

# Las estadísticas de patentes: ¿es un error decidir las políticas de innovación en base a los datos de patentes publicados?

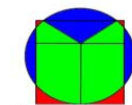
Los Lunes de Patentes  
UB Patent Centre, Barcelona, 9 de marzo de 2020

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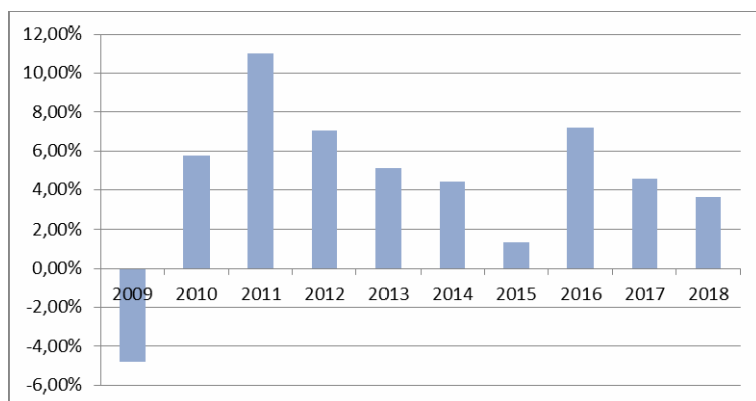
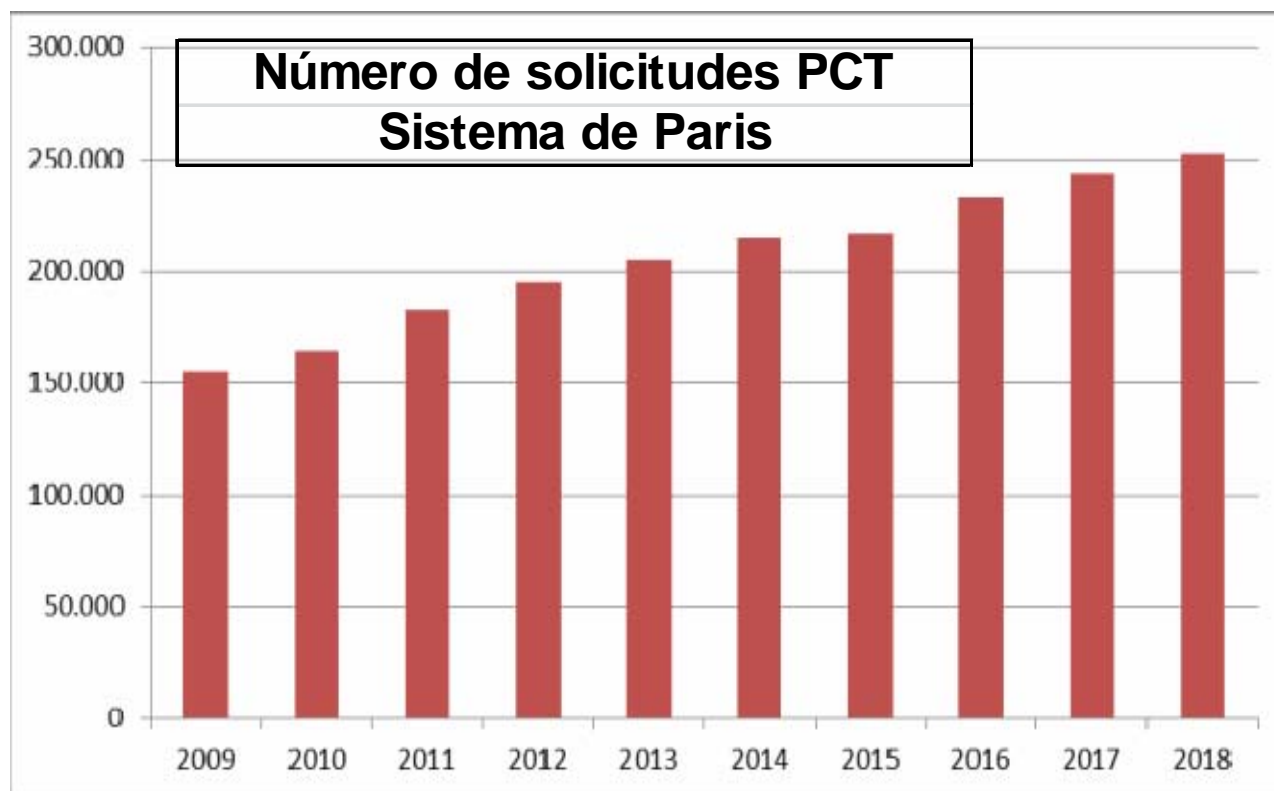
**Fuentes de los datos:** Las tablas y gráficos de esta presentación son de elaboración propia a partir de datos ofrecidos por la WIPO, la EPO y la OEPM.

# 1

***Una visión de los datos  
de solicitudes nacionales,  
europeas e internacionales.***

# Solicitudes PCT - período 2009-2018

Número de solicitudes PCT		
Año	Total	% variación anual
2009	155.402	-4,80%
2010	164.340	5,75%
2011	182.437	11,01%
2012	195.325	7,06%
2013	205.305	5,11%
2014	214.333	4,40%
2015	217.235	1,35%
2016	232.913	7,22%
2017	243.511	4,55%
2018	252.315	3,62%



# Top 20 de países solicitantes de solicitudes PCT en 2018

Número de solicitudes PCT en 2018 por país de origen de la solicitud						
	País origen de solicitud	2018	%	% acumulado	acumulado solicitudes	% 2018/2017
1	United States of America	55.981	22,2%	22,2%	55.981	-1,2%
2	China	53.340	21,1%	43,3%	109.321	9,1%
3	Japan	49.703	19,7%	63,0%	159.024	3,1%
4	Germany	19.750	7,8%	70,9%	178.774	4,2%
5	Republic of Korea	17.017	6,7%	77,6%	195.791	8,0%
6	France	7.915	3,1%	80,7%	203.706	-1,2%
7	United Kingdom	5.641	2,2%	83,0%	209.347	1,3%
8	Switzerland	4.568	1,8%	84,8%	213.915	1,8%
9	Sweden	4.163	1,6%	86,4%	218.078	4,7%
10	Netherlands	4.138	1,6%	88,1%	222.216	-6,6%
11	Italy	3.328	1,3%	89,4%	225.544	3,2%
12	Canada	2.415	1,0%	90,3%	227.959	0,6%
13	India	2.013	0,8%	91,1%	229.972	27,2%
14	Israel	1.899	0,8%	91,9%	231.871	4,6%
15	Finland	1.836	0,7%	92,6%	233.707	14,7%
16	Australia	1.825	0,7%	93,3%	235.532	-1,5%
17	Austria	1.475	0,6%	93,9%	237.007	5,6%
18	Denmark	1.443	0,6%	94,5%	238.450	0,9%
19	Spain	1.381	0,5%	95,1%	239.831	-2,6%
20	Turkey	1.302	0,5%	95,6%	241.133	4,1%

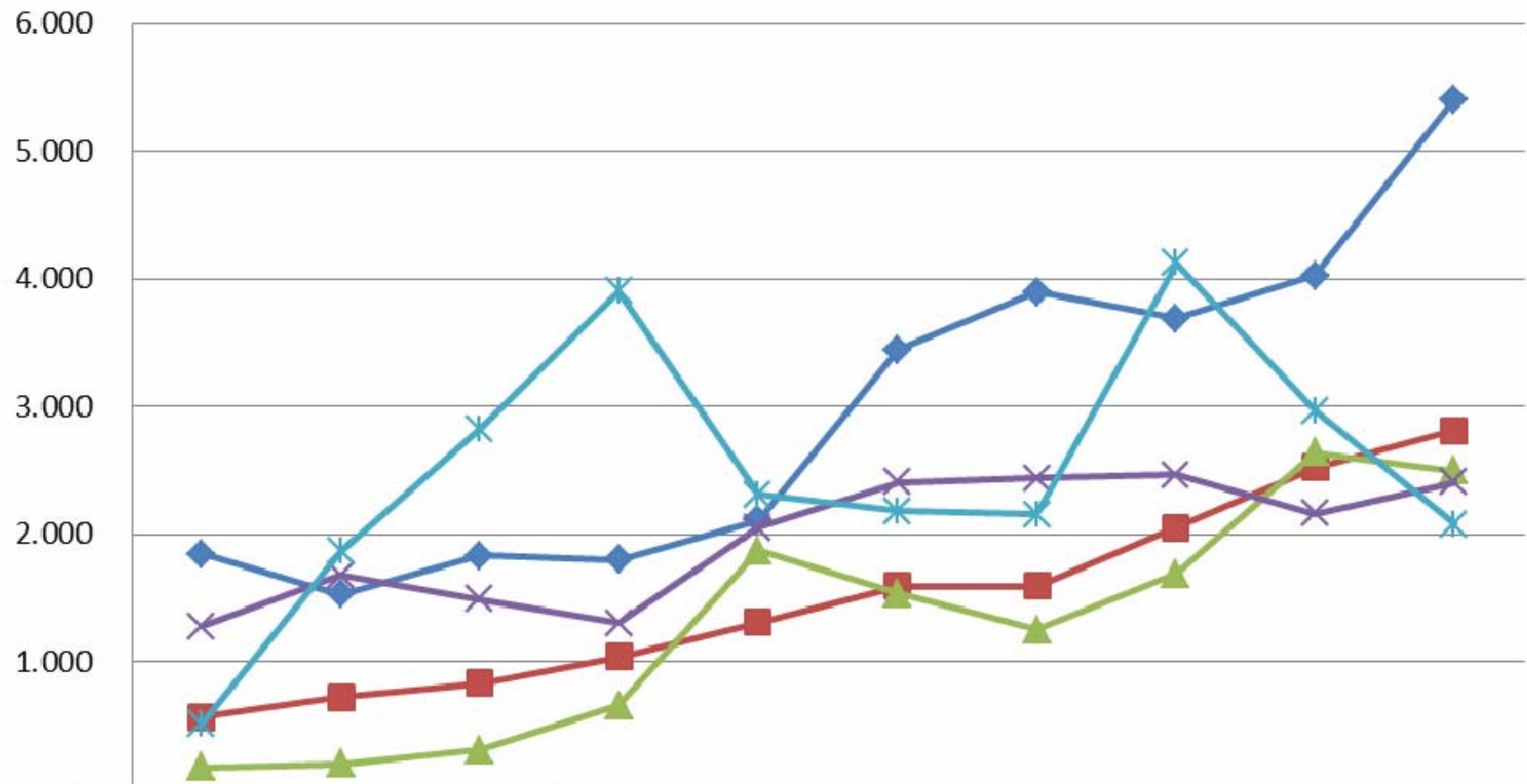


# Top 25 empresas por solicitudes PCT

Top 25 PCT Applicants (applicants with more than 10 PCT applications) in 2018						
	Solicitante	COUNTRY OF ORIGIN	2018	2017	2017 Position	% 2018/2017
1	HUAWEI TECHNOLOGIES CO., LTD.	CN	5.405	4.024	1	34,3%
2	mitsubishi electric corporation	JP	2.812	2.521	4	11,5%
3	INTEL CORPORATION	US	2.499	2.637	3	-5,2%
4	QUALCOMM INCORPORATED	US	2.404	2.163	5	11,1%
5	ZTE CORPORATION	CN	2.080	2.965	2	-29,8%
6	SAMSUNG ELECTRONICS CO., LTD.	KR	1.997	1.757	8	13,7%
7	BOE TECHNOLOGY GROUP CO.,LTD	CN	1.813	1.818	7	-0,3%
8	LG ELECTRONICS INC.	KR	1.697	1.945	6	-12,8%
9	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)	SE	1.645	1.564	10	5,2%
10	ROBERT BOSCH CORPORATION	DE	1.524	1.354	14	12,6%
11	MICROSOFT TECHNOLOGY LICENSING, LLC	US	1.476	1.536	11	-3,9%
12	PANASONIC INTELLECTUAL PROPERTY MANAGEMENT CO., LTD.	JP	1.465	1.280	15	14,5%
13	SONY CORPORATION	JP	1.342	1.735	9	-22,7%
14	SIEMENS AKTIENGESELLSCHAFT	DE	1.211	1.063	17	13,9%
15	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.	US	1.170	1.519	12	-23,0%
16	SHARP KABUSHIKI KAISHA	JP	1.132	963	21	17,5%
17	GUANG DONG OPPO MOBILE TELECOMMUNICATIONS CORP., LTD	CN	1.042	474	40	119,8%
18	KONINKLIJKE PHILIPS ELECTRONICS N.V.	NL	1.033	1.077	16	-4,1%
19	DENSO CORPORATION	JP	998	968	20	3,1%
20	LG CHEM, LTD.	KR	969	850	25	14,0%
21	FUJIFILM CORPORATION	JP	962	970	19	-0,8%
22	NEC CORPORATION	JP	947	899	24	5,3%
23	MURATA MANUFACTURING CO., LTD.	JP	889	684	29	30,0%
24	GOOGLE INC.	US	836	789	27	6,0%
25	OLYMPUS CORPORATION	JP	750	934	22	-19,7%

España





	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
◆ HUAWEI	1.847	1.528	1.831	1.801	2.110	3.442	3.898	3.692	4.024	5.405
■ MITSUBISHI	569	726	834	1.043	1.313	1.593	1.593	2.053	2.521	2.812
▲ INTEL	177	201	309	659	1.871	1.539	1.250	1.692	2.637	2.499
× QUALCOMM	1.280	1.677	1.494	1.305	2.050	2.409	2.442	2.466	2.163	2.404
* ZTE	517	1.863	2.826	3.906	2.309	2.179	2.155	4.123	2.965	2.080

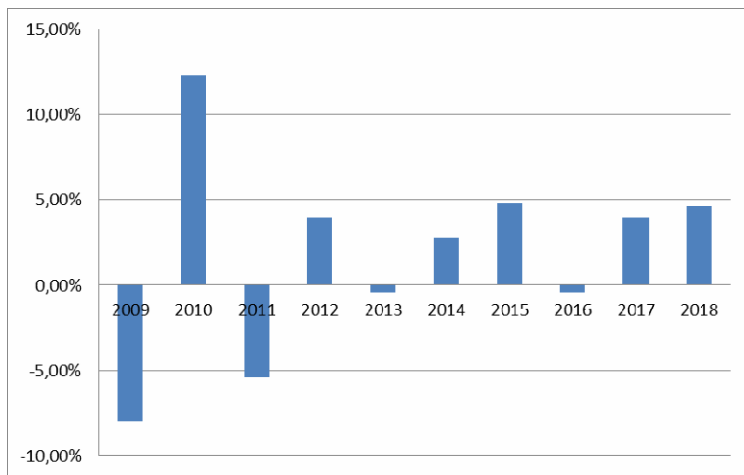
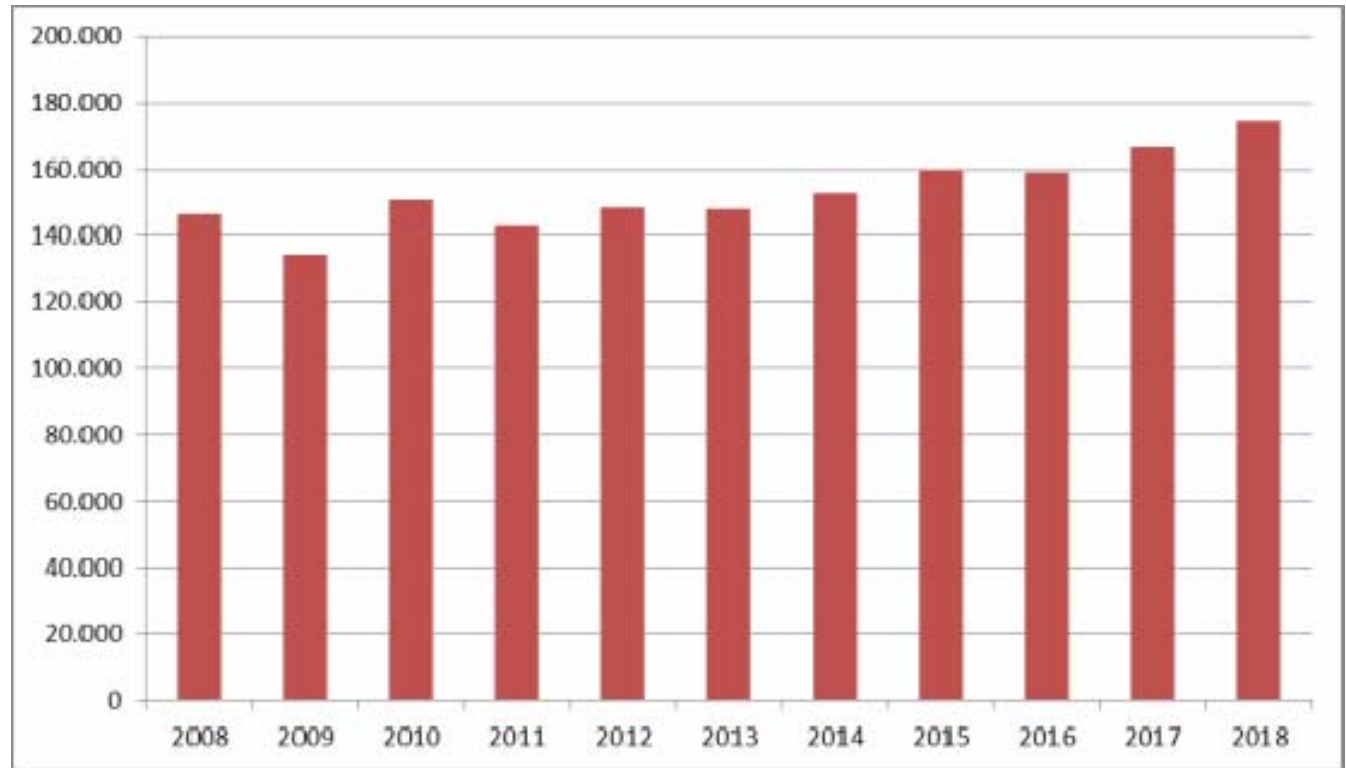
### Top 10 de países con solicitantes de más de 10 solicitudes PCT 2018 vs 2017

		Solicitudes			Solicitantes		
	País	2018	2017	2018/2017	2018	2017	2018/2017
1	JP Japan	40.848	38.085	7,3%	474	441	7,5%
2	US United States of America	34.105	33.897	0,6%	602	599	0,5%
3	CN China	28.679	23.094	24,2%	405	283	43,1%
4	DE Germany	12.857	12.206	5,3%	203	219	-7,3%
5	KR Republic of Korea	9.091	8.412	8,1%	133	123	8,1%
6	FR France	4.837	4.992	-3,1%	89	99	-10,1%
7	NL Netherlands	2.950	3.158	-6,6%	32	36	-11,1%
8	CH Switzerland	2.754	2.535	8,6%	33	21	57,1%
9	SE Sweden	2.665	2.549	4,6%	56	52	7,7%
10	GB United Kingdom	1.855	1.942	-4,5%	59	64	-7,8%
	EUROPA (6)	27.918	27.382	2,0%	472	491	-3,9%
	ASIA (3)	78.618	69.591	13,0%	1.012	847	19,5%
	AMERICA (1)	34.105	33.897	0,6%	602	599	0,5%



# Solicitudes EPO en el período 2008-2018

European patent applications 2008-2018		
Año	Total	% variación anual
2008	146.247	3,5%
2009	134.511	-8,0%
2009	151.015	12,3%
2011	142.822	-5,4%
2012	148.562	4,0%
2013	148.027	-0,4%
2014	152.703	3,2%
2015	160.004	4,8%
2016	159.087	-0,6%
2017	166.594	4,7%
2018	174.317	4,6%



# Top 20 de países por solicitudes EPO en 2018.

	País	Solicitudes 2018	%	% acumulado	Solicitudes 2017	% 2018/2017	Posición 2017
1	United States	43.612	25,0%	25,0%	42.463	2,7%	1 (=)
2	Germany	26.734	15,3%	40,4%	25.539	4,7%	2 (=)
3	Japan	22.615	13,0%	53,3%	21.774	3,9%	3 (=)
4	France	10.317	5,9%	59,2%	10.619	-2,8%	4 (=)
5	China, People's Republic of	9.401	5,4%	64,6%	8.641	8,8%	5 (=)
6	Switzerland	7.927	4,5%	69,2%	7.354	7,8%	6 (=)
7	Korea, Republic of	7.296	4,2%	73,4%	6.457	13,0%	8 (+1)
8	Netherlands	7.140	4,1%	77,5%	7.043	1,4%	7 (-1)
9	United Kingdom	5.736	3,3%	80,8%	5.321	7,8%	9 (=)
10	Italy	4.399	2,5%	83,3%	4.360	0,9%	10 (=)
11	Sweden	4.050	2,3%	85,6%	3.783	7,1%	11 (=)
12	Denmark	2.390	1,4%	87,0%	2.089	14,4%	14 (+2)
13	Belgium	2.360	1,4%	88,3%	2.152	9,7%	13 (=)
14	Austria	2.292	1,3%	89,6%	2.209	3,8%	12 (-2)
15	Spain	1.776	1,0%	90,7%	1.671	6,3%	16 (+1)
16	Chinese Taipei	1.767	1,0%	91,7%	1.622	8,9%	17 (+1)
17	Finland	1.728	1,0%	92,7%	1.797	-3,8%	15 (-2)
18	Canada	1.596	0,9%	93,6%	1.513	5,5%	18 (=)
19	Israel	1.456	0,8%	94,4%	1.388	4,9%	19 (=)
20	Australia	978	0,6%	95,0%	841	16,3%	21 (+1)



