



Europäisches
Patentamt
European
Patent Office
Office européen
des brevets

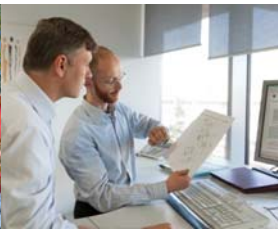
4th Meeting SACEPO Working Party on e-Patent Process

The Hague 30th January 2019

AP 4 - E-business – Patent Information
Patent data made valuable for business & society



Heiko Wongel



Patent Information Promotion

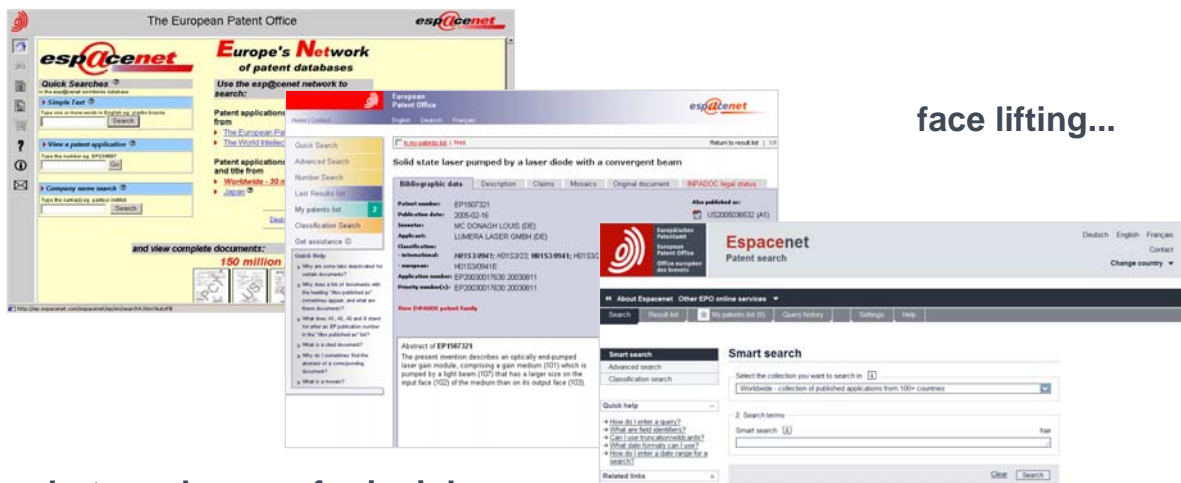


30 January 2019

Update on products & services

- Espacenet
- Federated register
- Linked open data
- Legal status categories
- ECLI
- User support

Espacenet 1998 – 2018: A successful product (~800,000 users per month)



European Patent Office

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Why a new Espacenet?

- Everyone has (some) Internet searching experience
- Everyone has expectations, e.g. search in full text, no static entry masks
 - ➡ Is legacy Espacenet still adequate?
- High-level requirements for a new Espacenet:
 - become more similar to popular search engines
 - deliver best possible patent search also for less experienced users
 - offer clear presentation of results
 - do not necessarily aim for more “professional” functionality



European Patent Office

Improving the Espacenet user experience



Input from member state offices



User consultations



User surveys

User consultations

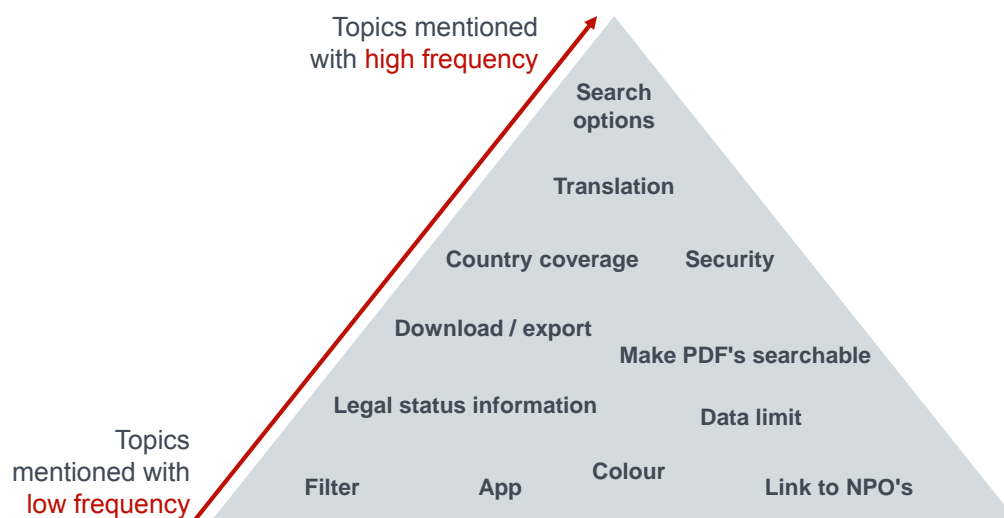
Participants

- IP offices (including examiners)
- Industry
- Patent searchers/information specialists
- Key stakeholder groups (SACEPO/PDI)
- Consultants
- Technology Transfer Officers
- Academia
- Patent attorneys
- Students

