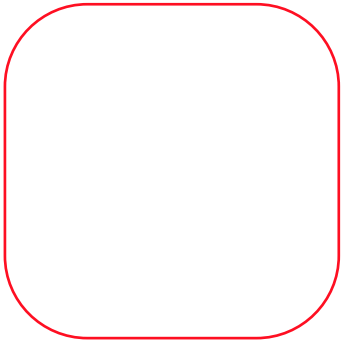
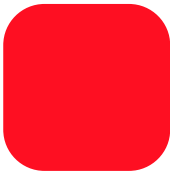
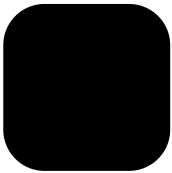


National Productivity
Board



Annual Report

2025

Table of Contents

Table of Contents	2
List of graphs.....	3
List of tables.....	3
Executive summary	4
Introduction	6
1. National Diagnosis	7
1.1. As activity normalises, productivity performance starts to diverge	7
1.2. Sectoral divergence in hourly productivity trends persists.....	8
1.3. Intra-sectoral dynamics as key determinant of hourly labour productivity growth in the Belgian economy and with the main contributing industries to this growth	12
2. Cohesion and Productivity.....	14
2.1. General context.....	14
2.2. Metrics.....	15
2.3. Calculations.....	16
2.4. Conclusion.....	18
3. Climate and Productivity	19
3.1. Channels from climate to productivity	19
3.2. Chronic physical risks and productivity: global warming, sectoral exposure, and adaptation	20
3.3. Acute physical risks : disasters, networks, and resilience	21
3.4. Transition risks : policy sequencing, pricing, and productivity	23
3.5. Reallocation and labour markets: from brown to green without “human” stranded assets	24
3.6. Possible levers for Belgium’s productivity agenda	25
4. Innovative start-ups and scale-ups	26
4.1. Innovative start-ups and scale-ups in Belgium: some figures	26
4.2. Key challenges for innovative start-ups and scale-ups	29
4.3. Conclusion.....	39
5. Activity report	41
5.1. The Board.....	41
5.2. 2025 Activities.....	42
6. References	43
Annex: Avis du Conseil Central de l’Economie (CCE 2025-2440) – 17 décembre 2025.....	46

List of graphs

Graph 1. Trend in hourly labour productivity	7
Graph 2. Trend in hourly labour productivity in manufacturing	9
Graph 3. Trend in hourly labour productivity in market services	11
Graph 4. Breakdown of cumulative growth in hourly labour productivity	12
Graph 5. Nominal hourly productivity in Belgian NUTS-2 regions, 2003 and 2022	15
Graph 6. σ -convergence based on the nominal hourly productivity in Belgian NUTS-2 regions, 2003-2022 ...	17
Graph 7. Theil coefficient and Gini coefficient for the nominal hourly productivity of Belgian NUTS-2 regions, 2003-2022	17
Graph 8. Nominal hourly productivity in Belgian NUTS-2 regions, 2003 and 2022	18
Graph 9. Changes in hourly productivity growth due to an increase in the average yearly temperature by 1°C	20
Graph 10. Corporate exposure to physical risk drivers (floods, heat stress, sea level, etc.)	21
Graph 11a. Difference in projected labour productivity between a disorderly and an orderly transition	23
Graph 11b. Difference in projected labour productivity between a disorderly and an orderly transition in 2050 by sector	23
Graph 12. Entry rate of enterprises with at least one employee, average 2021-2023	26
Graph 13. Entry rate of enterprises with at least one employee in a number of high-tech and knowledge-intensive sectors, 2021-23	27
Graph 14. Young high-growth enterprises, average 2021-2023	27
Graph 15. Number of equity-funded young enterprises and unicorns per million inhabitants, average 2020-2023	28
Graph 16. Private equity and venture capital investments in Belgian enterprises, average 2015-2023	28
Graph 17. Share of SMEs with growth plans for the next few years indicating that regulatory or administrative requirements are a barrier to growth, 2025	30
Graph 18. Share of enterprises with growth plans (in terms of employment or turnover) planning to grow in other EU and non-EU countries	34
Graph 19. Benchmarking of national policy frameworks for innovative procurement	35
Graph 20. Attractiveness of OECD countries for highly skilled workers, 2023	37

List of tables

Table 1. Average annual growth rate of hourly labour productivity	7
Table 2. Average annual growth rates of value added in volume and hours worked	8
Table 3. Average annual growth rate of hourly labour productivity, sectors	8
Table 4. Average annual growth rates of value added in volume, hours worked and hourly productivity in the Belgian manufacturing	10
Table 5. Average annual growth rates of value added in volume, hours worked and hourly productivity in Belgian market services	11
Table 6. Breakdown of cumulative hourly labour productivity growth and contribution of the major sectors of the Belgian economy	13
Table 7. Results of β -convergence regressions for nominal hourly productivity, Belgian NUTS-2 regions, 2003-2022 (p-values in parentheses)	16
Tableau 8. Channels of impact of climate risks on labour productivity	19

Executive summary

Diagnosis of productivity growth

The normalisation of economic activity after the succession of crises is also accompanied by a stabilisation in the growth rate of hourly labour productivity in Belgium, which averages 0.8 % per year over the 2019-2024 period, following a rate of 0.6 % over the 2012-2019 period. The trend in hours worked is gradually realigning with that of real value added.

From an industry point of view, the recent period, 2019-2024, is marked by an unusual trend: productivity growth in services is more sustained than in manufacturing, whose performance is hampered by the decline in productivity in the energy-intensive industries such as chemicals and metallurgy, and the slowdown in productivity growth in the pharmaceutical industry, a leading sector in this field. Conversely, the upturn in productivity growth in the service sector is widespread, with 8 out of 12 industries recording an increase, including wholesale and retail trade, a particularly important service sector.

A breakdown of productivity growth on the basis of the 38 industries making up the Belgian economy shows that this growth is increasingly explained by the dynamics specific to each industry. The reallocation of resources between industries is negative, but is becoming less marked from one period to the next.

Territorial cohesion and productivity

Territorial cohesion is an important aspect of European policies. In this respect, it is interesting to analyse the trend in productivity levels on a sub-regional scale in Belgium.

An examination of various indicators reveals that the divergence in hourly labour productivity between Belgium's 11 NUTS-2 regions has increased overall between 2003 and 2022. Nevertheless, some indicators point to a slight reduction in the divergence between these regions between 2019 and 2022.

Over the 2003-2022 period as a whole, the NUTS-2 regions experienced differing trends. Some regions that were initially more productive than the national average have strengthened their advantage (notably Walloon Brabant and Flemish Brabant). Conversely, other regions (Limburg, Hainaut, Namur and Luxembourg) saw their negative productivity gap widen even further. In both cases, this has contributed to increasing divergence.

Only three NUTS-2 regions recorded a slightly convergent and favourable trend in productivity: Liège, West Flanders and East Flanders. The Brussels-Capital Region maintained its clear productivity advantage over the national average.

Climate and productivity

Climate change will reshape productivity growth in Belgium through two major channels: physical risks and transition risks. Physical risks – such as heat stress, floods, and water scarcity – reduce labour efficiency and can destroy capital, forcing costly adaptation that preserves output but crowds out innovation. Transition risks arise from climate policies and market shifts on the path to net zero, notably through higher energy prices and reallocation of production factors across sectors. Evidence suggests that an orderly and predictable transition, based on market signals and credible carbon pricing, limits productivity losses compared to a delayed, disorderly one. For Belgium, the challenge is to integrate adaptation and mitigation without eroding competitiveness or diverting investment from innovation. Efforts in terms of innovation, adaptation or risk mitigation should build on Belgium's specific strengths in order to promote a significant impact.

The Belgian case combines high energy costs with structural dependence on energy-intensive and CO₂-emitting sectors, making the transition particularly demanding. Past policy choices placed disproportionate levies on electricity, hampering competitiveness and slowing decarbonisation. CO₂ emissions are likely to become more expensive, either through taxation or mitigation measures, implying a redistribution of resources away from the most carbon emitting sectors. Sustaining productivity requires focusing support on viable firms and green R&D rather than subsidising declining activities. Belgium's limited renewable potential also means that some

production of carbon-intensive commodities will naturally relocate to regions with lower electricity costs, consistent with EU-wide objectives and the carbon border adjustment mechanism (CBAM). The key is to channel public support toward green innovation, adoption, diffusion, and skill upgrading, rather than attempting to freeze the existing industrial structure.

Finally, productivity in the green transition hinges on labour market adaptability. Workers in Belgium are often penalised when switching jobs or sectors, which limits reallocation toward expanding green activities and young innovative firms. A better-functioning labour market that reduces wage penalties for mobility and recognises transferable skills will be essential to prevent “human stranded assets”. Most brown-sector (carbon-intensive) workers already possess skills applicable to green jobs, but targeted reskilling and certification policies can accelerate this shift. Combined with stable carbon-price trajectories, innovation-oriented subsidies, and better coordination across entities, Belgium can transform climate challenges into an engine for productivity-enhancing innovation and long-term competitiveness.

Innovative start-ups and scale-ups

Innovative start-ups and scale-ups are crucial drivers of disruptive innovation and structural transformation, and thereby for productivity growth. Although limited in number, they can grow into a new generation of technological frontrunners that not only create high added value but also generate positive spillovers for the broader innovation ecosystem (including non-market actors). These companies can also help reduce dependence in strategic sectors and key technologies, thus strengthening European resilience.

It was against this backdrop that the European Commission published its *Start-up and Scale-up Strategy* in late May 2025, with the ambition of making Europe the best place to launch and grow global technology-driven companies. Europe lags behind the U.S. and Asia in this regard and, based on the available figures, Belgium certainly does not appear to be a leader within Europe.

In its *Start-up and Scale-up Strategy*, the EC identified five priority policy areas: 1) innovation-friendly regulation, 2) financing, 3) access to a sufficiently large and innovation-friendly market, 4) talent support and 5) access to infrastructure, networks and services. It is essential that the various governments in Belgium support this strategy and translate it to their own context.

The Belgian governments are already undertaking numerous initiatives aimed at building a high-performance start-up and scale-up ecosystem. It is important to further deepen and strengthen these efforts in alignment with the European *Start-up and Scale-up Strategy*. This could be achieved through encouraging regulatory sandboxes; increased leveraging of savings and institutional investor resources for venture capital investments; even stronger alignment between financing and support tools for start-ups and scale-ups; more strategic use of innovative procurement; ensuring access to domestic as well as international science, technology, engineering and mathematics (STEM), sales and leadership talent; and reinforcing the structural and strategic alignment between different ecosystem actors, such as university institutions, research centres, incubators, clusters, investors and mentoring partners.

In all of this, it is essential to consider where collaboration between different levels of government - both internationally, and within Belgium - can provide opportunities such as knowledge sharing, market access, access to financing and infrastructure, etc.

Finally, it is important to systematically assess the impact of the policy. This requires further investment in a monitoring system of the start-up and scale-up landscape in Belgium, in line with European initiatives in this area.

This report takes into account data from national accounts up until October 2025.

Introduction

Productivity growth is crucial as the main determinant of economic growth – indeed, the only source of potential growth. It ensures that, from a financial perspective, the challenges we are facing today are easier to meet. These challenges include an ageing population, climate change and the energy transition, increased risks linked to the uncertain geopolitical context, and other emerging societal challenges, particularly in terms of social cohesion. These challenges require additional resources and investments, both private and public, which, in the absence of economic growth, would have to be financed by a drop in consumption and/or would put additional pressure on the sustainability of public finances. Productivity growth is also an important prerequisite for real income growth.

The first chapter of this report analyses the productivity growth in Belgium. The analysis shows a stabilisation of this growth over the 2019-2024 period, with productivity growth more dynamic in services than in manufacturing, where energy-intensive industries performed poorly. The regional analysis will be carried out in the 2026 report, when the long series of data established according to the new method for drawing up regional accounts will be available. The second chapter of the report examines the convergence of productivity levels between the country's provinces and regions.

The final two chapters focus on elements that can influence productivity growth. The previous NPB report covered opportunities in artificial intelligence, as well as the Recovery and Resilience Facility, the recovery instrument at the heart of the *NextGenerationEU* plan.

In this report, the third chapter addresses the implications of climate change and the climate transition. The analysis considers the role of both physical risks and those related to the transition. It highlights the risks associated with the diversion of growth-generating investments and innovations, rising energy costs and reallocation of production factors between industries, in the particular context of Belgium, characterised by high energy costs and energy intensity in part of its manufacturing. An orderly and predictable transition policy is therefore essential to preserve and stimulate Belgium's productivity. Particular attention should be paid to supporting and disseminating green innovation, as well as a dynamic labour market and reorientation, upgrading and vocational training.

The final chapter delves deeper into the topic of innovative start-ups and scale-ups. It departs from the priority policy areas from the European Commission's *Start-up and Scale-up Strategy* and analyses both the main challenges for Belgian start-ups and scale-ups and the existing policy responses and potential areas for improvement. This last chapter is based on contributions from Belgian federal and regional bodies concerning the policy implemented.

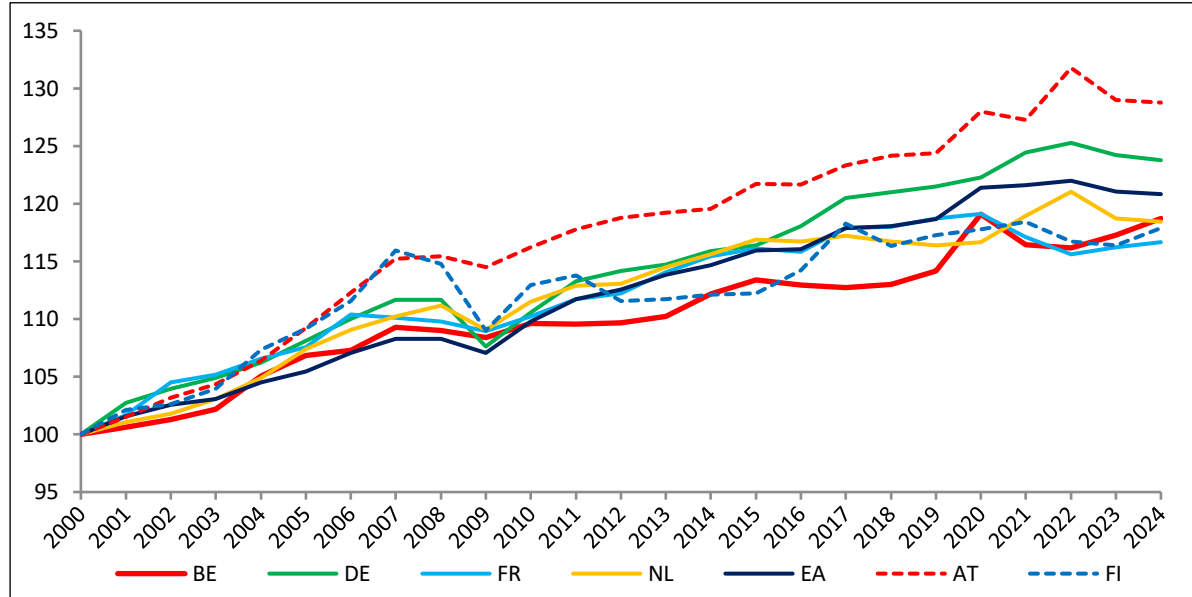
1. National Diagnosis

1.1. As activity normalises, productivity performance starts to diverge

The normalisation of economic activity after the sharp rise in energy prices in 2022 is accompanied by diverging trends in hourly labour productivity. Productivity growth accelerated in Belgium, France and, in 2024, in Finland, while it turned negative in Germany, the Netherlands, Austria, and on average in the Euro area, in contrast to the what has been seen in the previous two years (Graph 1).