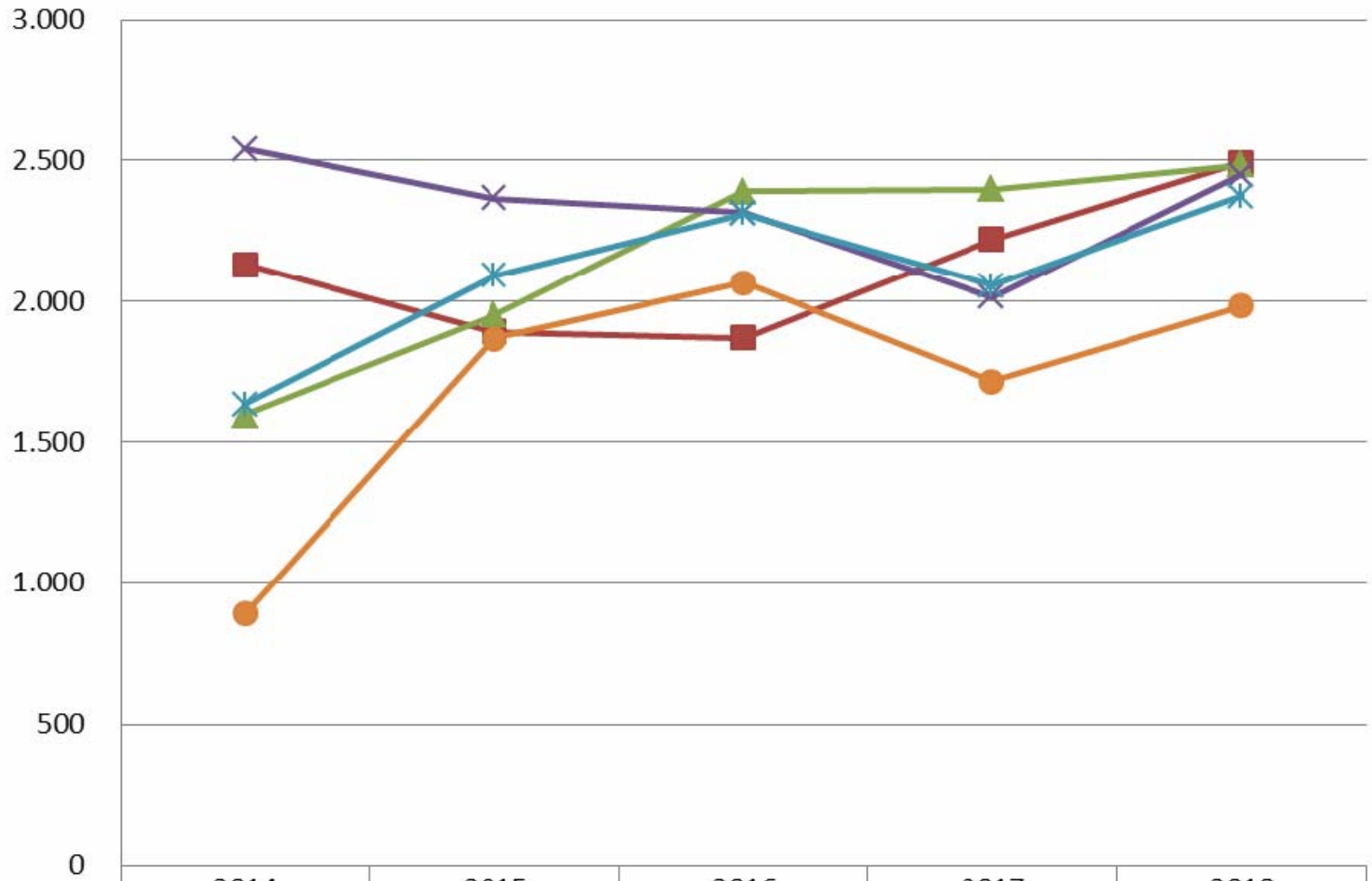
# Top 25 de solicitantes de solicitudes EPO en 2018

Spain



Top 25 EPO solicitantes 2018						
	Empresa	Solicitudes 2018	Solicitudes 2017	2018/2017	Ranking 2017	Cambio
1	SIEMENS	2.493	2.220	12,3%	2	+1
2	HUAWEI	2.485	2.398	3,6%	1	-1
3	SAMSUNG	2.449	2.016	21,5%	4	+1
4	LG	2.376	2.056	15,6%	3	-1
5	UNITED TECHNOLOGIES	1.983	1.719	15,4%	7	+2
6	ROYAL PHILIPS	1.617	1.733	-6,7%	6	=
7	QUALCOMM	1.593	1.854	-14,1%	5	-2
8	ERICSSON	1.472	1.373	7,2%	10	+2
9	GENERAL ELECTRIC	1.307	1.372	-4,7%	11	+2
10	ROBERT BOSCH	1.286	1.412	-8,9%	9	-1
11	SONY	1.278	1.219	4,8%	13	+2
12	BASF	1.256	1.265	-0,7%	12	=
13	INTEL	1.057	1.435	-26,3%	8	-5
14	JOHNSON & JOHNSON	982	874	12,4%	17	+3
15	MICROSOFT	975	1.159	-15,9%	14	-1
16	CANON	816	708	15,3%	22	+6
17	PANASONIC	815	728	12,0%	21	+4
18	VALEO	784	770	1,8%	19	+1
19	ALPHABET	779	527	47,8%	35	+16
20	NOKIA	738	919	-19,7%	15	-5
21	CONTINENTAL	691	629	9,9%	28	+7
22	HITACHI	658	707	-6,9%	23	+1
23	MITSUBISHI ELECTRIC	655	579	13,1%	32	+9
24	HOFFMANN-LA ROCHE	651	643	1,2%	27	+3
25	3M	635	675	-5,9%	25	=

EPO



	2014	2015	2016	2017	2018
■ SIEMENS AG	2.133	1.894	1.871	2.220	2.493
▲ HUAWEI TECHNOLOGIES	1.600	1.953	2.390	2.398	2.485
✕ SAMSUNG GROUP	2.541	2.366	2.316	2.016	2.449
✱ LG GROUP	1.638	2.091	2.313	2.056	2.376
● UNITED TECHNOLOGIES	890	1.869	2.067	1.719	1.983

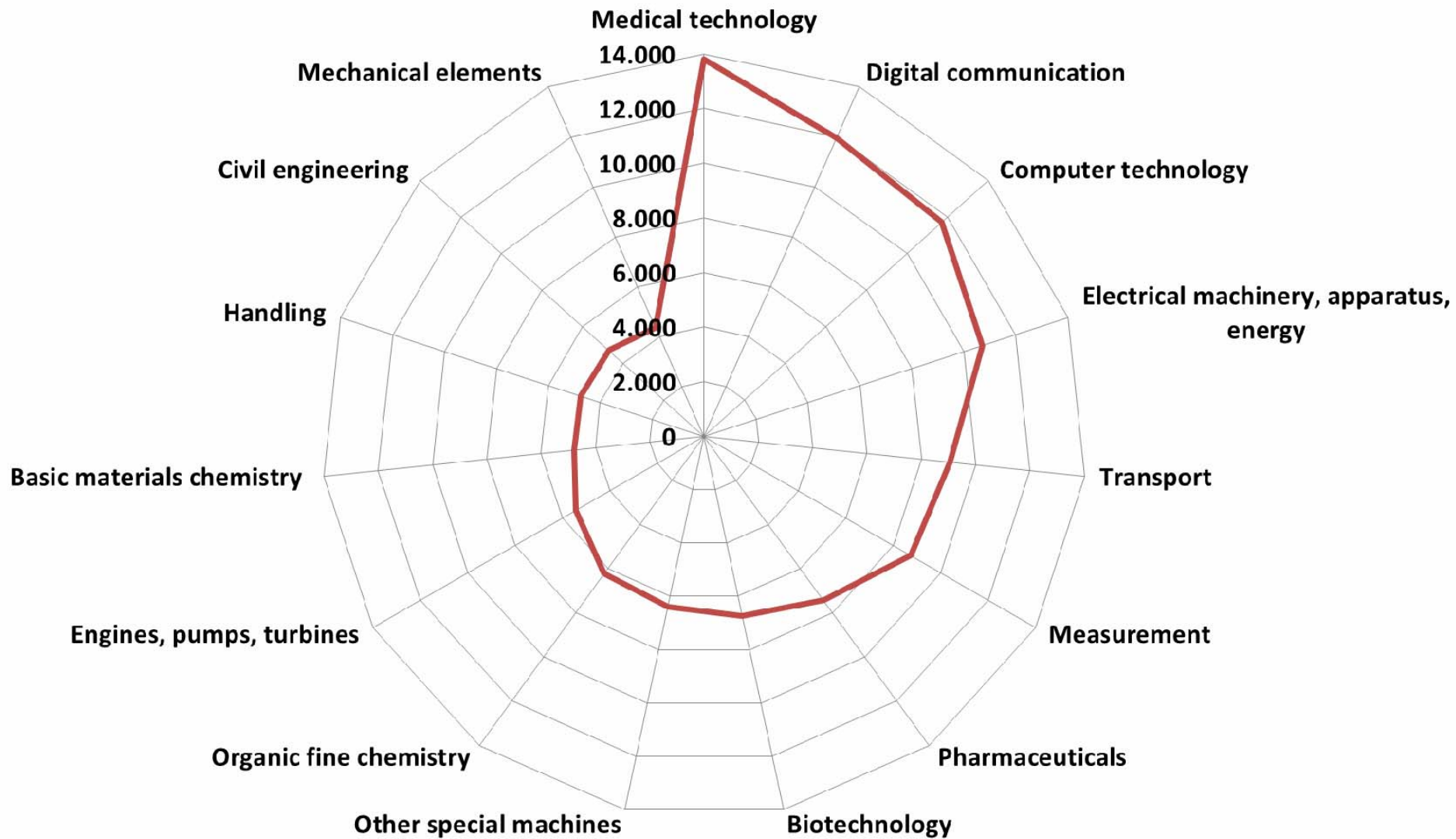
# EPO

## Liderazgo

### sectores tecnológicos y empresas

	<b>Top 10 Sectores de tecnología líderes en 2018</b>	<b>Solicitudes 2018</b>	<b>Company</b>	<b>Solicitudes 2018</b>	<b>% sobre total</b>
1	Medical technology	13.795	JOHNSON & JOHNSON	700	5%
2	Digital communication	11.940	HUAWEI TECHNOLOGIES CO. LTD.	1.535	13%
3	Computer technology	11.718	MICROSOFT CORPORATION	595	5%
4	Electrical machinery, apparatus, energy	10.722	LG GROUP	471	4%
5	Transport	9.039	AIRBUS	253	3%
6	Measurement	8.744	SIEMENS AG	205	2%
7	Pharmaceuticals	7.441	INSTITUT NATIONAL DE LA SANTE ET DE LA RECHERCHE MEDICALE	125	2%
8	Biotechnology	6.742	HOFFMANN-LA ROCHE LTD	242	4%
9	Other special machines	6.379	DEERE & COMPANY	173	3%
10	Organic fine chemistry	6.233	BAYER AG	227	4%

# EPO



# **ESTADISTICAS DE LOS 5 PRINCIPALES PAISES**

# Estados Unidos





# Estados Unidos

Top 30 de solicitantes con más de 10 solicitudes PCT de Estados Unidos							
	Ranking global	ORGANIZACION	2018	Acumulado	Acumulado vs Total país (%)	2017	2018 vs. 2017
1	3	INTEL CORPORATION	2.499	2.499	4%	2.637	-5%
2	4	QUALCOMM INCORPORATED	2.404	4.903	9%	2.163	11%
3	11	MICROSOFT TECHNOLOGY LICENSING, LLC	1.476	6.379	11%	1.536	-4%
4	15	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.	1.170	7.549	13%	1.519	-23%
5	24	GOOGLE INC.	836	8.385	15%	789	6%
6	26	GENERAL ELECTRIC COMPANY	729	9.114	16%	407	79%
7	30	3M INNOVATIVE PROPERTIES COMPANY	648	9.762	17%	678	-4%
8	31	HALLIBURTON ENERGY SERVICES, INC.	634	10.396	19%	798	-21%
9	36	PROCTER & GAMBLE COMPANY	513	10.909	19%	566	-9%
10	38	UNIVERSITY OF CALIFORNIA	501	11.410	20%	482	4%
11	45	DOW GLOBAL TECHNOLOGIES INC.	417	11.827	21%	421	-1%
12	48	APPLIED MATERIALS, INC.	407	12.234	22%	359	13%
13	51	APPLE INC.	390	12.624	22%	277	41%
14	68	CORNING INCORPORATED	308	12.932	23%	340	-9%
15	90	WALMART APOLLO, LLC	242	13.174	23%	-	-
16	98	ILLINOIS TOOL WORKS INC.	230	13.404	24%	171	35%
17	100	INTERNATIONAL BUSINESS MACHINES CORPORATION	227	13.631	24%	104	118%
18	103	CARRIER CORPORATION	225	13.856	25%	206	9%
19	107	BAKER HUGHES, A GE COMPANY, LLC	219	14.075	25%	282	-22%
20	108	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	216	14.291	25%	278	-22%
21	109	ETHICON LLC	216	14.507	26%	94	130%
22	113	MASTERCARD INTERNATIONAL INCORPORATED	208	14.715	26%	263	-21%
23	123	HONEYWELL INTERNATIONAL INC.	196	14.911	27%	213	-8%
24	127	RAYTHEON COMPANY	192	15.103	27%	205	-6%
25	130	MICRON TECHNOLOGY, INC.	184	15.287	27%	94	96%
26	138	AMAZON TECHNOLOGIES, INC.	177	15.464	28%	150	18%
27	141	PANASONIC INTELLECTUAL PROPERTY CORPORATION	175	15.639	28%	108	62%
28	144	SCHLUMBERGER TECHNOLOGY CORPORATION	171	15.810	28%	313	-45%
29	145	NIKE INNOVATE C.V.	170	15.980	28%	227	-25%
30	147	HARVARD UNIVERSITY	169	16.149	29%	179	-6%

# Estados Unidos

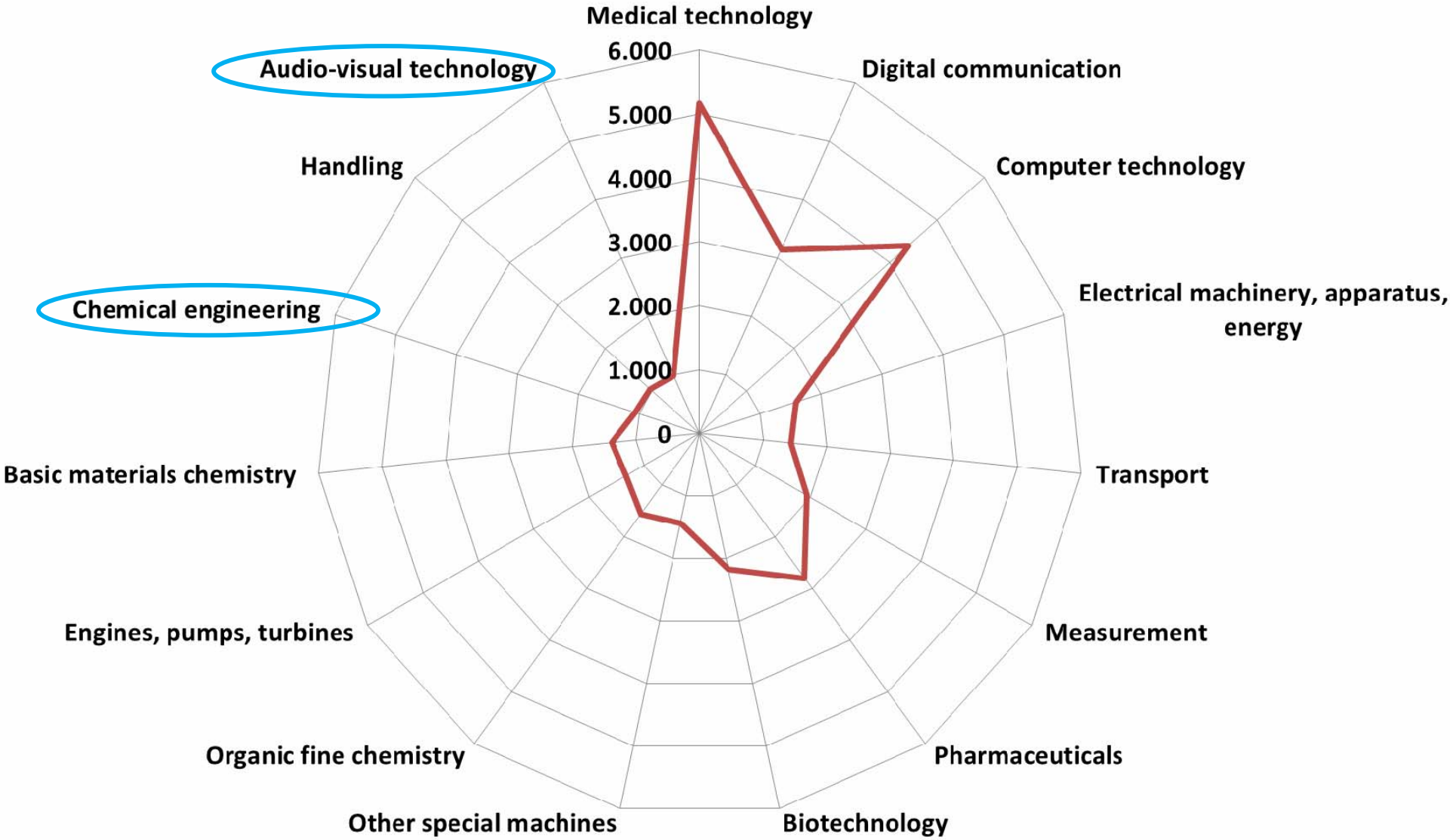
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Top 30 de solicitantes en solicitudes EPO de Estados Unidos						
	ORGANIZACION	2018	Acumulado	Acumulado vs Total país (%)	2017	2018 vs. 2017
1	QUALCOMM, INC.	1.593	1.593	4%	1.854	-14%
2	GENERAL ELECTRIC COMPANY	1.307	2.900	7%	1.372	-5%
3	INTEL CORPORATION	1.057	3.957	9%	1.435	-26%
4	JOHNSON & JOHNSON	982	4.939	11%	874	12%
5	MICROSOFT CORPORATION	975	5.914	14%	1.159	-16%
6	ALPHABET, INC.	779	6.693	15%	-	-
7	3M COMPANY	635	7.328	17%	675	-6%
8	HONEYWELL, INC.	635	7.963	18%	619	3%
9	HP, INC.	626	8.589	20%	519	21%
10	DOW CHEMICAL COMPANY	623	9.212	21%	734	-15%
11	BOEING COMPANY	596	9.808	22%	608	-2%
12	MEDTRONIC PLC	593	10.401	24%	527	13%
13	PROCTER & GAMBLE COMPANY	580	10.981	25%	804	-28%
14	PHILIP MORRIS INTERNATIONAL	457	11.438	26%	352	30%
15	APPLE INC.	375	11.813	27%	272	38%
16	CORNING INCORPORATED	359	12.172	28%	326	-
17	NIKE, INC.	326	12.498	29%	267	22%
18	BOSTON SCIENTIFIC CORPORATION	292	12.790	29%	246	19%
19	EXXON MOBIL CORPORATION	288	13.078	30%	267	8%
20	DEERE & COMPANY	257	13.335	31%	176	46%
21	UNIVERSITY OF CALIFORNIA	214	13.549	31%	215	0%
22	ILLINOIS TOOL WORKS, INC.	203	13.752	32%	271	-25%
23	BECTON DICKINSON & COMPANY	197	13.949	32%	187	5%
24	RAYTHEON COMPANY	178	14.127	32%	-	-
25	E. I. DU PONT DE NEMOURS AND COMPANY	169	14.296	33%	203	-17%
26	DOLBY LABORATORIES	167	14.463	33%	229	-27%
27	MERCK & CO	159	14.622	34%	-	-
28	HEWLETT PACKARD ENTERPRISE COMPANY	136	14.758	34%	-	-
29	COMMSCOPE, INC.	135	14.893	34%	-	-
30	DEERE & COMPANY	176	15.069	35%	176	0%

