



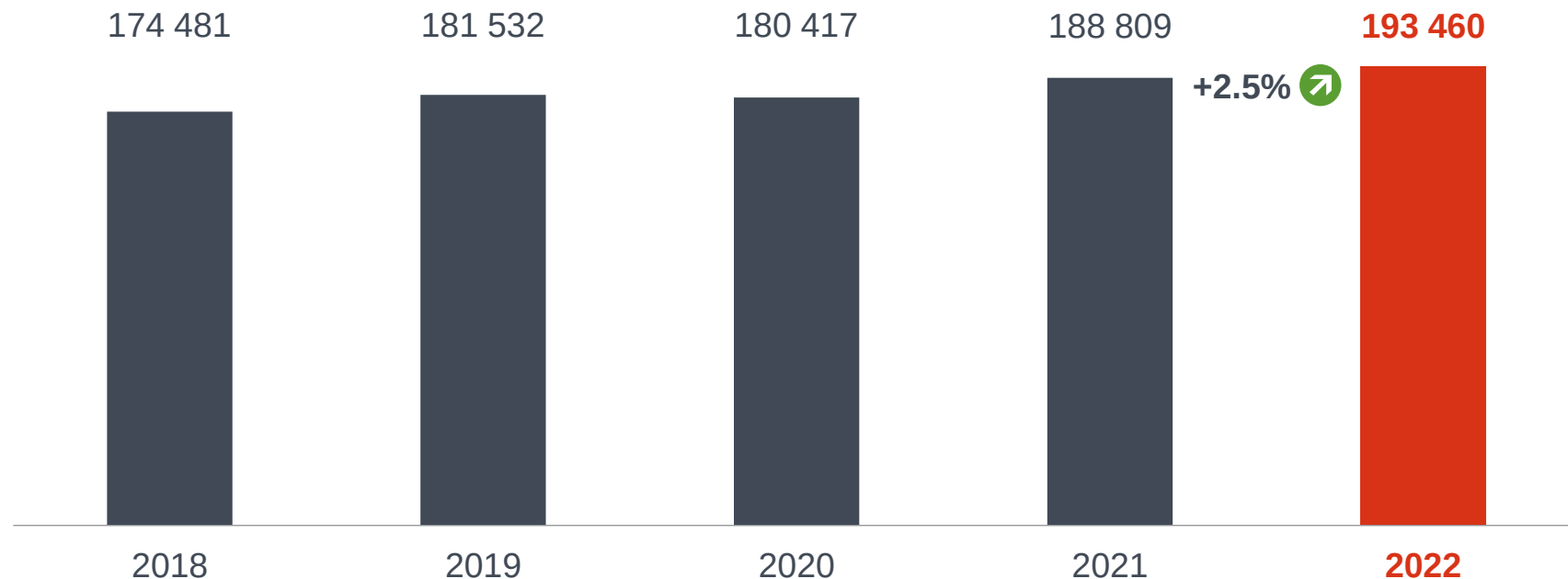
EUROPEAN PATENT OFFICE PATENT INDEX 2022 COUNTRY PROFILE: ITALY

CONTACT: PRESS@EPO.ORG

WWW.EPO.ORG/PRESS

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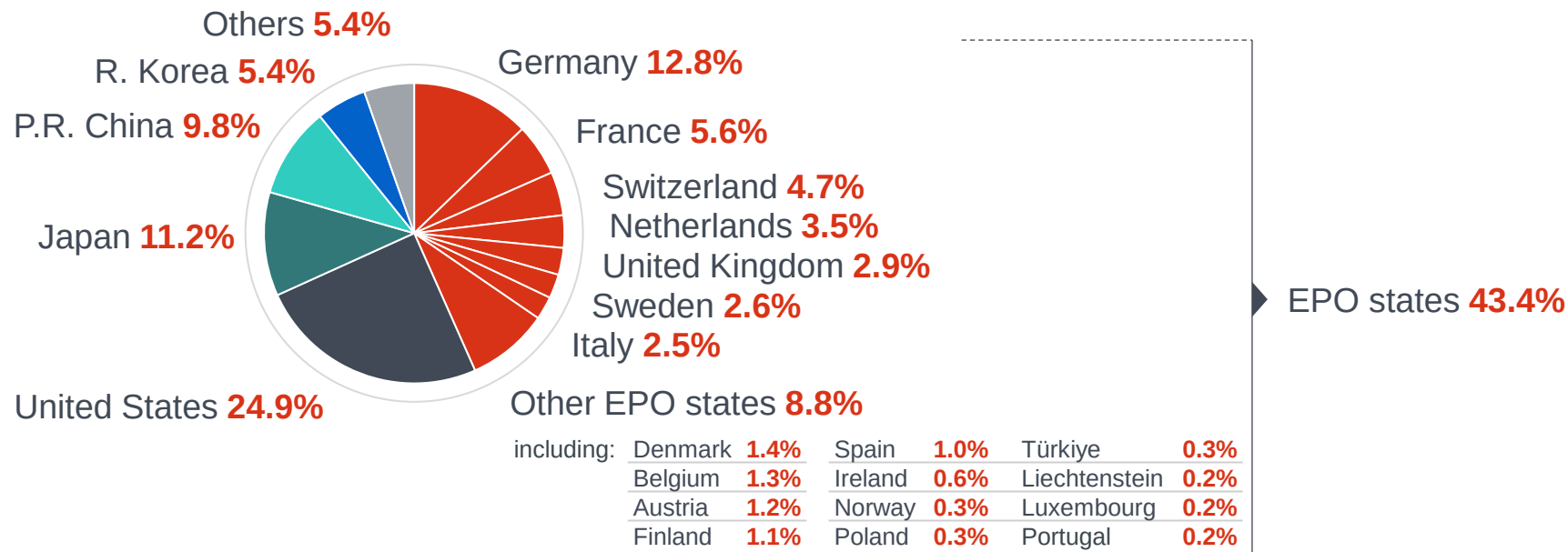
GROWTH OF EUROPEAN PATENT APPLICATIONS¹ – GLOBAL



Source: EPO. Status: 30.01.2023.

¹ European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period.

GEOGRAPHIC ORIGIN OF EUROPEAN PATENT APPLICATIONS¹ IN 2022



Source: EPO. Status: 30.01.2023.

¹ European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period. The geographic origin is based on the country of residence of the first applicant listed on the application form (first-named applicant principle). Note: Sums may vary slightly due to rounding.

TOP COUNTRIES FOR EUROPEAN PATENT APPLICATIONS¹

TOP40

	2022	Change
1 United States	48 088	2.9%
2 Germany	24 684	-4.7%
3 Japan	21 576	-0.4%
4 P.R. China	19 041	15.1%
5 France	10 900	1.9%
6 R. Korea	10 367	10.0%
7 Switzerland	9 008	5.9%