Graph 1. Trend in hourly labour productivity

Index 2000 = 100



Source: Eurostat, October 2025 and NAI October 2025.

Over the entire 2000-2024 period, the average annual growth rate of hourly labour productivity was less than 1 %, both in Belgium and in the Euro area as a whole (Table 1), continuing the downward trend in productivity gains that began in the late 1970s.

Table 1. Average annual growth rate of hourly labour productivity

In %

	2000-2024	2000-2007	2007-2012	2012-2019	2019-2024
Belgium	0.7	1.3	0.1	0.6	0.8
EA 20	0.8	1.1	0.8	0.8	0.4
Germany	0.9	1.6	0.4	0.9	0.4
France	0.6	1.4	0.4	0.8	-0.3
Netherlands	0.7	1.4	0.5	0.4	0.3
Austria	1.1	2.0	0.6	0.7	0.7
Finland	0.7	2.1	-0.8	0.7	0.1

Source: Eurostat, October 2025 and NAI October 2025.

However, in Belgium, and in contrast to all other countries compared, the growth rate in hourly productivity over the recent period (2019-2024) was slightly higher than that recorded over the period as a whole (2000-2024). Compared to the previous period (2012-2019), the rate of productivity growth was accelerating in Belgium and stabilising in Austria, but continued to decline in the other countries and on average in the Euro area.

As Table 2 shows, the recent period (2019-2024) was characterised by moderate growth in value added in volume, while in most of the countries studied, the trend in hours worked remained stable. However, in

Germany and Austria, the two countries with the largest reduction in the growth rate of value added in volume over the recent period, hours worked reduced.

Table 2. Average annual growth rates of value added in volume and hours worked

In %

	2000-2024		2012-2019		2019-2024	
	VA	H	VA	H	VA	H
Belgium	1.6	0.9	1.5	0.9	1.6	0.8
EA 20	1.3	0.5	1.6	0.8	1.1	0.7
Germany	1.1	0.2	1.6	0.7	0.1	-0.3
France	1.3	0.6	1.3	0.5	1.0	1.4
Nether-lands	1.6	0.9	1.9	1.5	1.7	1.3
Austria	1.3	0.3	1.5	0.9	0.3	-0.4
Finland	1.0	0.3	1.0	0.3	0.3	0.2

Source: Eurostat, October 2025 and NAI October 2025.

1.2. Sectoral divergence in hourly productivity trends persists

A comparison of hourly productivity trends in the major sectors of the economy shows that, over the entire 2000-2024 period, manufacturing had the highest productivity growth rate in Belgium, as well as in the three main neighbouring countries (Table 3).

Table 3. Average annual growth rate of hourly labour productivity, sectors

In %

	Belgium	Germany	France	Netherlands
	2000-2024			
Total economy	0.7	0.9	0.6	0.7
Manufacturing	1.9	1.7	1.7	2.3
Market services	0.7	1.1	0.5	1.0
Non-market services	0.3	0.1	0.6	-0.1
	2000-2007			
Total economy	1.3	1.6	1.4	1.4
Manufacturing	3.4	3.6	3.7	4.5
Market services	1.3	1.6	1.0	1.5
Non-market services	0.0	-0.2	0.8	-0.2
	2012-2019			
Total economy	0.6	0.9	0.8	0.4
Manufacturing	2.0	1.4	1.5	1.5
Market services	0.7	1.3	0.5	0.5
Non-market services	-0.1	-0.2	0.6	-0.1
	2019-2024			
Total economy	0.8	0.4	-0.3	0.3
Manufacturing	0.5	0.8	-0.6	1.4
Market services	1.0	1.3	-0.2	1.0
Non-market services	1.1	0.3	0.0	-0.1

Note: Manufacturing corresponds to heading C, market services cover headings G to N and non-market services cover headings O to U of NACE rev 2.

Source: Eurostat, October 2025 and NAI October 2025.

Despite this positive overall performance, the rate of productivity growth in manufacturing slowed continuously from period to period in Belgium, as in the three neighbouring countries. The recent period (2019-2024) even corresponds to a decline in productivity in this sector in France.

The recent period also saw an acceleration in productivity growth in market services in Belgium and the Netherlands, albeit without reaching the rate seen over the 2000-2007 period. Among the countries of comparison, only France showed a fall in productivity gains in market services, with a negative growth rate over the 2019-2024 period.

As in the past, the two major sectors, manufacturing and market services, are analysed in greater detail. This analysis is based on activities under the A38 classification of the national accounts, which is the most detailed sectoral level for which official data on hours worked are available in Belgium.

a. Manufacturing

As shown in graph 2, the recent succession of crises has had a negative impact on labour productivity trends in manufacturing, first in Belgium, then France, and finally Germany and the Netherlands.

The slowing growth in hourly labour productivity in the Belgian manufacturing over the 2019-2024 period is primarily explained by the decline in value added in volume, with hours worked continuing to fall at a comparable pace to that of the previous period, as shown in table 4.

Graph 2. Trend in hourly labour productivity in manufacturing

Index 2000 = 100



Source: Eurostat, October 2025 and NAI October 2025.

Table 41. Average annual growth rates of value added in volume, hours worked and hourly productivity in the Belgian manufacturing*In %*

	Value added			Hours worked			Productivity		
	00-24	12-19	19-24	00-24	12-19	19-24	00-24	12-19	19-24
Manufacturing	0.5	1.4	-0.2	-1.4	-0.6	-0.7	1.9	2.0	0.5
Food industry	0.9	-1.0	2.0	0.1	0.8	1.1	0.8	-1.9	0.8
Textile industry	-4.1	-3.2	-3.0	-4.9	-2.9	-3.1	0.9	-0.4	0.0
Wood and paper industry	-1.1	-1.4	-4.0	-2.0	-1.6	-2.2	1.0	0.2	-1.8
Oil refining	3.2	0.2	7.7	-0.4	1.3	-2.6	3.6	-1.1	10.5
Chemical industry	-0.8	1.3	-2.7	-1.0	-0.4	0.4	0.2	1.7	-3.1
Pharmaceutical industry	7.1	9.3	4.9	2.1	2.6	2.4	4.9	6.6	2.4
Rubber and plastics industry	0.1	0.8	-2.7	-1.0	-0.3	-1.4	1.0	1.1	-1.2
Metallurgical industry	-1.1	1.6	-5.3	-2.0	-2.1	-1.6	0.9	3.8	-3.8
Electronics manufacturing	1.0	1.6	2.3	-3.4	-0.1	-1.6	4.6	1.6	4.0
Manufacturing of electrical equipment	-2.5	-4.2	-0.4	-2.8	-2.4	-2.5	0.4	-1.8	2.2
Manufacturing of machines and equipment	-0.2	-2.1	0.4	-1.1	-2.1	0.4	0.9	0.1	0.0
Motor vehicle manufacturing	-2.8	0.2	-6.4	-3.7	-2.3	-4.3	0.9	2.6	-2.2
Other manufacturing industries	1.4	3.2	-1.0	0.5	1.9	-0.9	0.9	1.3	-0.1

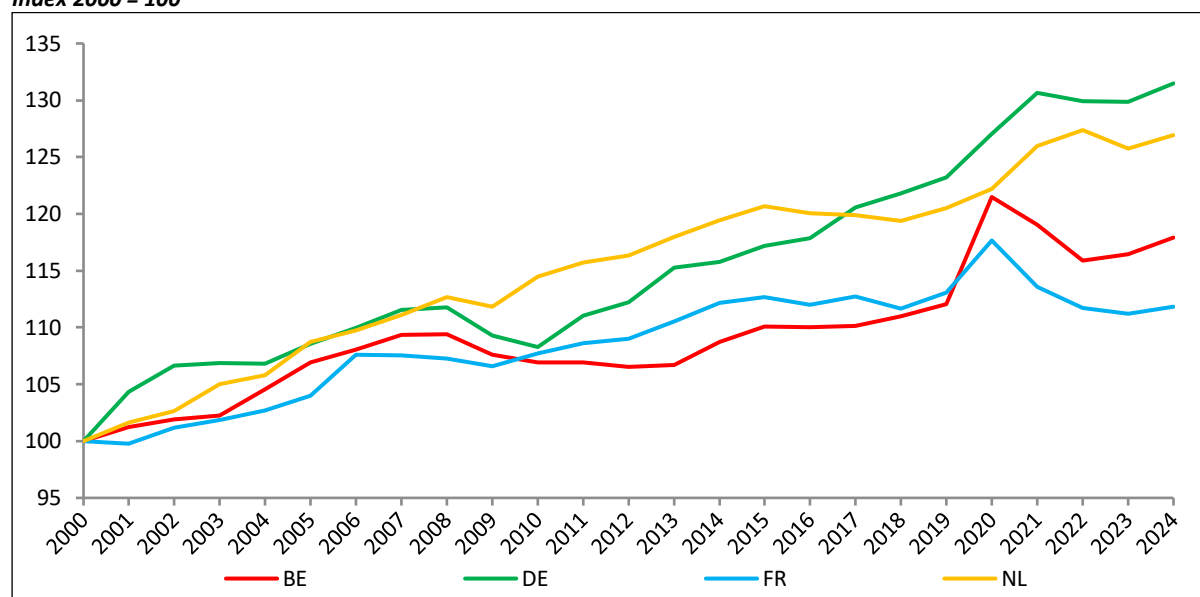
Source: NAI October 2025.

The recent 2019-2024 period also saw divergences in the performance of the industries making up the manufacturing. Six of the thirteen industries recorded a contraction in labour productivity, at a sustained rate for some, such as the chemical and metallurgical industries. All industries where labour productivity declined saw their value added by volume fall. Two sectors, the pharmaceutical industry and machines and equipment manufacturing, recorded a slowdown in labour productivity growth. However, five industries recorded an acceleration in productivity growth, including the food industry and electronics manufacturing. The high labour productivity growth rate in oil refining is explained by the strong growth in value added in volume, itself explained by the behaviour of production and intermediate consumption deflators in the context of the energy crisis.

Only two industries, the pharmaceutical industry and the food industry, recorded positive productivity growth over the 2019-2024 period, while also increasing hours worked.

b. Market services

The recent period saw a dispersion of productivity performance between the four countries studied concerning market services (Graph 3). Since the COVID crisis, productivity has particularly deteriorated in France. It also declined relatively sharply in Belgium in the immediate post-crisis period, before picking up again, while the post-COVID slowdown was less marked in the other two countries.

Graph 3. Trend in hourly labour productivity in market services*Index 2000 = 100*

Source: Eurostat, October 2025 and NAI October 2025.

Table 5. Average annual growth rates of value added in volume, hours worked and hourly productivity in Belgian market services*In %*

	Value added			Hours worked			Productivity		
	00-24	12-19	19-24	00-24	12-19	19-24	00-24	12-19	19-24
Market services	2.1	2.0	1.9	1.4	1.3	1.1	0.7	0.7	1.0
Wholesale and retail trade	1.1	0.1	1.5	-0.3	-0.3	-0.2	1.4	0.4	1.7
Transportation and storage	0.4	0.8	-0.3	0.0	0.6	0.8	0.5	0.2	-1.0
Accommodation and food service activities	1.3	0.9	2.1	0.8	1.9	1.8	0.4	-1.0	0.3
Publishing, cinema, video	0.0	-0.9	-0.2	-0.2	0.2	-0.4	0.2	-1.1	0.2
Telecommunications	4.6	4.8	2.0	-1.9	-2.6	-3.4	6.6	7.6	5.6
IT Services	5.5	5.3	6.6	4.1	5.0	3.1	1.4	0.3	3.4
Financial and insurance activities	1.0	1.3	-2.0	-1.3	-1.6	-0.8	2.4	2.9	-1.2
Real estate activities	2.3	1.9	2.2	1.8	3.0	0.0	0.5	-1.0	2.2
Legal and accounting activities	3.7	3.4	4.2	3.8	1.7	1.7	-0.1	1.7	2.5
Scientific R&D	4.7	-0.4	17.8	3.5	4.8	5.4	1.2	-4.9	11.7
Advertising, technical services	2.7	2.7	5.6	1.1	2.8	0.0	1.6	0.0	5.6
Administrative and support services	2.8	6.0	1.1	2.7	3.5	0.6	0.0	2.5	0.5

Source: NAI October 2025.

An analysis of hourly labour productivity trends in the 12 industries that make up the Belgian market services highlights that the recovery in the overall annual growth rate of market services over the 2019-2024 period compared with the 2012-2019 period is widespread, with eight industries recording an improvement. Telecommunications and administrative and support services continued to enjoy positive productivity growth, albeit at a slower pace than in the previous period, while productivity contracted in transport and financial and insurance activities.

In most industries, the acceleration in the growth of value added in volume was accompanied by a slowdown in the growth of hours worked, which explains the improvement in productivity performance.

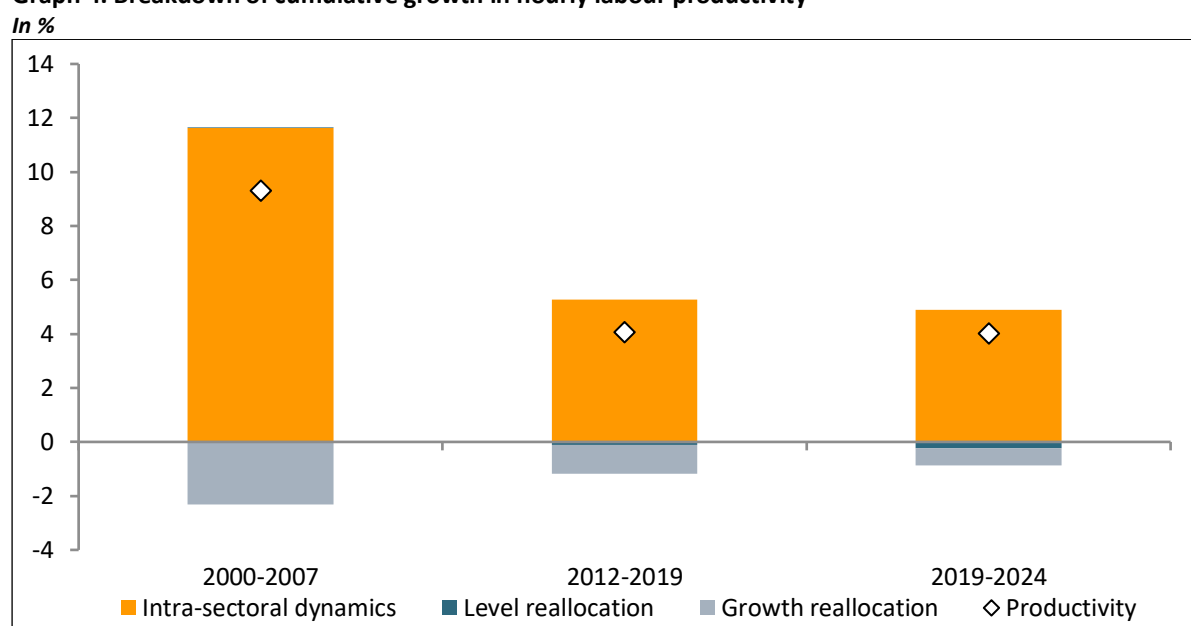
1.3. Intra-sectoral dynamics as key determinant of hourly labour productivity growth in the Belgian economy and with the main contributing industries to this growth

Labour productivity growth is broken down according to the methodology proposed by Tang and Wang (2004)¹, as presented in the 2022 annual report. This methodology breaks down productivity growth into three effects:

- A "pure" productivity growth effect or an effect linked to intra-sectoral productivity dynamics;
- A short-term or Denison effect, which captures the impact on aggregate productivity of movements in productive resources between industries with different productivity levels;
- An interaction or Baumol effect, which captures the impact on aggregate productivity of movements in productive resources between industries with different productivity growth rates.