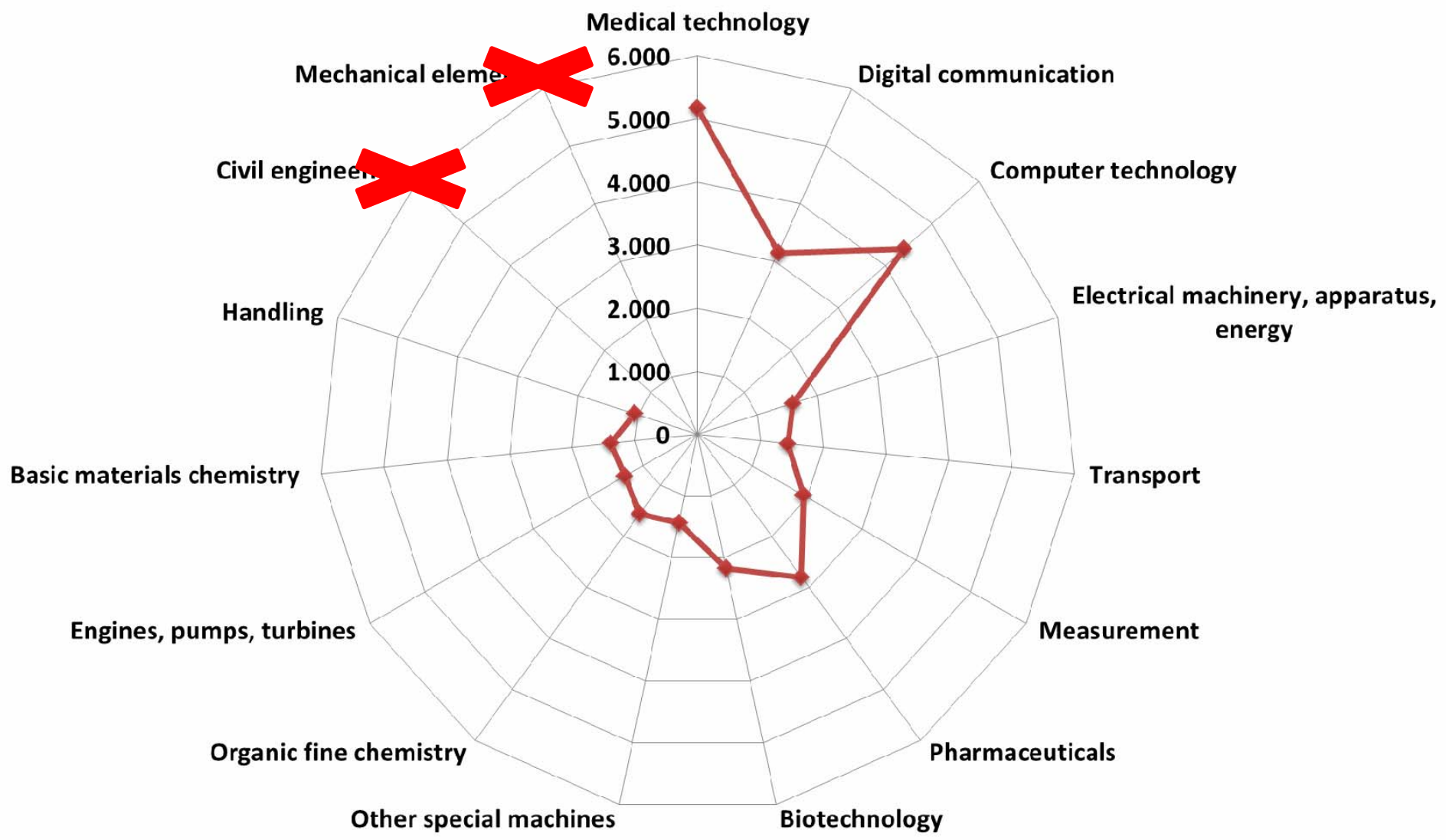


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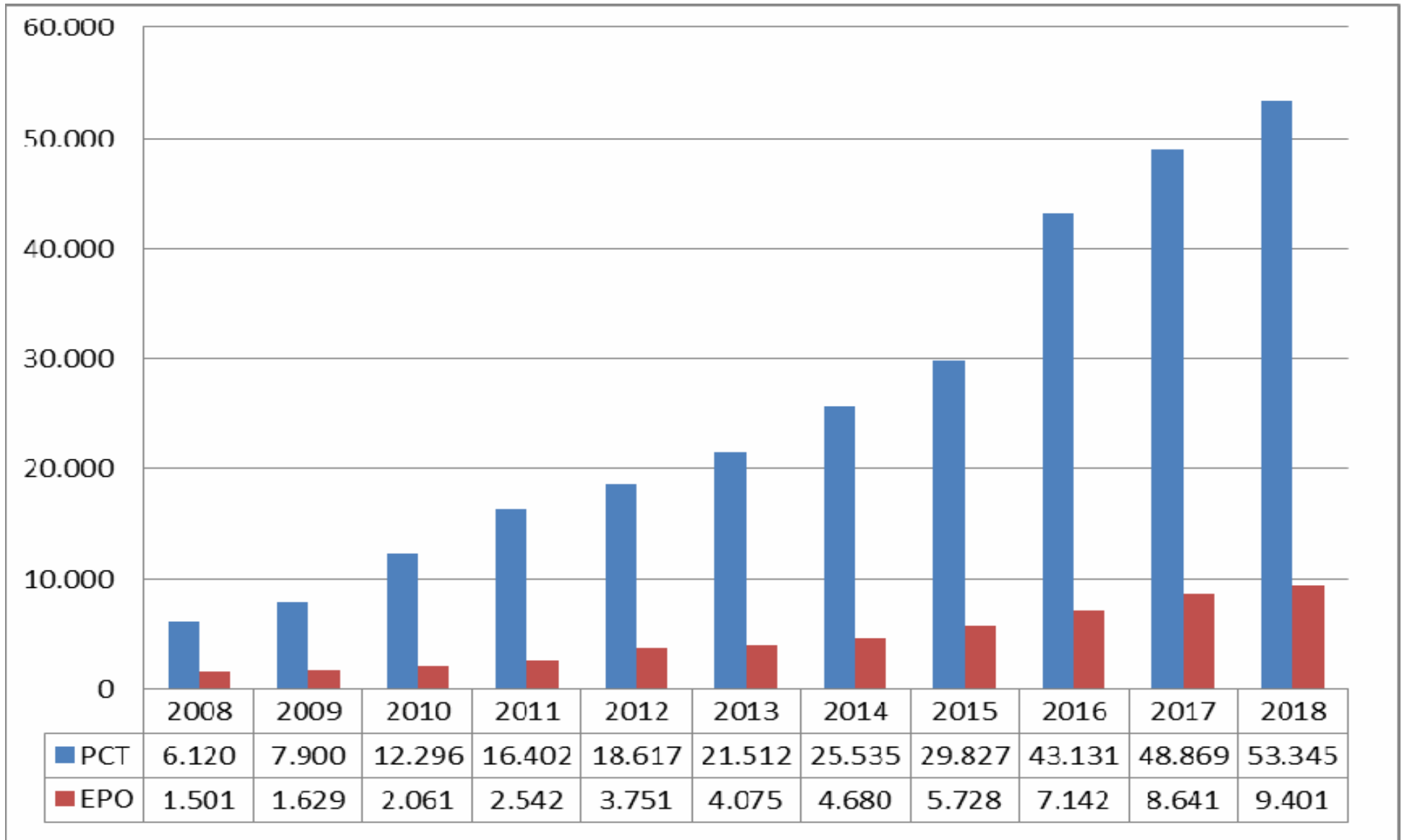
# ESTADOS UNIDOS



# ESTADOS UNIDOS



# China



# China

Top 30 de solicitantes con más de 10 solicitudes PCT de China

	Ranking global	ORGANIZACION	2018	Acumulado	Acumulado vs Total país (%)	2017	2018 vs. 2017
	1	HUAWEI TECHNOLOGIES CO., LTD.	5.405	5.405	10%	4.024	34%
	2	5 ZTE CORPORATION	2.080	7.485	14%	2.965	-30%
	3	7 BOE TECHNOLOGY GROUP CO.,LTD	1.813	9.298	17%	1.818	0%
	4	17 GUANG DONG OPPO MOBILE TELECOMMUNICATIONS CORP., LTD	1.042	10.340	19%	474	120%
	5	28 TENCENT TECHNOLOGY (SHENZHEN) COMPANY LIMITED	661	11.001	21%	560	18%
	6	29 SZ DJI TECHNOLOGY CO., LTD	656	11.657	22%	238	176%
	7	40 SHENZHEN CHINA STAR OPTOELECTRONICS TECHNOLOGY CO., LTD	463	12.120	23%	972	-52%
	8	50 WUHAN CHINA STAR OPTOELECTRONICS TECHNOLOGY CO., LTD	395	12.515	23%	290	36%
	9	52 QINGDAO HAIER WASHING MACHINE CO., LTD.	374	12.889	24%	159	135%
	10	58 ALIBABA GROUP HOLDING LIMITED	340	13.229	25%	707	-52%
	11	61 PING AN TECHNOLOGY (SHENZHEN) CO., LTD.	336	13.565	25%	23	1361%
	12	65 HKC CORPORATION LIMITED	318	13.883	26%	-	-
	13	69 CHINA ACADEMY OF TELECOMMUNICATIONS TECHNOLOGY	303	14.186	27%	204	49%
	14	88 BEIJING XIAOMI MOBILE SOFTWARE CO., LTD.	245	14.431	27%	140	75%
	15	89 GUANGZHOU SHIYUAN ELECTRONICS CO., LTD.	245	14.676	28%	58	322%
	16	93 BYD COMPANY LIMITED	238	14.914	28%	159	50%
	17	97 SHENZHEN ROYOLE TECHNOLOGIES CO. LTD	233	15.147	28%	110	112%
	18	101 SHENZHEN SHENGLU IOT COMMUNICATION TECHNOLOGY CO., LTD	227	15.374	29%	-	-
	19	120 SHENZHEN UNIVERSITY	201	15.575	29%	108	86%
	20	124 YULONG COMPUTER TELECOMMUNICATION SCIENTIFIC (SHENZHEN) CO.,LTD.	196	15.771	30%	-	-
	21	129 MEDIATEK INC.	186	15.957	30%	92	102%
	22	136 VIVO MOBILE COMMUNICATION CO., LTD.	179	16.136	30%	-	-
	23	139 GREE ELECTRIC APPLIANCES INC. OF ZHUHAI	177	16.313	31%	136	30%
	24	143 GOERTEK INC.	173	16.486	31%	122	42%
	25	146 SOUTH CHINA UNIVERSITY OF TECHNOLOGY	170	16.656	31%	70	143%
	26	152 SANECHIPS TECHNOLOGY CO., LTD.	166	16.822	32%	178	-7%
	27	153 QINGDAO HAIER JOINT STOCK CO., LTD	164	16.986	32%	81	102%
	28	156 LAUNCH TECH CO., LTD.	159	17.145	32%	29	448%
	29	157 CLOUDMINDS (SHENZHEN) ROBOTICS SYSTEMS CO., LTD.	159	17.304	32%	36	342%
	30	163 APPOTRONICS CORPORATION LIMITED	150	17.454	33%	58	159%

# China

EPO

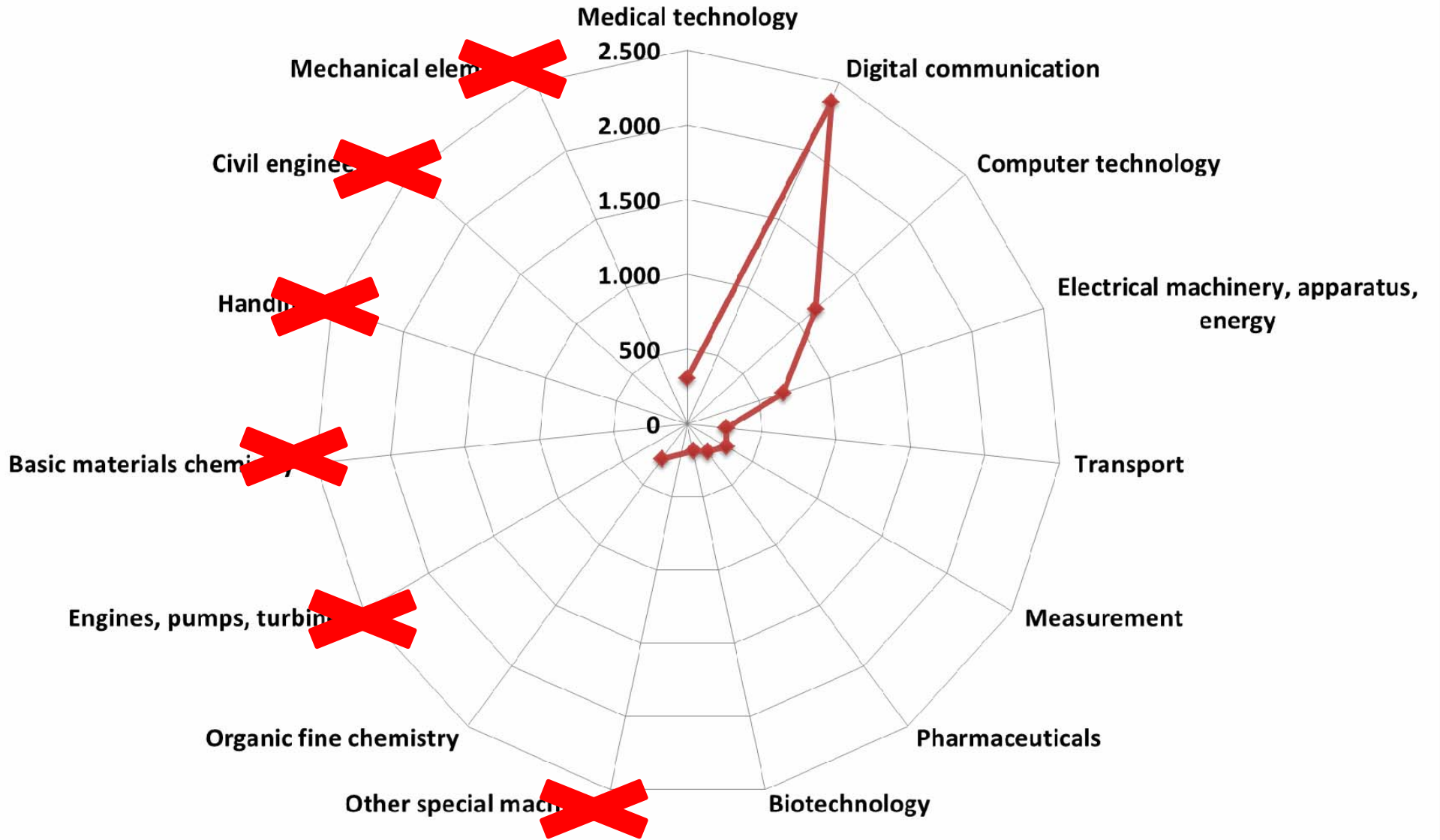
Top 20 de solicitantes de solicitudes EPO en China

	ORGANIZACION	2018	Acumulado	Acumulado vs Total país (%)	2017	2018 vs. 2017
1	HUAWEI TECHNOLOGIES CO. LTD.	2.485	2.485	26%	2.398	3,6%
2	GUANGDONG OPPO MOBILE TELECOMMUNICATIONS CORP., LTD	523	3.008	32%	38	1276,3%
3	BOE TECHNOLOGY GROUP CO., LTD.	419	3.427	36%	500	-16,2%
4	ZTE CORPORATION	337	3.764	40%	679	-50,4%
5	ALIBABA GROUP HOLDING LIMITED	264	4.028	43%	171	54,4%
6	XIAOMI INC.	183	4.211	45%	276	-33,7%
7	SHENZHEN GOODIX TECHNOLOGY CO., LTD.	120	4.331	46%	38	215,8%
8	CONTEMPORARY AMPEREX TECHNOLOGY CO., LIMITED	103	4.434	47%	39	164,1%
9	CHINA ACADEMY OF TELECOMMUNICATIONS TECHNOLOGY	102	4.536	48%	-	-
10	TENCENT HOLDINGS LIMITED	99	4.635	49%	-	-
11	BAIDU, INC.	88	4.723	50%	-	-
12	BYD COMPANY LIMITED	76	4.799	51%	71	7,0%
13	NINGBO GEELY AUTOMOBILE RESEARCH & DEVELOPMENT CO., LTD	63	4.862	52%	-	-
13	QINGDAO HAIER WASHING MACHINE CO., LTD.	63	4.925	52%	54	16,7%
15	SZ DJI TECHNOLOGY CO., LTD.	61	4.986	53%	66	-7,6%
16	MIDEA GROUP	59	5.045	54%	61	-3,3%
17	LENOVO GROUP LTD	58	5.103	54%	-	-
18	CHINESE ACADEMY OF SCIENCES	52	5.155	55%	-	-
19	BEIJING DIDI INFINITY TECHNOLOGY AND DEVELOPMENT CO., LTD.	49	5.204	55%	-	-
19	NUCTECH COMPANY LIMITED	49	5.253	56%	76	-35,5%



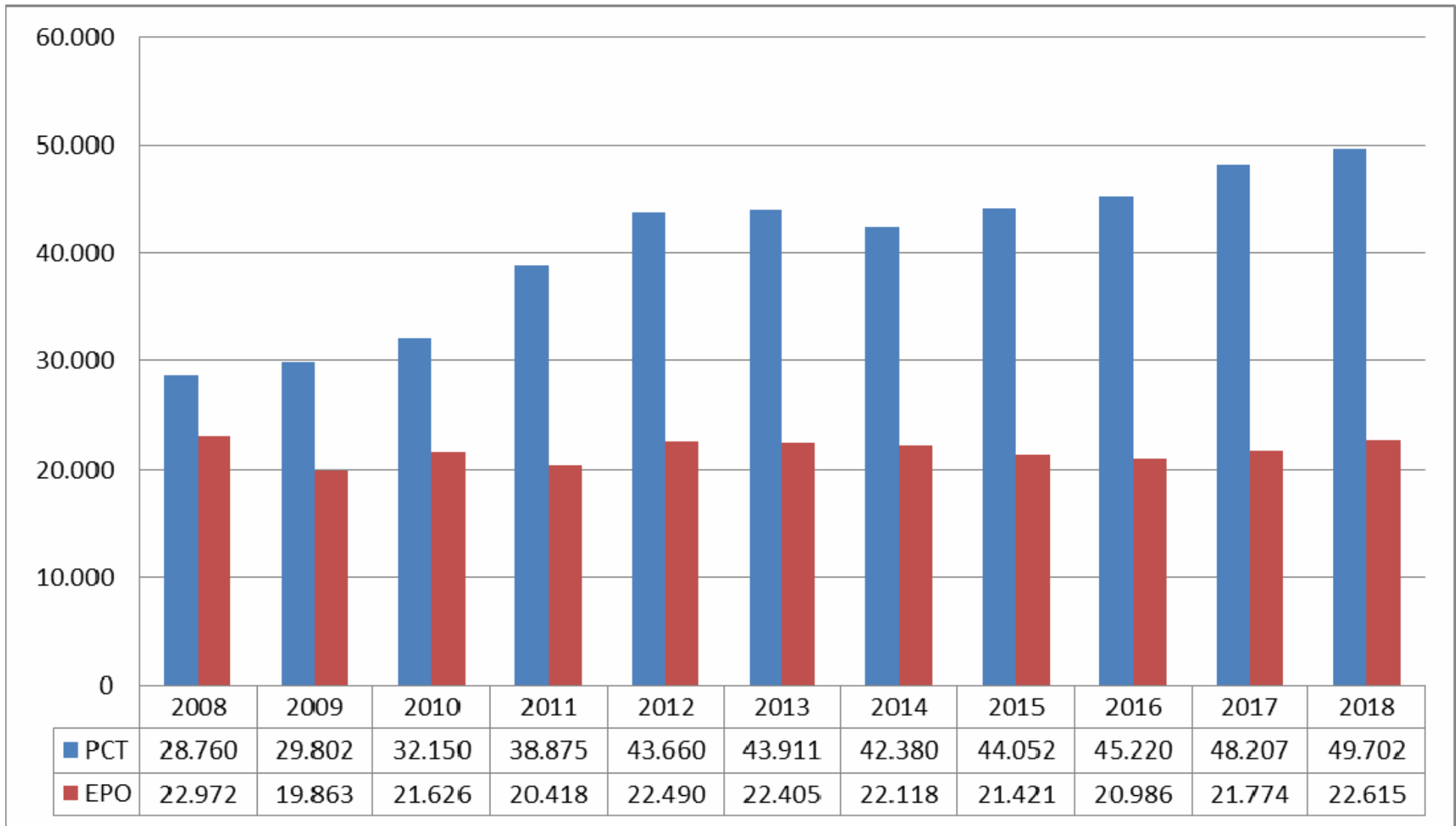
EPO

# CHINA





# Japón



# Japón

Top 30 de solicitantes con más de 10 solicitudes PCT de Japón							
	Ranking global	ORGANIZACION	2018	Acumulado	Acumulado vs Total país (%)	2017	2018 vs. 2017
1	2	MITSUBISHI ELECTRIC CORPORATION	2.812	2.812	6%	2.521	12%
2	12	PANASONIC INTELLECTUAL PROPERTY MANAGEMENT CO., LTD.	1.465	4.277	9%	1.280	14%
3	13	SONY CORPORATION	1.342	5.619	11%	1.735	-23%
4	16	SHARP KABUSHIKI KAISHA	1.132	6.751	14%	963	18%
5	19	DENSO CORPORATION	998	7.749	16%	968	3%
6	21	FUJIFILM CORPORATION	962	8.711	18%	970	-1%
7	22	NEC CORPORATION	947	9.658	19%	899	5%
8	23	MURATA MANUFACTURING CO., LTD.	889	10.547	21%	684	30%
9	25	OLYMPUS CORPORATION	750	11.297	23%	934	-20%
10	27	HITACHI, LTD.	714	12.011	24%	923	-23%
11	33	HITACHI AUTOMOTIVE SYSTEMS, LTD.	582	12.593	25%	503	16%
12	37	HONDA MOTOR CO., LTD.	504	13.097	26%	323	56%
13	39	SONY SEMICONDUCTOR SOLUTIONS CORPORATION	467	13.564	27%	69	577%
14	41	NTT DOCOMO, INC.	450	14.014	28%	317	42%
15	43	FUJITSU LIMITED	442	14.456	29%	338	31%
16	47	KYOCERA CORPORATION	413	14.869	30%	377	10%
17	53	AUTONETWORKS TECHNOLOGIES, LTD.	358	15.227	31%	452	-21%
18	54	SUMITOMO ELECTRIC INDUSTRIES, LTD.	350	15.577	31%	293	19%
19	56	OMRON CORPORATION	346	15.923	32%	213	62%
20	59	KONICA MINOLTA, INC.	339	16.262	33%	492	-31%
21	62	HITACHI CHEMICAL CO., LTD.	332	16.594	33%	205	62%
22	66	DAIKIN INDUSTRIES, LTD.	313	16.907	34%	199	57%
23	70	NIPPON STEEL & SUMITOMO METAL CORPORATION	300	17.207	35%	268	12%
24	72	CANON KABUSHIKI KAISHA	298	17.505	35%	309	-4%
25	73	TORAY INDUSTRIES, INC.	294	17.799	36%	300	-2%
26	74	NTN CORPORATION	293	18.092	36%	398	-26%
27	78	NITTO DENKO CORPORATION	285	18.377	37%	296	-4%
28	80	SUMITOMO CHEMICAL COMPANY, LIMITED	268	18.645	38%	281	-5%
29	82	BRIDGESTONE CORPORATION	255	18.900	38%	235	9%
30	83	JFE STEEL CORPORATION	255	19.155	39%	200	28%

