Recent developments at the European Patent Office

FICPI 17th Open Forum, 26 October 2017, Venice

Benoît Battistelli, President European Patent Office
The European patent system

EPO: Independent international organisation, dedicated to patents

Some 700 million inhabitants

38 member states

2 extension states
Bosnia-Herzegovina • Montenegro

3 validation states
Morocco • Republic of Moldova • Tunisia (1/12/17)

Other candidates to validation:
Cambodia, Laos, Brunei, OAPI, Malaysia, Jordan, Angola
The EPO at a glance

2nd largest intergovernmental institution in Europe

Global player and voice of Europe in patents

✓ Will be in charge of delivering and administering the Unitary Patent

ISO 9001 certification:
High-quality European patents are drivers of innovation, securing the competitiveness of the European economy

7 000 employees, of which around 4 400 highly qualified examiners

Self-financing: budget of EUR 2.2bn without any public funding

European Patent Office
Our Mission

‘To Support innovation, competitiveness and economic growth in Europe’

- Provide access to patent protection on a large geographical scale
- Grant high quality patents in Europe and beyond
- Promote access to patent information

As any international organisation, we face multiple demands from multiple stakeholders

- From Member States (the ‘board’) – to be profitable and a leading patent office
- From users (‘customers’) – to be efficient, cost effective, responsive and to supply high-quality, reliable products and services
- From staff – to provide a modern, engaging and attractive employer
- From international partners – to contribute to international cooperation initiatives
The strategic importance of our mission:
The value of IPR-intensive industries to the EU economy

Contribution to EU GDP

| IPR-intensive industries | € 5.7 trillion, 42% |
| Patent-intensive industries | € 2.0 trillion, 15% |

Share of EU employment

| IPR-intensive industries | 82 million jobs, 38% |
| Patent-intensive industries | 36 million jobs, 17% |

Contribution to EU trade

| Share of EU imports | 66% | 86% |
| Share of EU exports | 71% | 93% |

Wage premium

- Non-IPR-intensive industries: 530
- IPR-intensive industries: 776
- Patent-intensive industries: 895

Source: IPR-intensive industries and economic performance in the European Union – Joint Report 2016 from the EPO and EUIPO
Note: IPR: IP rights: trade marks, patents, designs, copyrights, geographical indications and plant variety rights
European patent applications*: continuous increase

<table>
<thead>
<tr>
<th>Year</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>148,562</td>
</tr>
<tr>
<td>2013</td>
<td>148,027</td>
</tr>
<tr>
<td>2014</td>
<td>152,703</td>
</tr>
<tr>
<td>2015</td>
<td>160,004</td>
</tr>
<tr>
<td>2016</td>
<td>159,353</td>
</tr>
<tr>
<td>2017 (f)</td>
<td>166,000</td>
</tr>
</tbody>
</table>

*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. Applications refer to direct European patent applications filed at the EPO under the European Patent Convention, plus international Patent Cooperation Treaty (PCT) filings which entered the European regional phase (becoming a European application) in the year under review.
Origin of European patent applications

- EPO member states: 48%
- United States: 25%
- Japan: 13%
- P.R. China: 5%
- S. Korea: 4%
- Others: 5%

Non-European countries: 52%

Notes:
- Analysis based on European patent applications (direct European patent applications filed at the EPO under the European Patent Convention, plus international Patent Cooperation Treaty (PCT) filings which entered the European regional phase (becoming a European application) in the year under review)
- Applications are allocated to the country of residence of the first-name applicant
- EPO: the 38 member states of the European Patent Organisation, including EU28
Flow of patent applications between EPO and IP5 countries

Notes:
- Analysis based on applications received by the five largest patent offices (IP5 offices) in 2016.
- Source of the data: IP5 Statistics Report 2016
### Top 2016 Applicants

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>2016</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Philips</td>
<td>2,568</td>
<td>6.9%</td>
</tr>
<tr>
<td>2</td>
<td>Huawei</td>
<td>2,390</td>
<td>22.4%</td>
</tr>
<tr>
<td>3</td>
<td>Samsung</td>
<td>2,316</td>
<td>-2.1%</td>
</tr>
<tr>
<td>4</td>
<td>LG</td>
<td>2,313</td>
<td>10.6%</td>
</tr>
<tr>
<td>5</td>
<td>United Technologies</td>
<td>2,067</td>
<td>10.6%</td>
</tr>
<tr>
<td>6</td>
<td>Siemens</td>
<td>1,871</td>
<td>-1.2%</td>
</tr>
<tr>
<td>7</td>
<td>Qualcomm</td>
<td>1,704</td>
<td>-0.1%</td>
</tr>
<tr>
<td>8</td>
<td>General Electric</td>
<td>1,628</td>
<td>21.5%</td>
</tr>
<tr>
<td>9</td>
<td>BASF</td>
<td>1,410</td>
<td>1.9%</td>
</tr>
<tr>
<td>10</td>
<td>Robert Bosch</td>
<td>1,327</td>
<td>-11.1%</td>
</tr>
</tbody>
</table>

