

Topic 3: Growing transparency of examination in the PCT National Phases

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Pretoria February 3, 2020

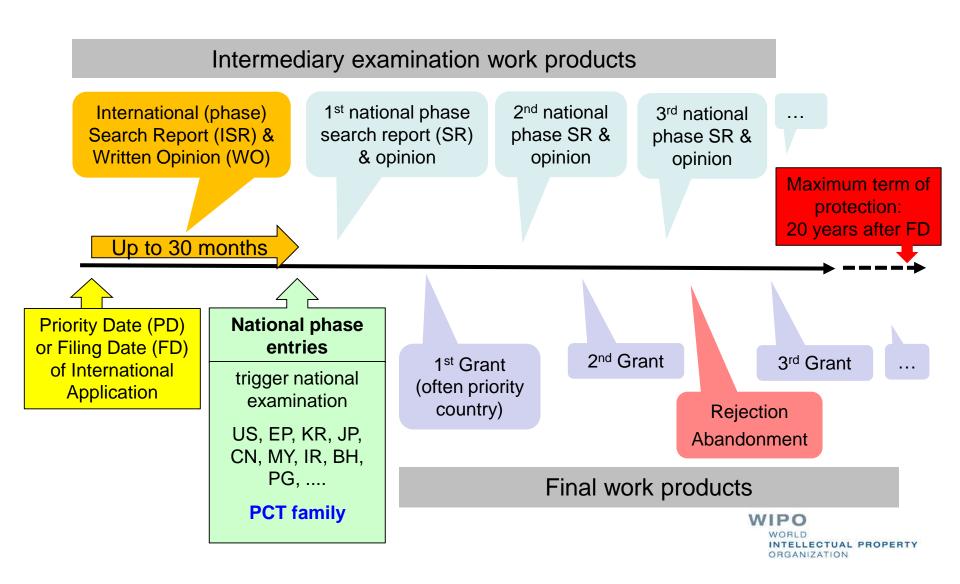
Agenda

- Growing transparency because of work-sharing platforms
 - Diversity of examination work-products
 - Visible for other examiners
 - Visible for third parties
- Opportunities and implications for national phase examination
 - Enhancing efficiency and improving quality
 - Regional cooperation cooperative examination
 - Monitoring of quality:

Has an examiner seen what he could have seen?



Life cycle of a PCT application patent family



Work-Sharing through patent families

- Patent family: same or similar invention was filed in several IPOs, e.g. a PCT application entered several national phases
- PCT family: all applications linked through same PCT application number
- Simple family or extended family: may include more than one PCT family (e.g. WO2014136037 has WO2014136055 in SF; WO2015058464 has 31 WO in EF)
- Examination results/work products for members of the patent family may be utilized for improving efficiency and quality of examination
 - Opportunities for small/under-resourced IPOs



Types of examination work products

- Intermediary or pre-grant work products
 - Search reports
 - basic list of citations (cited by examiner, by applicant)
 - enriched search reports (citation category X, Y, ..; relevant claims;...)
 - Search strategies
 - Written opinions, examination reports
 - Communications from applicant to examiner
 - Protocols of hearings
 - Third party observations
- Final work products/results
 - Granted claims; claims after opposition
 - Rejections; withdrawals following substantive reports; abandoned claims
- Post-grant work products/results
 - Additional prior art from opposition/re-examination/invalidation
 - Restricted claims
 - Communications between involved parties (3+)



WO2010098129

Inpadoc family table in Espacenet

4. A METHOD FOR RECOVERING HYDROCARBON COMPOUNDS AND A HYDROCARBON RECOVERY APPARATUS FROM A **GASEOUS BY-PRODUCT**

Inventor: **TASAKA**

KAZUHIKO [JP]

Applicant: JAPAN OIL GAS & METALS JOGMEC

INPEX CORP [JP]

(+4)

CPC: B01D3/00

Grant

Grant

IPC: C10G2/00

Publication info: CA2752839 (A1) 2010-09-02

CA2752839 (C) 2014-02-18

Priority date: 2009-02-27

Priority date:

2009-02-27

Priority date

Priority date:

Priority date:

2009-02-27

2009-02-27

2009-00

5. Method for collecting hydrocarbon compound from gaseous by-product and apparatus for collecting hydrocarbon

Inventor: **KAZUHIKO TASAKA**

Applicant:

JAPAN OIL GAS & METALS JOGMEC

INPEX CORP

(+4)

CPC: B01D3/00 IPC: C10G2/00

Publication info: CN102333846 (A) 2012-01-25

CN102333846 (B) 2014-01-29

Global Dossier

6. METHOD FOR COLLECTING HYDROCARBON COMPOUNDS FROM GASEOUS BY-PRODUCT AND APPARATUS FOR **COLLECTING HYDROCARBON**

Inventor: Тасака. Казухико Applicant:

ДЖЭПЭН ОЙЛ, ГЭЗ ЭНД МЕТАЛЗ НЭШНЛ КОРПОРЕЙШН.