The analysis is based on a breakdown of the economy into 38 industries. Between 2000 and 2024, cumulative labour productivity growth in Belgium reached 18.7 %. If there had been no change in the weighting of the various industries, this growth would have been 29.5 %, i.e. the effect of intra-sectoral dynamics. But resource reallocations did take place during the period under review, resulting in a slightly positive Denison effect of 1.8 % and a largely negative Baumol effect of -12.7 %. This means that industries with lower productivity growth have seen their size increase. This effect diminished, however, towards the end of the period, as shown in graph 4.

Graph 4. Breakdown of cumulative growth in hourly labour productivity



Source: NAI October 2025.

It is therefore the productivity trend at the level of each industry that explains most of the slowdown in productivity growth observed in Belgium. The two reallocation effects have a relatively limited impact, which diminishes over time.

The same breakdown highlights the contribution of the various major sectors of the economy to productivity performance. Table 6 shows the result of this breakdown for three periods of quasi-similar duration: 2000-2007, 2012-2019 and 2019-2024, highlighting the dynamics of these contributions.

The pure effect of manufacturing has continuously diminished from period to period, while the relative size effect and the interaction effect, both negative, have become less and less significant. As a result, manufacturing

¹ Source of aggregate labour productivity growth in Canada and the United States, J. Tang and W. Wang, Canadian Journal of Economics, Vol 37, No. 2, 421-444, May 2004.

has made a negative contribution to aggregate productivity growth in the recent period, albeit less so than in the 2000-2007 period.

The contribution of market services to aggregate productivity growth has also diminished over time, although it remained positive over all the periods studied. This is due to the reduction in the pure effect, while the reallocation of resources, relative size effect and interaction effect, which was largely positive in the 2000-2007 period, has had a negative effect in the more recent period.

Table 6. Breakdown of cumulative hourly labour productivity growth and contribution of the major sectors of the Belgian economy

In %

	Cumulative productivity growth	Contribution to aggregate prod growth	Pure effect	Relative size	Interaction
2000-2007					
A-B	13.9	-0.3	0.2	-0.4	-0.1
C	26.0	-1.2	5.0	-4.6	-1.6
D-E	-5.0	-0.2	0.1	-0.2	-0.1
F	17.1	0.8	0.9	-0.1	0.0
Market serv.	9.4	7.8	5.6	2.6	-0.5
Non-mark. serv.	0.0	2.5	-0.2	2.7	-0.1
Total Economy	9.3	9.3	11.6	0.0	-2.3
2012-2019					
A-B	-7.9	-0.1	-0.1	-0.1	0.0
C	14.9	0.3	1.8	-1.2	-0.3
D-E	-8.2	-0.3	-0.2	-0.1	0.0
F	3.0	0.0	0.2	-0.2	0.0
Market serv.	5.2	3.8	3.8	0.7	-0.7
Non-mark. serv.	-0.6	0.4	-0.2	0.6	-0.1
Total Economy	4.1	4.1	5.3	-0.1	-1.1
2019-2024					
A-B	6.6	0.1	0.1	0.0	0.0
C	2.5	-0.7	0.0	-0.5	-0.2
D-E	-5.2	0.4	-0.2	0.6	-0.1
F	-4.7	0.4	-0.2	0.7	0.0
Market serv.	5.2	2.2	4.0	-1.5	-0.3
Non-mark. serv.	5.5	1.7	1.3	0.5	-0.1
Total Economy	4.0	4.0	4.9	-0.2	-0.6

Note: A-B: Agriculture, forestry and fishing activities and Extractive industries; C: Manufacturing; D-E: Electricity, gas, steam and air conditioning supply and Water supply, sewerage, waste management and remediation activities; F: Construction.

Source: NAI October 2025.

In the recent 2019-2024 period, non-market services made a positive contribution, albeit more limited than that recorded between 2000 and 2007. This time, this is due to the combination of a positive pure effect (for the first time) and a relative size effect. However, caution should be exercised when interpreting this contribution, given the limitations of measuring the productivity of non-market activities (see the 2024 annual report for more information on this subject).

Two industries, construction (F) and energy and water supply and waste management (D-E), show a positive contribution between 2019 and 2024, while their pure effect is slightly negative. This is due to a largely positive relative size effect.

2. Cohesion and Productivity

In 2025, the European Commission has launched initial proposals for the drafting of the Multiannual Financial Framework (MFF) 2028-2034. The EU annual budgets must be created within this framework. This financial framework sets the broad guidelines for the various pillars of the EU policy. The Cohesion Policy is one of the main pillars and aims to reduce prosperity disparities within the European Union². In this context, prosperity is measured by GDP per capita (expressed in purchasing power parities), calculated for the NUTS-2 regions. Within Belgium, these are the 10 provinces plus the Brussels-Capital Region.

Productivity is a key determinant of the prosperity created. This chapter aims to examine the extent to which the Belgian NUTS-2 regions are converging in terms of productivity (analogous to the intended convergence of GDP per capita in European policy). The benchmark for this is nominal hourly productivity (GDP per hour worked), as available from the regional accounts for the period 2003-2022. The analysis was conducted based on preliminary data that are not yet fully reconciled with the most recent version of the national accounts. Since the analysis focuses on ratios between NUTS-2 regions and not absolute developments, this is not considered a major drawback.

2.1. General context

In addition to the data on gross domestic product, the regional accounts also provide data on hours worked and include employees (based on the National Social Security Office) and the self-employed (estimated). The ratio between the two is hourly productivity. It should be noted that both the numerator and denominator of this ratio relate to the location where the activity takes place. Therefore, the numerator is the gross added value in the territory of a region, regardless of the origin of the labour (and capital), and the denominator is the number of hours worked within that territory, regardless of where the workers live (NPB, 2017). Hourly productivity is hereby expressed in current prices (nominal).

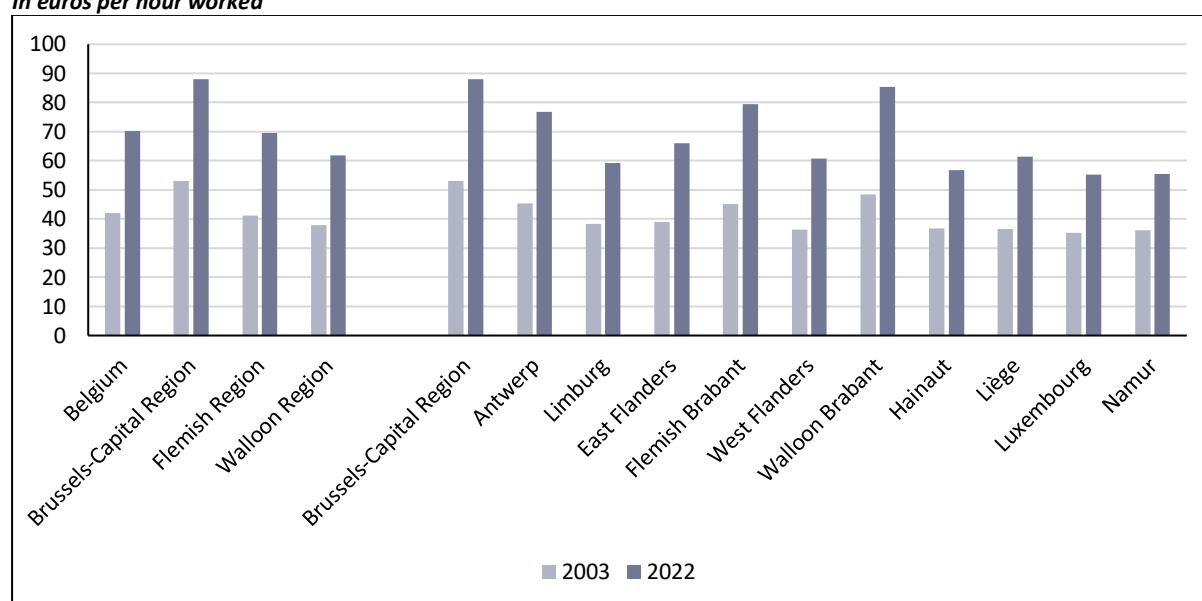
In 2022, the nominal hourly productivity in Belgium came to 70.1 euros per hour worked. The Brussels-Capital Region scores significantly higher (88.1 euros)³. The Flemish Region (69.6) is just below the Belgian average while the Walloon Region is at 61.8. At the provincial level, the two provinces bordering Brussels perform better: with Walloon Brabant at 85.4 euros and Flemish Brabant at 79.5 euros. Furthermore, only Antwerp, at 76.9 euros, performs better than the Belgian average. In four provinces, the nominal hourly productivity is below 60; Luxembourg, Namur, Hainaut and Limburg all have values between 50 and 60 euros.

In 2003, these positions were analogous. Proportionally, Flemish Brabant and Walloon Brabant gained ground between 2003 and 2022. Hainaut, Namur and Luxembourg fell comparatively further from the Belgian average.

² It should be noted that, in the current MFF proposal, the cohesion policy is part of the larger European Fund for economic, social and territorial cohesion, agriculture and rural, fisheries and maritime, prosperity and security.

³ The composition of the industries at the NUTS-2 level influences the values, see, for example, the regional diagnostics in the 2021 annual report.

Graph 5. Nominal hourly productivity in Belgian NUTS-2 regions, 2003 and 2022
In euros per hour worked



Source: NAI, calculations Vlaamse Statistische Autoriteit.

2.2. Metrics

The analysis tools use the work of Salah-i-Martin.

Salah-i-Martin focuses on the study of economic growth in general and economic convergence in particular. He uses both income and GDP in his analyses. Salah-i-Martin defines convergence according to two concepts (Salah-i-Martin, 1990): the β -convergence and the σ -convergence.

β -convergence

A β -convergence is a negative relationship between GDP per hour worked at the start and its growth over a period of time. A negative β indicates that more prosperous regions are growing more weakly and/or vice versa, and that convergence therefore occurs. As a formula:

$$y_{i,T} = \alpha + \beta \ln Y_{i,t_0} + u_{i,T}$$

With:

- $y_{i,T}$ = average annual nominal GDP growth per hour worked in region i between t_0 and T
- Y_{i,t_0} = nominal GDP per hour worked in region i in starting year t_0
- $u_{i,T}$ = specific shocks in region i between t_0 and T (error term)

A conditional β -convergence can also be calculated as an expansion by using a panel regression with addition of a list of possible explanatory variables, such as investment ratio, education level, and agglomeration. The literature contains proponents and opponents of this expansion.

σ -convergence

This refers to the distribution of GDP per hour worked across regions. If convergence occurs, σ becomes smaller over time. As a formula:

$$\sigma(\ln Y_i)$$

With:

- σ = standard deviation
- Y_i = nominal GDP per hour worked in the i regions

This is then calculated for each year between t_0 and T .

Moreover, two inequality measures are also considered, Theil and Gini coefficients. Higher their value, the more unequal the distribution of the variable under study value across NUTS-2 regions (= provinces + Brussels-Capital Region).

Theil coefficient

The Theil coefficient (Neves Costa & Perez-Duarte, 2019, 13) is defined as:

$$Theil = \frac{1}{n} \cdot \sum_i \left(\frac{x_i}{av\ x} \right) \cdot \ln \left(\frac{x_i}{av\ x} \right)$$

Gini coefficient

To calculate the Gini coefficient (Worldbank Metadata Glossary), the nominal GDP per hour worked of NUTS-2 regions is ranked on a cumulative distribution from low to high (Lorenz curve). The Gini coefficient is the area between the bisector (full equal distribution of GDP per hour worked across the arrondissements) and the Lorenz curve as a percentage of the total area under the bisector.

2.3. Calculations

The calculations for β -convergence show that divergence can be observed for the entire 2003-2022 period. The coefficient of the independent variable, the $\ln$ (GDP per hour worked), is statistically significantly positive for the entire period (Table 7). This appears to be true only for the first subperiod, 2003-2013 (although the level of significance is not as strong). No statistically significant development of the distribution of nominal hourly productivity across Belgian NUTS-2 regions can be detected for the second subperiod of 2013-2022.

Table 7. Results of β -convergence regressions for nominal hourly productivity, Belgian NUTS-2 regions, 2003-2022 (p-values in parentheses)

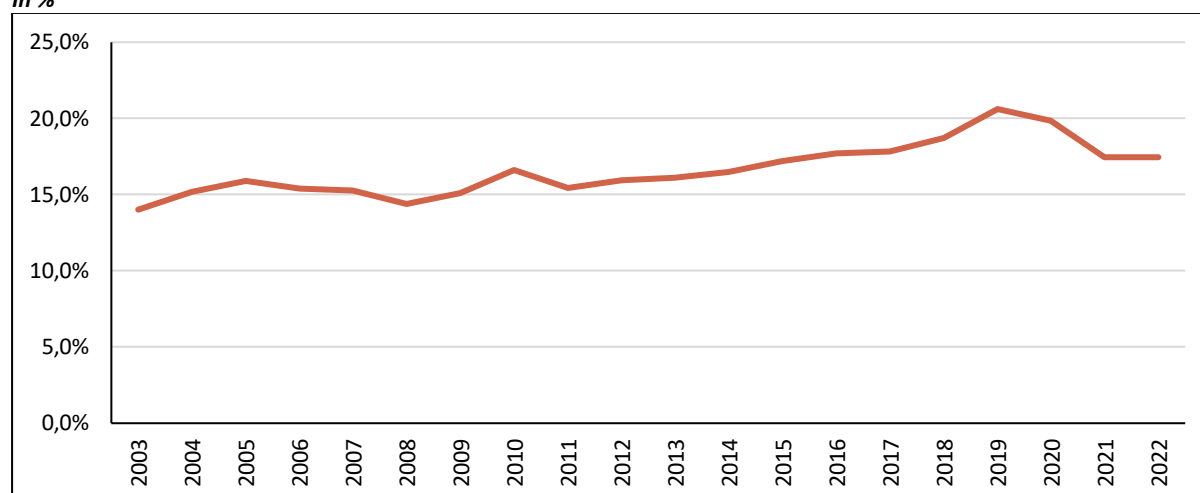
	2003-2013	2013-2022	2003-2022
α	-2.82 (0.3373)	-0.33 (0.9123)	-1.90 (0.3621)
β	1.42 (0.0914)	0.82 (0.2977)	1.23 (0.0468)
R^2	0.2840	0.1195	0.3707

Source: Calculations Vlaamse Statistische Autoriteit.

Moreover, σ -divergence can also be detected over the entire 2003-2022 period, with increasing σ values until 2019. Over the 2020-2022 period, these drop slightly but not enough to reverse the upward trend of the entire period (Graph 6).