- From all-over Europe, USA, Canada, India

User Survey

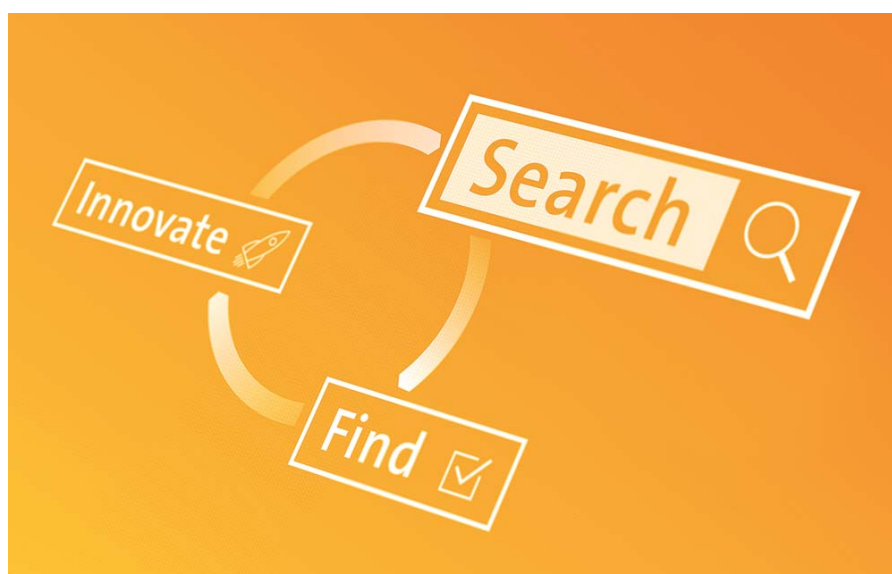
Topics mentioned as potential improvements



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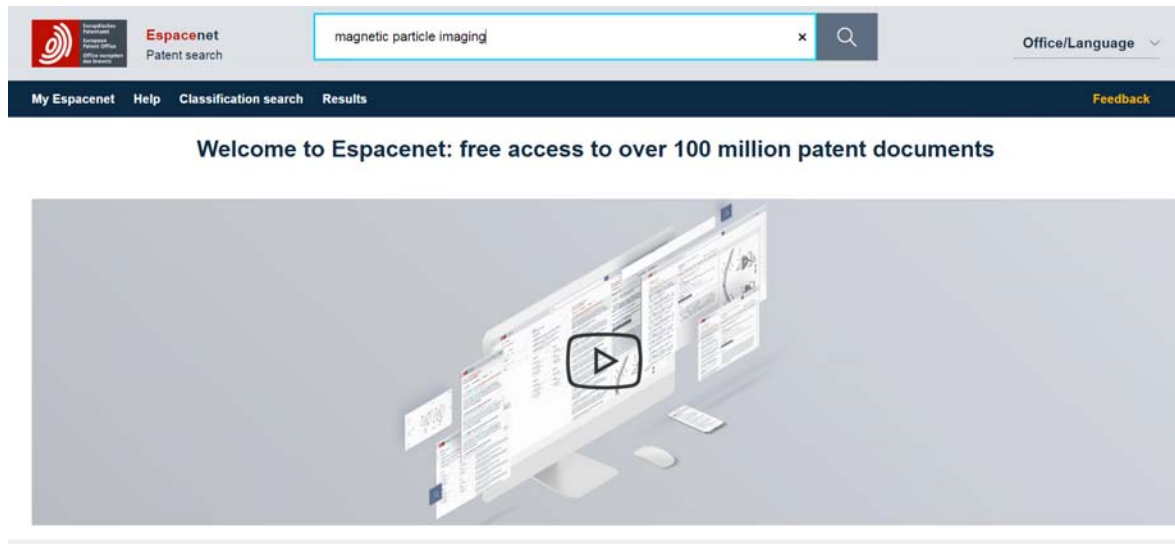
Searching patents has never been easier



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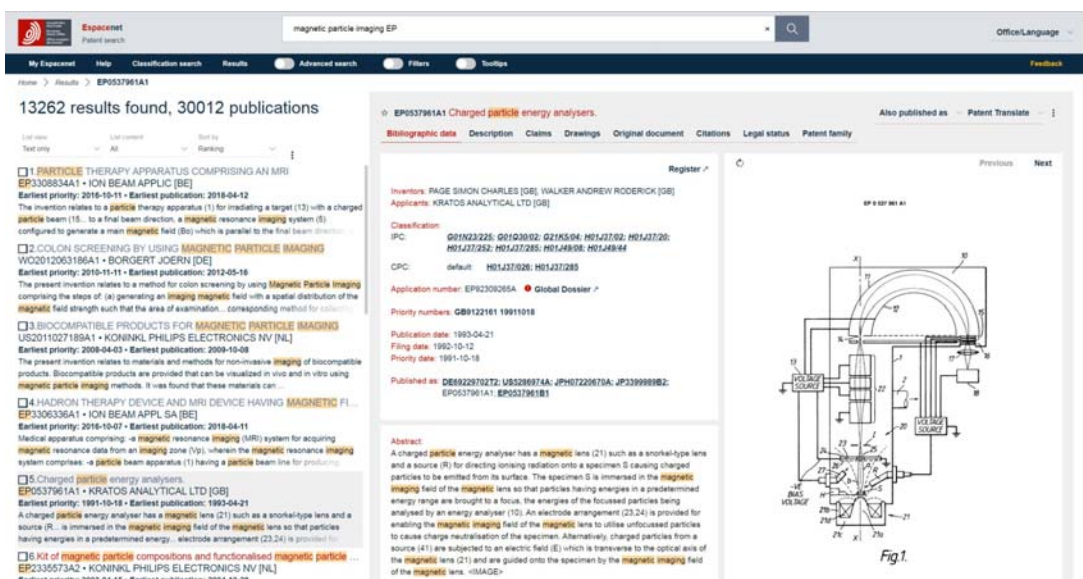
User experience