ИНПЕКС КОРПОРЕЙШН,

(+4)

CPC: B01D3/00

IPC: C10G2/00

Grant

Publication info: EA201170995 (A1) 2012-02-28

EA018772 (B1) 2013-10-30

publication kind code for grants B or C (sometimes A)

publication date

7. METHOD FOR COLLECTING HYDROCARBON COMPOUND FROM GASEOUS BY-PRODUCT AND APPARATUS FOR **COLLECTING HYDROCARBON**

Inventor:

TASAKA KAZUHIKO [JP] Applicant:

JAPAN OIL GAS & METALS JOGMEC

[JP]

INPEX CORP [JP]

(+4)

CPC: R01D3/00

IPC: R01D53/14

No grant

Publication info: EP2402418 (A1)

2012-01-04 EP2402418 (A4) 2012-11-21

Global Dossier



8. METHOD FOR COLLECTING HYDROCARBON FROM FT GAS COMPONENT AND APPARATUS FOR COLLECTING **HYDROCARBON**

Inventor: **TASAKA KAZUHIKO** Applicant:

JAPAN OIL GAS & METALS JOGMEC

INPEX CORP

(+4)

CPC:

B01D3/00

IPC: C10G2/00

Grant

Publication info: JP2010202677 (A)

2010-09-16 JP5301318 (B2) 2013-09-25

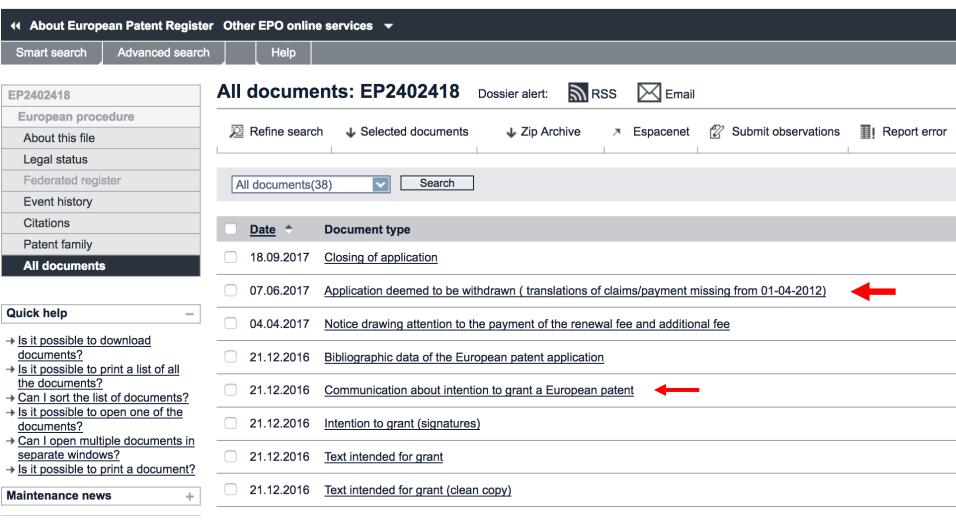
Global Dossier

WIPO WORLD INTELLECTUAL PROPERTY ORGANIZATION

Status EP family member



European Patent Register



What is needed for work-sharing?

- Comprehensive patent family information, detailed as
 - Simple family (all priorities are the same; descriptions are very likely equivalent)
 - Distinguishing PCT families
 - Extended family (largest possible family)
- Examination (legal) status information
- Access to examination work products/dossiers
- Platforms which integrate this information user friendly
- Translation tools for work products
- Tools for comparing work products
 - Citations (search reports)
 - Claims
- Information on differing national practices (naming and content of work products; important case law; exclusions; ..)