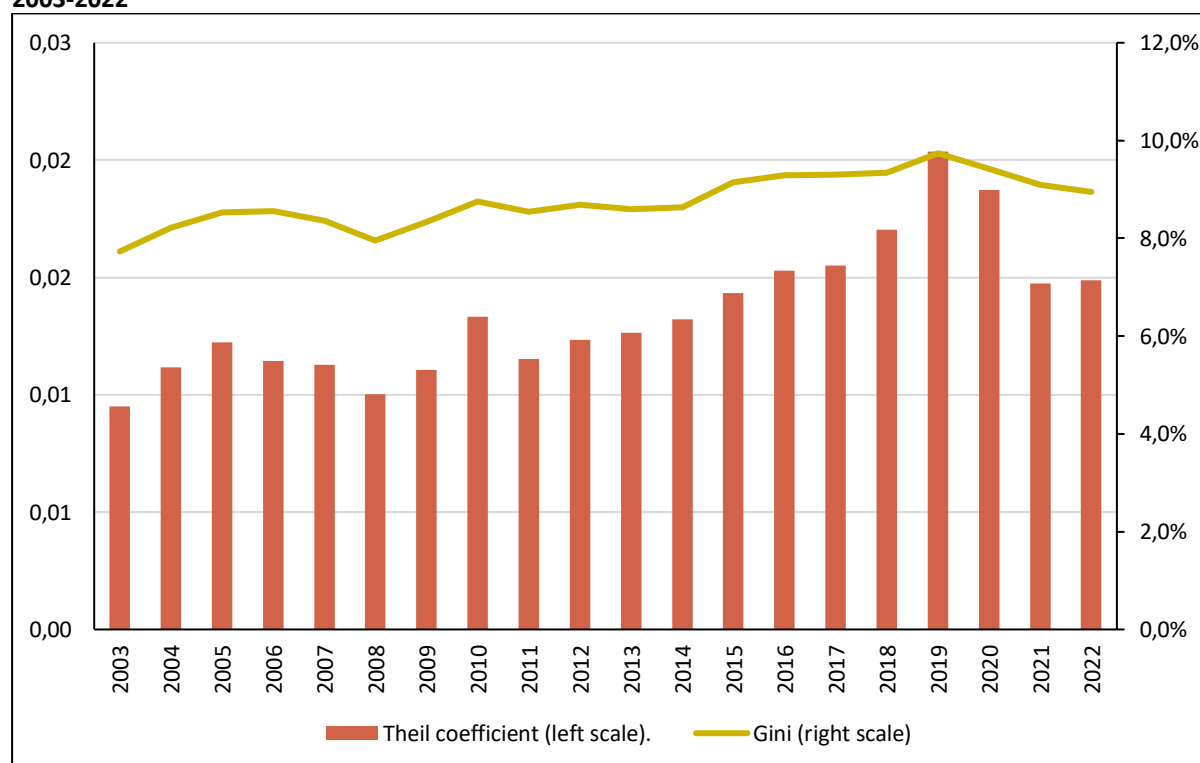
Graph 6. σ -convergence based on the nominal hourly productivity in Belgian NUTS-2 regions, 2003-2022

In %



Source: NAI, calculations Vlaamse Statistische Autoriteit.

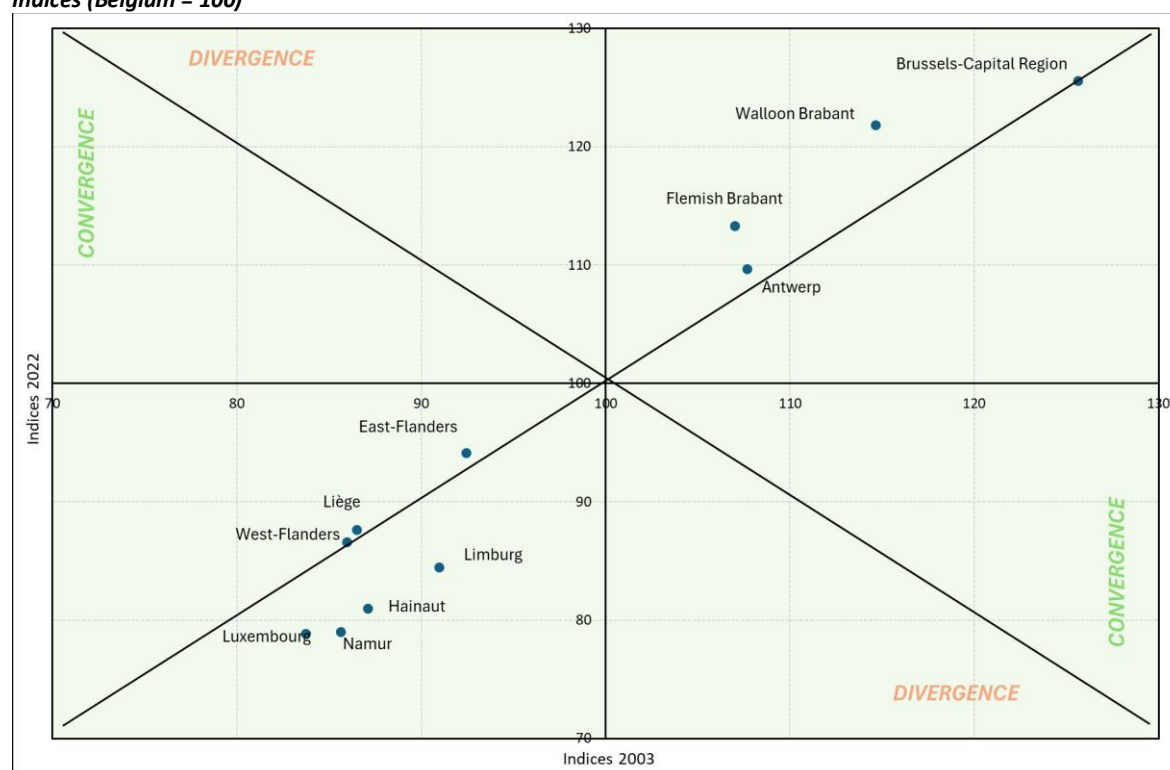
The Theil coefficient, as defined by Neves Costa and Perez-Duarte, runs analogously to the σ value and also increases over the entire 2003-2022 period. In fact, there is an increase until 2019, after which the values decrease again until 2022 but these cannot reverse the overall increase. The Gini coefficient follows the same direction: fairly constant in the first years (up to 2008) and then at a slightly higher level in the last period (with a maximum value in 2019), which therefore also indicates a slightly more uneven distribution overall (Graph 7).

Graph 7. Theil coefficient and Gini coefficient for the nominal hourly productivity of Belgian NUTS-2 regions, 2003-2022

Source: NAI, calculations Vlaamse Statistische Autoriteit .

Figure 8 shows the deviation of the NUTS-2 regions from the Belgian average in 2003 and 2022 (expressed in indices, with Belgium = 100). The nominal hourly productivity converged in 2022 compared to 2003 for three provinces: East Flanders, Liège and West Flanders. The evolution is neutral for the Brussels-Capital Region, while the seven other provinces diverged (more strongly than the convergence of the first three mentioned).

Graph 8. Nominal hourly productivity in Belgian NUTS-2 regions, 2003 and 2022
Indices (Belgium = 100)



Source: NAI, calculations Vlaamse Statistische Autoriteit.

2.4. Conclusion

The indicators thus point to an increased divergence of nominal hourly productivity between the Belgian NUTS-2 regions over the entire 2003-2022 period.

According to the β value, the divergence was limited to the first subperiod (2003-2013) but slightly less pronounced than for the whole period (statistical significance slightly weaker). The σ values and Theil coefficient also support divergence for this subperiod, but barely. For the second subperiod (2013-2022), there is no significant increase or decrease in the β value. The other indicators do point to divergence, albeit only until around 2019-2020.

Possible factors determining the size and evolution of hourly productivity at the NUTS-2 region level were not discussed here. These could include industry composition, presence of growth sectors, investment in R&D, employee education levels, inflation differentials, etc. This could be the subject of future analysis.

3. Climate and Productivity

Climate change affects productivity through two broad families of risks: physical risks (chronic hazards and acute disasters) and transition risks (policies and market shifts on the path to net zero). Mapping these onto the production function clarifies mechanisms at the margin of each production factor. On capital, climate damages can destroy assets outright or divert investment toward adaptation that preserves output but does not raise measured productivity; on labour, heat stress and health shocks lower hours and efficiency, while shifting towards greener economic sectors reshapes local labour pools; on total factor productivity (TFP) and technology, firms face disruption but also incentives to innovate and reorganise production. Over realistic policy paths, an orderly transition—earlier, gradual and credible—produces higher medium- to long-run labour productivity than a delayed/disorderly one, even if near-term reallocation and compliance costs weigh on measured labour productivity. Policy design matters: market-based tools are typically less distortionary than command-and-control, and targeted R&D support accelerates green technology adoption and diffusion while offsetting some short-run drags. For Belgium, priorities are to: (i) keep the transition orderly; (ii) crowd in private green investment (iii) scale green R&D and its diffusion; (iv) support worker mobility and skills to avoid “human” stranded assets; and (v) design adaptation while minimising diversion from innovative capital.

3.1. Channels from climate to productivity

We adopt a production-function lens to structure the analysis: climate affects capital, labour, and TFP and technology via chronic hazards, acute events, and transition policies. This framing helps distinguish first-round impacts (e.g., heat lowering effective labour input) from second-round impacts mediated by reallocation, finance, and technology diffusion. Table 8 guides the narrative and the quantitative interpretation of results throughout the chapter. Uncertainty, however, remains inherent—non-linear physical risks, potential tipping points, and measurement challenges (e.g., abatement capital has no measured output) complicate inference and risk under- or over-stating damages if channels are omitted. We therefore combine macro evidence, micro studies, and model-based scenarios to understand plausible productivity paths for Belgium.

Tableau 8. Channels of impact of climate risks on labour productivity

Risk type	Capital stock	Labour supply	TFP
Chronic physical risk	- Loss of agricultural land from temperature, salinification of soil due to sea level rises and water stress - Shifts in tourism flows - Disruption of economic activity in coastal areas from higher sea levels	- Higher rates of mortality and sickness - Climate-induced migration - Reduced labour efficiency from higher temperatures, including fewer hours worked	- Capital invested in adaptation less productive in aggregate and diverts resources away from innovation - Agglomeration effects from migration might be positive for productivity
Acute physical risk	- Destruction of capital stock in disasters - Opportunity to replace old, destroyed capital with newer, more technologically advanced capital - Greater uncertainty and volatility reduces willingness to invest over long run	- Higher rates of mortality and sickness - Disaster-induced migration - Loss of education and skills	- Disaster-caused bankruptcies and localised reductions in access to finance causes reallocation between firms, for better or worse - Rebuilding process distracts management, reducing overall productivity
Transition risk	- Increase in stranded assets - Higher energy costs from carbon taxes reduce funds for investment	- Skill mismatches increasing structural unemployment - Economic migration	- Reallocation of output between firms within sectors may prove more or less efficient - Environmental regulations reduce productivity, perhaps offset by innovation

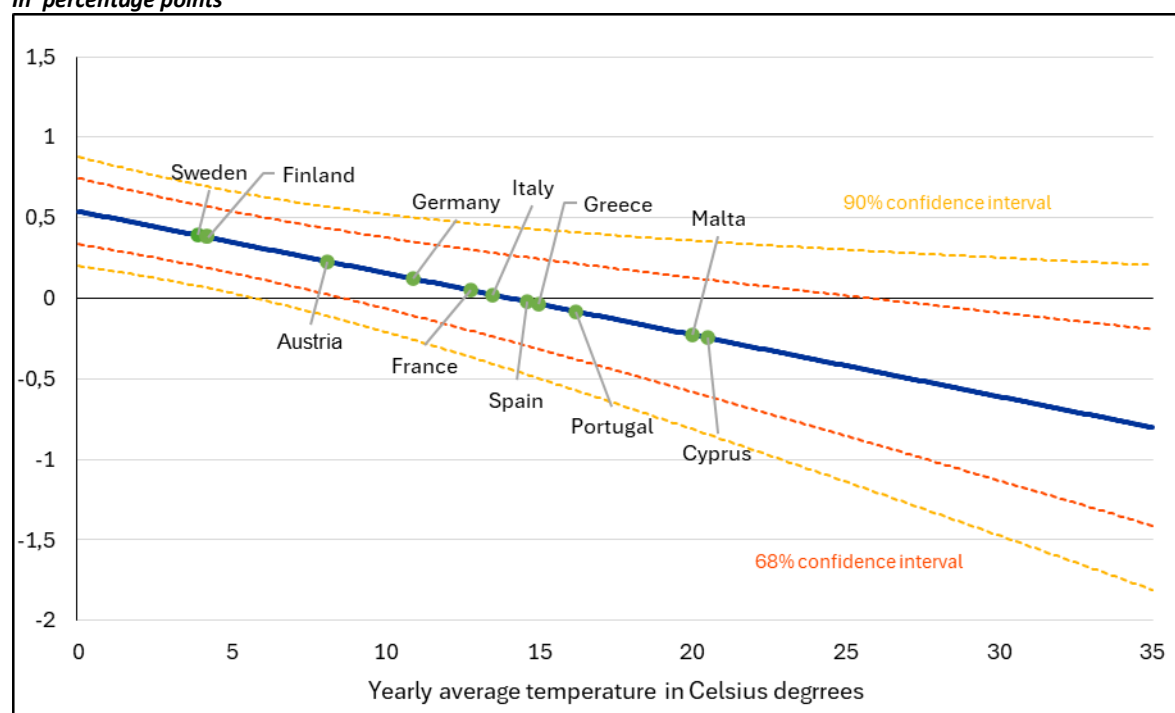
Source: Bijmens et al. (2024).

3.2. Chronic physical risks and productivity: global warming, sectoral exposure, and adaptation

As illustrated in Figure 9, the temperature-productivity relationship is non-linear: warming from low baselines can raise growth, whereas further warming from already warm baselines depresses it (eg., Burke et al., 2015; Bundesbank, 2022). Global estimates often place the turning point near 13–14 °C, close to Belgium’s recent mean (~12 °C). Importantly, this threshold is not universal: its location depends on local determinants—baseline climate, sector mix, urban form, and especially income and adaptive capacity—so damages rise faster where adaptation is costlier or slower. Recent macro evidence underscores that local temperature exposure is the relevant driver of growth losses and that the frequency of hotter days (not just the annual mean) shapes outcomes (Bilal and Känzig, 2024). Under sustained European warming, these mechanisms imply widening regional productivity differentials. Southern Europe faces the greatest headwinds, while Belgium’s temperate, high-income economy is only partially insulated and could, with continued warming, operate more frequently on the negative side of the curve shown in Figure 1.

Recent firm-level evidence from across Europe confirms that higher temperatures significantly depress productivity via the labour channel. An analysis of over 14 European countries finds that a 1°C increase in annual temperature anomaly reduces total factor productivity by about 0.3 %, on average (Gagliardi et al., 2024). Crucially, this effect works through labour efficiency: labour productivity falls by roughly 1.2 % for each 1°C of warming, while capital productivity is largely unaffected. The losses are most pronounced in sectors exposed to outdoor or manual work (e.g. agriculture, construction) and in regions with temperate or Mediterranean climates. This implies even “moderate” climates like Belgium’s face non-trivial risks as hot days become more frequent.

Graph 9. Changes in hourly productivity growth due to an increase in the average yearly temperature by 1°C
In percentage points



Source: Bundesbank (2022).