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Results list



European Patent Office

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Viewing the details

13262 results found, 30012 publications

Search criteria: EP0537961A1

Results: 13262 results found, 30012 publications

Sort by: Relevance

1. **EP0537961A1** Charged particle energy analysers.

Publication: EP0537961A1, Family: Simple, Title: Charged particle energy analysers, Publication date: 1993-04-21, Applicants: KRATOS ANALYTICAL LTD [GB], CPC: H01J37/026, IPC: G01N23/225, G01Q30/02, G21K5/04, H01J37/02, H01J37/20, 44, Links: Global Dossier

2. **EP0537961B1** Charged particle energy analysers.

Publication: EP0537961B1, Family: Simple, Title: Charged particle energy analysers, Publication date: 1999-08-04, Applicants: KRATOS ANALYTICAL LTD [GB], CPC: H01J37/026, IPC: G01N23/225, G01Q30/02, G21K5/04, H01J37/02, H01J37/20, 44, Links: Global Dossier

3. **DE69229702D1** INPADOC.

Publication: DE69229702D1, Family: INPADOC, Title: Geräte zur Energieanalyse von Ladungsträgerpartikeln, Publication date: 1999-09-09, Applicants: KRATOS ANALYTICAL LTD [GB], CPC: H01J37/026, IPC: G01N23/225, G01Q30/02, G21K5/04, H01J37/02, H01J37/20, 44, Links: Global Dossier

4. **GB912216100** INPADOC.

Publication: GB912216100, Family: INPADOC, Title: CHARGED PARTICLE ENERGY ANALYSIS DEVICE, Publication date: 1991-11-27, Applicants: KRATOS ANALYTICAL LTD, KRATOS ANALYTICAL LTD [GB], CPC: H01J37/026, IPC: G01N23/225, G01Q30/02, G21K5/04, H01J37/02, H01J37/20, 44, Links: Global Dossier

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Advanced search

35 results found, 86 publications

Search criteria: (title any "magnetic" AND class "particle" proximity 3 "imaging") OR is any "mpi" AND num = "EP" AND cl = "A61K48"

Results: 35 results found, 86 publications

Sort by: Relevance

1. **EP0537961A1** Charged particle energy analysers.

Publication: EP0537961A1, Family: Simple, Title: Charged particle energy analysers, Publication date: 1993-04-21, Applicants: KRATOS ANALYTICAL LTD [GB], CPC: H01J37/026, IPC: G01N23/225, G01Q30/02, G21K5/04, H01J37/02, H01J37/20, 44, Links: Global Dossier

2. **EP0537961B1** Charged particle energy analysers.

Publication: EP0537961B1, Family: Simple, Title: Charged particle energy analysers, Publication date: 1999-08-04, Applicants: KRATOS ANALYTICAL LTD [GB], CPC: H01J37/026, IPC: G01N23/225, G01Q30/02, G21K5/04, H01J37/02, H01J37/20, 44, Links: Global Dossier

3. **DE69229702D1** INPADOC.

Publication: DE69229702D1, Family: INPADOC, Title: Geräte zur Energieanalyse von Ladungsträgerpartikeln, Publication date: 1999-09-09, Applicants: KRATOS ANALYTICAL LTD [GB], CPC: H01J37/026, IPC: G01N23/225, G01Q30/02, G21K5/04, H01J37/02, H01J37/20, 44, Links: Global Dossier

4. **GB912216100** INPADOC.

Publication: GB912216100, Family: INPADOC, Title: CHARGED PARTICLE ENERGY ANALYSIS DEVICE, Publication date: 1991-11-27, Applicants: KRATOS ANALYTICAL LTD, KRATOS ANALYTICAL LTD [GB], CPC: H01J37/026, IPC: G01N23/225, G01Q30/02, G21K5/04, H01J37/02, H01J37/20, 44, Links: Global Dossier

European Patent Office

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Filter function

67 results found, 191 publications

1 MAGNET ARRANGEMENT AND MAGNETIC PARTICLE IMAGING DEVI...
WO2017032903A1 • KONINKLIJKE PHILIPS NV [NL]
Earliest priority: 2015-08-27 • Earliest publication: 2017-03-02
The present invention relates to magnet arrangement, in particular for use in a magnetic particle imaging (MPI) device. To make the MPI device suitable for monitoring scenarios, preferably with fast scanning, less bulky and consume less electrical power than known MPI apparatus, the...

