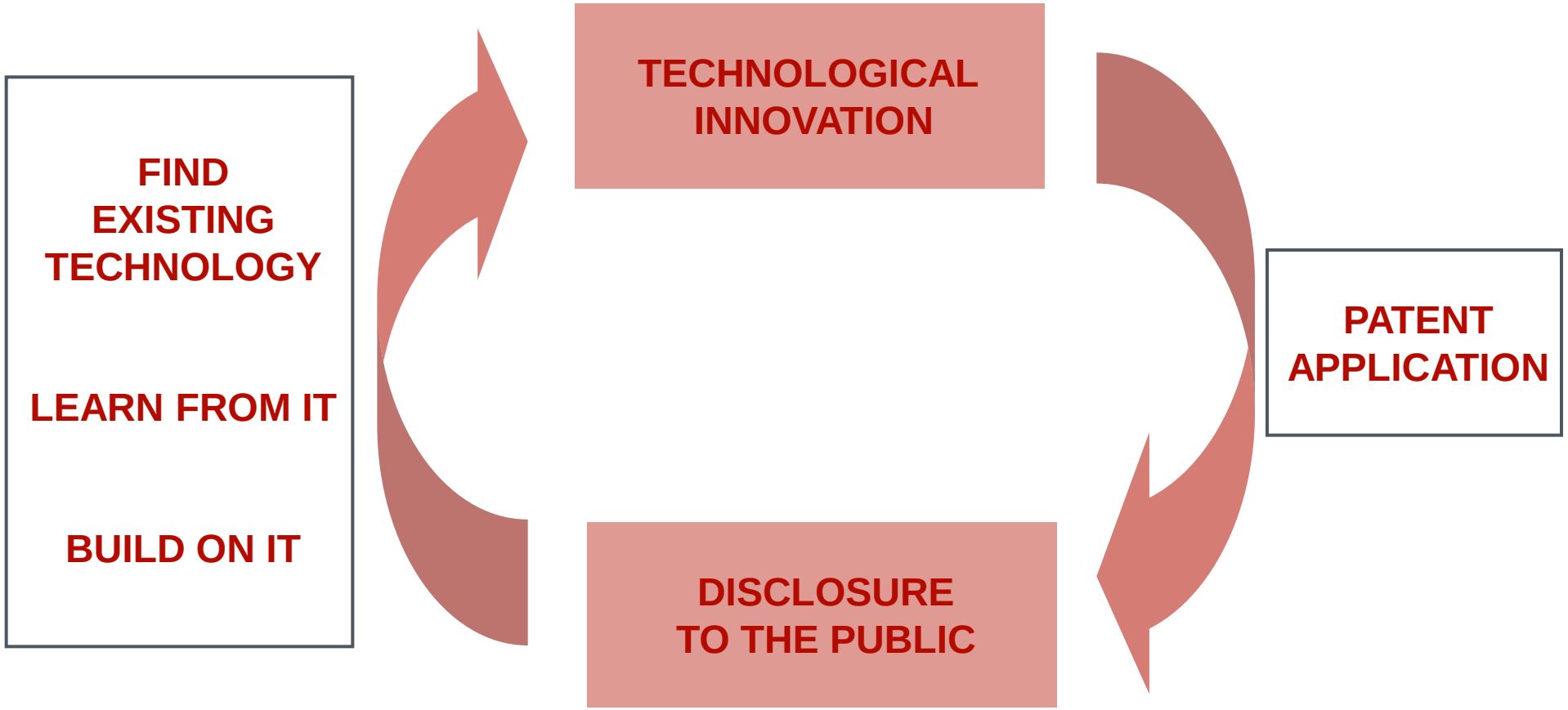
The basic principle of the patent system



A simple contract



A fair system driving knowledge transfer and innovation



An incentive for economic growth

- Makes the latest technological knowledge available to the public
- Inspires further innovation
- Prevents duplication of R&D in industry and universities
- Encourages business by helping identify new partners and allowing licensing
- Gives patent holders time to recoup their development costs from the commercial exploitation of the invention

Contents

- The patent system
- Basics
- About us
- Statistics
- Contact
- Granting and publishing patents
- Quality patents
- Patents for the public
- Training and awareness-raising events

Patents protect

Patents protect 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 or apparatus.

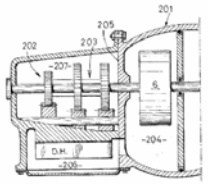
Innovations not protected by patents

Exceptions to patentability under the EPC:

- **mathematical methods**
- **formulae**
- **computer programs as such**
- **business methods**
- **new plant** or **animal varieties**
- inventions whose commercial exploitation would be **contrary to "ordre public" or morality** (e.g. the cloning of human life)

Patents and other IP rights

Legal right	What for?	How?
Patents	New inventions	Application and examination
Copyright	Original creative or artistic forms (literary texts, music)	Exists automatically
Trade marks	Distinctive identification of products and services	Use and/or registration
Registered designs	External appearance	Registration
Trade secrets	Valuable information not known to the public	Reasonable efforts to keep secret



One product = multiple patents and other IP rights

1 500 to 2 000 patents Data-processing methods, semiconductor circuits, chemical compounds, etc.

+

Registered design Shape of phone

Registered trade marks Brand name, start-up tone

Copyright Software, ringtones and images

Contents

- **The patent system**
- Basics
- **About us**
- Statistics
- Contact
- Granting and publishing patents
- Quality patents
- Patents for the public
- Training and awareness-raising events

Our mission

As the patent office for Europe, we support innovation, competitiveness and economic growth across Europe through a commitment to high quality and efficient services delivered under the European Patent Convention.

40 years of the European Patent Convention

40 YEARS 1973–2013 EUROPEAN PATENT CONVENTION
Innovation matters

1973 — **Diplomatic Conference in Munich**

5 October 1973 — **Signature** of the European Patent Convention (EPC) by 16 countries

1977 — **Entry into force** of the EPC in 7 countries
Foundation of the European Patent Organisation
Foundation of the European Patent Office

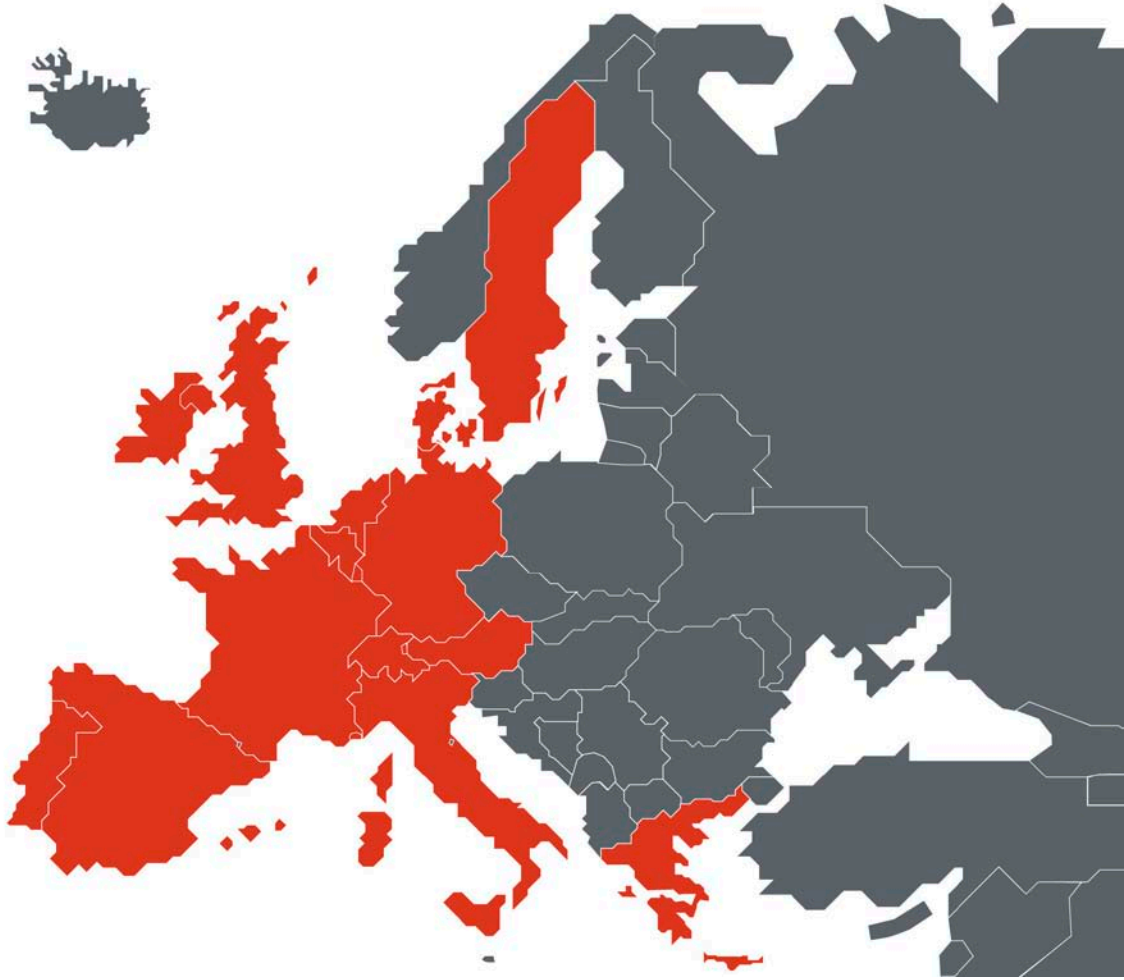
2013 — **Celebration of 40 years of the EPC**
More on www.epo.org