These findings align with global studies showing that extreme heat directly reduces worker output and increases absenteeism, though adaptation measures can limit the impact (for example, climate control in factories significantly mitigates heat-related productivity losses. Such adaptations, however, come with important opportunity costs: resources spent on cooling, water management, or coastal protection are diverted from innovation or capacity expansion, preserving output in the short run but potentially slowing long-run growth (Dietz and Lanz 2025). Historical evidence confirms this trade-off: the widespread adoption of air conditioning

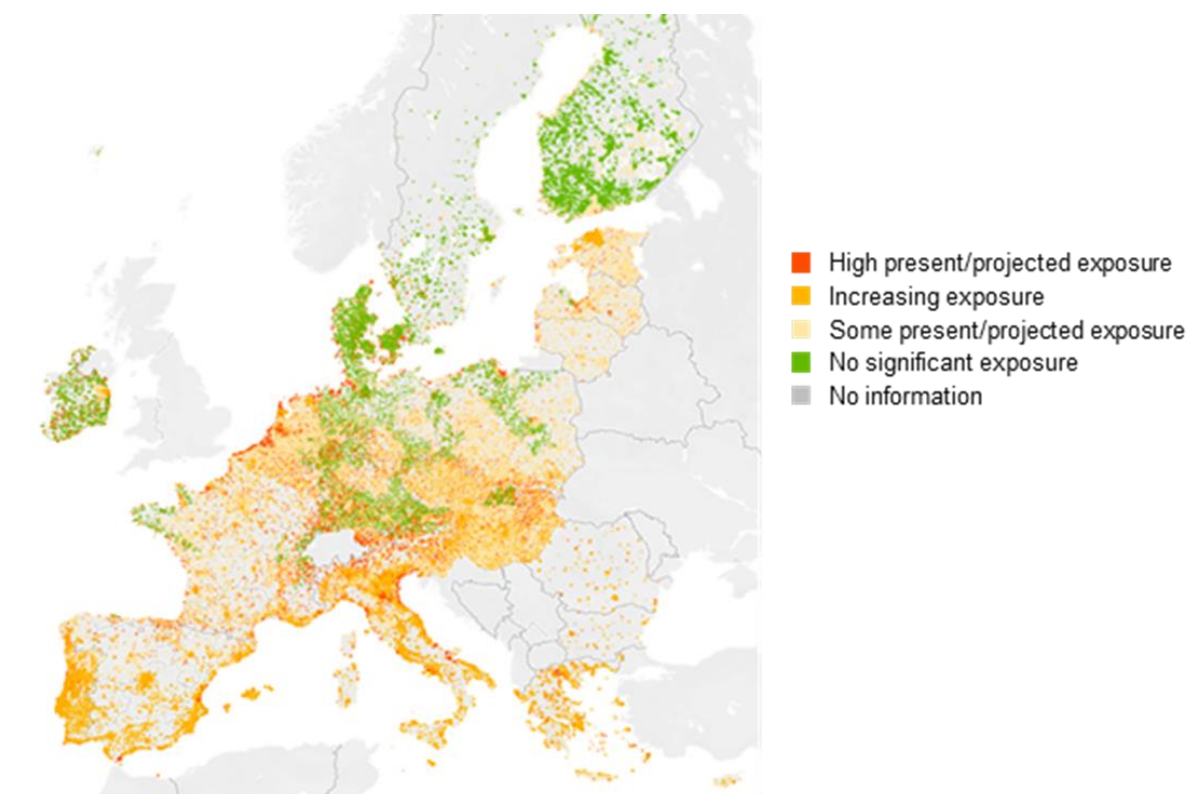
in the United States markedly reduced heat-related mortality and maintained labour supply, yet required substantial capital outlays (Barreca et al., 2016). These dynamics underscore that chronic warming can erode productivity both directly—through reduced labour efficiency—and indirectly, by forcing a reallocation of capital and managerial effort toward defensive investments rather than productivity-enhancing ones. Moreover, recent micro-to-macro work shows that climate shocks worsen allocative efficiency when firms cannot adjust inputs (especially capital) quickly, helping explain why measured productivity may fall even when firms are actively investing to adapt or rebuild (Caggese et al., 2025).

For Belgium, which has historically benefited from a temperate baseline climate, the widening productivity differentials observed between cooler and hotter regions highlight that even northern economies must brace for heat stress impacts. Sectoral exposure is highly heterogeneous: agriculture, construction, outdoor logistics, and some manufacturing lines face work-hour and labour-efficiency losses as hot days accumulate; tourism patterns may shift northward; and low-lying coastal zones face salinification and flood risk. Targeted adaptation (cooling for workers, revised work schedules, and climate-resilient infrastructure, ...) will be essential to buffer productivity, but policy must also ease input adjustment and preserve room for innovation so that adaptation does not unduly siphon resources away from growth-enhancing uses and the broader orderly transition.

3.3. Acute physical risks : disasters, networks, and resilience

Acute events—floods in northern/central Europe, heatwaves/droughts/wildfires in the south—are set to become more frequent and severe. Because firms are connected through input–output networks, localised shocks can propagate into macro-relevant losses when critical suppliers or infrastructure fail (see the box on the Vesdre Valley flooding in 2021). Once local resilience (insurance coverage, liquidity buffers, access to credit, institutional capacity) is exceeded, firm exits and prolonged downtime translate into larger, more persistent TFP losses. Corporate exposure varies across risk drivers (floods, heat stress, sea-level rise); mapping exposures helps prioritise critical assets for protection (Alogoskoufis et al., 2021)

Graph 10. Corporate exposure to physical risk drivers (floods, heat stress, seal level, etc.)



Source: Alogoskoufis et al. (2021).

Finance and insurance penetration are pivotal for productivity after disasters. Timely payouts and bridge financing enable faster capital replacement and workforce retention; without them, even viable firms can fail, leading to scarring and local misallocation. Adaptation to more frequent shocks may raise precautionary saving, depress risk-tolerant investment, and thus slow capital deepening. For Belgium, given recent flood experience, rapid restoration of transport nodes and supplier diversification reduce supply-chain amplification and shorten the window of productivity loss.

Box: The 2021 Vesdre Valley Floods: Firm-level losses and supply-chain propagation

In mid-July 2021, record rainfall turned parts of Wallonia and the German Eifel region into disaster zones. Rainfall in the Liège region exceeded 250 mm within 48 hours; over 100,000 people were affected, 48,000 buildings were damaged (including ~3,000 firms), and 559 bridges were destroyed. Estimated economic damages surpassed €10 billion, making it one of the most severe European flood events in recent decades.

Bijnens, Montoya and Vanormelingen (2025) identify the flooded firms, their clients and suppliers to identify both direct and network-propagated impacts.

Direct impact on flooded firms

Relative to similar firms outside the flooded zone, sales fell ~25 % in the quarter immediately after the floods, with effects dissipating by the fourth quarter. Conditioning on survival, the average contraction is ~15 % and lasts at least three quarters. Employment dipped ~5 % (FTE) in the following quarter, while investment surged, consistent with capital replacement and repairs after destruction of premises and equipment. Exit probabilities rose measurably among flooded firms.

Propagation through supply chains

One percentage point more upstream exposure (reliance on suppliers in the flooded set) reduced a firm's sales by ~0.32 % in the next quarter; these upstream effects are negative and persistent for up to four quarters. Downstream exposure (reliance on flooded buyers) is weaker and less systematic on average, consistent with temporary demand rebounds from restocking and reconstruction.

Relationship margins and adaptation

Links are more likely to break when the supplier was flooded: surviving buyer–supplier pairs involving a flooded supplier were 4–8 pp more likely to terminate the relationship the following year, with the largest break rates in newer ties. Where the buyer was flooded, surviving relationships often saw higher transaction values in the year after the shock—consistent with accelerated purchases to rebuild capital and inventories. New supplier links formed after the floods were, on average, ~6 km farther from the inundated areas, indicating geographic diversification of risk.

Who is more resilient?

Among exposed firms, vulnerability was greater when upstream purchases were concentrated in a few industries and when imports-to-sales shares were higher, suggesting complementarities between domestic and imported inputs limit substitution in the short run. By contrast, simple network size metrics offered limited protection. Importantly, capital spending by flooded firms dampened propagation to connected firms—especially those positioned downstream and active in capital-goods–related industries.

Macro footprint

Since the flooded area was of lower economic significance, the aggregate impact remained limited. Aggregating firm-level shocks, including supply chain, yields an economy-wide negative GDP effect on the order of ~0.03 percentage points. Small in aggregate but sizable locally and in exposed chains.

Policy cues

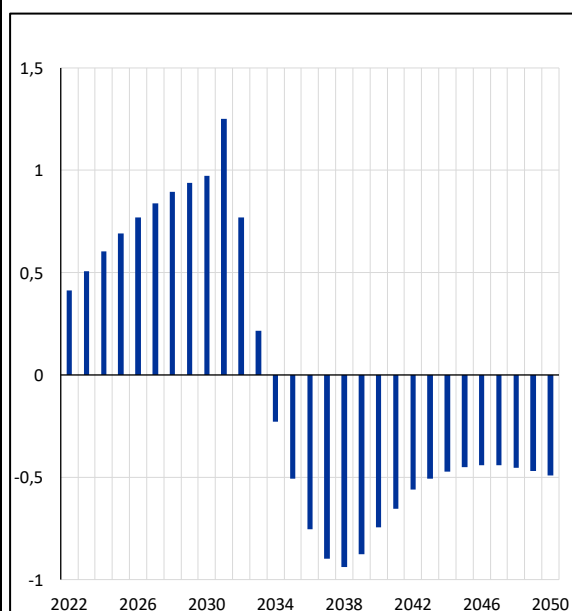
Fast insurance payouts and bridge/transport restoration limit upstream scarring; temporary support that accelerates capital replacement has positive spillovers; and supplier-mapping plus targeted incentives for geographic and industry diversification reduce persistence of shocks along the chain.

The Belgian flood example is consistent with international evidence: direct damage caused steep, short-run drops in output for affected firms, and indirect effects propagated to connected firms albeit to a lesser degree. The persistence of such shocks can be substantial – if recovery is slow or financing constraints force firm exits, temporary losses turn into longer-run TFP declines as know-how and supplier relationships dissolve. On the positive side, global evidence highlights the value of resilience investments: firms (or regions) with better insurance coverage, diversified supply sources, and access to credit tend to rebound faster, containing the productivity fallout. For instance, Japanese multinationals mitigated losses from the 2011 earthquake by reallocating production to overseas affiliates, and U.S. firms integrated into global networks were able to find alternative inputs after Sandy, avoiding international spillovers (Matous et al. 2018).

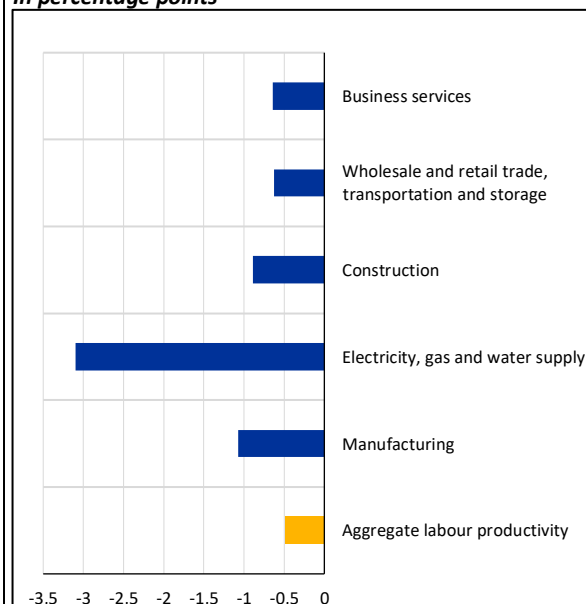
3.4. Transition risks : policy sequencing, pricing, and productivity

The productivity path depends critically on policy sequencing. Simulations using macro models with Network for Greening of the Financial System (NGFS) scenarios show that an orderly transition front-loads carbon-price increases and institutionalises credible trajectories (Figures 11a and 11b). This initially depresses output more than a disorderly path but avoids sharp late-cycle spikes in carbon prices that cause larger disruptions, stranded assets, and sectoral scarring. From the early 2030s onward, a disorderly path features significantly higher emissions costs and lower labour productivity, with sectoral impacts mediated by production linkages. For 2050, energy and energy-intensive sectors are most affected in a disorderly case, while services and knowledge-intensive activities benefit relatively from predictability.

Graph 11a. Difference in projected labour productivity between a disorderly and an orderly transition
In percentage points



Graph 11b. Difference in projected labour productivity between a disorderly and an orderly transition in 2050 by sector
In percentage points



Source: Calculations Deutsche Bundesbank.

These model-based findings are consistent with real-world experience. Countries that implemented predictable carbon pricing early – such as the Nordic countries' carbon taxes in the 1990s – generally did not see productivity suffer in the long run, since firms had time to adapt and innovate. In contrast, abrupt policy shifts have often

triggered short-term productivity losses, especially in energy-intensive industries, due to uncertainty and rushed compliance. Research on European firms corroborates this picture: well-designed environmental regulations can spur innovation that partially or fully offsets compliance costs, while ill-timed or unpredictable measures depress productivity in the short run.

Policy instrument choice plays a decisive role in shaping productivity outcomes. Market-based tools such as emissions trading systems (ETS) or carbon taxes typically induce fewer distortions than command-and-control mandates and provide clearer signals for innovation (Benatti et al., 2024). Still, price signals alone may be insufficient to trigger the scale of innovation required. Complementary policies that promote research and development, diffusion, and standard-setting (procurement schemes, interoperability rules ...) are needed to ensure that clean technologies can scale rapidly where knowledge spillovers are large. Importantly, measured productivity can temporarily appear to fall when abatement technologies add extra steps in production (for example, carbon capture and storage) without raising measured output; national accounts do not credit the avoided damages from climate change.

Firm- and industry-level evidence points to qualified Porter-type effects: when environmental policy is predictable, price-based, and credible, frontier firms and sectors often respond with innovation that raises total factor productivity after an adjustment period. By contrast, abrupt or non-price-based measures, especially under tight financial conditions, tend to depress productivity in the short run, particularly for lagging firms. For Belgium, this underscores the importance of a credible, gradual decarbonisation roadmap built around market-based instruments (eg an expanded ETS or a carbon tax with revenue recycling) which are effective at cutting emissions with limited productivity costs. Yet price signals alone are insufficient. Complementary policies (green R&D funding, demonstration and first-of-a-kind projects, interoperable standards, procurement rules, and tools to accelerate the diffusion of mature clean technologies) can transform compliance costs into productivity-enhancing innovation. Evidence from euro-area firms shows that well-designed policy mixes crowd in clean investment and green patenting, easing the near-term drag and supporting longer-run productivity (Benatti et al., 2025). International experience reinforces this: Germany's feed-in tariffs and China's scale-driven cost reductions in renewables demonstrate how public support and learning-by-doing can rapidly lower clean technology costs, expand industrial opportunities, and ultimately strengthen productivity growth.

In summary, the evidence from both academic research and scenario modelling underscores that an orderly, well-signalled transition, coupled with pro-innovation climate policies, offers the best chance of minimising near-term productivity sacrifices while strengthening the foundations for greener productivity growth in the longer term, both across the EU and for Belgium specifically.