2 MULTIMODAL FIDUCIAL MARKER AND MARKER ARRANGEMENT
US2015011861A1 • KONINKLIJKE PHILIPS NV [NL]
Earliest priority: 2012-02-01 • Earliest publication: 2013-08-08
...) comprising magnetic material visible in MRI data obtained by a magnetic particle imaging method and a second portion (14) comprising a second material visible in image data obtained by another imaging method, which image data shall be registered with said MRI data. Further...

3 ARRANGEMENT AND METHOD FOR INFLUENCING AND/OR DETECT...
US2012119739A1 • KONINKLIJKE PHILIPS ELECTRONICS NV [NL]
Earliest priority: 2009-06-30 • Earliest publication: 2010-11-04
Magnetic particle imaging allows the imaging of fast tracer dynamics, but there is no native tissue contrast. A combination with MRI solves this issue. However, coil geometries in MRI and MPI differ significantly, making direct use impractical. According to one... arrangements and...

4 COIL ARRANGEMENT FOR MRI
WO2013080145A1 • KONINKLIJKE PHILIPS ELECTRONICS NV [NL]
Earliest priority: 2011-12-02 • Earliest publication: 2013-06-06
The present invention relates to a coil arrangement, in particular for use in a magnetic particle imaging apparatus (100), comprising... relates to such a magnetic particle imaging apparatus, in particular an apparatus (100) for influencing and/or detecting magnetic particles...

5 COMPOSITIONS CONTAINING MAGNETIC IRON OXIDE PARTICLES A...
WO2007000351A1 • BRIEL ANDREAS [DE]
Earliest priority: 2005-06-29 • Earliest publication: 2007-01-03
The present invention relates to complexes which contain polycrystalline magnetic iron oxide particles in a pharmaceutically acceptable shell, and to the use of these compositions in magnetic particle imaging (MPI). Particular preference is given to the use of these complexes...

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My Espacenet

Query	Filters	Languages	Date	Results found	Actions
((cst all "magnetic" AND cstn("particle" prox:distance<3 "imaging")) OR ta any "mpi") AND num = "EP" AND cl = "A61K49"		en de fr	2018-11-23 14:20:00	35	► ■
((cstn("particle" prox:distance<3 "imaging") AND cst all "magnetic") OR ta any "mpi") AND num = "EP" AND cl = "A61K49"		en de fr	2018-11-23 14:05:53	35	► ■
((cstn("particle" prox:distance<3 "imaging") AND nft all "magnetic") OR ta any "mpi") AND num = "EP" AND cl = "A61K49"		en de fr	2018-11-23 14:05:41	42	► ■
((cstn("particle" prox:distance<3 "imaging") OR nft all "magnetic") OR ta any "mpi") AND num = "EP" AND cl = "A61K49"		en de fr	2018-11-23 14:05:25	2434	► ■
(cst all "magnetic particle imaging" OR ta any "mpi") AND num = "EP" AND cl = "A61K49"		en de fr	2018-11-23 13:57:20	122	► ■
(cst all "magnetic particle imaging" OR ta any "mpi") AND num = "EP" AND cl = "A61K49" AND pd = "2014"		en de fr	2018-11-23 13:50:34	98	► ■
(cst all "magnetic particle imaging" OR ta any "mpi") AND num = "EP" AND cl = "A61K49" AND prd = "2018"		en de fr	2018-11-23 13:49:19	0	► ■
(cst all "magnetic particle imaging" OR ta any "mpi") AND num = "EP" AND cl = "A61K49" AND prd = "2017"		en de fr	2018-11-23 13:49:14	0	► ■
(cst all "magnetic particle imaging" OR ta any "mpi") AND num = "EP" AND cl = "A61K49" AND prd = "2016"		en de fr	2018-11-23 13:49:04	0	► ■
(cst all "magnetic particle imaging" OR ta any "mpi") AND num = "EP" AND cl = "A61K49" AND prd = "2014"		en de fr	2018-11-23 13:48:48	0	► ■
(cst all "magnetic particle imaging" OR ta any "mpi") AND num = "EP" AND cl = "A61K49"		en de fr	2018-11-23 13:47:41	122	► ■
(cst all "magnetic particle imaging" OR ta any "mpi") AND num = "EP"		en de fr	2018-11-23 13:45:55	432	► ■
cst all "magnetic particle imaging" AND num = "EP"		en de fr	2018-11-23 13:38:17	376	► ■
nft all "magnetic particle imaging" AND num = "EP"		en de fr	2018-11-23 13:37:26	13262	► ■
magnetic particle imaging EP		en de fr	2018-11-23 13:36:49	13262	► ■
magnetic particle imaging EP		en de fr	2018-11-23 11:57:04	13262	► ■
magnetic particle imaging		en de fr	2018-11-23 11:56:51	62502	► ■
magnetic particle imaging		fr	2018-11-22 16:52:32	11	► ■

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Multiple platforms (responsive design)

The screenshot displays the EPO's patent search results interface, demonstrating its responsive design across multiple platforms. The interface is organized into three main columns. The left column lists search results for 'PARTICLE THERAPY APPARATUS COMPRISING AN MRI'. The middle column provides detailed information for a specific patent, 'EP3399537A1 GUN LENS DESIGN IN A CHARGED PARTICLE MICROSCOPE', including bibliographic data, classification, and application numbers. The right column features a technical drawing of a gun lens design, with navigation links for 'Previous' and 'Next' views. The layout is designed to be accessible and functional on various devices, from desktop computers to mobile phones.

