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# Topic 2: **Patent Information**

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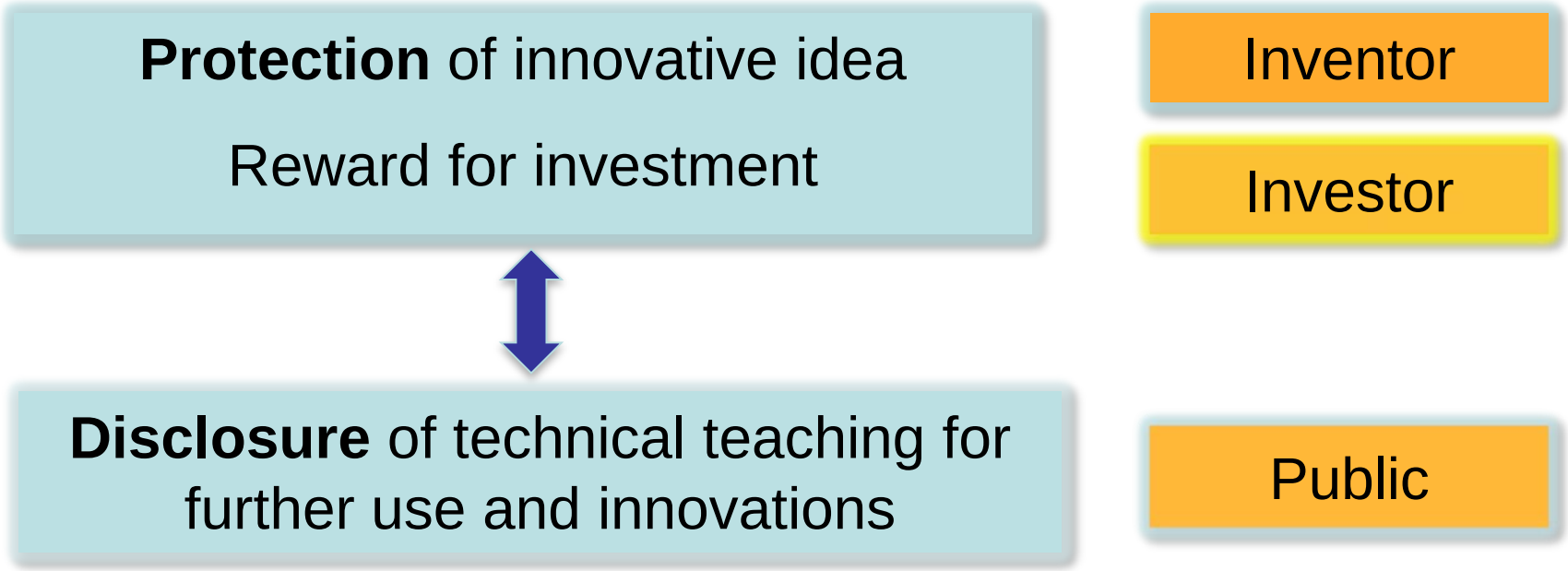
Pretoria
3 February 2020

# Overview

- Role of patent information
- Categories of patent information
- Patent publications
- Structured and unstructured data
- INID codes
- Kind codes
- WIPO Standards
- Numbers

# Role of patents

►Two competing interests of two categories of stakeholders:



# Role of patent **information**

Patent system: **Protection** <> **Disclosure**

Correspondingly, patent information and its publication serves two purposes:

► Informing of existing protection rights

What? Where? When?

► Disclosure and dissemination of technical teaching

How was the problem solved ?

# Content of patent **information**

► Informing of existing protection rights

What? > see **claims** of granted patent

Where? When? > determine patent family (in Espacenet)

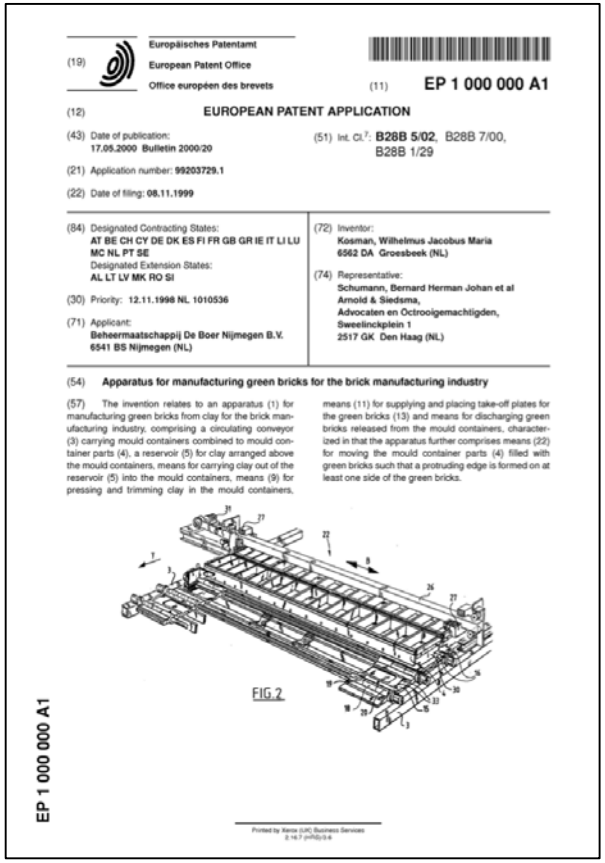
check status in National Patent **Register**