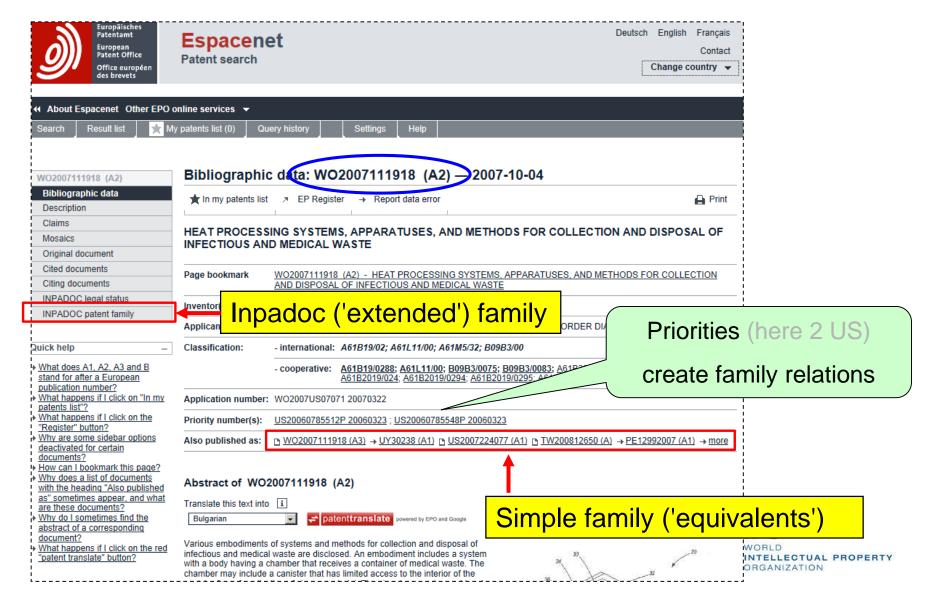
NTELLECTUAL PROPERTY

Sources of family information

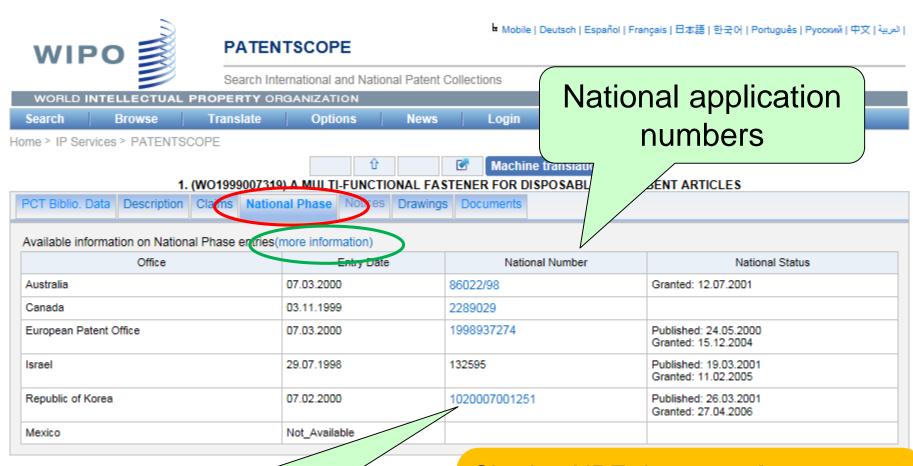
- **Family building**: family relations are derived from priority and PCT application data
- EPO processes bibliographic data of all publications included in its database and obtained from offices sharing publication data with the EPO (90+ jurisdictions)
- EPO's INPADOC database is major source of such family information, accessible through:
 - Espacenet, EP-Register and CCD (simple and extended families; domestic families)
 - Other free patent information databases, like Depatis, Google Patents, ...
- WIPO's PATENTSCOPE aggregates national phase entry data <u>reported</u> from Designated/Elected Offices (obligation as from July 1, 2017; rule 95)
- WIPO CASE performs family building based on application data shared by 'providing offices'; families are complex families (i.e. share at least one priority)
- Commercial patent databases obtain and use widely INPADOC data, and apply proprietary family building rules and data cleaning, e.g.
 - Clarivate/Derwent: WPI family
 - Questel/Orbit: Fampat family
 - ...
- Other specialized platforms, e.g. WIPO's Pat-Informed



Source of family information: Espacenet



National phase entries in Patentscope

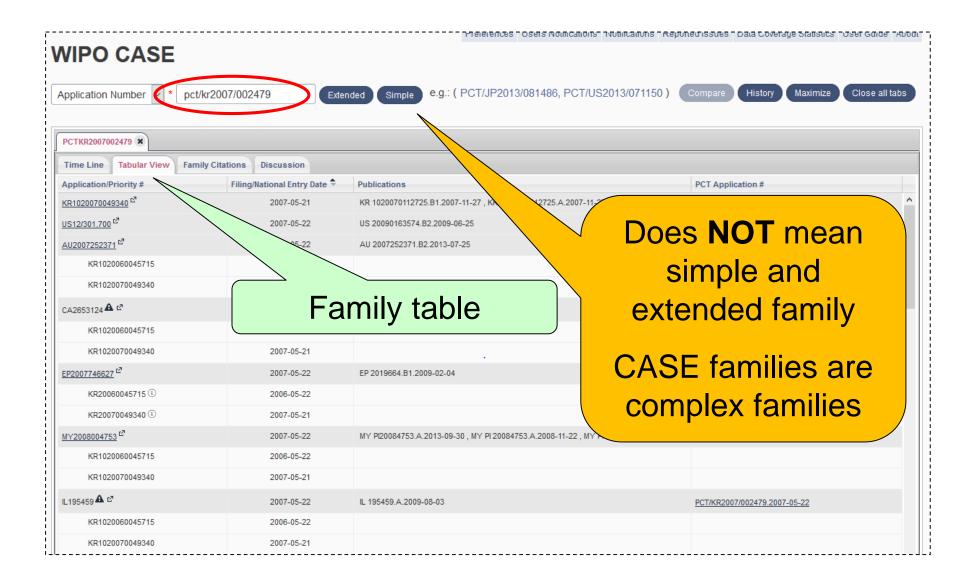


Hyperlinked to national registers

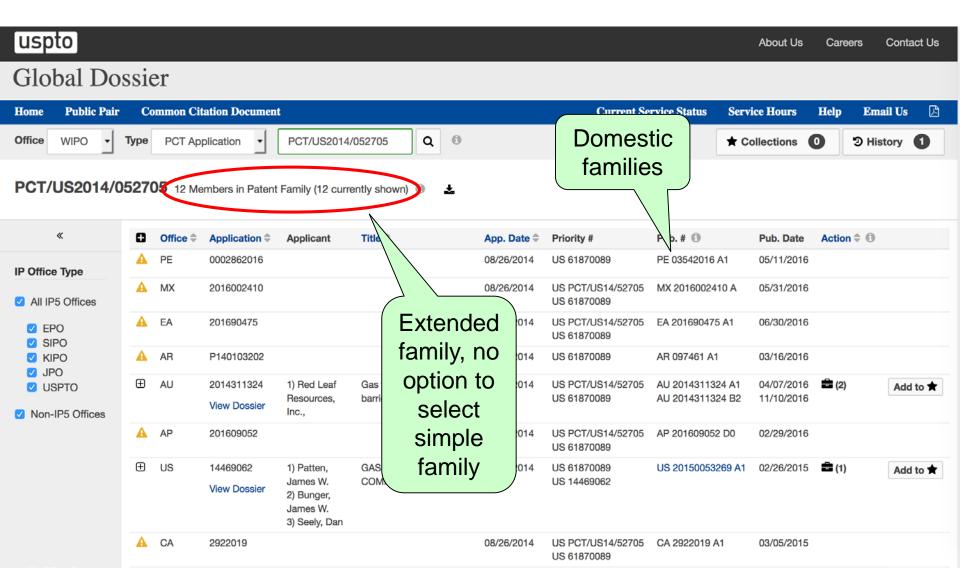
Sharing NPE data **mandatory** as from July 2017