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Test the Espacenet of the future



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Why β ?

- Opportunity for a last check of functionality and operational robustness
 - in a real production environment
 - with real users
- Last chance to spot errors, collect **Feedback** and iron out bugs before released into full production



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How to work with a β version

- there could be **deficiencies in the functionality, data handling or coverage**, or **bugs, errors or other problems**.
- You should **not take any business-critical decisions** based on searches conducted with it.

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latest additions: DE, EE

[illegible]

The number of participating member states has **grown** to 35



National patent registers

Designated contracting states AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
 GR HR HU IE IS IT LI LT LU LV MC MK MT NL
 NO PL PT RO RS SE SI SK SM TR

Extension states BA ME

Validation states MA ↗ MD

Coming in 2019: Compact view

European Patent Register

Deutsch English Français Contact

About European Patent Register Other EPO online services Register Alert login

EP2940433

Federated Patent Registers | Compact view : EP2940433

Refine search ST36 Espacenet Submit observations Report error Print

Patent status **Y**

- ☐ Active
- ☒ Non Active
- ☒ Terminated
- ☐ Unknown

Designated state	In force date	Not in force (months)	Last renewal fee paid	Next renewal fee
DE	02.2016	17	02.2017	02.2017
GB	10.2018	24	10.2018	10.2018
IE	02.2017	32	02.2017	02.2017
MS	02.2016	8	02.2016	02.2016
NL	02.2017	26	02.2017	02.2017
HS	02.2016	37	02.2016	02.2016
CZ	02.2017	5	02.2017	02.2017
MC	02.2017	18	02.2017	02.2017

Terminated 1

Designated states to be integrated in the service

AL, CY, DK, FR, HU, IS, IT, LI, LV, MT

Quick help

- What is the Federated Register?
- Who is it for?
- What type of information will be displayed?
- Which countries will be providing data?
- What statuses are available in the Federated Register?
- How can I get direct access to national office registers?
- What data is provided by the national patent offices in the Federated Register?
- What does "invalidation date" mean?
- What does "not in force since" mean?
- What does "record last updated" mean?
- Why is there a difference between the "invalidation date" and the "not in force since" date?
- What are validation states?
- What are extension states?

Maintenance news +

News flashes +

Related links +

Responsibility for the accuracy or quality of the data displayed lies entirely with the national patent office concerned, including but not limited to the completeness and fitness of the information for specific purposes. For complete and authoritative information, please refer to the appropriate national patent register, e.g. by clicking the relevant country code.

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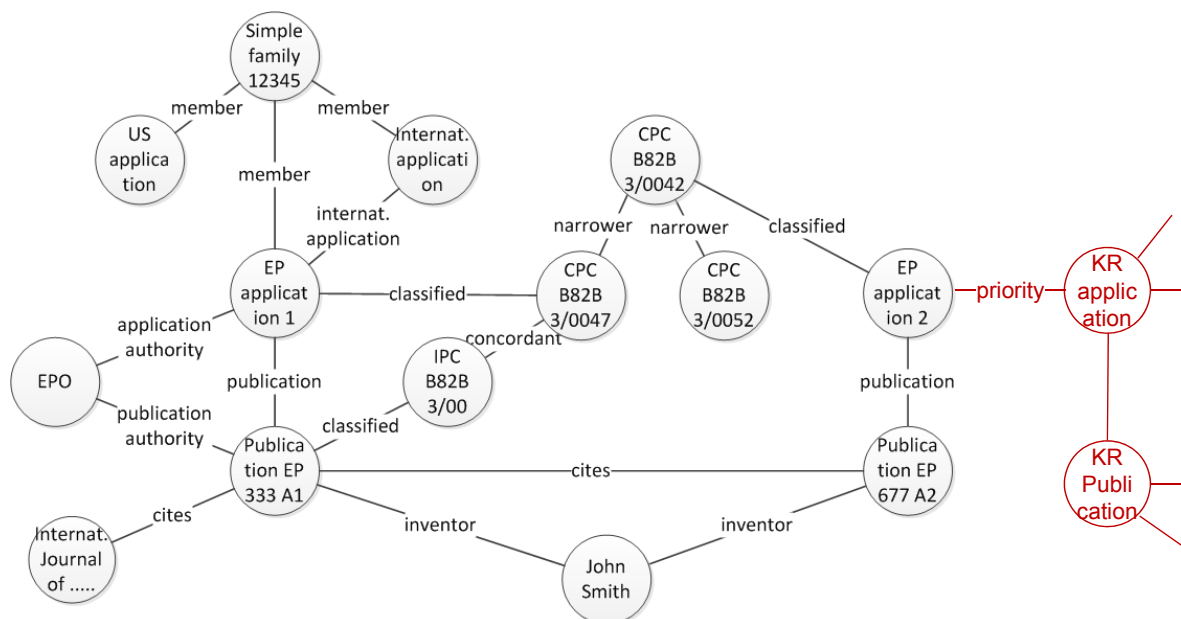
Linked open EP data