► Disclosure and dissemination of technical teaching

How was the problem solved ?

> see **descriptions** and **drawings** of applications or of granted patents

# Patent documents/specifications



(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) EP 1 000 000 A1

(12) EUROPEAN PATENT APPLICATION

(43) Date of publication:
17.05.2000 Bulletin 2000/20

(51) Int. Cl.[7]: B28B 5/02, B28B 7/00, B28B 1/29

(21) Application number: 99203729.1

(22) Date of filing: 08.11.1999

(84) Designated Contracting States:
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
Designated Extension States:
AL LT LV MK RO SI

(30) Priority: 12.11.1998 NL 1010536

(71) Applicant:
Beheermaatschappij De Boer Nijmegen B.V.
6541 BS Nijmegen (NL)

(72) Inventor:
Kosman, Wilhelmus Jacobus Maria
6562 DA Groesbeek (NL)

(74) Representative:
Schumann, Bernard Herman Johan et al
Arnold & Siedsma,
Advocaten en Octrooigemachtigden,
Sweelinckplein 1
2517 GK Den Haag (NL)

(54) Apparatus for manufacturing green bricks for the brick manufacturing industry

(57) The invention relates to an apparatus (1) for manufacturing green bricks from clay for the brick manufacturing industry, comprising a circulating conveyor (3) carrying mould containers combined to mould container parts (4), a reservoir (5) for clay arranged above the mould containers, means for carrying clay out of the reservoir (5) into the mould containers, means (9) for pressing and trimming clay in the mould containers, means (11) for supplying and placing take-off plates for the green bricks (13) and means for discharging green bricks released from the mould containers, characterized in that the apparatus further comprises means (22) for moving the mould container parts (4) filled with green bricks such that a protruding edge is formed on at least one side of the green bricks.

FIG 2

EP 1 000 000 A1

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# Components of patent documents

- Bibliographic data (front page, meta data)
  - title, applicant(s), inventor(s), filing date, priorities,..

Sample

- Description
  - problem to be solved, prior art, inventive idea, embodiments
- Drawings

Disclosure

Sharing of knowledge

- **Claims**

Protection

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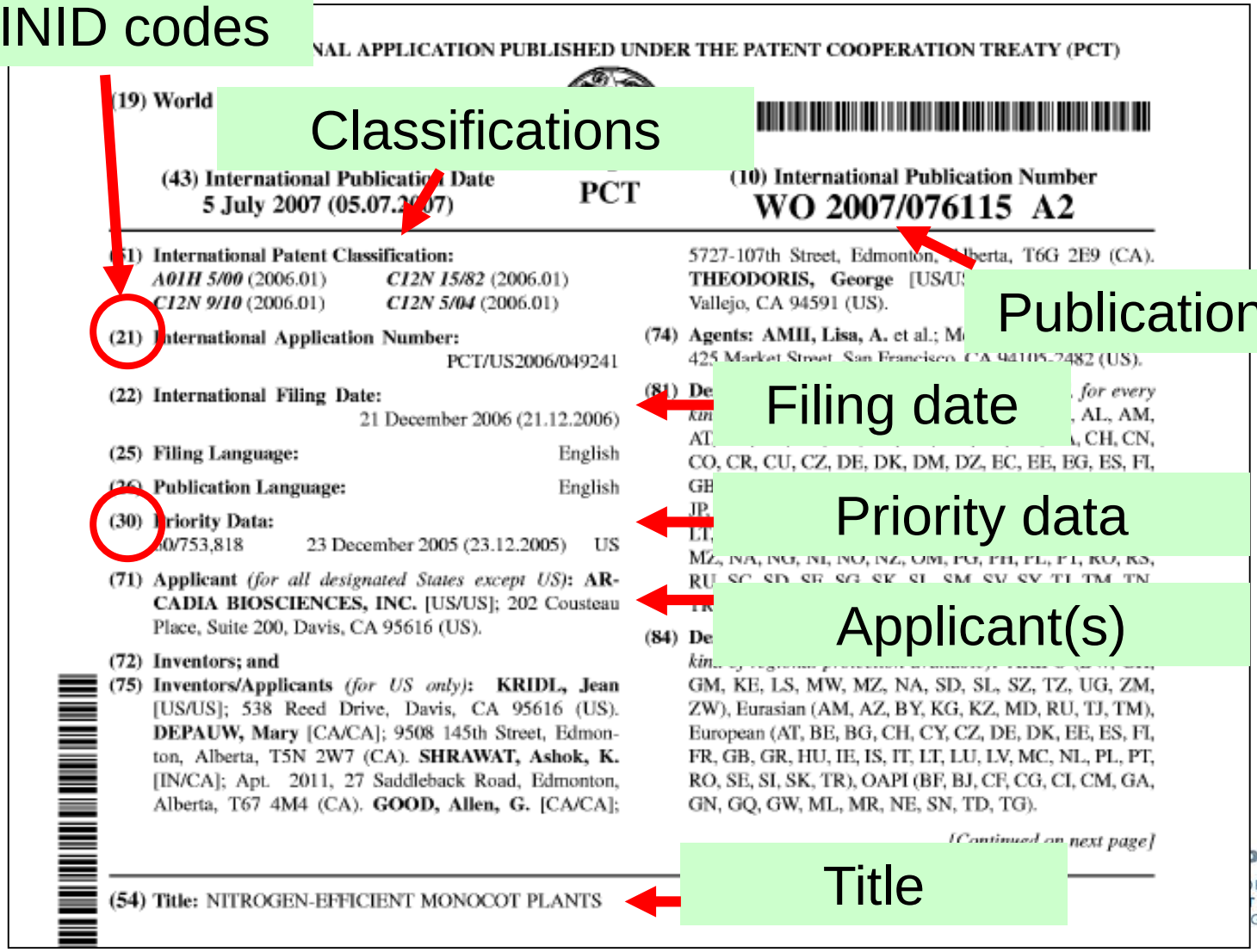
# Components of Patent Information

