Regional Innovation Scoreboard 2025

Regional profile **Belgium**

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Regional profile Belgium

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BELGIUM

Belgium is a highly federalised country with the three regions having significant powers over research and innovation (R&I) policy and funding[1]. *Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest (BE1)* (hereafter *Brussels-Capital*) and *Vlaams Gewest (BE2)* (hereafter *Flanders*) are Innovation Leaders, while *Région wallonne (BE3)* (hereafter *Wallonia*) is a Strong Innovator+.

All three regions have defined regional innovation (smart specialisation – S3) strategies for 2021-2027. The *Brussels-Capital* S3 focuses on six societal challenges, including climate, mobility, and health and on six strategic innovation domains, such as circular economy and digital tech[2]. *Flanders'* S3[3] supports innovation across 10 domains—including sustainable chemistry, smart manufacturing, health, and cleantech—aligned with its 7 transition priorities under Vision 2050. These priorities (e.g. Industry 4.0, energy and mobility transitions, circular economy, lifelong learning) guide challenge-driven innovation for a future-oriented, sustainable economy. *Wallonia's* S3 targets five priority domains: circular materials, health, agile and safe production, sustainable energy/habitats, and future agro-food chains. These are implemented through 19 Strategic Innovation Initiatives (IIS), such as FoodBooster (valorising agri co-products) and HITT (focused on transferring immersive technologies to various industrial application sectors)[4].

All three regions increased their performance over the period 2018-2025 (*Wallonia* increasing the most by 12%-points), however, *Flanders* and *Wallonia* recorded slight reversals of performance between 2023 and 2025. Over the last eight years, the three regions have converged in performance to an extent, with *Brussels-Capital* losing some ground since 2019 and being caught up by *Flanders*, while *Wallonia* has been gradually improving its relative position, until a slight drop in the last two years. *Brussels-Capital* performance is weakest in *PCT patent applications* and *Design applications* and best in *Innovation expenditures per person employed*, *SMEs introducing business process innovations* and *Innovative SMEs collaborating with others*, and *International scientific co-publications* (ranked 1st amongst all EU27 regions); *Flanders'* performance is weakest in *Sales of new-to-market and new-to-firm innovations* and *Exports of medium and high technology products* and strongest in *Innovation expenditures per person employed* (ranked 1st amongst all EU27 regions); *Wallonia's* performance is weakest in *R&D expenditure in the public sector*, *Trademark applications* and *Design applications* and strongest in *R&D expenditure in the business sector* and on *Innovation expenditures per person employed* (ranked 1st amongst all EU27 regions).

The socio-economic structure of the three regions is a factor in their performance (see structural indicators below). *Brussels-Capital*, as a metropolitan hub, concentrates significant private and public investment, notably in the business and public service sectors, but also faces significant social challenges (high youth unemployment and poverty, lower employment and higher unemployment rates) that may influence its attractiveness as a place to innovate. *Flanders*, building on a strong industrial base (with a share of industrial employment higher than the national average), has developed a significant number of inter-university strategic research centres (IMEC, etc.) working closely with industry as well as hosting major higher education (e.g. KULeuven) and private R&D performers. *Wallonia* has a mixed economic structure with highly performing zones such as the Brabant Wallon (home to the UCLouvain university and research-intensive enterprises/spin-offs), but also zones undergoing industrial transition and more rural areas in the south and east (with an average employment rate lower than the national average and higher unemployment).

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[1] See: Belgian Science Policy Office (BELSPO) (2022), Belgian Report on Science Technology and Innovation 2021, Brussels, Belgium. Available at: https://meri.belspo.be/site/docs/publications/BRISTI_2021%20EN.pdf (Accessed: 14 July 2024).

[2] Innoviris Brussels, The Regional Innovation Plan 2021-2027. Available at: http://www.innoviris.brussels/regional-innovation-plan (Accessed: 14 July 2024).

[3] VLAIO (2023, March), Vlaamse slimme specialisatie strategie – RIS3 [Flemish smart specialisation strategy – RIS3]. Available at: https://www.vlaio.be/nl/vlaio-netwerk/europees-fonds-voor-regionale-ontwikkeling/vlaamse-slimme-specialisatie-strategie-0 (Accessed: 14 July 2024).