3.5. Reallocation and labour markets: from brown to green without “human” stranded assets

Transition policies reallocate output and production factors between sectors (e.g., fossil fuels → low-carbon power; installation/retrofit booms) and within sectors (high- → lower-emission firms). Because many carbon-intensive activities begin with high measured labour productivity, a shift toward installation- and construction-heavy work can mechanically lower aggregate labour productivity for a time, even as welfare improves. Within sectors, cleansing dynamics raise average productivity if less efficient, high-emission incumbents exit and more productive, cleaner firms scale.

Whether higher emissions costs reduce economic activity remains debated, but they clearly act as a driver of reallocation. Shifting output away from the most emission intensive firms, sometimes labelled “brown zombies,” can achieve significant emissions reductions with limited output losses if capital and skills are redeployed efficiently (Bijnens and Swartenbroekx, 2024). Policy should therefore promote competitive neutrality, smooth exit of unviable firms, and access to finance so that cleaner, more productive firms can expand. Productivity losses during the transition are amplified when capital and labour cannot move quickly to higher productivity, lower emission uses. Belgium can dampen this margin with streamlined permitting, predictable infrastructure timelines, liquid markets for asset repurposing, and financing tools that allow viable firms to pivot without prolonged downtime.

Most jobs are not intrinsically “brown.” International research shows that the workforce transition from carbon intensive to green occupations may be less daunting than often feared, provided worker mobility is supported (Vandeplas et al 2022). A cross-country analysis of skill profiles finds that most workers in high carbon occupations already possess many of the skills needed in emerging green jobs, meaning their human capital is largely transferable (Tyros et al., 2023). For example, an oil refinery technician’s competencies in electrical systems and safety procedures overlap with the requirements for a wind turbine maintenance technician. The main exceptions are certain routine production roles that are highly automatable and often lack the advanced or technical skills demanded in green industries.

Belgium is relatively well positioned thanks to its high-skilled labour force and established training systems, but regional and sectoral pockets still require targeted upskilling. Case studies highlight the importance of active labour market policies. In Germany’s Ruhr area, the phase out of coal mining was accompanied by comprehensive retraining and early retirement programs, which helped avoid mass unemployment and skill erosion. In contrast, abrupt industrial closures without support generated persistent joblessness. The key lesson is that reallocation can be productivity enhancing if frictions are minimised. Policies that recognise and certify existing skills, such as enabling an HVAC technician to qualify as a heat pump installer, and measures that support geographical mobility, help preserve employment and productivity. Vona et al. (2018) show that targeted training for at risk workers yields high returns, since most brown occupations can become fully productive in green jobs after relatively short additional training. By avoiding long unemployment spells and skill mismatches, i.e. preventing “human stranded assets”, these policies ensure that productivity losses during the transition are temporary and limited.

3.6. Possible levers for Belgium’s productivity agenda

In conclusion, in order to align climate and productivity growth agenda, the following recommendations are possible:

- Commit to an orderly transition path. Pair carbon pricing with predictable revenue recycling (e.g., lowering distortionary taxes, targeted transfers, green investment).
- Scale green R&D and diffusion via market signals, R&D support, demonstration projects, and diffusion mechanisms (procurement standards, interoperability).
- Mobilise private finance and close the insurance gap; strengthen catastrophe-risk pooling; de-risk viable green investment via guarantees and stable frameworks.
- Back efficient reallocation; ensure competition and exit frameworks function in transition-stressed sectors; remove barriers that lock in high-emission incumbents.
- Invest in workforce mobility: anticipate regional pressures; fund reskilling aligned with transferable skills; certify experiential learning; support mobility.
- Only support adaptation that minimises diversion from innovative capital formation.

4. Innovative start-ups and scale-ups

Early 2025, the European Commission presented its *Competitiveness Compass*, a five-year strategy based on the recommendations from the Draghi report, *The Future of European Competitiveness*. A key finding of this report is that Europe still relies too heavily on static economic structures. According to Draghi, Europe must reinvent itself by focusing more heavily on disruptive or groundbreaking innovation. Innovative start-ups and scale-ups play a key role in this: although limited in number, they can grow into a new generation of technological frontrunners that not only create high added value but also generate positive spillovers for the broader innovation ecosystem (including non-market actors)⁴. These businesses can also help reduce dependence in strategic sectors and key technologies, thus strengthening European resilience.

However, in his report, Mario Draghi pointed out that too many innovative companies are leaving Europe for more favourable conditions in the U.S. or Asia. Only 8 % of global scale-ups are based in Europe, and nearly 30 % of European unicorns⁵ founded in the EU between 2008 and 2021 now operate outside Europe. In response, the EC presented its *Start-up and Scale-up Strategy* in May 2025 as part of its *Competitiveness Compass*.

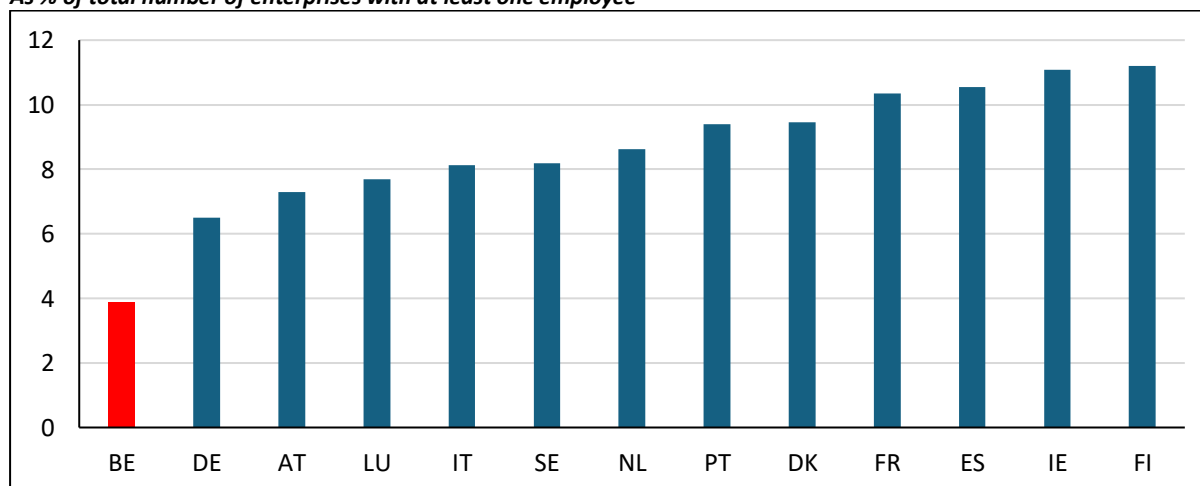
This strategy is built around five core challenges facing innovative start-ups and scale-ups. The section below identifies the main issues experienced by Belgian start-ups and scale-ups in each of these areas, how policy responds to them, and where there is still room for improvement. First, however, it outlines the Belgian start-up and scale-up landscape.

4.1. Innovative start-ups and scale-ups in Belgium: some figures

It is not easy to get a clear picture of the number of start-ups and scale-ups in Belgium compared to other countries. The lack of a uniform European definition presents a major challenge. In practice, the term *start-up* usually refers to young companies with a strong commitment to innovation, often financed through venture capital and aiming for rapid growth from the start. Based on these characteristics, we try to give an overview below of the start-up and scale-up landscape in Belgium.

When looking at the overall entry rate of new enterprises with at least one employee, Belgium scores poorly from an international perspective.

Graph 12. Entry rate of enterprises with at least one employee, average 2021-2023
As % of total number of enterprises with at least one employee



Source: Eurostat.

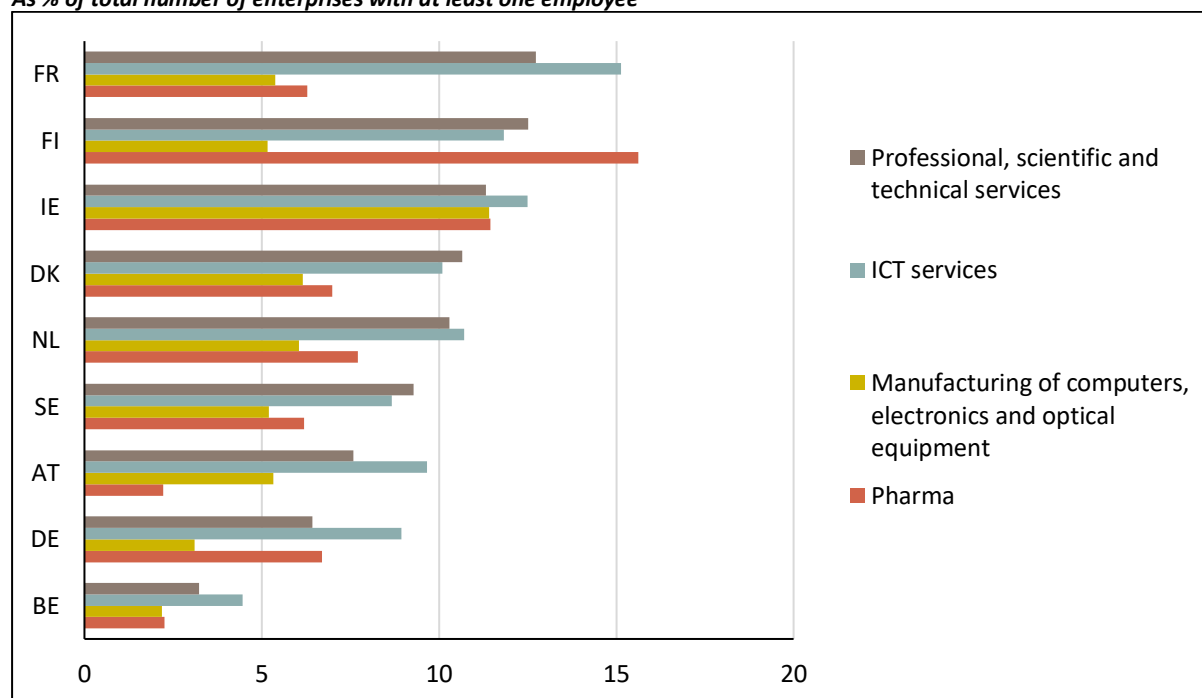
⁴ Start-ups and scale-ups not only provide spillovers to the market sector but can also deliver positive effects on the non-market sector. For example, clinical research by biotech companies creates significant employment in hospitals.

⁵ A private company with a valuation of at least USD 1 billion.

However, this group is broader than the innovative start-ups group. While it is difficult to link growth intent directly to specific branches, it is not illogical to assume that entrants in high-tech sectors and knowledge-intensive services tend to be more ambitious. However, the figures below show that, even in these sectors, Belgium's entry rate is low compared to other countries.

Graph 13. Entry rate of enterprises with at least one employee in a number of high-tech and knowledge-intensive sectors, 2021-23

As % of total number of enterprises with at least one employee

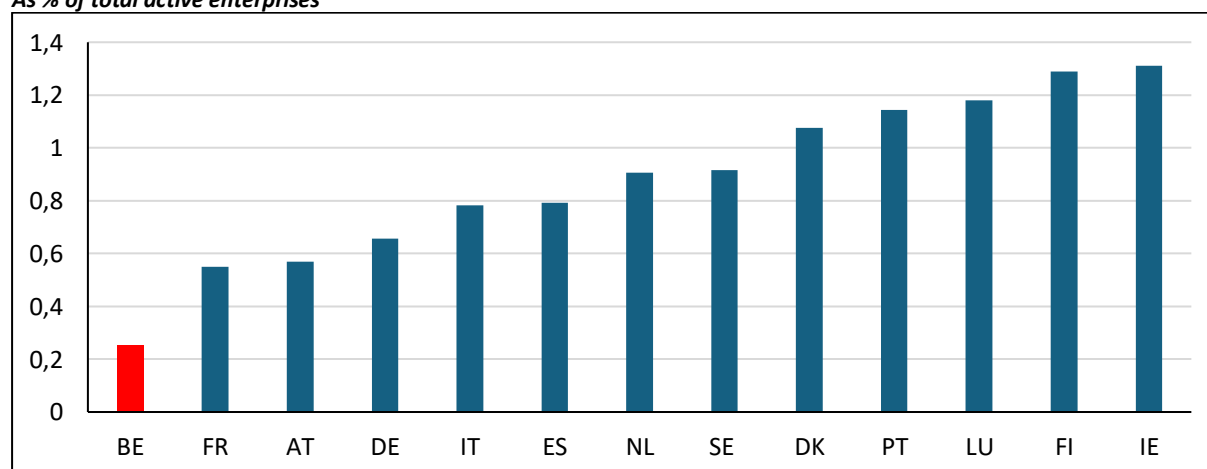


Source: Eurostat.

An analysis of the continued growth of these start-ups yields the same picture. The proportion of young enterprises growing at an average rate of 10 % per year over three years is much lower than the European average. The same applies when looking at high-growth enterprises in general (regardless of age). On the positive side, these proportions seem to increase slightly over the 2021-2023 period: the proportion of young high-growth enterprises increased from 0.22 % in 2021 to 0.27 % in 2023, while the total number of high-growth enterprises increased from 5.66 % to 7.32 % over the same period.

Graph 14. Young high-growth enterprises, average 2021-2023

As % of total active enterprises

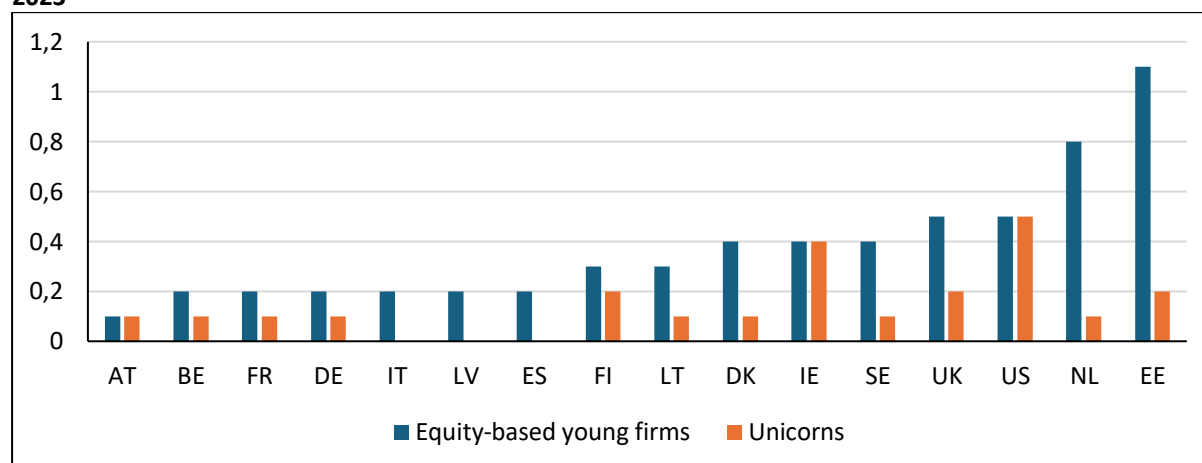


Note: These are enterprises that have been established for less than five years and that have at least 10 employees. Growth is measured based on employment.

Source: Eurostat.

Because start-ups and scale-ups mainly rely on equity and venture capital, the following section examines the number of young firms funded with equity (equity-based young firms) and the number of unicorns per million inhabitants (private enterprises with a valuation of at least USD 1 billion). Belgium is also at the back of the pack when it comes to these indicators. In any case, it concerns a limited number of enterprises. According to the Digital Economy and Society Index (DESI) dashboard⁶, Belgium had only seven unicorns in 2024. Even in better-performing small countries such as the Netherlands, Sweden and Ireland, the number of such enterprises is relatively low (32, 39 and 13 unicorns, respectively).