- For each **individual** patent application (publication):
  - bibliographic data (metadata)
  - technical disclosure
  - legal information
    - claims
    - legal status
  - other

# Per application: Bibliographic Data

- Traditionally, the data on the front page of a patent document
- Now also as data in database (“database front page”)
- Serves to **identify** a patent publication, to **retrieve** it and **relate** it to other "similar" applications
  - same applicant
  - same inventor
  - same patent family
  - same technical field (classification)
- "tagged' with INID codes

# Structured/fielded data ("PDF view")



# Structured/fielded data ("HTML view")

Mobile | Deutsch | Español | Français | 日本語 | 한국어 | Português | Русский | 中文 |

WIPO PATENTSCOPE

Search International and National Patent Collections

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Home > IP Services > PATENTSCOPE

1. (WO2007076115) NITROGEN-EFFICIENT MONOCOT PLANTS

PCT Biblio. Data | Description | Claims | National Phase | Notices | Documents

**Latest bibliographic data on file with the International Bureau**

**Pub. No.:** WO/2007/076115 **International Application No.:** PCT/US2006/049241
**Publication Date:** 05.07.2007 **International Filing Date:** 21.12.2006

**IPC:** ***A01H 5/00*** (2006.01), ***C12N 5/04*** (2006.01), ***C12N 9/10*** (2006.01)

**Applicants:** **ARCADIA BIOSCIENCES, INC.** [US/US]; 202 Cousteau Place, Suite 200, Davis, CA 95616 (US) *(For All Designated States Except US)*.
**KRIDL, Jean** [US/US]; (US) *(For US Only)*.
**DEPAUW, Mary** [CA/CA]; (CA) *(For US Only)*.
**SHRAWAT, Ashok, K.** [IN/CA]; (CA) *(For US Only)*.
**GOOD, Allen, G.** [CA/CA]; (CA) *(For US Only)*.
**THEODORIS, George** [US/US]; (US) *(For US Only)*

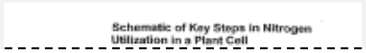
**Inventors:** **KRIDL, Jean**; (US).
**DEPAUW, Mary**; (CA).
**SHRAWAT, Ashok, K.**; (CA).
**GOOD, Allen, G.**; (CA).
**THEODORIS, George**; (US)

**Agent:** **WARD, Michael, R.**; Morrison & Foerster LLP, 425 Market Street, San Francisco, CA 94105-2482 (US)

**Priority Data:** 60/753,818 23.12.2005 US

**Title** **(EN)** NITROGEN-EFFICIENT MONOCOT PLANTS
**(FR)** PLANTES MONOCOTYLEDONES AYANT UN RENDEMENT EFFICACE EN AZOTE

**Abstract:** **(EN)**Methods of increasing nitrogen utilization efficiency in monocot plants through genetic modification to increase the levels of alanine aminotransferase expression and plants