Seven founding states in 1977

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

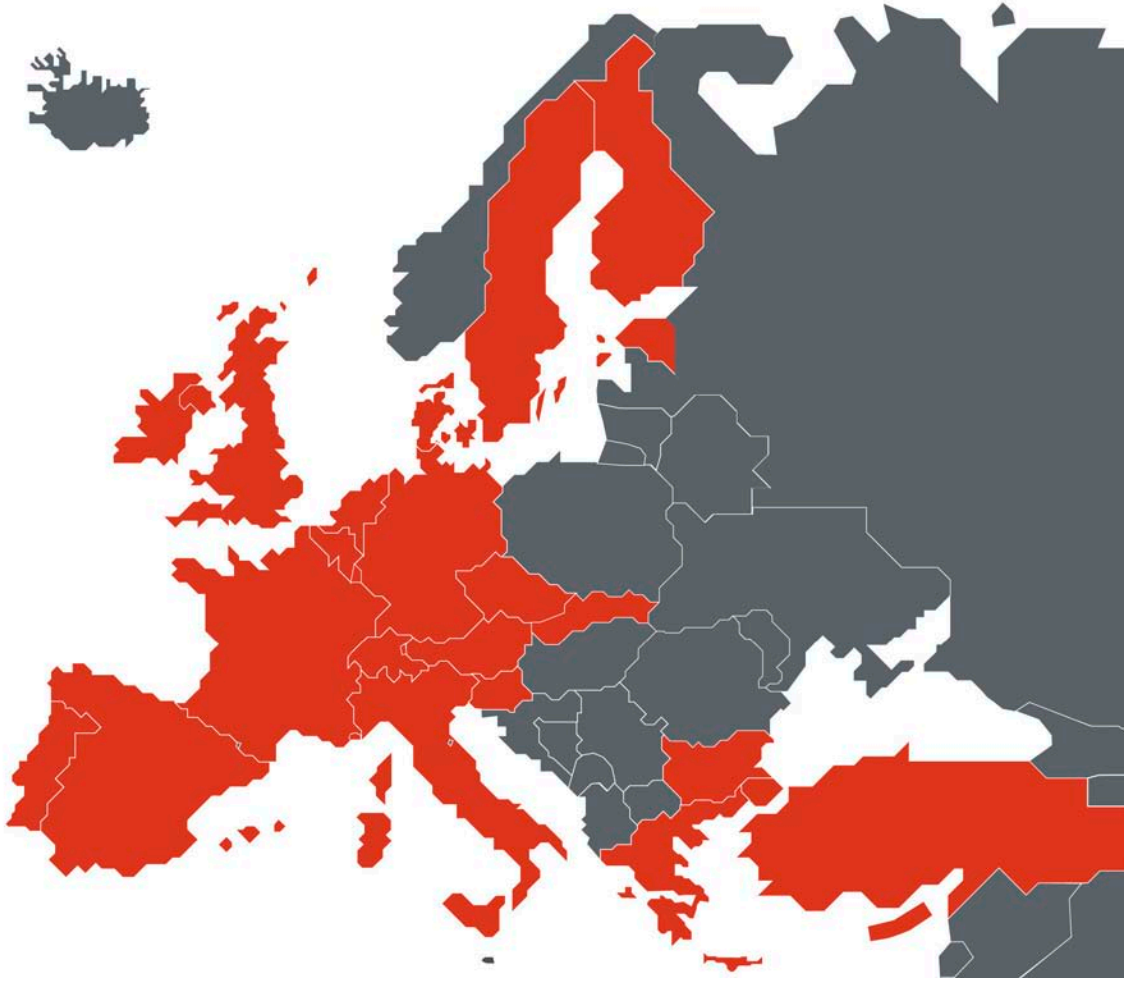
... 17 member states in 1992 ...

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



... 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



... 32 member states in 2007 ...

40 YEARS 1973–2013 EUROPEAN PATENT CONVENTION
Innovation matters

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 •

Today, 38 member states and 2 extension states

40 YEARS 1973–2013 EUROPEAN PATENT CONVENTION
Innovation matters

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 • Croatia • Norway • Former Yugoslav Rep. Macedonia • San Marino • Albania • Serbia •

European patent applications and patents can also be extended at the applicant's request to **Bosnia-Herzegovina** and **Montenegro**.

Our status

- Second-largest intergovernmental institution in Europe
- Not an EU institution
- Self-financing, i.e. revenue from fees covers operating and capital expenditure

Structure of the European Patent Organisation

European Patent Organisation

Administrative Council

The legislative body

- is made up of delegates from the member states
- supervises the activities of the Office
- appoints the President
- votes on the Office's budget

European Patent Office

The executive body

- is responsible for searching, examining and publishing patent applications
- is responsible for holding opposition proceedings
- is responsible for appeal proceedings before the boards of appeal

