LexisNexis Patent Solutions

SEMINARIO DE INDUCCION A LA INFORMACION DE PATENTES

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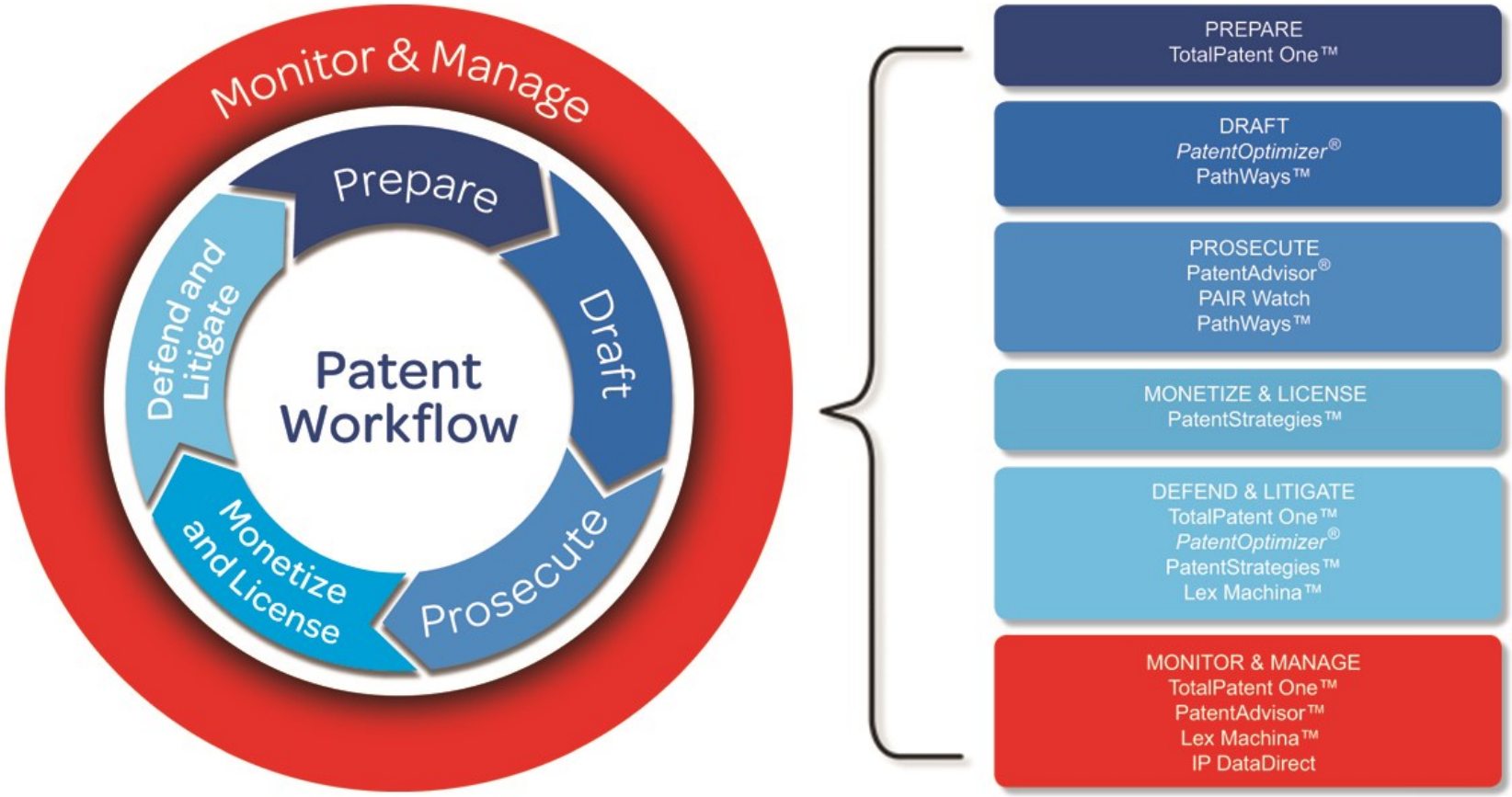
Agenda

- What are companies doing with patents?
- TotalPatent One introduction
- Live demonstration of TotalPatent One
- PatentSight introduction: take patent analytics to the next level

A global workflow for our entire patent process



What kind of profiles work with patents?

Technical

- Scientist
- Engineer etc.

Legal

- Prosecution – Drafting and applying for patents
- Searchers
- Asserting patents, e.g. Litigation

Business

- Heads of departments, inc. R&D, Legal, IP
- High up in organisation or to do with strategy
- Business analysts

Which organizations ?

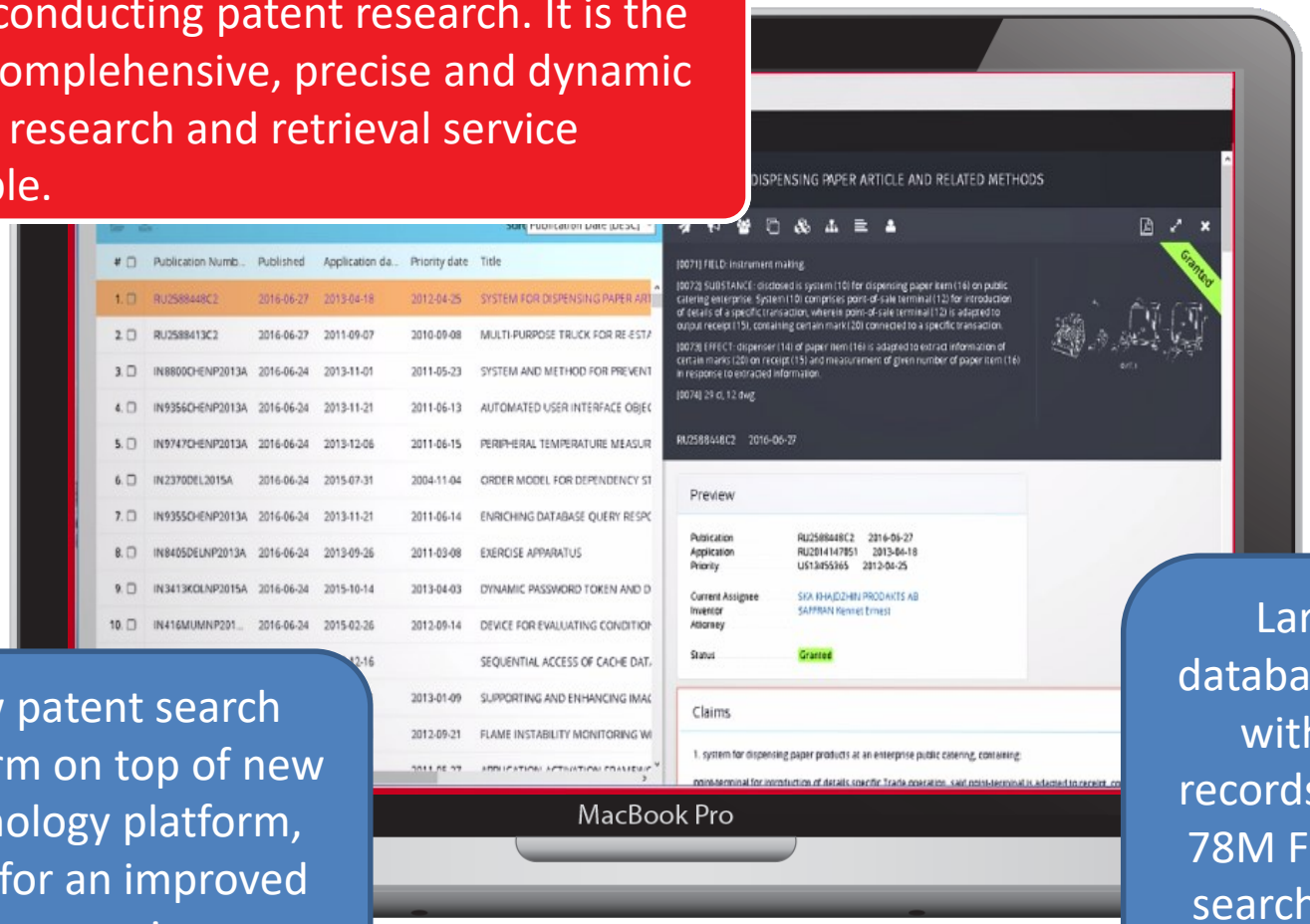
- Large corporate company investing in R&D (pharma, IT and oil for ex.)
- Law firms with an IP (patent) department
- Universities and the Technology Tranfer Office of the universities

LexisNexis TotalPatent One®

Next Generation Patent Research Tool

Keys components of TotalPatent One

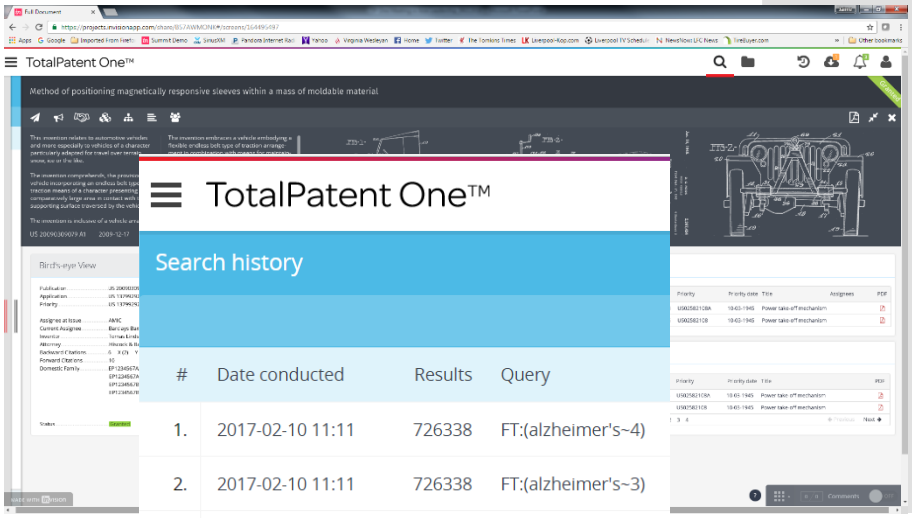
TotalPatent One™ provides peace of mind when conducting patent research. It is the most complehensive, precise and dynamic patent research and retrieval service available.



New patent search platform on top of new technology platform, build for an improved user experience

Largest patent database in the world, with over 108M records, of which over 78M Full Text records searchable in English and over 84M PDFs

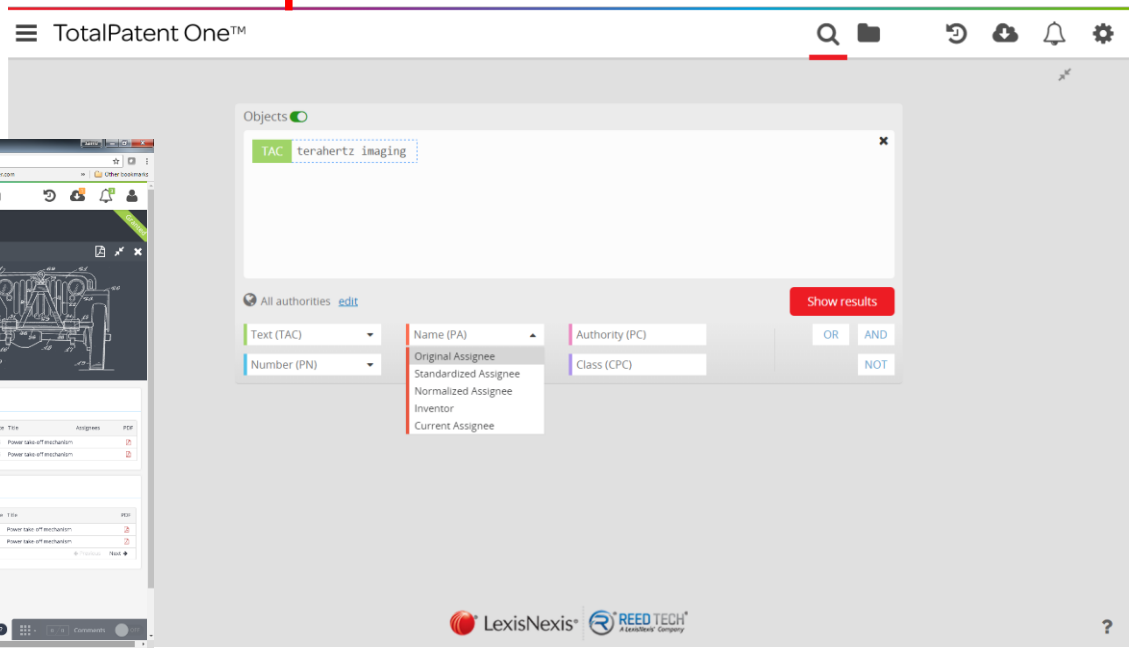
Key challenge : addressing the needs of all : experts and less experts

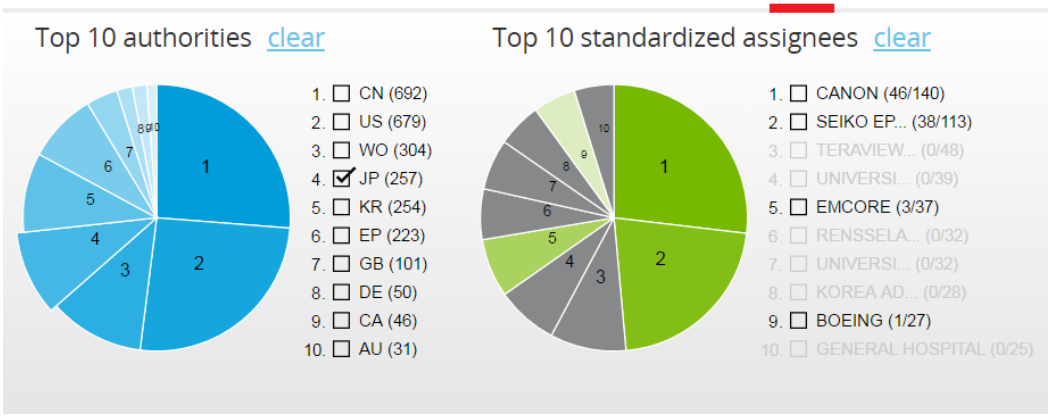


TotalPatent One™

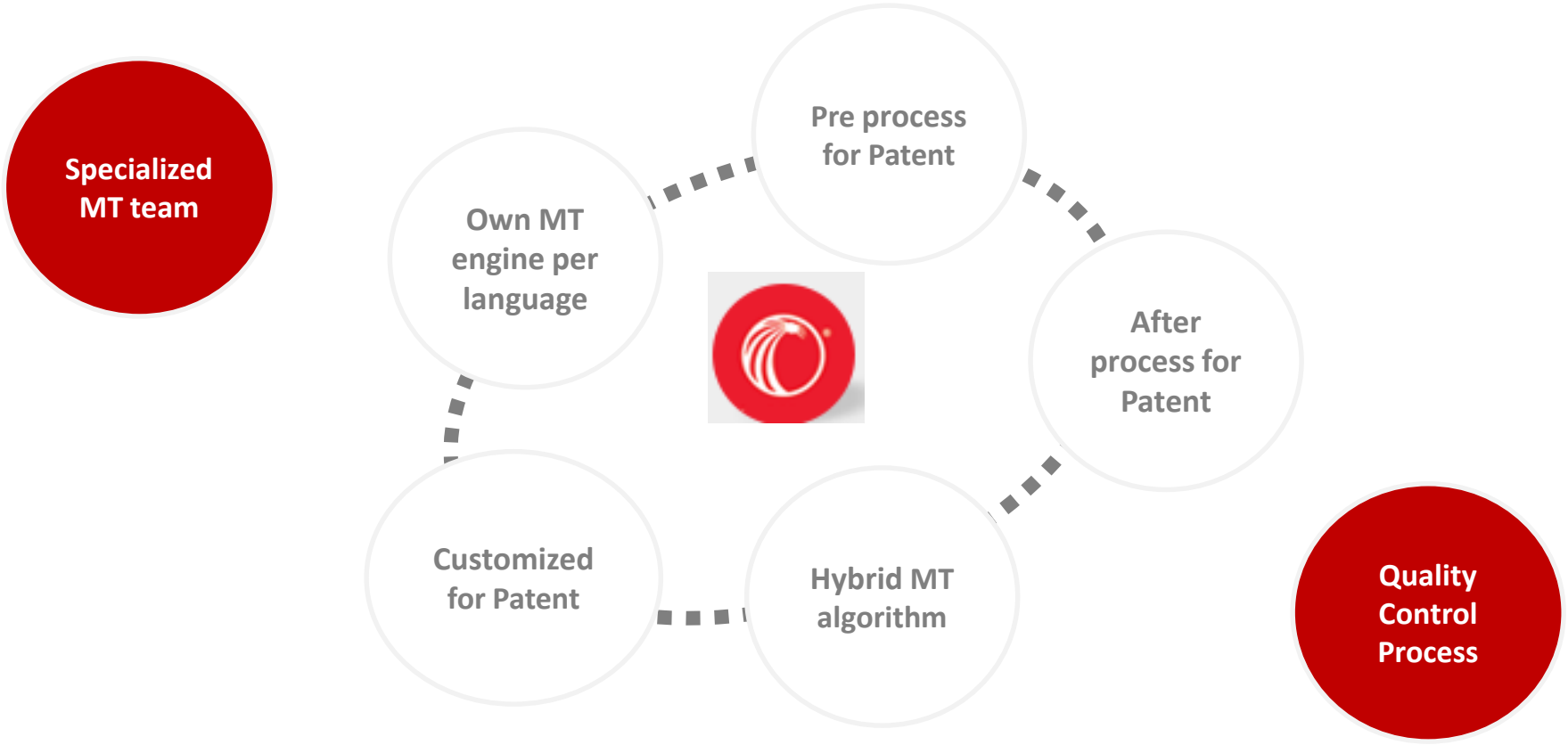
Search history

#	Date conducted	Results	Query
1.	2017-02-10 11:11	726338	FT:(alzheimer's~4)
2.	2017-02-10 11:11	726338	FT:(alzheimer's~3)
3.	2017-02-10 11:10	257	FT:(altzheimer s)
4.	2017-02-10 11:09	257	FT:(altzheimer s)
5.	2017-02-10 11:08	508	FT:(altzheimer's)
6.	2017-02-10 11:08	291	FT:(altzheimers)
7.	2017-02-10 11:08	675399	FT:(alzheimer%s)
8.	2017-02-10 11:08	290706	FT:(alzheimer s)
9.	2017-02-10 11:08	338841	FT:(alzheimers)
10.	2017-02-10 11:07	564169	FT:(alzheimer's)





