Meeting the challenges of the global patent system - Initiatives of the EPO and its IP5 partners
The EPO’s 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.
European Patent Organisation

- Created in 1973
- 38 member states, including all EU = 600 million inhabitants
- 35 nationalities, 7,000 employees (4,200 highly specialised engineers & scientists) = 2nd largest European public service organisation
- Self financed budget via fees = €2 billion in 2014
Extension of the European patent system

Validation agreement with Morocco

- In force since 1 March 2015
- European patent can be extended to Morocco
- Brings to 41 the number of countries for which patent protection can be obtained with a single European patent application
- Pending ratification of two further validation agreements with Tunisia and Moldova
Growth of patent filings at the EPO

Direct European filings under the EPC and international filings under the PCT.

2010: 235,731
2011: 244,995
2012: 258,500
2013: 265,918
2014: 274,174

+3.1%
### Top filing countries at the EPO in 2014

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Filings</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>United States</td>
<td>71,745</td>
<td>26%</td>
</tr>
<tr>
<td>2</td>
<td>Japan</td>
<td>48,657</td>
<td>18%</td>
</tr>
<tr>
<td>3</td>
<td>Germany</td>
<td>31,647</td>
<td>11%</td>
</tr>
<tr>
<td>4</td>
<td>P. R. China</td>
<td>26,472</td>
<td>9%</td>
</tr>
<tr>
<td>5</td>
<td>R. Korea</td>
<td>16,358</td>
<td>6%</td>
</tr>
<tr>
<td>6</td>
<td>France</td>
<td>12,873</td>
<td>5%</td>
</tr>
<tr>
<td>7</td>
<td>Netherlands</td>
<td>8,104</td>
<td>3%</td>
</tr>
<tr>
<td>8</td>
<td>Switzerland</td>
<td>7,890</td>
<td>3%</td>
</tr>
<tr>
<td>9</td>
<td>United Kingdom</td>
<td>6,823</td>
<td>2%</td>
</tr>
<tr>
<td>10</td>
<td>Sweden</td>
<td>5,132</td>
<td>2%</td>
</tr>
</tbody>
</table>

Direct European filings under the EPC and international filings under the PCT.
Origin of European patent filings (2014)

DE: Germany  I  FR: France  I  CH: Switzerland  I  NL: Netherlands  I  GB: United Kingdom

Shares in Direct European filings under the European Patent Convention (EPC) and international filings under the Patent Cooperation Treaty (PCT).
Top technical fields in 2014

1. Medical technology 11 124
2. Electr. machinery, apparatus, energy 10 944
3. Digital communication 10 018
4. Computer technology 9 869
5. Transport 7 533
6. Measurement 7 228
7. Organic fine chemistry 6 132
8. Biotechnology 5 905
9. Engines, pumps, turbines 5 318
10. Pharmaceuticals 5 270

Classified according to the IPC and technology concordance table as revised in January 2013
Based on European patent applications filed with the EPO.
Top applicants at the EPO in 2014

Top 10

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>EPO</th>
<th>US</th>
<th>JP</th>
<th>CN</th>
<th>KR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SAMSUNG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,541</td>
</tr>
<tr>
<td>2</td>
<td>PHILIPS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,317</td>
</tr>
<tr>
<td>3</td>
<td>SIEMENS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,133</td>
</tr>
<tr>
<td>4</td>
<td>LG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,638</td>
</tr>
<tr>
<td>5</td>
<td>HUAWEI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,600</td>
</tr>
<tr>
<td>6</td>
<td>BASF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,530</td>
</tr>
<tr>
<td>7</td>
<td>QUALCOMM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,459</td>
</tr>
<tr>
<td>8</td>
<td>ROBERT BOSCH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,438</td>
</tr>
<tr>
<td>9</td>
<td>ERICSSON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,347</td>
</tr>
<tr>
<td>10</td>
<td>INTEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1,054</td>
</tr>
</tbody>
</table>

Based on European patent applications filed with the EPO.
Top applicants at the EPO in 2014