[4] S3 Wallonie, Stratégie de Spécialisation Intelligente [Smart Specialisation Strategy]. Available at: https://s3.wallonie.be/home.html (Accessed: 14 July 2024).
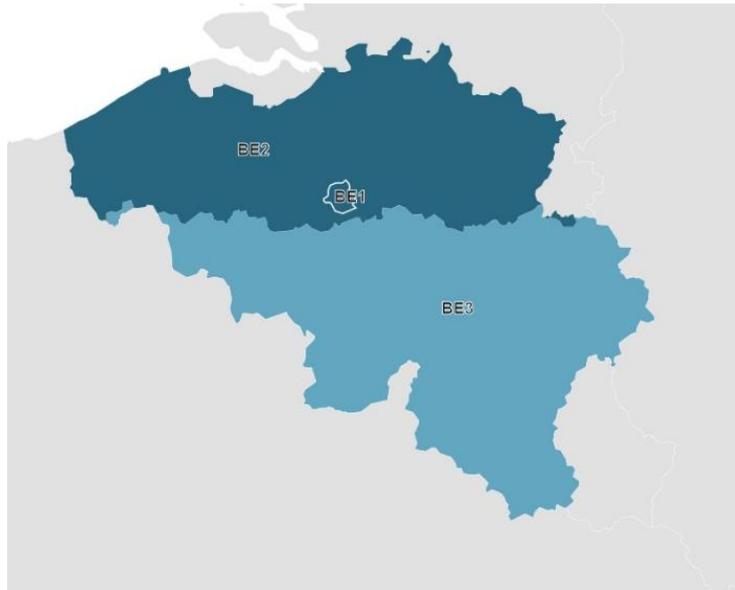
Administrative boundaries: © EuroGeographics © OpenStreetMapCartography.
Cartography: Eurostat - IMAGE

Region	Performance relative to EU in 2025	Performance group	Region rank	Performance change 2018-2025	Performance change 2023-2025
Belgium	122.6	Strong	-	11.7	-0.4
Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest (BE01)	128	Leader-	30	7.9	3.2
Vlaams Gewest (BE02)	127.9	Leader-	31	12.2	-1.1
Région Wallonne (BE03)	108.7	Strong	78	12.3	-0.8

Each region in Belgium is described in more detail below and tables containing the data on all RIS indicators are provided. A radar chart provides the region score relative to the country and to the EU in 2025, highlighting regional strengths and weaknesses. Significant increases and decreases in indicators are also presented. Finally, a table with structural indicators highlights structural differences of each region that may help to explain differences from the national and the EU averages.
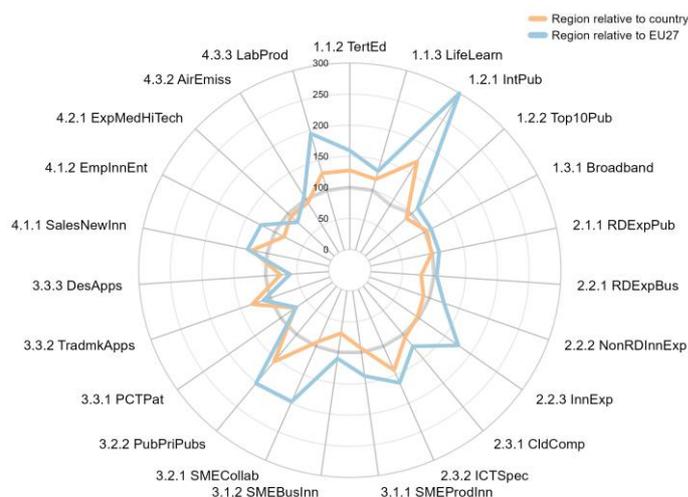
Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest (BE1)