Machine translation is key to understand patents



Large coverage: the key to success

Broadest Coverage

Most recent Data

Exact Data

Searchable Data

Readable Data

114+

MILLION PUBLICATIONS

86+

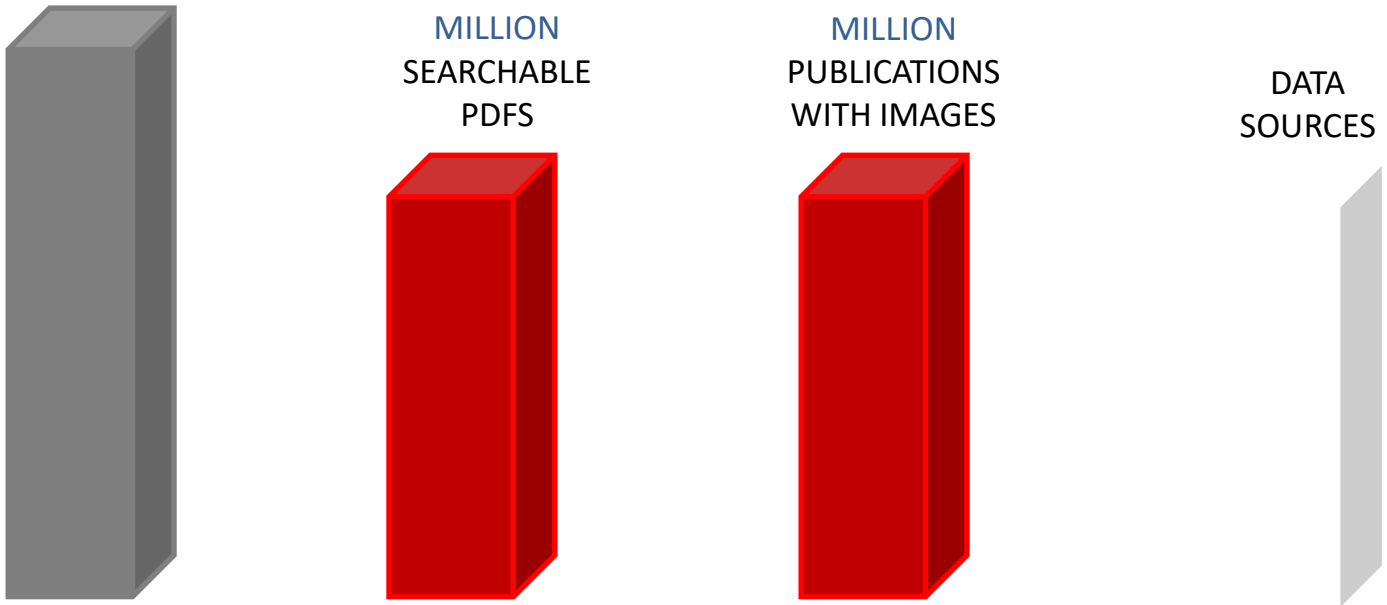
MILLION SEARCHABLE PDFS

70+

MILLION PUBLICATIONS WITH IMAGES

80+

DATA SOURCES



TotalPatent One live demo

Introducing: PatentSight™

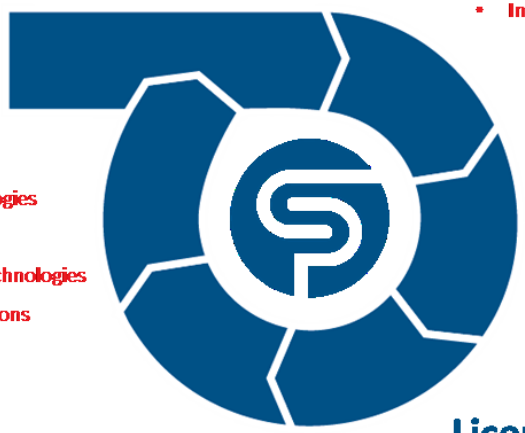
PatentSight™ An **analytics solution** that helps companies gain valuable insight into the strength, quality and relative value of patents and patent portfolios. **Enabling unique strategic insights throughout the IP Lifecyle**.

R&D Strategy

- Compare R&D strategies
- Align IP and Business
- Identify new entrants and potential partners

Benchmarking

- Benchmark patent portfolios
- Monitor portfolio strength and development of competitors
- Implement KPIs



Trends

- Identify disruptive technologies
- Reveal R&D trends
- Explore complementary technologies
- Find important new inventions

Portfolio Management

- Identify competitive strengths and weaknesses
- Increase portfolio efficiency (cost vs. benefit)
- Define country filing strategy

M&A

- Identify acquisition targets and alternatives
- Evaluate the patent portfolio
- Analyze technological fit
- Find patent nuggets and critical IP issues

Licensing

- Find patents for licensing
- Identify potential licensees
- Pinpoint standard-relevant patents

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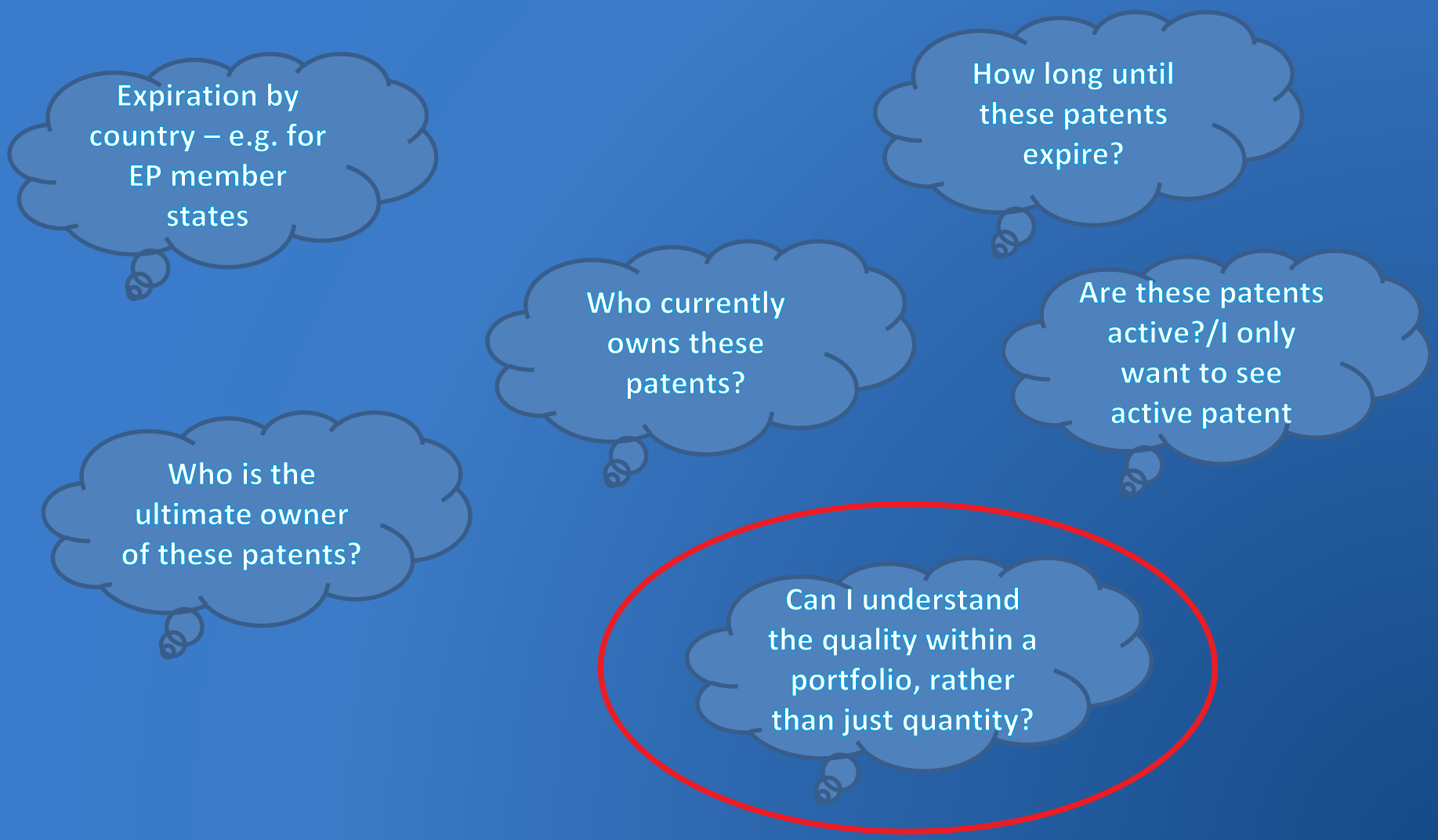
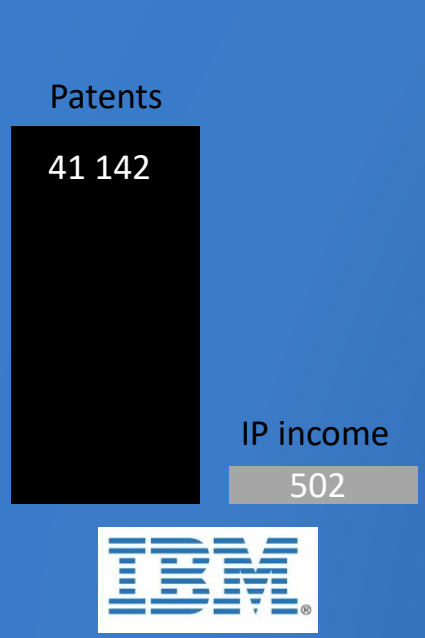
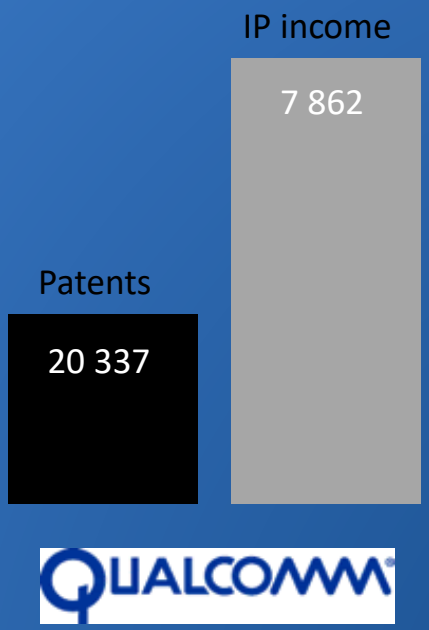
Some Challenges In Analytics – Can Lead To Incorrect Conclusions Or Require Hours Of Data Preparation And Cleaning



The Pure Number Of Patents Has Little Economic Meaning

~~Creating patent piles~~ → **Creating patent value**





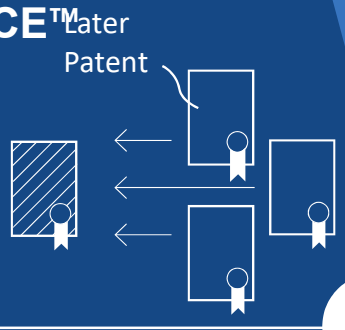
Sources: Annual reports 2014, LexisNexis PatentSight Analytics Platform; IP Income in mn. USD

THE PATENT ASSET INDEX™ Builds On Two KPIs Which Have Shown Highest Correlation In Scientific Research To Estimate Real Value

TECHNOLOGY RELEVANCE™

Worldwide citations received from later patents, adjusted for age, patent office practices and technology field

Average value: 1



MARKET COVERAGE™

Market size protected by active patents and pending patent applications on a certain invention

Value of a granted US patent: 1

X

COMPETITIVE IMPACT™

(Individual patent strength)

The relative business value of a patent

∑

PATENT ASSET INDEX™

(Sum of all Competitive Impacts of an entire portfolio)

The scientific publication was made in: Ernst, H., Omland, N. (2011): The Patent Asset Index – A New Approach to Benchmark Patent Portfolios. World Patent Information 33, pp. 34–41. An overview can be found in the document "Introduction to the Patent Asset Index" available from PatentSight.

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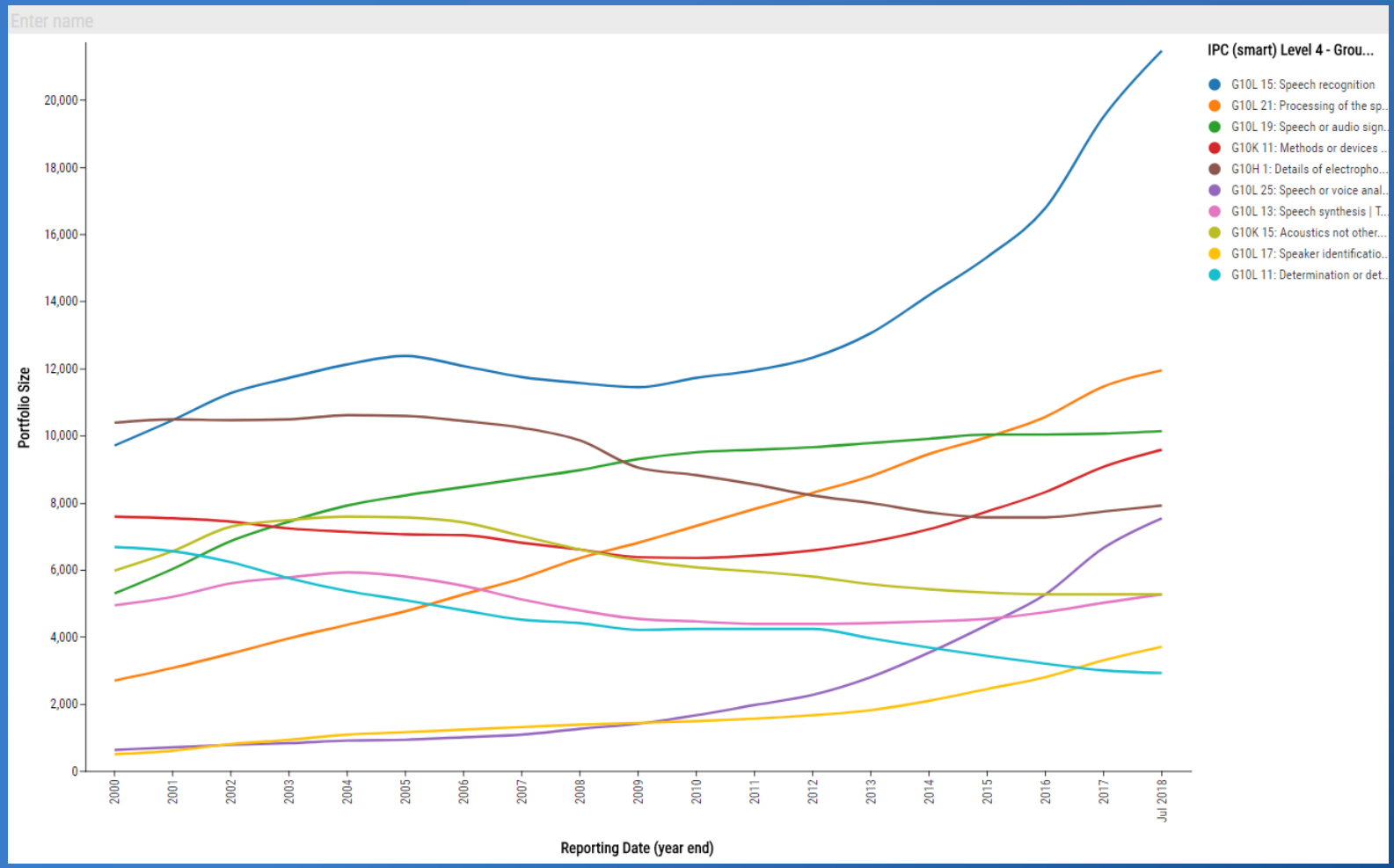
R&D Strategy

