



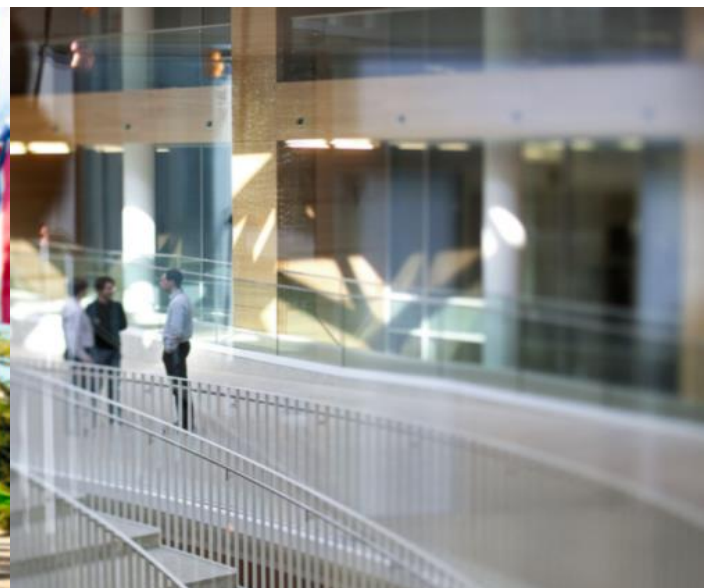
Europäisches
Patentamt

European
Patent Office

Office européen
des brevets

Patenting at the European Patent Office

An introduction to the EPO and the European patent system







Contents

- **The patent system**
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What is a patent?

<p>(19)  Europäisches Patentamt European Patent Office Office européen des brevets</p>		<p>(11)  EP 1 741 472 A2</p>	
<p>(12) EUROPEAN PATENT APPLICATION</p>			
<p>(43) Date of publication: 10.01.2007 Bulletin 2007/02</p>		<p>(51) Int CL: A62B 17/00^(2006.01) A41D 13/00^(2006.01)</p>	
<p>(21) Application number: 06122328.5</p>			
<p>(22) Date of filing: 15.02.2001</p>			
<p>(84) Designated Contracting States: DE FR GB IT</p>		<p>• Taylor, Frank, P Dayton, OH 45409 (US)</p>	
<p>(30) Priority: 03.03.2000 US 517919</p>		<p>(74) Representative: Asquith, Julian Peter Marks & Clerk, 4220 Nash Court, Oxford Business Park South Oxford OX4 2RU (GB)</p>	
<p>(62) Document number(s) of the earlier application(s) in accordance with Art. 76 EPC: 01912744.8 / 1 259 294</p>			
<p>(71) Applicant: LION APPAREL, INC. Dayton, OH 45413-0576 (US)</p>			
<p>(72) Inventors: • Aldridge, Donald New Carlise, OH 45344 (US)</p>			
<p>(74) Representative: Asquith, Julian Peter Marks & Clerk, 4220 Nash Court, Oxford Business Park South Oxford OX4 2RU (GB)</p>			
<p><u>Remarks:</u> This application was filed on 16 - 10 - 2006 as a divisional application to the application mentioned under INID code 62.</p>			
<p>(54) Firefighting garment</p>			
<p>(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,</p>		<p>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.</p>	
<p>FIG. 1</p>			
<p>Printed by Jouve, 75001 PARIS (FR)</p>			

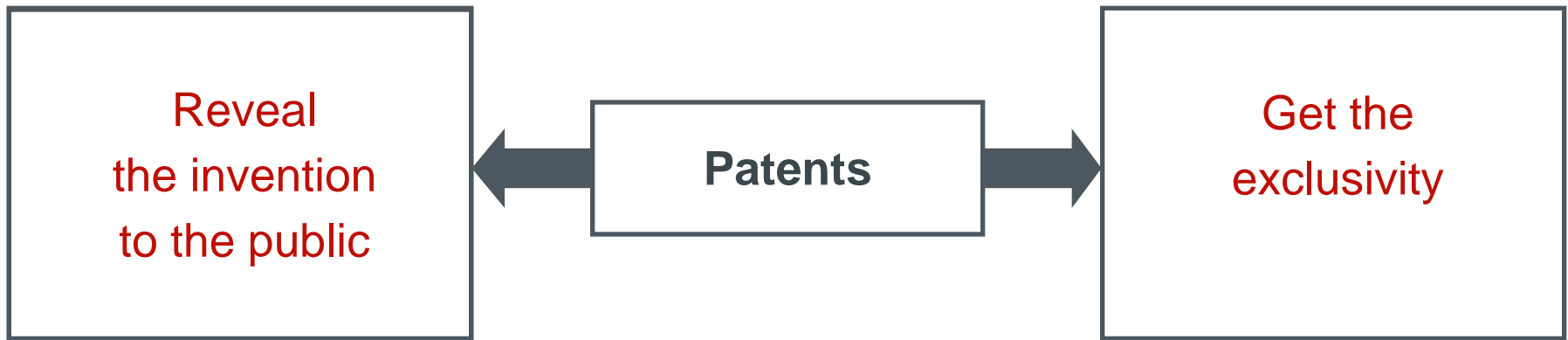
- A patent is a legal title granting its holder the right to **prevent third parties** from commercially using an invention **without authorisation**.



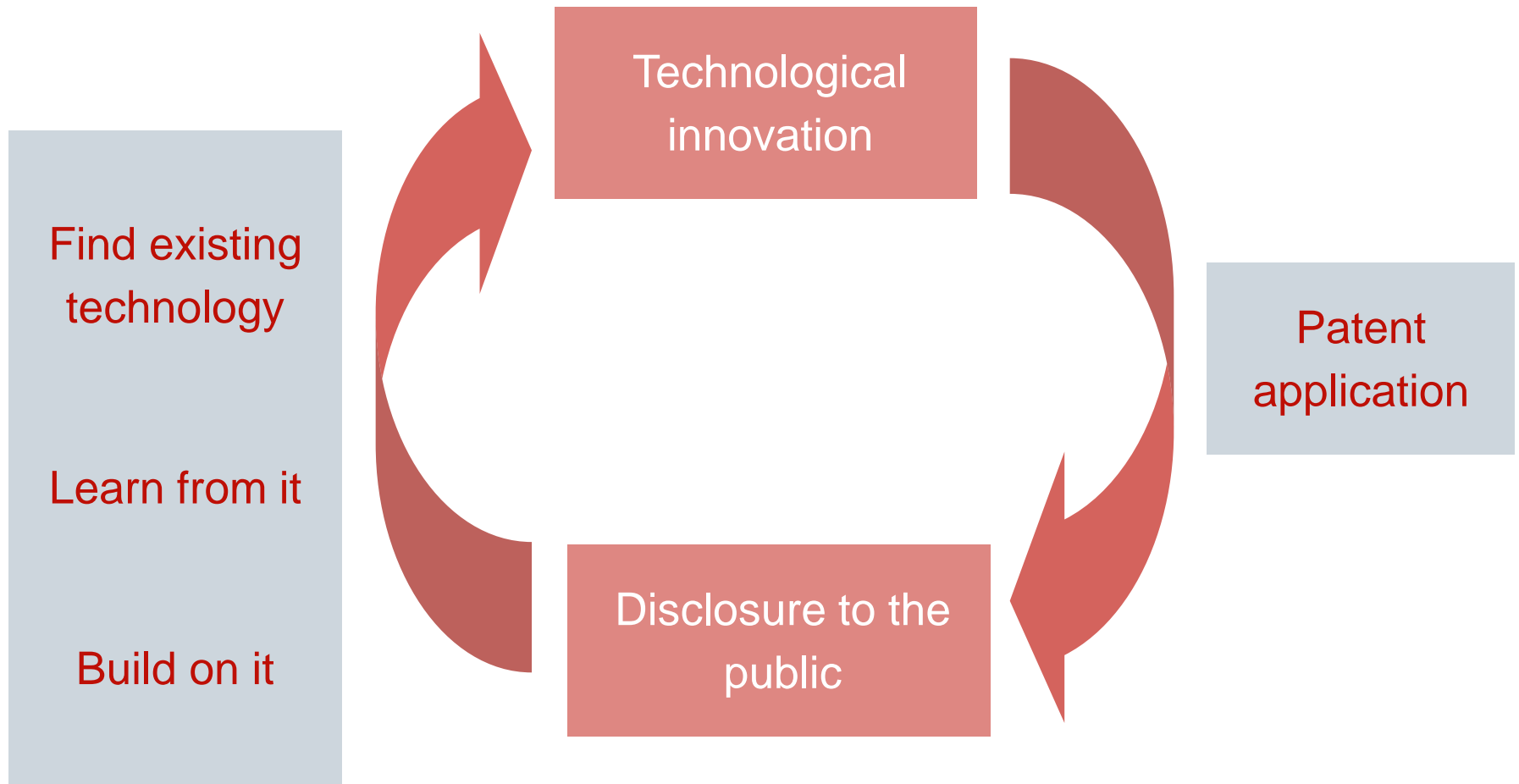
- In return for this protection, the holder has to **disclose the invention to the public**.
- Protection is granted:
 - for a **limited period**, generally 20 years
 - for a **specific geographic area**

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A simple contract



A fair system driving knowledge transfer and innovation



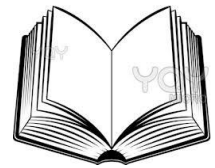
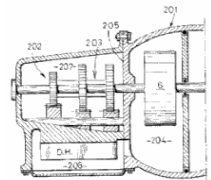
An incentive for economic growth



- Makes the latest technological knowledge available to the public
- Inspires further innovation
- Prevents duplication of R&D
- Helps identify new partners and allows licensing
- Gives patent holders time to recoup their development costs

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

Advantages and disadvantages of patenting

Advantages

- Exclusivity enables investment and higher returns on investment
- Strong, enforceable legal right
- Makes invention tradable (licensing)

Disadvantages

- Reveals invention to competitors (after 18 months)
- Can be expensive
- Patent enforceable only after grant (this can take 4-5 years)

Alternatives to patenting

Information disclosure (publishing)

- | | |
|---|---|
| <ul style="list-style-type: none">• Cheap• Prevents others from patenting the same invention | <ul style="list-style-type: none">• Does not offer exclusivity• Reveals the invention to competitors |
|---|---|

Secrecy (creating a trade secret)

- | | |
|--|---|
| <ul style="list-style-type: none">• Cheap (but there is the cost of maintaining secrecy)• Does not reveal the invention | <ul style="list-style-type: none">• No protection against reverse-engineering/duplication of invention• Difficult to enforce• "Secrets" often leak quite fast |
|--|---|

Do nothing

- | | |
|--|---|
| <ul style="list-style-type: none">• No effort required | <ul style="list-style-type: none">• Does not offer exclusivity• Competitors will often learn details |
|--|---|

Can trade secrets be an alternative to patents?