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>EPO</th>
<th>US</th>
<th>JP</th>
<th>CN</th>
<th>KR</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>NOKIA</td>
<td>EPO</td>
<td>US</td>
<td></td>
<td></td>
<td></td>
<td>1040</td>
</tr>
<tr>
<td>12</td>
<td>TOYOTA MOTOR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>948</td>
</tr>
<tr>
<td>13</td>
<td>SONY</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>942</td>
</tr>
<tr>
<td>14</td>
<td>PANASONIC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>901</td>
</tr>
<tr>
<td>15</td>
<td>UNITED TECHNOLOGIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>890</td>
</tr>
<tr>
<td>16</td>
<td>DSM N.V.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>854</td>
</tr>
<tr>
<td>17</td>
<td>GENERAL ELECTRIC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>838</td>
</tr>
<tr>
<td>18</td>
<td>BAYER</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>809</td>
</tr>
<tr>
<td>19</td>
<td>ALCATEL LUCENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>769</td>
</tr>
<tr>
<td>20</td>
<td>TECHNICOLOR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>745</td>
</tr>
</tbody>
</table>

Based on European patent applications filed with the EPO.
Evolution of filings at the IP5 (2004-2014)

Based on provisional figures of 2014 filings at the IP5 offices available in February 2015
Challenges and opportunities of the global patent system

- Rapidly growing volumes of prior art, particularly from Asia
- Increasing complexity of patent applications, especially in IT and biotechnology
- Growing patent examination workload
- Public expectation of highest possible patent examination quality

EPO and its partner IP5 offices share the common challenge of improving quality while enhancing efficiency
Challenges and opportunities of the global patent system (continued)

- Growing awareness of importance of IP
- But at the same time, the global anti-IP sentiment is growing ("patent wars", doubts about patent quality, uncertainty surrounding patent validity, disputes around standard essential patents, concerns about public health and access to medicines, etc.)

- Patent offices need to improve their patent information offerings and provide transparency for all stakeholders
Meeting the challenges at the EPO

The EPO’s strategic priorities:

- Maintaining a strong focus on quality
- Improving efficiency
- Harmonising the global patent system
Quality and efficiency strategy

- To face the growing demand of patents, the EPO is modernising itself, putting a maximum effort on quality, controlling its costs and improving its timeliness in the delivery of products.

- The EPO is implementing a wide range of reforms in five key areas (IT, HR, Buildings, Quality, Co-operation).

- Result: a constant increase in productivity.
Quality in search and examination

- **High specialisation** and intensive training of EPO examiners (divisions of three examiners per file)
- **State-of-the-art tools** allowing efficient access by examiners (e.g. new Epoque)
- **Cooperative Patent Classification (CPC):** Implemented on 1 January 2013 at EPO and USPTO. KIPO, SIPO, INPI Brazil, ROSPATENT and 12 EPO Member States also classifying into the CPC
- Very comprehensive prior art coverage: over **90 million patent documents** available to examiners
- EPO is the first IP5 office to be **ISO 9001 certified** (December 2014)
- Regular “**Partnership for Quality**” meetings with users in Europe, US, Japan, China and Korea
Enhancing quality to improve certainty

Global prior art search for higher certainty
- Enhance coverage of our patent databases including Asian data:
  - 35 million patent documents from China, Japan and Korea
  - 21% of cited prior art in EPO search reports come from Asia

Automated translation using Patent Translate
- Free on-the-fly translations of patents for 32 languages including Chinese, Japanese, Korean and Russian

“Early Certainty from Search” to improve timeliness
- Search reports and opinions on patentability within six months of filing
PCT – a top priority for the EPO

- PCT is the work-sharing vehicle of choice for the EPO

- In 2014 the EPO established:
  - 80725 International Search Reports (38.3% of the total)
  - 7661 International Preliminary Examination Reports (55.7%)

- Improving the services to the users, e.g.:
  - Freezing of the international search fee until April 2016
  - EPO joined WIPO ePCT on 1 November 2014 and will join WIPO DAS in 2015-2016
  - PCT Direct (reuse at EPO of national work in the PCT phase) for applications where EPO is Receiving Office

- PPH with IP5 offices (January 2014) as well as with Canada, Israel, Mexico and Singapore (January 2015)
Harmonising the patent system in Europe

The Unitary Patent Package

- Unitary patent protection (UPP)
- Unified Patent Court (UPC)

- Preparations on-going in the Select Committee (rules, fees) and in the Preparatory Committee (establishment of UPC)

- Proposal on level of renewal fees published in March 2015

- First UPC ratifications: Austria, France, Sweden, Belgium, Denmark, Malta

- Entry into force of UPC Agreement will trigger start of operations of the new Court and start of unitary patent system
Meeting the challenges through co-operation

Of the over 2 million patent applications at the IP5 offices, an estimated 300 000 are cross-filed to two or more offices