IPC:PORTFOLIO SIZE TREND



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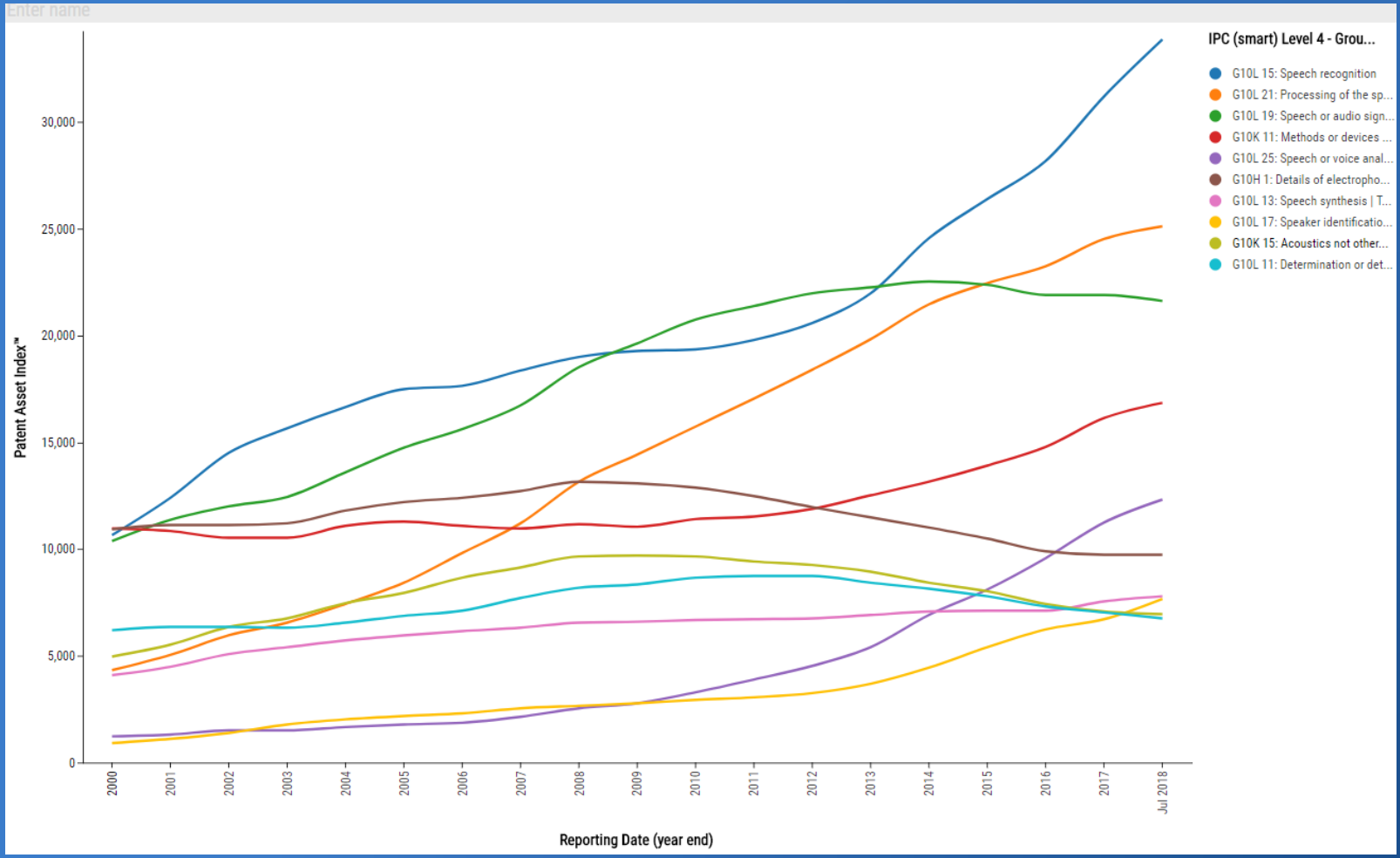
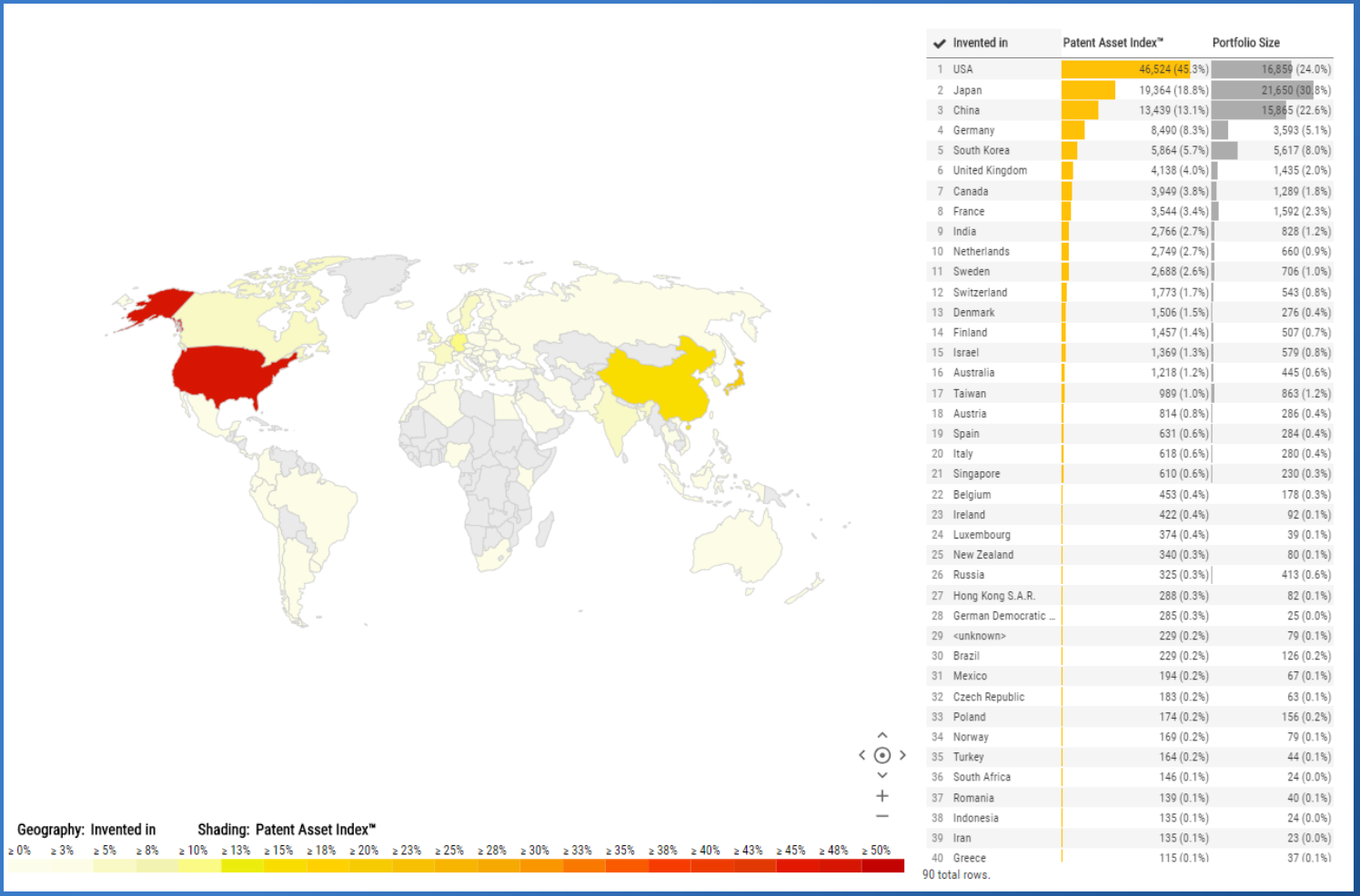
IPC: PATENT ASSET INDEX TREND



R&D Locations

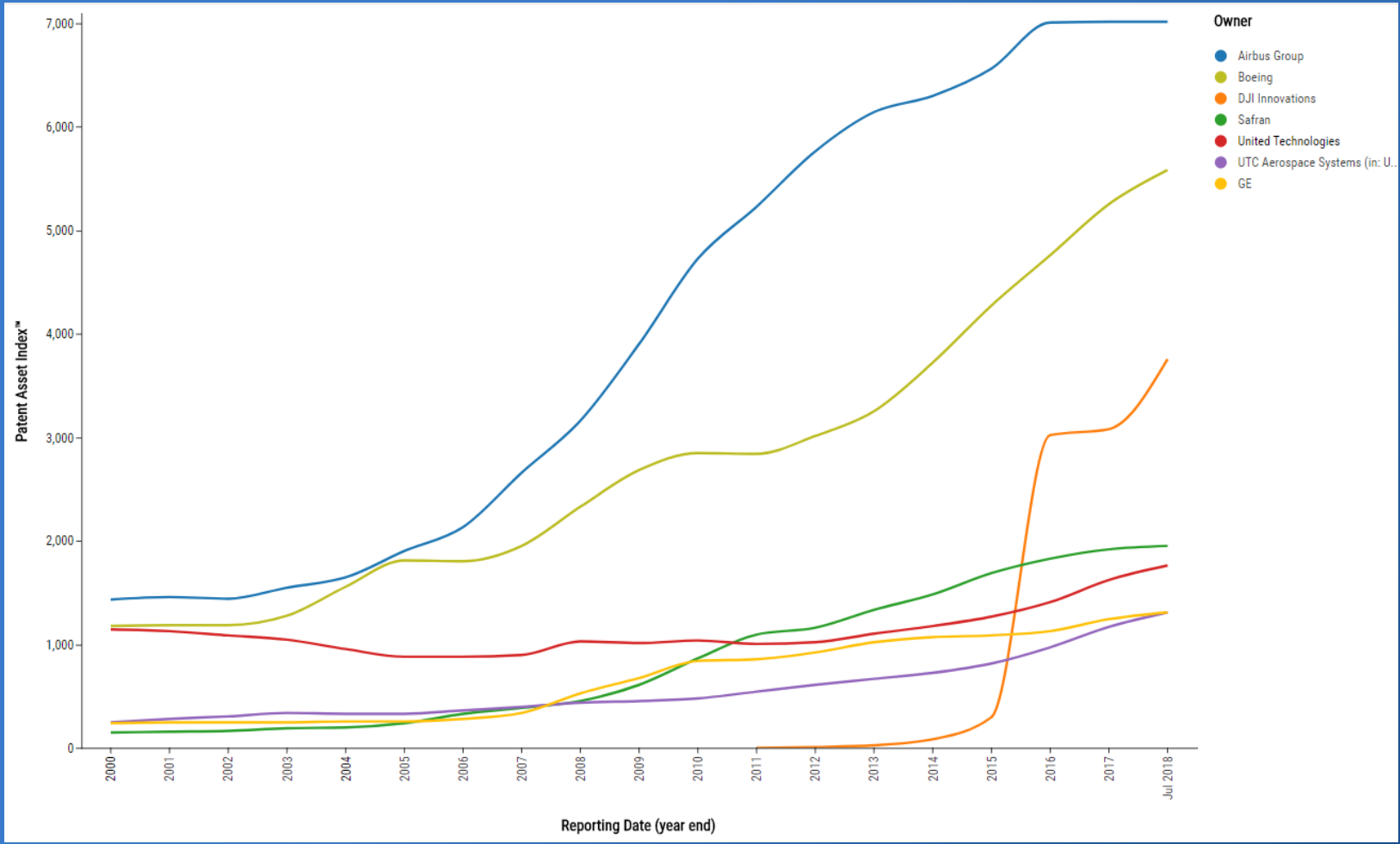


	Invented in	Patent Asset Index™	Portfolio Size
1	USA	46,524 (45.3%)	16,859 (24.0%)
2	Japan	19,364 (18.8%)	21,650 (30.8%)
3	China	13,439 (13.1%)	15,865 (22.6%)
4	Germany	8,490 (8.3%)	3,593 (5.1%)
5	South Korea	5,864 (5.7%)	5,617 (8.0%)
6	United Kingdom	4,138 (4.0%)	1,435 (2.0%)
7	Canada	3,949 (3.8%)	1,289 (1.8%)
8	France	3,544 (3.4%)	1,592 (2.3%)
9	India	2,766 (2.7%)	828 (1.2%)
10	Netherlands	2,749 (2.7%)	660 (0.9%)
11	Sweden	2,688 (2.6%)	706 (1.0%)
12	Switzerland	1,773 (1.7%)	543 (0.8%)
13	Denmark	1,506 (1.5%)	276 (0.4%)
14	Finland	1,457 (1.4%)	507 (0.7%)
15	Israel	1,369 (1.3%)	579 (0.8%)
16	Australia	1,218 (1.2%)	445 (0.6%)
17	Taiwan	989 (1.0%)	863 (1.2%)
18	Austria	814 (0.8%)	286 (0.4%)
19	Spain	631 (0.6%)	284 (0.4%)
20	Italy	618 (0.6%)	280 (0.4%)
21	Singapore	610 (0.6%)	230 (0.3%)
22	Belgium	453 (0.4%)	178 (0.3%)
23	Ireland	422 (0.4%)	92 (0.1%)
24	Luxembourg	374 (0.4%)	39 (0.1%)
25	New Zealand	340 (0.3%)	80 (0.1%)
26	Russia	325 (0.3%)	413 (0.6%)
27	Hong Kong S.A.R.	288 (0.3%)	82 (0.1%)
28	German Democratic ...	285 (0.3%)	25 (0.0%)
29	<unknown>	229 (0.2%)	79 (0.1%)
30	Brazil	229 (0.2%)	126 (0.2%)
31	Mexico	194 (0.2%)	67 (0.1%)
32	Czech Republic	183 (0.2%)	63 (0.1%)
33	Poland	174 (0.2%)	156 (0.2%)
34	Norway	169 (0.2%)	79 (0.1%)
35	Turkey	164 (0.2%)	44 (0.1%)
36	South Africa	146 (0.1%)	24 (0.0%)
37	Romania	139 (0.1%)	40 (0.1%)
38	Indonesia	135 (0.1%)	24 (0.0%)
39	Iran	135 (0.1%)	23 (0.0%)
40	Greece	115 (0.1%)	37 (0.1%)

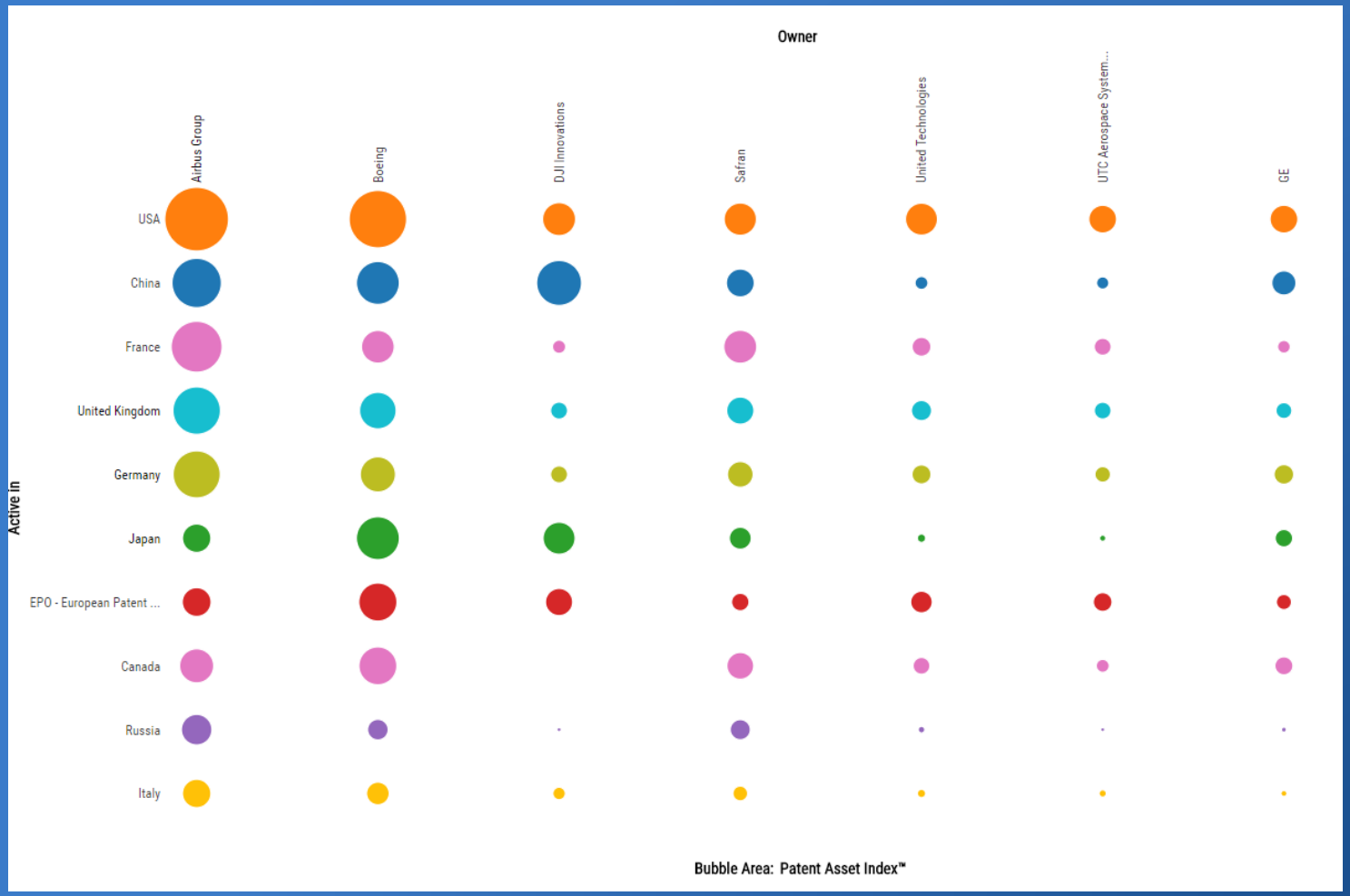
90 total rows.

