

Europäisches Patentamt

European Patent Office

Office européen des brevets

## European Patent Office Annual results press conference

Brussels 7 March 2018

#### The EPO at a glance



#### **Our mission**

We provide patent protection for inventions in up to 40 European countries on the basis of one single application.

#### **Our locations:**

Munich (headquarters), The Hague, Berlin, Vienna and Brussels



2<sup>nd</sup> largest intergovernmental institution in Europe **Self-financing**: Budget of EUR 2.3bn without any public funding

## O highly qualified patent examiners working in all fields of technology

## The importance of our mission

#### Contribution to EU GDP



Share of EU employment



Contribution to EU trade



Source: IPR-intensive industries and economic performance in the European Union – Joint Report 2016 from the EPO and EUPIO – Data 2011-2013. Note: IPR: IP rights: trade marks, patents, designs, copyrights, geographical indications and plant variety rights.

#### European patent applications: solid growth



Source: EPO. Status: 22.1.2018.

European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period.

#### Granted patents: the EPO reaches a new level



Source: EPO. Status: 22.1.2018. The analysis is based on published patents granted by the EPO.

## **Geographic origin of European patent applications**



#### Source: EPO. Status: 22.1.2018.

European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period. The geographic origin is based on the country of residence of the first applicant listed on the application form (first-named applicant principle).

#### **Top countries for European patent applications**

тор <b>10</b>	2017 Applications	2017 Shares	Change Applications
1 United States	42 300	26%	5.8% 🕗
2 Germany	25 490	15%	1.9% 🕢
3 Japan	21 712	13%	3.5% 🕢
4 France	10 559	6%	0.5% 🕢
5 P.R. China	8 330	5%	16.6% 🕢
6 Switzerland	7 283	4%	0.6% 🕢
7 Netherlands	7 043	4%	2.7% 🕢
8 R. Korea	6 261	4%	- 8.2% 🕙
9 United Kingdom	5 313	3%	2.4% 🕢
10 Italy	4 352	3%	4.3% 🕢

Source: EPO. Status: 22.1.2018.

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#### **Growth rates in 2017**

#### **Countries** ≥ 4 000 applications

Growth champions	Growth <b></b>
P.R. China	+ 16.6%
United States	+ 5.8%
Significant growth	
Italy	+ 4.3%
Japan	+ 3.5%
Netherlands	+ 2.7%
United Kingdom	+ 2.4%
Germany	+ 1.9%
Stability	€
Switzerland	+ 0.6%
France	+ 0.5%
Decline	8
R. Korea	- 8.2%

#### **Countries** < 4 000 applications

Significant growth	Growth 🕢
Israel	+ 15.2%
Chinese Taipei	+ 14.1%
Denmark	+ 13.1%
Austria	+ 8.2%
Spain	+ 7.4%
Sweden	+ 4.9%
Stability	Ð
Finland	- 0.1%
Decline	8
Belgium	- 1.9%
Canada	- 3.5%

#### Source: EPO. Status: 22.1.2018.

European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period. The geographic origin is based on the country of residence of the first applicant listed on the application form (first-named applicant principle).

# Flow of patent applications between EPO and IP5 countries (2016)



Analysis based on applications received by the five largest patent offices (IP5 offices) in 2016. Source of the data: IP5 Statistics Report 2016 – fiveipoffices.org.

#### European applications per million inhabitants: European countries ahead

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	2017
1 Switzerland	884
2 Netherlands	412
3 Denmark	377
4 Sweden	374
5 Finland	329
6 Germany	316
7 Austria	253
8 Belgium	188
9 Japan	172
10 Israel	167



#### Source: EPO. Status: 22.1.2018.

European patent applications filed include direct European applications and international (PCT) applications that entered the European phase during the reporting period. The geographic origin is based on the country of residence of the first applicant listed on the application form (first-named applicant principle). Source of population figures: U.S. Census Bureau, International Data Base.