Currently some 60 jurisdictions

WIPO CASE family table



Patent family in Global Dossier (USPTO)



Comparison of family data of 4 samples

Status as of Jun 3, 2019	EPO Inpadoc	USPTO GD	Patentscope NPE	WIPO CASE	Consolidated	Google
PCT/KR2007/002479	25: AU, BR, CA,	= Inpadoc	18: AU, CA, CN,	22: AU, BR, CA,	34: AU, BR, CA,	25: AU, BR, CA,
stable composition	CN, CR, EA, EC,		CO, CR, DZ, EA,	CN, CR, EC, EP,	CN, CO, CR, DZ,	CN, CR, EA, EC,
	EP, GE, GT , HK ,		EG , EP, GE, IN, JP,	GE, ID , IL, IN, JP,	EA, EC, EG, EP,	EP, GE, GT, HK, IL,
	IL, JP, 2x KR, MA,		MX, NO, NZ, PH,	KR, MA, MN , MY,	GE, GT, HK, ID, IL,	JP, 2xKR, MA, MX,
	MX, MY, NZ, SV,		US	MX, SG , SV, VN ,	JP, 2xKR, MA,	MY, NZ, SV, TN,
	TN, UA, US, ZA			US	MN, MX, MY, NO,	UA, US, ZA
	(./.ES)				NZ, PH, SG, SV,	(./.ES)
					TN, UA, <mark>US</mark> , VN,	
					ZA	
PCT/JP2010/001325	12 : AU, BR, CA,	= Inpadoc	7 : AU, CA, CN, EA,	13 : AU, BR, CA,	15: AU, BR, CA,	12: AU, BR, CA,
collecting hydrocarbon compound	CN, EA, EP, JP,		EP, US	CN, EP, ID , JP, MY,	CN, EA, EP, ID, JP,	CN, EA, EP, JP,
<u>compound</u>	MY, 2xUS, ZA			TH, VN, 2xUS	MY, TH, 2xUS, VN,	MY, 2xUS, ZA
					ZA	
PCT/US2014/052705	13 : AR, AU, CA,	= Inpadoc + IL	13 : AU, CA, CN,	13 : AR, AU, BR,	19 : AR, AU , BR,	15 : AP , AR, AU,
composite barrier	CL, CN, EA, EP,		EA, EP, GE , ID, IL,	CL, CN, EA, EP, ID,	CA, CL, CN, EA,	CA, CL, CN, EA, EP,
	MA, MX, PE, TN ,		MA, MX, PE, UA	IN, MA, MX, MY	EP, GE, ID, IN,	IL, MA, MX, PE,
	US				MA, MX, MY, PE,	TN, US
					TN, UA, US	
PCT/IB2016/000305	21 : AR, AU , BR,	= Inpadoc + IL	20 : AU, CA, CN,	19 : AR, AU, BR,	30 : AR, AU , BR,	21 : AU, BR, CA,
mercury based compound	CA, CL, CN, CO,		CO, CR, EA, EP,	CN, CU, DO, EA,	CA, CL, CN, CO,	CL, CN, CO, CR,
<u>compound</u>	CR, CU, DO, EA,		GE, IL, JP, KR, MX,	EP, ID , IN , JP, KR,	CR, CU, DO, EA ,	CU, DO, EA, EP, IL,
	EP, JP, KR, MX,		2xNI , PE, PH, SG,	MX, MY , PE, PH,	EP, GE, ID, IL, IN,	JP, KR, MX, PE,
	PE, PH, SG, TW ,		UA, US	VN, US	JP, KR, MX, MY,	PH, SG, TW, US
	US				2xNI, PE, PH, SG,	
					TW, VN, UA, US	
	Green Bold: prese	Green Bold: present in all 4 databases				
	Black Bold: present only in one database					
	Counts include PCT applications					

What is available for work-sharing?