- Harmonised patent procedures among the IP5 would mean substantial savings for applicants

- To achieve the IP5 vision of eliminating unnecessary duplication of work, there are two prerequisites: quality and timely availability of search and examination results

> IP5 offices share the common challenge of improving quality while enhancing efficiency
Initiatives of the IP5

- Aligning patent classification systems
- Stepping up IT-related initiatives
- Improving efficiency and quality
- Harmonising patent practice and procedures
- Maintaining an effective partnership with IP5 Industry
- Increasing transparency and stakeholder involvement
IP5 - Timeline of user involvement

2003 Trilateral Offices start meeting regularly with industry associations

2007 1st IP5 Heads meeting to address ever increasing workloads

2012 5th IP5 Heads meeting. Industry invited for the first time by the EPO. Since 2012, regular meetings between IP5 Heads and IP5 Industry

Agreement to establish the Global Dossier Task Force (GDTF) with IP5 offices, IP5 Industry and WIPO as members

2013 1st IP5 GDTF meeting held in January in The Hague where the industry defines its vision of Global Dossier with active and passive components

2014 In June the EPO delivers the first Global Dossier service with SIPO data in the European Patent Register. In October, the EPO extends this service to Espacenet

2015 2nd IP5 GDTF meeting held in January in Suzhou, China; delegations propose five priorities which could form the next phase of Global Dossier
Partnership with IP5 users

Technical harmonisation
- Common Citation Document (CCD)
- Global Dossier services (IP5 file wrapper access)

Procedural harmonisation
- Unity of invention
- Citation of prior art
- Sufficiency of disclosure/written description
IP5 achievements in 2014

- Comprehensive **IP5 PPH pilot** launched in January 2014
- Implementation by the EPO of the first **Global Dossier tool** in June 2014 (with EPO and SIPO data)
- Publication of **authority files** (all patent publications by the IP5 offices) in June 2014
- Enhancement of **Common Citation Document (CCD)** including SIPO citations
- Agreement on topics for **procedural harmonisation based on IP5 Industry list**
- Launch of **new IP5 website**
IP5 developments expected in 2015

- Completion of EPO’s Global Dossier (file wrapper)
- Improved CCD citation data: “enriched data” (categories, passages, claims reference) from SIPO
- Validation of completeness of patent documentation using IP5 authority files
- First results in procedural harmonisation expected mid 2015
- Continuation of effective partnership with users
Global Dossier

“[The Global Dossier] will allow users to efficiently access all available information about all applications and patents in the participating offices, and to utilize the electronic services of the offices.”

(Global Dossier Task Force (GDTF) industry delegation statement, 1 March 2013)

Global Dossier envisages applicants and the public being able to access patent information and prosecute patents in a federated manner for all applications pertaining to an invention.

First Global Dossier tool implemented by the EPO in 2014 in the European Patent Register and Espacenet
Scoop: Official launch of EPO Global Dossier for JPO and KIPO data

New today
KIPO and JPO file wrappers

SIPO file wrappers since 06/14
IP5 Next steps

Global Dossier

**Expansion** of Global Dossier will be considered after completion of the IP5 file wrapper service

IP5 users, during the 2\textsuperscript{nd} Global Dossier Task Force meeting in January 2015, requested the following future developments:

- alerting service
- applicant name standardisation
- text coded documents (XML)
- legal status
- cross-filing initiatives

These topics will be discussed among the IP5.
IP5 Next steps

Procedural Patent Harmonisation

- Together with IP5 Industry, the IP5 Offices have agreed to work on the following three topics of procedural harmonisation:
  - Unity of Invention (lead: EPO & SIPO)
  - Citation of prior art (lead: KIPO & USPTO)
  - Sufficiency of disclosure/written description (lead: JPO)

- At the next IP5 Heads meeting in China on 22 May, the IP5 Heads will agree on next steps
Summary

- The IP5 cooperation has been ongoing for 8 years (2007-2015).
- We have focused on achieving concrete results: The Global Dossier, Common Citation Document (CCD), Cooperative Patent Classification (CPC), Common Application Format (CAF) and the IP5 Patent Information Policy are some examples of real achievements to date.
- The results so far are better than initially expected.
- The IP5 Offices are speeding up their treatment of first filings to the benefit of a further reuse of work and increased quality between the IP5 Offices.
- Our goal remains to deliver higher quality services.
Thank you for your attention!