Structure of the European Patent Office

President

Benoît Battistelli

Presidential area

DG 0

Directorates-General

Operations

DG 1

Guillaume Minnoye

Operational Support
DG 2

Alberto Casado Cerviño

Appeals

DG 3

Wim van der Eijk

Administration

DG 4

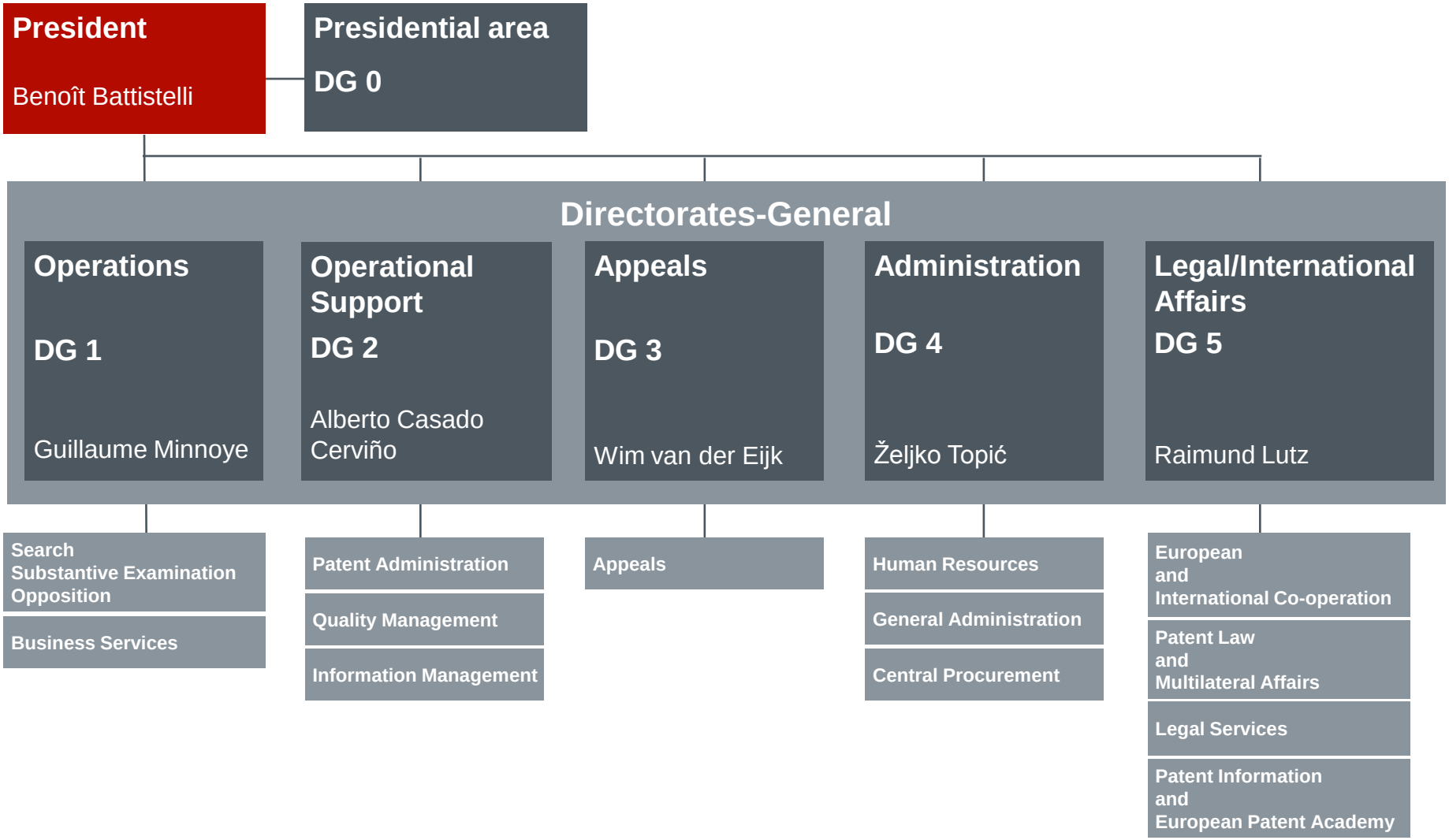
Željko Topić

Legal/International Affairs

DG 5

Raimund Lutz

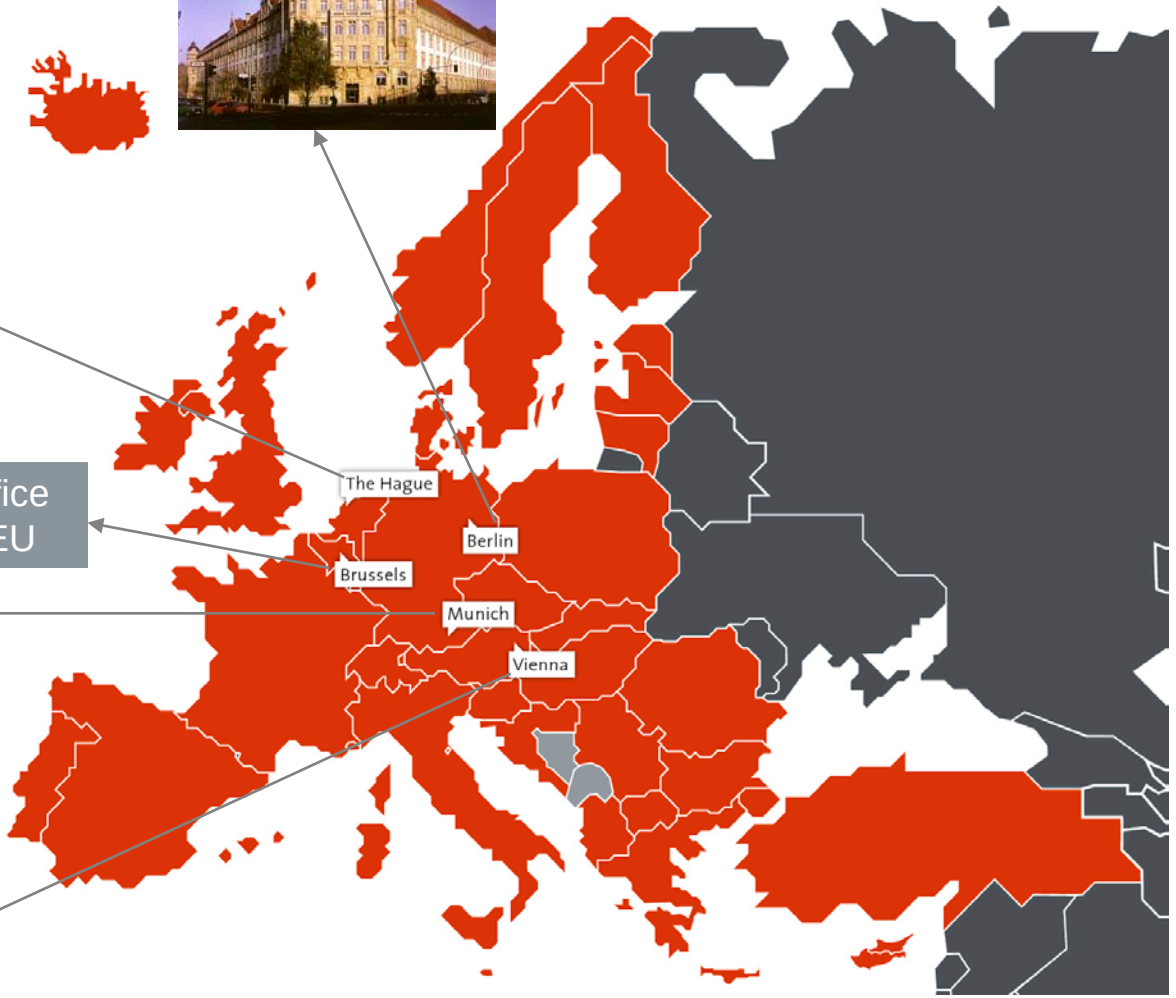
Structure of the European Patent Office



Our five locations in Europe

Headquarters

Liaison office with the EU



A multicultural working environment

- Over 30 different nationalities

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

  – ENGLISH
  – FRENCH
  – GERMAN

Our staff

Munich	3 703
The Hague	2 617
Berlin	277
Vienna	107
Brussels	6
TOTAL	6 710

Source: EPO data 2012

In 2013 we are recruiting 200 engineers and scientists

Working as a patent examiner

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

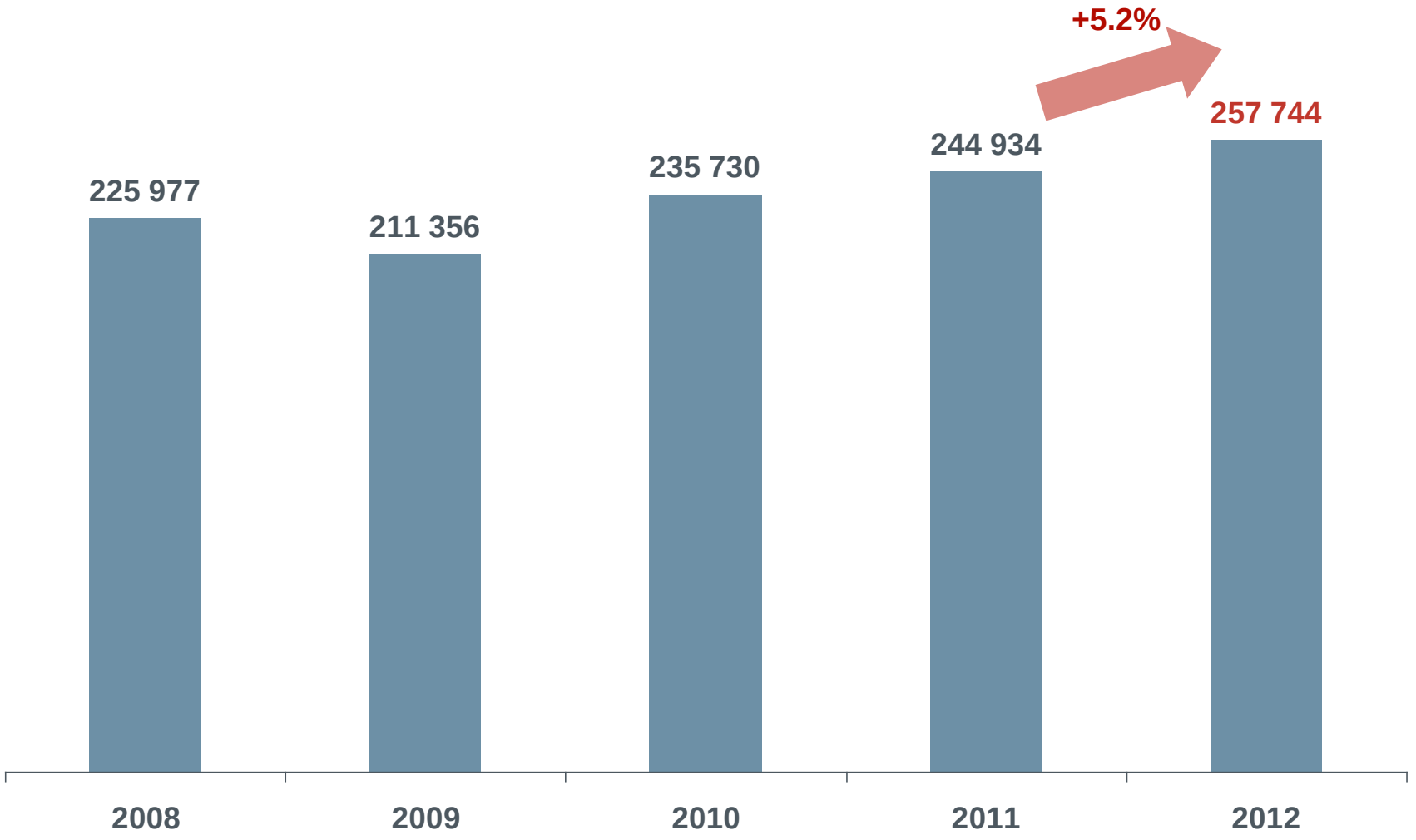
More information on

www.epo.org/jobs

Contents

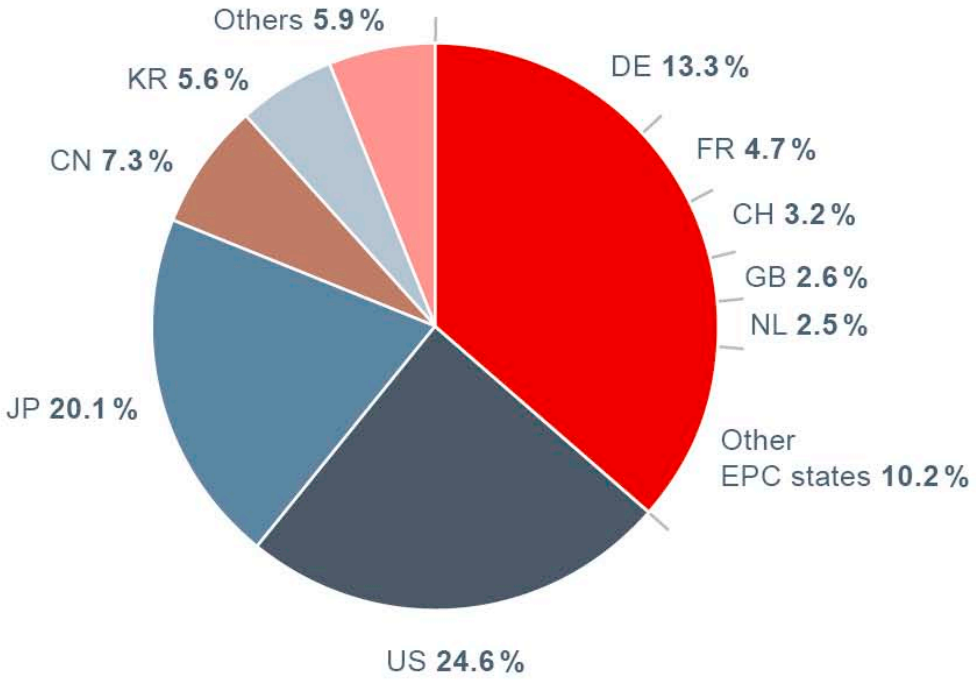
- The patent system
- Basics
- About us
- **Statistics**
- Contact
- Granting and publishing patents
- Quality patents
- Patents for the public
- Training and awareness-raising events

Total European patent filings[1]



[1] Direct European filings under the EPC and international filings under the PCT.

