Patents: technological trends and examination paradigms

Nic Jones
South America Working Group Lead, CIPA
International Liaison Committee
Associate Director, Miller Sturt Kenyon
nicjones@mskpatents.com
Trends and paradigms - contents

• Overall technical trends at the EPO
  • Filing statistics
  • Geographic origin, technical trends and top applicants
  • Timeliness
  • Grant rates

• 4th Industrial Revolution
  • Selected technical fields
  • How are they dealt with
Trends and paradigms

Overall technical trends at the EPO
Overall trend - EPO

Total EP applications – ex-PCT and direct

Source: EPO
Geographic origin

EP applications in 2018 by country/region

- EPC states: 81,468; 47%
- US: 43,612; 25%
- Japan: 22,615; 13%
- China: 9,925; 6%
- Korea, Republic of: 9,401; 5%
- Others: 7,296; 4%

Source: EPO
Geographic origin

Filings by origin – absolute figures

Source: EPO
Filing route

How are applicants accessing the EPO?

Source: EPO
Technical trends

Annual growth - top 10 tech fields 2016-2018
Tech field and origin

Tech fields – % share by country/region - 2018

Source: EPO
Tech field and origin

Selected top tech fields – % change by country/region – 2018 vs. 2017

Source: EPO
Top 25 EPO applicants - 2018

Source: EPO
Trends and paradigms

Timeliness, grant rates
Time for search issuance

Source: EPO
Duration of examination

Source: EPO
Changes: examiners & applications

Source: EPO
Total grant rate – EP patents

Source: EPO
Grant vs. filed by tech field - 2018

Source: EPO
Trends and paradigms

4th Industrial Revolution - trends
Industrial Revolutions

• 1IR – Steam power – 18th C
• 2IR – Electricity – 19th C
• 3IR – Digital age – 20th C
• 4IR – Across fields – 21st C
  • 3D printing
  • Autonomous/self-driving vehicles (SDV)
  • Blockchain
  • AI
4IR filings

Over last decade:

• Some increase in fundamental AI
• Factor 10x – AI technical applications
• SDV:
  • 2011 - 900
  • 2017 – 4000
• Applicant mix
  • traditional auto (vehicle handling, smart logistics)
  • Information and Communications Technology (ICT)CT + telecom (communication)
How to search?

• Multiple databases
  • Patent and non patent documents
  • Variety of Asian languages
  • Machine translate from multiple languages
  • Dedicated search tools
  • CPC classification system
• Beware!!! WWW, blogs, conference info (publication date?)
How to examine?

• Blockchain, AI... Computer Implemented Inventions

• 1. Eligibility – claim as a whole have technical character?
  • Can include non-technical features and technical features e.g.:
    • Nature of data?
    • Computer implemented method?

• 2. Patentability, assessing inventive step solely by technical features
“Skilled person”

Art. 56 EPC – inventive step:

• An invention shall be considered as involving an inventive step if, having regard to the state of the art, it is not obvious to a person skilled in the art.

Art. 83 EPC – disclosure:

• The European patent application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Thank you for your attention!

Nicolas Jones
nicjones@mskpatents.com