8 Netherlands	6 806	3.5%
9 United Kingdom	5 697	1.9%
10 Sweden	5 036	1.8%
11 Italy	4 864	-1.1%
12 Denmark	2 662	0.6%
13 Belgium	2 604	5.0%
14 Austria	2 388	3.4%

	2022	Change
15 Finland	2 140	1.5%
16 Canada	2 001	-3.8%
17 Spain	1 925	-1.0%
18 Israel	1 741	1.2%
19 Chinese Taipei	1 474	-0.7%
20 Ireland	1 140	12.3%
21 Australia	1 003	-1.4%
22 Singapore	835	16.1%
23 India	817	1.4%
24 Norway	660	4.9%
25 Poland	615	17.8%
26 Türkiye	542	-26.3%
27 Liechtenstein	456	-7.5%
28 Barbados	344	15.8%

	2022	Change
29 Luxembourg	343	-20.8%
30 Hong Kong SAR (China)	331	49.8%
31 Portugal	312	7.6%
32 New Zealand	230	2.7%
33 Brazil	220	20.9%
34 Czech Republic	219	9.0%
35 Saudi Arabia	206	-45.6%
36 Russian Federation	199	-26.8%
37 Greece	185	-8.9%
38 Cayman Islands	136	-54.2%
39 Slovenia	123	6.0%
40 Hungary	102	-14.3%

Source: EPO. Status: 30.01.2023.

¹ European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period. The geographic origin is based on the first-named applicant principle.

