What the user community needs

Towards effective collaboration between East and West

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East meets West, Vienna
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Agenda

- The Patent Documentation Group - Who we are
- How the user community works
- What are the main challenges in accessing patent information?
- Questionnaire 2009
  - Achievements
  - PDG Workshop - What has improved?
- Questionnaire 2017
  - Improvements
  - Plans
  - Challenges
- Conclusion
Who are the PDG?

- Founded in 1957
- The objective is to facilitate and promote the efficient and effective use of patent information
- Non profit organization
- Registered in Switzerland
What is the PDG?

- 39 corporate members
- From different industries: Chemicals, Pharma, Electrical, Consumer Goods, Automotive, Oil and Gas, Cosmetics, Health Care, Agriculture...
- 4 PDG members among the top 10 EPO applicants
- PDG cooperates with all stakeholders
- Regular high-level meetings with EPO, WIPO, IP5 and individual patent offices

List of corporate members:
- ABB
- Agfa Graphics
- AkzoNobel
- ASML
- AstraZeneca
- BASF
- Bayer
- Beiersdorf
- BMS
- Boehringer Ingelheim
- BP International
- Clariant International
- DSM
- Evonik
- FrieslandCampina
- F. Hoffmann-La Roche
- GlaxoSmithKline
- Henkel
- IFPEN
- Lanxess
- L’Oreal
- Lundbeck
- Merck KGaA
- MSD
- Nestec
- Novartis
- Pfizer
- Philips
- Procter & Gamble
- Robert Bosch
- Sanofi
- Shell International
- SIEMENS
- Solvay
- Syngenta
- ThyssenKrupp
- Total Research
- Unilever
- Voestalpine
How does PDG work as organization?

**Cooperation** in patent information and documentation

**Debate, discuss and stimulate** improvements and new developments in patent information products

**Exchange knowledge and experience** in all areas relating to patent information

**Determine and communicate proposals** to third parties involved in IP information
The PDG WG IMPACT works as a Round Table - Who are our Partners?

- Latin American Offices
- EPO
- National Offices (Europe)
- IP5 Offices
- USPTO
- Asian Offices
- Observer Status
- WIPO
- JIPA, CEPIUG, PIUG
- CAS, TR, Questel, STN, Providers
The patent information work flow

- Search
- Analysis
- Visualization
- Evaluation

Request → Search in Databases → Patent → Abstract → Full text → Legal status data → Evaluation

Search in Databases

Full text

Abstract

Patent

Legal status data
Why do these needs exist?
What information professionals in industry are doing

- Patentability searches
- State-of-the-art searches
- Opposition and invalidation searches
- Monitoring and current awareness searches
- Freedom-to-operate searches (FTO)
- Legal status and patent family searches
- Patent landscapes and patent portfolio analyses
- ... and more.

➜ Our needs go beyond those of the patent offices.
Patents go global: Asia, Latin America, Gulf countries…

The number of patent applications globally is still growing dramatically

Language barriers become a determining factor in accessing patent information

Consequences:
- Streamlining and harmonization procedures are key: e.g. IP5 activities!
- Setting up priorities between patent offices, user groups and commercial providers is indispensable!

➡️ We need an intensified cooperation because we have similar needs!
What are the main challenges in accessing patent information?

- The growth of application filings from Asia is continuing.
- >50% of all patent applications published in non-Latin languages.
- Among the TOP 10 PCT applicants (2016) **six** are from Asia, led by a Chinese company (Huawei).

In 2011 the SIPO (China) became the largest patent office in the world. In 2016: **1,34 Mio patent** and **1,47 Mio utility model** applications have been registered!
What European industry thinks – Questionnaire 2008

In 2008, we consulted PDG members on their opinions on the needs for improvement of patent information from Asia, mainly with respect to the recent emergence of Asian offices as major players.

- All PDG-companies were asked
- 28 PDG-companies responded to a detailed questionnaire
- Results were distributed internally in February 2009
Do you see need for improvement with respect to Asian patent information?

- Availability of detailed legal status in English: 96%
- Searchable English full text (CN, KR): 100%
- Images of documents: 68%
- Added value abstracts (by commercial providers): 92%
- (High quality) machine translation: 96%
- Standardized applicants' names: 86%

Status 2009

What European industry thinks - Some results from 2009 consultations
What European industry thinks - Some results from 2017 consultations

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- Images of documents
  - 68% 

- Added value abstracts (by commercial providers)
  - 92% 

- (High quality) machine translation
  - 96% 

- Standardized applicants' names
  - 86%
General Achievements of the PDG Asian Patent Information Initiative

- Availability of machine translations in English has improved dramatically:
  - Asian offices
  - EPO – Google
  - PATENTSCOPE
  - Commercial providers

- Searchable full text

- Added value abstracts cover Asian countries

- Legal status data via the central source INPADOC (EPO)
The Users - Questionnaire 2017
Most impressive improvements for users

