

## Belgium: key trends from Patent Index 2021

- Total applications from Belgium
  - **2 485 applications** at the EPO (2020: 2 406, **+3.3%**)
  - Highest number of patent applications at the EPO from Belgium ever, despite the pandemic
  - Patent applications grew by 3.3% in 2021, bouncing back after slight dip in 2020 (-0.7%)
  - Growth is above EU-27 average increase of +2.7%
  - Belgium is No. 9 European patent filing country
  - Belgium is No.13 overall at EPO; but No. 8 in terms of [applications per capita](#)

2017	2017/2016	2018	2018/2017	2019	2019/2018	2020	2020/2019	2021	2021/2020
2.152	-2,7%	2.348	9,1%	2.422	3,2%	2.406	-0,7%	2.485	3,3%

- Top technical fields for Belgium:
  - 1. Pharmaceuticals: +34.3%
  - 2. Biotechnology, -20.1%
  - 3. Medical technology, -6.0%
  - 4. Other special machines (*from agriculture to 3D printing*): +9.8%
  - 5. Materials, metallurgy: +51.7%
- Belgian firms and inventors filing patent applications in a **wide variety of technical fields**
- **Healthcare-related technologies** (pharmaceuticals, biotech, medtech) are the top 3 fields and make up nearly **a quarter of Belgium's total**
- **Strong growth** in patent applications in **Pharmaceuticals (+34.3%)**, making it the **new top Belgian technology field** (*after falling -2.3% in 2020*), up from position 4 last year
- Strong growth also in Materials, metallurgy (+51.7%) and Transport (+26.2%; which includes automotive as well as aerospace industries); these areas **rebounded in 2021** *after declining in 2020 (Materials/metallurgy by -27.5%; Transport by -1.9%)*
- Semiconductors (+25.9%) also grew, albeit from lower level
- Biotechnology (-20.1%) and Medical technology (-6.0%) dropped significantly (*after increasing by +11.2% and +43.3% in 2020 respectively*)

## Patent applications at the EPO from Belgium – by technical field

	TECHNOLOGY FIELD	2020	2021	2021/2020
1	Pharmaceuticals	166	223	34.3%
2	Biotechnology	219	175	-20.1%
3	Medical technology	182	171	-6.0%
4	Other special machines	153	168	9.8%
5	Materials, metallurgy	87	132	51.7%
6	Transport	103	130	26.2%
7	Civil engineering	106	120	13.2%
8	Electrical machinery, apparatus, energy	108	116	7.4%
9	Organic fine chemistry	114	99	-13.2%
10	Measurement	113	95	-15.9%
11	Basic materials chemistry	93	93	0.0%
12	Computer technology	84	81	-3.6%
13	Chemical engineering	82	77	-6.1%
14	Semiconductors	54	68	25.9%
15	Optics	60	68	13.3%

### Leading Belgian patent filers 2021:

- **1. Solvay:** again top applicant
  - **2. IMEC**
  - **3. Umicore** (materials technology and recycling)
  - **4. KU Leuven**
  - **5. ZF CV Systems Europe** (automotive supplier)
- Strong contribution of **Belgian universities and research institutes** to innovation stands out
  - Five of top 10 Belgian patents applicants are universities and research institutes
    - Three universities (KU Leuven, University of Gent, University of Antwerp)
    - Two research institutes (Vlaams Institute for Biotechnology VIB and Leuven-based microelectronics and nanotechnology research centre IMEC)

**Grootste octrooiaanvragers bij het EOB uit België – 2021**  
 (volgens het aantal octrooiaanvragen)  
**Principaux déposants de Belgique à l'OEB – 2021**  
 (par nombre de demandes de brevets)

**TOP 10**

1	SOLVAY	276
2	IMEC	140
3	UMICORE	93
4	K.U. LEUVEN	90
5	ZF CV SYSTEMS EUROPE	85
6	UNIVERSITEIT GENT	66
7	AGFA-GEVAERT	65
8	MELEXIS	48
9	VIB	44
10	UNIVERSITEIT ANTWERPEN	43