Indicator	Current benchmarking (relative to the EU in 2025)				Performance trends (relative to the EU in 2018)		
	Performance relative to			Region rank	Performance relative to EU in 2018	Performance change	
	BE	EU27				2018-2025	2023-2025
REGIONAL INNOVATION INDEX	**104.4**	**128.0**		**30**	**144.1**	**7.9**	**3.2**
Human resources							
1.1.2 Population with tertiary education	127.4	159.3		21	176.8	12.7	6.8
1.1.3 Population involved in lifelong learning	118.8	132.3		57	167.3	0.0	0.0
Attractive research systems							
1.2.1 International scientific co-publications	191.7	335.1		1	452.8	9.5	0.0
1.2.2 Scientific publications among the top 10% most cited	89.1	113.3		86	107.2	-6.8	-7.7
Digitalisation							
1.3.1 Broadband penetration	103.8	111.2		75	111.2	59.1	22.7
Finance and support							
2.1.1 R&D expenditure in the public sector	98.8	111.0		63	112.5	18.1	9.7
Firm investments							
2.2.1 R&D expenditure in the business sector	79.6	104.3		43	109.6	28.6	4.5
2.2.2 Non-R&D innovation expenditures	90.5	124.5		69	99.2	-7.2	53.0
2.2.3 Innovation expenditures per person employed	97.3	176.5		1	196.5	9.6	0.0
Investments in information technologies							
2.3.1 Cloud computing in enterprises	105.4	124.6		82	124.6	0.0	0.0
2.3.2 Employed ICT specialists	142.1	164.3		29	184.9	-0.5	36.9
Innovators							
3.1.1 SMEs introducing product innovations	93.2	138.5		61	154.3	-8.6	17.6
3.1.2 SMEs introducing business process innovations	69.2	110.1		104	137.7	1.8	-32.8
Linkages							
3.2.1 Innovative SMEs collaborating with others	92.0	197.2		24	263.0	29.5	-25.8
3.2.2 Public-private co-publications	156.5	201.5		11	229.4	34.1	4.2
Intellectual assets							
3.3.1 PCT patent applications	71.8	70.3		120	61.7	6.2	-8.6
3.3.2 Trademark applications	130.0	111.4		55	104.1	-7.6	-31.2
3.3.3 Design applications	76.6	61.4		150	50.6	6.0	-15.5
Sales and employment impacts							
4.1.1 Sales of new-to-market and new-to-firm innovations	124.4	131.4		56	158.4	-60.9	66.4
4.1.2 Employment in innovative enterprises	83.7	124.7		51	131.8	-13.5	-11.8
Trade impacts							
4.2.1 Exports of medium and high technology products	93.8	79.9		141	79.6	6.5	11.6
Resource and labour productivity							
4.3.2 Air emissions by fine particulates	94.1	105.7		134	156.3	45.1	-14.1
4.3.3 Labour productivity	128.7	195.0		13	203.1	2.2	-1.2

■ >125% of the EU average ■ 100–125% of the EU average ■ 70–100% of the EU average ■ <70% of the EU average

Note: 'Region rank' shows region rank among all regions for each indicator based on indicator scores.

Radar chart comparing region with the country and the EU in 2025

Legend: Region relative to country, Region relative to EU27

Note: The radar chart shows the region's performance relative to two different baselines: the country average (yellow line) and the EU27 average (blue line). These lines should be interpreted separately as they cannot be directly compared with one another. The grey circle represents the relevant baseline (either country or EU). A line above the grey circle (which corresponds to 100) indicates that the region performs above that baseline, while a line below indicates underperformance.

Main strengths, weaknesses, and performance trends[5]

Relative strengths
- International scientific co-publications
- Public-private co-publications
- Innovative SMEs collaborating with others

Relative weaknesses
- Design applications
- PCT patent applications
- Exports of medium and high technology products

Highest ranked indicators among RIS regions
- International scientific co-publications
- Innovation expenditures per person employed
- Public-private co-publications

Lowest ranked indicators among RIS regions
- Design applications
- Exports of medium and high technology products
- Air emissions by fine particulates

Strong increases since 2018
- Broadband penetration
- Air emissions by fine particulates
- Public-private co-publications

Strong decreases since 2018
- Sales of new-to-market and new-to-firm innovations
- Employment in innovative enterprises
- SMEs introducing product innovations