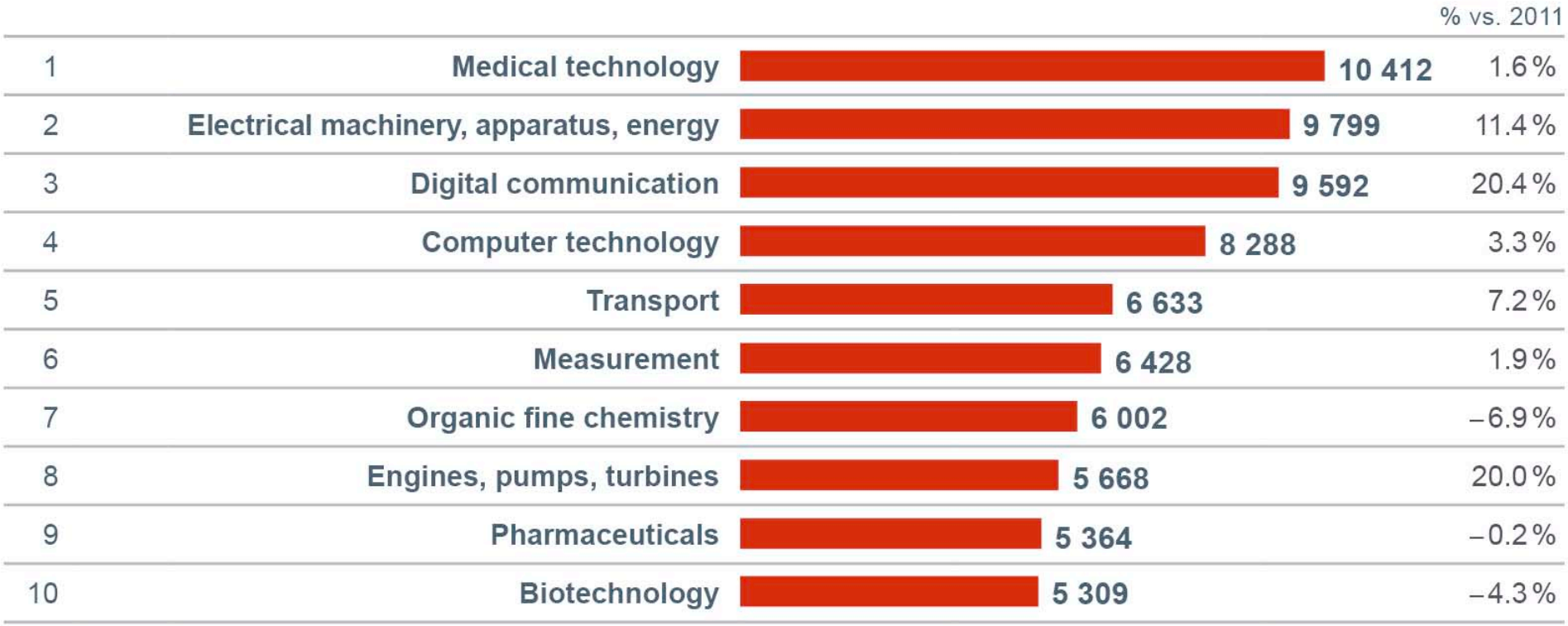
Origin of European patent filings (2012)[1]



EPO	94 060
US	63 504
JP	51 693
CN	18 812
KR	14 491
Others	15 185

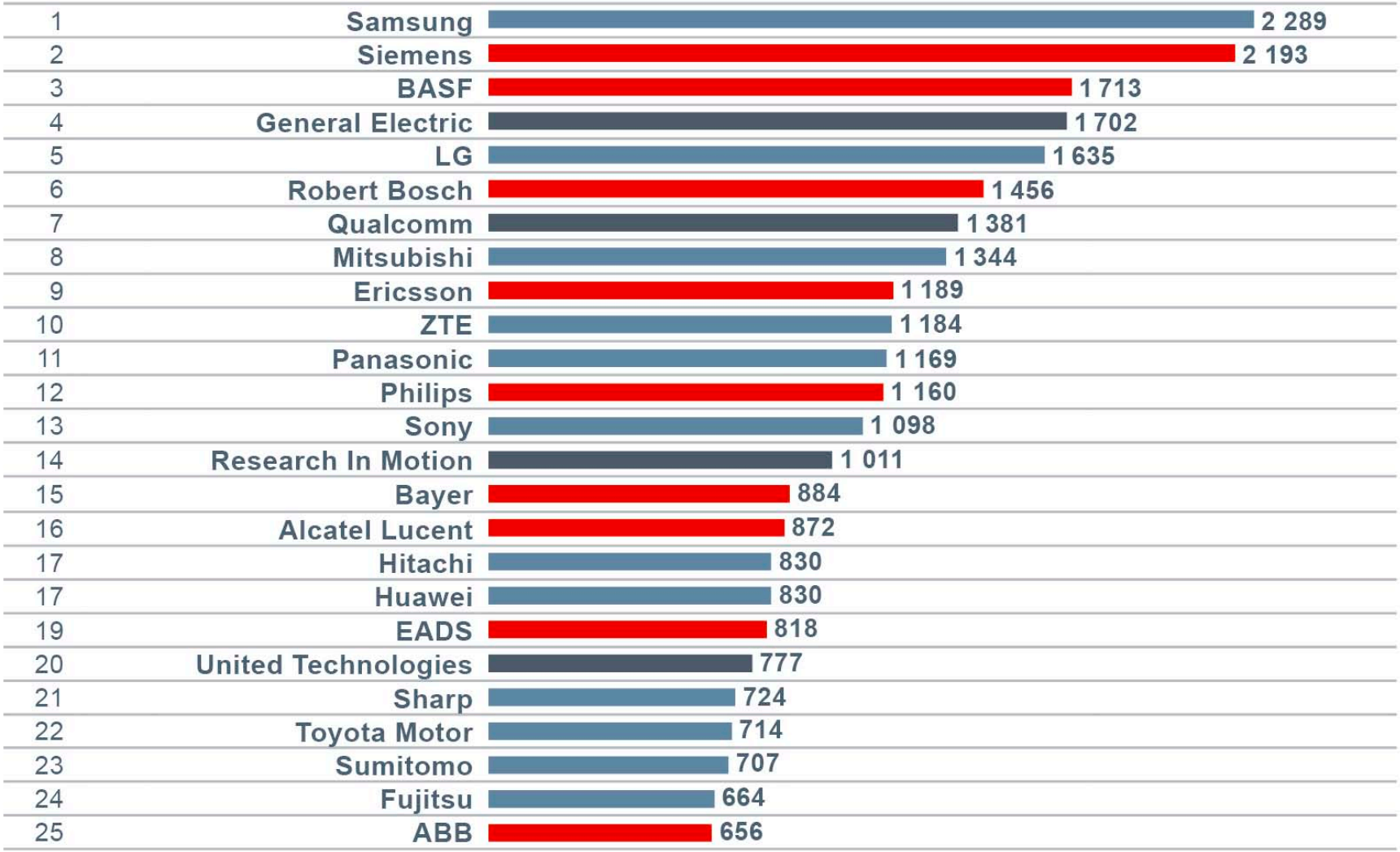
[1] Direct European filings under the EPC and international filings under the PCT.

Technical fields[1] with the most applications (2012)[2]



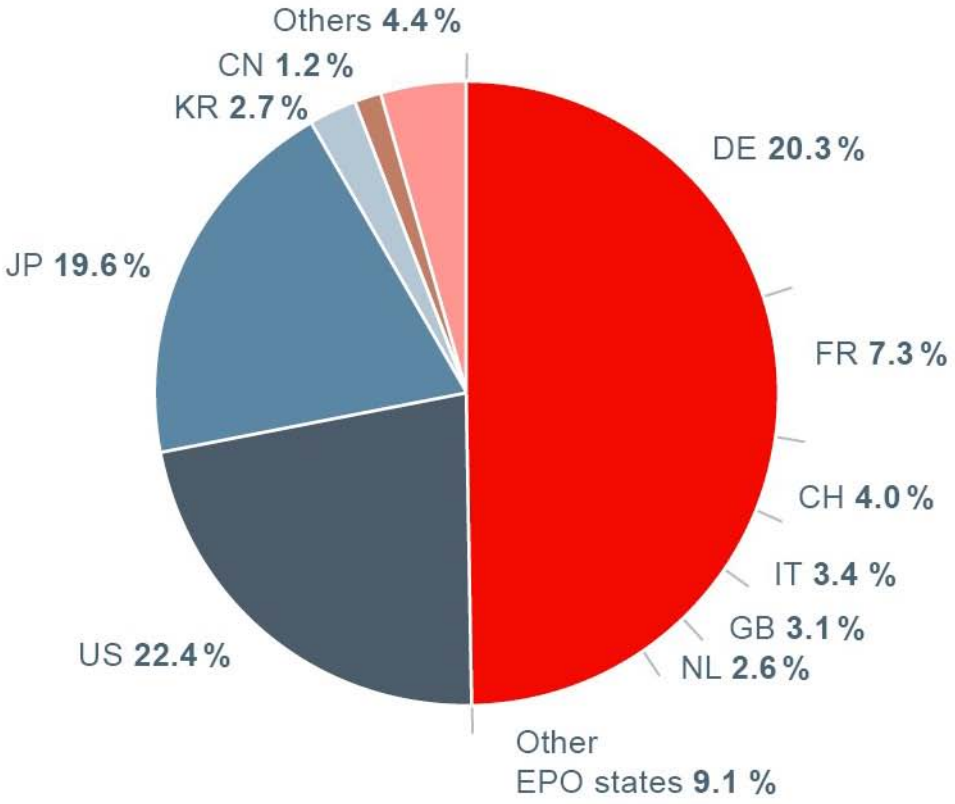
[1] Classified according to the IPC and technology concordance table compiled by the Fraunhofer ISI for WIPO.
[2] Based on European patent applications filed with the EPO.