- If the invention is a process (e.g. a process of manufacturing) "trade secrets" may be a viable alternative
- But trade secrets can leak out and, if they do, there is no protection
- Once the invention has been disclosed, it cannot be patented
- In other cases it may be preferable to keep inventing without patenting – simply keeping ahead of competitors by bringing new products onto the market faster than they do

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.

What not to do when considering filing a patent application



- **No publication** prior to filing
e.g. no article, press release, conference presentation/poster/proceedings or blog entry



- **No sale** of products incorporating the invention prior to filing



- **No lecture or presentation** prior to filing
except under a **non-disclosure agreement (NDA)**



- Seek **professional advice** soon!
- **File before others do!**

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

If claimed
"as such"



¹⁾ See Article 52 EPC and the case law of the boards of appeal.

Exceptions to patentability as defined by the EPC¹⁾

- **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.

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.

Our status

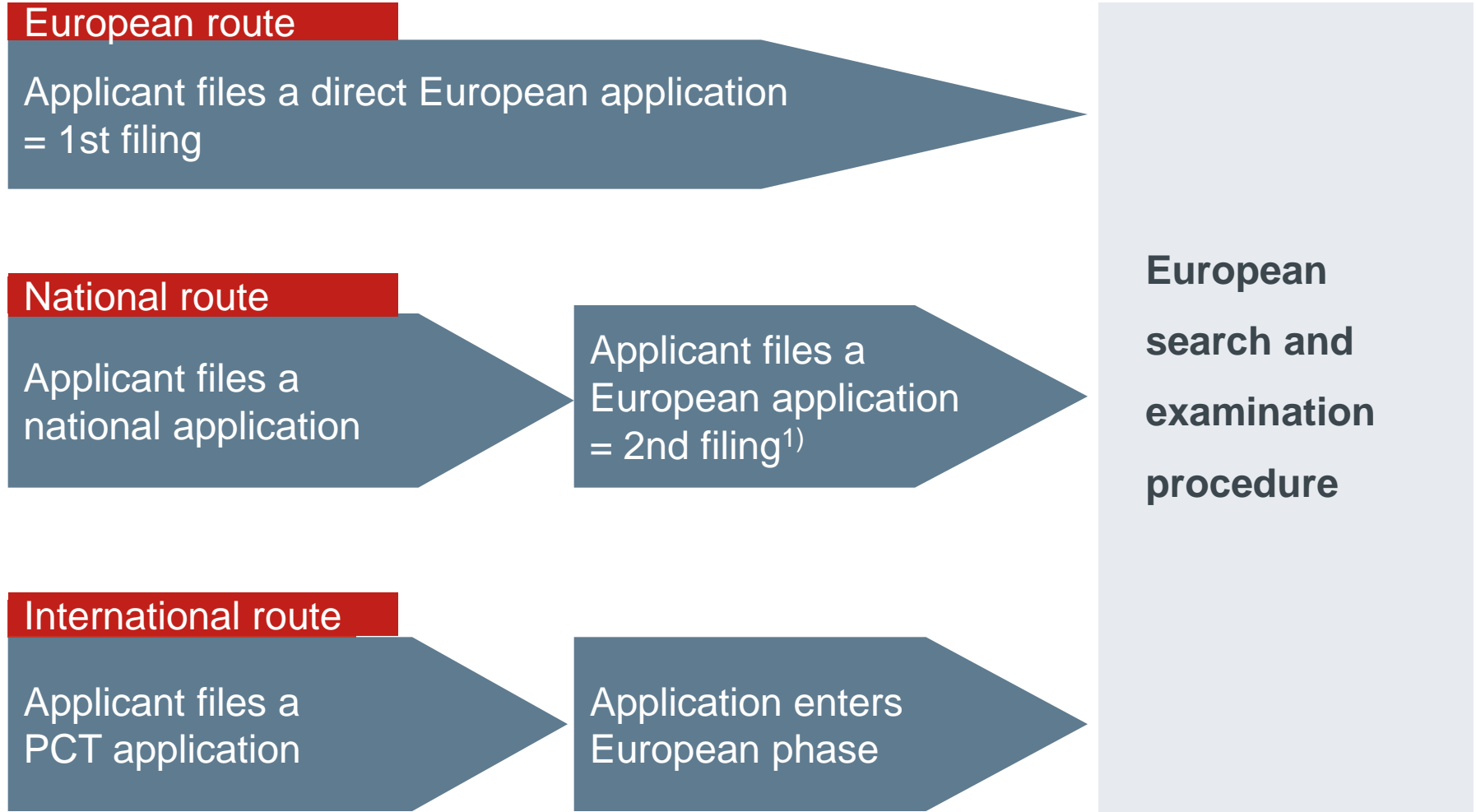


- **Second-largest intergovernmental institution** in Europe
- Not an EU institution
- **Self-financing**, i.e. revenue from fees covers operating and capital expenditure

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



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**
 - for up to 38 EPO member states, 2 Extension and 2 Validation states
 - 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

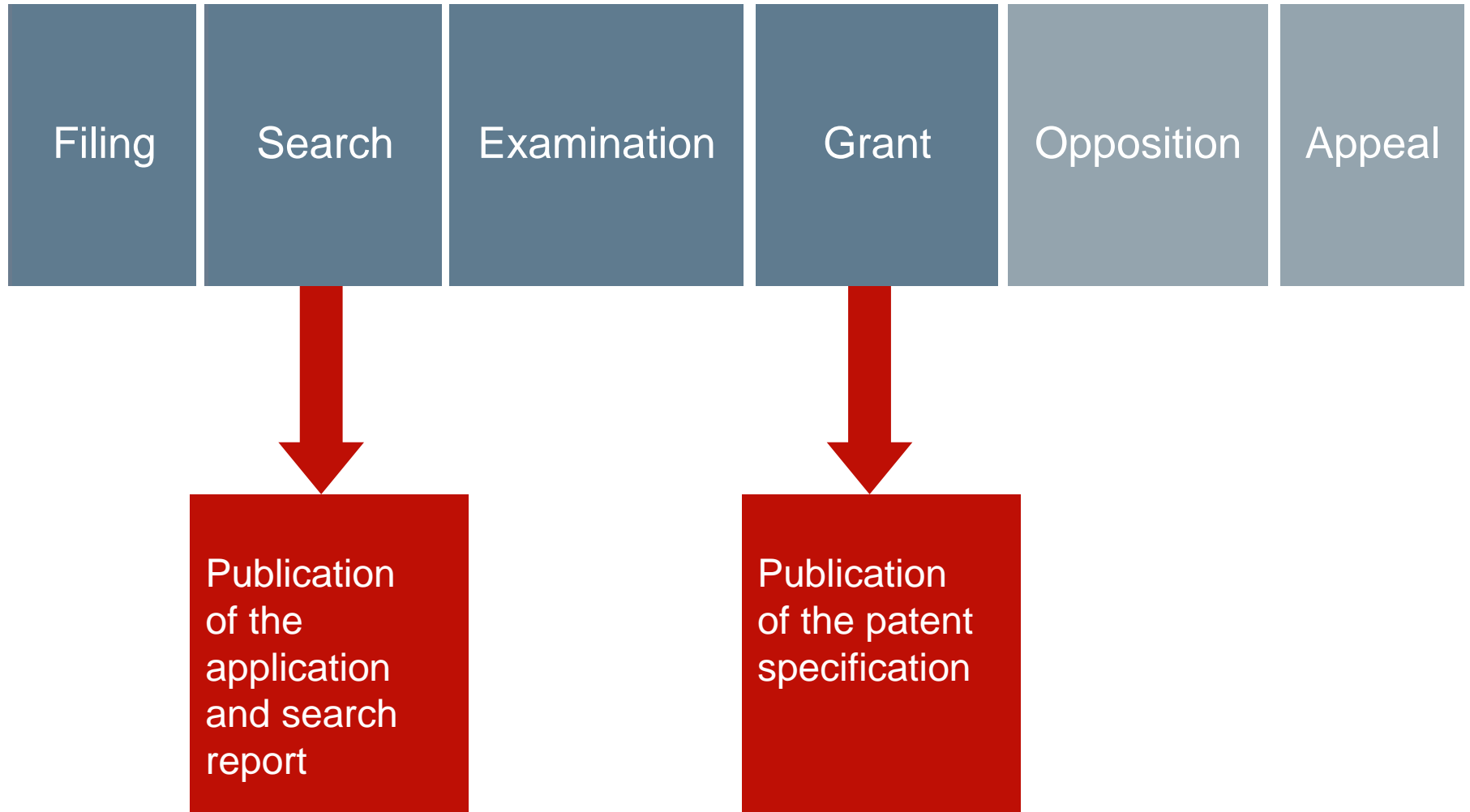


- We act as a **receiving office for international applications (PCT)**
- We carry out approximately:
 - **38%** of all international search procedures
 - **56%** of all international preliminary examinations
- The EPO delivers the international search report **within 3 months***

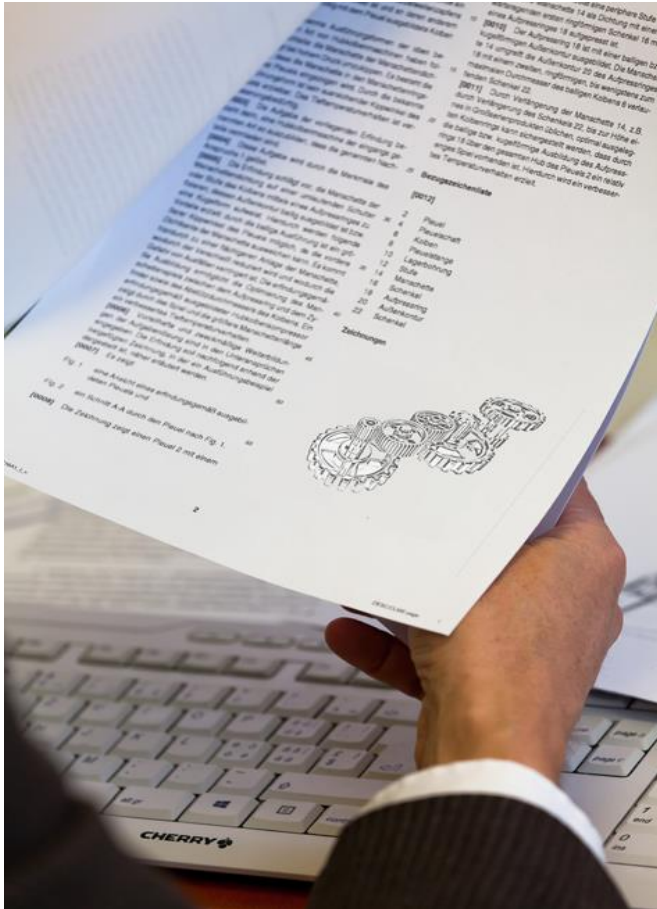
From the date of receipt of the application by the International Searching Authority.