No INID codes

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N

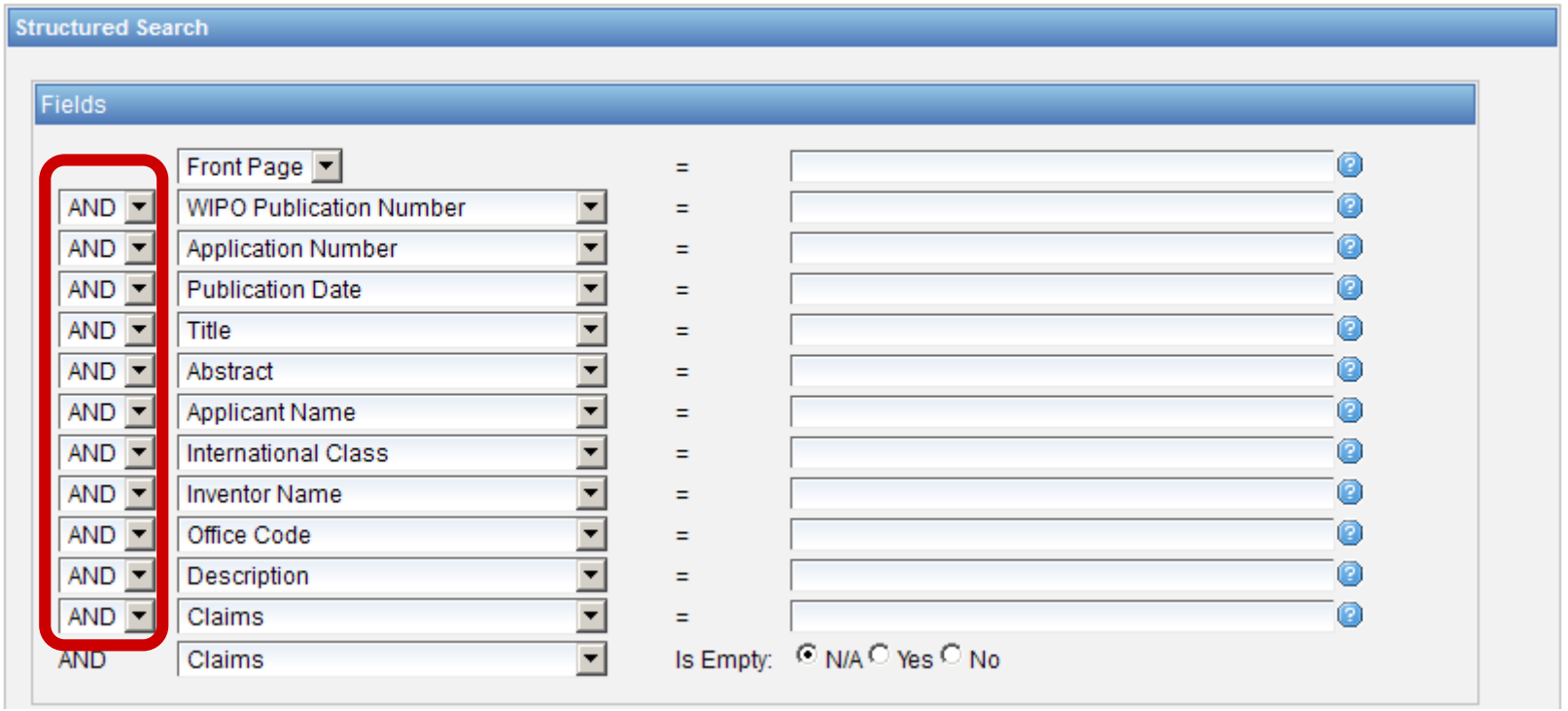
# Patent information analyses

- Patent information is available as
  - **structured data**: bibliographic information (e.g. INID codes)
  - **unstructured data**: description, claims

- Structured data allow for a focused search
  - Names: applicant, inventor, attorney
  - Dates: priority, application, publication
  - Keywords: title, abstract, description, claim

# Fielded search: Multiple fields

- Example: PATENTSCOPE **Field combinations interface**




→ Search in multiple fields, combination (AND, OR)

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Smart search
Advanced search
Classification search

Quick help

- How many search terms can I enter per field?
- How do I enter words from the title or abstract?
- How do I enter words from the description or claims?
- Can I use truncation/wildcards?
- How do I enter publication, application, priority and NPL reference numbers?
- How do I enter the names of persons and organisations?
- What is the difference between the IPC and the CPC?
- What formats can I use for the publication date?
- How do I enter a date range for a publication date search?
- Can I save my query?