Top applicants seeking patent protection from the EPO in 2012[1]



[1] Based on European patent applications filed with the EPO.

Granted patents (2012)[1]



EPO member states	32 634
US	14 699
JP	12 852
KR	1 788
CN	793
Others	2 921

[1] Analysis based on granted patents in 2012. Patents have been allocated to the country of residence of the first-named patentee.

Contents

- The patent system
- Basics
- About us
- Statistics
- **Contact**
- Granting and publishing patents
- Quality patents
- Patents for the public
- Training and awareness-raising events

Need more information?

- **Visit** **www.epo.org**

- **Follow us on**

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twitter.com/EPOorg

www.youtube.com/EPOfilms

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- **Contact us via** **www.epo.org/contact**

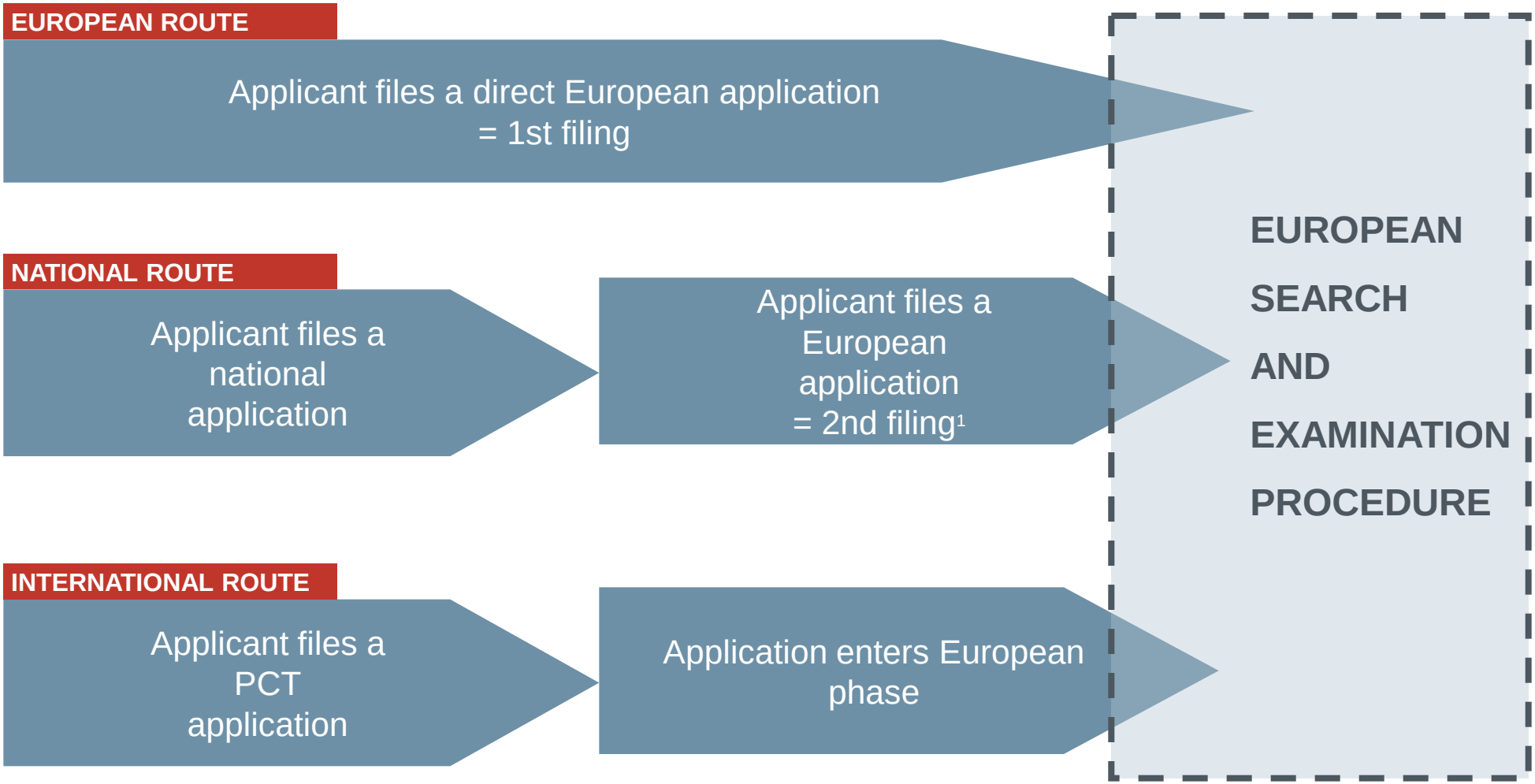
Contents

- The patent system
- Basics
- About us
- Statistics
- Contact
- **Granting and publishing patents**
- Quality patents
- Patents for the public
- Training and awareness-raising events

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	Up to 147 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



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

The role of the EPO in the European grant procedure

- We provide patent protection
  - in up to 40 European countries
  - based on a single application
  - in one of the three official languages (English, French, German)
- We are also responsible for
  - limitation and revocation proceedings by patentees
  - opposition proceedings by third parties
  - appeal proceedings before the boards of appeal
- The EPO makes all patent documents available to the public

The EPO also processes international (PCT) applications

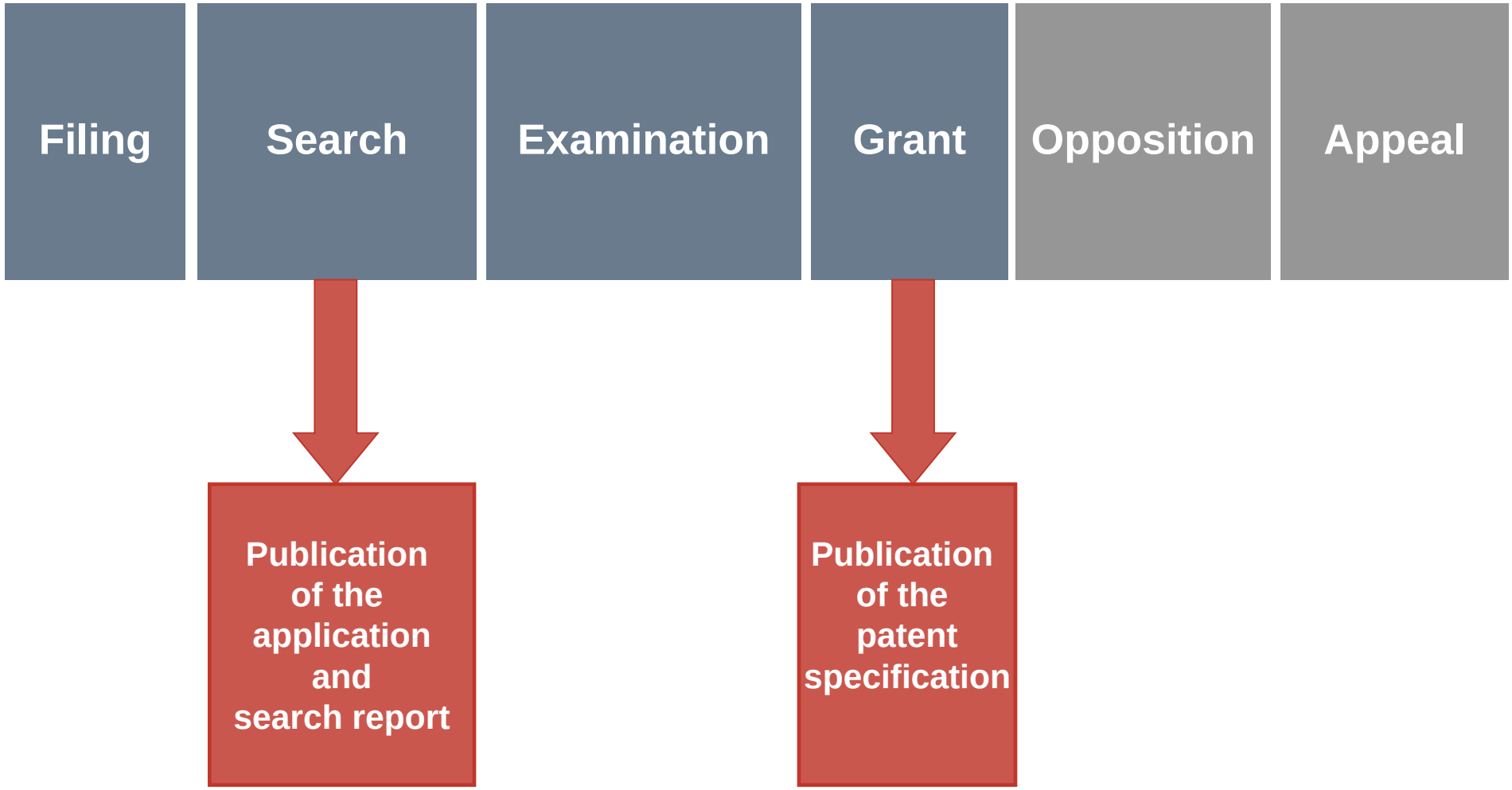
- We act as a receiving office for international applications (PCT).