#### SMEs are important actors for innovation in Europe



The evaluation is based on a representative sample of patent applications treated by the EPO in 2017.

It refers to the European Commission definition of SMEs (2003/361/EC). Data available in government and commercial databases as well as on company internet sites are analysed to allocate the applicant to one of the four categories. Depending on the company policy, the cross-ownership criteria can be difficult to evaluate. To ensure that the results remain statistically significant, no analysis per country or industrial sector is provided.

#### Leading fields of technology

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		2017	Change	
1	Medical technology	13 090	6.2%	0
2	Digital communication	11 694	5.7%	$\textcircled{\begin{tabular}{ c c c c c } \hline \hline$
3	Computer technology	11 174	4.1%	$\textcircled{\begin{tabular}{ c c c c c } \hline \hline$
4	Electrical machinery, apparatus, energy	10 402	4.0%	0
5	Transport	8 217	- 4.2%	8
6	Measurement	7 999	6.6%	0
7	Organic fine chemistry	6 462	4.3%	0
8	Pharmaceuticals	6 330	8.1%	0
9	Biotechnology	6 278	14.5%	0
10	Other special machines ranging from agriculture to 3D printing	5 548	0.4%	0

Source: EPO. Status: 22.1.2018.

European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period. The definition of the fields is based on the WIPO IPC technology concordance.

#### Top 2017 applicants: Chinese company takes top position for first time

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				2017	Change	
1 Huawei				2 398	0.3%	€
2 Siemens				2 220	18.7%	<b>7</b>
3 <b>LG</b>				2 056	-11.1%	8
4 Samsung				2 016	-13.0%	8
5 Qualcomm				1 854	8.8%	<b>7</b>
6 Royal Philips				1 733	-1.9%	8
7 United Technologies				1 719	-16.8%	8
8 Intel				1 435	13.2%	<b>7</b>
9 Robert Bosch				1 412	6.4%	<b>7</b>
10 Ericsson				1 373	16.1%	$\overline{\mathbf{a}}$
	EPO member states	United States	P.R. China	R. Korea		

This is the ranking of the main consolidated applicants at the EPO in 2017 (first-named applicant principle). It is based on European patent applications filed with the EPO, which include direct European applications and international (PCT) applications that entered the European phase during the reporting period. Applications by identifiable subsidiaries, not necessarily located in the same country, are allocated to the consolidated applicants. The countries refer to the country of residence of the headquarters.

## Main challenges for the EPO

Consistent growth in demand for patents

**Competitive** international environment

Technically complex applications

Users' expectations in terms of costs and timeliness

**Our strategic priorities** 

- + Increase quality
- + Increase efficiency
- + Increase timeliness
- + Control costs
- + Raise profile of Europe worldwide



## **EPO reinforces its leading position for quality**

4 400 examiners	<b>High specialisation</b> and intensive training of EPO examiners – 4 400 examiners working in <b>divisions of 3.</b>	EPO does not outsource any of its core tasks – unique amongst IP5 Offices	no outsource of core tasks	
	Unique amongst IP Offices	World's largest database	1 hn	
Certified patent grant process	<b>First</b> of the world's largest offices to achieve ISO 9001	for patent searches (1 bn records)	records	
	re-certification for the entire patent process	Access to <b>50 million</b> original patent <b>documents</b>	50 million	
		from Asia	documents	
2 year training programme	Two year training programme for newly recruited examiners	State-of-the-art tools efficient access to patent information (e.g. Patent Translate with Google – 20.000 requests/day)	patent information	

### The EPO increases its production and productivity



## A more competitive office



#### **Tackling the backlog**



The stock is defined by the number of all product orders (i.e. search, examination, opposition) for which a final legal decision is still pending with the EPO. A product order is pending irrespective of whether it is waiting for completion of the statutory period, or for action by the examiner or the applicant. New orders are all incoming product orders (i.e. search, examination, opposition) at the EPO during a period. Finished orders are all product orders for which a final legal decision has been made by the EPO during a period, and no further action is possible.