EUROPEAN PATENT APPLICATIONS¹ PER MILLION INHABITANTS

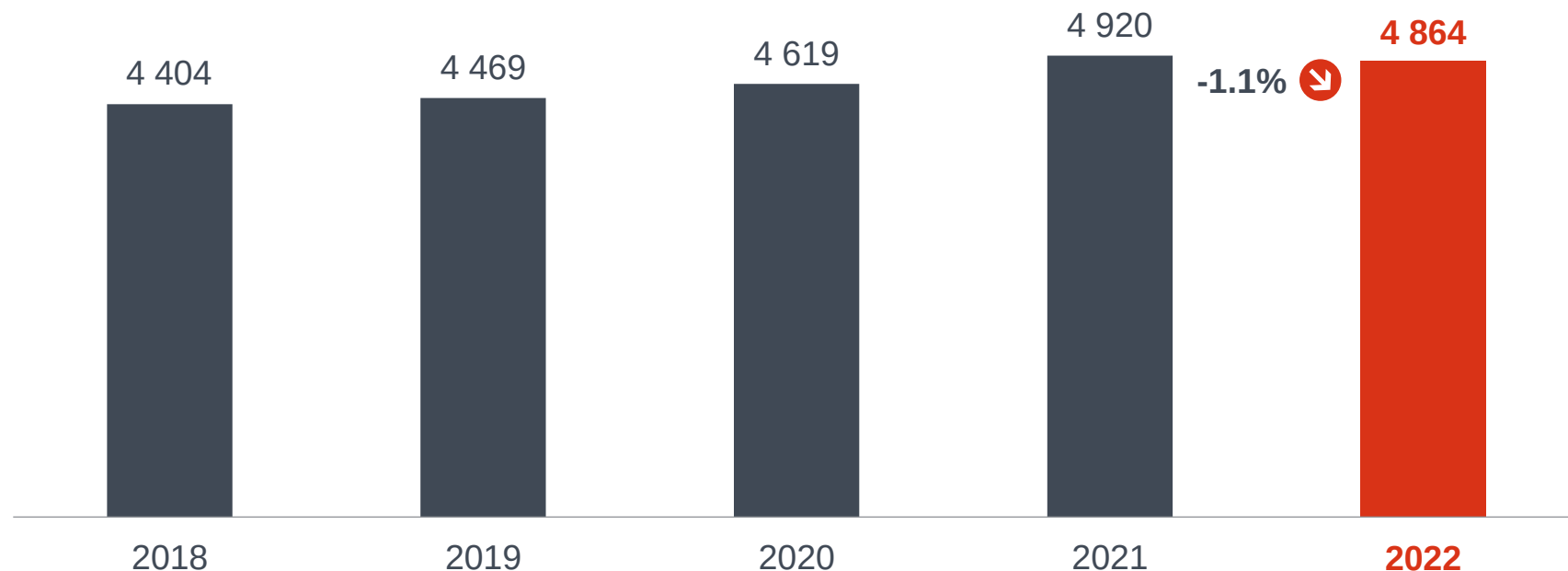
TOP30			Ratio: appl. per mio. inhabitants				Ratio: appl. per mio. inhabitants	
	Applications 2022	Population ²			Applications 2022	Population ²		
	1 Switzerland	9 008	8 736 510	1 031	16 Norway	660	5 425 270	122
	2 Sweden	5 036	10 452 326	482	17 United Kingdom	5 697	67 508 935	84
	3 Denmark	2 662	5 873 420	453	18 Italy	4 864	58 983 122	82
	4 Netherlands	6 806	17 590 672	387	19 Chinese Taipei	1 474	23 893 395	62
	5 Finland	2 140	5 548 241	386	20 Slovenia	123	2 107 180	58
	6 Germany	24 684	83 237 124	297	21 Canada	2 001	38 454 327	52
	7 Austria	2 388	8 978 929	266	22 Estonia	66	1 331 796	50
	8 Ireland	1 140	5 060 005	225	23 New Zealand	230	5 185 289	44
	9 Belgium	2 604	11 631 136	224	24 Hong Kong SAR (China)	331	7 488 865	44
	10 R. Korea	10 367	51 815 810	200	25 Spain	1 925	47 432 805	41
	11 Israel	1 741	9 038 309	193	26 Australia	1 003	26 177 414	38
	12 Japan	21 576	123 951 692	174	27 Portugal	312	10 352 042	30
EU27:	13 France	10 900	67 842 582	161	28 Lithuania	78	2 805 998	28
151 ▶	14 United States	48 088	338 289 857	142	29 Czech Republic	219	10 516 707	21
	15 Singapore	835	5 975 688	140	30 Greece	185	10 603 810	17

Source: EPO. Status: 30.01.2023.

¹ European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period.
The geographic origin is based on the first-named applicant principle.

² Source of population figures: U.S. Census Bureau, International Data Base.

EUROPEAN PATENT APPLICATIONS¹ – ITALY



Source: EPO. Status: 30.01.2023.

¹ European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period. The geographic origin is based on the first-named applicant principle.