Basic steps in the European grant procedure



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

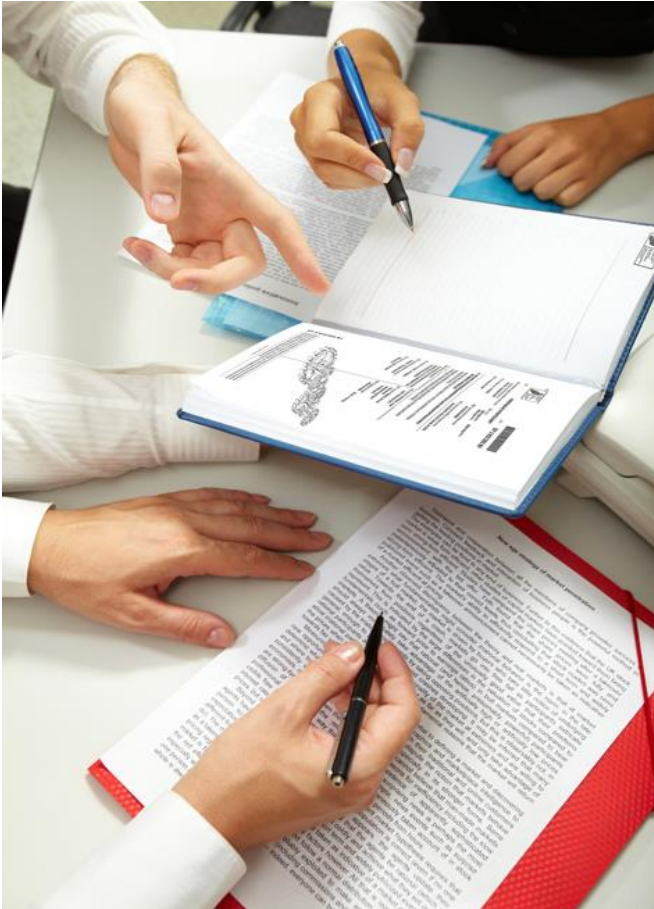


- Patent applications are published on Espacenet, **18 months after the date of filing** (or earliest priority date).
- The **search report** is also published.
- Third parties can **submit observations** at any time prior to grant.



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

Opposition



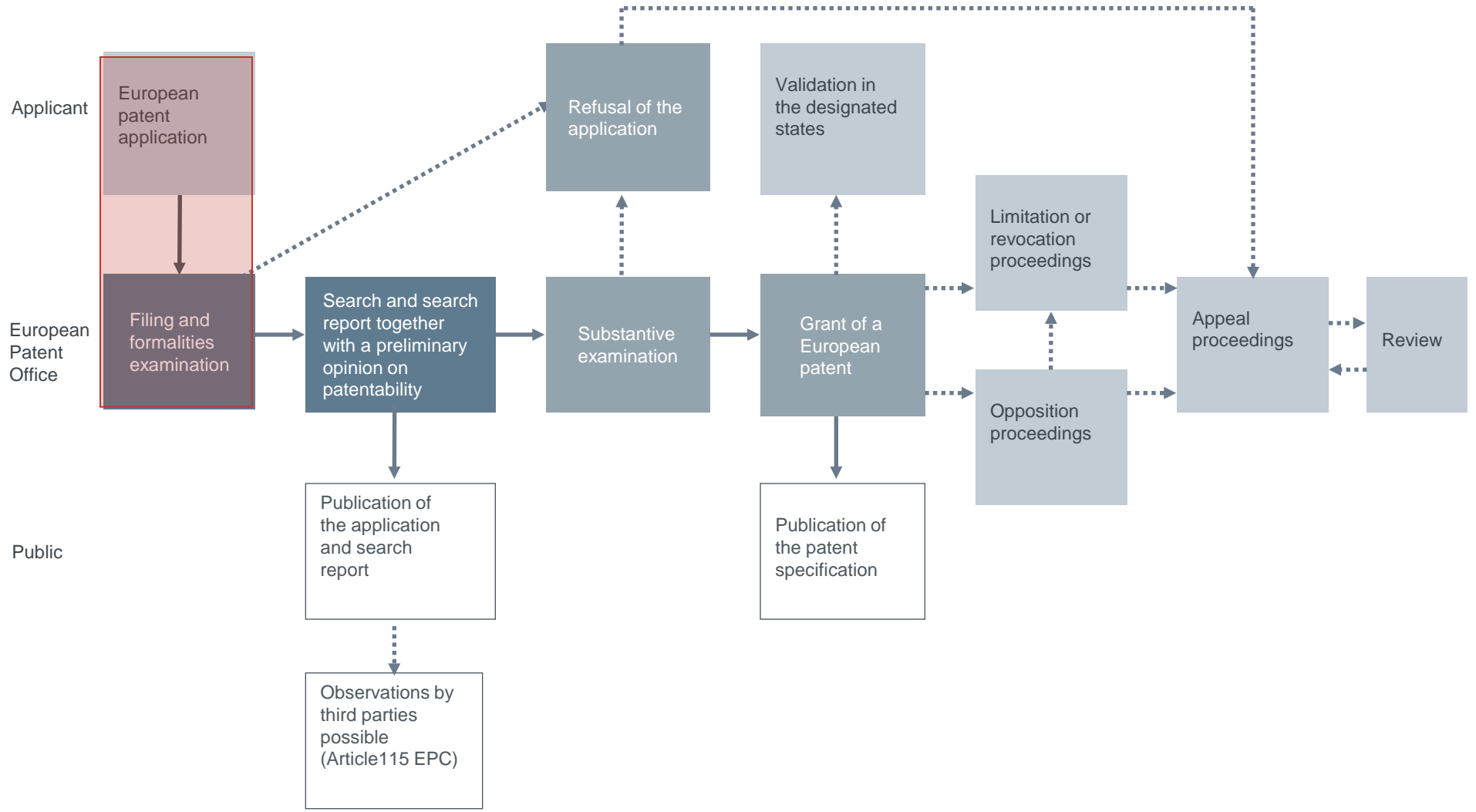
- Any person may **oppose a European patent** within nine months of its publication.
- In **70% of opposition decisions**, the **patent is upheld** either as granted or in amended form.

Appeal



- 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 grant procedure at a glance






Filing a patent application

- The first step is for the applicant to file a request for grant of a European patent.
- The application must be accompanied by the required documentation.
- Applications may be filed online.

Request for grant of a European patent



Europäisches Patentamt
 European Patent Office
 Office européen des brevets

Antrag auf Erteilung eines europäischen Patents

Request for grant of a European patent

Requête en délivrance d'un brevet européen

Nachrechnung von Form 1001 zu einer früher eingereichten Anmeldung nach Regel 40 (1) vom Form 1001 filed further to a previous application under Rule 40(1) on B-dept ou formulaire 1001 pour une demande déposée antérieurement au titre de la règle 40(1) en date du

Bestätigung einer bereits durch Fax eingereichten Anmeldung vom Confirmation of an application already filed by fax on Confirmation d'une demande déjà déposée par téléfax le

bei
with
auprès de

Nur für amtlichen Gebrauch / For official use only / Cadre réservé à l'administration	
1	Anmelde­nummer / Application No. / N° de la demande <div style="float: right; border: 1px solid black; padding: 2px;">MKEY</div>
2	Tag des Eingangs (Regel 35 (2)) / Date of receipt (Rule 35(2)) / Date de réception (règle 35(2)) <div style="float: right; border: 1px solid black; padding: 2px;">DREC</div>
3	Tag des Eingangs beim EPA (Regel 35 (4)) / Date of receipt at EPO (Rule 35(4)) / Date de réception à l'OEB (règle 35(4)) <div style="float: right; border: 1px solid black; padding: 2px;">RENA</div>
4	Anmelde­tag / Date of filing / Date de dépôt

5 **Es wird die Erteilung eines europäischen Patents und gemäß Artikel 94 die Prüfung der Anmeldung beantragt / Grant of a European patent, and examination of the application under Article 94, are hereby requested / Il est demandé la délivrance d'un brevet européen et, conformément à l'article 94, l'examen de la demande**

EXAM 4

5.1 **Der Anmelder verzichtet auf die Aufforderung nach Regel 70 (2), zu erklären, ob die Anmeldung aufrechterhalten wird / The applicant waives his right to be asked whether he wishes to proceed further with the application (Rule 70(2)) / Le demandeur renonce à être invité, conformément à la règle 70(2), à déclarer s'il souhaite maintenir sa demande**

MEPA

6 **Zeichen des Anmelders oder Vertreters (max. 15 Positionen) / Applicant's or representative's reference (max. 15 keystrokes) / Référence du demandeur ou du mandataire (max. 15 caractères ou espaces)**

AREF

Anmelder / Applicant / Demandeur

APPR

7 **Name / Nom**

8 **Anschrift / Address / Adresse**

9 **Zustellanschrift / Address for correspondence / Adresse pour la correspondance**

Zeichen des Anmelders / Applicant's reference / Référence du demandeur

TRAN

FILL

1

EPA/PO/DB 1001.1 12/07



Filing a patent application

- Where? EPO (Munich, The Hague, Berlin) (Art 75 (1)a) EPC
National Patent Offices (Art. 75 (1) b) and 77 EPC
PCT (Art. 150 *et seq.* EPC)
- How? Post (R. 35 EPC)
Fax
EPO online services
- Who? Inventor/applicant (Art. 60 (1) und (3) EPC)

Online filing



2000

The introduction of the EPO's electronic *epoline* service allows applicants to file **patent applications** via the internet.

Online fee payment and file inspection follow in 2002.