Related links

# Advanced search

Select the collection you want to search in

Worldwide - collection of published applications from 90+ countries

**Enter your search terms - CTRL-ENTER expands the field you are in**

Enter keywords in English

Title: plastic and bicycle

Title or abstract: hair

Enter numbers with or without country code

Publication number: WO2008014520

Application number: DE19971031696

Priority number: WO1995US15925

Enter one or more dates or date ranges

Publication date: yyyymmdd

Enter name of one or more persons/organisations

Applicant(s): Institut Pasteur

# Patent information analyses

- Patent information is available as
  - **structured data**: bibliographic data (metadata)
  - **unstructured data**: description, claims, sequence listings
  - **(image data:** drawings, chemical formula)

- **Data mining**: structured data enable an easy
  - statistical analysis
  - network analysis (e.g., collaborations)

- **Text mining** of unstructured descriptions/claims/abstracts
  - Determining linguistic (semantic) content/meaning/concepts
  - Similarity between documents

# INID codes

- Serve to identify bibliographic data components/fields
- Useful, e.g., for publications in foreign languages, e.g. CN101612972
- Available on printed and PDF or similar publications
- Not used in databases because they have English language interface
- INID codes are standardized by WIPO Standard ST.9
  - (11)* Publication number
  - (71)* Applicant name
  - (72)  Inventor name
  - (51)* International Patent Classification

[19] 中华人民共和国国家知识产权局

[12] 发明专利申请公布说明书

[21] 申请号 200910151247.2

[51] Int. Cl.
*B62K 11/00 (2006.01)*
*B62J 23/00 (2006.01)*
*B62J 15/00 (2006.01)*
*B62J 6/02 (2006.01)*
*B62J 6/00 (2006.01)*

[43] 公开日 2009 年 12 月 30 日

[11] 公开号 CN 101612972A

[22] 申请日 2009.6.29
[21] 申请号 200910151247.2
[30] 优先权
[32] 2008. 6.27 [33] JP [31] 2008 - 168664
[71] 申请人 雅马哈发动机株式会社
地址 日本静冈县
[72] 发明人 尾形智和 种茂英男

[74] 专利代理机构 北京东方亿思知识产权代理有限责任公司
代理人 柳春雷 南 霆

权利要求书 2 页 说明书 14 页 附图 17 页

[54] 发明名称

摩托车

[57] 摘要

本发明公开了一种摩托车，其目的是在大车轮外径的摩托车中减少闪光器单元的部件数量并充分

# WIPO standards for patent information

- WIPO standards provide general **guidance and recommendations** for the presentation, publication and communication of IPR related information
- Not binding
- http://www.wipo.int/standards/en/part_03_standards.html
- E.g.
  - ST.1 Minimum data to identify patent
  - ST.3 Country codes
  - ST.6 Publication numbers
  - ST.9 INID codes
  - ST.16 Publication kind codes

# Application numbers

- Each application is numbered serially
- Not each application is published; published application numbers have gaps

- Some countries use the application number also as publication number (e.g. DE)
- Other countries use separate numbering of publications (often in serial manner), e.g.

……

EP100000

EP100001

EP100002

……

# Publication numbers

Samples:

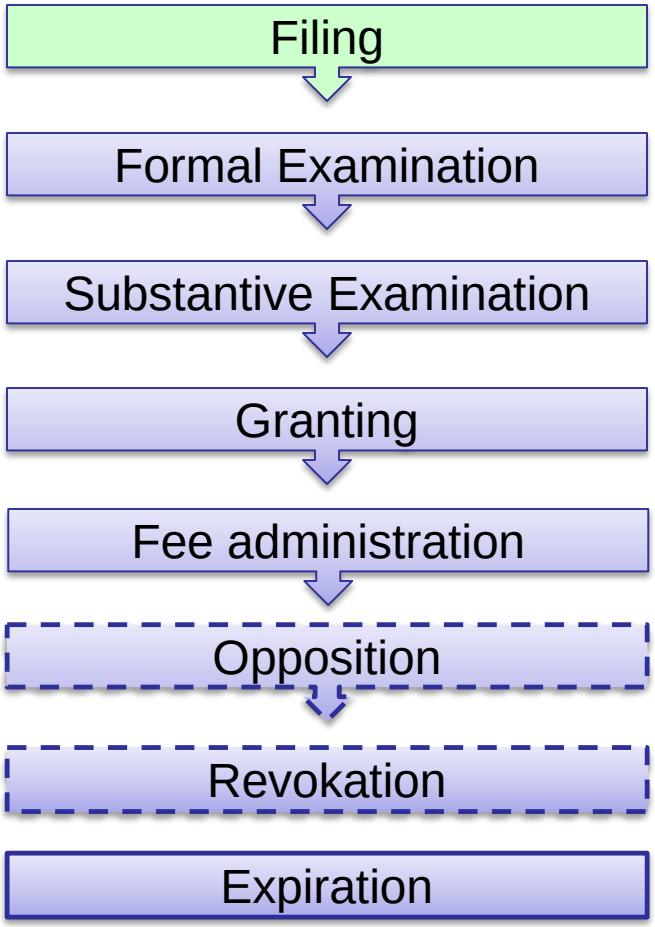
- EP 100000 A1 (format never changed)
- US 100000 A, US 2006/0219052 A1 (format changed once)
- DE 1 A, DE 43012345 A1, DE 10 2006 123456 A1 (several format changes)

| EP | 100000 | A1 |
|---|---|---|
| Country code ST.3 | Number ST.6 | Kind code ST.16 |