LEADING FIELDS OF TECHNOLOGY¹ – GLOBAL

TOP 10

		2022	Change	
1	Digital communication	16 705	+11.2%	↗
2	Medical technology	15 683	+1.0%	↗
3	Computer technology	15 193	+1.8%	↗
4	Electrical machinery, apparatus, energy	13 951	+18.2%	↗
5	Pharmaceuticals	9 310	+1.0%	↗
6	Transport	9 272	-2.6%	↘
7	Measurement	9 185	+1.0%	↗
8	Biotechnology	8 168	+11.0%	↗
9	Other special machines	6 382	-1.8%	↘
10	Organic fine chemistry	5 955	-0.4%	↘

Source: EPO. Status: 30.01.2023.

¹ The definition of the fields is based on the WIPO IPC technology concordance. The table is available at:
https://www.wipo.int/ipstats/en/docs/ipc_technology.xlsx

LEADING 15 FIELDS OF TECHNOLOGY¹ – ITALY²

TOP 15

	2022	Change	
1 Handling	384	-2.5%	↓
2 Transport	362	-8.8%	↓
3 Other special machines	355	+9.6%	↗
4 Medical technology	315	-7.1%	↓
5 Civil engineering	280	-2.4%	↓
6 Electrical machinery, apparatus, energy	234	+5.4%	↗
7 Machine tools	223	+4.7%	↗
8 Pharmaceuticals	210	+12.3%	↗
8 Furniture, games	210	+0.5%	↗
10 Measurement	206	-7.6%	↓
11 Other consumer goods	191	-7.7%	↓
12 Mechanical elements	181	-4.2%	↓
13 Chemical engineering	149	+3.5%	↗
14 Thermal processes and apparatus	133	+10.8%	↗
15 Engines, pumps, turbines	131	+6.5%	↗

Source: EPO. Status: 30.01.2023.

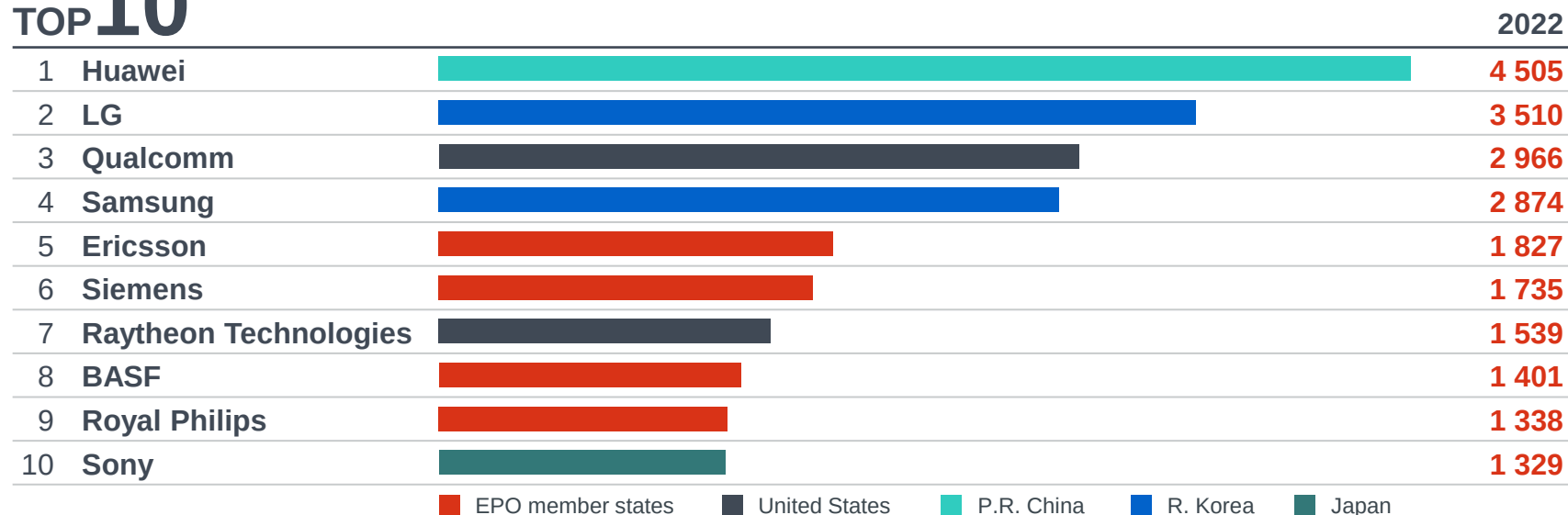
¹ The definition of the fields is based on the WIPO IPC technology concordance. The table is available at:

https://www.wipo.int/ipstats/en/docs/ipc_technology.xlsx

² The geographic origin is based on the first-named applicant principle.