The online filing of oppositions and appeals is introduced **in March 2009**.

Date of filing

- The date of filing is crucial because:
 - it determines the state of the art
 - it must be within the priority year if priority is claimed
 - many deadlines depend on this date
- For applicants it is therefore essential to acquire a date of filing.
- The requirements are laid out in R. 40 EPC.
 - indication that a European patent is sought
 - identification of the applicant
 - description or reference to a previously filed application
- For a date of filing to be accorded, the application may be filed in any language. No claims, fees or declaration of priority are necessary at this point ...
... but they will be required later!



Date of filing

- The application as originally filed will define any amendments to come.
- The application as originally filed consists of the documentation present at the date of filing
- This has impact on subsequent phases: search and examination may be restricted to the original scope of protection sought.

Formalities examination

- Once the date of filing is accorded, the file must be complete.
- The following aspects are examined for compliance (R. 57 EPC):
 - Translation of the application (Art. 14 EPC)
 - Request for grant of a European (R. 41 EPC)
 - One or more claims (Art. 78 EPC)
 - An abstract (Art. 78 EPC)
 - Filing fee (additional fee for the 36th and subsequent pages) and the search fee paid (17 (2), 36 (3), 38 EPC)
 - Designation of the inventor (R. 19 (1) EPC)
 - Claim to priority (R. 52, 53 EPC)
 - Representation (Art. 133 (2) EPC)
 - Formal requirements (R. 46, 49 EPC)
 - Nucleotide or amino acid sequences

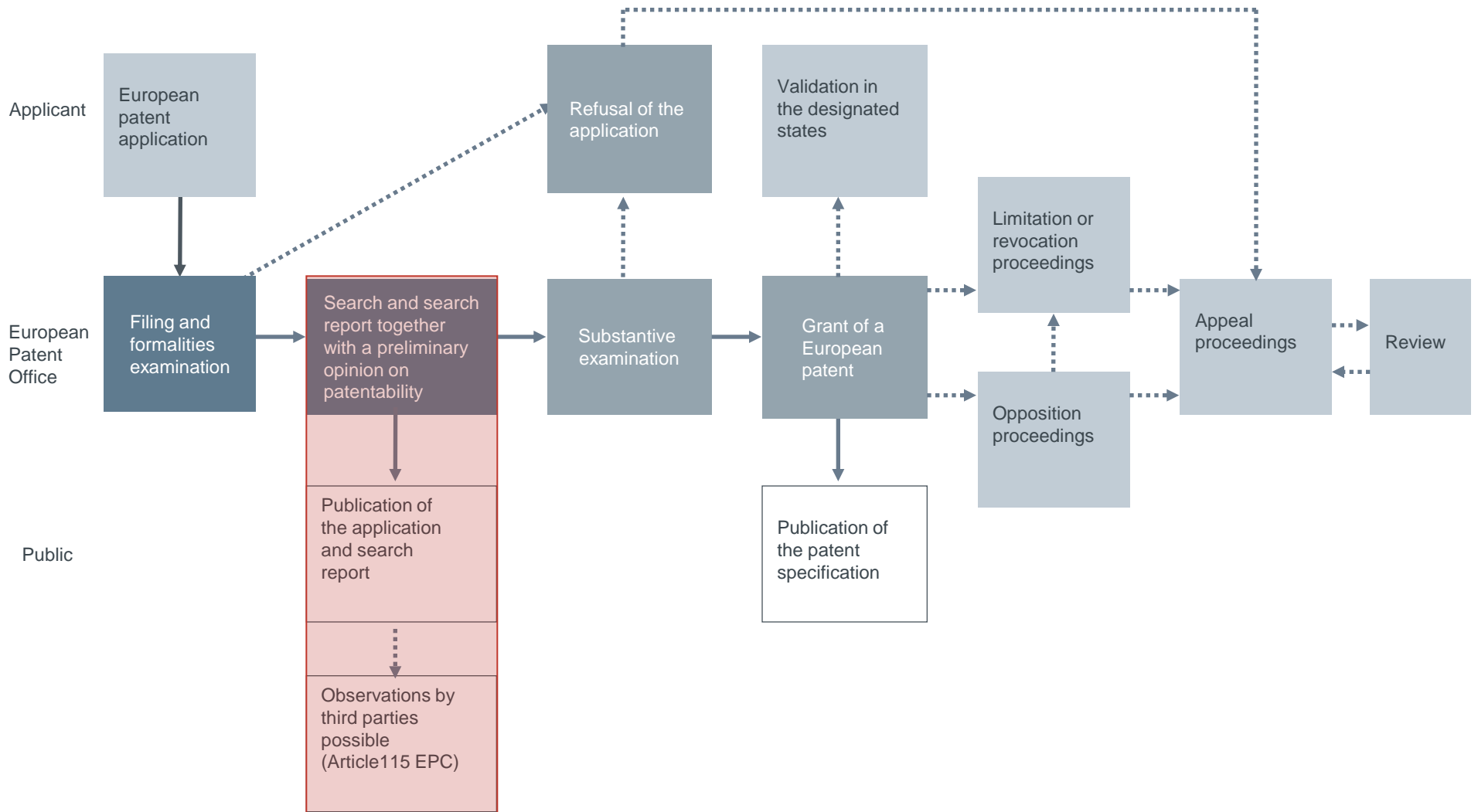


File constitution

- If all the information is present, a paper copy of the file is printed, containing at least:
 - a description
 - claims
 - drawings (where available)

- Different codes are assigned depending on whether the application
 - is a first filing, i.e. without any priority claim
 - claims priority from a previous application
 - is entering the European phase after the Patent Cooperation Treaty phase

The grant procedure at a glance





Search

Purpose of the search (Art. 92 EPC)

- To discover the state of the art at the relevant date.
- To prepare for substantive examination and to determine whether, and if so to what extent, the invention to which the application relates is new and involves an inventive step.

Search documentation

- Internal and external documents
- Patent and non-patent literature



Search phase

- The outcome of the search phase is:
 - a search report listing the relevant prior art (Art. 92, R. 61 EPC)
 - an opinion on whether the application and the invention to which it relates meet the requirements of the EPC (R. 62 (1) EPC)
- The combination of these two documents is known as the extended European search report (R. 62 EPC).

European search report

The search report includes the citations of relevant documents.

Categories are assigned (X, Y, ...) to indicate the relevance and type of citation.

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB 1 203 328 A (TREVOR JOHN FRANKLIN) 26 August 1970 (1970-08-26) example 1 ---	1,2,6-10
X	WO 94 12184 A (SYNTEX INC) 9 June 1994 (1994-06-09) examples 1,2 ---	1,10
X	US 5 688 529 A (HEGDE SAYEE GOJANAN ET AL) 18 November 1997 (1997-11-18) abstract ---	1,7,10
Y	WO 97 38689 A (HAEBERLIN BARBARA ;CIBA GEIGY AG (CH); MAK CHING PONG (CH); MEINZE) 23 October 1997 (1997-10-23) cited in the application example 1 --- -/--	1-10

The opinion provides a written analysis of the patentability of the application, based on the cited documents.

- 1 The following documents are referred to in this communication:
D1 : US 6 243 026 B1 (JUDGE KEVIN ET AL) 5 June 2001 (2001-06-05)

Clarity

2. The present application refers to a traffic signal priority system, although the wording of claim 1 is such that tries to encompass a generic entry/exit control system. This however is not in line with the description, page 3, lines 3-5, where is clearly state that the invention directs to a traffic signal priority system. As such will be the claimed invention understood in the following (Art. 84 EPC). The applicant is reminded that the full scope of the claims must be supported by the

3 Independent claims

- 3.1 The present application does not meet the criteria of Article 52(2) EPC because the subject-matter of claim 1 is not new in the sense of Article 54(1) and (2) EPC.

Document D1 discloses (the references in parenthesis applying to this document):

A mobile event triggering method, comprising
 detecting an entry of a vehicle into a defined event location (D1, col. 14, line 53)
 evaluating a vehicle status with respect to at least one entry criterion (col. 14, line 53)
 conducting an event entry action when the vehicle status meets said at least one entry criterion (D1, col. 14, line 55; lines 26-28)
 evaluating the vehicle status with respect to at least one mobile event criterion corresponding to at least one mobile event
 activating said at least one mobile event when the vehicle status meets said at least one mobile event criterion corresponding to said at least one mobile event



Publication

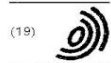
- Patent applications are published around 18 months from the date of filing or priority.
 - These documents are known as A publications (Art. 93 EPC).
- Publication makes the contents of the application available to the public. It also
 - provides provisional protection (Art. 67 EPC);
 - enables third parties to submit observations (Art. 115 EPC);
 - forms part of the state of the art (Art. 54 (2) EPC).



Publication of the application

- If it is ready, the European search report may be published together with the application.
- If it is not ready, the application is published without it, and the search report is published separately.
 - They can both be found in the **publication server**.
- The opinion is **not** published together with the search report (R. 62 EPC) ...

... but it is made available to the public as part of the written procedure via **online** file inspection.



Europäisches Patentamt
 European Patent Office
 Office européen des brevets



(11) EP 0 797 950 A1

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication: 01.10.1997 Bulletin 1997/40 (51) Int Cl.®: A61B 5/042

(21) Application number: 97400666.0

(22) Date of filing: 25.03.1997

(64) Designated Contracting States:
BE DE FR GB IT NL SE

(72) Inventor: Ouchi, Teruhiko
Tokyo (JP)

(30) Priority: 25.03.1996 JP 67653/96

(74) Representative: Joly, Jean-Jacques et al
Cabinet Beau de Loménie
158, rue de l'Université
75340 Paris Cédex 07 (FR)

(71) Applicant: TERUMO KABUSHIKI KAISHA
Tokyo (JP)

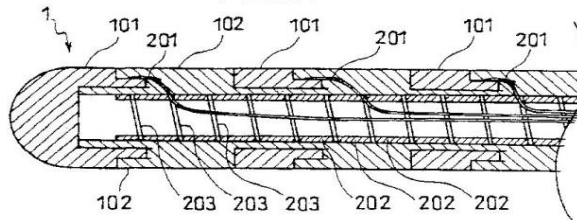
(54) Electrode catheter

(57) The electrode catheter comprises a metal inner tube (202) with distal and proximal ends and an outer tube (102) formed of a synthetic resin so as to cover the outside surfaces of said inner tube (202). The inner tube (202) has a helical slit (203) formed from the distal end to a predetermined position. One or more insulated wires (201) are laid inside the inner tube (202) from the proximal end to the distal end portion, and one or more electrodes (101) are disposed on the outer tube. The

wires (201) are brought out of the inner tube (202) through the slit (203) and are connected to the electrodes (101).