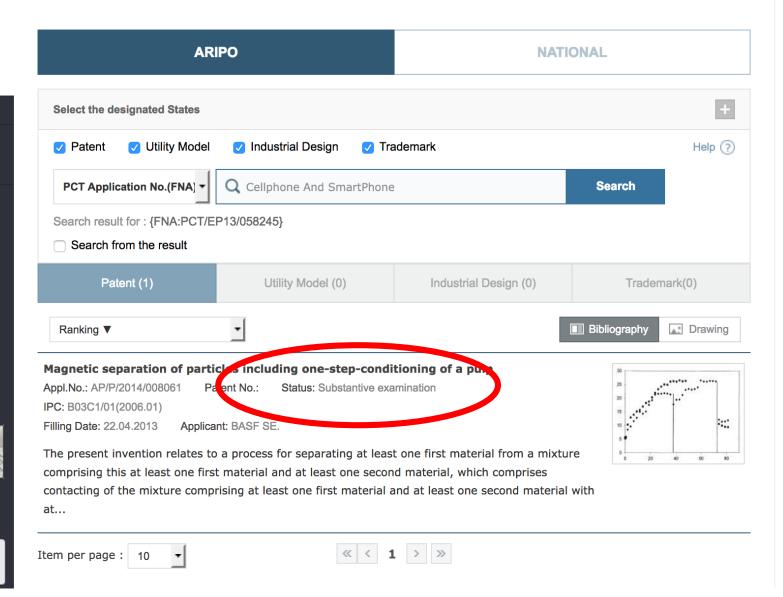
- Primary sources: National Patent Registers are authoritative sources for
 - national legal status (!),
 - national family relations (divisions, continuations)
 - national publications,
 - access to national dossiers (public file inspection).
- For some countries, national registers are accessible online and therefore useful for work-sharing:
 - legal status only: AP, AR, CL, GC, ID, MY, PH, SA, ZA, ...
 - dossier as well: AU, BR, CA, CN, DE, EP, FI, GB, IL, IN, JP, KR, MX, SE, TW, US, ..
- RSS feeds enable examiners of other offices and other experts to be alerted of changes to status/dossiers
- Many registers enable deeplinking





SEARCH RESULT

♠ Home > IPDL > Search Result





E-SERVICE

JOURNAL

INFORMATION

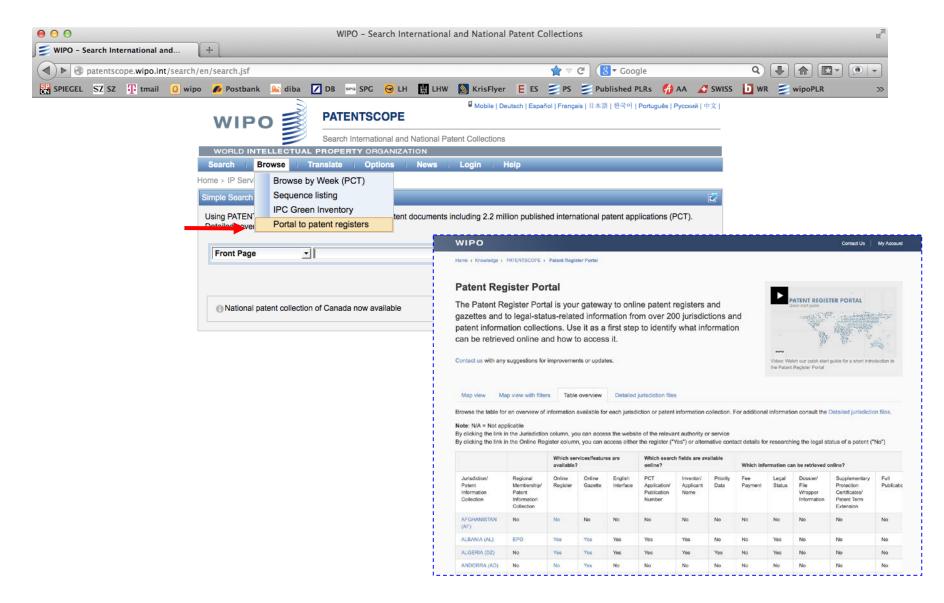
Go to homepage

FRIENDS

IP DIGITAL LIBRARY

Advanced Search

WIPO patent register portal



What is available for work-sharing?

Secondary work-sharing platforms ("one-stop-shop") aggregate information or enable access to work products from several authoritative sources (Registers)

Espacenet

- Includes INPADOC data:
 - Very (most?) comprehensive extended and simple family data
 - National and regional legal status of jurisdictions sharing such data with EPO
- Includes Global Dossier (IP5 initiative)
 - Access to IP5 Offices' file wrappers/dossiers (One Portal Dossier)
 - always up-to-date because it is retrieved on-the-fly from IP5 national registers
 - Machine translation for non-English documents
 - Status may often be derived from recent dossier documents
 - Inpadoc legal status sometimes include complementary status that cannot be derived from most recent communication
 - Access to non-IP5 dossiers of 'providing' Offices of WIPO-CASE
 - partly operational (AU, CA, ..)



What is available for work-sharing?

Secondary platforms ...

Espacenet ...

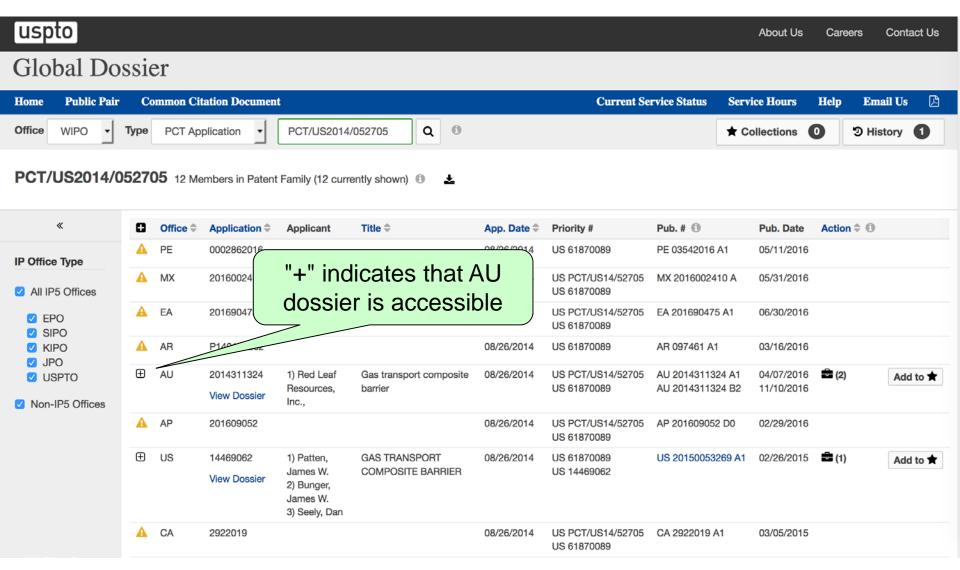
- Includes Global Dossier
- integrated access to Common Citation Document (CCD):
 - viewing <u>and</u> comparing of citations from members of extended and simple families from AP, AU, CA, CN, DE, EA, EP, JP, KR, RU, TW, US, WO,
 - 'comparing': which examiners have seen a particular citation or an equivalent thereof