- Improved machine translation (Asian offices, EPO, WIPO etc.)
- More legal status available (e.g. in INPADOC: CN, JP, KR)
- International cooperation in IP5: Global Dossier
- Inclusion into the CPC initiative
The Users - Questionnaire 2017
Most impressive improvements for users - general

- Co-operation between East and West in IP5
- Global Dossier available for public use
- More data available via portals and databases of Asian offices
- Improvements in databases in the Asian offices (especially legal statuses and searches)
- More and more commercial providers are willing to provide information about Asian patents/applications
- Improved data coverage and timeliness of legal status data in INPADOC
- Harmonization of patent laws
The Users - Questionnaire 2017
Most impressive improvements for users - details

- **CN:**
  - Solutions offered by SIPO and providers to identify “dual filings”
  - Assignee standardization in commercial databases

- **IN:**
  - First legal status test data in EPO’s INPADOC
  - New search tool inPASS

- **JP:**
  - Machine readable full-text prior to 1992
  - Good quality and up-to-date MT via J-PlatPat

- **KR:**
  - Information about legal entities in KIPRIS-plus
  - Introduction of a cancellation system similar to post grant opposition
The Users - Questionnaire 2017
The challenges from users’ point of view

- Standardized assignee names
- **Legal status** data in INPADOC more timely and more comprehensive
- **Litigation** and **prosecution** information
- Search in **fulltext** in English
- **Quality** and **timeliness** problems of **added value abstracts**
- Full coverage of documents including **utility models** with **CPC**
- Improved coverage of Asian and Arabian data **beside CN, JP, KR** (MT, register information, legal status via INPADOC, ASEAN countries etc.)
- Access to reliable information about **IP laws** in some smaller Asian countries
The Patent Offices - Questionnaire 2017

Recent developments at IPPH

- Enriched bibliographic data is opened to customer, including dual filling, examiners citations, number information for assignment, licensing, pledge, reexamination, invalidation and litigation.
- Image searching system
- Enriched legal status

Recent plans at IPPH

- Promotion for image searching system
- Promotion for Asian patent information together with JAPIO and KIPI
- Explore the business possibility on Trade Mark
- Exploring the potential opportunities on Data Processing project

Challenges

- Not easy to get the demand of customers and potential opportunities
- Not easy to grasp the developing direction of European market
The Patent Offices - Questionnaire 2017
Recent developments at JPO/ Japio

- JPO: Provision of information on patent applications and examinations in each country to users (One Portal Dossier service to the general public)

- JPO: Fixed address service for patent information (in a pilot stage)

- Japio provides a search system that stores the whole patent publication text of China, Korea, Japan, US, EP, PCT, Germany and France as well as DOCDB abstracts, and also stores translation of English and Chinese into Japanese as well as Japanese into English using a machine translation system.

- Full text of patent publications of the above major countries can be cross-searched both in Japanese and English. (However, English search for Chinese patent publications is excluded.)

- Abstracts in DOCDB can be searched as for patent publications other than that of the above major countries.
The Patent Offices - Questionnaire 2017
Plans of JPO/JAPIO

- Major renovation in J-PlatPat
- Provision of Dossier information on Design and Trademark
- In the near future, we would like to offer English search for Chinese patent publications.
- Adding new patent search functions to J-PlatPat in collaboration with JPO systems (sometime between January and March 2018)

Challenges

- Enhancement of Machine Translation
- Copyright issues
- Access to full text data of patent publications of Southeast Asian countries that users desire, and translation accuracy of machine translation.
The Patent Offices - Questionnaire 2017
Developments at the Indian Patent Office

- Real time dissemination of information.
- Search facilities both within IPO and for public
- Patent Dynamic Utilities on IP India.
  - Expired Patents
  - Disposal of Patent Applications
  - ‘Request for Examination’ status of issued FERs (First Examination Reports)
  - Dynamic FER view
  - Dynamic status of Patent Application (As per various Field of Invention)
  - Information on ‘Working of Patents’ (U/s 146)
The Patent Offices - Questionnaire 2017
Plans of the Indian Patent Office

- Search engine capable of integrated search through all patent and non-patent literature “IPATS” under development.
- Complete e-filing, eliminating the need for digitization.
- Moving towards a complete paper less office.
- Development of advanced e-interface shared by IPO and stakeholders with data access facility- private and public pair system.
- To utilise functions of e-PCT like e-Search copy to all 6 ISA’s (presently e search facility is available for ISA/AT, ISA/AU and ISA/AT) through the e-PCT module.
- Ongoing discussions with IB and EPO to enable e-search facilities and make it available to India for maximum utilisation of e-PCT functions.
The Patent Offices - Questionnaire 2017
Challenges of the Indian Patent Office

- To avail DAS facility from 2017

Digital Access Service (DAS): the WIPO Digital Access Service (DAS) is an electronic system allowing priority documents and similar documents to be securely exchanged between participating Intellectual property (IP) offices.