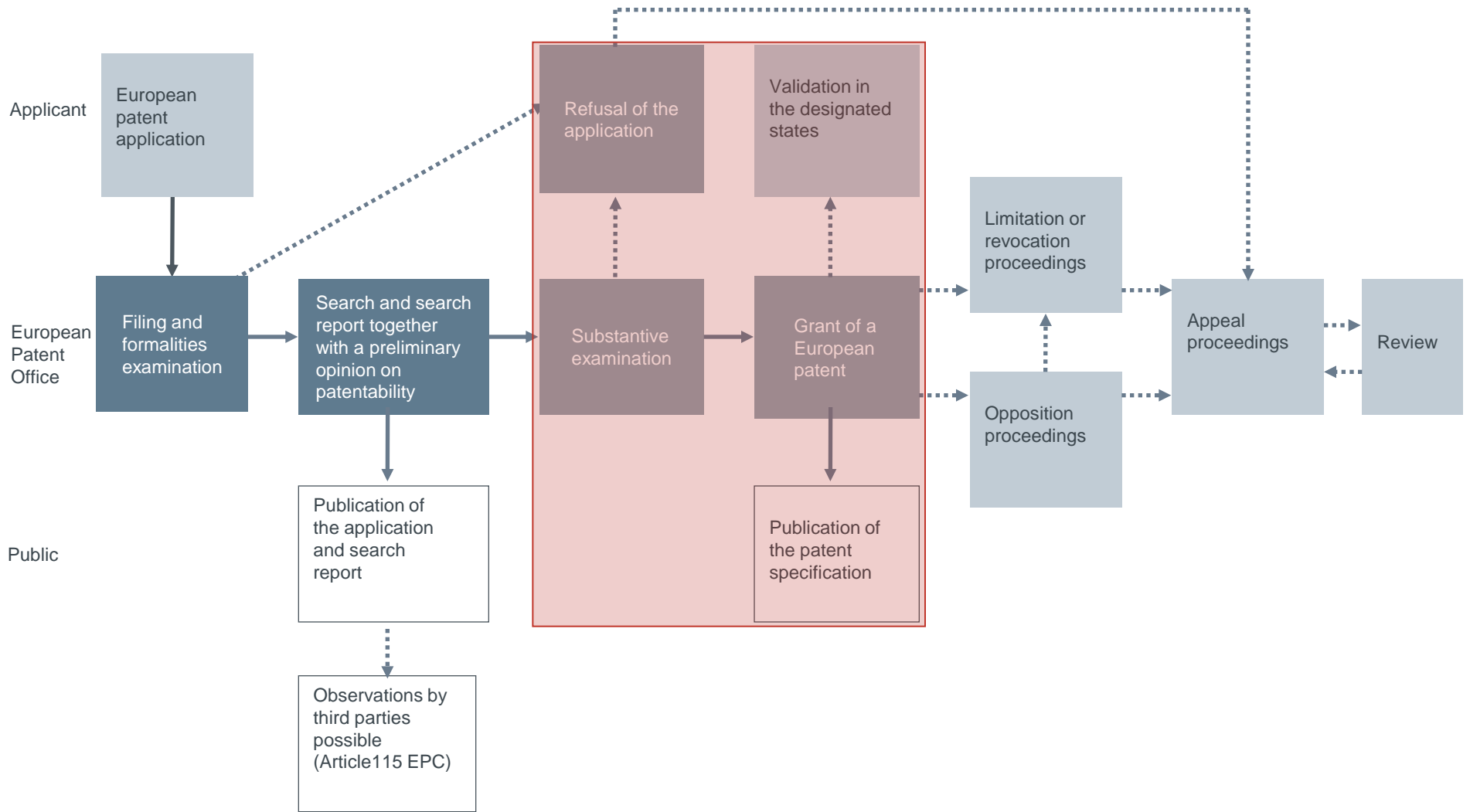
The electrode catheter has a high pushability and torque-transmission capability along with a high flexibility and kink resistance. It can be easily inserted into a desired position of complexly branched thin blood vessels without kink or breakage of the wires caused by collapse of the lumen.

FIG.2



EP 0 797 950 A1

The grant procedure at a glance





Substantive examination

- For an application to be granted, all the requirements of the EPC must be met (Art. 97 EPC).
- The applicant may request examination up to six months after the mention of publication of the search report (R. 70 EPC).

The examining division



- The examining division consists of three members (Art. 18 EPC).
- Each decision is the responsibility of the division as a whole.
- Examination is an ex-parte procedure in which only the applicant is involved.
 - Third parties may only submit observations

Substantive examination

- Substantive examination mainly deals with how the invention is disclosed and defined:
 - Clear definition of the protection sought (Art. 84 EPC).
 - Sufficient disclosure of the invention (Art. 83 EPC).
 - Unity of invention (Art. 82 EPC).

- A patent may be granted for an invention which
 - is new (Art. 54 EPC),
 - involves an inventive step (Art. 56 EPC),
 - has industrial applicability (Art. 57 EPC),
 - ... and is not excluded from patentability (Art. 52-53 EPC).



Substantive examination

- These requirements are examined using the cited prior art as documentation to back up the arguments.
- All objections raised must be reasoned and supported by evidence.
- Examination cannot therefore take place until after the search phase has been completed.



Substantive examination

- Applicants and examiners exchange written communications stating their objections, arguments and amendments.
- The applicant must always be given the right to be heard (Art. 113 EPC). There can be no decision based on objections which have not been discussed.



Final outcome

- **The application meets the requirements of the EPC:**
 - + translation of the claims
 - + payment of grant and publishing fees
 - ➔ **grant**
 - Opposition period begins
 - Administration goes over to the national offices (+ "Validation")

- **The application does **not** meet the requirements of the EPC:**
 - ➔ **refusal**
 - Adverse decision may be appealed.

Publication of the European patent

- Granted European patents are published after the examination procedure.
 - These documents are known as B publications (Art. 98 EPC).
- Publication of the specification informs the public and
 - defines the granted exclusive right (Art. 64 EPC)
 - enables the opposition procedure (Art. 99 EPC)

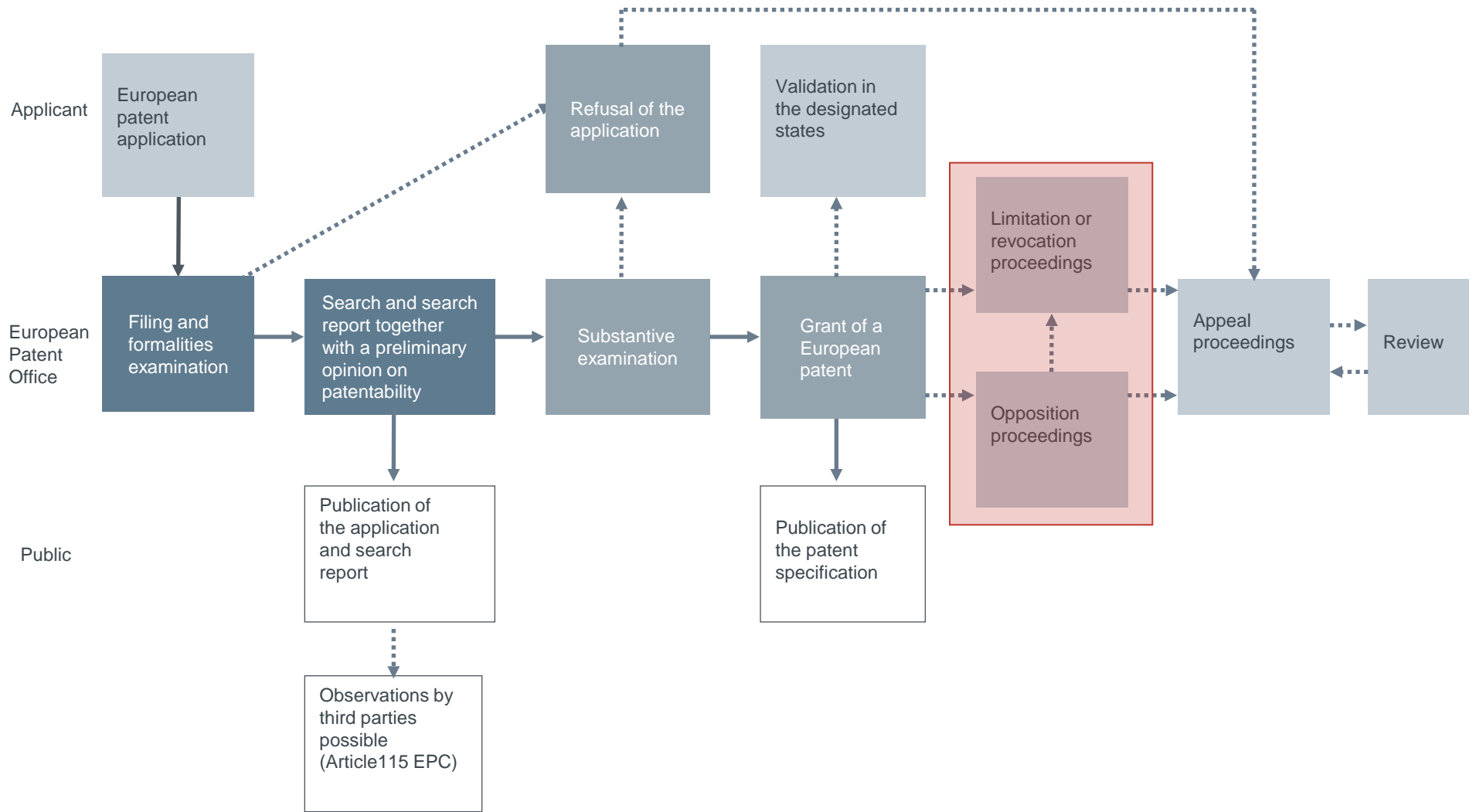
(19)			(11) EP 1 796 454 B1								
EUROPÄISCHE PATENTSCHRIFT											
(45)	Veröffentlichungstag und Bekanntmachung des Hinweises auf die Patenterteilung: 10.09.2008 Patentblatt 2008/37	(51) Int. Cl.:	A01D 41/14 (2006.01)								
(21)	Anmeldenummer: 06704260.6	(86)	Internationale Anmeldenummer: PCT/EP2006/050344								
(22)	Anmeldetag: 20.01.2006	(87)	Internationale Veröffentlichungsnummer: WO 2006/079609 (03.08.2006 Gazette 2006/31)								
(54) ERNTEGERÄT, INSBESONDERE ERNTEVORSATZ FÜR LANDWIRTSCHAFTLICHE ERNTEMASCHINEN ZUM AUFNEHMEN UND WEITERFÖRDERN VON HALMFRÜCHTEN HARVESTING EQUIPMENT, IN PARTICULAR HARVESTING ATTACHMENT FOR AGRICULTURAL HARVESTING MACHINES USED TO GATHER AND TRANSPORT CEREALS APPAREIL DE RECOLTE, EN PARTICULIER ACCESSOIRE DE RECOLTE POUR DES MACHINES DE RECOLTE AGRICOLES, SERVANT A CUEILLIR ET TRANSPORTER DES CEREALES											
(84)	Benannte Vertragsstaaten: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR	(74)	Vertreter: Holst, Sönke Deere & Company European Office Global Intellectual Property Services John-Deere-Strasse 70 68163 Mannheim (DE)								
(30)	Priorität: 29.01.2005 DE 102005004211	(56)	Entgegenhaltungen: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">EP-A- 1 685 755</td> <td style="width: 50%;">EP-A- 1 685 756</td> </tr> <tr> <td>DE-A-4102004 022 53</td> <td>DE-A1- 4 030 066</td> </tr> <tr> <td>DE-A1- 19 523 255</td> <td>FR-A- 2 814 324</td> </tr> <tr> <td>US-A- 4 355 690</td> <td>US-A- 5 934 382</td> </tr> </table>	EP-A- 1 685 755	EP-A- 1 685 756	DE-A-4102004 022 53	DE-A1- 4 030 066	DE-A1- 19 523 255	FR-A- 2 814 324	US-A- 4 355 690	US-A- 5 934 382
EP-A- 1 685 755	EP-A- 1 685 756										
DE-A-4102004 022 53	DE-A1- 4 030 066										
DE-A1- 19 523 255	FR-A- 2 814 324										
US-A- 4 355 690	US-A- 5 934 382										
(43)	Veröffentlichungstag der Anmeldung: 20.06.2007 Patentblatt 2007/25										
(73)	Patentinhaber: Maschinenfabrik Kemper GmbH & Co. KG 48973 Stadtlohn (DE)										
(72)	Erlfinder: <ul style="list-style-type: none"> • RICKERT, Clemens 48703 Stadtlohn (DE) • HÜNING, Martin 48727 Billerbeck (DE) 										