European Patent Office 2022

Regional breakdown of applications from Belgium:

- Provinces:
  - **Antwerp** (+14.3%) overtook Vlaams Brabant (-1.4%) as the new the No. 1 province, each of them accounting for nearly 20% of all applications from Belgium
- Regions:
  - **Flanders** leads with 1 613 applications (share of 65% of all Belgian patent applications), ahead of the **Walloon** region (20% share), and the region of Bruxelles-Capitale in third place (15% share).
  - In the EU regional ranking, **Flanders** was the **No. 10** for patent applications at the EPO; **Wallonie** was **no. 28**.

- Cities:

City	2021	2020	Change
Brussels	354	325	8,9%
Leuven	264	283	-6,7%
Gent	161	161	0,0%
Louvain-La-Neuve	152	120	26,7%

## Regional breakdown of patent applications from Belgium

Region	Province	2021	Share	Change	
Vlaanderen	Antwerpen	447	18.0%	14.3%	↗
	Vlaams Brabant	422	17.0%	-1.4%	↘
	Oost-Vlaanderen	339	13.7%	-12.2%	↘
	West-Vlaanderen	301	12.1%	19.0%	↗
	Limburg	104	4.2%	-14.8%	↘
Wallonie	Brabant-Wallon	247	9.9%	14.9%	↗
	Liège	125	5.0%	-10.7%	↘
	Hainaut	79	3.2%	-13.2%	↘
	Namur	22	0.9%	10.0%	↗
	Luxembourg	18	0.7%	50.0%	↗
Bruxelles	Bruxelles	379	15.3%	11.1%	↗
<b>Region</b>					
Vlaanderen		1 613	65.0%	2.1%	↗
Wallonie		491	19.8%	2.7%	↗
Bruxelles -Capitale		379	15.3%	11.1%	↗

European Patent Office

## Leading EU regions for patent applications at the EPO in 2021

Rank	Region	Applications in 2021	Change
1	Bayern (DE)	7.656	6,5%
2	Île-de-France (FR)	6.705	3,0%
3	Nordrhein-Westfalen (DE)	5.248	4,2%
4	Baden Württemberg (DE)	5.087	-6,0%
5	North Brabant (NL)	3.375	2,9%
6	Stockholm (SE)	2.628	10,3%
7	Hessen (DE)	1.787	-3,2%
8	Rheinland-Pfalz (DE)	1.745	-3,9%
9	Niedersachsen (DE)	1.663	-15,4%
10	Vlaanderen (BE)	1.613	2,1%
11	Helsinki-Uusimaa (FI)	1.580	8,2%
12	Lombardia (IT)	1.547	0,6%
13	Hovedstaden (DK)	1.485	5,9%
14	Auvergne-Rhône-Alpes (FR)	1.292	-11,7%
15	South Holland (NL)	1.130	11,1%
16	Västsverige (SE)	932	14,4%
17	Berlin (DE)	825	22,6%
18	Emilia-Romagna (IT)	823	6,7%
19	Midtjylland (DK)	677	12,6%
20	Sydsverige (SE)	668	18,2%
21	Catalonia (ES)	653	16,8%
22	Veneto (IT)	643	7,5%
23	Wien (AT)	624	2,3%
24	North Holland (NL)	606	3,4%
25	Hamburg (DE)	597	18,5%
26	Leinster (IE)	567	-3,1%
27	Oberösterreich (AT)	508	-2,1%
28	Wallonie (BE)	491	2,7%
29	Limburg (NL)	476	-25,7%
30	Piemonte (IT)	450	1,8%

## Top applicants 2020 – for comparison

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(volgens het aantal octrooiaanvragen)

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(par nombre de demandes de brevets)

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4 AGFA	81
4 K.U. LEUVEN	81
6 UNIVERSITEIT GENT	62
7 MELEXIS	51
8 ONTEX	50
9 VIB	35
10 VITO	30