Benchmarking

Patent ASSET INDEX™ TREND



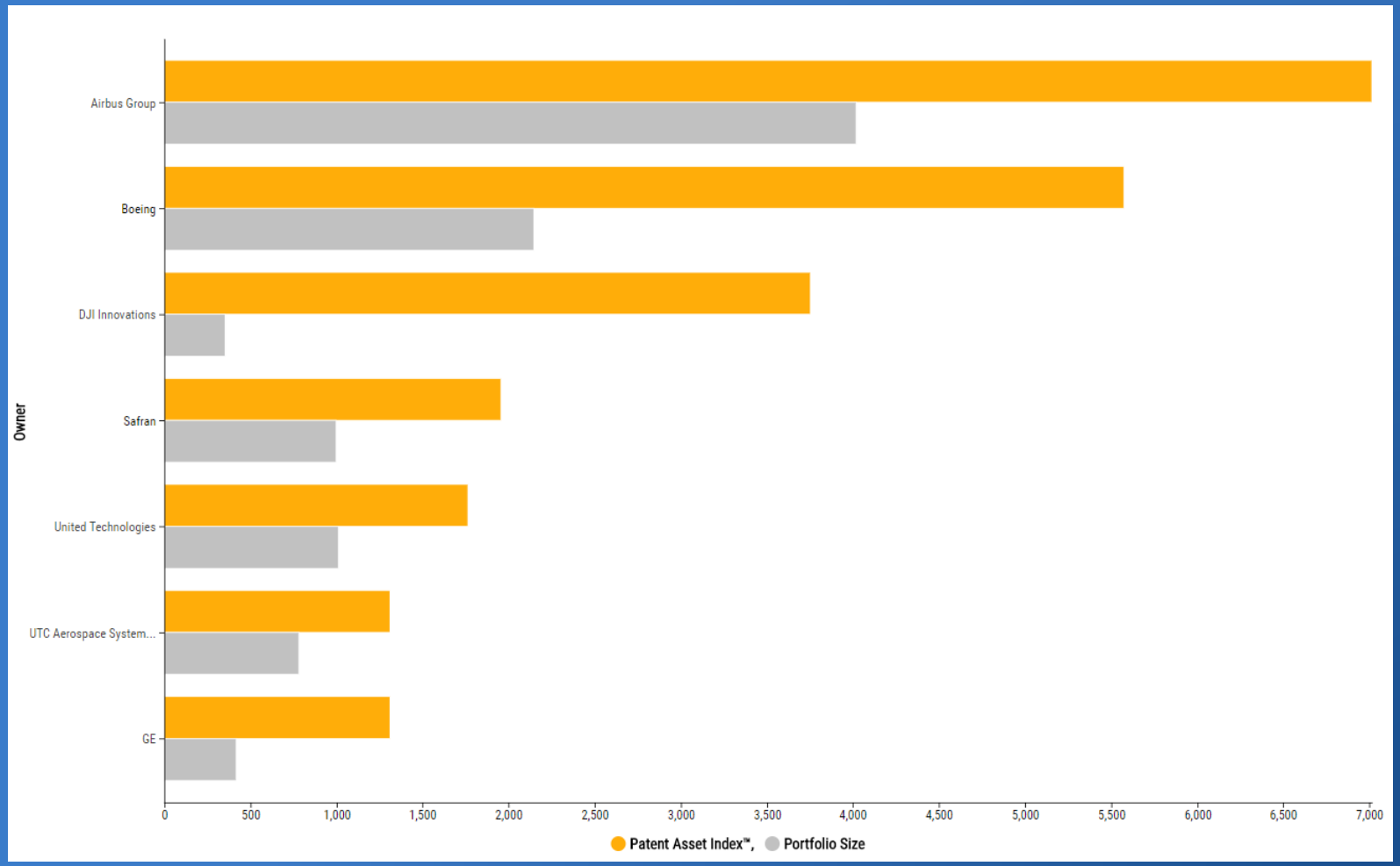
INTERNATIONAL PROTECTION



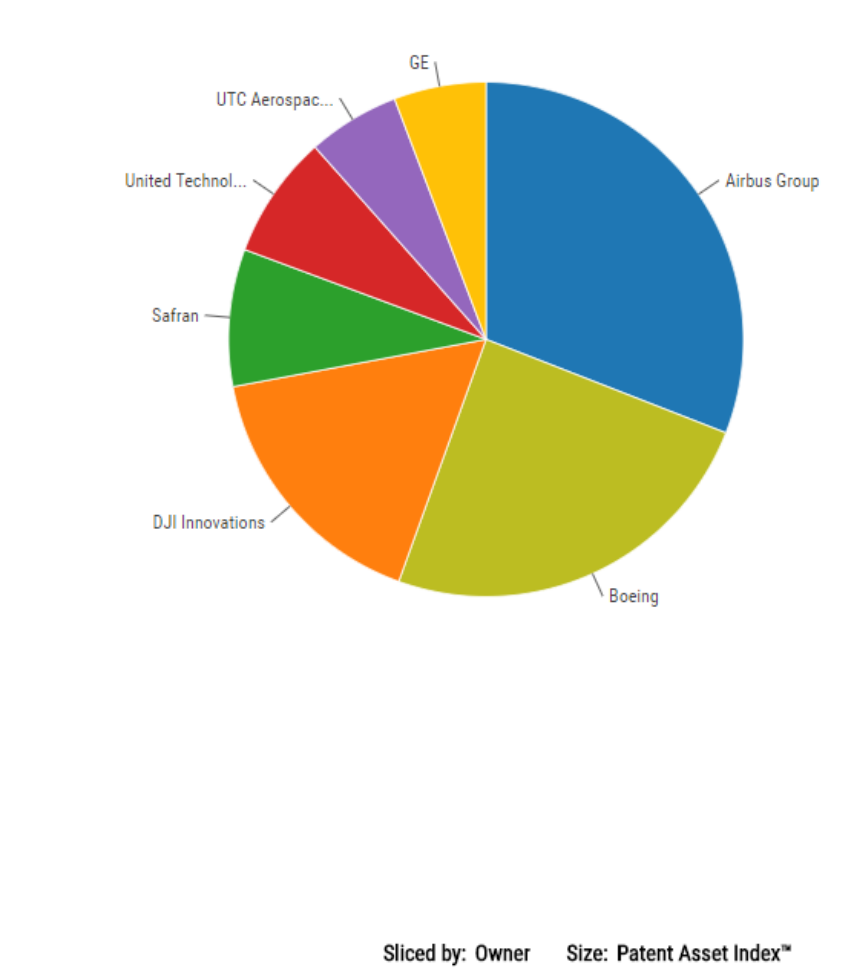
BENCHMARK TABLE

	Owner	Patent Asset Ind...	Portfolio Size	Competitive Impact™	Technology Relevance™	Market Coverage™
1	Airbus Group	7,014	4,017	1.7	1.1	1.4
2	Boeing	5,577	2,145	2.6	1.5	1.6
3	DJI Innovations	3,754	355	10.6	4.2	2.4
4	Safran	1,955	996	2.0	1.1	1.7
5	United Technologies	1,761	1,011	1.7	1.2	1.4
6	UTC Aerospace Syst...	1,312	780	1.7	1.2	1.4
7	GE	1,311	417	3.1	1.7	1.8

PORTFOLIO STRENGTH



TECHNOLOGY SHARE



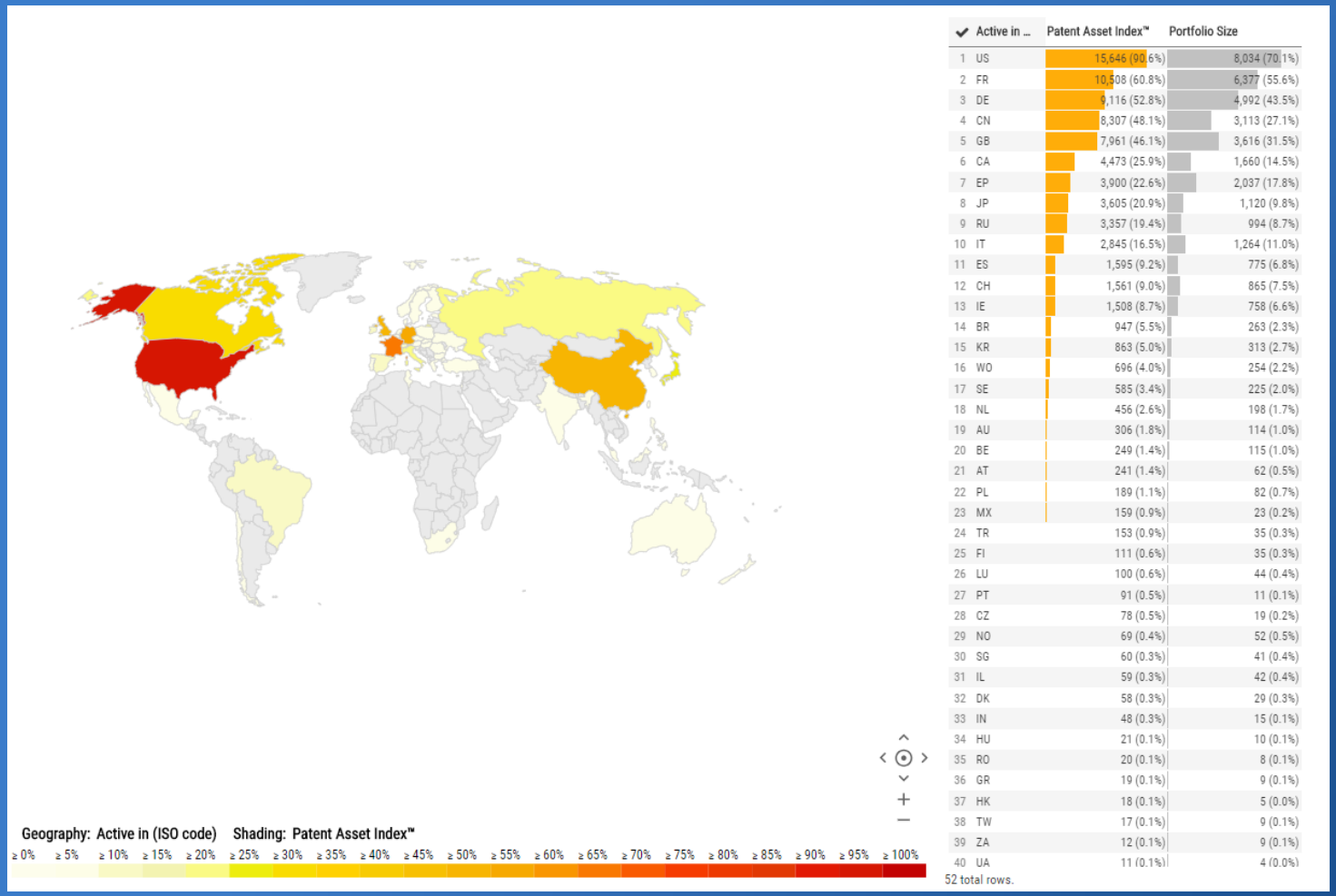
Portfolio Management

The Pure Number Of Patents Has Little Economic Meaning

~~Creating patent piles~~ → Creating patent value

Sources: Annual reports 2014, LexisNexis PatentSight Analytics Platform; IP Income in mn. USD