Strong increases since 2023
- Sales of new-to-market and new-to-firm innovations
- Non-R&D innovation expenditures
- Employed ICT specialists

Strong decreases since 2023
- SMEs introducing business process innovations
- Trademark applications
- Innovative SMEs collaborating with others

Table highlighting structural differences between the region, a country, and the EU

Structural Indicator	BE1	BE	EU
Share of employment in (2022-2024 average):			
Agriculture & Mining (A-B)	N/A	1.03	3.73
Manufacturing (C)	4.27	11.4	15.6
Utilities & Construction (D-F)	6.9	7.87	8.4
Services (G-N)	72.43	69.87	64.77
Public administration (O-U)	16.27	9.8	7.1
Average number of employed persons per enterprise (2021-2022 average)	N/A	N/A	4.86
GDP per capita (PPS) (2023)	72,700	44,800	38,100
GDP per capita growth (PPS) (2019-2023)	0.03	0.05	0.05
Population density (2023)	7,770.2	386.8	109.3
Urbanisation (2024)	N/A	86.78	76.09
Population size (000s) (2024)	1,264.37	11,817.1	449,306.2

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[5] Relative strengths and weaknesses refer to the three indicators where the region's scores are furthest above or below the EU average in 2025. These highlight the areas where the region stands out most positively or faces the greatest relative challenges compared to the EU.
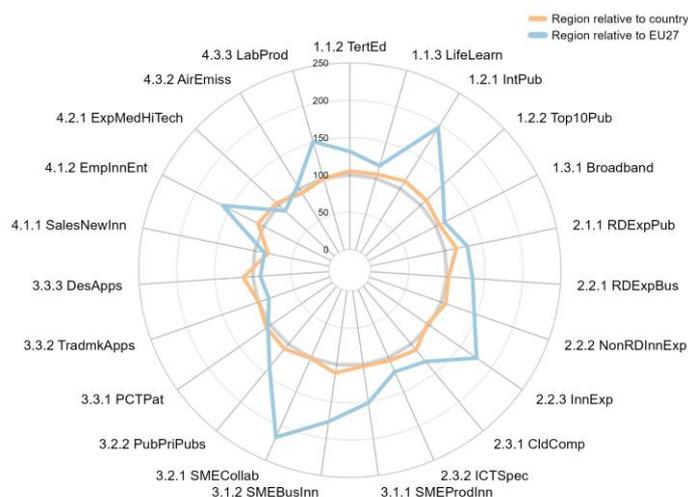
Vlaams Gewest (BE2)

| Indicator | Current benchmarking (relative to the EU in 2025) | | | | Performance trends (relative to the EU in 2018) | | |
| | Performance relative to | | Region rank | | Performance relative to EU in 2018 | Performance change | |
	BE	EU27				2018-2025	2023-2025
REGIONAL INNOVATION INDEX	**104.3**	**127.9**		**31**	**144.1**	**12.2**	**-1.1**
Human resources							
1.1.2 Population with tertiary education	105.2	131.6		45	146.0	-4.6	-8.0
1.1.3 Population involved in lifelong learning	105.8	117.7		78	149.0	0.0	0.0
Attractive research systems							
1.2.1 International scientific co-publications	112.1	196.0		56	264.8	61.4	7.5
1.2.2 Scientific publications among the top 10% most cited	109.8	139.7		38	132.1	-35.7	-7.1
Digitalisation							
1.3.1 Broadband penetration	105.0	112.5		72	112.5	34.6	16.1
Finance and support							
2.1.1 R&D expenditure in the public sector	115.9	130.1		40	131.9	27.8	4.2
Firm investments							
2.2.1 R&D expenditure in the business sector	102.5	134.3		14	141.2	24.6	7.3
2.2.2 Non-R&D innovation expenditures	106.2	146.1		27	116.4	11.9	1.9
2.2.3 Innovation expenditures per person employed	97.3	176.5		1	196.5	43.1	3.0
Investments in information technologies							
2.3.1 Cloud computing in enterprises	110.2	130.2		63	130.2	0.0	0.0
2.3.2 Employed ICT specialists	104.4	120.7		48	135.9	7.8	9.5
Innovators							
3.1.1 SMEs introducing product innovations	102.2	151.9		28	169.2	19.3	10.1
3.1.2 SMEs introducing business process innovations	111.4	177.2		1	221.6	99.4	0.0
Linkages							
3.2.1 Innovative SMEs collaborating with others	101.0	216.5		1	288.8	32.2	32.8
3.2.2 Public-private co-publications	108.5	139.6		72	159.0	17.9	2.1
Intellectual assets							
3.3.1 PCT patent applications	106.3	104.0		61	91.3	-7.8	-9.3
3.3.2 Trademark applications	99.5	85.3		102	79.6	-9.3	-30.8
3.3.3 Design applications	112.7	90.3		89	74.4	-10.5	-11.4
Sales and employment impacts							
4.1.1 Sales of new-to-market and new-to-firm innovations	82.2	86.8		103	104.6	-46.8	-45.5
4.1.2 Employment in innovative enterprises	108.1	160.9		8	170.1	12.7	-0.2
Trade impacts							
4.2.1 Exports of medium and high technology products	104.3	88.9		108	88.5	6.9	12.3
Resource and labour productivity							
4.3.2 Air emissions by fine particulates	93.2	104.8		136	154.9	38.0	-9.9
4.3.3 Labour productivity	99.9	151.4		33	157.7	7.4	3.1