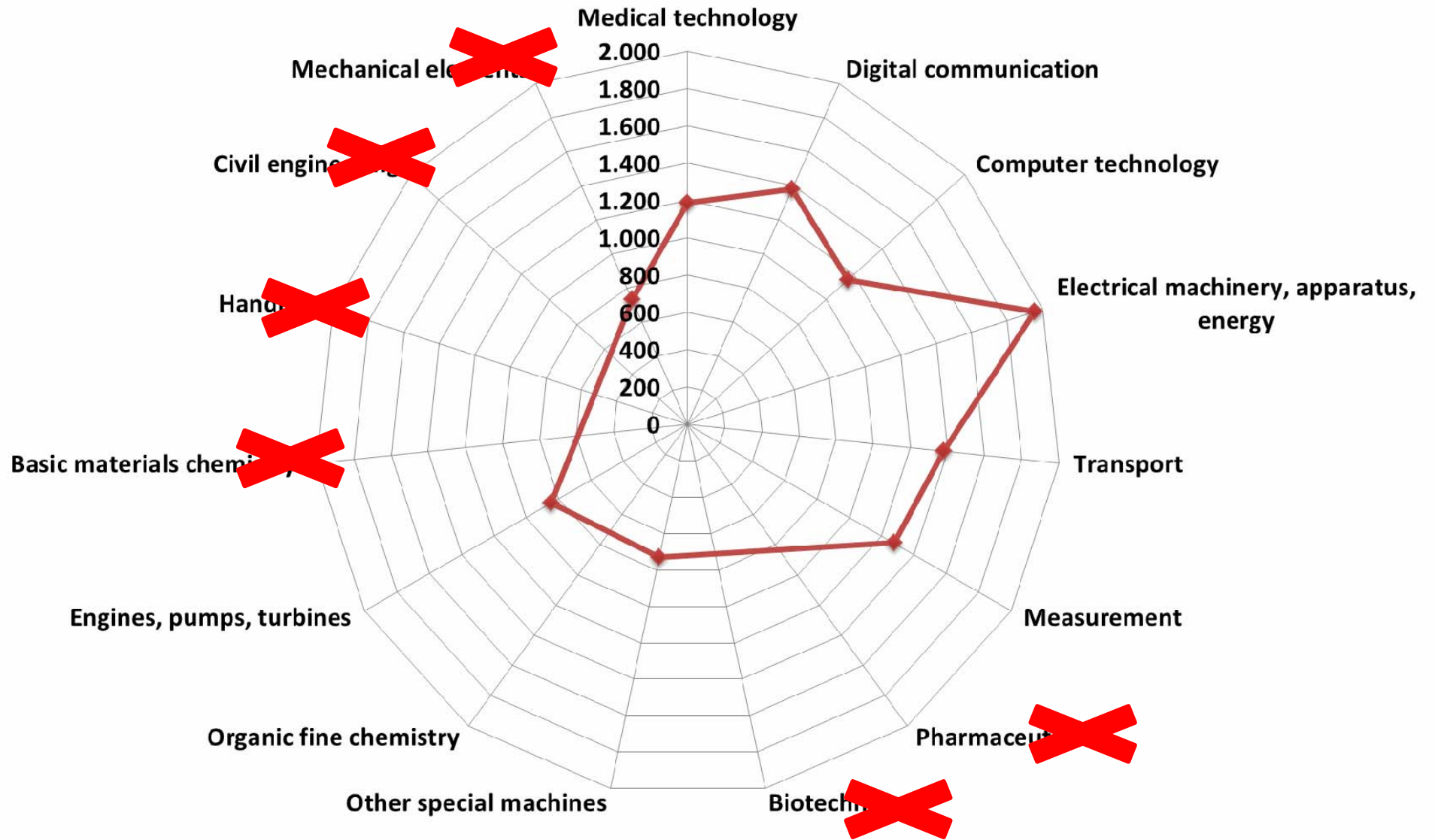
# Japón

EPO

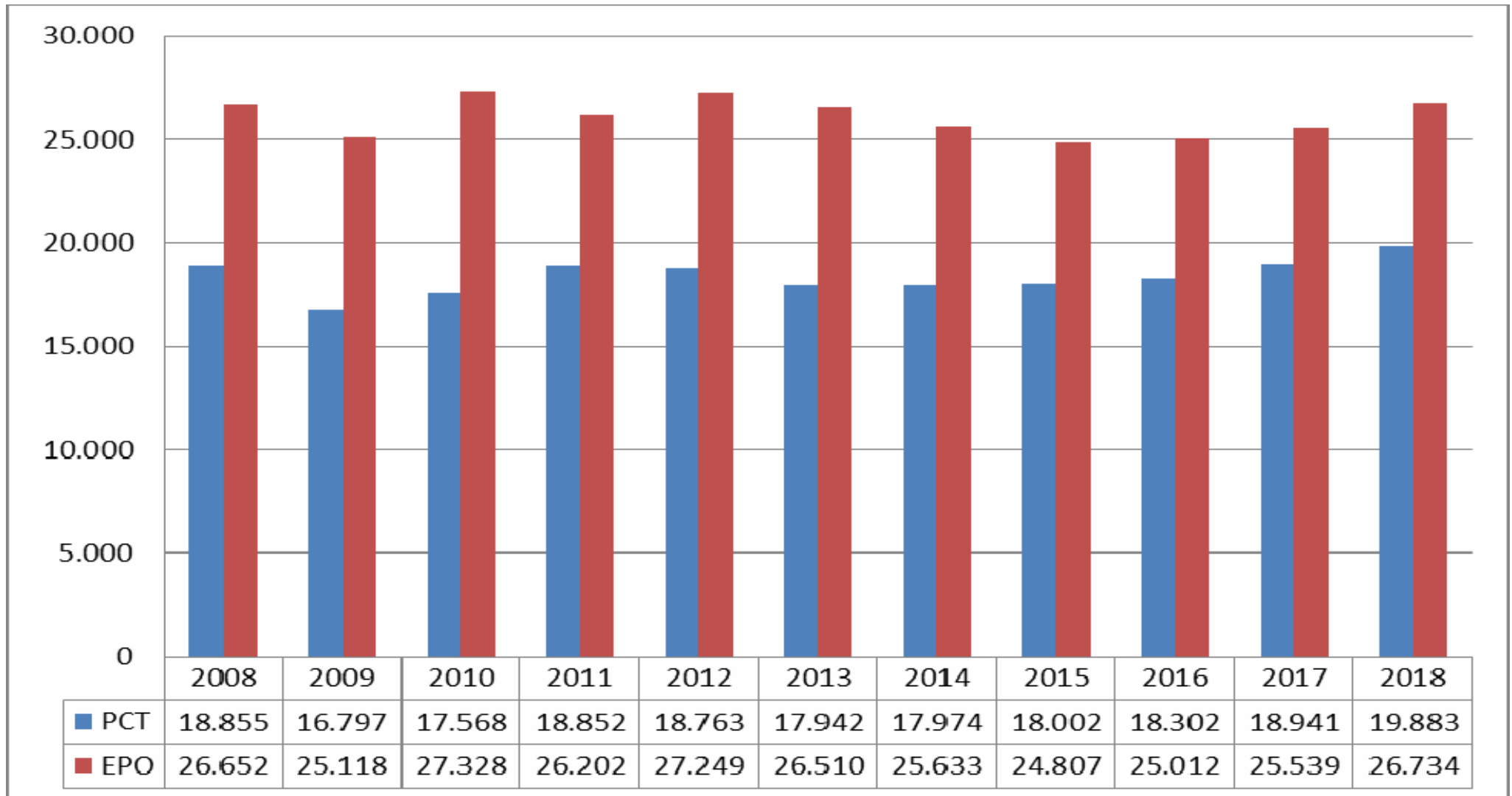
Top 30 de solicitantes en solicitudes EPO de Japón						
	ORGANIZACION	2018	Acumulado	Acumulado vs Total país (%)	2017	2018 vs. 2017
1	SONY CORPORATION	1.278	1.278	6%	1.219	5%
2	CANON INC.	816	2.094	9%	708	15%
3	PANASONIC CORPORATION	815	2.909	13%	728	12%
4	HITACHI LTD	658	3.567	16%	707	-7%
5	MITSUBISHI ELECTRIC CORPORATION	655	4.222	19%	579	13%
6	TOYOTA MOTOR CORPORATION	608	4.830	21%	535	14%
7	TOSHIBA CORPORATION	545	5.375	24%	596	-9%
8	MITSUBISHI HEAVY INDUSTRIES, LTD	512	5.887	26%	462	11%
9	FUJIFILM CORPORATION	371	6.258	28%	295	26%
10	OMRON CORPORATION	351	6.609	29%	191	84%
11	NEC CORPORATION	326	6.935	31%	359	-9%
12	RICOH COMPANY LTD	316	7.251	32%	343	-8%
13	NTT DOCOMO, INC.	295	7.546	33%	172	72%
14	SEIKO EPSON CORPORATION	291	7.837	35%	318	-8%
15	NISSAN MOTOR COMPANY, LIMITED	290	8.127	36%	221	31%
16	BRIDGESTONE CORPORATION	269	8.396	37%	305	-12%
17	KYOCERA CORPORATION	263	8.659	38%	301	-13%
18	OLYMPUS CORPORATION	251	8.910	39%	496	-49%
19	FUJITSU LIMITED	248	9.158	40%	435	-43%
20	SUMITOMO RUBBER INDUSTRIES, LTD.	217	9.375	41%	229	-5%
21	NIPPON STEEL & SUMITOMO METAL CORPORATION	216	9.591	42%	270	-20%
22	SHARP CORPORATION	213	9.804	43%	162	31%
23	TORAY INC.	203	10.007	44%	218	-7%
24	HONDA MOTOR COMPANY LTD	196	10.203	45%	208	-6%
25	KONICA MINOLTA, INC.	180	10.383	46%	159	13%
26	SHIN-ETSU CHEMICAL CO., LTD	179	10.562	47%	177	1%
27	DAIKIN INDUTRIES LIMITED	175	10.737	47%	197	-11%
28	ZEON CORPORATION	160	10.897	48%	-	-
29	NTN CORPORATION	148	11.045	49%	-	-
30	SHIMADZU CORPORATION	143	11.188	49%	-	-

EPO

# JAPON



# Alemania



# Alemania

Top 30 de solicitantes con más de 10 solicitudes PCT de Alemania

	Ranking global	ORGANIZACION	2018	Acumulado	Acumulado vs Total país (%)	2017	2018 vs. 2017
1	10	ROBERT BOSCH CORPORATION	1.524	1.524	8%	1.354	13%
2	14	SIEMENS AKTIENGESELLSCHAFT	1.211	2.735	14%	1.063	14%
3	32	SCHAEFFLER TECHNOLOGIES AG & CO. KG	613	3.348	17%	489	25%
4	34	BASF SE	557	3.905	20%	556	0%
5	46	BAYERISCHE MOTOREN WERKE AKTIENGESELLSCHAFT	414	4.319	22%	414	0%
6	57	FRAUNHOFER-GESELLSCHAFT ZUR FORDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	345	4.664	23%	279	24%
7	63	CONTINENTAL AUTOMOTIVE GMBH	330	4.994	25%	335	-1%
8	71	AUDI AG	300	5.294	27%	194	55%
9	76	ZF FRIEDRICHSHAFEN AG	289	5.583	28%	255	13%
10	79	HENKEL KOMMANDITGESELLSCHAFT AUF AKTIEN	283	5.866	30%	292	-3%
11	81	OSRAM OPTO SEMICONDUCTORS GMBH	264	6.130	31%	218	21%
12	99	MERCK PATENT GMBH	229	6.359	32%	171	34%
13	102	BSH HAUSGERATE GMBH	226	6.585	33%	233	-3%
14	117	VOLKSWAGEN AKTIENGESELLSCHAFT	205	6.790	34%	217	-6%
15	150	COVESTRO DEUTSCHLAND AG	167	6.957	35%	91	84%
16	169	KNORR-BREMSE GESELLSCHAFT MIT BESCHRANKTER HAFTUNG	146	7.103	36%	144	1%
17	171	BAYER AKTIENGESELLSCHAFT	143	7.246	36%	90	59%
18	238	DAIMLER AG	107	7.353	37%	117	-9%
19	240	LINDE AKTIENGESELLSCHAFT	106	7.459	38%	151	-30%
20	244	THYSSENKRUPP STEEL AG	104	7.563	38%	71	46%
21	245	VOITH PATENT GMBH	104	7.667	39%	81	28%
22	253	HELLA GMBH & CO. KGAA	102	7.769	39%	61	67%
23	262	BAYER CROPSCIENCE AKTIENGESELLSCHAFT	99	7.868	40%	105	-6%
24	265	KRONES AG	97	7.965	40%	128	-24%
25	267	VALEO SCHALTER UND SENSOREN GMBH	96	8.061	41%	83	16%
26	272	MAHLEINNOWA GMBH	95	8.156	41%	101	-6%
27	288	EVONIK DEGUSSA GMBH	90	8.246	41%	104	-13%
28	296	WACKER-CHEMIE GMBH	89	8.335	42%	74	20%
29	298	CARL ZEISS SMT AG	88	8.423	42%	71	24%
30	301	FRESENIUS MEDICAL CARE DEUTSCHLAND GMBH	87	8.510	43%	59	47%



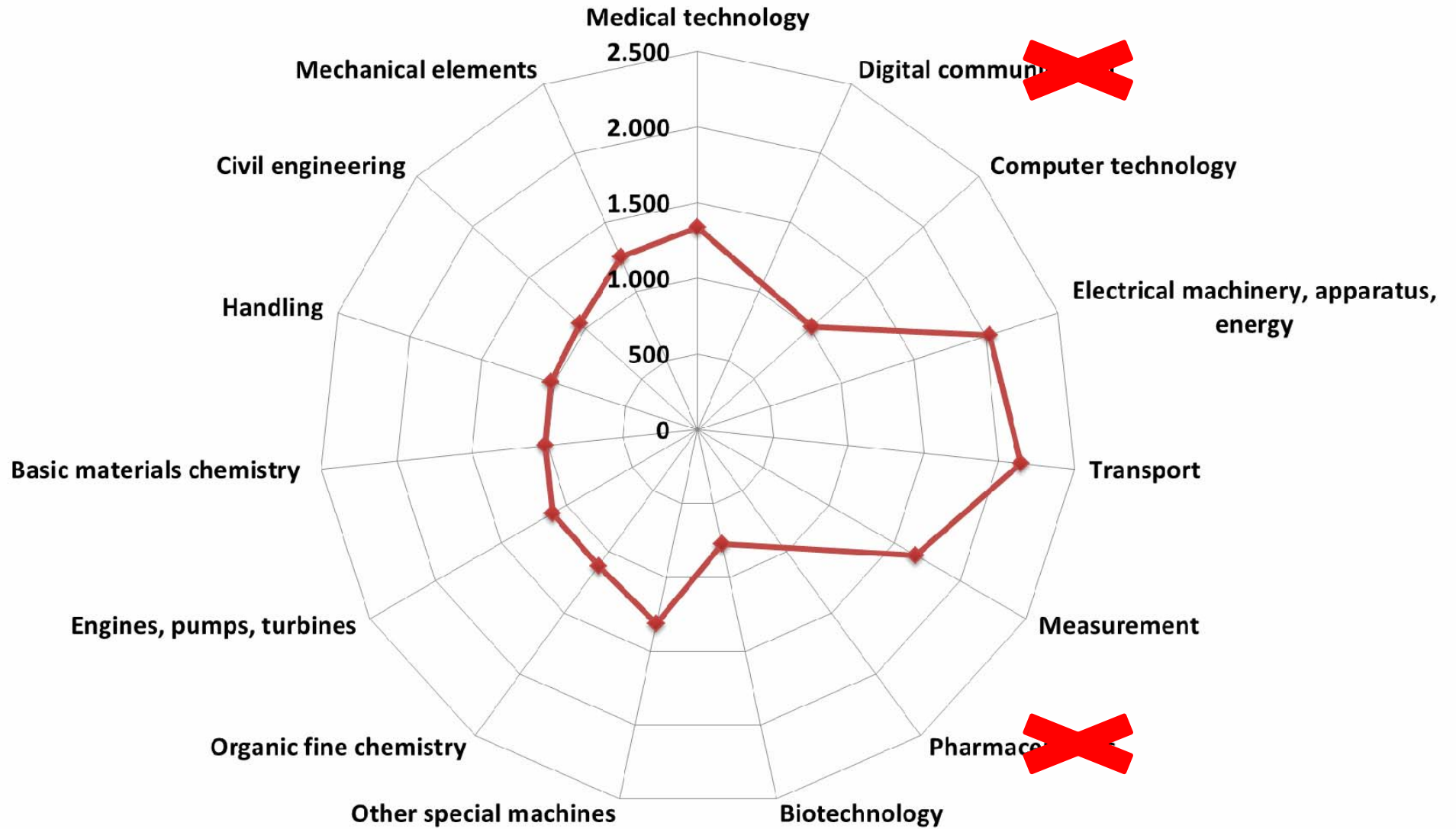
# Alemania

EPO

Top 30 de solicitantes en solicitudes EPO de Alemania						
	ORGANIZACION	2018	Acumulado	Acumulado vs Total país (%)	2017	2018 vs. 2017
1	SIEMENS AG	2493	2.220	8%	2.220	12%
2	ROBERT BOSCH GMBH	1286	3.632	14%	1.412	-9%
3	BASF SE	1256	4.897	18%	1.265	-1%
4	CONTINENTAL AG	691	5.777	22%	629	10%
5	BAYER AG	559	6.406	24%	880	-36%
6	FRAUNHOFER-GESELLSCHAFT ZUR FÖRDERUNG	468	6.894	26%	460	2%
7	MERCK KGAA	432	7.354	28%	488	-11%
8	EVONIK AG	335	7.729	29%	312	7%
9	COVESTRO AG	325	8.041	30%	-	-
10	HENKEL GROUP	320	8.321	31%	375	-15%
11	VOLKSWAGEN AG	306	8.584	32%	207	48%
12	AUDI AG	273	8.824	33%	280	-3%
13	BMW AG	273	9.059	34%	235	16%
14	THYSSENKRUPP AG	233	9.266	35%	263	-11%
15	KNORR-BREMSE AG	202	9.472	35%	156	29%
16	ZF FRIEDRICHSHAFEN AG	200	9.658	36%	186	8%
17	FRESENIUS SE & CO. KGAA	193	9.825	37%	167	16%
18	KRONES AG	185	9.982	37%	-	-
19	BOEHRINGER INGELHEIM PHARMA GMBH & CO. KG	183	10.138	38%	115	59%
20	LINDE AG	174	10.287	38%	206	-16%
21	MAN SE	164	10.433	39%	104	58%
22	DEUTSCHE TELEKOM AG	147	10.567	40%	240	-39%
23	CARL ZEISS AG	134	10.696	40%	146	-8%
24	INFINEON	132	10.819	40%	-	-
25	GIESECKE & DEVRIENT	129	10.934	41%	134	-4%
26	BUNDESDRUCKEREI GMBH	123	11.043	41%	100	23%
27	VORWERK & CO. INTERHOLDING GMBH	115	11.147	42%	-	-
28	MIELE & CIE. KG	113	11.250	42%	123	-8%
29	BEIERSDORF AG	112	11.350	42%	97	15%
30	CLAAS KGAA MBH	111	11.447	43%	-	-

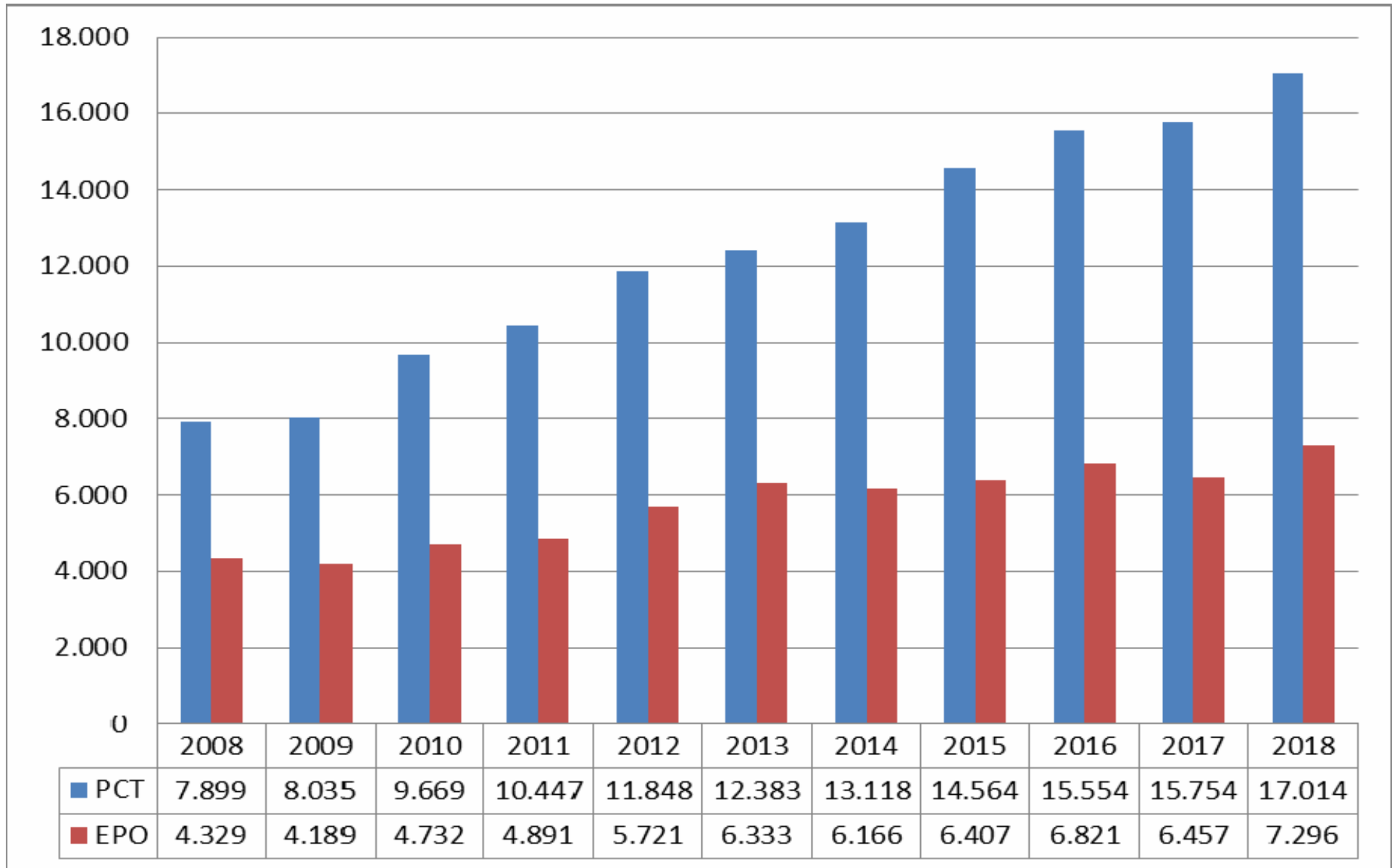
EPO

# ALEMANIA





# Corea del Sur



# Corea del Sur

Top 30 de solicitantes con más de 10 solicitudes PCT de la República de Corea								
	Ranking global	ORGANIZACION	2018	Acumulado	Acumulado vs Total país (%)	2017	2018 vs. 2017	
	1	6 SAMSUNG ELECTRONICS CO., LTD.	1.997	1.997	12%	1.757	14%	
	2	8 LG ELECTRONICS INC.	1.697	3.694	22%	1.945	-13%	
	3	20 LG CHEM, LTD.	969	4.663	27%	850	14%	
	4	77 SAMSUNG SDI CO., LTD.	288	4.951	29%	103	180%	
	5	94 POSCO	236	5.187	30%	204	16%	
	6	95 LG INNOTEK CO. LTD.	235	5.422	32%	325	-28%	
→	7	181 SEOUL NATIONAL UNIVERSITY	137	5.559	33%	119	15%	
	8	191 AMOREPACIFIC CORP.	132	5.691	33%	133	-1%	
	9	247 KT CORP.	103	5.794	34%	47	119%	
→	10	274 KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY	94	5.888	35%	109	-14%	
→	11	295 HANYANG UNIVERSITY	89	5.977	35%	114	-22%	
	12	344 CHEIL JEDANG CORPORATION	77	6.054	36%	52	48%	
	13	363 KOREA ELECTRIC POWER CORPORATION	73	6.127	36%	23	217%	
→	14	370 KOREA UNIVERSITY	72	6.199	36%	90	-20%	
	15	408 KOREA ELECTRONICS TECHNOLOGY INSTITUTE	65	6.264	37%	79	-18%	
	16	413 DONGWOO FINE-CHEM CO., LTD.	63	6.327	37%	40	58%	
→	17	414 YONSEI UNIVERSITY	63	6.390	38%	46	37%	
→	18	469 ELECTRONICS & TELECOMMUNICATIONS RESEARCH INSTITUTE OF KOREA	56	6.446	38%	36	56%	
→	19	482 HANON SYSTEMS	55	6.501	38%	25	120%	
→	20	489 KOREA INSTITUTE OF INDUSTRIAL TECHNOLOGY	54	6.555	39%	41	32%	
→	21	507 RESEARCH & BUSINESS FOUNDATION SUNGKYUNKWAN UNIVERSITY	52	6.607	39%	30	73%	
→	22	519 KOREA RESEARCH INSTITUTE OF CHEMICAL TECHNOLOGY	51	6.658	39%	41	24%	
	23	548 HYOSUNG CORP.	49	6.707	39%	50	-2%	
	24	555 HANWHA TECHWIN CO., LTD.	48	6.755	40%	43	12%	
	25	570 LG HAUSYS, LTD.	47	6.802	40%	55	-15%	
	26	571 DOOSAN CORP.	47	6.849	40%	43	9%	
→	27	592 KYUNGPOOK NATIONAL UNIVERSITY	45	6.894	41%	43	5%	
	28	593 AMOGREENTECH CO., LTD.	45	6.939	41%	43	5%	
	29	622 S-PRINTING SOLUTION CO., LTD.	43	6.982	41%	30	43%	
	30	627 SAMSUNG LIFE WELFARE FOUNDATION	43	7.025	41%	15	187%	