- Data product containing **EP bibliographic data** and **CPC scheme**
- New format: Linked data (aka Semantic Web) (RDF)
- Free-of-charge, updated weekly
- Target user group:
Patent-non-experts, web developers, data scientists
- Launched: April 2018:
epo.org/linked-data

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Linked data can be seen as a huge network (“graph”)



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Open data license CC BY 4.0

- **Standard** license, not handcrafted



- No costs, no registration
- May be shared, copied, redistributed in any medium or format
- May be adapted, remixed, transformed
- For any purpose, even commercially
- Attribution required

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The EPO's worldwide legal status database (INPADOC database)

- The workflow:



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The INPADOC database: Motivation for further development



- Large diversity of different INPADOC legal event codes
- Need to harmonise diversity of similar codes for different patent authorities
- Ever-growing user needs and expectations, e.g.
 - increase coverage, accuracy and timeliness
 - quickly understand the nature of legal events
 - search and analyse patent data using legal events in an efficient way

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Source: Pixabay

INPADOC classification scheme: Category level: 21 categories



Category	Title	Category	Title
A	Application filing	P	Re-publication of document after modification
B	Application discontinuation	Q	Document publication
C	Application revival	R	Party data change
D	Search and examination	S	Information on licensing and similar transactions
E	Pre-grant review request	T	Administrative procedure adjustment
F	IP right grant	U	Payment
G	Protection beyond IP right term	V	Appeal
H	IP right cessation	W	Other
K	IP right revival	Y	Correction and deletion of event information
L	IP right review request	Z	Classification pending
M	IP right maintenance		

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INPADOC classification scheme: Example

- EP2513119: about 200 INPADOC legal events

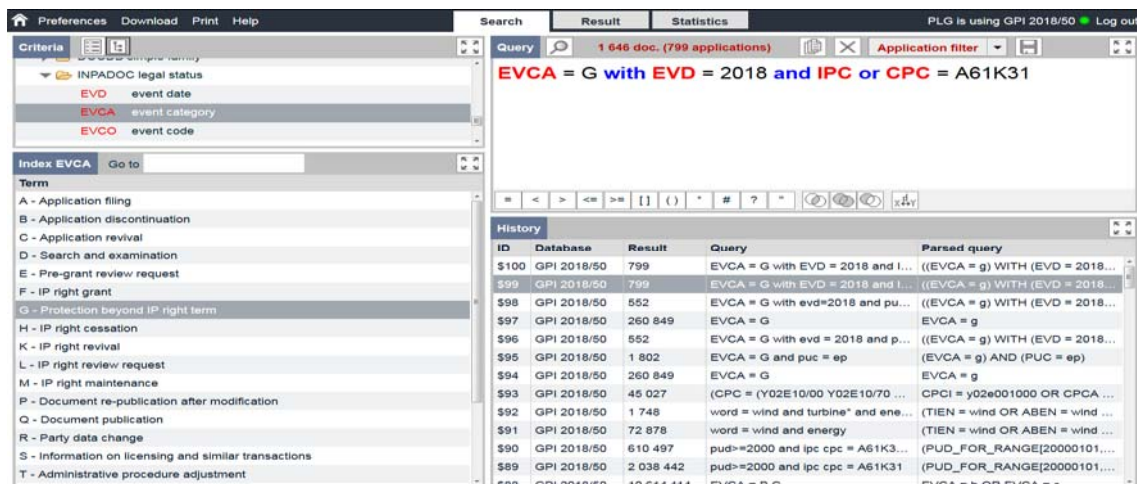


EP2513119: 3,4,4A,10B-TETRAHYDRO-1H-THIOPYRANO-[4,3-C]ISOQUINOLINE DERIVATIVES							Also published as
Bibliographic data	Description	Claims	Drawings	Original document	Citations	Legal status	Patent family
Category	Event Description	Countries	Event date	Effective date	Details		
EP PGPP	U Payment	POSTGRANT ANNUAL FEES PAID TO NATIONAL OFFICE	DK	2014-12-31	Fee payment Year: 5 CMB: 201412		
EP PGPP	U Payment	POSTGRANT ANNUAL FEES PAID TO NATIONAL OFFICE	SE	2015-01-30	Fee payment Year: 5 CMB: 201412		
EP PGPP	U Payment	POSTGRANT ANNUAL FEES PAID TO NATIONAL OFFICE	MC	2015-01-30	Fee payment Year: 5 CMB: 201412		
EP PGPP	U Payment	POSTGRANT ANNUAL FEES PAID TO NATIONAL OFFICE	NO	2015-01-30	Fee payment Year: 5 CMB: 201412		
EP PGPP	U Payment	POSTGRANT ANNUAL FEES PAID TO NATIONAL OFFICE	GR	2015-01-30	Fee payment Year: 5 CMB: 201411		
EP PGPP	U Payment	POSTGRANT ANNUAL FEES PAID TO NATIONAL OFFICE	LI	2015-01-30	Fee payment Year: 5 CMB: 201412		
EP PGPP	U Payment	POSTGRANT ANNUAL FEES PAID TO NATIONAL OFFICE	BG	2015-01-30	Fee payment Year: 5 CMB: 201412		
EP PGPP	U Payment	POSTGRANT ANNUAL FEES PAID TO NATIONAL OFFICE	EE	2015-01-30	Fee payment Year: 5 CMB: 201411		
EP PGPP	U Payment	POSTGRANT ANNUAL FEES PAID TO NATIONAL OFFICE	FI	2015-01-30	Fee payment Year: 5 CMB: 201412		