**Note:** This analysis is based on direct European patent applications filed at the EPO under the European Patent Convention, plus international Patent Cooperation Treaty (PCT) filings which entered the European regional phase (becoming a European application) in the year under review. Statistics are based on the first-named applicant.
## Leading fields of technology

### TOP 10

<table>
<thead>
<tr>
<th>Rank</th>
<th>Field</th>
<th>2016</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Medical technology</td>
<td>12 263</td>
<td>- 2.1%</td>
</tr>
<tr>
<td>2</td>
<td>Digital communication</td>
<td>10 915</td>
<td>- 1.2%</td>
</tr>
<tr>
<td>3</td>
<td>Computer technology</td>
<td>10 657</td>
<td>2.9%</td>
</tr>
<tr>
<td>4</td>
<td>Electrical machinery, apparatus, energy</td>
<td>10 293</td>
<td>5.1%</td>
</tr>
<tr>
<td>5</td>
<td>Transport</td>
<td>8 402</td>
<td>3.6%</td>
</tr>
<tr>
<td>6</td>
<td>Measurement</td>
<td>7 442</td>
<td>- 3.8%</td>
</tr>
<tr>
<td>7</td>
<td>Engines, pumps, turbines</td>
<td>6 301</td>
<td>- 0.5%</td>
</tr>
<tr>
<td>8</td>
<td>Organic fine chemistry</td>
<td>6 189</td>
<td>- 4.0%</td>
</tr>
<tr>
<td>9</td>
<td>Pharmaceuticals</td>
<td>5 754</td>
<td>- 5.0%</td>
</tr>
<tr>
<td>10</td>
<td>Biotechnology</td>
<td>5 744</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

**Note:** Based on European patent applications filed with the EPO (direct European patent applications filed at the EPO under the European Patent Convention, plus international Patent Cooperation Treaty (PCT) filings which entered the European regional phase (becoming a European application) in the year under review.)
Challenges for the EPO and the patent system

Consistent growth in demand for patents

Multidisciplinary and technically complex applications

Competitive and heterogeneous international environment

Users’ expectations in terms of costs and timeliness

Our strategic priorities

+ Improve quality
+ Increase efficiency
+ Improve timeliness
+ Control costs
+ Increase international influence
Continuously improving quality – Our first priority

ISO 9001 CERTIFICATION
to safeguard the quality of our processes

CONSULTING WITH USERS
around the globe:
“Partnership for Quality”
annual meetings with users associations: e.g. FICPI

SACEPO SUB-GROUP ON QUALITY
recently created with the objective to set a permanent and high-level forum to discuss quality related matters with users

RELIABLE MONITORING
96% of respondents are “very satisfied, satisfied, average satisfied” (EPO User Satisfaction Survey)

Global benchmark for quality
EPO ranked best patent office in every IAM survey since 2010
Quality in search and examination

4,400 examiners

High specialisation and intensive training of EPO examiners – 4,400 examiners working in divisions of 3.

Recruitment

977 examiners recruited since 2010 → of which 418 new posts

2 year training programme

Two year training programme for newly recruited examiners

EPO does not outsource any of its core tasks – unique amongst IP5 Offices

World’s largest database for patent searches (1 bn records)

Access to 50 million original patent documents from Asia

State-of-the-art tools efficient access to patent information (e.g. Patent Translate with Google = 20,000 requests / day)

4,400 examiners

no outsource of core tasks

1 bn records

50 million documents

patent information
Early Certainty: Speeding up our work processes

**Know what’s ahead**

1. Search reports
   - We deliver search reports within 6 months of receipt.
   - Actual Search timeliness: 4.9 months

2. Examination time
   - We are reducing examination times to just 12 months on average by 2020.
   - Actual Examination timeliness: 22.6 months

3. Opposition time
   - We aim to conclude oppositions to newly granted patents in just 15 months on average.
   - Actual duration of oppositions: 23.7 months
Granted patents: an unprecedented surge