TOP EPO APPLICANTS¹ 2022 – GLOBAL

TOP 10



Source: EPO. Status: 30.01.2023.

¹ This is the ranking of the main consolidated applicants at the EPO in 2022 (first-named applicant principle). It is based on European patent applications filed with the EPO, which include direct European applications and international (PCT) applications that entered the European phase during the reporting period. Applications by identifiable subsidiaries, not necessarily located in the same country, are allocated to the consolidated applicants. The countries refer to the country of residence of the headquarters.

TOP EPO APPLICANTS 2022 – GLOBAL

TOP50

	2022		2022		2022
1 Huawei	4 505	18 ZTE	899	35 Vivo Mobile	563
2 LG	3 510	19 Panasonic	865	36 Baidu	562
3 Qualcomm	2 966	20 Hitachi	793	37 CEA ²	544
4 Samsung	2 874	21 Apple	763	38 Mitsubishi Electric	524
5 Ericsson	1 827	22 Signify	743	39 3M	523
6 Siemens	1 735	23 General Electric	732	40 Japan Tobacco International	515
7 Raytheon Technologies	1 539	24 Canon	676	41 Interdigital	491
8 BASF	1 401	25 Tencent	671	42 Unilever	486
9 Royal Philips	1 338	26 Airbus	661	43 NTT Docomo	482
10 Sony	1 329	27 Hoffmann-La Roche	650	44 Philip Morris	476
11 Robert Bosch	1 214	28 Siemens Energy	601	45 Xiaomi	459
12 Alphabet	1 135	29 BOE Technology	598	46 Dow Chemical	456
13 Johnson & Johnson	1 120	30 Volvo Group	591	47 Fraunhofer-Gesellschaft ³	453
14 Intel	1 095	31 Valeo	588	48 CATL ⁴	448
15 Microsoft	1 066	32 Medtronic	583	49 Toyota Motor	445
16 Nokia	1 033	33 Fujifilm	571	50 Daikin	431
17 Oppo Mobile ¹	917	34 Safran	569		

Source: EPO. Status: 30.01.2023.

¹ Guangdong OPPO Mobile Telecommunications. ² Commissariat à l'énergie atomique et aux énergies alternatives.

³ Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. ⁴ Contemporary Amperex Technology Co. Ltd.

TOP APPLICANTS AT THE EPO IN 2022 FROM ITALY¹

TOP 10	2022
1 COESIA	91
2 PIRELLI & C.	47
3 CHIESI FARMACEUTICI	42
4 SACMI	36
5 POLITECNICO DI MILANO	35
6 IVECO	33
7 FERRARI	32
8 DE'LONGHI	28
8 LEONARDO	28
10 BREMBO	26

Source: EPO. Status: 30.01.2023.

¹ This is the ranking of the main consolidated applicants at the EPO in 2022 (first-named applicant principle). It is based on European patent applications filed with the EPO, which include direct European applications and international (PCT) applications that entered the European phase during the reporting period. Applications by identifiable subsidiaries, not necessarily located in the same country, are allocated to the consolidated applicants. The countries refer to the country of residence of the headquarters.

EUROPEAN PATENT APPLICATIONS¹ 2022 – REGIONAL BREAKDOWN – ITALY

Zone	Region		2022	Share	Change	
Northwest	Lombardia		1 547	31.8%	-0.5%	
	Piemonte		487	10.0%	+7.7%	
	Liguria		89	1.8%	+7.2%	
	Valle d'Aosta/Vallée d'Aoste		13	0.3%	+62.5%	
Northeast	Emilia-Romagna		788	16.2%	-3.8%	
	Veneto		680	14.0%	+5.9%	
	Friuli-Venezia Giulia		138	2.8%	+4.5%	
	Trentino-Alto Adige / Südtirol		127	2.6%	-8.6%	
Centre	Toscana		289	5.9%	-0.3%	
	Lazio		270	5.6%	-6.9%	
	Marche		94	1.9%	-19.7%	
	Umbria		53	1.1%	+82.8%	
South	Campania		101	2.1%	+20.2%	
	Puglia		60	1.2%	-10.4%	
	Abruzzo		57	1.2%	-57.8%	
	Calabria		15	0.3%	-11.8%	
	Basilicata		4	0.1%	+33.3%	
	Molise		3	0.1%	-50.0%	
Islands	Sicilia		34	0.7%	-10.5%	
	Sardegna		15	0.3%	+7.1%	

Source: EPO. Status: 30.01.2023.