# Corea del Sur

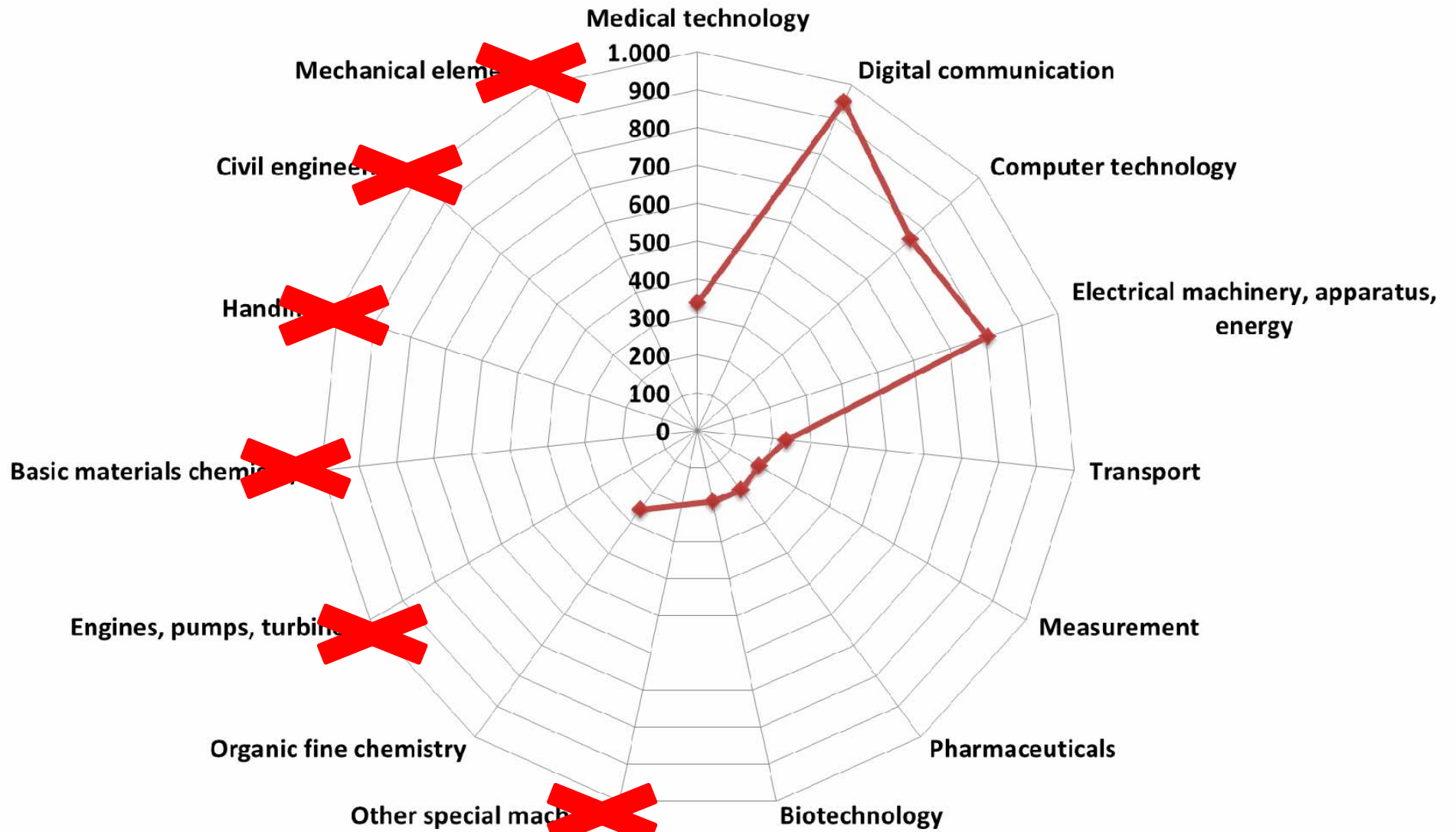
EPO

Top 10 de solicitantes en solicitudes EPO de la República de Corea

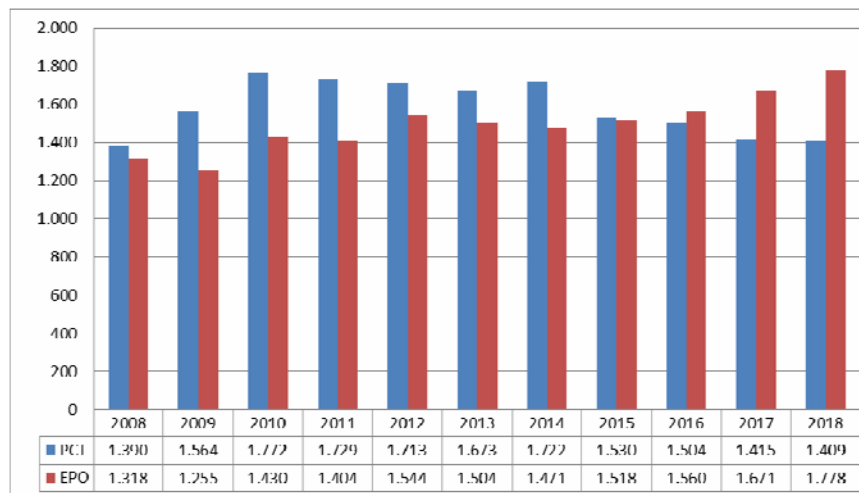
	ORGANIZACION	2018	Acumulado	Acumulado vs Total país (%)	2017	2018 vs. 2017
1	SAMSUNG GROUP	2.449	2.449	34%	2.016	21%
2	LG GROUP	2.376	4.825	66%	2.056	16%
3	POSCO COMPANY	128	4.953	68%	63	103%
4	HYUNDAI GROUP	91	5.044	69%	84	8%
5	DOOSAN GROUP	54	5.098	70%	63	-14%
6	ELECTRONICS AND TELECOMMUNICATIONS RES	46	5.144	71%	31	48%
7	CJ CHEILJEDANG CORPORATION	44	5.188	71%	34	29%
8	AMOREPACIFIC CORPORATION	31	5.219	72%	33	-6%
9	LSIS CO., LTD.	28	5.247	72%	73	-62%
10	HANYANG UNIVERSITY	22	5.269	72%	-	-

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# COREA DEL SUR



# España

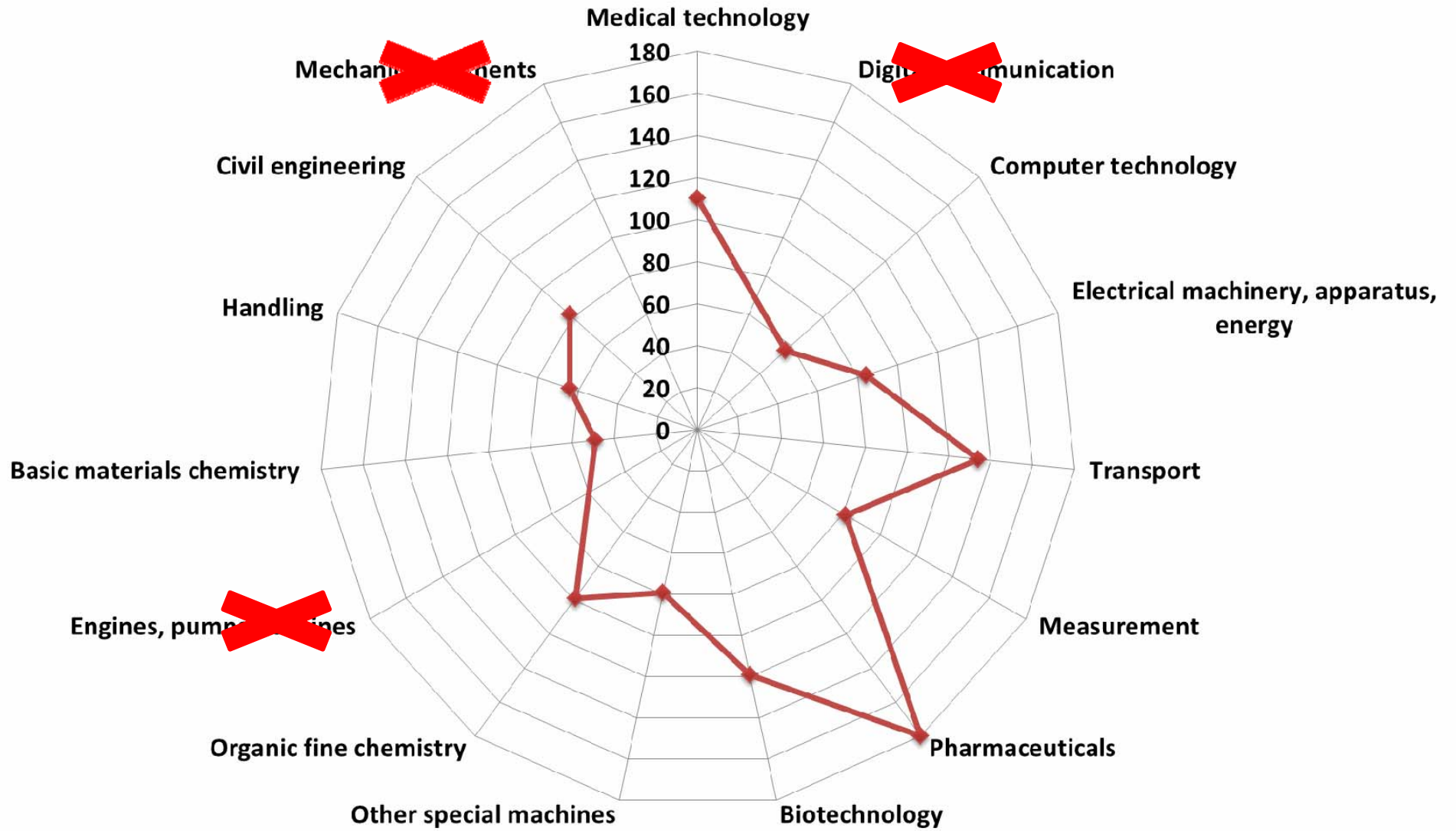


Top 7 de solicitantes con más de 10 solicitudes PCT de España (2007-2018)														
Ranking 2018	Solicitante	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	
1	611 CONSEJO SUPERIOR DE INVESTIGACIONES CIENTIFICAS (CSIC)	44	61	68	59	90	68	90	119	126	86	70	79	
2	1628 REPSOL EXPLORACION, S.A.	15												
3	1756 UNIVERSIDAD POLITECNICA DE VALENCIA	14	11	12	11	-	15	11	13	19	16	16		
4	2020 FUNDACION TECNALIA RESEARCH & INNOVATION	12	17	13										
5	2025 LABORATORIOS DEL DR. ESTEVE S.A.	12	15	-	13	13	16	13	20	11	22	22		
6	2180 DALPHI METAL ESPANA, S.A.	11												
7	2315 UNIVERSIDAD DE ALICANTE	11	17	18	10	20	11	10	11					

Top de solicitantes en solicitudes EPO de España (2018 - 2015)					
	ORGANIZACION	2018	2017	2016	2015
1	CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS (CSIC)	61	43	29	47
2	ESTEVE PHARMACEUTICALS, S.A.	33	26	30	23
3	FUNDACION TECNALIA RESEARCH & INNOVATION	17	27	14	-
4	UNIVERSITAT DE BARCELONA	17	-	-	-
5	REPSOL, S.A.	16	24	-	-
6	TELEFONICA S.A.	14	26	-	31
7	UNIVERSIDAD AUTÓNOMA DE BARCELONA	13	26	20	18
8	FUNDACIÓ INSTITUT DE CIÈNCIES FOTÒNIQUES	13	-	-	-

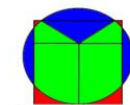
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# ESPAÑA



# 2

## *Sorpresas que dan los datos publicados*



# 2013 (PCT)

Top PCT Applicants (applicants with more than 10 PCT applications)						
	APPLICANT'S NAME	COUNTRY OF ORIGIN	PCT APPLICATIONS		2012 Position	% 2013/2012
			2013	2012		
1	PANASONIC CORPORATION	JP	2.839	2.951	2	-3,80%
2	ZTE CORPORATION	CN	2.309	3.906	1	-40,89%
3	HUAWEI TECHNOLOGIES CO., LTD.	CN	2.110	1.801	4	17,16%
4	QUALCOMM INCORPORATED	US	2.050	1.305	7	57,09%
5	INTEL CORPORATION	US	1.871	640	20	192,34%
6	SHARP KABUSHIKI KAISHA	JP	1.839	2.001	3	-8,10%
7	ROBERT BOSCH CORPORATION	DE	1.809	1.775	5	1,92%
8	TOYOTA JIDOSHA KABUSHIKI KAISHA	JP	1.698	1.652	6	2,78%
9	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)	SE	1.468	1.197	10	22,64%
10	KONINKLIJKE PHILIPS ELECTRONICS N.V.	NL	1.423	1.230	9	15,69%
11	SIEMENS AKTIENGESELLSCHAFT	DE	1.348	1.272	8	5,97%
12	MITSUBISHI ELECTRIC CORPORATION	JP	1.313	1.042	12	26,01%
13	SAMSUNG ELECTRONICS CO., LTD.	KR	1.198	683	16	75,40%
14	NEC CORPORATION	JP	1.189	999	13	19,02%
15	LG ELECTRONICS INC.	KR	1.178	1.094	11	7,68%
16	FUJIFILM CORPORATION	JP	1.003	891	14	12,57%
17	SHENZHEN CHINA STAR OPTOELECTRONICS TECHNOLOGY CO., LTD	CN	916	204	78	349,02%
18	SONY CORPORATION	JP	916	578	23	58,48%
19	HITACHI, LTD.	JP	855	745	15	14,77%
20	MICROSOFT CORPORATION	US	808	531	27	52,17%
21	NOKIA CORPORATION	FI	806	670	18	20,30%
22	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.	US	774	620	21	24,84%
23	BASF SE	DE	698	644	19	8,39%
24	INTERNATIONAL BUSINESS MACHINES CORPORATION	US	690	528	28	30,68%
25	NISSAN MOTOR CO., LTD.	JP	644	308	49	109,09%



# 2013 (EPO)

Top 25 EPO applicants 2013						
Rank	Company	Applications	2013	2013/2012	Rank 2012	Change
1	SAMSUNG	2.833	2.289	24%	1	=
2	SIEMENS	1.974	2.193	-10%	2	=
3	PHILIPS	1.839	1.160	59%	12	+ 9
4	LG	1.648	1.635	1%	5	+ 1
5	BASF	1.577	1.713	-8%	3	- 2
6	ROBERT BOSCH	1.574	1.456	8%	6	=
7	MITSUBISHI	1.327	1.344	-1%	8	+ 1
8	GENERAL ELECTRIC	1.257	1.702	-26%	4	- 4
9	QUALCOMM	1.204	1.381	-13%	7	- 2
10	ERICSSON	1.184	1.189	0%	9	- 1
11	HUAWEI	1.077	830	30%	17	+ 6
12	PANASONIC	1.055	1.169	-10%	11	- 1
13	TOYOTA MOTOR	894	714	25%	22	+ 9
14	HITACHI	874	830	5%	17	+ 3
15	SONY	855	1.098	-22%	13	- 2
16	BAYER	850	884	-4%	15	- 1
17	ALCATEL LUCENT	806	872	-8%	16	- 1
18	FADS	783	818	-4%	19	+ 1
19	NOKIA	761	502	52%	38	+ 19
20	FUJITSU	722	664	9%	24	+ 4
21	NEC	699	601	16%	27	+ 6
22	CANON	682	630	8%	26	+ 4
23	DSM	659	414	59%	44	+ 21
23	JOHNSON & JOHNSON	659	590	12%	30	+ 7
25	SANOFI	651	577	13%	31	+ 6

# 2014 (PCT)

Top PCT Applicants (applicants with more than 10 PCT applications)						
	APPLICANT'S NAME	COUNTRY OF ORIGIN	PCT APPLICATIONS		2013 Position	% 2014/2013
			2014	2013		
1	HUAWEI TECHNOLOGIES CO., LTD.	CN	3.442	2.110	3	63,13%
2	QUALCOMM INCORPORATED	US	2.409	2.050	4	17,51%
3	ZTE CORPORATION	CN	2.179	2.309	2	-5,63%
4	PANASONIC CORPORATION	JP	1.682	2.839	1	-40,75%
5	mitsubishi electric corporation	JP	1.593	1.313	12	21,33%
6	INTEL CORPORATION	US	1.539	1.871	5	-17,74%
7	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)	SE	1.512	1.468	9	3,00%
8	MICROSOFT CORPORATION	US	1.460	808	20	80,69%
9	SIEMENS AKTIENGESELLSCHAFT	DE	1.399	1.348	11	3,78%
10	KONINKLIJKE PHILIPS ELECTRONICS N.V.	NL	1.391	1.423	10	-2,25%
11	SAMSUNG ELECTRONICS CO., LTD.	KR	1.381	1.198	13	15,28%
12	TOYOTA JIDOSHA KABUSHIKI KAISHA	JP	1.378	1.698	8	-18,85%
13	ROBERT BOSCH CORPORATION	DE	1.371	1.809	7	-24,21%
14	SHARP KABUSHIKI KAISHA	JP	1.227	1.839	6	-33,28%
15	NEC CORPORATION	JP	1.215	1.189	14	2,19%
16	LG ELECTRONICS INC	KR	1.138	1.178	15	-3,40%
17	TENCENT TECHNOLOGY (SHENZHEN) COMPANY LIMITED	CN	1.086	359	53	202,51%
18	FUJIFILM CORPORATION	JP	1.072	1.003	16	6,88%
19	UNITED TECHNOLOGIES CORPORATION	US	1.013	370	50	173,78%
20	HITACHI, LTD.	JP	996	855	19	16,49%
21	SONY CORPORATION	JP	982	916	18	7,21%
22	GOOGLE, INC.	US	914	629	27	45,31%
23	SHENZHEN CHINA STAR OPTOELECTRONICS TECHNOLOGY CO., LTD	CN	904	916	17	-1,31%
24	KABUSHIKI KAISHA TOSHIBA	JP	856	444	37	92,79%
25	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.	US	826	774	22	6,72%

# 2014 (EPO)

Top 25 EPO applicants 2014						
Rank	Company	Applications 2014	Applications 2013	2014/2013	Rank 2013	Change
1	SAMSUNG	2.541	2.833	-10%	1	=
2	PHILIPS	2.317	1.839	26%	3	+ 1
3	SIEMENS	2.133	1.974	8%	2	- 1
4	LG	1.638	1.648	-1%	4	=
5	HUAWEI	1.600	1.077	49%	11	+ 6
6	BASF	1.530	1.577	-3%	5	- 1
7	QUALCOMM	1.459	1.204	21%	9	+ 2
8	ROBERT BOSCH	1.438	1.574	-9%	6	- 2
9	ERICSSON	1.347	1.184	14%	10	+ 1
10	INTEL	1.054	381	177%	48	+ 38
11	NOKIA	1.040	761	37%	19	+ 8
12	TOYOTA MOTOR	948	894	6%	13	+ 1
13	SONY	942	855	10%	15	+2
14	PANASONIC	901	1.055	-15%	12	- 2
15	UNITED TECHNOLOGIES	890	507	76%	38	+ 23
16	DSM N.V.	854	659	30%	23	+ 7
17	GENERAL ELECTRIC	838	1.257	-33%	8	- 9
18	BAYER	809	850	-5%	16	- 2
19	ALCATEL LUCENT	769	806	-5%	17	- 2
20	TECHNICOLOR	745	520	43%	35	+ 15
21	MICROSOFT	734	599	23%	28	+ 7
22	CANON	723	682	6%	22	=
23	JOHNSON & JOHNSON	717	659	9%	23	=
24	AIRBUS GROUP (EADS)	677	783	-14%	18	- 6
25	HITACHI	648	874	-26%	14	- 11

# 2015 (PCT)

	APPLICANT'S NAME	COUNTRY OF ORIGIN	PCT APPLICATIONS		2014 Position	% 2015/2014
			2015	2014		
1	HUAWEI TECHNOLOGIES CO., LTD.	CN	3,398	3,442	1	13.2%
2	QUALCOMM INCORPORATED	US	2,442	2,409	2	1.4%
3	ZTE CORPORATION	CN	2,166	2,179	3	-1.1%
4	SAMSUNG ELECTRONICS CO., LTD.	KR	1,383	1,381	11	21.8%
6	mitsubishi electric corporation	JP	1,593	1,693	6	3.0%
8	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)	SE	1,481	1,612	7	-2.1%
7	LG ELECTRONICS INC.	KR	1,467	1,138	18	23.0%
8	SONY CORPORATION	JP	1,381	982	21	43.8%
9	KONINKLIJKE PHILIPS ELECTRONICS N.V.	NI	1,378	1,381	10	-3.8%
10	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.	US	1,310	828	26	63.8%
11	SIEMENS AKTIENGESELLSCHAFT	DE	1,202	1,300	0	-7.8%
12	INTEL CORPORATION	US	1,260	1,639	8	-13.8%
13	ROBERT BOSCH CORPORATION	DE	1,247	1,371	13	-9.0%
14	BOE TECHNOLOGY GROUP CO., LTD.	CN	1,227	663	34	121.8%
16	TOYOTA JIDOSHA KABUSHIKI KAISHA	JP	1,214	1,378	12	-11.8%
18	PANASONIC INTELLECTUAL PROPERTY MANAGEMENT CO., LTD.	JP	1,186	287	72	343.8%
17	HITACHI, LTD.	JP	1,166	998	20	17.0%
18	HALLIBURTON ENERGY SERVICES, INC.	US	1,121	800	28	43.1%
19	SHARP KABUSHIKI KAISHA	JP	1,073	1,227	14	-12.8%
20	TENCENT TECHNOLOGY (SHENZHEN) COMPANY LIMITED	CN	381	1,088	17	-3.7%
21	FLUOR CORPORATION	JP	347	1,072	18	-11.7%
22	NEC CORPORATION	JP	306	1,216	16	23.3%
23	MICROSOFT TECHNOLOGY LICENSING, LLC	US	380	1,480	8	-41.1%
24	LG CHEM, LTD.	KR	739	883	38	33.8%
26	BASF SE	DE	736	780	27	-5.8%