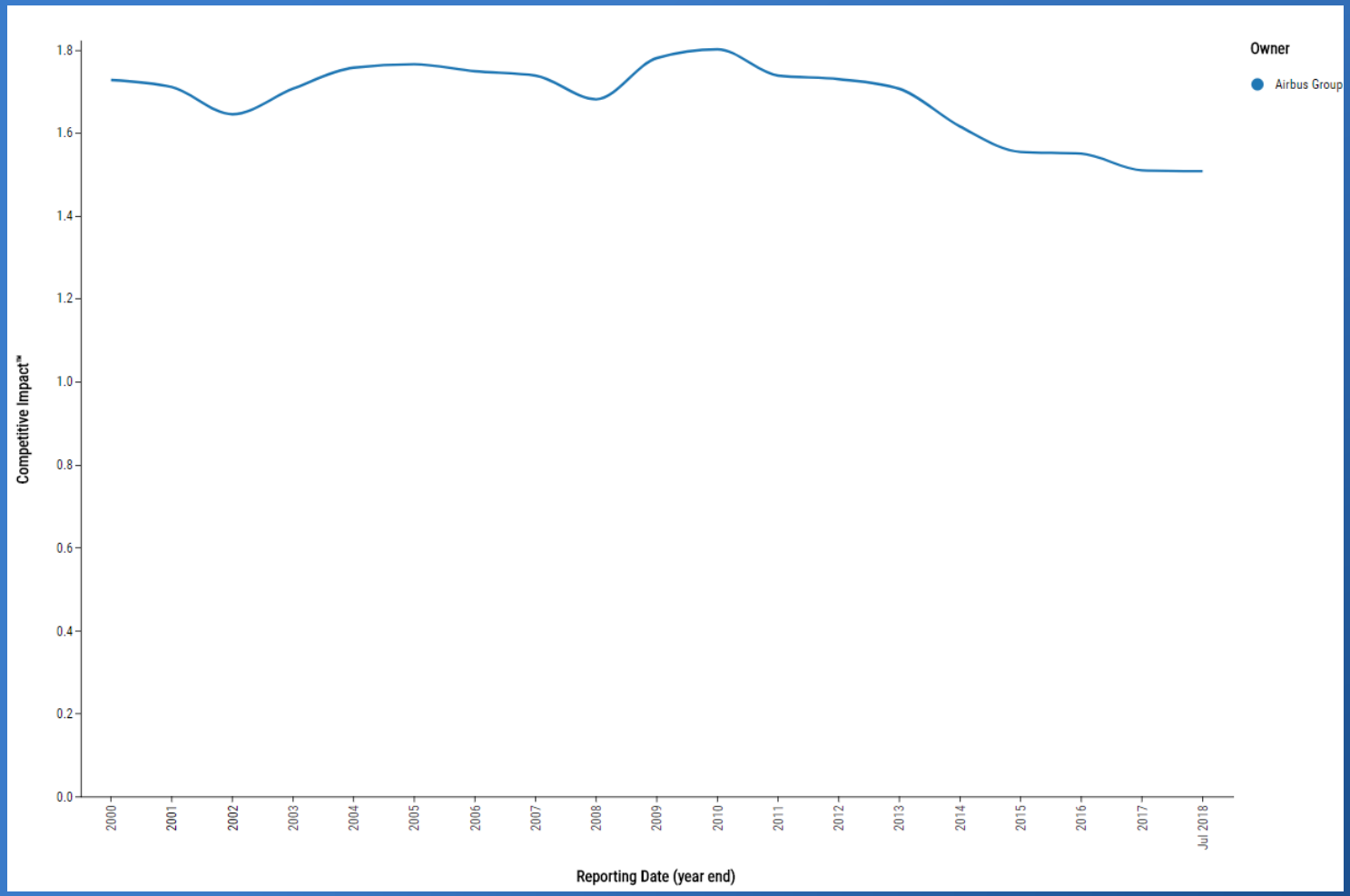
PROTECTED COUNTRIES



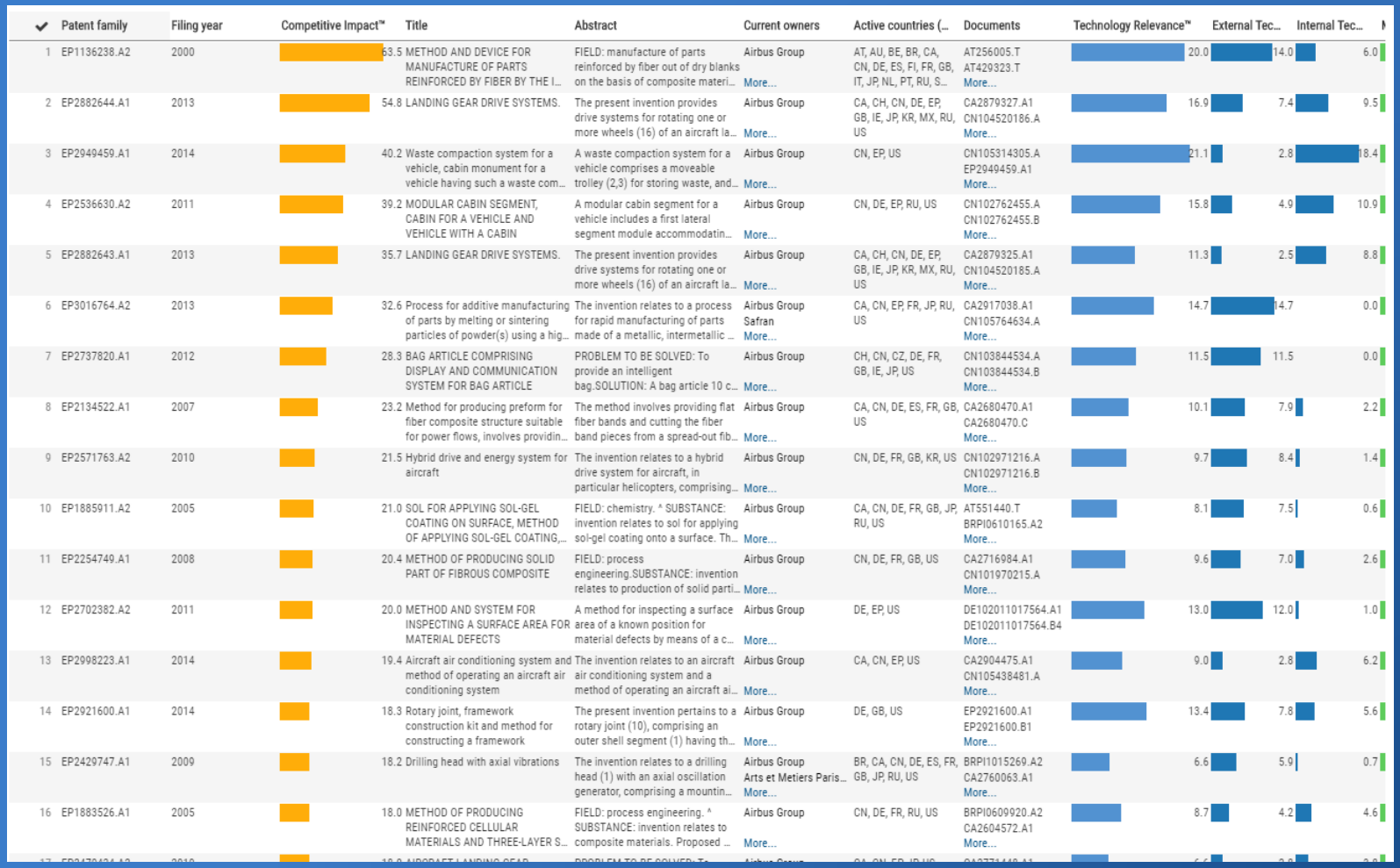
	Active in ...	Patent Asset Index™	Portfolio Size
1	US	15,646 (90.6%)	8,034 (70.1%)
2	FR	10,508 (60.8%)	6,377 (55.6%)
3	DE	9,116 (52.8%)	4,992 (43.5%)
4	CN	8,307 (48.1%)	3,113 (27.1%)
5	GB	7,961 (46.1%)	3,616 (31.5%)
6	CA	4,473 (25.9%)	1,660 (14.5%)
7	EP	3,900 (22.6%)	2,037 (17.8%)
8	JP	3,605 (20.9%)	1,120 (9.8%)
9	RU	3,357 (19.4%)	994 (8.7%)
10	IT	2,845 (16.5%)	1,264 (11.0%)
11	ES	1,595 (9.2%)	775 (6.8%)
12	CH	1,561 (9.0%)	865 (7.5%)
13	IE	1,508 (8.7%)	758 (6.6%)
14	BR	947 (5.5%)	263 (2.3%)
15	KR	863 (5.0%)	313 (2.7%)
16	WO	696 (4.0%)	254 (2.2%)
17	SE	585 (3.4%)	225 (2.0%)
18	NL	456 (2.6%)	198 (1.7%)
19	AU	306 (1.8%)	114 (1.0%)
20	BE	249 (1.4%)	115 (1.0%)
21	AT	241 (1.4%)	62 (0.5%)
22	PL	189 (1.1%)	82 (0.7%)
23	MX	159 (0.9%)	23 (0.2%)
24	TR	153 (0.9%)	35 (0.3%)
25	FI	111 (0.6%)	35 (0.3%)
26	LU	100 (0.6%)	44 (0.4%)
27	PT	91 (0.5%)	11 (0.1%)
28	CZ	78 (0.5%)	19 (0.2%)
29	NO	69 (0.4%)	52 (0.5%)
30	SG	60 (0.3%)	41 (0.4%)
31	IL	59 (0.3%)	42 (0.4%)
32	DK	58 (0.3%)	29 (0.3%)
33	IN	48 (0.3%)	15 (0.1%)
34	HU	21 (0.1%)	10 (0.1%)
35	RO	20 (0.1%)	8 (0.1%)
36	GR	19 (0.1%)	9 (0.1%)
37	HK	18 (0.1%)	5 (0.0%)
38	TW	17 (0.1%)	9 (0.1%)
39	ZA	12 (0.1%)	9 (0.1%)
40	UA	11 (0.1%)	4 (0.0%)

52 total rows.

QUALITY OVER TIME



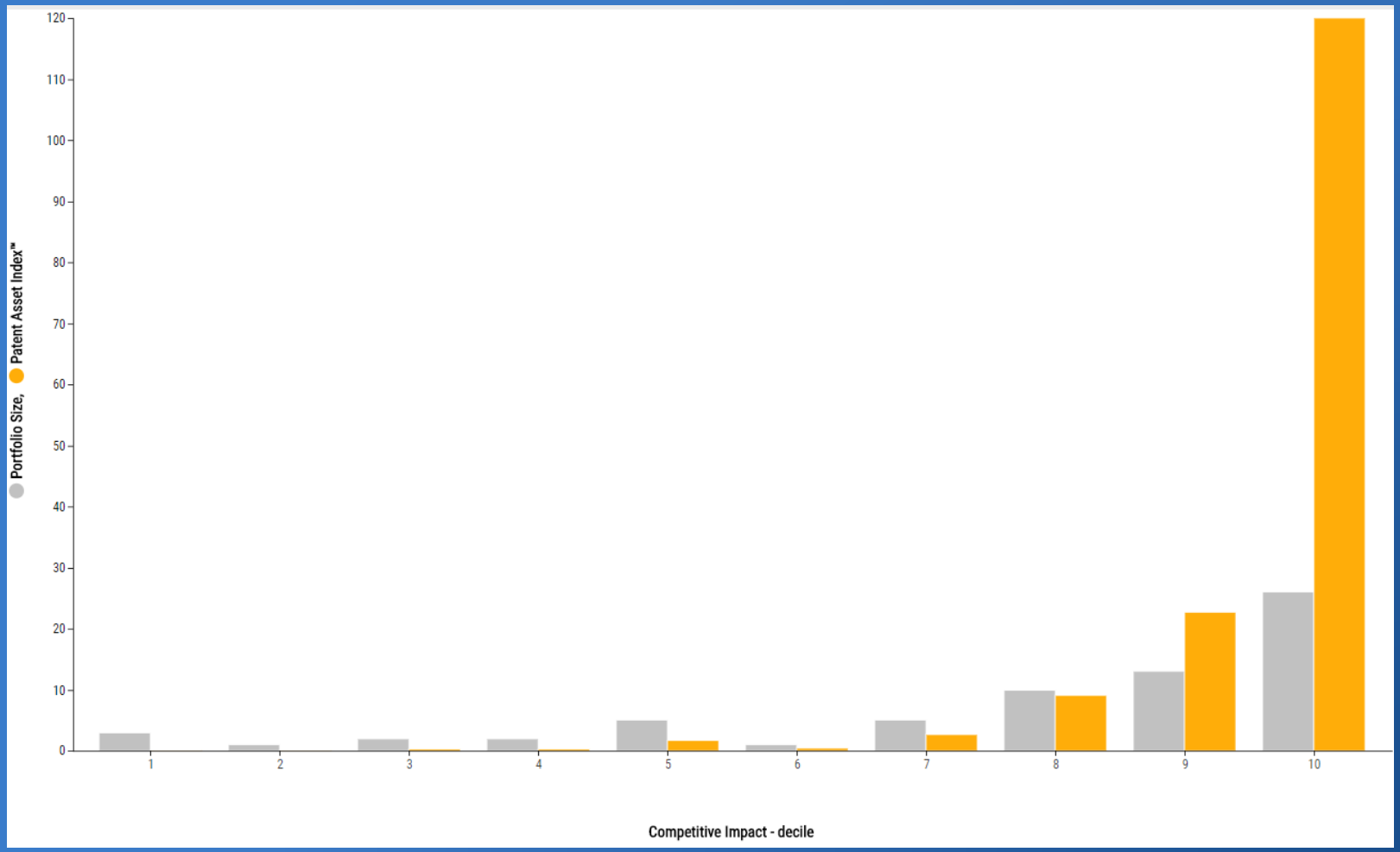
ADVANCED FAMILY DETAILS



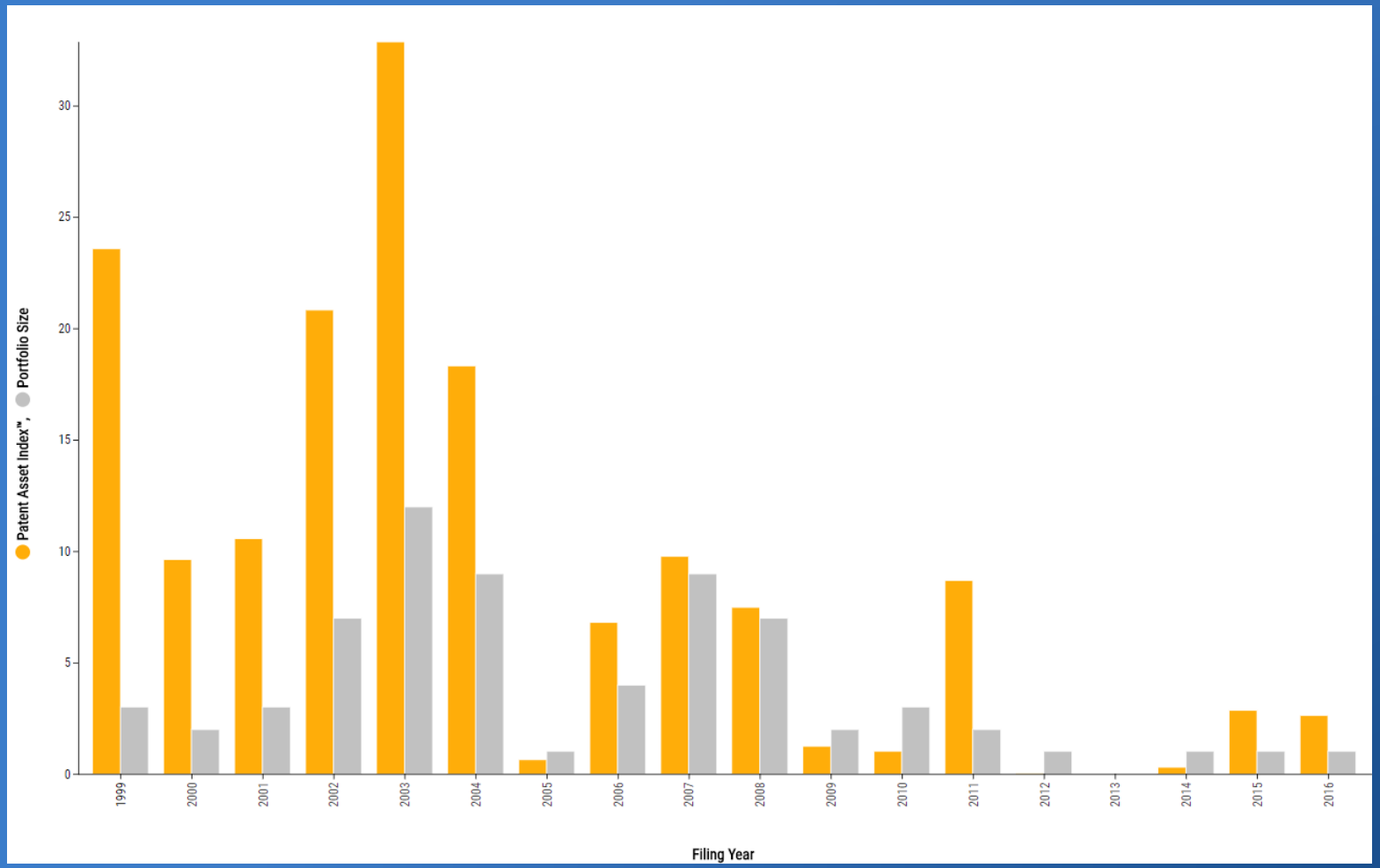
	Patent family	Filing year	Competitive Impact™	Title	Abstract	Current owners	Active countries (...	Documents	Technology Relevance™	External Tec...	Internal Tec...
1	EP1136238.A2	2000	63.5	METHOD AND DEVICE FOR MANUFACTURE OF PARTS REINFORCED BY FIBER BY THE I...	FIELD: manufacture of parts reinforced by fiber out of dry blanks on the basis of composite materi... More...	Airbus Group	AT, AU, BE, BR, CA, CN, DE, ES, FI, FR, GB, IT, JP, NL, PT, RU, S...	AT256005.T AT429323.T More...	20.0	14.0	6.0
2	EP2882644.A1	2013	54.8	LANDING GEAR DRIVE SYSTEMS.	The present invention provides drive systems for rotating one or more wheels (16) of an aircraft la... More...	Airbus Group	CA, CH, CN, DE, EP, GB, IE, JP, KR, MX, RU, US	CA2879327.A1 CN104520186.A More...	16.9	7.4	9.5
3	EP2949459.A1	2014	40.2	Waste compaction system for a vehicle, cabin monument for a vehicle having such a waste com...	A waste compaction system for a vehicle comprises a moveable trolley (2,3) for storing waste, and... More...	Airbus Group	CN, EP, US	CN105314305.A EP2949459.A1 More...	21.1	2.8	18.4
4	EP2536630.A2	2011	39.2	MODULAR CABIN SEGMENT, CABIN FOR A VEHICLE AND VEHICLE WITH A CABIN	A modular cabin segment for a vehicle includes a first lateral segment module accommodatin... More...	Airbus Group	CN, DE, EP, RU, US	CN102762455.A CN102762455.B More...	15.8	4.9	10.9
5	EP2882643.A1	2013	35.7	LANDING GEAR DRIVE SYSTEMS.	The present invention provides drive systems for rotating one or more wheels (16) of an aircraft la... More...	Airbus Group	CA, CH, CN, DE, EP, GB, IE, JP, KR, MX, RU, US	CA2879325.A1 CN104520185.A More...	11.3	2.5	8.8
6	EP3016764.A2	2013	32.6	Process for additive manufacturing of parts by melting or sintering particles of powder(s) using a hig...	The invention relates to a process for rapid manufacturing of parts made of a metallic, intermetallic ... More...	Airbus Group Safran More...	CA, CN, EP, FR, JP, RU, US	CA2917038.A1 CN105764634.A More...	14.7	14.7	0.0
7	EP2737820.A1	2012	28.3	BAG ARTICLE COMPRISING DISPLAY AND COMMUNICATION SYSTEM FOR BAG ARTICLE	PROBLEM TO BE SOLVED: To provide an intelligent bag.SOLUTION: A bag article 10 c... More...	Airbus Group	CH, CN, CZ, DE, FR, GB, IE, JP, US	CN103844534.A CN103844534.B More...	11.5	11.5	0.0
8	EP2134522.A1	2007	23.2	Method for producing preform for fiber composite structure suitable for power flows, involves providin...	The method involves providing flat fiber bands and cutting the fiber band pieces from a spread-out fib... More...	Airbus Group	CA, CN, DE, ES, FR, GB, US	CA2680470.A1 CA2680470.C More...	10.1	7.9	2.2
9	EP2571763.A2	2010	21.5	Hybrid drive and energy system for aircraft	The invention relates to a hybrid drive system for aircraft, in particular helicopters, comprising... More...	Airbus Group	CN, DE, FR, GB, KR, US	CN102971216.A CN102971216.B More...	9.7	8.4	1.4
10	EP1885911.A2	2005	21.0	SOL FOR APPLYING SOL-GEL COATING ON SURFACE, METHOD OF APPLYING SOL-GEL COATING,...	FIELD: chemistry. ^ SUBSTANCE: invention relates to sol for applying sol-gel coating onto a surface. Th... More...	Airbus Group	CA, CN, DE, FR, GB, JP, RU, US	AT551440.T BRPI0610165.A2 More...	8.1	7.5	0.6
11	EP2254749.A1	2008	20.4	METHOD OF PRODUCING SOLID PART OF FIBROUS COMPOSITE	FIELD: process engineering.SUBSTANCE: invention relates to production of solid parti... More...	Airbus Group	CN, DE, FR, GB, US	CA2716984.A1 CN101970215.A More...	9.6	7.0	2.6
12	EP2702382.A2	2011	20.0	METHOD AND SYSTEM FOR INSPECTING A SURFACE AREA FOR MATERIAL DEFECTS	A method for inspecting a surface area of a known position for material defects by means of a c... More...	Airbus Group	DE, EP, US	DE102011017564.A1 DE102011017564.B4 More...	13.0	12.0	1.0
13	EP2998223.A1	2014	19.4	Aircraft air conditioning system and method of operating an aircraft air conditioning system	The invention relates to an aircraft air conditioning system and a method of operating an aircraft ai... More...	Airbus Group	CA, CN, EP, US	CA2904475.A1 CN105438481.A More...	9.0	2.8	6.2
14	EP2921600.A1	2014	18.3	Rotary joint, framework construction kit and method for constructing a framework	The present invention pertains to a rotary joint (10), comprising an outer shell segment (1) having th... More...	Airbus Group	DE, GB, US	EP2921600.A1 EP2921600.B1 More...	13.4	7.8	5.6
15	EP2429747.A1	2009	18.2	Drilling head with axial vibrations	The invention relates to a drilling head (1) with an axial oscillation generator, comprising a mountin... More...	Airbus Group Arts et Metiers Paris... More...	BR, CA, CN, DE, ES, FR, GB, JP, RU, US	BRPI1015269.A2 CA2760063.A1 More...	6.6	5.9	0.7
16	EP1883526.A1	2005	18.0	METHOD OF PRODUCING REINFORCED CELLULAR MATERIALS AND THREE-LAYER S...	FIELD: process engineering. ^ SUBSTANCE: invention relates to composite materials. Proposed ... More...	Airbus Group	CN, DE, FR, RU, US	BRPI0609920.A2 CA2604572.A1 More...	8.7	4.2	4.6