EP 1 796 454 B1

Anmerkung: Innerhalb von neun Monaten nach Bekanntmachung des Hinweises auf die Erteilung des europäischen Patents im Europäischen Patentblatt kann jedermann nach Maßgabe der Ausführungsordnung beim Europäischen Patentamt gegen dieses Patent Einspruch einlegen. Der Einspruch gilt erst als eingelegt, wenn die Einspruchsgebühren entrichtet worden ist. (Art. 99(1) Europäisches Patentübereinkommen).

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The grant procedure at a glance





Post-grant procedures

- After a European patent has been granted, three procedures may be initiated:
 - opposition
 - limitation
 - revocation

- These procedures may affect the patent as granted.



Opposition

- Any person may oppose a European patent within nine months of its publication.
- This procedure provides for a centralised possibility to rectify the grant of the patent.
- After the opposition period has expired, European patents may be only challenged in the individual countries in which they are valid.

Opposition

- A European patent may be opposed if according to the opponent:
 - the subject-matter of the claims is not new, inventive or industrially applicable (Art. 100(a) EPC);
 - the subject-matter of the claims is excluded from patentability or is not regarded as an invention (Art. 100(a) EPC);
 - the invention is not sufficiently disclosed (Art. 100(b) EPC);and/or
 - the granted patent goes beyond the original application as filed (Art. 100(c) EPC).

- New prior art may be submitted.

- Opposition procedures are independent of the examination procedure.

The opposition division



- The opposition division consists of three members (Art. 19 EPC).
- Each decision is the responsibility of the division as a whole.
- Opposition is an inter-partes procedure:
 - patent proprietor
 - opponent(s)



Appeals

- Any adverse decision made by the EPO is subject to a two-instance procedure.
- The department of the first instance - for example, the Receiving Section, the examining division or the opposition division - may refuse an application or a request.
- The party adversely affected may appeal in the second instance.



Appeal procedure

The boards of appeal

The EPO's **legal boards of appeal** and **technical boards of appeal** give independent final rulings on appeals against decisions taken during grant and opposition proceedings. They can exercise any power within the competence of the department responsible of the decision appealed or remit the case to that department for further prosecution (Art. 106-111 EPC).

Appeal procedure

The Enlarged Board of Appeal

- The **Enlarged Board of Appeal** issues decisions and opinions on cases referred to it, either to ensure uniform application of the law or to rule on a point of law of fundamental importance (Art. 112 EPC). These cases are referred
 - either by the boards of appeal
 - or by the President (where two boards have given different decisions)
- It also gives decisions on petitions for **review** of the decisions of the boards of appeal (Art. 112a EPC).

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**
 - 1 billion records of patent, non-patent literature and other sources incl. 40 million records from Asia
 - databases updated daily

- **High-performance EPOQUE search tool**
 - used by examiners
 - a worldwide benchmark
 - used by 47 patent offices, including Australia, Brazil 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).







Quality controls and commitment to improvement

- **Guidelines and instructions** for examiners
- **Spot-checks** on search reports and examination quality
- Internal **quality audits**
- **ISO 9001 certified Quality Management System**
for the entire patent process



What information do patent documents contain?

(19)   (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 • Taylor, Frank, P Dayton, OH 45409 (US)

(30) Priority: 03.03.2000 US 517919 (74) Representative: Asquith, Julian Peter Marks & Clerk, 4220 Nash Court, Oxford Business Park South Oxford OX4 2RU (GB)

(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)

(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

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EP 1 741 472 A2

- **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
 over 90 million patent documents, easily searchable

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



The screenshot shows the EPO website homepage with the following elements:

- Header:** EPO logo and name in German, English, and French. Search bars for 'Site search' and 'Patent search' with a 'Search' button and a link to 'Advanced search'. Language options: Deutsch, English, Français. Links for 'About us | Media' and 'Service & support | Contact'.
- Navigation Bar:** Home, Searching for patents, Applying for a patent, Law & practice, News & issues, Learning & events.
- Main Content Area:**
 - Left Column:** A menu for 'Searching for patents' with links to 'European patent register', 'European publication server', 'Espacenet - patent search', 'GPI - advanced search', 'Patent Translate', and 'Patent information tour'. Below this are links for 'Applying for a patent' and 'Law & practice'.
 - Right Column:** A large banner with the text 'Access the EPO website anywhere, anytime' and a button 'Visit the mobile site'. Below the banner is a 'Mobile website' section with two small images.
- Footer/Bottom Section:** Four promotional tiles:
 - 'East meets West 2015 - Forum on Asian patent information' with a 'Register now' button.
 - 'The EPO will recruit 150 engineers and scientists in 2015' with a button 'Apply now for our Spring Selection Events'.
 - 'Business opportunities and validation of European patents in Morocco' with a button 'Register for Focus Morocco'.
 - 'Online services and software' with a search bar containing 'Searching for patents' and a 'Go' button.

Key facts about Espacenet

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.

Objectives of the unitary patent

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

- ➔ Facilitates access to patent protection for **SMEs** and **research centres**
- ➔ **Makes Europe more attractive** for innovation and investors
- ➔ Boosts Europe's **competitiveness**

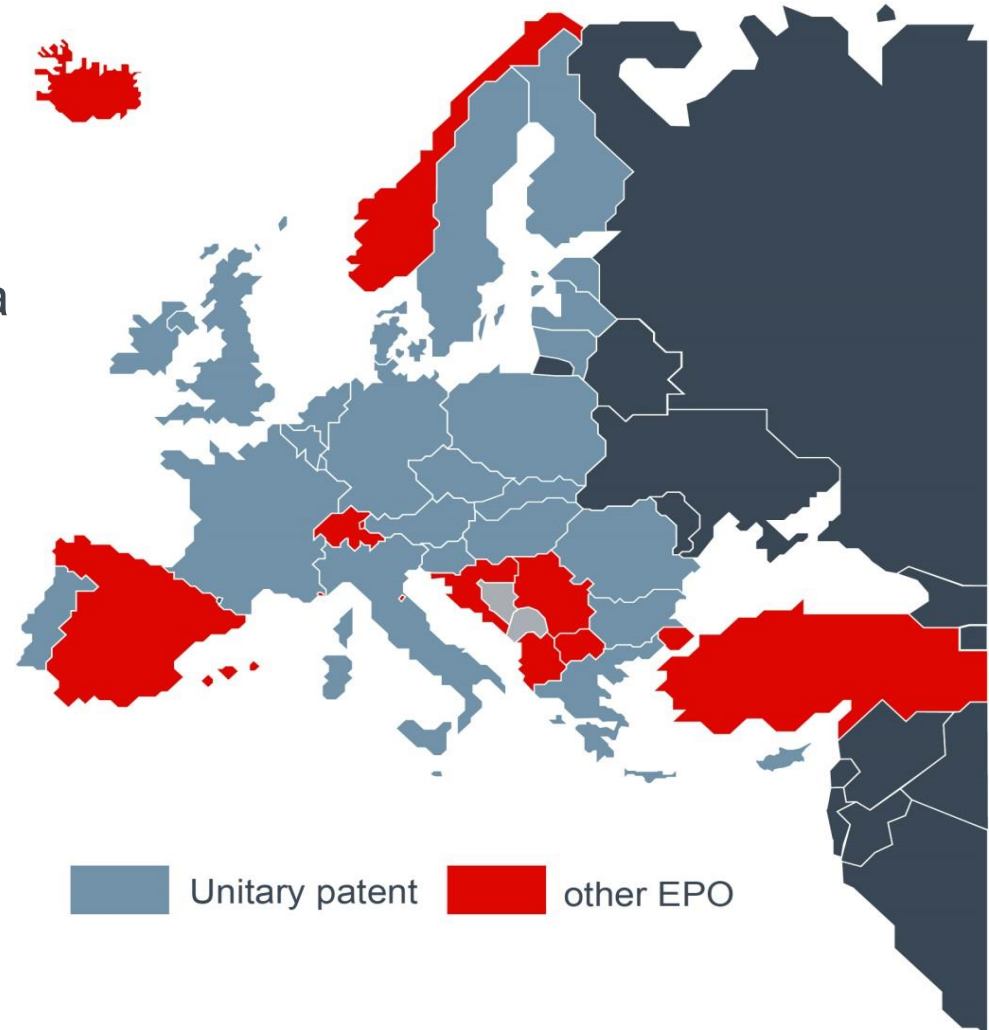
The unitary patent and the EPO member states