¹ European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period.

The geographic origin is based on the first-named applicant principle.

EUROPEAN PATENT APPLICATIONS¹ 2022 – REGIONAL BREAKDOWN – ITALY

City		2022	Share	Change
Milano		526	10.8%	-0.8% 
Torino		206	4.2%	+25.6% 
Roma		189	3.9%	-20.3% 
Agrate Brianza		148	3.0%	+33.3% 
Bologna		117	2.4%	-8.6% 

Source: EPO. Status: 30.01.2023.

¹ European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period.
The geographic origin is based on the first-named applicant principle.

LEADING EUROPEAN REGIONS FOR PATENT APPLICATIONS¹ AT THE EPO IN 2022

Region	Country	2022	Change	
1 Bayern	DE	7 084	-7.3%	↓
2 Île-de-France	FR	6 646	-1.5%	↓
3 Nordrhein-Westfalen	DE	4 946	-5.4%	↓
4 Baden Württemberg	DE	4 771	-6.1%	↓
5 North Brabant	NL	3 547	+4.4%	↑
6 Stockholm	SE	2 597	-1.2%	↓
7 Greater London	GB	1 785	+9.6%	↑
8 Rheinland-Pfalz	DE	1 767	+1.3%	↑
9 Hessen	DE	1 738	-0.9%	↓
10 Vlaanderen	BE	1 729	+6.9%	↑
11 Helsinki-Uusimaa	FI	1 570	-0.4%	↓
12 Lombardia	IT	1 547	-0.5%	↓
13 Niedersachsen	DE	1 505	-10.5%	↓

Region	Country	2022	Change	
14 Hovedstaden	DK	1 475	-1.1%	↓
15 Auvergne-Rhône-Alpes	FR	1 356	-1.4%	↓
16 South Holland	NL	1 255	+7.4%	↑
17 Vaud	CH	1 179	+2.5%	↑
18 Västsverige	SE	1 165	+26.2%	↑
19 Zürich	CH	1 119	+8.2%	↑
20 Basel-Stadt	CH	1 011	0.0%	→
21 Zug	CH	992	+48.1%	↑
22 Genève	CH	832	+10.2%	↑
23 East of England	GB	807	-2.3%	↓
24 Emilia-Romagna	IT	788	-3.8%	↓
25 Aargau	CH	785	-10.0%	↓

Source: EPO. Status: 30.01.2023.

¹ European patent applications include direct European applications and international (PCT) applications that entered the European phase during the reporting period. The geographic origin is based on the first-named applicant principle. Regions are those of the 39 member states of the European Patent Organisation.

LEADING EU REGIONS FOR PATENT APPLICATIONS¹ AT THE EPO IN 2022

Region	Country	2022	Change
1 Bayern	DE	7 084	-7.3% ↓
2 Île-de-France	FR	6 646	-1.5% ↓
3 Nordrhein-Westfalen	DE	4 946	-5.4% ↓
4 Baden Württemberg	DE	4 771	-6.1% ↓
5 North Brabant	NL	3 547	+4.4% ↑
6 Stockholm	SE	2 597	-1.2% ↓
7 Rheinland-Pfalz	DE	1 767	+1.3% ↑
8 Hessen	DE	1 738	-0.9% ↓
9 Vlaanderen	BE	1 729	+6.9% ↑
10 Helsinki-Uusimaa	FI	1 570	-0.4% ↓

Region	Country	2022	Change
11 Lombardia	IT	1 547	-0.5% ↓
12 Niedersachsen	DE	1 505	-10.5% ↓
13 Hovedstaden	DK	1 475	-1.1% ↓
14 Auvergne-Rhône-Alpes	FR	1 356	-1.4% ↓
15 South Holland	NL	1 255	+7.4% ↑
16 Västsverige	SE	1 165	+26.2% ↑
17 Emilia-Romagna	IT	788	-3.8% ↓
18 Hamburg	DE	711	+19.3% ↑
19 Berlin	DE	697	-16.2% ↓
20 Midtjylland	DK	694	+2.4% ↑

Source: EPO. Status: 30.01.2023.

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The geographic origin is based on the first-named applicant principle.