# Publication numbers

- Numbering
  - May include publication year
  - Sequential without gaps, i.e. …,111,112,113,114,…
  - Sequential with gaps (usually if same number is used for application number since not all applications are published)
- Presented in different format on PDF publications and in databases
  - Espacenet: US2006219052 (A1)
  - US PDF: US 2006/0219052 A1

# Stages of patent prosecution




Publication of application, corrections

Publication of grant, corrections

Publication

**Domestic family**:

All publications of same application

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# Publication numbers

- Publication at different stages
  - Same number with different kind codes
    - EP1234567A1
    - EP1234567B1
  - Different number with different kind codes
    - US 2010/146858 A1
    - US 8,617,271 B2 (purely serial number)

# Kind codes 1

- Publication kind codes identify different publication stages of a **single** application, e.g.
  - Initial publication of application
  - Search reports
  - Granted patents
  - Translations
  - Amendments/Corrections
  - They constitute a **domestic family**
- ST.16:
  - A > First level publication of patents
  - B > Second level publication of patents
  - C > Third level publication of patents

# Kind codes 2

- National authorities use various kind codes depending on their publication policies
- Overview of national practices:
  http://www.wipo.int/export/sites/www/standards/en/pdf/07-03-02.pdf
- Overview and samples of front pages:
  http://www.wipo.int/export/sites/www/standards/en/pdf/07-03-03.pdf
- Example US:
  - up to 10/2000:
    - “A” for publications of granted patents (1st level at that time)
    - no publication of applications
  - since 10/2000:
    - “A1” for publication of applications
    - “B2” for publication of granted patents

# International publications

- 18 month after filing/priority date**:** WO-**A1** or WO-**A2**
- WO-**A1**: international application (IA) + international search report (ISR)
- WO-**A2**: two distinct types of publications
  - International application as filed if no ISR is available yet
  - Optional at later stage: Declaration that no ISR will be established (Article 17(2)(a))
- WO-**A3**: Later publication international search report + front page
- WO-**A4**: Later publication of amended claims and/or statement (Article 19)
- WO-**A8**: Republication front page with corrections
- WO-**A9**: Republication of full application or ISR with corrections, alterations or supplements

# Priority numbers

- Priority numbers are usually (reformatted) application numbers of the claimed priority application
- When they are presented on patent documents, they can be formatted in different ways according to the formatting practice of the publishing authority, i.e. a priority number published by one office can look different from the corresponding application number published by the priority country office

# Bibliographic data over time

- Serve to **identify** a patent publication, to **retrieve** it and **relate** it to other "similar" applications

- Can partially change during and after examination, e.g. assignee/grantee, classification, title, ….
- No change of application, (publication,) priority numbers, (inventor), dates (except for corrections of errors)
- Changes are usually reflected in databases
- Usually no corrections of issued publications, i.e. front pages of earlier PDF publications do not reflect the changes, e.g. of assignee name

# Per application: Legal status data

- All data related to legal **events or actions** as defined by the respective patent law and regulations of a particular **jurisdiction**