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





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 42 countries*
- **Uniform litigation system**

*) The 38 member states of the European Patent Organisation, plus two extension states (Bosnia-Herzegovina, Montenegro), plus two validation states (Morocco, Republic of Moldova)



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

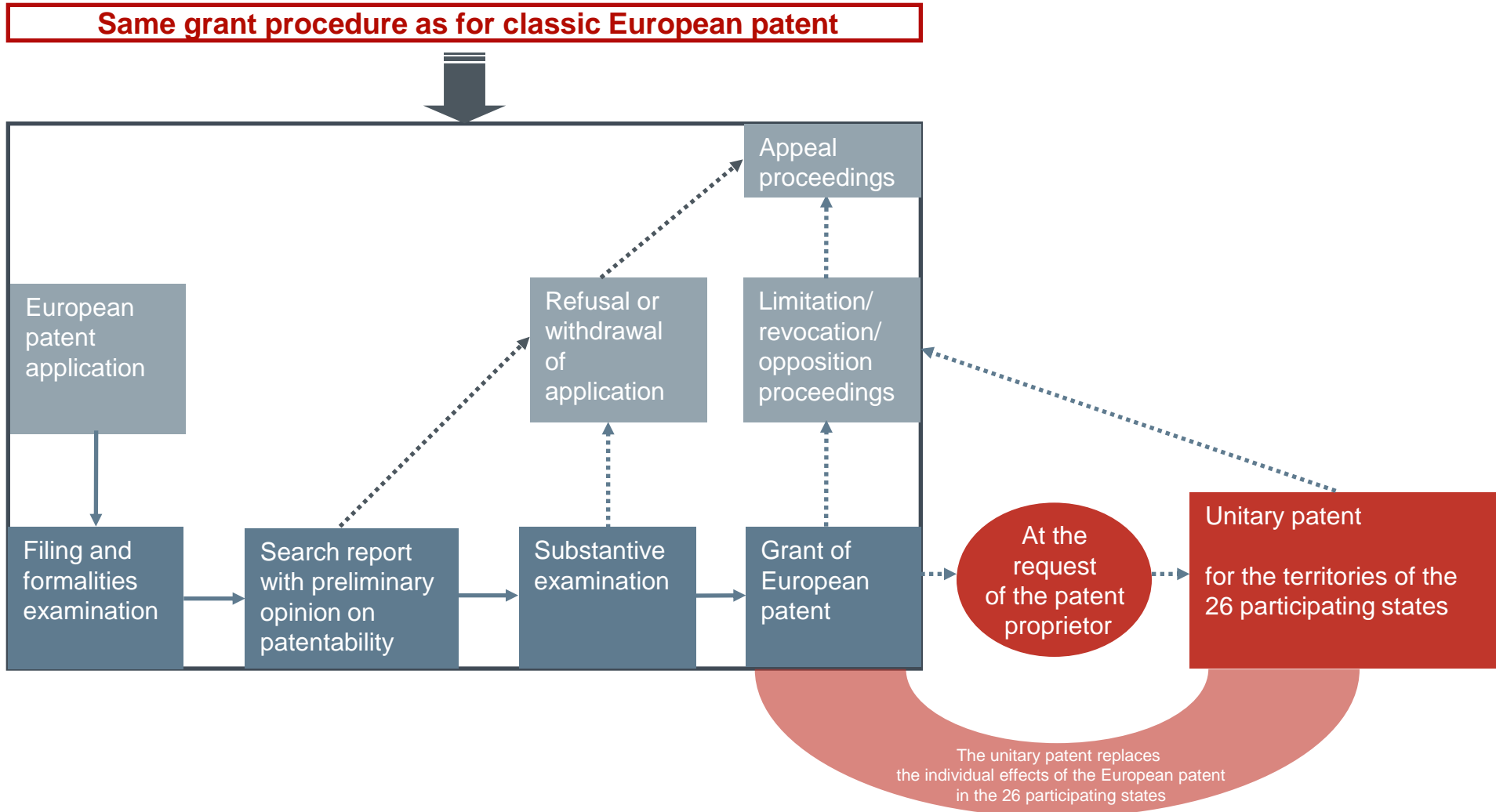
Language arrangements for applications



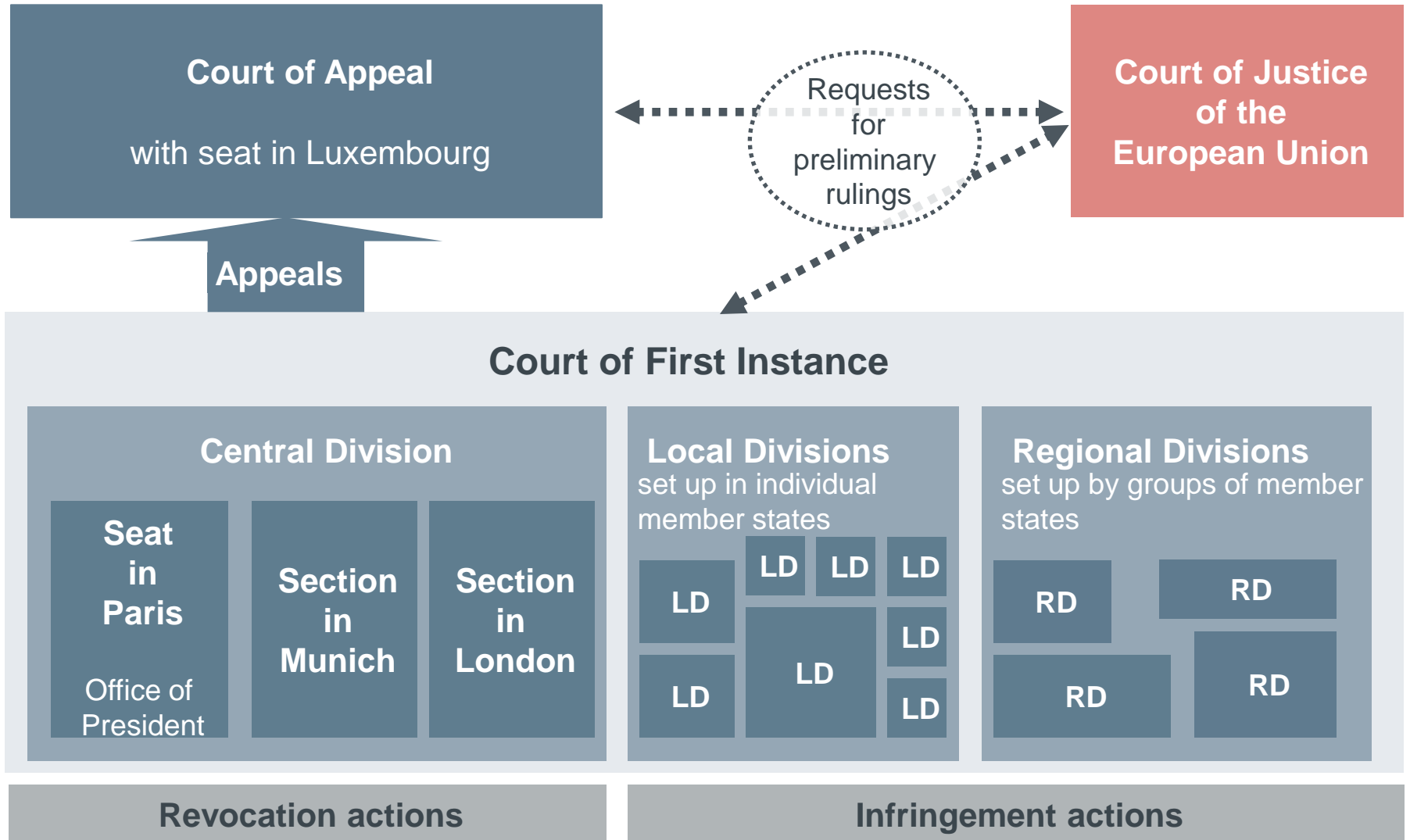
Translation costs will be reimbursed

- 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



The Unified Patent Court

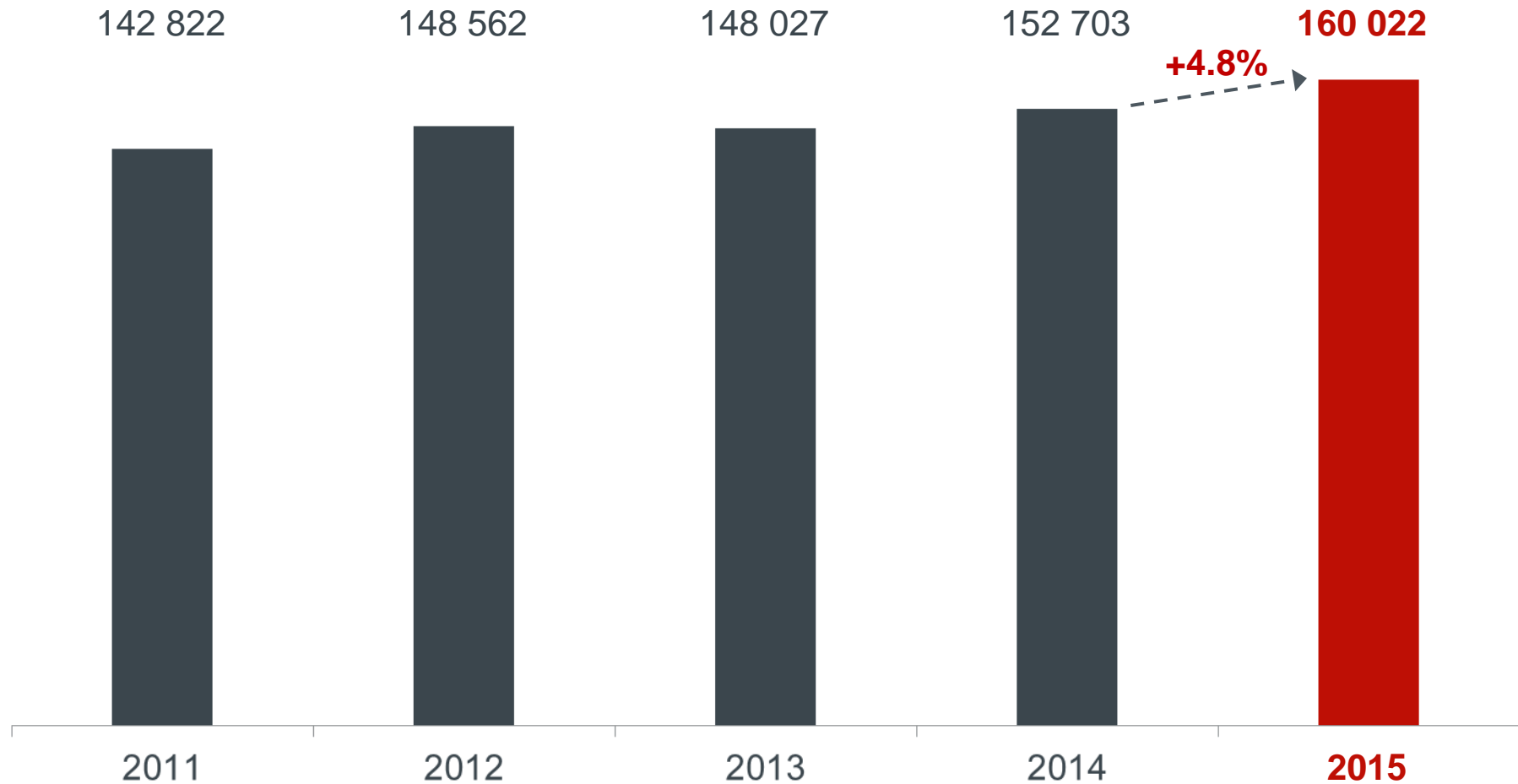


When will it all start?

- 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 (hopefully by end 2016) before the unitary patent system comes into effect (start of 2017)
- First unitary patents will cover only the states which have ratified the UPC Agreement, then more as states accede

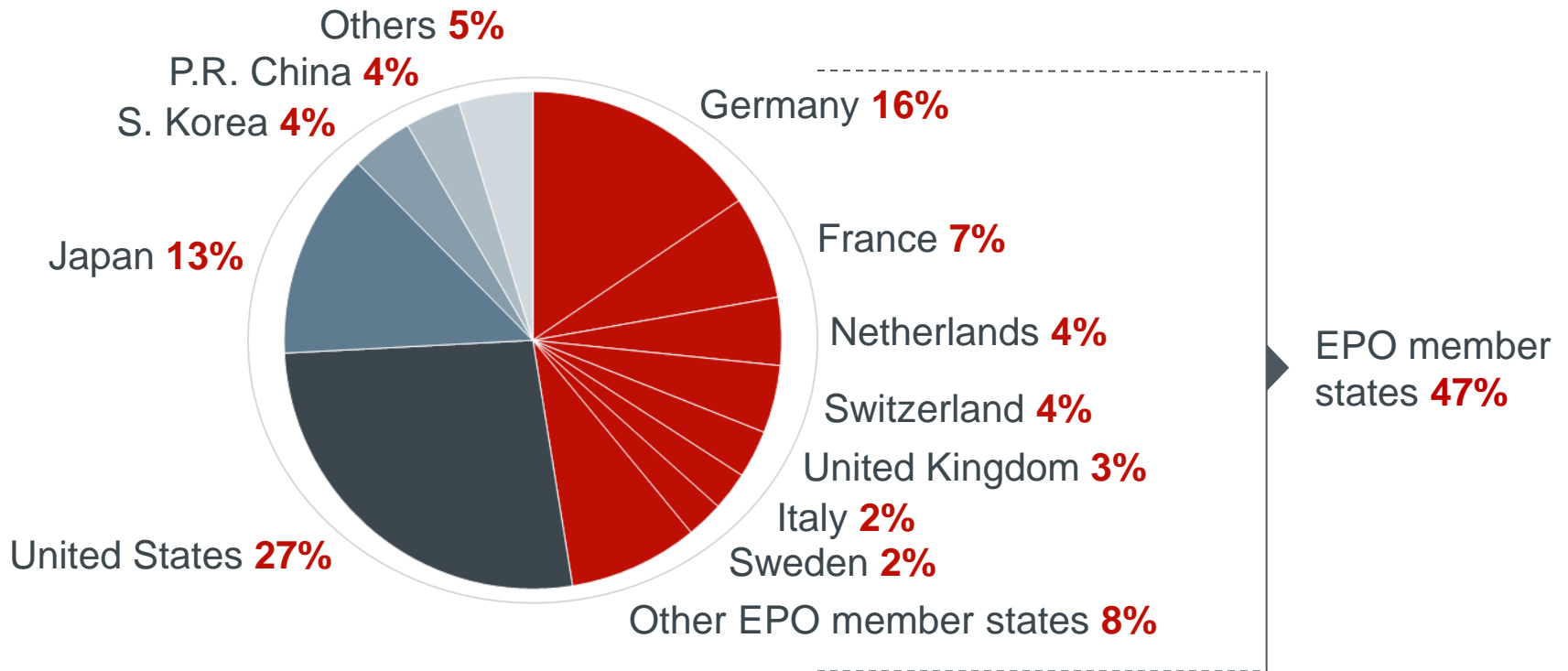


Total European patent applications in 2015



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).

Origin of European patent applications in 2015