- We carry out approximately:
  - 40% of all international search procedures
  - 48% of all international preliminary examinations

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

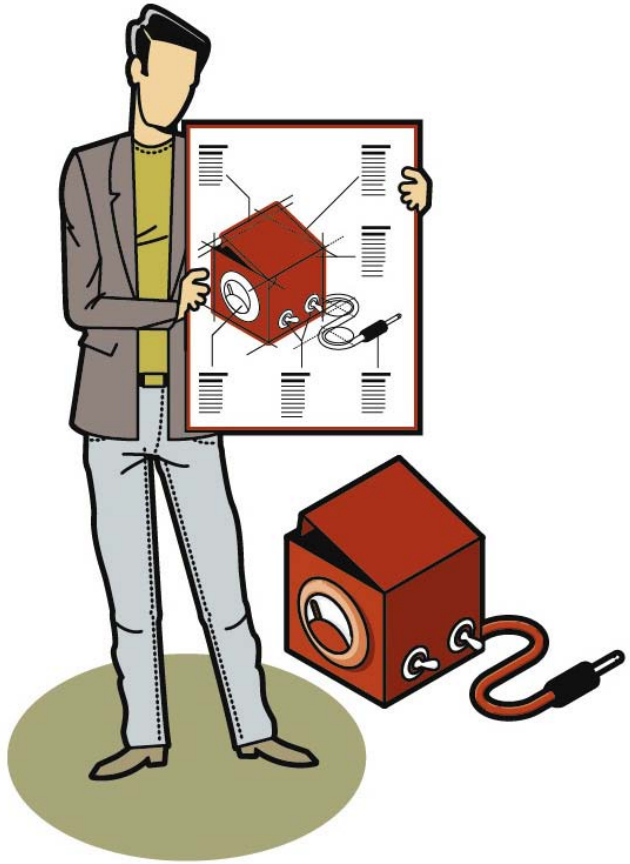
* From the date of receipt of the application by the International Searching Authority.

Basic steps in the European grant procedure



Filing of the application

- The applicant prepares the required documentation, i.e. a description of the invention, one or more claims and any drawings determining the extent of protection.
- The application is filed online, per fax or by post.
- The documentation is checked for compliance.
- A date of filing is allocated.



Search

- The aim is to find the state of the art at the date of filing, in order to determine whether the invention is new and involves an inventive step.
- Examiners search in databases containing millions of patent documents and non-patent literature.
- They then issue a search report and a preliminary opinion on patentability.

Publication

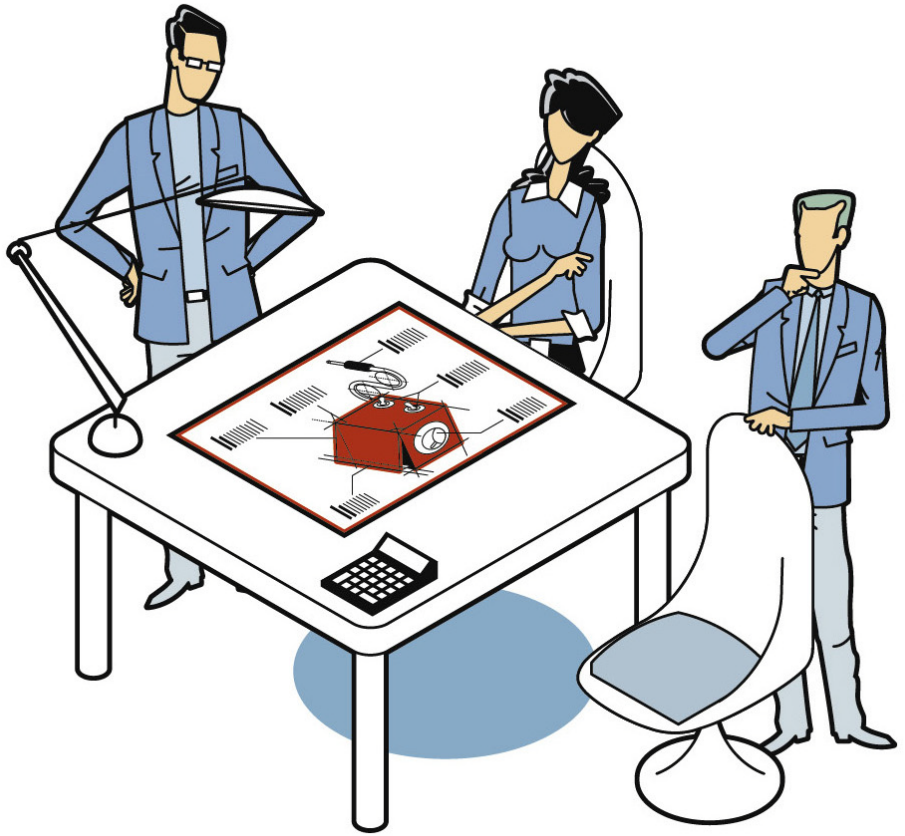
- Patent applications are published on Espacenet, 18 months after the date of filing.[1]
- The search report is also published.
- Publishing these documents means that they are available to everyone and that third parties are able to submit observations at any time prior to grant.

[1] Or earliest priority date.

85 million patent documents accessible to the public on www.epo.org/espacenet

Examination

- Done by an examining division consisting of three examiners who are experts in the technical field.
- Takes into account the search report and the requirements for patentability of the EPC.
- Examiners are responsible for ensuring that the scope of protection of the application is limited to what is actually patentable.



Outcome

- If the application meets the requirements of the EPC
  => grant

- If the application does not meet the requirements of the EPC
  => refusal

  => possibility of appeal

- All granted European patents are published.

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

Opposition

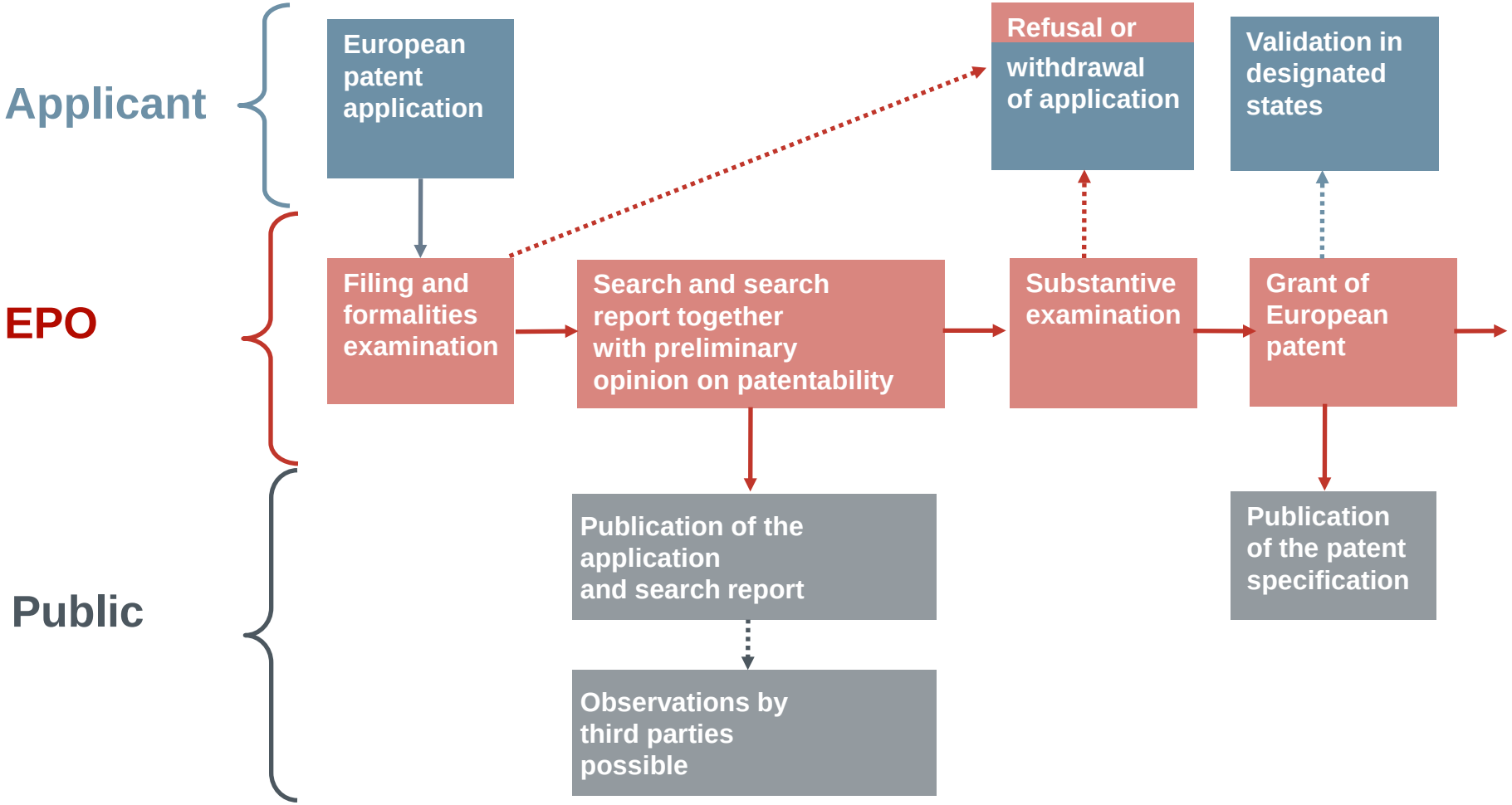
- Any person may oppose a European patent within nine months of its publication.

- In 70% of opposition decisions, the patent is upheld either as granted or in amended form.