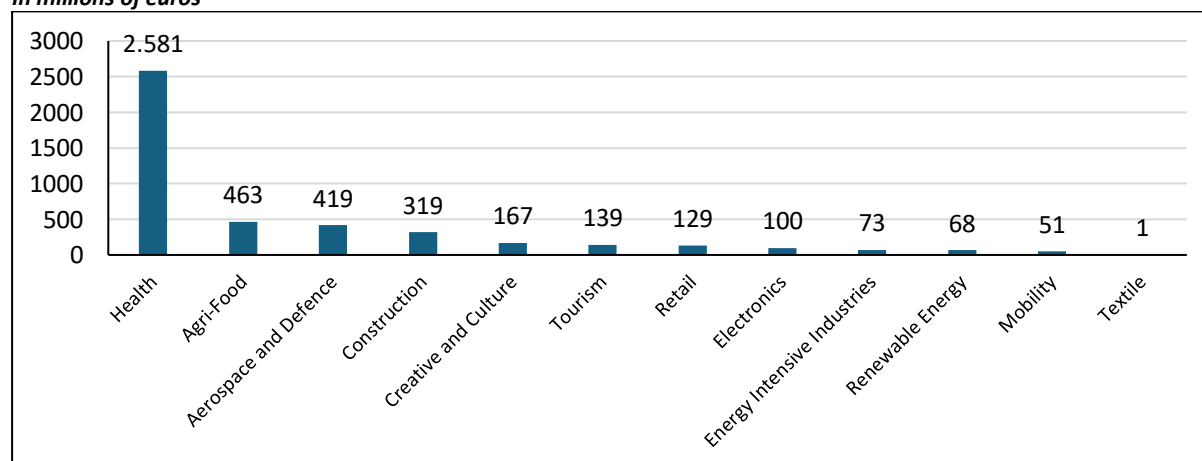
Graph 15. Number of equity-funded young enterprises and unicorns per million inhabitants, average 2020-2023



Source: Crotti et al. (2025, p. 71).

An analysis of the distribution of private equity and VC (venture capital) investments in Belgium over the period 2015-2023 shows that the majority goes to enterprises active in the 'health' sector, which demonstrates the importance of start-up and scale-up activities in biotech/pharma and medtech in Belgium. Agri-Food and Aerospace and Defence are ranked second and third, respectively. The high VC investments in health and nutrition reflect our industry's specialisation in pharma and nutrition sector.

Graph 16. Private equity and venture capital investments in Belgian enterprises, average 2015-2023
In millions of euros



Source: European Commission (2023).

⁶ The Digital Economy and Society Index (DESI) figures differ from those of Crotti et al. (2025). DESI uses [Dealroom data](#) and includes all tech companies founded after 1990 that are currently headquartered in the EU/BE and are (have been) worth more than USD 1 billion. Companies that are currently worth less than USD 1 billion but achieved an exit value of more than USD 1 billion at the time (possibly via IPO) are also included. Crotti et al. (2025) consider only private companies with a valuation above USD 1 billion and use data from CB Insights.

However, it should be noted that there are regional differences in this area. In the Brussels-Capital Region, the focus is mainly on entrepreneurship in digital technologies (such as Internet-of-Things (IoT), Virtual Reality (VR), Artificial Intelligence (AI) and big data), which can also indirectly play a role in biotech/pharma (e.g. Predictive models, 3D MRI).

Within Belgium, the various regions are taking initiatives to map their start-up ecosystems. In July 2025, for example, VLAIO (Flanders Innovation & Entrepreneurship government agency) published its Scale-Up Monitor for the first time, which looks at both the inflow of new innovative start-ups⁷ and their growth trajectory. A comparison of Flanders with seven other European NUTS regions shows that Flanders' Achilles heel lies in the growth phase; the number of innovative start-ups that have an annual growth rate of at least 20 % over two consecutive three-year periods (measured on the basis of employment or gross added value) is clearly lower than in the benchmark regions. The Walloon Region will also develop, as part of StartUp.Wallonia, a directory of the ecosystem listing start-ups, incubators and VCs, enabling data to be compared with other ecosystems and statistics to be compiled. In the Brussels-Capital Region, initiatives such as BECI's The Map seek to map the innovative ecosystem.

In the absence of a common definition and harmonised figures, the initiatives of the various regions cannot be easily compared and there is no clear picture of the evolution of the ecosystem at the Belgian level.

The European Commission is planning to propose a common definition of start-ups, scale-ups and innovative enterprises by early 2026, as well as to introduce a scoreboard for start-ups and scale-ups to track ecosystem performance. The European Startup Nations Alliance (ESNA) is also working on developing a Data Platform that will provide figures on start-up ecosystems in different EU countries (first release planned by the end of 2025).

It is important that these initiatives be followed up further so they can be used as tools to support political decision-making.

4.2. Key challenges for innovative start-ups and scale-ups

The European *Start-up and Scale-up Strategy* is built around five areas identified by the European Commission as key challenges currently facing start-ups and scale-ups in Europe. The following examines by area the biggest challenges for start-ups and scale-ups in Belgium, what policy responses are already in place to address them, and where there is room for further improvement.

a. Innovation-friendly regulation

Challenge

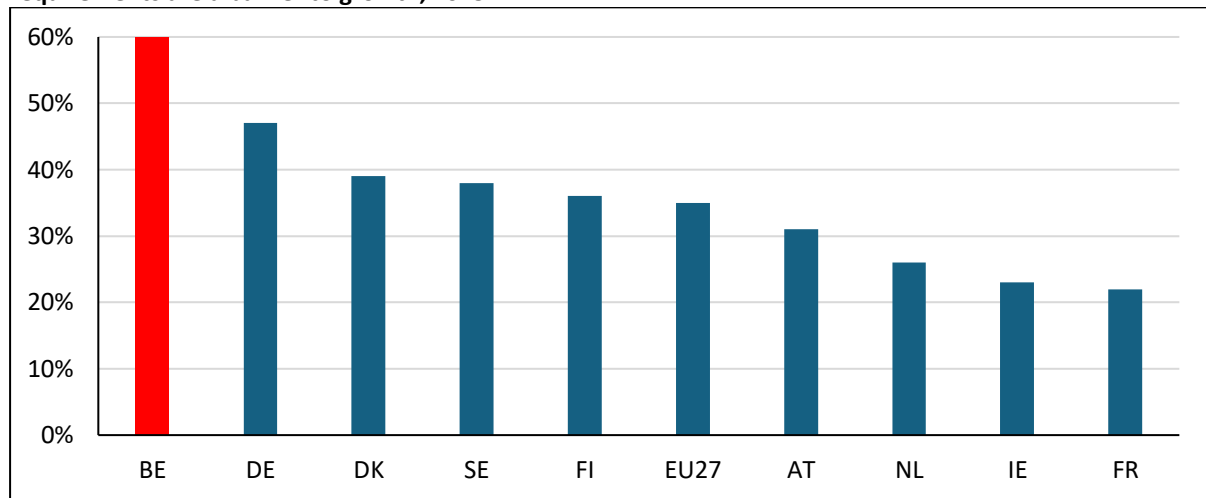
Start-ups and scale-ups developing innovative technologies often face significant regulatory challenges that hinder their growth and competitiveness. This is certainly true in Belgium, where 60 % of SMEs planning to grow in the coming years say that regulatory or administrative requirements are a major barrier to growth.

In its Country Report for Belgium, the EC highlights the high regulatory burden in Belgium. Among other things, it points to the high costs of regulatory compliance; in Belgium, the proportion of SMEs using more than 10 % of their staff for this purpose is the second highest in Europe. There also seems to be room for further improvement in guiding small businesses through the administrative processes (OECD, 2024). The latter is in line with the results of the biennial survey on administrative burdens in Belgium, which found that less than half of enterprises find it easy to contact the competent service (Kegels, 2024). The division of powers between the federal and regional levels complicates matters because different agencies must be consulted (EC, 2025c). The EC (2025a) also points to the high level of product market regulation in Belgium, which creates high entry and conduct barriers in many service sectors. In addition, there are still barriers to business exit, which can cause production resources to remain tied up for too long in inefficient enterprises and therefore become unavailable for more

⁷ Start-ups are defined here as companies up to five years old, active in innovative or high-tech sectors such as ICT, Life Science, Energy and Environment. Only companies with a legally registered office in Flanders are considered. Furthermore, only companies without predominantly external shareholders are included.

productive operations. In this context, the OECD (2024) points to the still relatively complex insolvency framework in Belgium.

Graph 17. Share of SMEs with growth plans for the next few years indicating that regulatory or administrative requirements are a barrier to growth, 2025



Source: European Commission (2025d), p. 47.

Regulatory fragmentation within Europe is a significant barrier, certainly for innovative start-ups and scale-ups. Differences in national legislation increase costs and complexity and cause delays in market introductions when new products or services must comply with multiple national approval procedures. This complicates cross-border activities. In some cases, scale-ups looking to grow internationally choose to relocate to the U.S. to gain direct access to a large, integrated market.

Even where European regulations exist, harmonisation is not always complete in practice. First of all, directives must be transposed into national legislation. Belgium performs poorly in this regard (ranking 21st in the EU27). But there are also often differences in national interpretations and enforcement of European regulations. The EC gives the example of General Data Protection Regulation (GDPR) and differences in interpretation by national *Data Protection Officers* (DPOs), which creates additional barriers for European innovators (EC, 2025b).

Finally, there are specific challenges associated with the pace at which new technologies are evolving. If existing frameworks cannot adapt quickly enough, they can become barriers to innovation. There is also a risk that prematurely introduced or insufficiently flexible new regulations may lead to measures that are disproportionate to the actual risk (EC, 2025b). According to the EC, the impact of (new) regulations on innovation is still insufficiently evaluated. In Belgium, nearly a quarter of SMEs with growth plans (23 %) say that a lack of an innovative regulatory environment is a barrier to growth (EC, 2025d).

Rapid technological development also causes regulatory uncertainty. It is often unclear how existing legislation should be applied to innovative digital technologies and business models and a lot of regulation is new (e.g. the obligations arising from the AI Act). Enterprises therefore often have questions in practice about the interpretation of rules and which solutions best align with the regulations. [Statbel's annual survey on the use of ICT and e-commerce in businesses](#) reveals that in 2024, legal issues such as data protection and privacy, as well as uncertainty about legal consequences, were in the top three barriers to AI adoption for the first time. In Belgium, 43 % of SMEs that once considered using AI said they did not go ahead with it because of challenges in this area, which is a sharp increase from 2021.

Policy

The various governments in Belgium took/are taking initiatives to reduce the regulatory and administrative burdens on enterprises. For example, as part of the National Plan for Recovery and Resilience, several measures were taken at both the federal and regional levels around digitisation of administrative processes. A number of additional initiatives were recently launched. The federal government plans to launch a series of new initiatives by the end of 2025 to further simplify and digitise administrative processes within the Federal Action Plan for

Administrative Simplification and, in July 2025, established an administrative simplification working group within the framework of Make 2025-2030. In February 2025, the Government of Flanders launched the Regelrecht project, a broad reform programme aimed at administrative simplification and reduction of regulatory burden. With the 2020-2025 plan for administrative simplification and the Easybrussels Agency, Brussels aims to reduce administrative burden and promote the digitisation of public services (including schools) in the Brussels Region. In the Walloon Region, the Digital Wallonia strategy is currently being updated and includes programmes to further digitise services and develop the use of data and digital services for internal processes.

In addition to administrative simplification, regulations must also be sufficiently innovation-friendly. In this context, the EC will propose a voluntary 'Innovation Stress Test' to Member States by early 2026 to help legislators structurally assess the innovation impact of regulations. Regulatory sandboxes can also contribute to innovation-friendly regulation. They not only provide enterprises with regulatory compliance support during the development and testing of innovations and promote their market acceptance, but also enable regulators to better understand the interplay between regulations and emerging technologies.

The various regions are experimenting with sandbox environments. In Flanders, VLAIO organises living labs where innovations in the field of circular and sustainable economy are tested in practice, and Sandbox Flanders creates an environment to experiment with innovative ideas, products and technologies within the Flemish government. In the Walloon Region, two living labs were selected to test innovative technologies in renewable energy, and the TEF-Health 2023-27 project allows providers to test their solutions in real-world conditions (hospitals). Both Flanders and the Walloon Region are experimenting with a regulatory sandbox in the energy sector. In the Brussels-Capital Region, AI and robotics applications can be tested in a controlled sandbox environment at the FARI AI Test&Experience Center. The Agile Platform of Brussels Environment is looking at how to adapt legislative and administrative frameworks to stimulate sustainable development and ensure environmental protection. And at the federal level, a study is underway to prepare the sandbox, which must be set up no later than August 2026 to comply with the AI Act.

As part of the European Innovation Act, the EC (2025a) wants to further stimulate regulatory sandboxes by, among other things, defining a number of basic principles for establishing them in early 2026. It is important to follow up on this work and explore how such initiatives can also be further promoted in Belgium and ensure the access of start-ups. It is also useful for regulators to share the learning outcomes of the sandbox as much as possible (in an anonymised form) to support the broader innovation ecosystem and that the lessons learned are also used to improve or clarify existing (national and European) regulations.

Finally, especially for a small country like Belgium, a well-functioning European single market is essential for business growth and scale-up. Urgent measures are needed at the European level to remove remaining regulatory barriers to the single market and effectively enforce existing single market rules. Belgium must fully support this and have an even stronger presence at the European level so that the interests of Belgian start-ups and scale-ups can be included in the development of European regulations.

In addition, Belgium itself should make further efforts to transpose EU directives into national law more quickly, while avoiding going beyond what the EU requires. As emphasised in the NRP's previous report, gold plating should remain the exception. If it does occur, it should be accompanied by a thorough impact assessment and clear justification.

b. Financing

Challenge

A well-developed financial ecosystem is crucial for the development of innovative start-ups and scale-ups. Venture capital plays a key role in this because it serves as a source of financing and often provides access to expertise and networks that are important for enterprises with a high risk profile.

However, the European VC market is small compared to the U.S., which is down to several factors. First, demand for venture capital is lower in Europe than in the U.S., not only because of lower business dynamics but also because of a lack of equity culture. But there are also some striking differences on the supply side, such as the dominant position of banks (and risk-averse savers) in the European financial landscape and the limited role

played by pension funds and insurance enterprises in the venture capital market. Moreover, differences in national regulations⁸ fragment the European capital market. As a result, cross-border investment remains low, which limits growth prospects and may encourage innovative enterprises to seek larger markets and easier financing outside Europe. The EC (2025a) also notes a clear funding gap for scale-up financing for high-risk, capital-intensive technologies requiring investments of over EUR 100 million.

Belgium does slightly better than the EU average in terms of VC investment as a percentage of GDP (28.3 % above the EU27 average in 2025) but underperforms compared to leaders such as Estonia, the UK, France, Finland, Sweden and Denmark (EC, 2025e). In Belgium, as in other European countries, this is partly due to a limited VC culture. A survey of Belgian growth enterprises found that these enterprises have a clear preference to finance themselves through internal resources or bank financing to maintain control. In addition, a lack of knowledge and competencies in non-bank financing was cited as an important explanation (CRB, 2019). But there are also challenges on the supply side. The venture capital market in Belgium often still proves to be too small, especially when large rounds of capital are needed for a risky expansion. According to interviews conducted with Belgian Tech stakeholders (leading entrepreneurs and investors), it has become less challenging in recent years for high-potential start-ups to raise early-stage capital and support due to the increasing interest in start-up investments from business angels, incubators, accelerators and early-stage VC funds, but there is still a lack of financing for later growth stages and scale-up funding (Syndicate One et al., 2024). Bigger tickets and patient money remain difficult.