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.

⁸¹ EPO: the 38 member states of the European Patent Organisation, including EU28

Technical fields with the most applications in 2015

TOP 10

		2015	Change	
1	Medical technology	12 474	11.0%	↗
2	Digital communication	10 762	3.2%	↗
3	Computer technology	10 549	7.8%	↗
4	Electrical machinery, apparatus, energy	10 198	-1.8%	↘
5	Transport	7 802	-1.6%	↘
6	Measurement	7 727	8.0%	↗
7	Organic fine chemistry	6 414	2.1%	↗
8	Engines, pumps, turbines	6 374	17.9%	↗
9	Biotechnology	6 048	5.1%	↗
10	Pharmaceuticals	5 884	9.6%	↗

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

Top EPO applicants in 2015

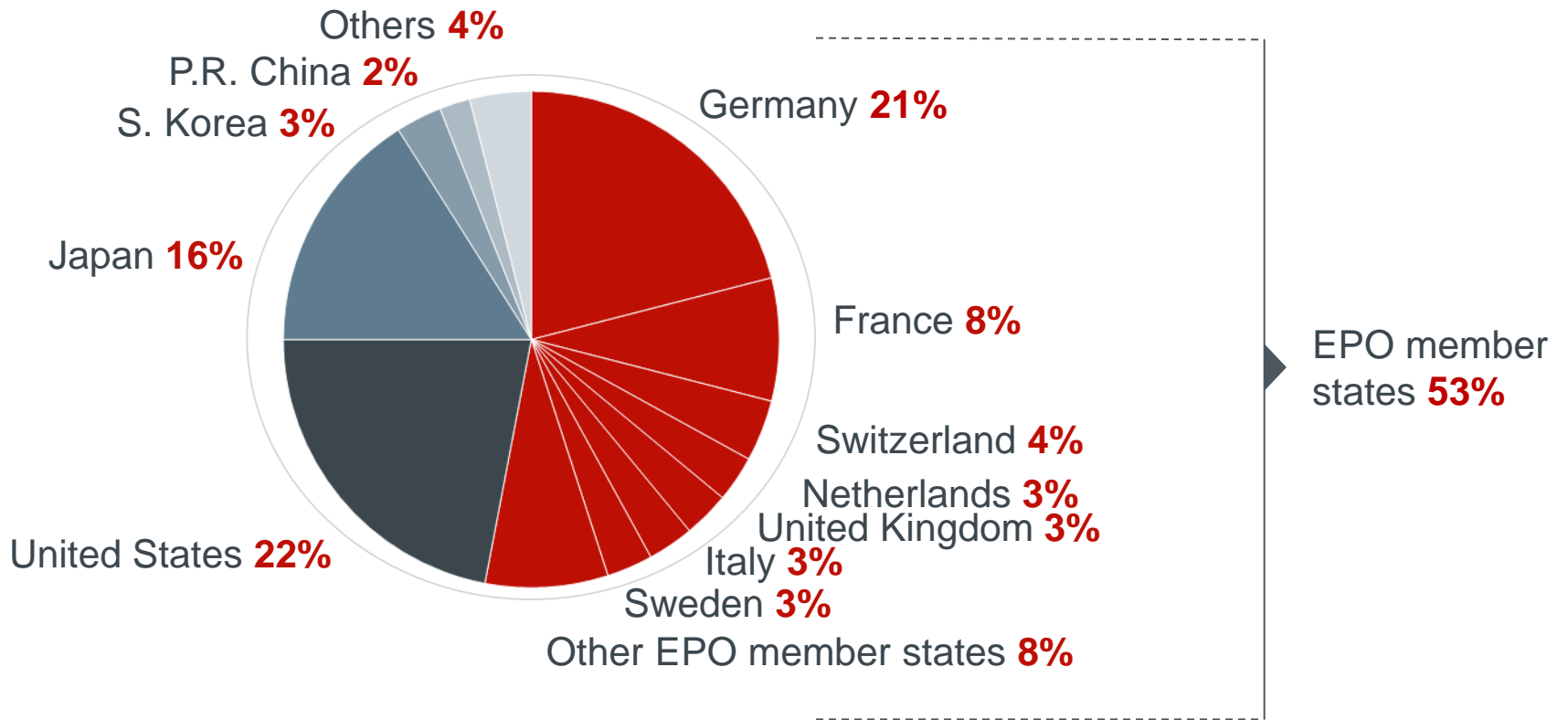
TOP 10

		2015	Change	
1	Philips	2 402	3.7%	↗
2	Samsung	2 366	-6.9%	↘
3	LG	2 091	27.7%	↗
4	Huawei	1 953	22.1%	↗
5	Siemens	1 894	-11.2%	↘
6	United Technologies	1 869	110.0%	↗
7	Qualcomm	1 705	16.9%	↗
8	Robert Bosch	1 493	3.8%	↗
9	BASF	1 384	-9.5%	↘
10	General Electric	1 316	57.0%	↗

● EPO member states
 ● United States
 S. Korea
 ● P.R. China

83 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.

Granted patents in 2015



Thank you for your attention