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Search using event codes (GPI)

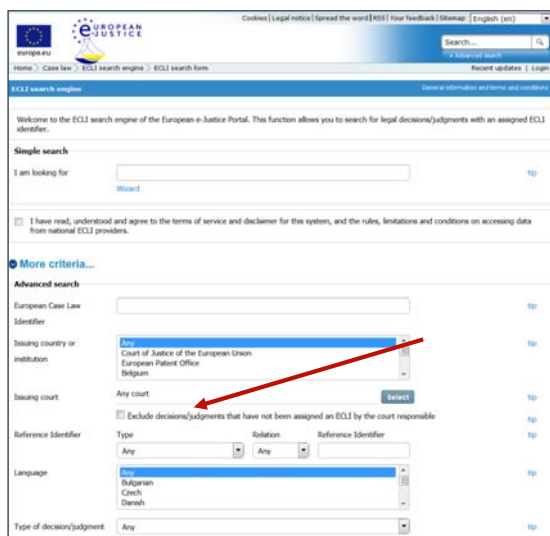


The screenshot shows the EPO search interface. The search bar contains the query: **EVCA = G with EVD = 2018 and IPC or CPC = A61K31**. The results table shows the following data:

ID	Database	Result	Query	Parsed query
\$100	GPI 2018/50	799	EVCA = G with EVD = 2018 and I...	((EVCA = g) WITH (EVD = 2018...
\$99	GPI 2018/50	799	EVCA = G with EVD = 2018 and I...	((EVCA = g) WITH (EVD = 2018...
\$98	GPI 2018/50	552	EVCA = G with evd=2018 and pu...	((EVCA = g) WITH (EVD = 2018...
\$97	GPI 2018/50	260 849	EVCA = G	EVCA = g
\$96	GPI 2018/50	552	EVCA = G with evd = 2018 and p...	((EVCA = g) WITH (EVD = 2018...
\$95	GPI 2018/50	1 802	EVCA = G and puc = ep	(EVCA = g) AND (PUC = ep)
\$94	GPI 2018/50	260 849	EVCA = G	EVCA = g
\$93	GPI 2018/50	45 027	(CPC = (Y02E10/00 Y02E10/70 ...	CPCI = y02e001000 OR CPCA ...
\$92	GPI 2018/50	1 748	word = wind and turbine* and ene...	(TIEN = wind OR ABEN = wind ...
\$91	GPI 2018/50	72 878	word = wind and energy	(TIEN = wind OR ABEN = wind ...
\$90	GPI 2018/50	610 497	pubd=>2000 and ipc cpc = A61K3...	(PUD_FOR_RANGE[20000101,...
\$89	GPI 2018/50	2 038 442	pubd=>2000 and ipc cpc = A61K31	(PUD_FOR_RANGE[20000101,...
\$88	GPI 2018/50	10 614 114	EVCA = B.C	EVCA = B OR EVCA = C

Simple query **EVCA = G** (event category G = “Protection beyond IP right term”) avoids complex queries (with hundreds of national/regional event codes)

European Case Law Identifier (ECLI)



The screenshot shows the ECLI search engine interface. The search bar contains the query: **justice.europa.eu/content european case law identifier ecli-175-ii-en.do?member=1**. The results table shows the following data:

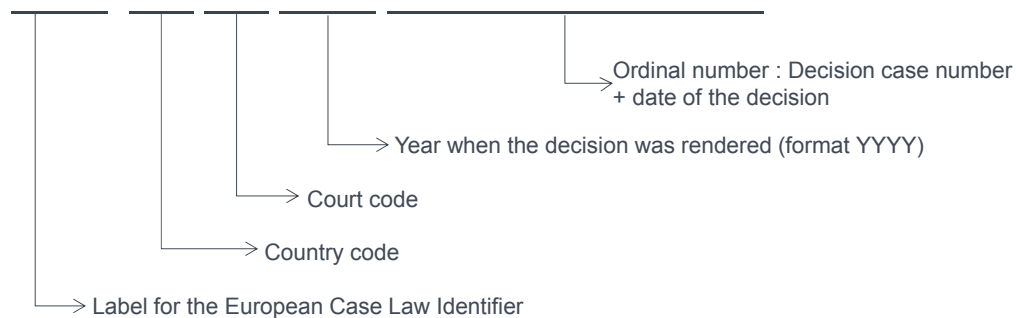
ID	Database	Result	Query	Parsed query
\$100	GPI 2018/50	799	EVCA = G with EVD = 2018 and I...	((EVCA = g) WITH (EVD = 2018...
\$99	GPI 2018/50	799	EVCA = G with EVD = 2018 and I...	((EVCA = g) WITH (EVD = 2018...
\$98	GPI 2018/50	552	EVCA = G with evd=2018 and pu...	((EVCA = g) WITH (EVD = 2018...
\$97	GPI 2018/50	260 849	EVCA = G	EVCA = g
\$96	GPI 2018/50	552	EVCA = G with evd = 2018 and p...	((EVCA = g) WITH (EVD = 2018...
\$95	GPI 2018/50	1 802	EVCA = G and puc = ep	(EVCA = g) AND (PUC = ep)
\$94	GPI 2018/50	260 849	EVCA = G	EVCA = g
\$93	GPI 2018/50	45 027	(CPC = (Y02E10/00 Y02E10/70 ...	CPCI = y02e001000 OR CPCA ...
\$92	GPI 2018/50	1 748	word = wind and turbine* and ene...	(TIEN = wind OR ABEN = wind ...
\$91	GPI 2018/50	72 878	word = wind and energy	(TIEN = wind OR ABEN = wind ...
\$90	GPI 2018/50	610 497	pubd=>2000 and ipc cpc = A61K3...	(PUD_FOR_RANGE[20000101,...
\$89	GPI 2018/50	2 038 442	pubd=>2000 and ipc cpc = A61K31	(PUD_FOR_RANGE[20000101,...
\$88	GPI 2018/50	10 614 114	EVCA = B.C	EVCA = B OR EVCA = C

[justice.europa.eu/content european case law identifier ecli-175-ii-en.do?member=1](https://justice.europa.eu/content_european_case_law_identifier_ecli-175-ii-en.do?member=1)

European Case Law Identifier (ECLI)

- Identify decisions of the EPO Boards of Appeal
- Format: ECLI:EP:[court code]:[year of the decision]:[serial number]

ECLI:EP:BA:2018:T110413.20180111



European Case Law Identifier (ECLI)

The screenshot shows the 'Search in the Board of Appeal decisions database' interface. The search bar contains the text 'ECLI:EP:BA:2018:T035515.20180321'. The interface includes various filters and search options, such as 'Case number', 'IPC', 'H04Q 7/38', 'Application number', 'Applicant/proprietor', 'Application title', 'Opponent', 'Keyword', 'EPC rule', 'EPC article', and 'ECLI'. The search results section shows the identifier 'ECLI:EP:BA:2018:T035515' highlighted in red. The interface also includes a 'Contact' section with the address of the Boards of Appeal and a 'See also' section with links to frequently asked questions, the calendar of oral proceedings, and case law conference highlights/recording.

User support

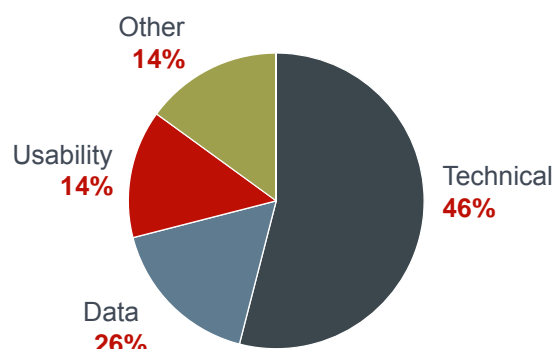
User queries

> 5000 direct query related contacts with patent information users in 2018

- patent information in general
- Espacenet in particular

More on the forum at epo.org/forums

Patent Information Products and Services
User queries



User support

	Video	Manual	Pocket guide	E-learning
European Patent Register		available online	available online	available online converted from Flash to HTML early 2019
Register Alert	available online	available online		available online converted to HTML early 2019
Federated Register	available online New			
Espacenet		available online	available online	available online converted to HTML with new Espacenet
Common Citation Document	available online	available online New		
PATSTAT Online	expected mid-2019	available online		
Patent information general				available online converted to HTML in 2018 New

User support

Webinars (free of charge)

Presentations available on the forum immediately after the event

Recordings available on the e-learning platform for at least one month after webinar

Patent information users

Upcoming patent information events

18.1.2019 Virtual classroom, online
Patent families
22.1.2019 Vienna, Austria
Introduction to patent statistics and the PATSTAT product line
30.1.2019 Virtual classroom, online
INPADOC basic
5.2.2019 Virtual classroom, online
PATSTAT Online
12.2.2019 Virtual classroom, online
Patent information from EPO validation states: Moldova
15.2.2019 Virtual classroom, online
EP patent information and CPC taxonomy as linked data
19.2.2019 Virtual classroom, online
Patent information from EPO validation states: Morocco & Tunisia
20.2.2019 Virtual classroom, online
Introduction to the European Patent Register
26.2.2019 Virtual classroom, online
Patent information from EPO validation states: Cambodia
6.3.2019 Virtual classroom, online
Introducing the new Espacenet
27.3.2019 Virtual classroom, online
INPADOC advanced
11.4.2019 Vienna, Austria
East meets West 2019

Thank you!

hwongel@epo.org

EPO Vienna