- 2012: 65,655
- 2013: 66,712
- 2014: 64,613
- 2015: 68,419
- 2016: 95,940 (increase of +40.2%)
- 2017 (forecast): 104,000
Stock has been reduced by 25% over the last two years

Stock in months of work has decreased
Better performance to tackle our challenges

**+8.5%**

**PRODUCTION**
Search, examination, opposition
Production increase
- **60%** due to productivity gains
- **40%** due to capacity increase
2016 = 396,000 products

**-25%**

**REDUCING OUR STOCK**
Search, examination, opposition
Stock reduction in months of work over 2 years

**+40%**

**GRANTED PATENTS**
Published patents
2016 = 96,000 patents

**-20%**

**REDUCING OUR COSTS**
Unit cost
3rd consecutive year of falling unit cost
2016 = 80% of the unit cost of 2006
EPO Leader in PCT

EPO ranks **1st in the world as PCT ISA and IPEA**

EPO is designated as ISA and IPEA by 143 PCT member states

≈ **80 000** International Search Reports (35,7%)

9 100 (63%) International Preliminary Examination Reports
The EPO PPH programmes

- Fast track examination of applications
- EPO work products can be used at other PPH Offices (IP5 + Australia (AU), Canada (CA), Colombia (CO), Mexico (MX), Singapore (SG), Israel (IL), Russia (RU), Malaysia (MY), Philippines (PH), EAPO, Brazil (BR))
The EPO hosted the 10th annual high-level IP5 meetings in Valletta, Malta from 30 May to 1 June

2017 also marked five years of co-operation with IP5 Industry (first launched by the EPO in Corsica in 2012)
Ten years of IP5 – the results

- Global Dossier
- Common Citation Document (CCD)
- Classification
- IP5 Patent Prosecution Highway (PPH)
- Harmonising patent practices & procedures
- Statistics
- and more...

*commemorative IP5 publications prepared by the EPO and its IP5 partner offices*

http://www.fiveipoffices.org/material/2017brochure.html
The EPO’s priorities & future outlook

Patent granting process:
- First priority: to continue delivering high quality / legally solid patents
- Implementation of the Quality and Efficiency Policy
- Moving towards a fully end-to-end digitalised “EPO 4.0”
- Introducing Early Certainty with enhanced flexibility
- XML filing for increased efficiency

International co-operation:
- To harmonise the international patent system in close co-operation with other patent offices and the user community
- Validation agreements

Preparation for the Unitary Patent
Early Certainty with enhanced flexibility

- Early Certainty well received, but some users are requesting more flexibility:

**User consultation: possibility to postpone start of substantive examination**

- For a duration of 3 years:
  - Upon applicant’s request
  - Alignment with other IP5 offices
  - Efficient use of examiner resources

- No disadvantages for competitors or the public:
  - Examination can be triggered by filing a substantiated, non-anonymous third party observation
  - No fee for the third party
  - Postponement would occur after publication of the European search report

- Outcome of user consultation and planned decision first semester 2018
Making XML the preferred filing route at the EPO

- The current filing systems work well: 95% online; predominately in PDF
- But challenges and costs due to OCR conversion of the PDF and paper
- Proposal to adopt DocX format well received by users and other Offices
- Technical preparations for EP and PCT filings on track
- Fee incentives to promote XML filing
- Security assurance: “what you file, is what you get”
- Entry into force 1st April 2018
Reduction of EPO’s fees

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% generating over EUR 10 million in annual savings for applicants.
Status on progress of UP/UPC as of September 2017

**Member State preparations – Ratification of the UPC Agreement**

- **14 states have ratified so far:**
  - Austria
  - Belgium
  - Bulgaria
  - Denmark
  - Estonia
  - Finland
  - France
  - Italy
  - Lithuania
  - Luxembourg
  - Malta
  - Netherlands
  - Portugal
  - Sweden
  - UK

- In addition, 4 other states have received parliamentary approval to ratify (DE, LV, SI and UK)

- UK is progressing with ratification. Ratification now expected before the end of the year.

- DE: Parliamentary approval has been obtained, but some delay will be caused by a complaint pending at the German Federal Constitutional Court.

**Preparations – Completed**

- The EPO is ready to deliver the Unitary Patent

- The Unified Patent Court could start operating in 2018
Conclusions

✓ EPO today: a modern, public agency that proved capable of reforming itself while increasing efficiency and quality

✓ EPO is a European success story and a global player

✓ The European patent system will continue to expand and increase its international influence

✓ The EPO is ready for the Unitary Patent, a long awaited step in the natural evolution of the European Patent System
Thank you for your attention