■ >125% of the EU average ■ 100–125% of the EU average ■ 70–100% of the EU average ■ <70% of the EU average

Note: 'Region rank' shows region rank among all regions for each indicator based on indicator scores.

Radar chart comparing region with the country and the EU in 2025

Legend: Region relative to country / Region relative to EU27

Axes (clockwise from top): 1.1.2 TertEd, 1.1.3 LifeLearn, 1.2.1 IntPub, 1.2.2 Top10Pub, 1.3.1 Broadband, 2.1.1 RDExpPub, 2.2.1 RDExpBus, 2.2.2 NonRDInnExp, 2.2.3 InnExp, 2.3.1 CldComp, 2.3.2 ICTSpec, 3.1.1 SMEProdInn, 3.1.2 SMEBusInn, 3.2.1 SMECollab, 3.2.2 PubPriPubs, 3.3.1 PCTPat, 3.3.2 TradmkApps, 3.3.3 DesApps, 4.1.1 SalesNewInn, 4.1.2 EmpInnEnt, 4.2.1 ExpMedHiTech, 4.3.2 AirEmiss, 4.3.3 LabProd

Note: The radar chart shows the region's performance relative to two different baselines: the country average (yellow line) and the EU27 average (blue line). These lines should be interpreted separately as they cannot be directly compared with one another. The grey circle represents the relevant baseline (either country or EU). A line above the grey circle (which corresponds to 100) indicates that the region performs above that baseline, while a line below indicates underperformance.

Main strengths, weaknesses, and performance trends[6]

Relative strengths
• Innovative SMEs collaborating with others
• International scientific co-publications
• SMEs introducing business process innovations

Relative weaknesses
• Trademark applications
• Sales of new-to-market and new-to-firm innovations
• Exports of medium and high technology products

Highest ranked indicators among RIS regions
• Innovative SMEs collaborating with others
• SMEs introducing business process innovations
• Innovation expenditures per person employed

Lowest ranked indicators among RIS regions
• Air emissions by fine particulates
• Exports of medium and high technology products
• Sales of new-to-market and new-to-firm innovations

Strong increases since 2018
• SMEs introducing business process innovations
• International scientific co-publications
• Innovation expenditures per person employed

Strong decreases since 2018
• Sales of new-to-market and new-to-firm innovations
• Scientific publications among the top 10% most cited
• Design applications

Strong increases since 2023
• Innovative SMEs collaborating with others
• Broadband penetration
• Exports of medium and high technology products

Strong decreases since 2023
• Sales of new-to-market and new-to-firm innovations
• Trademark applications
• Design applications

Table highlighting structural differences between the region, a country, and the EU