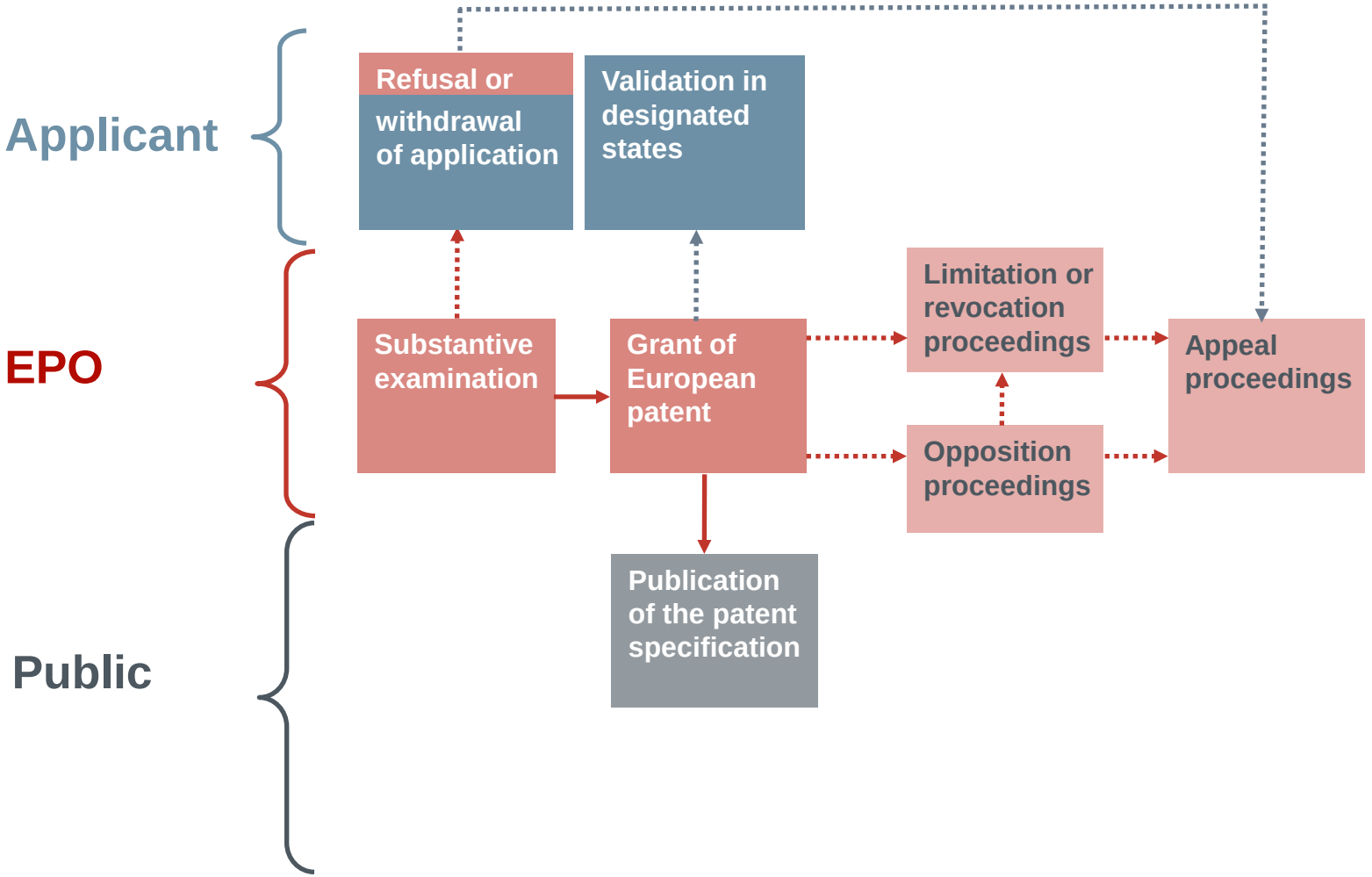
Appeal

- The EPO's boards of appeal give independent rulings on appeals against decisions taken during grant and opposition proceedings.
- An appeal against a decision can be filed within two months after the date of notification of the decision.
- The grounds of appeal must be provided within four months after the date of notification of the decision.

The European grant procedure in more detail (1)



The European grant procedure in more detail (2)



Time to watch an online video!

- Watch a film about the EPO
- Via the EPO website: www.epo.org/about-us/office/film.html
- Via Youtube: www.youtube.com/watch?v=KYu0hbleL5A

Contents

- The patent system
- Basics
- About us
- Statistics
- Contact
- Granting and publishing patents
- **Quality patents**
- Patents for the public
- Training and awareness-raising events

The EPO is the number one patent office for quality

- Annual IP benchmarking survey 2012 conducted by IAM and Thomson Reuters

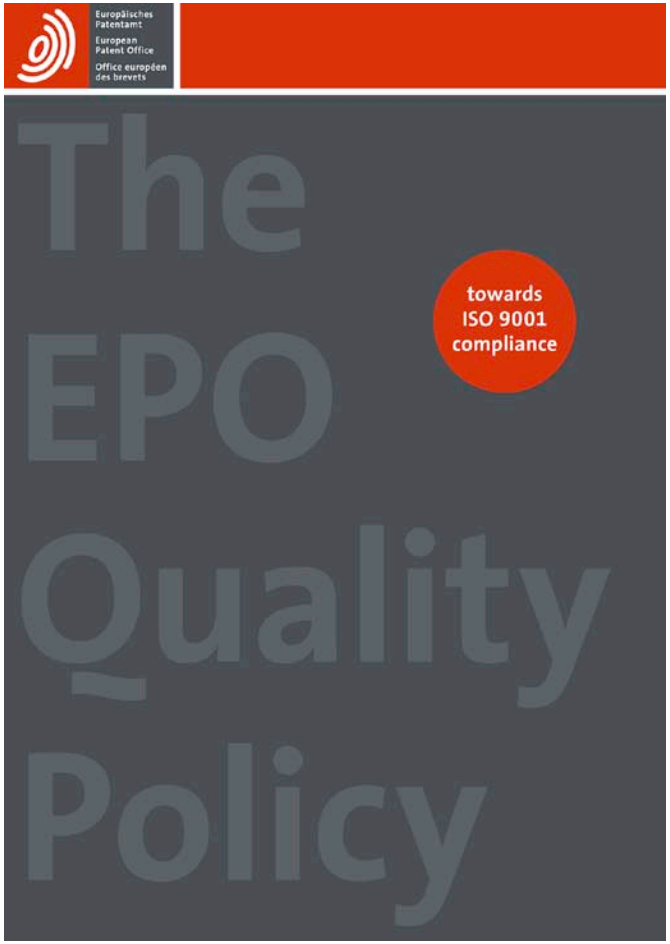
- Sample: 700 patent attorneys working in private practice or industry

- Private practice:
  For 68%, the EPO's quality is "very good" or "excellent"

- Industry:
  For 92%, the EPO's quality is either "good", "very good" or "excellent"

Key components of the EPO's patent quality policy

- Highly skilled examiners
- State-of-the-art searches
- Thorough procedures and review processes
- Quality controls and an ongoing commitment to improvement



Highly skilled examiners

- Top-level engineers and scientists
  - high degree of technical expertise and personal responsibility
  - knowledge of the EPO's three official languages

- Training during first two years
  - extensive legal and procedural training
  - individual coaching by experienced examiners

- Continuing professional development throughout career

State-of-the-art searches

- World's largest collection of documents
  - more than 600 million records of patent and non-patent literature documents in over 120 databases
  - more than 7 000 journals
  - databases updated daily

- High-performance EPOQUE search tool
  - used by examiners
  - a worldwide benchmark
  - used by over 40 patent offices, including Australia, Brazil, Canada and China

- Machine translation to extend the range of easily accessible information

Thorough procedures and review processes

- Single procedure
  - The EPC provides the legal framework for the granting procedure.

- Systematic approach
  - Each application is examined by a division of three technically qualified examiners.

- Review processes
  - Oppositions are examined by three technically qualified examiners, at least two of whom will not have been involved in the grant proceedings for the patent.
  - Appeals are heard by an independent second-instance judiciary (boards of appeal).

Rigorous quality controls and commitment to improvement

- Guidelines and instructions for examiners

- Spot-checks on search reports and examination quality

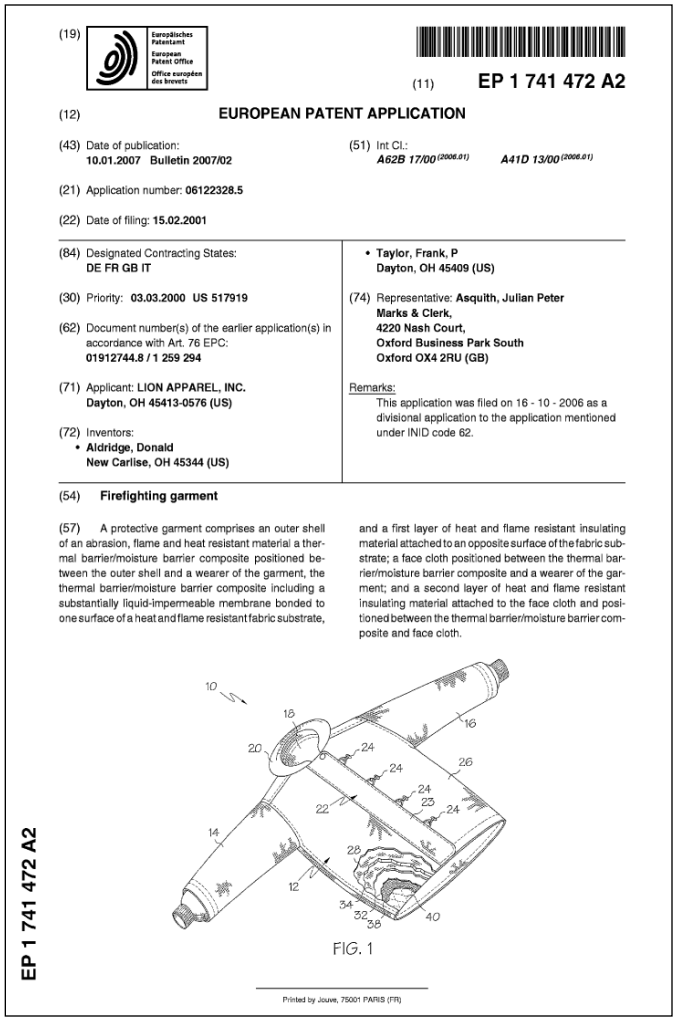
- Internal quality audits

- Preparation for ISO 9001 certification

Contents

- The patent system
- Basics
- About us
- Statistics
- Contact
- Granting and publishing patents
- Quality patents
- **Patents for the public**
- Training and awareness-raising events

What information do patent documents contain?