USPTO Global Dossier

- Website dedicated to Global Dossier (appears to be still under development)
- Access to same dossiers like Espacenet GD (IP5 and CASE 'providing offices')
- presents only extended family information (without WO member); i.e. doesn't permit to view/select only simple family/PCT family
- Integrated application 'Citation List' (under development) to view comprehensive lists of citations from family members (backward and forward); not suitable for 'comparing'

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Global Dossier at USPTO



What is available for work-sharing?

Secondary platforms ...

WIPO-CASE (non public)

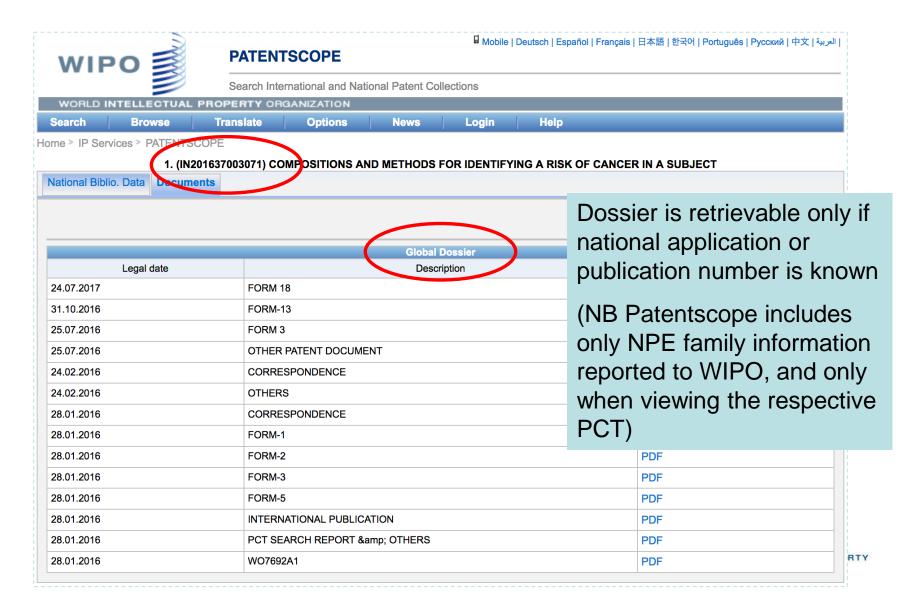
- Accessible only for 'accessing' and 'providing' Offices
- 'providing' offices share their dossiers with other participating offices
- Includes IP5 dossiers obtained from GD/OPD & AU, CA, GB, IL, IN, NZ, ...
- Family information includes only so-called 'complex' families
 - Proprietary family building based on applications of 'providing' Offices recorded in CASE, and NPEs recorded in Patentscope
- Majority of dossiers are also publicly accessible through Patentscope 'document' tab (labelled as 'Global Dossier') and Global Dossier

PATENTSCOPE

- Access to WIPO CASE dossiers in 'document' tab (labelled as 'Global Dossier')
- Includes PCT family (limited; only NPEs reported to WIPO from Designated and Elected Offices); only visible for WO publications; no separate family building
- No extended or simple families (EPO data are not integrated)
- No citation data



'GD' in Patentscope (WIPO CASE data)



Secondary platforms for work-sharing

- Espacenet, US-Global Dossier, WIPO-CASE and Patentscope are (at the present) complementary to each other
- Shall, in future, cover access to same set of dossiers
- Which one to use then?
 - Better user interface?
 - Searching, viewing, exporting, ...
 - Additional tools (comparing, translations, alerts, ..)
 - Additional information (citations, enriched citations, different types of families, ...)
- Many national registers already enable deep linking
- Do we still need secondary platforms then? Or just a 'federated register' linking to national registers



How different are examination results?

Sample WO2008035580

- 2 JP priorities
- Extended family: 39 members
- Simple family: 35 members

Derived from kind codes of publications recorded in Espacenet

Simple family: grants in AP, AU, CA, 2xCN, NZ, EA, EP, KR,

MA, MX, MY, NZ, TW, UA, US, PH, VN,?

- **Extended** family: further grants in: 2xJP (priority country)
- Pendency: 2-10 years
 - 2006-09-20 earliest priority date
 - 2008-09-03 JP grant
 - 2016-10-26 EP
- Still pending in BH, LA,..