Structural Indicator	BE2	BE	EU
Share of employment in (2022-2024 average):			
Agriculture & Mining (A-B)	1	1.03	3.73
Manufacturing (C)	13.17	11.4	15.6
Utilities & Construction (D-F)	8	7.87	8.4
Services (G-N)	70.43	69.87	64.77
Public administration (O-U)	7.37	9.8	7.1
Average number of employed persons per enterprise (2021-2022 average)	N/A	N/A	4.86
GDP per capita (PPS) (2023)	46,300	44,800	38,100
GDP per capita growth (PPS) (2019-2023)	0.06	0.05	0.05
Population density (2023)	507.4	386.8	109.3
Urbanisation (2024)	89.99	86.78	76.09
Population size (000s) (2024)	6,838.87	11,817.1	449,306.2

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[6] Relative strengths and weaknesses refer to the three indicators where the region's scores are furthest above or below the EU average in 2025. These highlight the areas where the region stands out most positively or faces the greatest relative challenges compared to the EU.
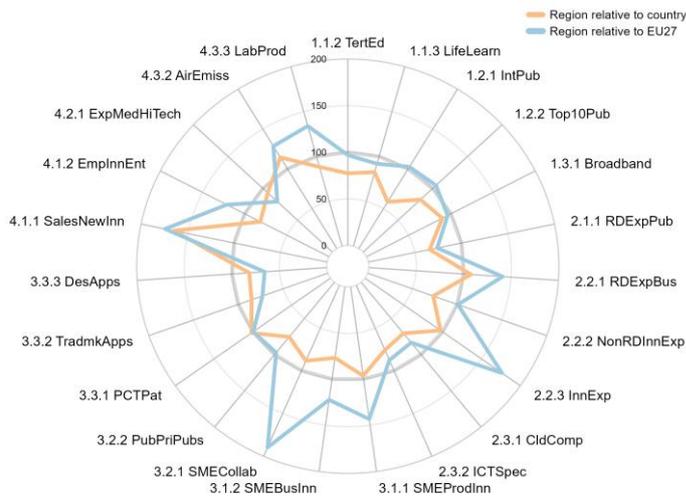
Région wallonne (BE3)

Indicator	Current benchmarking (relative to the EU in 2025)				Performance trends (relative to the EU in 2018)		
	Performance relative to			Region rank	Performance relative to EU in 2018	Performance change	
	BE	EU27				2018-2025	2023-2025
REGIONAL INNOVATION INDEX	**88.7**	**108.7**		**78**	**122.4**	**12.3**	**-0.8**
Human resources							
1.1.2 Population with tertiary education	77.5	97.0		108	107.6	-0.4	1.7
1.1.3 Population involved in lifelong learning	82.6	91.9		117	116.3	0.0	0.0
Attractive research systems							
1.2.1 International scientific co-publications	58.7	102.6		127	138.6	26.9	7.7
1.2.2 Scientific publications among the top 10% most cited	82.4	104.8		101	99.2	-3.2	-2.6
Digitalisation							
1.3.1 Broadband penetration	89.9	96.2		151	96.2	48.4	18.2
Finance and support							
2.1.1 R&D expenditure in the public sector	65.9	74.0		120	75.0	2.8	5.6
Firm investments							
2.2.1 R&D expenditure in the business sector	107.8	141.2		1	148.4	29.6	3.3
2.2.2 Non-R&D innovation expenditures	73.3	100.8		115	80.3	-12.6	-25.1
2.2.3 Innovation expenditures per person employed	97.3	176.5		1	196.5	0.0	0.0
Investments in information technologies							
2.3.1 Cloud computing in enterprises	70.6	83.5		145	83.5	0.0	0.0
2.3.2 Employed ICT specialists	75.9	87.7		96	98.7	-7.8	-24.4
Innovators							
3.1.1 SMEs introducing product innovations	96.4	143.3		44	159.6	13.8	19.3
3.1.2 SMEs introducing business process innovations	77.0	122.5		71	153.2	21.2	-14.3
Linkages							
3.2.1 Innovative SMEs collaborating with others	88.5	189.8		31	253.1	84.0	-10.5
3.2.2 Public-private co-publications	75.6	97.3		140	110.8	3.8	-1.8
Intellectual assets							
3.3.1 PCT patent applications	101.9	99.8		65	87.6	7.6	0.9
3.3.2 Trademark applications	85.3	73.1		127	68.3	-3.7	-25.5
3.3.3 Design applications	81.8	65.6		141	54.0	-14.9	-4.2
Sales and employment impacts							
4.1.1 Sales of new-to-market and new-to-firm innovations	165.1	174.3		33	210.2	65.2	39.1
4.1.2 Employment in innovative enterprises	81.5	121.3		70	128.3	-4.7	-11.8
Trade impacts							
4.2.1 Exports of medium and high technology products	93.2	79.3		142	79.0	6.5	11.6
Resource and labour productivity							
4.3.2 Air emissions by fine particulates	114.4	128.6		51	190.1	50.7	-8.5
4.3.3 Labour productivity	88.5	134.0		56	139.6	8.7	3.4