(19) Europäisches Patentamt / European Patent Office / Office européen des brevets

(11) EP 1 741 472 A2

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
10.01.2007 Bulletin 2007/02

(51) Int Cl.:
A62B 17/00 (2006.01) *A41D 13/00* (2006.01)

(21) Application number: 06122328.5

(22) Date of filing: 15.02.2001

(84) Designated Contracting States:
DE FR GB IT

(30) Priority: 03.03.2000 US 517919

(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC:
01912744.8 / 1 259 294

(71) Applicant: LION APPAREL, INC.
Dayton, OH 45413-0576 (US)

(72) Inventors:
• Aldridge, Donald
New Carlise, OH 45344 (US)
• Taylor, Frank, P
Dayton, OH 45409 (US)

(74) Representative: Asquith, Julian Peter
Marks & Clerk,
4220 Nash Court,
Oxford Business Park South
Oxford OX4 2RU (GB)

Remarks:
This application was filed on 16 - 10 - 2006 as a divisional application to the application mentioned under INID code 62.

(54) Firefighting garment

(57) A protective garment comprises an outer shell of an abrasion, flame and heat resistant material a thermal barrier/moisture barrier composite positioned between the outer shell and a wearer of the garment, the thermal barrier/moisture barrier composite including a substantially liquid-impermeable membrane bonded to one surface of a heat and flame resistant fabric substrate, and a first layer of heat and flame resistant insulating material attached to an opposite surface of the fabric substrate; a face cloth positioned between the thermal barrier/moisture barrier composite and a wearer of the garment; and a second layer of heat and flame resistant insulating material attached to the face cloth and positioned between the thermal barrier/moisture barrier composite and face cloth.

FIG. 1

EP 1 741 472 A2

Printed by Jouve, 75001 PARIS (FR)

- Title of the invention, name of the inventor
- 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
- Abstracts: summary of the invention - particularly useful for search engines

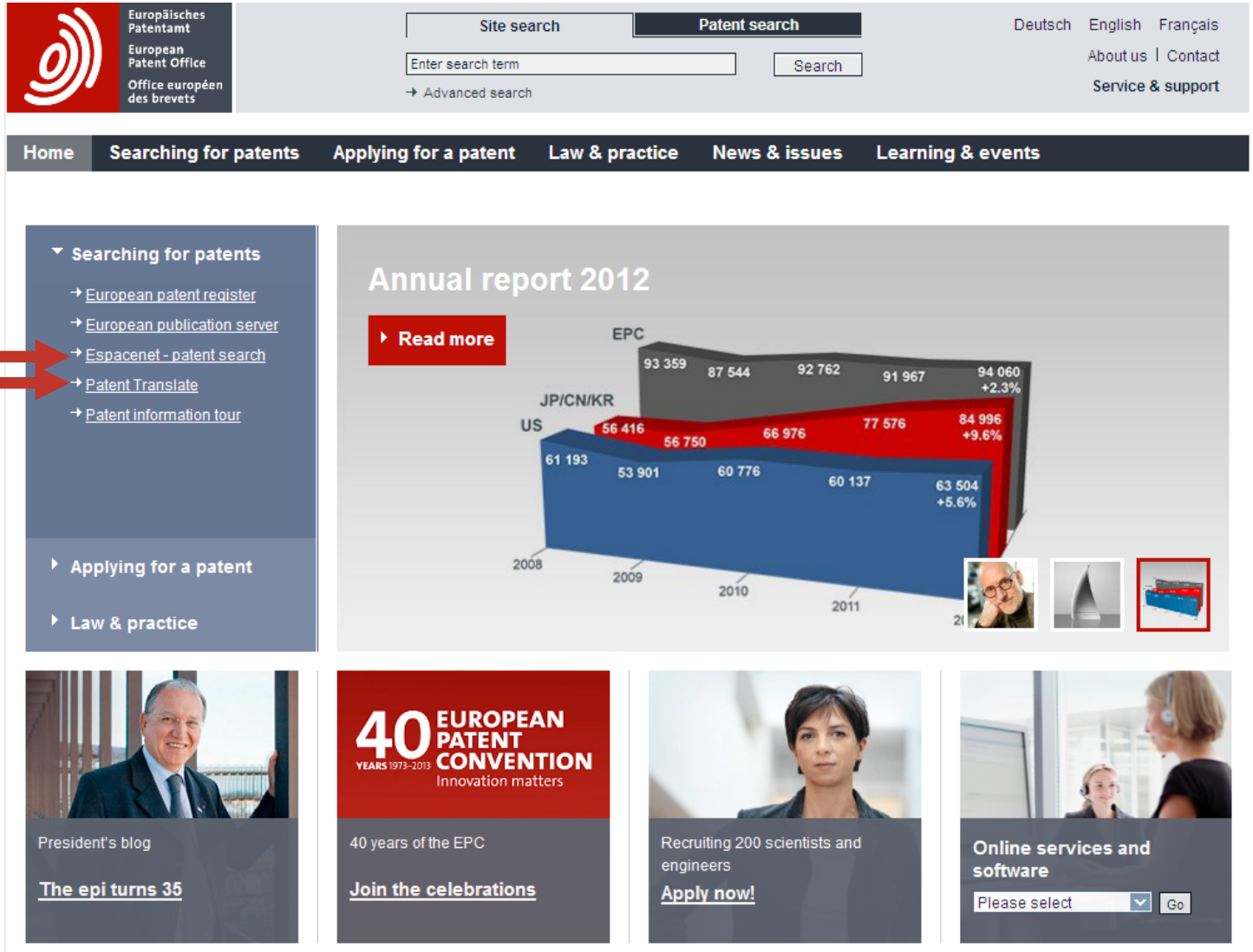
The public can use patent documents to

- 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 www.epo.org

Espacenet
85 million
patent documents,
easily searchable

Patent Translate
Automatic translation
to and from English
and 21 languages,
including Chinese
and Japanese



Key facts about Espacenet

- Most visited area of our website
  - around 20 million visits every year
- A worldwide collection of patent data
- For beginners and experts
  - smart search using key words
  - advanced search using combined search information, classification, etc.
- Translation of documents in one click
  - currently covers translation between English and 21 other languages, including Chinese and Japanese
  - by 2014 will cover 32 languages, including Russian and Korean

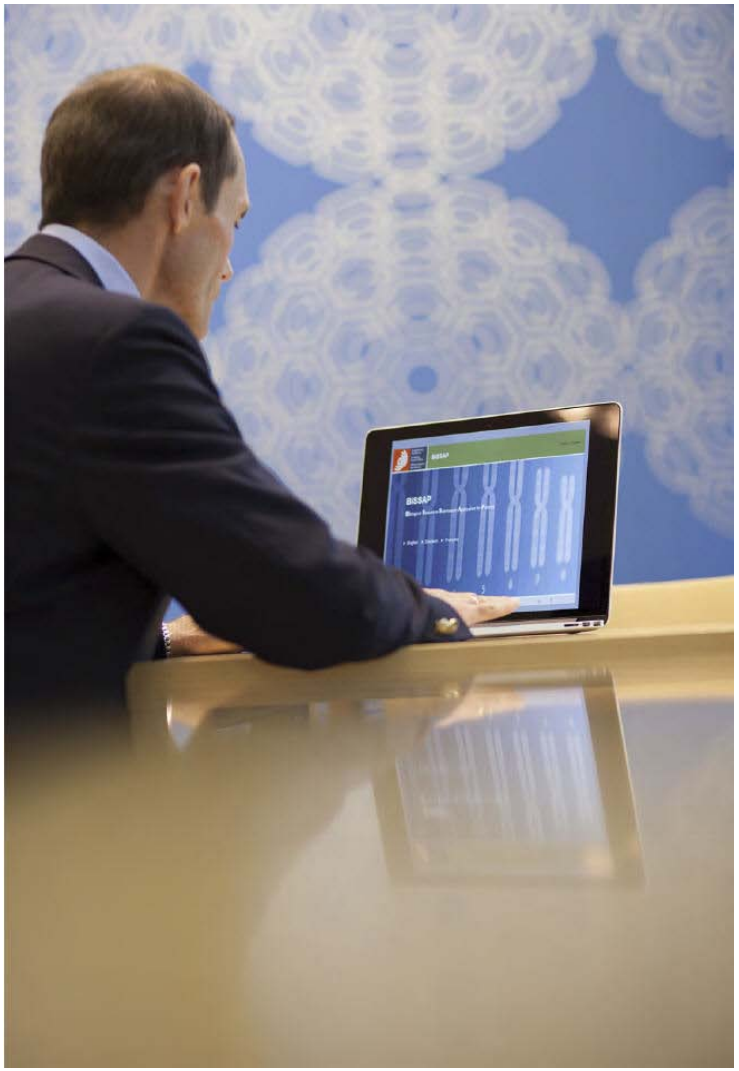
Contents

- The patent system
- Basics
- About us
- Statistics
- Contact
- Granting and publishing patents
- Quality patents
- Patents for the public
- **Training and awareness-raising events**

Expert training organised by the European Patent Academy

- Training on IP and our services and tools for
  - applicants and attorneys
  - judges
  - patent office staff
  - universities and research centres
  - businesses and SMEs

- An extensive collection of free e-learning materials on www.epo.org/learning



Raising awareness in society with the European Inventor Award

- Honours outstanding inventors
- Five categories and an international jury of experts
- Popular prize awarded for the first time in 2013
- Target audience: decision-makers in business, politics, science and the media
- In a different location in Europe every year

A MAJOR MEDIA CAMPAIGN WITH WORLDWIDE IMPACT

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