Examples of grants: WO2008035580

WO-A1 = AU-B2 = JP-B1

- 1. A plant cultivation system comprising:
- a nonporous hydrophilic film for cultivating a plant thereon, and
- a feeding means for supplying water or a nutrient fluid to the lower surface of said nonporous hydrophilic film in the absence of a hydroponic tank for accommodating water or a nutrient fluid and cultivating a plant therein.

CA-C

- 1. A plant cultivation system comprising:
- a nonporous hydrophilic film for cultivating a plant thereon;
- a feeding means for feeding water or a nutrient fluid to the lower surface of said nonporous hydrophilic film,
- said feeding means comprising at least one layer which is a water impermeable material layer or a water absorbing material layer,
- said at least one layer is laid and extends under said nonporous hydrophilic film,
- wherein, when said feeding means comprises both the water impermeable material layer and the water absorbing material layer, the water absorbing material layer is disposed between said nonporous hydrophilic film and said water impermeable material layer and in contact with the lower surface of said nonporous hydrophilic film;
- and a drip tube as an irrigation means for supplying water or a nutrient fluid to the feeding means,
- said drip tube being disposed below said nonporous hydrophilic film in a man- ner such that water or a nutrient fluid supplied from the drip tube is fed to the lower surface of the nonporous hydrophilic film.

AU, JP granted initial claims without any modification

CA granted heavily modified claim

Examples of grants: WO2008035580

CA-C

- 1. A plant cultivation system comprising:
- a nonporous hydrophilic film for cultivating a plant thereon;
- a feeding means for feeding water or a nutrient fluid to the lower surface of said nonporous hydrophilic film,
- said feeding means comprising at least one layer which is a water impermeable material layer or a water absorbing material layer,
- said at least one layer is laid and extends under said nonporous hydrophilic film,
- wherein, when said feeding means comprises both the water impermeable material layer and the water absorbing material layer, the water absorbing material layer is disposed between said nonporous hydrophilic film and said water impermeable material layer and in contact with the lower surface of said nonporous hydrophilic film;
- and a drip tube as an irrigation means for supplying water or a nutrient fluid to the feeding means,
- said drip tube being disposed below said nonporous hydrophilic film in a man- ner such that water or a nutrient fluid supplied from the drip tube is fed to the lower surface of the nonporous hydrophilic film.

US granted even more restricted claim

US-B2

- 1. A plant cultivation system comprising:
- a nonporous hydrophilic film for cultivating a plant thereon,
- a feeding means for feeding water or a nutrient fluid to the lower surface of said nonporous hydrophilic film in the absence of a hydroponic tank for accommodating water or a nutrient fluid and cultivating a plant therein,
- said feeding means comprising at least one layer selected from the group consisting of a water impermeable material layer and a water absorbing material layer,
- which is laid and extends under said nonporous hydrophilic film,
- wherein, when said feeding means comprises both of said water impermeable material layer and said water absorbing material layer, said water absorbing material layer is disposed between said nonporous hydrophilic film and said water impermeable material layer and is in contact with the lower surface of said nonporous hydrophilic film,
- and a drip tube as an irrigation means for supplying water or a nutrient fluid to said feeding means.
- said drip tube disposed below said nonporous hydrophilic film in a manner such that water or nutrient fluid supplied from said drip tube is fed to the lower surface of said nonporous hydrophilic film;
- wherein said nonporous hydrophilic film is a film which exhibits an electrical conductivity (EC) difference of 4.5 dS/m or less.
- said EC difference being determined by a method comprising contacting water with a saline solution having a salt concentration of 0.5% by weight through said nonporous hydrophilic film, measuring the electrical conductivity of each of the water and the saline solution 4 days (96 hours) after the start of the contact, and calculating the difference in electrical conductivity between the water and the saline solution.



ISR: 2 category A documents only

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2007/067578

A. CLASSIFICATION OF SUBJECT MATTER

A01G27/00(2006.01)i, A01G1/00(2006.01)i, A01G7/00(2006.01)i, A01G13/00 (2006.01)i, A01G25/00(2006.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

ategory

Minimum documentation searched (classification system followed by classification symbols) A01G27/00, A01G1/00, A01G7/00, A01G13/00, A01G25/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Jitsuyo Shinan Koho 1922-1996 Jitsuyo Shinan Toroku Koho 1996-2007 Kokai Jitsuyo Shinan Koho 1971-2007 Toroku Jitsuyo Shinan Koho 1994-2007

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Citation of document, with indication, where appropriate, of the relevan

JP 2001-292643 A (Taiyo Kogyo Kabushi) Kaisha),

23 October, 2001 (23.10.01) Full text; all drawin

(Family: none)

JP 2003-506051 A (E.I. Du Pont De Nemours &
Co.),

18 February, 2003 (18.02.03), Full text; all drawings

& EP 1530896 A2

Only A documents

1 - 13

Only JP publications

WIPO
WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

EP-A4: Supplementary EP search report



SUPPLEMENTARY PARTIAL EUROPEAN SEARCH REPORT

Application Number

under Rule 62a and/or 63 of the European Patent Convention. This report shall be considered, for the purposes of subsequent proceedings, as the European search report EP 07 82 8221

	DOCUMENTS CONSIDERED TO BE RELEVANT				
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)		
X	EP 1 695 615 A1 (UNIV LAVAL [CA]) 30 August 2006 (2006-08-30) * paragraph [0011] - paragraph [0013]; figures * 	1	INV. A01G27/00 A01G1/00 A01G7/00 A01G13/00 A01G25/00 A01G31/02		