■ >125% of the EU average ■ 100–125% of the EU average ■ 70–100% of the EU average ■ <70% of the EU average

Note: 'Region rank' shows region rank among all regions for each indicator based on indicator scores.

Radar chart comparing region with the country and the EU in 2025

Note: The radar chart shows the region's performance relative to two different baselines: the country average (yellow line) and the EU27 average (blue line). These lines should be interpreted separately as they cannot be directly compared with one another. The grey circle represents the relevant baseline (either country or EU). A line above the grey circle (which corresponds to 100) indicates that the region performs above that baseline, while a line below indicates underperformance.

Main strengths, weaknesses, and performance trends[7]

Relative strengths
• Innovative SMEs collaborating with others
• Innovation expenditures per person employed
• Sales of new-to-market and new-to-firm innovations

Relative weaknesses
• Design applications
• Trademark applications
• R&D expenditure in the public sector

Highest ranked indicators among RIS regions
• Innovation expenditures per person employed
• R&D expenditure in the business sector
• Innovative SMEs collaborating with others

Lowest ranked indicators among RIS regions
• Broadband penetration
• Cloud computing in enterprises
• Exports of medium and high technology products

Strong increases since 2018
• Innovative SMEs collaborating with others
• Sales of new-to-market and new-to-firm innovations
• Air emissions by fine particulates

Strong decreases since 2018
• Design applications
• Non-R&D innovation expenditures
• Employed ICT specialists

Strong increases since 2023
• Sales of new-to-market and new-to-firm innovations
• SMEs introducing product innovations
• Broadband penetration

Strong decreases since 2023
• Trademark applications
• Non-R&D innovation expenditures
• Employed ICT specialists

Table highlighting structural differences between the region, a country, and the EU

Structural Indicator	BE3	BE	EU
Share of employment in (2022-2024 average):			
Agriculture & Mining (A-B)	1.43	1.03	3.73
Manufacturing (C)	10.1	11.4	15.6
Utilities & Construction (D-F)	7.97	7.87	8.4
Services (G-N)	67.67	69.87	64.77
Public administration (O-U)	12.8	9.8	7.1
Average number of employed persons per enterprise (2021-2022 average)	N/A	N/A	4.86
GDP per capita (PPS) (2023)	32,700	44,800	38,100
GDP per capita growth (PPS) (2019-2023)	0.05	0.05	0.05
Population density (2023)	219.9	386.8	109.3
Urbanisation (2024)	76.37	86.78	76.09
Population size (000s) (2024)	3,713.86	11,817.1	449,306.2

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[7] Relative strengths and weaknesses refer to the three indicators where the region's scores are furthest above or below the EU average in 2025. These highlight the areas where the region stands out most positively or faces the greatest relative challenges compared to the EU.

More information about Belgium and its innovation ecosystem can be found in the following other European Commission resources:

- [EIS country profile](#)
- [European Semester Country Report for Belgium](#)
- [European Research Area Platform](#)
- [Smart Specialisation Community of Practice Observatory](#)
- [Horizon Data Dashboard](#)
- [European Committee of Regions Division of Powers tool](#)

This report provides the Country profile from the 2025 Regional Innovation Scoreboard for Belgium

Studies and reports