# 2015 (EPO)

Top 25 EPO applicants 2015						
Rank	Company	Applications 2015	Applications 2014	2015/2014	Rank 2014	Change
1	KONINKLIJKE PHILIPS N.V.	2402	2.317	4%	2	+1
2	SAMSUNG GROUP	2366	2.541	-7%	1	-1
3	LG GROUP	2091	1.638	28%	4	+1
4	HUAWEI TECHNOLOGIES CO. LTD.	1953	1.600	22%	5	+1
5	SIEMENS AG	1894	2.133	-11%	3	-2
6	UNITED TECHNOLOGIES CORPORATION	1869	890	110%	15	9
7	QUALCOMM, INC.	1705	1.459	17%	7	(=)
8	ROBERT BOSCH GMBH	1493	1.438	4%	8	(=)
9	BASF SE	1384	1.530	-10%	6	-3
10	GENERAL ELECTRIC COMPANY	1316	838	57%	17	+7
11	L M ERICSSON AB	1283	1.347	-5%	9	-2
12	INTEL CORPORATION	1039	1.054	-1%	10	-2
13	TOYOTA MOTOR CORPORATION	1034	948	9%	12	-1
14	MICROSOFT CORPORATION	921	734	25%	21	+7
15	BAYER AG	877	809	8%	18	+3
16	SONY CORPORATION	875	942	-7%	13	-3
17	ZTE CORPORATION	870	489	78%	40	+23
18	NOKIA CORPORATION	866	1.040	-17%	11	-7
19	PANASONIC CORPORATION	856	901	-5%	14	-5
20	JOHNSON & JOHNSON	799	717	11%	23	+3
21	TECHNICOLOR SA	769	745	3%	20	-1
22	DSM N.V.	760	854	-11%	16	-6
23	CANON INC.	725	723	0%	22	-1
24	HONEYWELL, INC.	713	619	15%	27	+3
25	AIRBUS GROUP	667	677	-1%	24	-1

# 2016 (PCT)

Top 25 PCT Applicants (applicants with more than 10 PCT applications) in 2016						
	APPLICANT'S NAME	COUNTRY OF ORIGIN	2016	2015	2015 Position	% 2016/2015
1	ZTE CORPORATION	CN	4.123	2.155	3	91,3%
2	HUAWEI TECHNOLOGIES CO., LTD.	CN	3.692	3.898	1	-5,3%
3	QUALCOMM INCORPORATED	US	2.466	2.442	2	1,0%
4	mitsubishi electric corporation	JP	2.053	1.593	5	28,9%
5	LG ELECTRONICS INC.	KR	1.888	1.457	7	29,6%
6	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.	US	1.742	1.310	10	33,0%
7	INTEL CORPORATION	US	1.692	1.250	12	35,4%
8	BOE TECHNOLOGY GROUP CO.,LTD	CN	1.673	1.227	14	36,3%
9	SAMSUNG ELECTRONICS CO., LTD.	KR	1.672	1.683	4	-0,7%
10	SONY CORPORATION	JP	1.665	1.381	8	20,6%
11	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)	SE	1.608	1.481	6	8,6%
12	MICROSOFT TECHNOLOGY LICENSING, LLC	US	1.528	860	23	77,7%
13	ROBERT BOSCH CORPORATION	DE	1.274	1.247	13	2,2%
14	SHARP KABUSHIKI KAISHA	JP	1.205	1.073	19	12,3%
15	PANASONIC INTELLECTUAL PROPERTY MANAGEMENT CO., LTD.	JP	1.175	1.185	16	-0,8%
16	SHENZHEN CHINA STAR OPTOELECTRONICS TECHNOLOGY CO., LTD	CN	1.163	710	27	63,8%
17	SIEMENS AKTIENGESELLSCHAFT	DE	1.138	1.292	11	-11,9%
18	KONINKLIJKE PHILIPS ELECTRONICS N.V.	NL	1.137	1.378	9	-17,5%
19	HALLIBURTON ENERGY SERVICES, INC.	US	1.097	1.121	18	-2,1%
20	OLYMPUS CORPORATION	JP	1.077	614	32	75,4%
21	NEC CORPORATION	JP	1.056	895	22	18,0%
22	HITACHI, LTD.	JP	1.047	1.165	17	-10,1%
23	DENSO CORPORATION	JP	986	704	28	40,1%
24	FUJIFILM CORPORATION	JP	968	947	21	2,2%
25	MURATA MANUFACTURING CO., LTD.	JP	681	658	31	3,5%

# 2017 (PCT)

	Solicitante	COUNTRY OF ORIGIN	2017	2016	2016 Position	% 2017/2016
1	HUAWEI TECHNOLOGIES CO., LTD.	CN	4.024	3.692	2	9,0%
2	ZTE CORPORATION	CN	2.965	4.123	1	-28,1%
3	INTEL CORPORATION	US	2.637	1.692	7	55,9%
4	MITSUBISHI ELECTRIC CORPORATION	JP	2.521	2.053	4	22,8%
5	QUALCOMM INCORPORATED	US	2.163	2.466	3	-12,3%
6	LG ELECTRONICS INC.	KR	1.945	1.888	5	3,0%
7	BOE TECHNOLOGY GROUP CO.,LTD	CN	1.818	1.673	8	8,7%
8	SAMSUNG ELECTRONICS CO., LTD.	KR	1.757	1.672	9	5,1%
9	SONY CORPORATION	JP	1.735	1.665	10	4,2%
10	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)	SE	1.564	1.608	11	-2,7%
11	MICROSOFT TECHNOLOGY LICENSING, LLC	US	1.536	1.528	12	0,5%
12	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.	US	1.519	1.742	6	-12,8%
13	LE HOLDINGS (BEIJING) CO., LTD.	CN	1.397	-	-	-
14	ROBERT BOSCH CORPORATION	DE	1.354	1.274	13	6,3%
15	PANASONIC INTELLECTUAL PROPERTY MANAGEMENT CO., LTD.	JP	1.280	1.175	15	8,9%
16	KONINKLIJKE PHILIPS ELECTRONICS N.V.	NL	1.077	1.137	18	-5,3%
17	SIEMENS AKTIENGESELLSCHAFT	DE	1.063	1.138	17	-6,6%
18	SHENZHEN CHINA STAR OPTOELECTRONICS TECHNOLOGY CO., LTD	CN	972	1.163	16	-16,4%
19	FUJIFILM CORPORATION	JP	970	968	24	0,2%
20	DENSO CORPORATION	JP	968	986	23	-1,8%
21	SHARP KABUSHIKI KAISHA	JP	963	1.205	14	-20,1%
22	OLYMPUS CORPORATION	JP	934	1.077	20	-13,3%
23	HITACHI, LTD.	JP	923	1.047	22	-11,8%
24	NEC CORPORATION	JP	899	1.056	21	-14,9%
25	LG CHEM, LTD.	KR	850	671	26	26,7%

# 2017 (EPO)

Top 25 EPO solicitantes 2017						
	Empresa	Solicitudes 2017	Solicitudes 2016	2017/2016	Ranking 2016	Cambio
1	HUAWEI	2.398	2.390	0,3%	2	+1
2	SIEMENS	2.220	1.871	18,7%	6	+4
3	LG	2.056	2.313	-11,1%	4	+1
4	SAMSUNG	2.016	2.316	-13,0%	3	-1
5	QUALCOMM	1.854	1.704	8,8%	7	2
6	ROYAL PHILIPS	1.733	2.568	-32,5%	1	-5
7	UNITED TECHNOLOGIES	1.719	2.067	-16,8%	5	-2
8	INTEL	1.435	1.268	13,2%	11	+2
9	ROBERT BOSCH	1.412	1.327	6,4%	10	+1
10	ERICSSON	1.373	1.183	16,1%	12	+2
11	GENERAL ELECTRIC	1.372	1.628	-15,7%	8	-3
12	BASF	1.265	1.410	-10,3%	9	-3
13	SONY	1.219	1.118	9,0%	13	=
14	MICROSOFT	1.159	984	17,8%	15	+1
15	NOKIA	919	1.059	-13,2%	14	-1
16	BAYER	880	881	-0,1%	16	=
17	JOHNSON & JOHNSON	874	716	22,1%	21	+4
18	PROCTER & GAMBLE	804	755	6,5%	19	+1
19	VALEO	770	612	25,8%	29	10
20	DOW CHEMICAL	734	647	13,4%	25	+5
21	PANASONIC	728	719	1,3%	20	-1
22	CANON	708	756	-6,3%	18	-4
23	HITACHI	707	630	12,2%	26	+3
24	PHILIPS LIGHTING	700				
25	ZTE	679	680	-0,1%	22	-3



# 2018 (PCT)

Top 25 PCT Applicants (applicants with more than 10 PCT applications) in 2018						
	Solicitante	COUNTRY OF ORIGIN	2018	2017	2017 Position	% 2018/2017
1	HUAWEI TECHNOLOGIES CO., LTD.	CN	5.405	4.024	1	34,3%
2	MITSUBISHI ELECTRIC CORPORATION	JP	2.812	2.521	4	11,5%
3	INTEL CORPORATION	US	2.499	2.637	3	-5,2%
4	QUALCOMM INCORPORATED	US	2.404	2.163	5	11,1%
5	ZTE CORPORATION	CN	2.080	2.965	2	-29,8%
6	SAMSUNG ELECTRONICS CO., LTD.	KR	1.997	1.757	8	13,7%
7	BOE TECHNOLOGY GROUP CO.,LTD	CN	1.813	1.818	7	-0,3%
8	LG ELECTRONICS INC.	KR	1.697	1.945	6	-12,8%
9	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)	SE	1.645	1.564	10	5,2%
10	ROBERT BOSCH CORPORATION	DE	1.524	1.354	14	12,6%
11	MICROSOFT TECHNOLOGY LICENSING, LLC	US	1.476	1.536	11	-3,9%
12	PANASONIC INTELLECTUAL PROPERTY MANAGEMENT CO., LTD.	JP	1.465	1.280	15	14,5%
13	SONY CORPORATION	JP	1.342	1.735	9	-22,7%
14	SIEMENS AKTIENGESELLSCHAFT	DE	1.211	1.063	17	13,9%
15	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.	US	1.170	1.519	12	-23,0%
16	SHARP KABUSHIKI KAISHA	JP	1.132	963	21	17,5%
17	GUANG DONG OPPO MOBILE TELECOMMUNICATIONS CORP., LTD	CN	1.042	474	40	119,8%
18	KONINKLIJKE PHILIPS ELECTRONICS N.V.	NL	1.033	1.077	16	-4,1%
19	DENSO CORPORATION	JP	998	968	20	3,1%
20	LG CHEM, LTD.	KR	969	850	25	14,0%
21	FUJIFILM CORPORATION	JP	962	970	19	-0,8%
22	NEC CORPORATION	JP	947	899	24	5,3%
23	MURATA MANUFACTURING CO., LTD.	JP	889	684	29	30,0%
24	GOOGLE INC.	US	836	789	27	6,0%
25	OLYMPUS CORPORATION	JP	750	934	22	-19,7%

# 2018 (EPO)

Top 25 EPO solicitantes 2018						
	Empresa	Solicitudes 2018	Solicitudes 2017	2018/2017	Ranking 2017	Cambio
1	SIEMENS	2.493	2.220	12,3%	2	+1
2	HUAWEI	2.485	2.398	3,6%	1	-1
3	SAMSUNG	2.449	2.016	21,5%	4	+1
4	LG	2.376	2.056	15,6%	3	-1
5	UNITED TECHNOLOGIES	1.983	1.719	15,4%	7	+2
6	ROYAL PHILIPS	1.617	1.733	-6,7%	6	=
7	QUALCOMM	1.593	1.854	-14,1%	5	-2
8	ERICSSON	1.472	1.373	7,2%	10	+2
9	GENERAL ELECTRIC	1.307	1.372	-4,7%	11	+2
10	ROBERT BOSCH	1.286	1.412	-8,9%	9	-1
11	SONY	1.278	1.219	4,8%	13	+2
12	BASF	1.256	1.265	-0,7%	12	=
13	INTEL	1.057	1.435	-26,3%	8	-5
14	JOHNSON & JOHNSON	982	874	12,4%	17	+3
15	MICROSOFT	975	1.159	-15,9%	14	-1
16	CANON	816	708	15,3%	22	+6
17	PANASONIC	815	728	12,0%	21	+4
18	VALEO	784	770	1,8%	19	+1
19	ALPHABET	779	527	47,8%	35	+16
20	NOKIA	738	919	-19,7%	15	-5
21	CONTINENTAL	691	629	9,9%	28	+7
22	HITACHI	658	707	-6,9%	23	+1
23	MITSUBISHI ELECTRIC	655	579	13,1%	32	+9
24	HOFFMANN-LA ROCHE	651	643	1,2%	27	+3
25	3M	635	675	-5,9%	25	=

# Latinoamérica y Caribe (PCT)



Número de solicitudes PCT en 2018 por país de origen (Latinoamérica y Caribe)					
	Ranking global	País origen	2018	2017	2018 vs. 2017
1	27	Brazil	619	589	5,1%
2	32	Mexico	274	270	1,5%
3	36	Chile	245	167	46,7%
4	37	Panama	185	9	1955,6%
5	40	Colombia	163	143	14,0%
6	48	Barbados	96	67	43,3%
7	47	Antigua and Barbuda	96	57	68,4%
8	57	Argentina	42	36	16,7%
9	60	Peru	38	33	15,2%
10	62	Ecuador	31	5	520,0%
11	76	Costa Rica	13	10	30,0%
12	80	Uruguay	8	14	-42,9%
13	81	Cuba	7	8	-12,5%
14	91	Trinidad and Tobago	5	3	66,7%
15	93	Dominican Republic	4	13	-69,2%
16	93	Bahamas	4	5	-20,0%
17	93	Saint Kitts and Nevis	4	1	300,0%
18	110	Belize	1	2	-50,0%
19	110	Guatemala	1	1	0,0%
20	110	El Salvador	1	1	0,0%

Solicitantes con más de 10 solicitudes PCT de Latinoamérica y Caribe

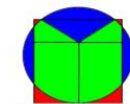
ORGANIZACION	País	2018	2017	2018 vs. 2017
NCHAIN HOLDINGS LIMITED	Antigua y Barbuda	55	30	83,3%
DELPHI TECHNOLOGIES IP LIMITED	Barbados	34	-	-
UNIVERSIDAD TECNOLOGICA DE PANAMA	Panamá	33	52	-36,5%
ESTADUAL DE CAMPINAS - UNICAMP	Brasil	30	24	25,0%
ASSOCIACAO PARANAENSE DE CULTURA - APC	Brasil	21	-	-
MARVELL WORLD TRADE LTD.	Barbados	21	37	-43,2%
SYNAPTIVE MEDICAL (BARBADOS) INC.	Barbados	20	38	-47,4%
UNIVERSIDAD DE PANAMA	Panamá	16	-	-
UNIVERSIDAD TECNICA PARTICULAR DE LOJA	Ecuador	15	-	-
NATURA COSMETICOS S.A.	Brasil	13	17	-23,5%
MEXICHEM FLUOR S.A. DE C.V.	México	13	-	-
UNIVERSIDADE FEDERAL DE MINAS GERAIS	Brasil	12	13	-7,7%
PONTIFICIA UNIVERSIDAD CATOLICA DE CHILE	Chile	12	-	-
AGP AMERICA S.A.	Panamá	11	-	-
UNIVERSIDAD DE CHILE	Chile	11	14	-21,4%

# Latinoamérica y Caribe (EPO)

Solicitudes EPO 2018-2017 por país de residencia del primer solicitante (Latinoamérica y Caribe)					
	Ranking 2018		Applications 2018	Applications 2017	2018 vs. 2017
	1	29 Cayman Islands	367	240	52,9%
	2	30 Puerto Rico	365	278	31,3%
	3	31 Barbados	332	170	95,3%
	4	37 Brazil	161	165	-2,4%
	5	43 Mexico	76	62	22,6%
	6	45 Chile	55	38	44,7%
	7	51 British Virgin Islands	48	91	-47,3%
	8	52 Bermuda	47	40	17,5%
	9	60 Antigua And Barbuda	27	9	200,0%
	10	63 Argentina	23	17	35,3%
	11	64 Colombia	16	16	0,0%
	12	68 Uruguay	12	10	20,0%
	13	73 Anguilla	8	4	100,0%
	14	76 Costa Rica	7	2	250,0%
	15	83 Cuba	5	1	400,0%
	16	87 Panama	4	3	33,3%
	17	87 Bahamas	4	5	-20,0%
	18	91 Curaçao	3	12	-75,0%
	19	95 Belize	2	2	0,0%
	20	95 Faroe Islands	2	2	0,0%
	21	95 Saint Kitts And Nevis	2	3	-33,3%
	22	105 Peru	1	4	-75,0%
	23	105 Ecuador	1	2	-50,0%
	24	105 Jamaica	1	0	-
	25	121 Saint Lucia	0	1	-100,0%
	26	121 U.S. Virgin Islands	0	1	-100,0%
	27	121 Netherlands Antilles	0	1	-100,0%
	28	121 Venezuela, Bolivarian Republic of	0	0	-

# 3

***Cuando los datos  
no exponen la realidad***



# ¿Son útiles los datos de la EPO?

¿Cómo se determinan los datos de las empresas?

Top 30 de solicitantes con más de 10 solicitudes PCT de Japón							
	Ranking global	ORGANIZACION	2018	Acumulado	Acumulado vs Total país (%)	2017	2018 vs. 2017
1	2	MITSUBISHI ELECTRIC CORPORATION	2.812	2.812	6%	2.521	12%
2	12	PANASONIC INTELLECTUAL PROPERTY MANAGEMENT CO., LTD.	1.465	4.277	9%	1.280	14%
3	13	SONY CORPORATION	1.342	5.619	11%	1.735	-23%
4	16	SHARP KABUSHIKI KAISHA	1.132	6.751	14%	963	18%
5	10	DENSO CORPORATION	900	7.740	16%	660	20%

Top 30 de solicitantes en solicitudes EPO de Japón						
	ORGANIZACION	2018	Acumulado	Acumulado vs Total país (%)	2017	2018 vs. 2017
1	SONY CORPORATION	1.278	1.278	6%	1.219	5%
2	CANON INC.	816	2.094	9%	708	15%
3	PANASONIC CORPORATION	815	2.909	13%	728	12%
4	HITACHI LTD	658	3.567	16%	707	-7%
5	MITSUBISHI ELECTRIC CORPORATION	655	4.222	19%	579	13%

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Applicant(s):

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1. **1. THERMAL BASED DROP DETECTION**

★ <b>Inventor:</b> SILVESTRE RIVERO RICARD [ES] HERNANDEZ CREUS JORDI [ES] (+1)	<b>Applicant:</b> HEWLETT PACKARD DEVELOPMENT CO [US]	<b>CPC:</b>	<b>IPC:</b> B41J2/14 B41J2/175	<b>Publication info:</b> WO2020046303 (A1) 2020-03-05	<b>Priority date:</b> 2018-08-30
--	--	-------------	--------------------------------------	---	-------------------------------------

2. **2. ERROR DIFFUSION FOR PRINTING**

★ <b>Inventor:</b> MOROVIC PETER [ES] MOROVIC JAN [GB]	<b>Applicant:</b> HEWLETT PACKARD DEVELOPMENT CO [US]	<b>CPC:</b>	<b>IPC:</b> G06F3/12 H04N1/60	<b>Publication info:</b> WO2020046302 (A1) 2020-03-05	<b>Priority date:</b> 2018-08-30
--	--	-------------	-------------------------------------	---	-------------------------------------

3. **3. SEPARATION OF PRINTED OBJECTS**

★ <b>Inventor:</b> ROS ZUAZUA PEDRO [ES] BRUGUE GARVI JOAQUIM [ES]	<b>Applicant:</b> HEWLETT PACKARD DEVELOPMENT CO [US]	<b>CPC:</b>	<b>IPC:</b> B29C64/245 B29C64/30 B33Y30/00 (+1)	<b>Publication info:</b> WO2020046361 (A1) 2020-03-05	<b>Priority date:</b> 2018-08-31
--	--	-------------	---	---	-------------------------------------

4. **4. OBSTACLE DETECTION**

★ <b>Inventor:</b> CASTELLS DE MONET RAIMON [ES] MUNOZ NAVARRO DAVID [ES] (+1)	<b>Applicant:</b> HEWLETT PACKARD DEVELOPMENT CO [US]	<b>CPC:</b>	<b>IPC:</b> B41J29/38 H02P23/30	<b>Publication info:</b> WO2020046280 (A1) 2020-03-05	<b>Priority date:</b> 2018-08-28
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5. **5. CUTTER ASSEMBLY AND PRINTER**



### About this file: WO2020032938

<b>WO2020032938 - ADVANCING A BELT TOWARD A PRINTING STATION</b> <small>[Right-click to bookmark this link]</small>	
<b>Status</b>	The international publication has been made <i>Status updated on 15.02.2020</i> <i>Database last updated on 06.03.2020</i>
<b>Most recent event</b>	15.02.2020 PCT data prior to European publication
	15.02.2020 Change - applicant or inventor
<b>Applicant(s)</b>	For: HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P. 10300 Energy Drive Spring Texas 77389 / US
<b>Inventor(s)</b>	[N/P]
	01 / SANCHIS ESTRUCH, Ricardo Cami de Can Graells 1-21 08174 Sant Cugat del Valles / ES
	02 / ONECHA CELESTINO, Javier Cami de Can Graells 1-21 08174 Sant Cugat del Valles / ES
	03 / MARTIN ORUE, Eduardo Cami de Can Graells 1-21 08174 Sant Cugat del Valles / ES
	04 / GONZALEZ PERELLO, Daniel Cami de Can Graells 1-21 08174 Sant Cugat del Valles / ES
	05 / BRUGUE GARVI, Joaquim Cami de Can Graells 1-21 08174 Sant Cugat del Valles / ES
	06 / VANDENBERGH, Kurt Drift 29 3920 Lommel / BE
	[N/P]
<b>Application number, filing date</b>	18929334.3 08.08.2018
	WO2018US45696
<b>Filing language</b>	EN
<b>Procedural language</b>	EN

## I. DISPOSICIONES GENERALES

### JEFATURA DEL ESTADO

**8328** Ley 24/2015, de 24 de julio, de Patentes.

Artículo 115. *Solicitudes en el extranjero.*

1. A efectos de lo dispuesto en los artículos anteriores, cuando se trate de invenciones realizadas en España y no se reivindique la prioridad de un depósito anterior en España no podrá solicitarse patente en ningún país extranjero antes de transcurridos los plazos previstos en el artículo 111.1, salvo que se hubiera hecho con expresa autorización de la Oficina Española de Patentes y Marcas. Esta autorización no podrá concederse para aquellas invenciones que interesen a la defensa nacional salvo que el Ministerio de Defensa lo autorice expresamente.

2. La petición de autorización deberá formalizarse, de acuerdo con lo que se disponga reglamentariamente, presentando en la Oficina Española de Patentes la solicitud con los documentos necesarios para que la Oficina proceda a efectuar el examen previsto en el artículo 111.1 en condiciones de secreto. La Oficina podrá requerir la presentación de una traducción si fuese necesario.