DAS allows applicants to simply request the first office (known as the Depositing Office or Office of First Filing) to make priority documents available to the system and then to request other offices (known as the Accessing Offices or Offices of Second Filing) to retrieve those documents via the service. The exchange of documents then takes place electronically between the offices.

- To avail CASE facility from 2017

WIPO CASE - Centralized Access to Search and Examination. The WIPO CASE system enables patent offices to securely share search and examination documentation related to patent applications in order to facilitate work sharing programs.

- At present, it is used for priority documents relating to patent applications.
The Patent Offices - Questionnaire 2017
Developments at KIPO & KIPI

- (KIPRIS) Providing a timeline graph of patent family
- (KIPRIS) Providing a statistic service categorized in a similar group(code) and classification in trademark
- (KIPRIS) Providing CPC code interface to search KPA
The Patent Offices - Questionnaire 2017
Plans of KIPO & KIPI

- (KIPRIS) Provide a backward and forward citation information by utilizing a notification of reason for refusal’s citation information

- (Examiner) Provide a search function in machine translation service to search US, EP, WO literature in Korean (* Search in Chinese will be provided in the long term)

- (DATA) Produce and provide new XML data products based on ST. 96 via KIPRISPlus for distribution: History of (corporate) applicants’ name, technical field of (corporate) applicant by right, decision of registration by right

Challenges

- Building a knowledge DB based ontology to advance the quality of similarity search
- Studying on applicability of AI technology to adjust in a search system
The Patent Offices - Questionnaire 2017
Recent developments at the Taiwanese Patent Office

- TIPO (Taiwan Intellectual Property Office) Patent and Trademark Open data Website.
  - Chinese patent and trademark raw data download
  - Open API

- TWPAT (Taiwan Patent Search System) provided following features in 2016
  - The number of search result records which can be exported have risen to 1000
  - Matrix analysis of patent technology function
The Patent Offices - Questionnaire 2017
Plans of the Taiwanese Patent Office

- TWPAT (Taiwan Patent Search System) will provide following features this year
  - Improve the function of patent analysis – add pie, bubble and line chart
  - Provide English status of applications and transaction data (machine translation)
- Build a global patent search system

Challenges

- Provide timely and complete information and keep the good performance
- English user search in our Chinese documents in English (cross-language search)
- High quality machine translation
The Providers - Questionnaire 2017
Developments at Questel

- China:
  - Retranslation of patent full text (for searching)
  - Extraction and indexing of key content:
    - Object of invention
    - Advantages over prior art drawbacks
    - Independent claims
  - Extraction, normalization and indexing of technical concepts
  - Mapping of Chinese patents on topographic map
  - Designs
The Providers - Questionnaire 2017
Developments at Questel

- India:
  - Quality assurance process to spot missing patent records
  - Designs

- Thailand:
  - Full text of published patent applications available for searching
  - English language translations (also for searching)
The Providers - Questionnaire 2017
Plans of Questel

- Indonesia:
  - Patents in full text for searching
  - English language translations (for searching)

- Australia:
  - Patents in full text for searching

- Singapore: investigations to start
- Malaysia: investigations to start
- Philippines: investigations to start
The Providers - Questionnaire 2017
Plans of Questel

- Japan:
  - Retranslation of patent full text (for searching)
  - Extraction and indexing of key content:
    - Object of invention
    - Advantages over prior art drawbacks
    - Independent claims
  - Extraction, normalization and indexing of technical concepts
  - Mapping of Japanese patents on topographic map
The Providers - Questionnaire 2017
Plans of Questel

- Korea:
  - Retranslation of patent full text (for searching)
  - Extraction and indexing of key content:
    - Object of invention
    - Advantages over prior art drawbacks
    - Independent claims
  - Extraction, normalization and indexing of technical concepts
  - Mapping of Korean patents on topographic map
The Providers - Questionnaire 2017

Challenges of Questel

- Lack of consistency
- Lack of normalization
- Bad numbers & low quality textual content
- Translation processing time
- Translation of names (inventors and assignees)
- Availability and cleanliness of the data
- N-Gram choices (JP, KR, CN) for searching
- Lack of (up-to-date) legal status information
Summary

- The user community greatly appreciates the offer of the Asian and Arabian offices and related organizations to cooperate.

- Comment this year reiterated: “Development over the last 5-10 years highly appreciated. East meets West is a key factor in enabling exchange and facilitating that development.”

- We are convinced that meetings like this workshop have improved the cooperation between the user community and the Asian Patent Offices.

- Therefore, let us go on and improve quality, reliability, timeliness and consistency of patent information for mutual benefit!
Thank you for your contributions!