Licensing

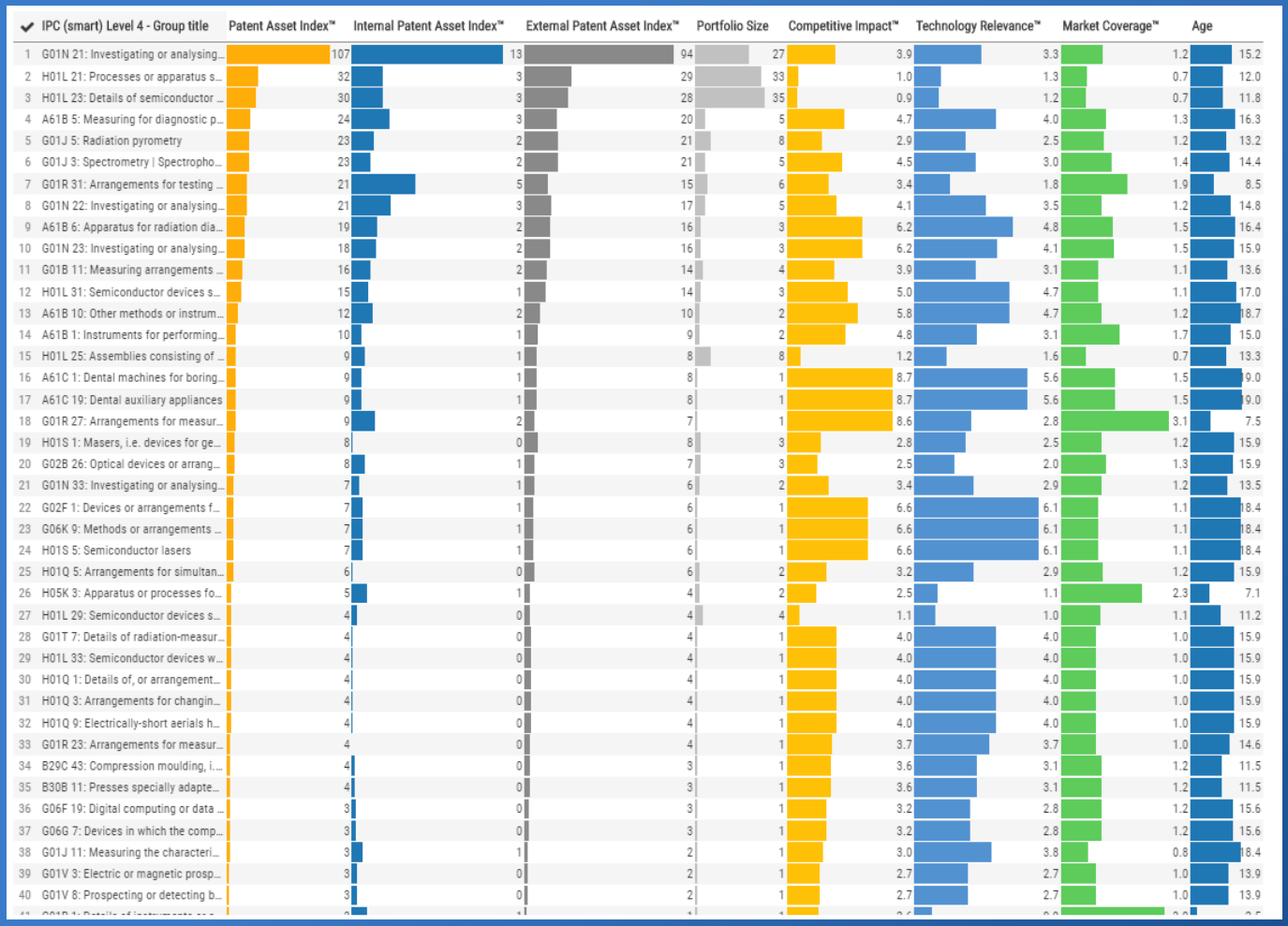
VALUE DISTRIBUTION



AGE DISTRIBUTION



TOP IPC CLASSES



	IPC (smart) Level 4 - Group title	Patent Asset Index™	Internal Patent Asset Index™	External Patent Asset Index™	Portfolio Size	Competitive Impact™	Technology Relevance™	Market Coverage™	Age
1	G01N 21: Investigating or analysing...	107	13	94	27	3.9	3.3	1.2	15.2
2	H01L 21: Processes or apparatus s...	32	3	29	33	1.0	1.3	0.7	12.0
3	H01L 23: Details of semiconductor ...	30	3	28	35	0.9	1.2	0.7	11.8
4	A61B 5: Measuring for diagnostic p...	24	3	20	5	4.7	4.0	1.3	16.3
5	G01J 5: Radiation pyrometry	23	2	21	8	2.9	2.5	1.2	13.2
6	G01J 3: Spectrometry | Spectropho...	23	2	21	5	4.5	3.0	1.4	14.4
7	G01R 31: Arrangements for testing ...	21	5	15	6	3.4	1.8	1.9	8.5
8	G01N 22: Investigating or analysing...	21	3	17	5	4.1	3.5	1.2	14.8
9	A61B 6: Apparatus for radiation dia...	19	2	16	3	6.2	4.8	1.5	16.4
10	G01N 23: Investigating or analysing...	18	2	16	3	6.2	4.1	1.5	15.9
11	G01B 11: Measuring arrangements ...	16	2	14	4	3.9	3.1	1.1	13.6
12	H01L 31: Semiconductor devices s...	15	1	14	3	5.0	4.7	1.1	17.0
13	A61B 10: Other methods or instrum...	12	2	10	2	5.8	4.7	1.2	18.7
14	A61B 1: Instruments for performing...	10	1	9	2	4.8	3.1	1.7	15.0
15	H01L 25: Assemblies consisting of ...	9	1	8	8	1.2	1.6	0.7	13.3
16	A61C 1: Dental machines for boring...	9	1	8	1	8.7	5.6	1.5	19.0
17	A61C 19: Dental auxiliary appliances	9	1	8	1	8.7	5.6	1.5	19.0
18	G01R 27: Arrangements for measur...	9	2	7	1	8.6	2.8	3.1	7.5
19	H01S 1: Masers, i.e. devices for ge...	8	0	8	3	2.8	2.5	1.2	15.9
20	G02B 26: Optical devices or arrang...	8	1	7	3	2.5	2.0	1.3	15.9
21	G01N 33: Investigating or analysing...	7	1	6	2	3.4	2.9	1.2	13.5
22	G02F 1: Devices or arrangements f...	7	1	6	1	6.6	6.1	1.1	18.4
23	G06K 9: Methods or arrangements ...	7	1	6	1	6.6	6.1	1.1	18.4
24	H01S 5: Semiconductor lasers	7	1	6	1	6.6	6.1	1.1	18.4
25	H01Q 5: Arrangements for simultan...	6	0	6	2	3.2	2.9	1.2	15.9
26	H05K 3: Apparatus or processes fo...	5	1	4	2	2.5	1.1	2.3	7.1
27	H01L 29: Semiconductor devices s...	4	0	4	4	1.1	1.0	1.1	11.2
28	G01T 7: Details of radiation-measur...	4	0	4	1	4.0	4.0	1.0	15.9
29	H01L 33: Semiconductor devices w...	4	0	4	1	4.0	4.0	1.0	15.9
30	H01Q 1: Details of, or arrangement...	4	0	4	1	4.0	4.0	1.0	15.9
31	H01Q 3: Arrangements for changin...	4	0	4	1	4.0	4.0	1.0	15.9
32	H01Q 9: Electrically-short aerials h...	4	0	4	1	4.0	4.0	1.0	15.9
33	G01R 23: Arrangements for measur...	4	0	4	1	3.7	3.7	1.0	14.6
34	B29C 43: Compression moulding, i...	4	0	3	1	3.6	3.1	1.2	11.5
35	B30B 11: Presses specially adapte...	4	0	3	1	3.6	3.1	1.2	11.5
36	G06F 19: Digital computing or data ...	3	0	3	1	3.2	2.8	1.2	15.6
37	G06G 7: Devices in which the comp...	3	0	3	1	3.2	2.8	1.2	15.6
38	G01J 11: Measuring the characteri...	3	1	2	1	3.0	3.8	0.8	18.4
39	G01V 3: Electric or magnetic prosp...	3	0	2	1	2.7	2.7	1.0	13.9
40	G01V 8: Prospecting or detecting b...	3	0	2	1	2.7	2.7	1.0	13.9

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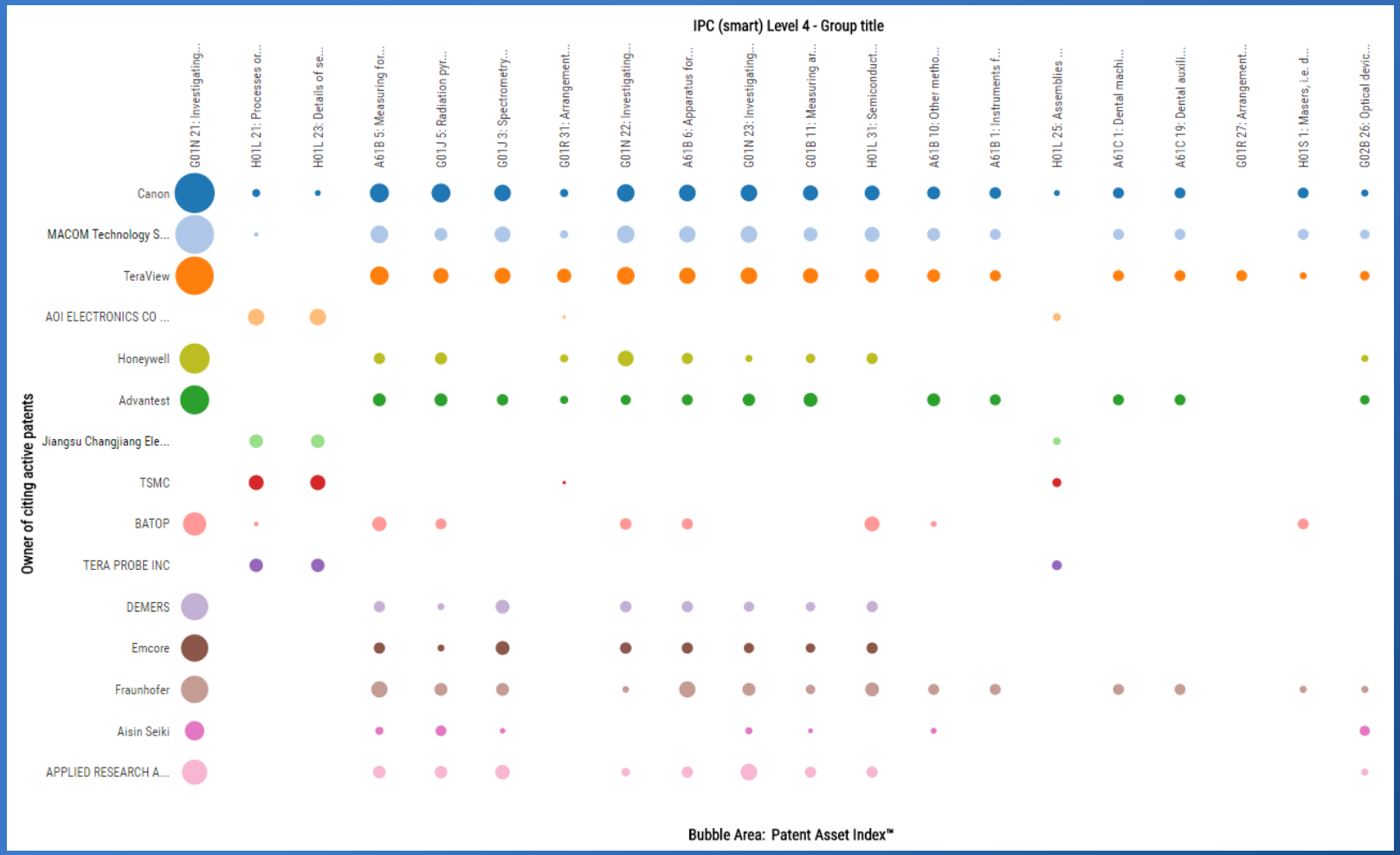
CITING COMPANIES

	Owner of citing active patents	Patent Asset Index™	Portfolio Size	Competitive Impact™	Technology Relevance™	Market Coverage™	Age
1	Canon	108	25	4.3	3.6	1.2	15.5
2	TeraView	103	21	4.9	3.9	1.3	15.6
3	MACOM Technology Solutions	98	21	4.7	3.9	1.2	16.3
4	Honeywell	57	12	4.8	4.3	1.1	16.2
5	Advantest	53	11	4.8	3.9	1.2	16.6
6	Fraunhofer	51	9	5.7	4.8	1.2	16.0
7	Government of the United States	48	8	6.0	5.2	1.2	17.4
8	DEMERS	47	9	5.2	4.5	1.2	16.2
9	Emcore	47	9	5.2	4.5	1.2	16.2
10	BATOP	41	10	4.1	3.8	1.1	16.4
11	APPLIED RESEARCH AND PHOTONICS	40	8	5.0	4.0	1.3	15.2
12	Hamamatsu Photonics	39	7	5.6	4.7	1.2	17.3
13	Boeing	36	7	5.2	4.3	1.2	16.5
14	JEZ DAVID R	36	8	4.5	4.0	1.1	16.3
15	Rensselaer	33	6	5.5	4.6	1.2	17.0
16	HARAN FRANK M	32	7	4.6	4.1	1.1	16.6
17	New Jersey Inst. of Tech.	31	5	6.2	5.6	1.1	17.1
18	Nikon	31	5	6.2	5.1	1.3	17.2
19	Smiths Group	29	6	4.8	4.0	1.2	15.4
20	Panasonic	28	7	4.0	3.2	1.1	14.4
21	MACHATTIE ROSS K	27	6	4.5	4.0	1.1	16.1
22	USST	27	5	5.4	4.9	1.1	17.3
23	TETECHS	26	4	6.5	5.5	1.2	16.4
24	Arkray	26	6	4.3	3.5	1.2	14.6
25	Aisin Seiki	24	8	3.1	2.8	1.1	15.5
26	MIT	24	4	6.1	5.3	1.2	16.3
27	Toshiba	22	7	3.2	3.2	0.9	15.5
28	Altria Group	22	4	5.5	5.3	1.0	18.6
29	Philip Morris	22	4	5.5	5.3	1.0	18.6
30	SHAFER KENNETH H	22	4	5.5	5.3	1.0	18.6
31	TRAN PHUC G	22	4	5.5	5.3	1.0	18.6
32	NASA	22	4	5.4	4.9	1.1	18.1
33	Chinese Academy of Sciences	22	6	3.6	3.3	1.1	16.1
34	CATCHPOLE MARK	21	3	7.1	6.4	1.1	18.0
35	ZENTIAN	21	3	7.1	6.4	1.1	18.0
36	CRAWLEY	21	3	7.1	5.7	1.2	18.9
37	Coherent Inc	21	4	5.3	4.4	1.2	16.0
38	University of Washington	21	4	5.3	3.7	1.3	15.9
39	Oxford Innovation (in: Oxford Univ.)	21	3	6.9	5.9	1.1	18.9
40	University of Oxford	21	3	6.9	5.9	1.1	18.9