En el caso de que la invención no sea de interés para la defensa nacional, y su presentación fuera de España no contravenga lo previsto en convenios internacionales en materia de defensa suscritos por España, la Oficina Española de Patentes y Marcas se lo comunicará al solicitante en un plazo máximo de un mes, autorizándole a presentarla como primera solicitud en el extranjero. La autorización se entiende concedida si transcurrido dicho plazo la Oficina no se hubiere pronunciado al respecto.

3. Cuando el solicitante tenga su domicilio, sede social o residencia habitual en España se presumirá salvo prueba en contrario, que la invención se realizó en territorio español.

Per navegar d'una pantalla a una altra, cliqueu l'opció *Obtenció de detalles* en el botó dret del ratolí i treu l'opció que més us interessi: veure el detall de la convocatòria de què depèn la concessió o veure el detall de la concessió.

Font: Intervenció General  
Data d'actualització: 27/02/2020

## Registre d'Ajuts i Subvencions de Catalunya

Registres		Cerques de concessions							
4		Codi RAISC	Codi BDNS	Òrgan / Ens convocant	Tipus de beneficiaris	Nom o raó social del beneficiari/ària	Import subvenció / préstec / ajut	Import ajuda equivalent	Ajut d'estat
Codi RAISC <input type="text" value="Search"/> <input type="button" value="🔍"/> <input type="button" value="🗑️"/> Codi BDNS <input type="text" value="Search"/> <input type="button" value="🔍"/> <input type="button" value="🗑️"/> Any de la concessió Tot <input type="button" value="v"/>		7025-16-004	317726	AGÈNCIA PER A LA COMPE...	PYME i Pers. físiques q...	HP PRINTING AND COM...	127.476,48	127.476,48	Si
		7025-16-007	322467	AGÈNCIA PER A LA COMPE...	PYME i Pers. físiques q...	HP PRINTING AND COM...	251.483,44	251.483,44	Si
		7025-17-008	361653	AGÈNCIA PER A LA COMPE...	PYME i Pers. físiques q...	HP PRINTING AND COM...	379.664,77	379.664,77	Si
		7025-19-010	465104	AGÈNCIA PER A LA COMPE...	PYME i Pers. físiques q...	HP PRINTING AND COM...	127.389,18	127.389,18	Si

# CincoDías

EL PAÍS ECONOMÍA

☰ Compañías Mercados Economía Mi Dinero Fortuna / Cotizaciones f 🐦 in ✉️ 👤

**CIERRE** El Ibex cierra con una caída del 3,54% hasta los 8.375,6 puntos. En la semana retrocede un 3,98% »

## Tecnología

PARA I+D+I EN ESTA TECNOLOGÍA EN SU CENTRO DE SANT CUGAT

# El Gobierno concede ayudas de 21 millones a HP para impresión 3D en Barcelona



MARIMAR JIMENEZ

# Índice

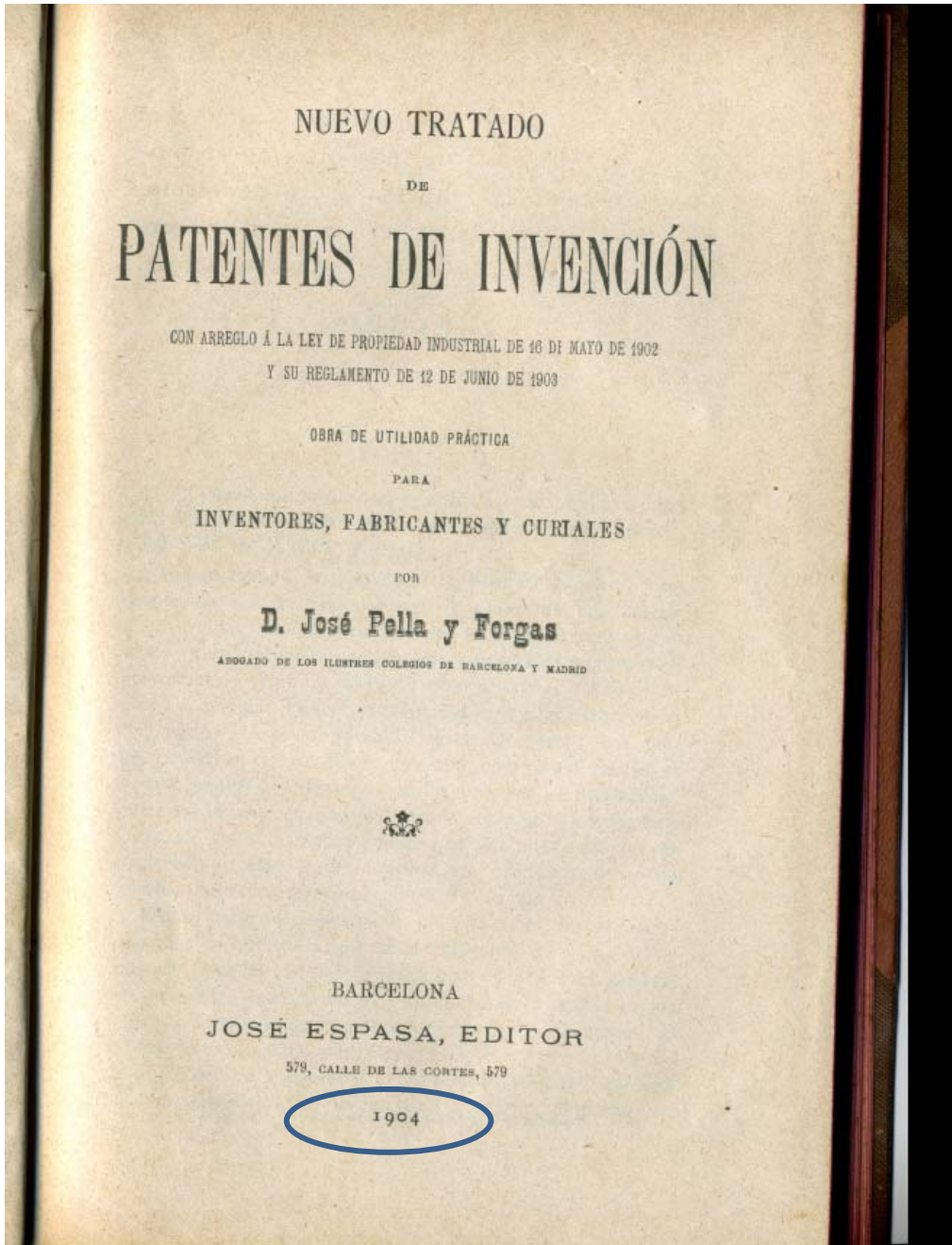
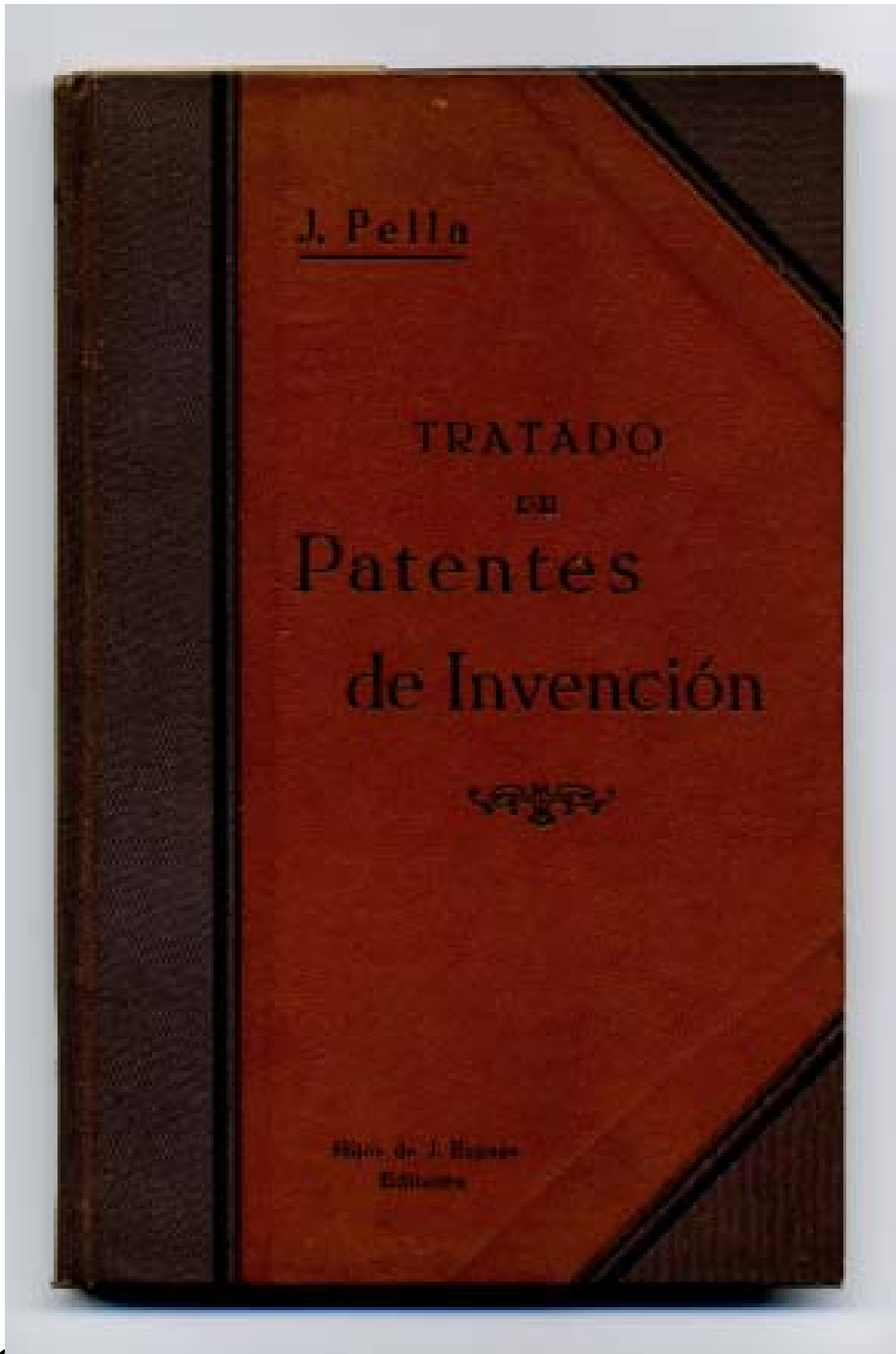
## 4

***Los datos en España...***

***¿es razonable que***

***sean tan malos?***





A todo esto, es tan copioso el número de patentes que en las naciones industriales se solicitan, que su sola lectura asombra.

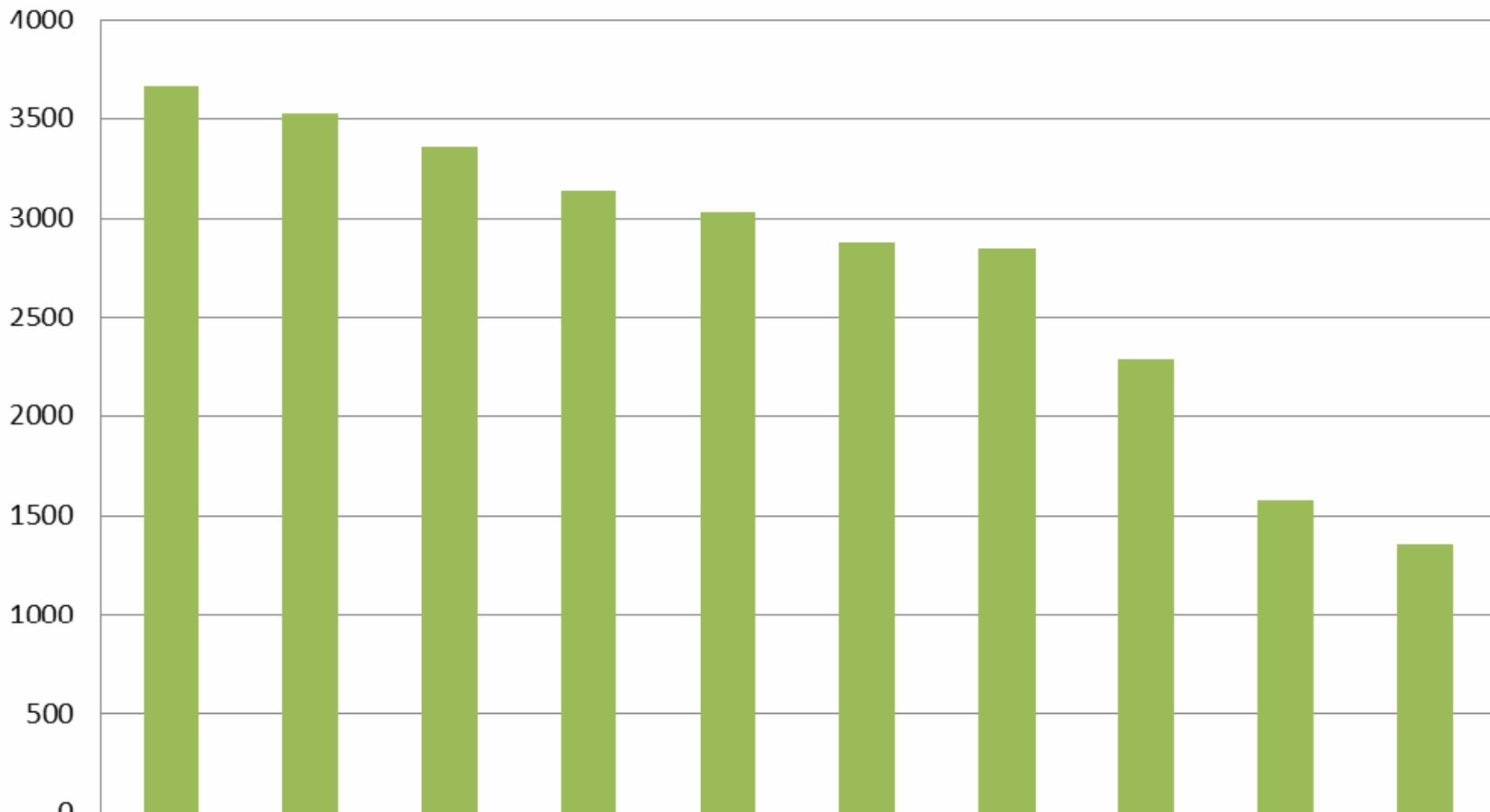
Durante el año 1890 se presentaron en las oficinas de los Estados Unidos de Norte-América, 40,002 solicitudes de patente de invención (lo que da un promedio de más de cien patentes diarias): 21,307 fueron en Inglaterra las solicitudes, 4,257 en Bélgica, 2,152 en Italia, 1,394 en Suiza, y en España durante el mismo año se contaron 1,295 (1). Estos números han aumentado incesantemente. Poincart, secretario de la Oficina internacional de Berna, decía en el Congreso de Londres de 1898, que en 1896 las patentes solicitadas en los Estados Unidos alcanzaba á la enorme cifra *anual* de 42,077, en la Gran Brctaña á 30,194, en Alemania á 16,486 y en Francia se habían pedido 11,800 patentes (2).

1890	2019
1.295	1.358

# **España**

## Situación en 2019






## Solicitudes de patentes nacionales



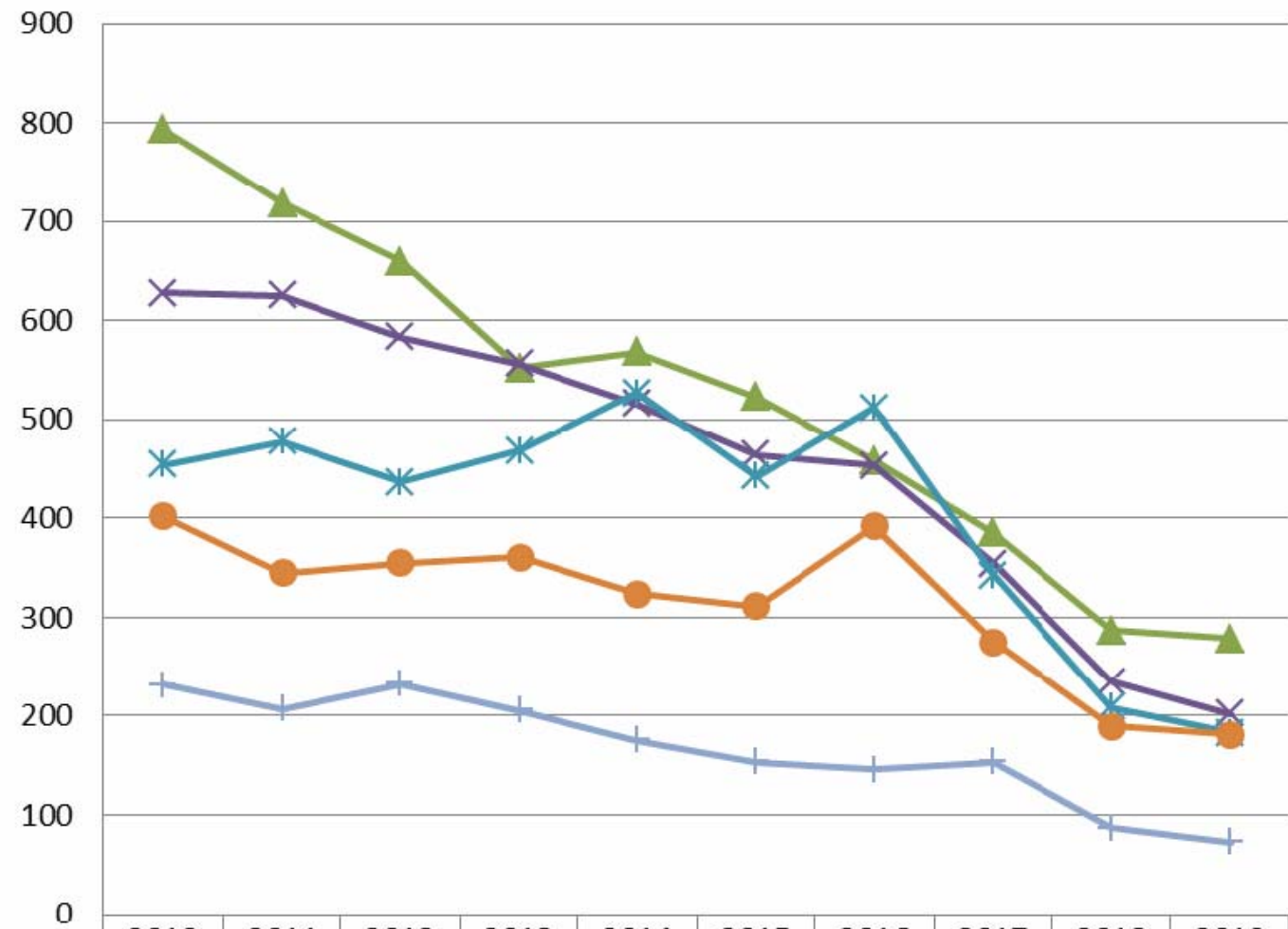
■ TOTAL	3670	3528	3361	3133	3031	2882	2849	2286	1578	1358
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# Solicitudes de patentes por CC.AA.

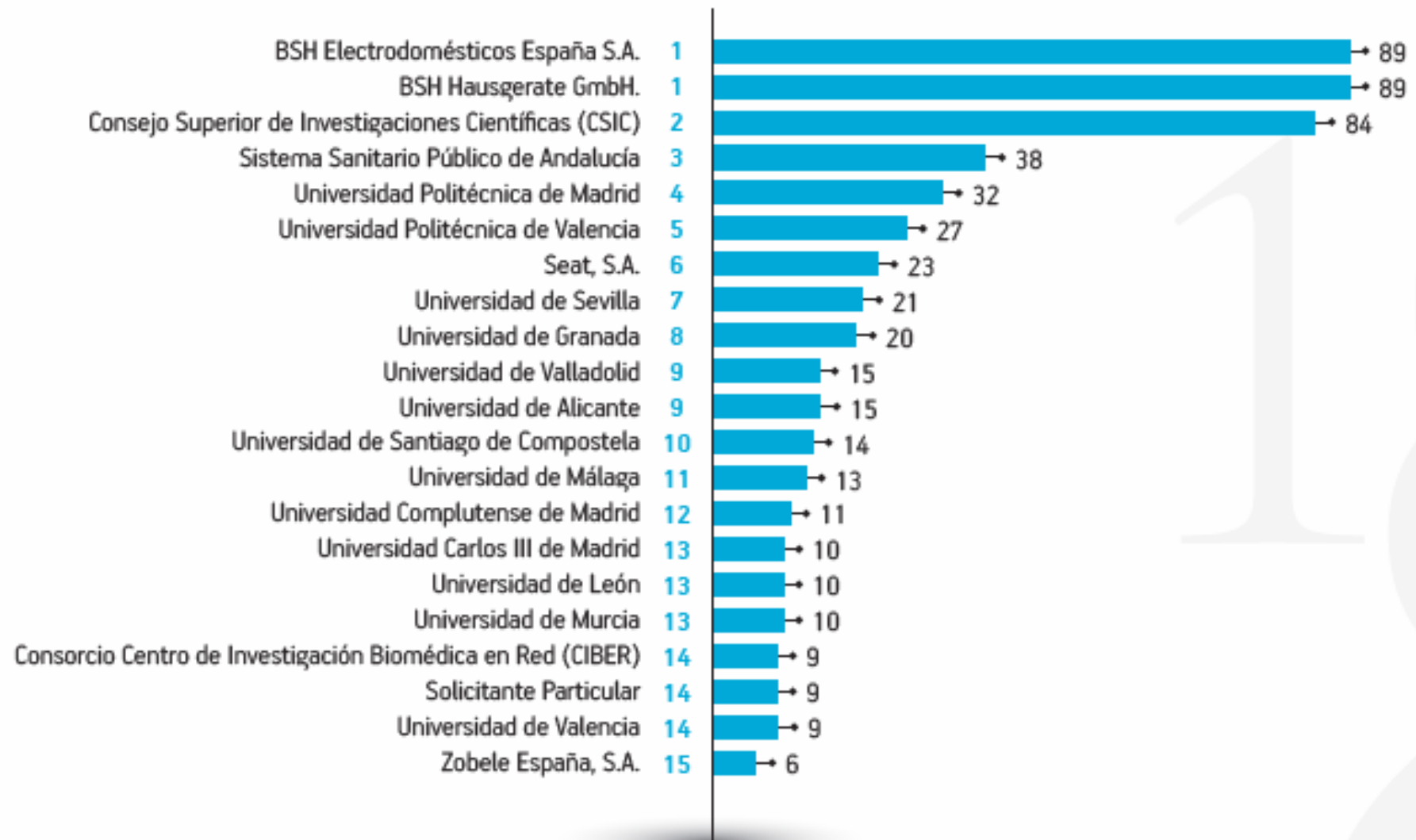
CC.AA.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019 (*)	% sobre TOTAL 2019	% Acumulado 20198	2019 vs. 2018
MADRID	793	718	660	552	568	523	458	385	287	278	20,5%	20,5%	-3,1%
 CATALUÑA	628	625	583	556	516	464	453	354	235	202	14,9%	35,3%	-14,0%
 ANDALUCIA	454	477	436	468	527	442	512	342	209	183	13,5%	48,8%	-12,4%
COMUNIDAD VALENCIANA	402	345	355	361	324	311	392	275	189	181	13,3%	62,2%	-4,2%
 PAIS VASCO	212	239	188	164	162	152	108	95	87	73	5,4%	67,5%	-16,1%
CASTILLA-LEON	108	102	125	95	90	114	89	90	56	57	4,2%	71,7%	1,8%
GALICIA	194	188	185	164	146	167	150	118	77	51	3,8%	75,5%	-33,8%
MURCIA	79	72	59	72	68	88	82	61	43	43	3,2%	78,6%	0,0%
 ARAGON	231	207	232	205	175	153	146	153	134	40	2,9%	81,6%	-70,1%
NAVARRA	124	106	91	79	76	56	49	58	38	36	2,7%	84,2%	-5,3%
ASTURIAS	43	73	45	48	36	33	46	23	33	30	2,2%	86,5%	-9,1%
CASTILLA-LA MANCHA	73	80	78	66	62	77	65	57	33	26	1,9%	88,4%	-21,2%
 EXTREMADURA	43	34	35	27	27	54	38	19	9	15	1,1%	89,5%	66,7%
CANARIAS	57	54	43	48	46	49	56	45	18	13	1,0%	90,4%	-27,8%
CANTABRIA	43	39	33	28	32	27	30	28	17	13	1,0%	91,4%	-23,5%
ILLES BALEARS	21	16	33	22	22	23	18	22	12	11	0,8%	92,2%	-8,3%
LA RIOJA	33	22	38	31	25	27	17	24	9	9	0,7%	92,9%	0,0%
CEUTA Y MELILLA	1	1	0	0	0	0	1	1	0	3	0,2%	93,1%	300,0%
NO CONSTA Y NO RESIDENTE	131	130	142	147	129	122	139	136	92	94	6,9%	100,0%	2,2%
<b>TOTAL ESPAÑA</b>	<b>3.670</b>	<b>3.528</b>	<b>3.361</b>	<b>3.133</b>	<b>3.031</b>	<b>2.882</b>	<b>2.849</b>	<b>2.286</b>	<b>1.578</b>	<b>1.358</b>	100,0%		-13,9%

