Patent filing statistics

WIPO IP Statistics data presentation of the latest trends

Bruno Le Feuvre
Statistical analyst
Economics and Statistics Division

IP information roundtable
Geneva, October 25, 2017
Part I

WIPO Economics and Statistics Division

- Core objective
- Organizational chart
- Collected statistical data
- Types of data
Set up in 2009 to provide WIPO stakeholders with accurate and comprehensive datasets and high quality empirical analysis.
Dr. Carsten Fink
Chief Economist

Five sections – eleven staff

- IP Statistics Section
- Innovation Economics Section
- Creative Economy Section
- Data Development Section
- Composite Indicator Research Section
Our two main sources of data

**WIPO data**
- exhaustive
- up-to-date
- complete

**PCT System (international phase)** – patents
**Madrid System** – trademarks
**Hague System** – industrial designs

**IP offices data**
- > 30 questionnaires
- annual survey
- aggregate

**G.I.**
- Industrial design
- Patent
- Plant variety
- Trademark
- Utility model

**Filing**
- Registration/grant
- In force
- Pending
- etc.
Information provided by most WIPO IP statistics data

**Source**
the origin of filings

**Destination**
where applications are filed

- IP office
- Country/territory
- Region
- Income group
- Total
- World estimate
Destination
where applications are filed

National IP office data
Non resident filings

Resident filings
Regional office data (if applicable)

Non resident filings
Country data

WIPO
WORLD INTELLECTUAL PROPERTY ORGANIZATION
Source
the origin of filings

Two methods: absolute & equivalent counts

Resident filings

Absolute count
Regional office data (if applicable)

Equivalent count
Regional office data (if applicable)

Filings abroad

Nº of jurisdictions in which filings are valid
# Concordance table: absolute to equivalent count

One patent application filed is the equivalent of:

<table>
<thead>
<tr>
<th>Regional patent office</th>
<th>Abbreviation</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>African Intellectual Property Organization</td>
<td>OAPI</td>
<td>1 + 16</td>
<td>17</td>
</tr>
<tr>
<td>African Regional Intellectual Property Organization</td>
<td>ARIP</td>
<td>1 + 1</td>
<td>1</td>
</tr>
<tr>
<td>Eurasian Patent Organization</td>
<td>EAPO</td>
<td>1 + 7</td>
<td>8</td>
</tr>
<tr>
<td>European Patent Office</td>
<td>EPO</td>
<td>1 + 1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Legend:** resident filing; filing abroad
<table>
<thead>
<tr>
<th>IP Type</th>
<th>Percentage</th>
<th>Offices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patents</td>
<td>99.3%</td>
<td>116</td>
</tr>
<tr>
<td>Trademarks</td>
<td>97.2%</td>
<td>108</td>
</tr>
<tr>
<td>Utility models</td>
<td>99.9%</td>
<td>60</td>
</tr>
<tr>
<td>Industrial designs</td>
<td>96.3%</td>
<td>130</td>
</tr>
</tbody>
</table>
Part II

Latest trends in patent filings

- Patent filings worldwide
- PCT international applications
Patent applications filed worldwide, 2000-2015

2.9 million in 2015

doubled in 14 years
Filings at the top five offices, 1883-2015

U.S. + Japan + Rep. of Korea = 1.12 million filings
The top five countries of origin in 2015 account for 83% of world total.

- China accounts for 35% of world total.
Top 5 fields of technology in patent applications worldwide

Top 5 = 30% of total filings in 2014

- Computer technology; +7.9%
- Electrical machinery, apparatus, energy; +7.3%
- Digital communication; +4.9%
- Measurement; +4.8%
- Medical technology; +4.5%
Top 10 patent applicants worldwide, based on total number of patent families, 2010-13

- Panasonic Corporation: 34,352
- Canon Inc: 29,036
- Toyota Jidosha KK: 26,844
- Samsung Electronics Co Ltd: 26,647
- Toshiba KK: 23,594
- Mitsubishi Electric Corporation: 22,132
- Honghai Precision Industry Co Ltd: 20,418
- IBM Corporation: 19,288
- Ocean's King Lighting Science & Tech. Co Ltd: 19,007
- Sharp Corporation: 18,780

Nine are from Asia, among which 6 are from Japan.
Non-resident filing trends, 1998-2015

Average annual growth rates

- Non-resident filings: +4%
- PCT route: +7%
- Paris route: +2%

PCT route = 57% of total
PCT international applications, 2002-16

233,000 PCT applications filed in 2016
PCT applications for the top 5 origins, 2016

Top 5 = 77% of total
Number of PCT applications with women inventors, 2016

doubled in 11 years
Share of PCT applications with women inventors in total, 2016

30% in 2016
Distribution of PCT national phase entries per month from priority date

83% of national phase entries initiated between months 29 and 31
Cumulative share of PCT national phase entries per month from priority date, 2007-16

28% of national phase entries initiated before month 29 for China
Cumulative share of PCT NPEs per month from priority date by field of tech. for China, 2007-16

- Optics: 71%
- Semiconductors: 47%
- Audio-visual technology: 59%

Fields of technology include:
- Optics
- Semiconductors
- Audio-visual technology
- Computer technology
- Handling
- Control
- Measurement
- Transport
- Micro-structural and nano-technology
- Mechanical elements
- Electrical machinery, apparatus, energy
- Surface technology, coating
- Basic communication processes
- IT methods for management
- Furniture, games
- Machine tools
- Other consumer goods
- Thermal processes and apparatus
- Materials, metallurgy
- Telecommunications
- Other special machines
- Textile and paper machines
- Medical technology
- Environmental technology
- Engines, pumps, turbines
- Digital communication
- Basic materials chemistry
- Macromolecular chemistry, polymers
- Chemical engineering
- Food chemistry
- Civil engineering
- Analysis of biological materials
- Biotechnology
- Organic fine chemistry
- Pharmaceuticals
Part III

Data and analyzes available

- Economics of IP
- IP Statistics
World IP Report
*Global value chains and intangible capital*

Economic Researches
*a series of currently 35 working papers*

Global Innovation Index
1. CH 2. SE 3. NL

Home page
www.wipo.int/econ_stat

Literature Database
key literature on economics of IP

Development Studies
*IP and economic development*

WIPO economics of IP products

publications web
WIPO IP Statistics products

- World IP Indicators
  - analyzes the latest trends

- Facts & Figures
  - provides key numbers

- Yearly Reviews
  - Hague, Madrid & PCT Systems

- Home page
  - www.wipo.int/ipstats

- Data Center
  - query our database

- Country profiles
  - for 192 countries

publications

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ipstats.mail@wipo.int

Bruno Le Feuvre
Statistical analyst
Economics and Statistics Division