IPC BY CITING COMPANY

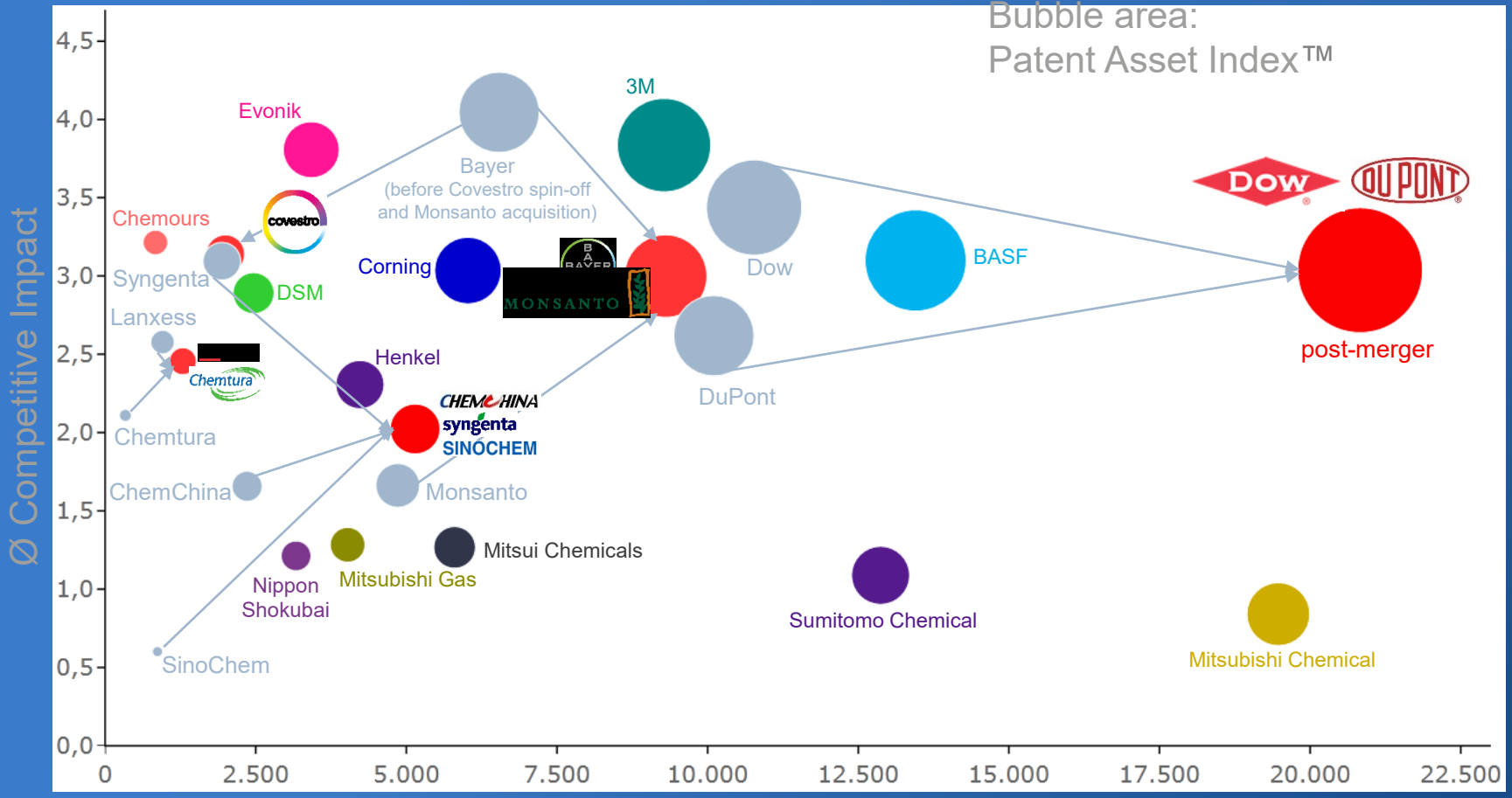


PATENT FAMILY BY CITING COMPANY

	Patent family	Owner of citing active paten...	No. of citing active patent families (by citing owner)	Filing year	Competitive Impact™	Title	Abstract	Current owners	Age
1	US2003178584.A1	DEMERS	11	2000	6.6	A terahertz imaging apparatus with phase comparison	An apparatus and method for imaging a sample using terahertz, infra-red or millimetre radiation. ... More...	TeraView	1
2	EP1613935.A1	DEMERS	11	2003	7.6	Spectroscopy apparatus and associated technique	Apparatus and method for detecting an explosive material, involving irradiating an object wit... More...	TeraView	1
3	US2004095147.A1	Formfactor	8	2001	5.1	A probe comprising a dielectric body for examining a sample using radiation	A probe for examining a sample (5) comprises an emitter (1) eg of Terahertz radiation, a radiation d... More...	TeraView	1
4	US2009200472.A1	DEMERS	8	2006	3.9	TEMPERATURE TUNABLE DISTRIBUTED FEEDBACK DIODE LASERS FOR THE GENERATION O...	Apparatus for measurement of a sample comprises means for generating electromagnetic radia... More...	TeraView	1
5	EP1613935.A1	United Technologies	7	2003	7.6	Spectroscopy apparatus and associated technique	Apparatus and method for detecting an explosive material, involving irradiating an object wit... More...	TeraView	1
6	EP1613935.A1	UTC Aerospace Systems (in: UTC)	7	2003	7.6	Spectroscopy apparatus and associated technique	Apparatus and method for detecting an explosive material, involving irradiating an object wit... More...	TeraView	1
7	US2006125072.A1	Jiangsu Changjiang Electronics	7	2004	2.6	Semiconductor device having a second semiconductor construction mounted on a first semiconducto...	A semiconductor device comprises a plurality of semiconductor constructions being mutually lam... More...	TERA PROBE INC	1
8	EP1660867.A1	Canon	7	2003	6.8	Method and Apparatus for Investigating a Non-Planar Sample	Method and apparatus for investigating a sample particularly a pharmaceutical tablet. An emitt... More...	TeraView	1
9	US2003178584.A1	UTC Aerospace Systems (in: UTC)	6	2000	6.6	A terahertz imaging apparatus with phase comparison	An apparatus and method for imaging a sample using terahertz, infra-red or millimetre radiation. ... More...	TeraView	1
10	US2003149346.A1	Rockwell Collins	6	2000	3.0	Apparatus and method for investigating a sample using terahertz radiation	An apparatus and method for detecting variation in the composition of a sample, the vari... More...	TeraView	1
11	US2003178584.A1	Canon	6	2000	6.6	A terahertz imaging apparatus with phase comparison	An apparatus and method for imaging a sample using terahertz, infra-red or millimetre radiation. ... More...	TeraView	1
12	US2003178584.A1	United Technologies	6	2000	6.6	A terahertz imaging apparatus with phase comparison	An apparatus and method for imaging a sample using terahertz, infra-red or millimetre radiation. ... More...	TeraView	1
13	US2005156120.A1	DEMERS	6	2002	3.7	Using transmission or reflective Tera-hertz radiation spectrum for identifying molecular macrostruct...	The method comprises irradiating samples with radiation having plurality of frequencies in the ran... More...	TeraView	1
14	US6828558.B1	Rensselaer	6	1999	5.9	Three dimensional imaging using terahertz or Far IR radiation	A method and apparatus for imaging a sample, the method comprising the steps of irradiatin... More...	TeraView	1
15	CN1375869.A	TSMC	6	2001	1.4	SEMICONDUCTOR DEVICE AND MANUFACTURING METHOD THEREFOR	PURPOSE: To make the heights of columnar electrodes high and uniform in a semiconductor devic... More...	TERA PROBE INC	1
16	US2007232061.A1	AOI ELECTRONICS CO LTD	6	2004	2.9	Semiconductor device having adhesion increasing film and	A semiconductor device includes at least one semiconductor	TERA PROBE INC	1

M&A - Scouting

The 2016 M&A Wave Changes The Forces In The Chemical Industry



Sources: LexisNexis PatentSight Analytics Platform; own research

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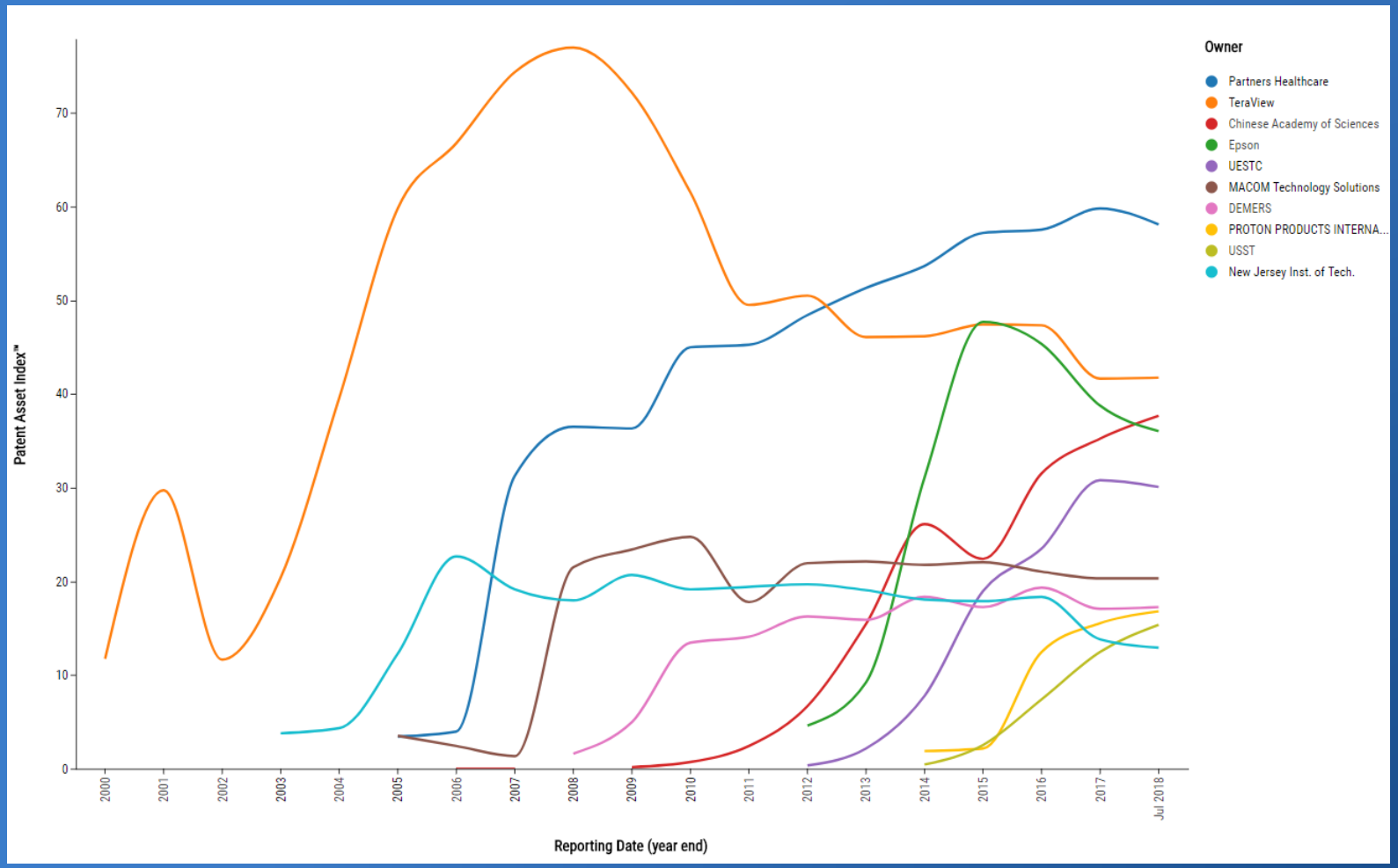
PATENT ASSET INDEX™ TREND



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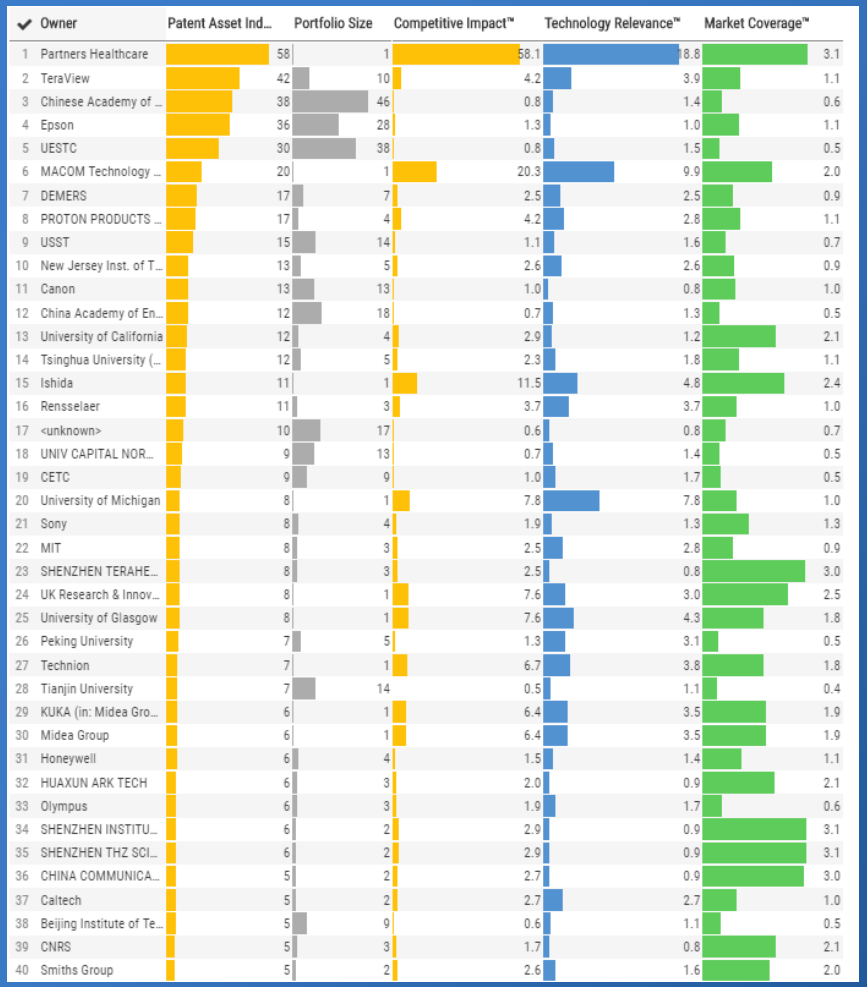
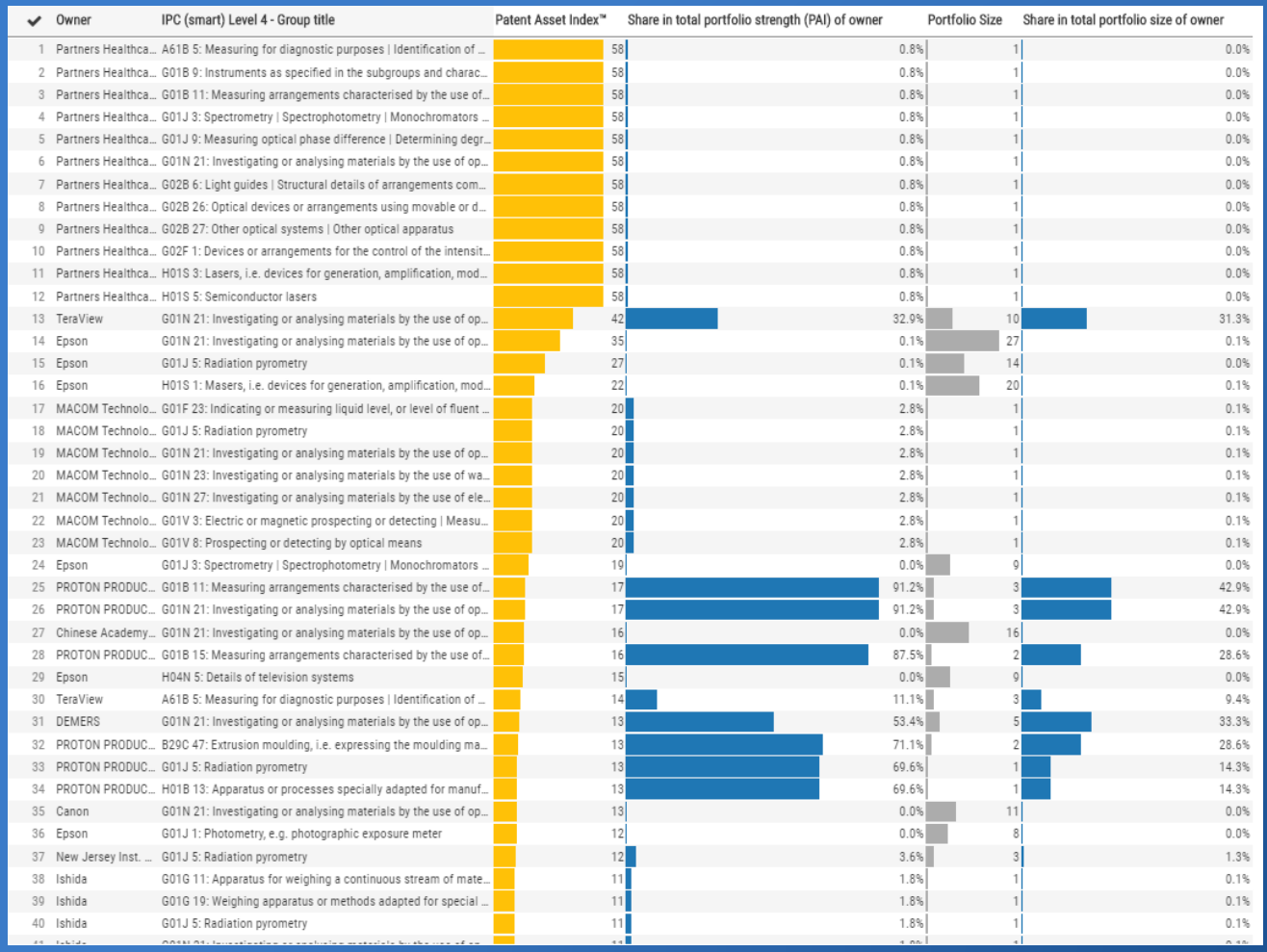
MAIN INDICATIORS