# Patents - Espanya




	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
▲ MADRID	793	718	660	552	568	523	458	385	287	278
✕ CATALUÑA	628	625	583	556	516	464	453	354	235	202
* ANDALUCIA	454	477	436	468	527	442	512	342	209	183
● COMUNIDAD VALENCIANA	402	345	355	361	324	311	392	275	189	181
+ PAIS VASCO	231	207	232	205	175	153	146	153	87	73

# Top de solicitantes de patentes en 2018



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1. **METHOD, SYSTEM AND EMERGENCY CONTROL DEVICE FOR TRAFFIC MANAGEMENT OF AUTONOMOUS VEHICLES IN EMERGENCY SITUATIONS**

★ Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
VADILLO JAIME NEGRO [ES] KAWIECKI GRZEGORZ MARIAN [ES] (+1)	<b>BOEING</b> CO [US]	B64C2201/122 B64C39/024 G05D1/0088 (+12)	B64C39/02 G05D1/00 G05D1/10 (+3)	US2020066147 (A1) 2020-02-27	2018-08-24

2. **FUEL CELL STACK FOR ENHANCED HYBRID POWER SYSTEMS**

★ Inventor:	Applicant:	CPC:	IPC:	Publication info:	Priority date:
FERREYRA EDUARDO GABRIEL [ES] SERROT HAUKE ENRIQUE EMILIO [ES] (+3)	<b>BOEING</b> CO [US]	H01M16/006 H01M2250/20 H01M8/0202 (+13)	H01M10/46 H01M2/30 H01M8/0202 (+1)	CA2985285 (A1) 2018-06-20	2016-12-20

3. **COMPUTER-IMPLEMENTED METHOD AND SYSTEM FOR EVALUATING UNCERTAINTY IN TRAJECTORY PREDICTION**

Related links

### EP3614223 - METHOD, SYSTEM AND EMERGENCY CONTROL DEVICE FOR TRAFFIC MANAGEMENT OF AUTONOMOUS VEHICLES IN EMERGENCY SITUATIONS [Right-click to bookmark this link]

**Status** Examination is in progress  
Status updated on 29.06.2019  
Database last updated on 06.03.2020

<b>Most recent event</b> <span>i</span>	24.01.2020	Publication in section I.1 EP Bulletin	published on 26.02.2020 <a href="#">[2020/09]</a>
	24.01.2020	The date on which the examining division becomes responsible, has been established	
	24.01.2020	Request for examination filed	published on 26.02.2020 <a href="#">[2020/09]</a>
	24.01.2020	First examination report	

**Applicant(s)** For all designated states  
The Boeing Company  
100 North Riverside Plaza  
Chicago, IL 60606-2016 / US

[\[2020/09\]](#)

**Inventor(s)**

01 / NEGRO VADILLO, JAIME  
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AVENIDA SUR DEL AEROPUERTO DE BARAJAS 38 BLDG. 4  
28042 MADRID / ES

02 / KAWIECKI, GRZEGORZ  
THE BOEING COMPANY  
AVENIDA SUR DEL AEROPUERTO DE BARAJAS 38 BLDG. 4  
28042 MADRID / ES

03 / ESTEBAN CAMPILLO, DAVID  
THE BOEING COMPANY  
AVENIDA SUR DEL AEROPUERTO DE BARAJAS 38 BLDG. 4  
28042 MADRID / ES

[\[2020/09\]](#)

**Representative(s)** Carvajal y Urquijo, Isabel , et al  
Clarke, Modet & Co.  
Suero de Quiñones, 34-36



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Sort by  Sort order

1. **INPUT FAULT DETECTION SYSTEM**

★ <b>Inventor:</b> VALLS GADEA ANTONI [ES] ALQUEZAR SERGIO [ES]	<b>Applicant:</b> LEAR CORP [US]	<b>CPC:</b> B60L3/12 G01R31/31703 G01R31/40	<b>IPC:</b> B60L3/12 G01R31/317 G01R31/40	<b>Publication info:</b> US2020070662 (A1) 2020-03-05	<b>Priority date:</b> 2018-09-04
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2. **EINGANGSFEHLERERKENNUNGSSYSTEM**

★ <b>Inventor:</b> VALLS GADEA ANTONI [ES] ALQUEZAR SERGIO [ES]	<b>Applicant:</b> LEAR CORP [US]	<b>CPC:</b>	<b>IPC:</b> B60R16/02 B60R16/03 G01M17/00	<b>Publication info:</b> DE102019213317 (A1) 2020-03-05	<b>Priority date:</b> 2018-09-04
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3. **APPARATUS AND METHOD FOR MONITORING BATTERIES AND STORING DATA BASED ON BATTERY STATUS**

★ <b>Inventor:</b> RUIZ-GARCIA DANIEL [ES] NAVARRO-CASES VICTOR [ES] (+2)	<b>Applicant:</b> LEAR CORP [US]	<b>CPC:</b> B60L58/12 H02J2007/0067 H02J7/0047 (+1)	<b>IPC:</b> H02J7/00	<b>Publication info:</b> US2020036203 (A1) 2020-01-30	<b>Priority date:</b> 2018-07-25
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4. **LOSS OF GROUND DETECTION SYSTEM**

★ <b>Inventor:</b>	<b>Applicant:</b>	<b>CPC:</b>	<b>IPC:</b>	<b>Publication info:</b>	<b>Priority date:</b>
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US2020036203 (A1)

Bibliographic data

Description

Claims

Mosaics

Original document

Cited documents

Citing documents

INPADOC legal status

INPADOC patent family

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- [What does A1, A2, A3 and B stand for after a European publication number?](#)
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APPARATUS AND METHOD FOR MONITORING BATTERIES AND STORING DATA BASED ON BATTERY STATUS

Page bookmark US2020036203 (A1) - APPARATUS AND METHOD FOR MONITORING BATTERIES AND STORING DATA BASED ON BATTERY STATUS

Inventor(s): RUIZ-GARCIA DANIEL [ES]; NAVARRO-CASES VICTOR [ES]; BENET-FREISSINIER JOSEP [ES]; ALQUEZAR-ALQUEZAR SERGIO [ES]

Applicant(s): LEAR CORP [US]

Classification: - international: H02J7/00

- cooperative: B60L58/12 (US); H02J7/0047 (US); H02J7/0063 (US); H02J2007/0067 (US)

Application number: US201816045409 20180725 Global Dossier

Priority number(s): US201816045409 20180725

Also published as: → CN110780208 (A) DE102019206574 (A1)

Abstract of US2020036203 (A1)

- European procedure
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- Event history
- Citations
- Patent family
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**EP3460428 - DUAL WAVELENGTH DETECTOR** [Right-click to bookmark this link]

**Status** Request for examination was made  
*Status updated on 04.10.2019*  
*Database last updated on 06.03.2020*

**Most recent event** i 04.10.2019 The date on which the examining division becomes responsible, has been established

04.10.2019 Request for examination filed published on 06.11.2019 ↗ [2019/45]

04.10.2019 Change - designated states published on 06.11.2019 ↗ [2019/45]

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 08950 Barcelona / ES  
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 Verge de Guadalupe 3  
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 ↗ [2019/13]

**Representative(s)** Balder IP Law, S.L.  
 Paseo de la Castellana 93  
 5ª planta  
 28046 Madrid / ES  
 [2019/13]

**Application number, filing date** 17382620.7 20.09.2017



European procedure
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Legal status
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**EP3608274 - ENHANCING THE TRANSPORT CAPACITY OF AN ELEVATOR SYSTEM** [Right-click to bookmark this link]

**Status** The application has been published  
Status updated on 10.01.2020  
Database last updated on 06.03.2020

**Most recent event** ⓘ 10.01.2020 Publication in section I.1 EP Bulletin published on 12.02.2020 ↗ [2020/07]

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c/o Otis  
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↗ [2020/07]

**Representative(s)** Schmitt-Nilson Schraud Waibel Wohlfrom Patentanwälte Partnerschaft mbB  
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80992 München / DE  
[2020/07]

**Application number, filing date** 18188551.8 10.08.2018  
[2020/07]

**Filing language** EN

**Procedural language** EN

**Publication** **Type:** ↗ A1 Application with search report  
**No.:** EP3608274

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**EP3526231 - COMPOUNDS USEFUL FOR THE TREATMENT AND/OR CARE OF THE SKIN, HAIR, NAILS AND/OR MUCOUS MEMBRANES** [Right-click to bookmark this link]

**Status** Request for examination was made  
Status updated on 19.07.2019  
Database last updated on 06.03.2020

<b>Most recent event</b>	20.12.2019	Change: Validation states	published on 22.01.2020 → [2020/04]
	20.12.2019	Change - extension states	published on 22.01.2020 → [2020/04]

**Applicant(s)** For all designated states  
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[2019/34]

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Poligon Industrial Cami Ral  
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E-08850 Barcelona / ES

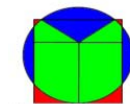
02 / DOMENECH, Nuria Alminana  
Lipotec S.A.  
C/Isaac Peral 17  
Poligon Industrial Cami Ral  
Gava  
E-08850 Barcelona / ES

03 / GARCIA, Consuelo  
Lipotec S.A.  
C/Isaac Peral 17  
Poligon Industrial Cami Ral  
Gava  
E-08850 Barcelona / ES

04 / FERRER MONTIEL, Antonio Vicente  
C/Periodista Asuncion Valdes no. 3  
BLQ Y Esc. 3 2oN  
E-03540 Alicante / ES

# 5

## *Curiosidades y reflexiones sobre las estadísticas. Propuestas de mejora.*



# En 2013 la Comisión Europea crea el “Indicador de resultados de la innovación”

El nuevo “indicador de resultados de la innovación” se basa en cuatro componentes seleccionados por su “*relevancia política*”, la calidad de los datos (disponibilidad internacional y comparabilidad entre países) y la robustez de los resultados, siendo el primero el referido a la innovación tecnológica, medido por el número de solicitudes de patente del Tratado de Cooperación PCT por mil millones de PIB.

Country	Code	PCT		KIA		GOOD		SERV		DYN	
		2008	2009	2010	2011	2010	2011	2010	2011	2009	2010
EU	EU	3.8	3.9	13.5	13.6	1.0	1.3	45.1	54.8	16.2	16.2
Belgium	BE	3.5	3.7	14.6	14.8	1.5	2.4	41.3	42.9	18.3	16.8
Bulgaria	BG	0.4	0.3	8.6	8.4	-4.8	-4.8	26.8	27.6	12.7	11.8
Czech Republic	CZ	1.0	0.9	11.8	12.3	3.4	3.8	27.3	33.0	15.2	15.6
Denmark	DK	7.6	7.0	15.8	15.6	-3.8	-2.8	63.3	65.8	22.0	19.2
Germany	DE	7.2	7.4	15.3	15.1	7.8	8.5	56.7	57.2	18.8	18.3
Estonia	EE	2.0	2.4	9.8	10.7	-3.0	-2.7	37.4	41.8	14.2	14.1
Ireland	IE	2.9	2.8	19.5	19.8	2.4	2.6	73.1	75.7	16.7	19.2
Greece	EL	0.4	0.4	10.9	11.3	-4.2	-5.7	54.2	54.2	14.7	14.8
Spain	ES	1.4	1.4	11.5	11.8	2.6	3.1	21.6	29.9	15.2	15.5
France	FR	4.0	4.2	13.8	14.4	4.8	4.7	32.6	37.8	19.2	18.2
Croatia	HR	0.7	0.6	9.9	10.3	2.1	3.0	15.0	17.6	14.4	14.3
Italy	IT	2.1	2.1	13.7	13.4	4.0	5.0	27.2	34.0	14.3	14.4
Cyprus	CY	0.5	0.6	14.4	15.0	0.7	1.7	48.5	48.5	13.7	12.8
Latvia	LV	0.8	1.2	9.6	9.1	-5.0	-5.4	35.3	36.5	12.7	12.6
Lithuania	LT	0.5	0.3	8.7	9.0	-1.1	-1.3	13.7	14.7	11.7	12.7
Luxembourg	LU	1.6	1.6	25.7	24.8	-4.4	-3.3	78.3	76.2	18.1	18.1
Hungary	HU	1.4	1.5	12.8	13.1	5.9	5.8	26.5	28.9	15.9	17.8
Malta	MT	1.1	0.3	15.8	16.4	3.2	0.9	13.6	21.4	14.9	14.5
Netherlands	NL	6.5	6.2	15.2	14.9	0.5	1.7	26.3	31.0	17.2	16.4
Austria	AT	4.6	5.1	14.4	14.0	2.6	3.2	22.2	25.3	17.4	15.3
Poland	PL	0.4	0.5	9.1	9.3	0.4	0.9	26.1	32.5	12.9	13.7
Portugal	PT	0.6	0.6	8.6	9.1	-3.5	-1.2	29.0	31.2	12.3	13.3
Romania	RO	0.2	0.2	6.0	6.5	0.3	0.4	43.0	47.5	14.0	15.2
Slovenia	SI	3.0	3.0	13.4	13.7	6.1	6.1	20.9	26.6	13.9	14.3
Slovakia	SK	0.3	0.4	10.1	10.5	4.0	4.4	19.6	24.5	16.6	14.6
Finland	FI	9.6	10.5	15.2	15.3	2.0	1.7	35.9	36.8	18.8	17.9
Sweden	SE	10.6	10.5	17.1	17.4	1.8	2.0	38.7	41.6	20.6	20.4
United Kingdom	UK	3.4	3.2	17.0	17.6	3.0	3.1	57.6	64.8	16.4	15.8
Turkey	TR	0.8	0.9	4.8	4.7	-2.8	-2.2	21.3	22.0	13.5	13.3
Iceland	IS	2.7	3.9	18.1	18.5	-12.8	-13.6	50.3	51.4	16.6	16.6
Norway	NO	2.9	3.6	14.2	15.1	-16.5	-17.4	49.4	54.0	15.1	16.7
Switzerland	CH	8.3	8.1	19.8	20.0	8.0	8.4	26.5	26.5	18.7	18.0
United States	US	3.7	3.4	16.6	16.8	2.4	1.9	45.3	44.8	16.7	16.4
Japan	JP	8.1	8.8	17.5	17.5	20.4	21.4	33.9	31.6	18.5	17.8

Table 1. Country performance by indicator  
Note: imputed values displayed in yellow background

	2008	2009
PCTs	630	630
Indicador	2,9	3,6

	2008		2009	
	Indicador	PCTs	Indicador	PCTs
Finland	9,6	2214	10,5	2123
Italy	2,1	2883	2,1	2652
Spain	1,4	1390	1,4	1564

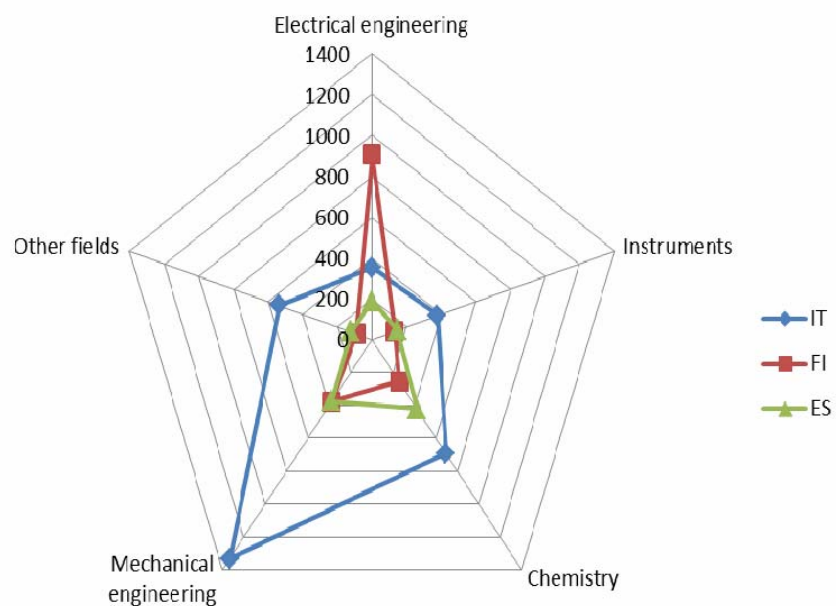


Gráfico 1

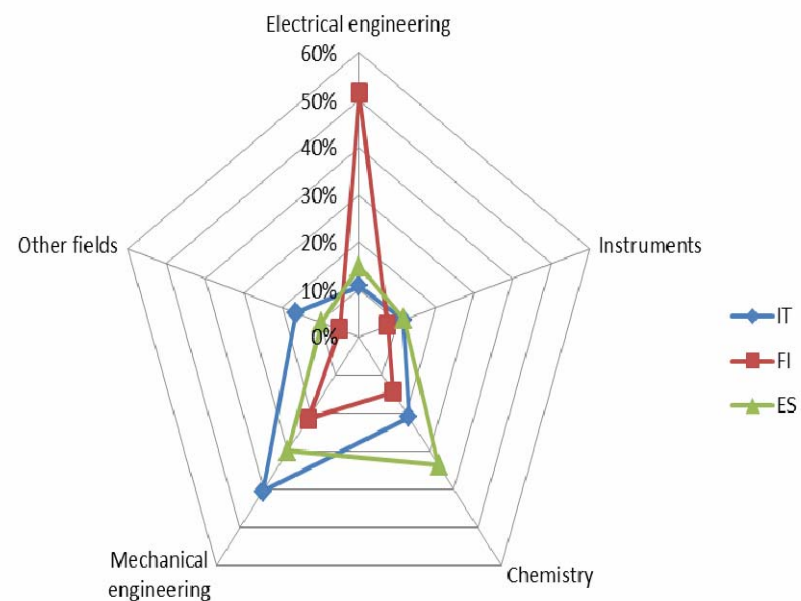


Gráfico 2

# Empresas que aparecen

2014 Microsoft Corp solicita 1.460 PCTs

2014 se crea Microsoft Technology Licensing

2015 Microsoft Technology Licensing solicita 860 PCTs

2014 Panasonic Corporation solicita 1.682 PCTs

2014 se crea Panasonic Intellectual Property Management

2015 Panasonic Corporation solicita 125 PCTs

2015 Panasonic Intellectual Property Mgmnt solicita 1.185 PCTs

# EPO: Solicitudes europeas de patentes (european patent applications)

Las solicitudes son la suma de:

- solicitudes de patente europea directas

+

- PCT que entran en la EPO (EUROPCT)

(No se diferencia entre first fillings i second fillings)



# Propuestas en EPO estadísticas solicitantes

- Desagrupar por filiales
- Estadísticas con más de 10 solicitudes
- Indicar el país del solicitante

# Propuestas sobre estadísticas

Estadísticas por solicitantes ponderando por el número de solicitantes de cada patente.

¿Control de donde se ha hecho la invención en base a inventores?

Indicadores de innovación con visión global

Cuestionar patentes/PIB o patentes/nº habitantes

Un posible indicador sobre “innovación tecnológica” basado en patentes se podría definir utilizando los datos por país del porcentaje de cada uno de los cinco sectores de tecnología sobre el total de solicitudes en la EPO. Y escogiendo como criterio que el sistema de innovación ideal debería tener el mismo porcentaje para los cinco sectores, es decir, del 20% en cada uno de ellos (es decir, un valor de 0,2 en tanto por uno).

DIFERENCIAL ABSOLUTO MEDIO							
2012	Electrical engineering	Instruments	Chemistry	Mechanical engineering	Other fields	TOTAL/5	INDICADOR
Italy	0,0926	0,0847	0,0097	0,2044	0,0369	0,0856	11,68
Finland	0,3159	0,1250	0,0557	0,0142	0,1494	0,1320	7,57
Spain	0,0510	0,0829	0,1371	0,0996	0,1028	0,0947	10,56
DIFERENCIAL CUADRATICO MEDIO							
2012	Electrical engineering	Instruments	Chemistry	Mechanical engineering	Other fields	TOTAL/5	INDICADOR
Italy	0,0086	0,0072	0,0001	0,0418	0,0014	0,0118	84,76
Finland	0,0998	0,0156	0,0031	0,0002	0,0223	0,0282	35,45
Spain	0,0026	0,0069	0,0188	0,0099	0,0106	0,0097	102,59

Tabla 5. Cálculos componente indicador ES, IT y FI

# GRACIAS POR SU PRESENCIA

## ¿PREGUNTAS?

**Los Lunes de Patentes**  
**UB Patent Centre, Barcelona, 9 de marzo de 2020**

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