events **>** data change over the lifetime of patents

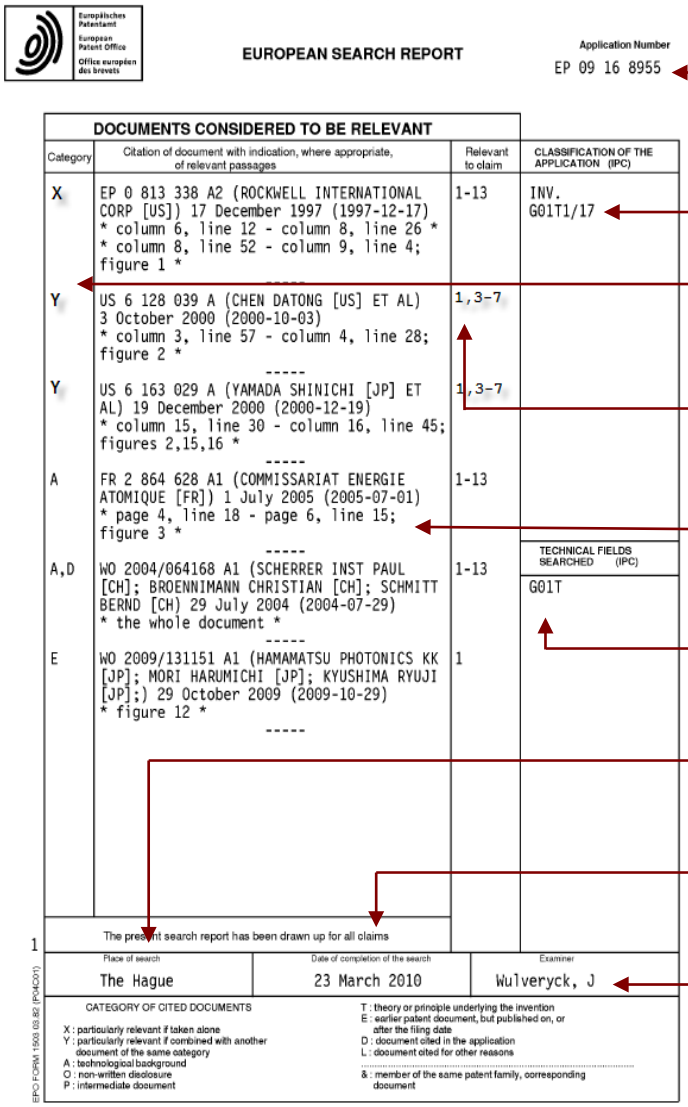
jurisdiction **>** different definitions limit comparability

- Essential for determining validity of protection, less essential for examination purposes
- May be relevant for determining examination status at other IPOs
- National **registers** as primary sources
- May change from day to day

# Per application: Other Patent Information

- Prior art search reports
- Citation data
- Patent family information, i.e. information on extensions to other OSF
- Examination file (file wrapper; examination reports, search methodologies)
- Value added information (commercial providers)

# Enriched prior art search reports



Europäisches Patentamt
European Patent Office
Office européen des brevets

**EUROPEAN SEARCH REPORT**

Application Number
EP 09 16 8955

**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 0 813 338 A2 (ROCKWELL INTERNATIONAL CORP [US]) 17 December 1997 (1997-12-17) * column 6, line 12 - column 8, line 26 * * column 8, line 52 - column 9, line 4; figure 1 * | 1-13 | INV. G01T1/17 |
| Y | US 6 128 039 A (CHEN DATONG [US] ET AL) 3 October 2000 (2000-10-03) * column 3, line 57 - column 4, line 28; figure 2 * | 1,3-7 | |
| Y | US 6 163 029 A (YAMADA SHINICHI [JP] ET AL) 19 December 2000 (2000-12-19) * column 15, line 30 - column 16, line 45; figures 2,15,16 * | 1,3-7 | |
| A | FR 2 864 628 A1 (COMMISSARIAT ENERGIE ATOMIQUE [FR]) 1 July 2005 (2005-07-01) * page 4, line 18 - page 6, line 15; figure 3 * | 1-13 | |
| A,D | WO 2004/064168 A1 (SCHERRER INST PAUL [CH]; BROENNIMANN CHRISTIAN [CH]; SCHMITT BERND [CH) 29 July 2004 (2004-07-29) * the whole document * | 1-13 | TECHNICAL FIELDS SEARCHED (IPC) G01T |
| E | WO 2009/131151 A1 (HAMAMATSU PHOTONICS KK [JP]; MORI HARUMICHI [JP]; KYUSHIMA RYUJI [JP];) 29 October 2009 (2009-10-29) * figure 12 * | 1 | |

The present search report has been drawn up for all claims

| Place of search | Date of completion of the search | Examiner |
|---|---|---|
| The Hague | 23 March 2010 | Wulveryck, J |

CATEGORY OF CITED DOCUMENTS
X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on, or after the filing date
D : document cited in the application
L : document cited for other reasons

& : member of the same patent family, corresponding document

EPO FORM 1503 03.82 (P04C01)

**Application number**

**International Patent Classification**

**Category X, Y, A, etc.**

**Relevant to Claim ...**

**Cited documents**

**Technical Fields Searched**

**Searching Authority**

**Date of Completion of the Search**

**Examiner**

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# Per application: Other Patent Information

- **Patent family information**, e.g. extensions to other OSF, domestic divisions, continuations:
  - derived from priority claims and PCT application umbers
  - different family definitions
  - available e.g. via INPADOC database (Espacenet)

# Per application: Other Patent Information

- **Examination file** (file wrapper)
  - communication between office and applicant, e.g.
    - search, examination reports
    - amended claims
    - Search methodologies
    - Decisions/rulings
    - Hearing protocols
  - Can be used to check examination status/prospects or prepare opposition
  - parts accessible through file inspection
    - online
    - manual

# Beyond a single application: Collective Patent Information

► From collections of patent publications further information can be derived:

- Patterns of patenting activity, e.g. statistical analysis
  - Who is doing what (e.g. top applicants, inventors) ?
  - What is filed where ?
- Patterns of innovation
  - Innovation trends/activities
  - Diversity of technology
  - Innovation tracks
  - Collaborations
- Business information

**> Patent Landscape Reports**

# Aggregations of patent information

**Individual application** (its bibliographic, technical, legal data, value added data)

**Patent family**(ies) (domestic, simple, extended; technical)

**Patent data collections** (e.g. search results)

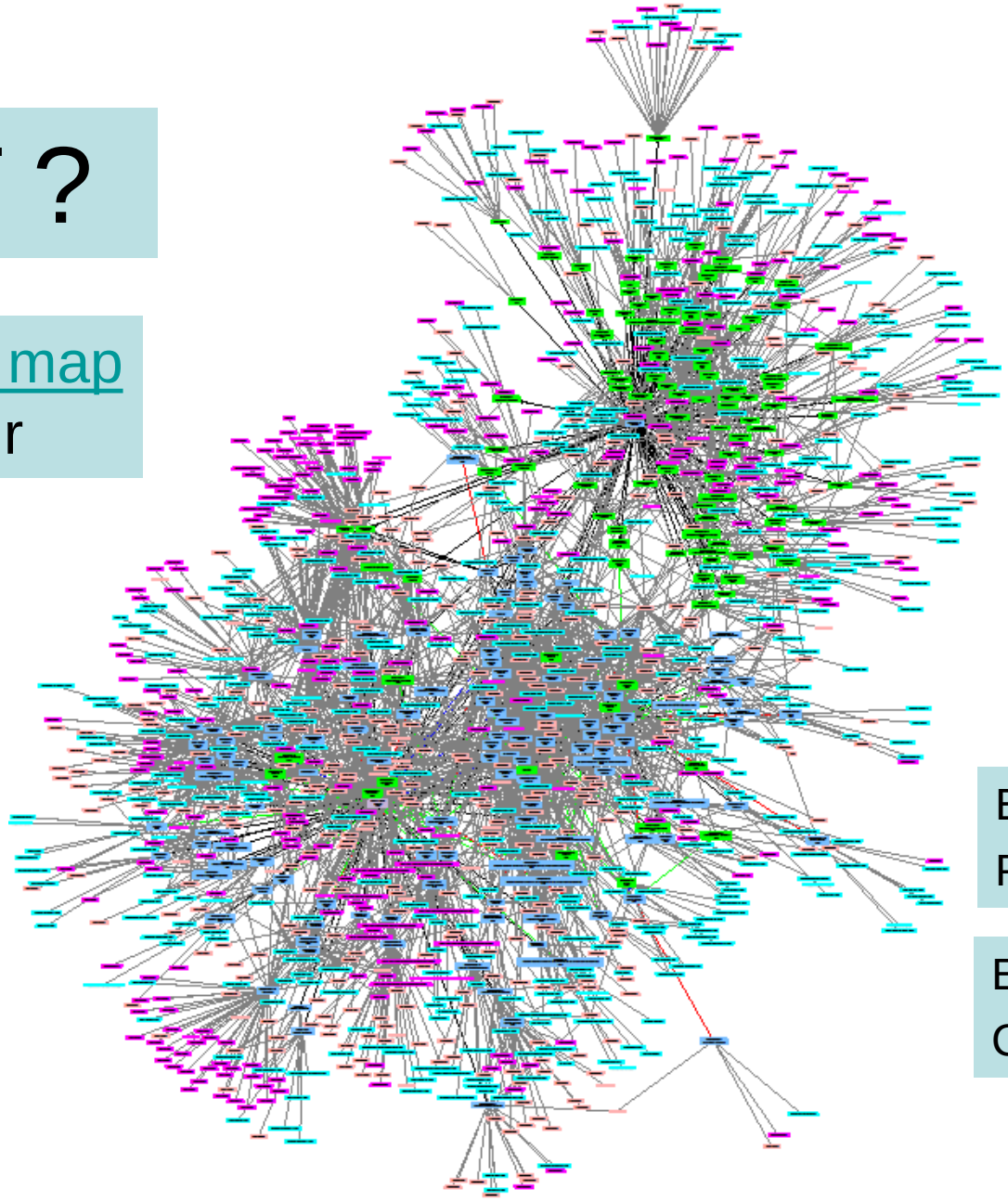
**Collective patent information** (Patent landscape reports, FTOs, ....

► Each subsequent level creates new patent information that is derived by processing the previous aggregation

► “Discovering knowledge in patent databases”

# ART ?

Citation map
Ritonavir



Each box:
Patent publication

Each line:
Citation relation

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# Thank you

lutz.mailander@wipo.int

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