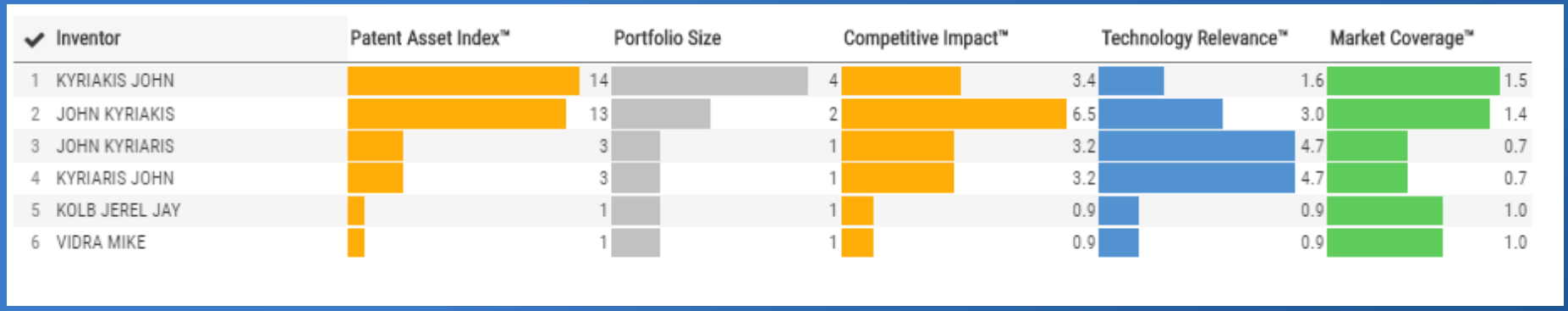
	Owner	Patent Asset Ind...	Portfolio Size	Competitive Impact™	Technology Relevance™	Market Coverage™
1	Partners Healthcare	58	1	58.1	18.8	3.1
2	TeraView	42	10	4.2	3.9	1.1
3	Chinese Academy of ...	38	46	0.8	1.4	0.6
4	Epson	36	28	1.3	1.0	1.1
5	UESTC	30	38	0.8	1.5	0.5
6	MACOM Technology ...	20	1	20.3	9.9	2.0
7	DEMERS	17	7	2.5	2.5	0.9
8	PROTON PRODUCTS ...	17	4	4.2	2.8	1.1
9	USST	15	14	1.1	1.6	0.7
10	New Jersey Inst. of T...	13	5	2.6	2.6	0.9
11	Canon	13	13	1.0	0.8	1.0
12	China Academy of En...	12	18	0.7	1.3	0.5
13	University of California	12	4	2.9	1.2	2.1
14	Tsinghua University (...	12	5	2.3	1.8	1.1
15	Ishida	11	1	11.5	4.8	2.4
16	Rensselaer	11	3	3.7	3.7	1.0
17	<unknown>	10	17	0.6	0.8	0.7
18	UNIV CAPITAL NOR...	9	13	0.7	1.4	0.5
19	CETC	9	9	1.0	1.7	0.5
20	University of Michigan	8	1	7.8	7.8	1.0
21	Sony	8	4	1.9	1.3	1.3
22	MIT	8	3	2.5	2.8	0.9
23	SHENZHEN TERAHE...	8	3	2.5	0.8	3.0
24	UK Research & Innov...	8	1	7.6	3.0	2.5
25	University of Glasgow	8	1	7.6	4.3	1.8
26	Peking University	7	5	1.3	3.1	0.5
27	Technion	7	1	6.7	3.8	1.8
28	Tianjin University	7	14	0.5	1.1	0.4
29	KUKA (in: Midea Gro...	6	1	6.4	3.5	1.9
30	Midea Group	6	1	6.4	3.5	1.9
31	Honeywell	6	4	1.5	1.4	1.1
32	HUAXUN ARK TECH	6	3	2.0	0.9	2.1
33	Olympus	6	3	1.9	1.7	0.6
34	SHENZHEN INSTITU...	6	2	2.9	0.9	3.1
35	SHENZHEN THZ SCI...	6	2	2.9	0.9	3.1
36	CHINA COMMUNICA...	5	2	2.7	0.9	3.0
37	Caltech	5	2	2.7	2.7	1.0
38	Beijing Institute of Te...	5	9	0.6	1.1	0.5
39	CNRS	5	3	1.7	0.8	2.1
40	Smiths Group	5	2	2.6	1.6	2.0

COMPANY'S KEY FOCUS



	Owner	IPC (smart) Level 4 - Group title	Patent Asset Index™	Share in total portfolio strength (PAI) of owner	Portfolio Size	Share in total portfolio size of owner
1	Partners Healthca...	A61B 5: Measuring for diagnostic purposes | Identification of ...	58	0.8%	1	0.0%
2	Partners Healthca...	G01B 9: Instruments as specified in the subgroups and charac...	58	0.8%	1	0.0%
3	Partners Healthca...	G01B 11: Measuring arrangements characterised by the use of...	58	0.8%	1	0.0%
4	Partners Healthca...	G01J 3: Spectrometry | Spectrophotometry | Monochromators ...	58	0.8%	1	0.0%
5	Partners Healthca...	G01J 9: Measuring optical phase difference | Determining degr...	58	0.8%	1	0.0%
6	Partners Healthca...	G01N 21: Investigating or analysing materials by the use of op...	58	0.8%	1	0.0%
7	Partners Healthca...	G02B 6: Light guides | Structural details of arrangements com...	58	0.8%	1	0.0%
8	Partners Healthca...	G02B 26: Optical devices or arrangements using movable or d...	58	0.8%	1	0.0%
9	Partners Healthca...	G02B 27: Other optical systems | Other optical apparatus	58	0.8%	1	0.0%
10	Partners Healthca...	G02F 1: Devices or arrangements for the control of the intensit...	58	0.8%	1	0.0%
11	Partners Healthca...	H01S 3: Lasers, i.e. devices for generation, amplification, mod...	58	0.8%	1	0.0%
12	Partners Healthca...	H01S 5: Semiconductor lasers	58	0.8%	1	0.0%
13	TeraView	G01N 21: Investigating or analysing materials by the use of op...	42	32.9%	10	31.3%
14	Epson	G01N 21: Investigating or analysing materials by the use of op...	35	0.1%	27	0.1%
15	Epson	G01J 5: Radiation pyrometry	27	0.1%	14	0.0%
16	Epson	H01S 1: Masers, i.e. devices for generation, amplification, mod...	22	0.1%	20	0.1%
17	MACOM Technolo...	G01F 23: Indicating or measuring liquid level, or level of fluent ...	20	2.8%	1	0.1%
18	MACOM Technolo...	G01J 5: Radiation pyrometry	20	2.8%	1	0.1%
19	MACOM Technolo...	G01N 21: Investigating or analysing materials by the use of op...	20	2.8%	1	0.1%
20	MACOM Technolo...	G01N 23: Investigating or analysing materials by the use of wa...	20	2.8%	1	0.1%
21	MACOM Technolo...	G01N 27: Investigating or analysing materials by the use of ele...	20	2.8%	1	0.1%
22	MACOM Technolo...	G01V 3: Electric or magnetic prospecting or detecting | Measu...	20	2.8%	1	0.1%
23	MACOM Technolo...	G01V 8: Prospecting or detecting by optical means	20	2.8%	1	0.1%
24	Epson	G01J 3: Spectrometry | Spectrophotometry | Monochromators ...	19	0.0%	9	0.0%
25	PROTON PRODUC...	G01B 11: Measuring arrangements characterised by the use of...	17	91.2%	3	42.9%
26	PROTON PRODUC...	G01N 21: Investigating or analysing materials by the use of op...	17	91.2%	3	42.9%
27	Chinese Academy...	G01N 21: Investigating or analysing materials by the use of op...	16	0.0%	16	0.0%
28	PROTON PRODUC...	G01B 15: Measuring arrangements characterised by the use of...	16	87.5%	2	28.6%
29	Epson	H04N 5: Details of television systems	15	0.0%	9	0.0%
30	TeraView	A61B 5: Measuring for diagnostic purposes | Identification of ...	14	11.1%	3	9.4%
31	DEMERS	G01N 21: Investigating or analysing materials by the use of op...	13	53.4%	5	33.3%
32	PROTON PRODUC...	B29C 47: Extrusion moulding, i.e. expressing the moulding ma...	13	71.1%	2	28.6%
33	PROTON PRODUC...	G01J 5: Radiation pyrometry	13	69.6%	1	14.3%
34	PROTON PRODUC...	H01B 13: Apparatus or processes specially adapted for manuf...	13	69.6%	1	14.3%
35	Canon	G01N 21: Investigating or analysing materials by the use of op...	13	0.0%	11	0.0%
36	Epson	G01J 1: Photometry, e.g. photographic exposure meter	12	0.0%	8	0.0%
37	New Jersey Inst. ...	G01J 5: Radiation pyrometry	12	3.6%	3	1.3%
38	Ishida	G01G 11: Apparatus for weighing a continuous stream of mate...	11	1.8%	1	0.1%
39	Ishida	G01G 19: Weighing apparatus or methods adapted for special ...	11	1.8%	1	0.1%
40	Ishida	G01J 5: Radiation pyrometry	11	1.8%	1	0.1%

KEY INVENTORS

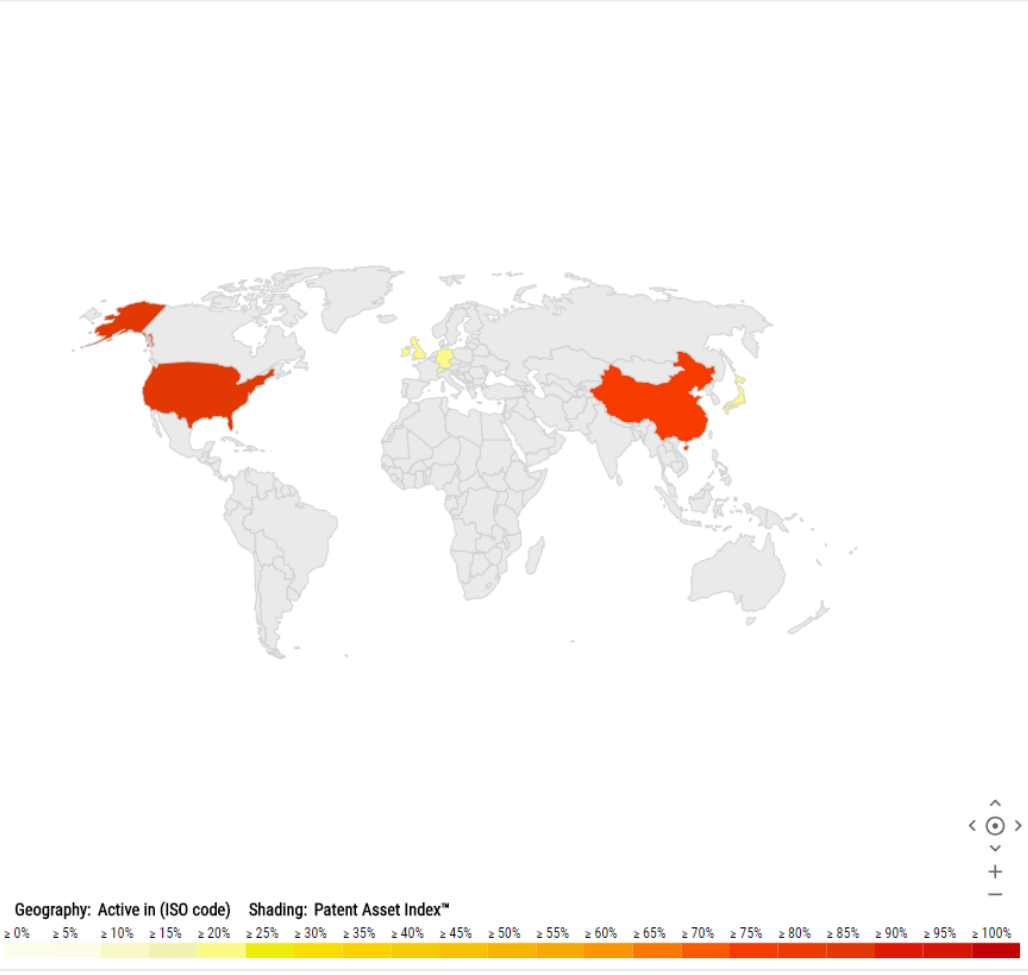


	Inventor	Patent Asset Index™	Portfolio Size	Competitive Impact™	Technology Relevance™	Market Coverage™
1	KYRIAKIS JOHN	14	4	3.4	1.6	1.5
2	JOHN KYRIAKIS	13	2	6.5	3.0	1.4
3	JOHN KYRIARIS	3	1	3.2	4.7	0.7
4	KYRIARIS JOHN	3	1	3.2	4.7	0.7
5	KOLB JEREL JAY	1	1	0.9	0.9	1.0
6	VIDRA MIKE	1	1	0.9	0.9	1.0

Co-Ownership

	Owner	Owner (co-owner, excl. owner = co-owner)	Patent Asset Index™	Portfolio Size
1	PROTON PRODUCTS ...	BAE Systems	0	1

PROTECTED COUNTRIES



	Active in ...	Patent Asset Index™	Portfolio Size
1	US	15 (80.5%)	4 (57.1%)
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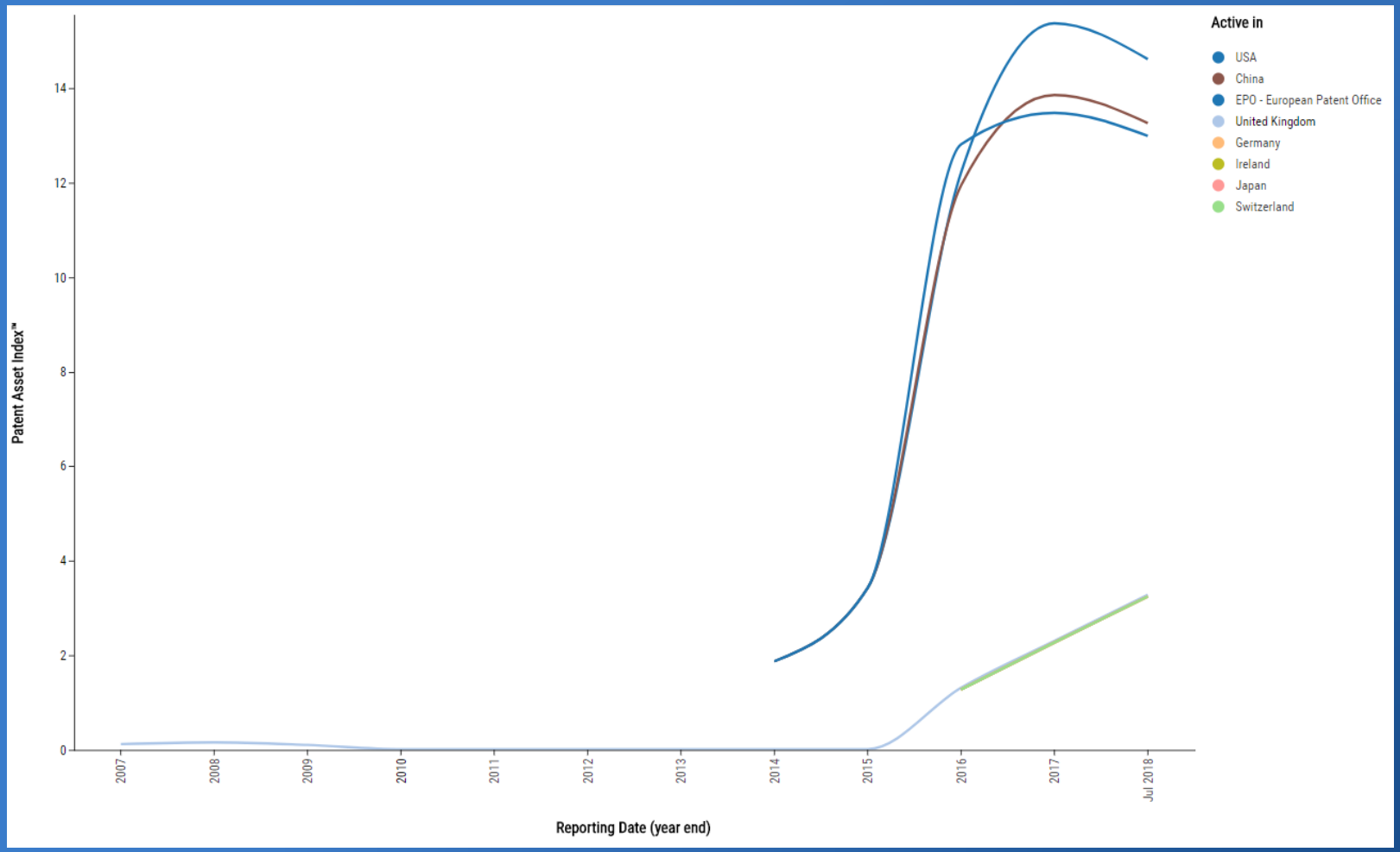
6	DE	3 (17.9%)	1 (14.3%)
7	IE	3 (17.9%)	1 (14.3%)
8	JP	3 (17.9%)	1 (14.3%)

8 total rows.

PATENT ASSET INDEX™ TREND PER COUNTRY



Muchas gracias

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