Also seen by CA and US examiners

comparing citations in CCD

WIPO
WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

Explanations for substantial differences

- Examiners may have applied different prior art
 - Different prior art searches, i.e. prior art documents
 - Different priority dates applied
- Differences in national legislation (exclusions) or case law
- Individual examiner's views/experience
- Patents do not belong to same simple family, i.e. applicants have sought protection for different subject matter (e.g. continuations/divisions); descriptions most likely differ



Reasons for additional citations/searches

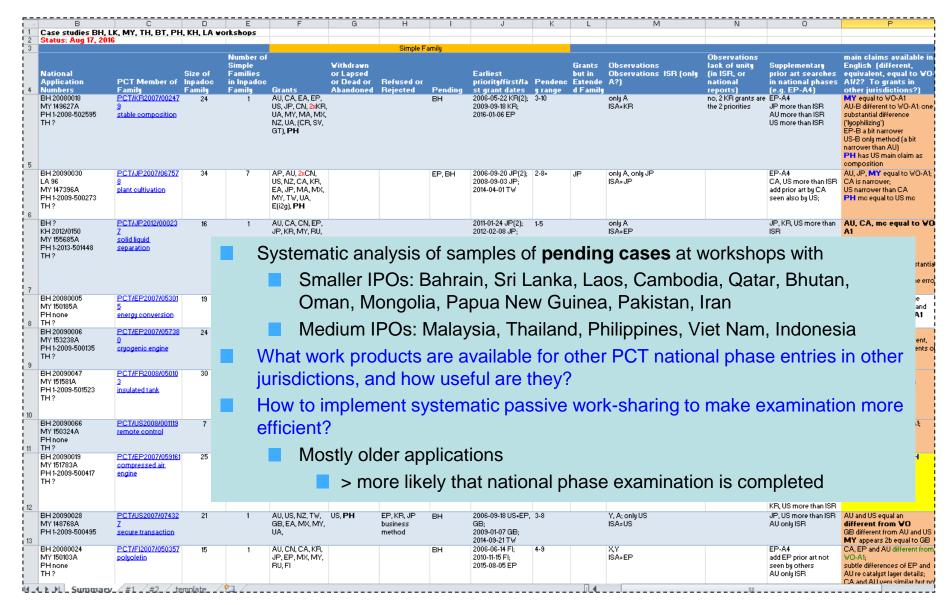
- Lack of trust in other work product, e.g. if
 - ISR with only category A documents
 - ISR including citations of only one single jurisdiction
- Claims amended before or with national phase entry (e.g., if ISRs with X citations)
- Claims amended during national phase examination
- Language skills of examiners
- Familiarity/expertise of examiner with relevant documentation
- Strict prior art disclosure requirement, for example in the US

CONCLUSIONS

- ISR and WO may be very useful for applicants to assess potential success of application before investing in national phase entries
- ISR and WO may be of **limited utility for examiners**, in particular, when claims are amended for national phase entry, and additional prior art searches often appear to be needed in national phases.



Family table for PCT NPEs sample cases



Evidence & conclusions derived from sample set

- Large patent families: 10++ members
 - Many work products from many other national phases can be utilized
- Large fraction of families with grants: >95%
 - Most likely a patent can be granted; but which claims from which country are best?
 - The first foreign grant (PPH; e.g. for the sake of speediness)?
- Wide range of pendencies: 3-10 years after priority filing
 - What is backlog? How long to wait?
- Granted claims substantially different from claims granted in other jurisdictions: >60%
 - Careful selection of suitable claim sets
- Granted claims different from WO-A1/2 claims: >90%
- Additional prior art searches in national phases: >90%
 - Take into account for claim selection or decision to await further results
 - Do not solely rely on ISR
- Grants in some, rejections and withdrawals on other jurisdiction: **20%**
 - Carefully analyze reasons for rejections/substantial withdrawals



What are the implications of transparency?

- Examination work products are **easily visible**, after application is published, for
 - Examiners
 - Third parties
- Foreign examination work products are **usable** for
 - Examiners in national phase
 - Managers to monitor examination quality
 - Third parties to monitor prosecution, examination quality, prepare oppositions,
- Available foreign examination work products cannot be ignored for national phase examination
 - Even examination of PPH requests need to include a check if other work products from further national phases have become available, in particular relevant prior art.



Observations/Conclusions

- Duplication/repetition of work is not a bad thing as such
 - Improves the overall quality of patents
 - For PCT NPEs, examiners should **never** exclusively rely only on ISR/WO
 - However, work products become only gradually available and visible
 - Awaiting results from other national phases may be an option to enhance quality and efficiency, particularly in under-resourced Offices
 - Most recent or last grant is potentially of best quality
 - What does this mean for PPH?
- Currently examination of PCT NPEs starts in many jurisdictions at almost the same time; no coordination
- Cooperative examination would be the ideal way for improving
 - Quality of all patents of a family, and not just those ones granted last, and
 - Efficiency of procedures overall



Observations/Conclusions

- Sharing of application and legal status data (including NPE) still needs to improve,
 e.g. for regional cooperation
- Family building needs to be expanded, in particular with a view to IPOs in emerging and developing economies
- Patent families are global: Only platforms for work-sharing with global coverage make work-sharing efficient
 - regional solutions are not really useful
- Which work-products from other nation phases to use?
 - 'Trusted' Offices?



Thank you

lutz.mailander@wipo.int