## **Timeliness continuously in progress**

#### **Search reports**

Delivering search reports within 6 months of receipt

#### **Examination time**

Reducing examination times to just **12 months** on average by 2020

#### **Opposition time**

Completing oppositions in **15 months** on average, while ensuring the parties are heard

## Actual<sup>1</sup> Search timeliness: **4.8 months**



Actual<sup>1</sup> Examination timeliness: **22.1 months** 



Actual<sup>1</sup> duration of oppositions: **22.4 months** 



<sup>1</sup> Source: EPO data – Quarter 4 2017

# Stability of staffing since 2010 and redeployment from support to core activities



Source : EPO staff figures. Status: 31 Dec 2017

#### **Reduction of costs enabling reduction of fees**

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# EPO performance allows for fee reductions

- EP Fees stable since 2010 (only slight inflation adjustment)
- PCT fees not increased since 2012 (not even for inflation)
- From 2018: PCT fees will be reduced by 5%

It's estimated that the measures above will save our applicants a combined total of 25 million Euro next year

### -20%

**REDUCTION OF COSTS** 

Unit cost

4<sup>th</sup> consecutive year of falling unit cost

2017 = 78.1% of the unit cost

## Leading role in international cooperation



#### **Global benchmark for tools**

- CPC: now adopted by 25 countries
- Patent Translate: to/from 32 languages
- Increased access to Asian documentation
- EPOQUE World's largest database: available to 48 countries
- Global dossier
- Harmonization of rules and practices



#### **PCT Authority delivering**

- 34% of Search Reports : 2 out 3 US companies choose the EPO
- 64% International Preliminary Examination Reports

#### A two-tier European patent system

- Development of a European Patent Network
  - 36 bilateral cooperation plans to increase and upgrade national patent capacities

- Development of common IT tools:
  - Providing National Patent Offices harmonised online systems
  - Standardised exchange of patent data (*Quality at Source*)
  - Single point of access to legal status data (Federated Register)

#### European patent system extends beyond Europe

#### European member states (38)

European extension states (2) Bosnia-Herzegovina Montenegro

Validation states (4) Cambodia Republic of Moldova Morocco Tunisia

Future and candidate validation states: OAPI, Angola, Jordan, Brunei, Laos, Malaysia, Vietnam



#### **Outlook for the future**

- Patent granting process:
  - First priority: to continue delivering high quality / legally solid patents
  - Moving towards a fully end-to-end digitalised "EPO 4.0" using the most advanced technologies
- Playing a leading role in Artificial Intelligence and more globally in the Fourth Industrial Revolution
  - Patent applications for smart connected objects: +54% from 2013 to 2016

#### Implementation of the Unitary Patent

## **Objectives of the Unitary Patent package**





Provides better value with reduced complexity

Simplified and broader patent protection in Europe at lower cost



Facilitates access to patent protection for SMEs, universities and public research centres



Makes Europe more attractive for innovation and investors



Boosts Europe's competitiveness

#### **Calendar: progress on the Unitary Patent**

✓ The EPO is ready to deliver the Unitary Patent

- Minimum of 13 states including United Kingdom, France and Germany – must ratify the Agreement on a Unified Patent Court (UPC) before the unitary patent system comes into effect
- 15 states including France have ratified the UPC Agreement so far: Austria, Belgium, Bulgaria, Denmark, Estonia, Finland, France, Italy, Latvia, Lithuania, Luxemburg, Malta, Netherlands, Portugal, Sweden

Start of the new system is expected late 2018 or early 2019

## **Conclusion: the EPO in 2017**

✓ 2017 was a positive year for the EPO

**Demand** is growing, reinforcing Europe's attractiveness as a leading innovation market

✓ Reforms have proven to be successful

Increasing quality, efficiency and cost control

✓ International influence has grown

✓ The EPO ready for the Unitary Patent



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## Thank you for your attention

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