A key challenge is to better leverage the savings of individuals and the resources of institutional investors. As in many other European countries, the role of institutional actors in VC investments is limited in Belgium. However, the EC (2025b) points to initiatives by some countries (e.g. France and Germany) to mobilise institutional investors to invest in VC.

In Belgium, the inflow of foreign capital is also significant. VLAIO (2025) found that, in 2023, one in three financing rounds in Flanders included a foreign investor. In terms of attracting foreign financing, Syndicate One et al. (2024) stress the importance of the visibility of the Belgian Tech ecosystem, hindered by the fragmentation in Belgium.

A well-functioning financing ecosystem includes not only venture capital, but also other financing instruments to support the development of new technologies. Similarly, loans and guarantees are important instruments, and subsidies, including grants for research and development, also play an important role, especially for start-ups.

According to the OECD (2024), the subsidy landscape for SMEs (including start-ups) in Belgium is quite complex⁹ and there is little evidence of their positive effects. It believes that streamlining support measures - eliminating or modifying certain programmes that are redundant or ineffective - can increase clarity and effectiveness and free up resources for more effective programmes, but at the same time notes that Belgium's institutional structure, with shared powers between the federal and regional levels, complicates this effort. Specifically with regard to public support for R&D, the OECD (2024) notes that it is relatively highly concentrated among large enterprises in Belgium compared to other countries.

Policy

In addition to private actors, public investment enterprises operate in Belgium at various levels of government, supporting enterprises through various financing instruments such as capital, loans and guarantees. In doing so, these institutions also aim to catalyse private investment. The key players are SFPIM at the federal level, PMV in Flanders, Wallonie Entreprendre (WE) in the Walloon Region and Finance&Invest Brussels in the Brussels-Capital Region. These public investment enterprises target a wide range of enterprises, including start-ups and

⁸ This includes different insolvency systems, differences in corporate law, tax systems and public markets that limit exits.

⁹ The complexity is related to Belgium's institutional structure. Efforts are being made within the various levels of government to make the subsidy/financing landscape clearer.

scale-ups with higher-risk projects. The various public investors have their own priority sectors that align with their federal and regional innovation and economic strategies, but which partially overlap.

With the tax shelter for start-ups and growth enterprises, the federal government is trying to mobilise savings for venture capital investment. However, there remains room to further leverage these savings. Furthermore, the resources of institutional investors should also be better leveraged. The coalition agreement of the federal government provides measures to reduce the obstacles faced by pension funds and insurers in equity investments to allow them to invest more in the real economy. It is important to ensure that these investments are not focused exclusively on the large enterprises but also sufficiently reach young, innovative enterprises.

In addition to mobilising domestic funding, attracting foreign funding is crucial. There are initiatives in this area in the various regions. For example, start-ups and scale-ups can go through Wallonie Entreprendre, hub.brussels and VLAIO to access EuroQuity, a platform that puts entrepreneurs in touch with national and international risk investors. Actions are also being taken in the different regions to increase visibility at the international level to attract international investors (e.g. SuperNova in Flanders, StartUp.Wallonia, Innoviris Connect 2025).

So, initiatives are being taken at various levels of government to increase the supply of national and international VC for Belgian start-ups and scale-ups. Further strengthening alignment and collaboration can be useful for increasing visibility and access to public and private financing.

But the European capital market is crucial, especially for the very large financing rounds. Belgium should therefore further support the development of an integrated capital market by collaborating in the implementation of the Savings and Investment Union Strategy (SIU Strategy) and supporting regulations at the European level that break through the fragmentation between national capital markets (e.g. tax rules, insolvency rules, prospectus legislation, etc.). In addition, Belgium should look at how we can connect even better with major European investment funds. The participation of SFPI, PMV, WE and finance.brussels in the European Investment Bank's (EIB) *European Tech Champions Initiative* (ETCI) is a good example in this respect.

However, scaling up is not just a matter of financing availability. Knowledge building among enterprises relating to non-bank financing such as VC is also required. Moreover, financing should not be viewed separately from the support of start-ups and scale-ups (*blended finance*). Paying particular attention to themes such as leadership, internationalisation and strategic positioning in support programmes increases the likelihood that more of them will grow into consistent scale-ups (VLAIO, 2025). This is already being addressed in the various regions (cf. point e). However, there is still potential for better aligning funding and support tools. An integrated and modular approach (offering financing, coaching and networking) as one complementary whole can significantly increase the impact for innovative start-ups.

Finally, it is important to evaluate the effectiveness of support measures and adjust or eliminate ineffective programmes. The spending review by FPS Policy and Support (BOSA) (2024) on the effectiveness of federal support for Research and Development makes a number of recommendations in this regard and points out, for example, that the effectiveness of R&D support can be improved by better addressing the needs of SMEs (including start-ups). But start-ups and scale-ups must also find their way through the array of support measures available at the various levels of government. Initiatives are being taken in the various regions to facilitate access to support through information and guidance services, including online tools that provide an overview of the support available at regional, federal and European levels (VLAIO subsidy database, MIDAS of SPW Wallonie Economie, and hub.info of hub.brussels)¹⁰ structured around different themes, such as innovation, starting a business, and international entrepreneurship. Nevertheless, it remains a challenge to obtain a complete overview of the entirety of support measures at the different levels. Specifically for European funding, it is also important to (continue to) provide sufficient capacity to proactively support start-ups and scale-ups in identifying relevant calls and guiding them through their applications. Consideration can be given in this context to how to strengthen the cohesion of existing actors and communication initiatives.

¹⁰ With the StartUp.Wallonia initiative (planned for early 2026), the Walloon Region also plans to structure the set of support measures for innovative start-ups and make it more readable and accessible.

c. Fast market uptake and expansion

Challenge

In its *Start-up and Scale-up Strategy*, the EC emphasises the importance of stronger commercialisation of academic results and inventions. While universities account for 10 % of patent applications at the European Patent Office (EPO), only a third of these are already effectively exploited commercially¹¹. It also points out the importance of a sufficiently large market. For start-ups looking to grow, it is important that they can quickly expand their customer base.

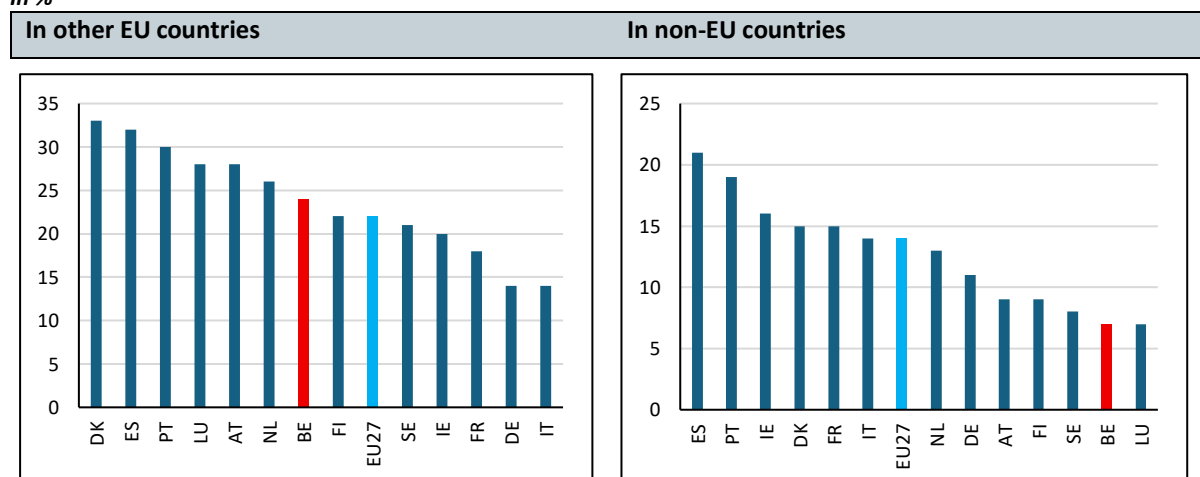
With only a limited national market, rapid internationalisation is especially essential for a small country like Belgium. In this context, the further development of the single European market is crucial. But market openness to innovation plays an equally important role. In the biotech sector, for example, the importance of getting clinical trials approved quickly enough is often mentioned, which determines the time-to-market of new products.

In addition to access to the European market, the EC also wants to support start-ups' access to global markets. Based on a survey of Belgian scale-ups¹², Deloitte (2025) concludes that Belgian enterprises prefer lower risks and expand their operations primarily within Belgium and in nearby markets. This is in line with the figures in Graph 18, which show that Belgian enterprises with growth plans are more likely than average to plan to grow in other EU countries, but that only a relatively small proportion intend to grow in non-EU countries.

Governments can also create a market through their purchasing behaviour. Public procurement is increasingly seen as a strategic tool to stimulate innovation and encourage market access for start-ups and scale-ups. A public contract can act as a springboard for access to the larger international market, especially for young, innovative enterprises that have yet to build a reputation. The EC (2025a) points out the limited use of the 'public procurement' tool for supporting start-ups and scale-ups in Europe compared to the U.S. and South Korea, for example. The high increase in defense public spending represents a unique opportunity to develop that type of public procurement.

Graph 18. Share of enterprises with growth plans (in terms of employment or turnover) planning to grow in other EU and non-EU countries

In %



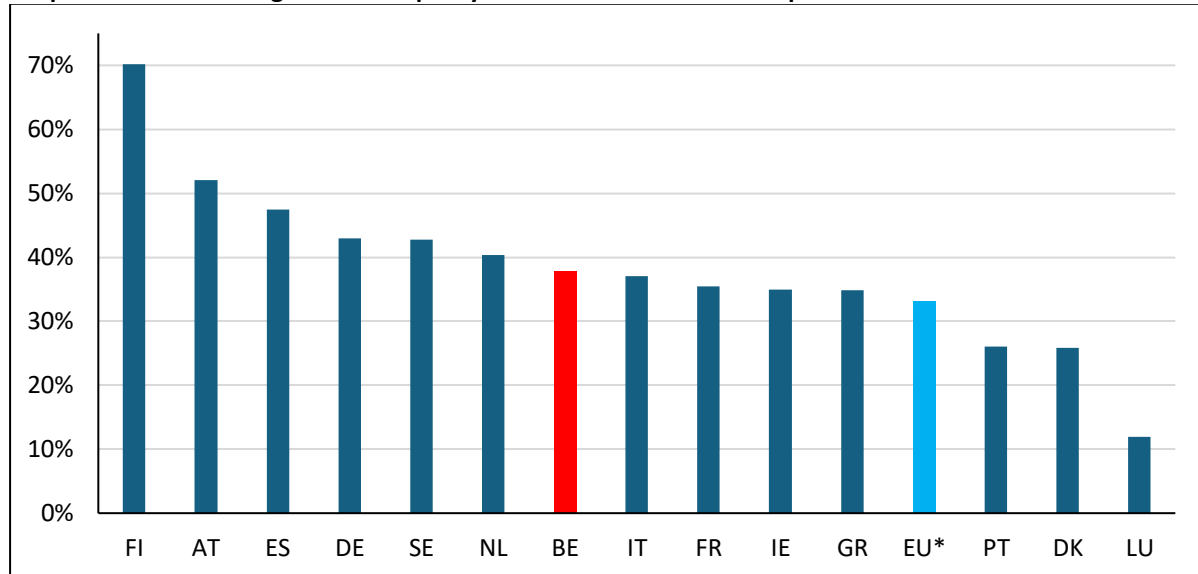
Source: European Commission (2025c), p. 47.

¹¹ More than 40 % of universities and public research institutions have an exploitation plan but could not yet realise it due to: no proof of concept yet (71 %), commercial opportunities not yet identified (66 %), not finding a partner (38 %) or insufficient resources (28 %). (EPO, 2020)

¹² The survey was done in collaboration with Wallonie Entreprendre and PMV. They surveyed CEOs or co-founders, so the key decision makers from a wide range of industries, with enterprise software, Life Sciences & Healthcare, and Services as the most prominent sectors.

A European benchmarking of the policy frameworks for innovation-oriented procurement¹³ ranks Belgium among the modest performers, just slightly higher than the European average.

Graph 19. Benchmarking of national policy frameworks for innovative procurement



Note: The figure in the chart represents the percentage of policy measures needed to achieve a comprehensive policy framework for innovation-oriented procurement that have been realised.

EU* gives the average of 30 countries (EU27, Norway, Switzerland and the UK)

Source: European Commission (2024).

Figures from the [Single Market and Competitiveness Scoreboard](#) also show that SMEs in Belgium (including start-ups) are significantly less likely to win public contracts than their counterparts in other EU countries: 31 % versus 58 %, while bidding as often as in other countries.

Policy

In Belgium, the three regions provide guidance and support for start-ups and scale-ups seeking to internationalise. In Flanders, Flanders Investment & Trade (FIT) developed the Start.up Flanders platform, specifically focused on international guidance and internationalisation of start-ups and scale-ups. The focus is on international networking, market intelligence, matchmaking initiatives and visibility at international technology fairs such as Slush and VivaTech. The Flemish Cluster Policy 2.0 also strongly emphasises guidance for scale-ups and internationalisation, with a particular focus on spin-offs. In the Walloon Region, Wallonie Entreprendre (WE) and Wallonia Export & Investment Agency (AWEX) provide complementary support to enterprises seeking to expand their activities into foreign markets. For example, WE provides financial support for Walloon enterprises seeking to expand their operations to international markets (WE International). The Walloon AWEX offers export coaching, market research and access to networks through regional centres and international advisors. Together with WE, it also coordinates missions and provides access to incubators and trade fairs worldwide. In Brussels, hub.brussels guides and supports enterprises in internationalising, including through export support, the provision of an international network, organising economic missions and international trade fairs, and the 'Start to Export' programme.

In certain areas, the different levels of government are already collaborating - e.g. economic missions or shared offices aimed at representation abroad - but more collaboration could be explored to further promote the visibility of the Belgian start-up ecosystem. A good example in this regard is the [sectoral publication Belgian](#)

¹³ The assessment takes into account the following aspects: the presence of an official definition; a national action plan for innovation-oriented procurement; targets; monitoring; financial incentives for innovation-oriented procurement; capacity building and guidance; attention to innovation-oriented procurement in different sectors of public interest (e.g. health, education, transport), in ICT policies and in horizontal policy; and the innovative friendliness of the public procurement market.

Defence (2025) developed by the Belgian Foreign Trade Agency in collaboration with the Ministry of Defence, the FPS Foreign Affairs, AWEX, hub.brussels and FIT, which focuses on defence to position and promote the Belgian defence industry internationally.

Belgium must also pay attention to the European level. In a world where geopolitical tensions are rising and major economic powers are shielding their markets, the completion of the European single market has become even more urgent. Therefore, as already indicated in point a, it is crucial for Belgium to fully support the single European market. It is also in our country's interest for Europe to enter into strategic trade agreements with third countries. Within Belgium, we must strive as much as possible to reach a unified position on this issue so that we can have an impact at the European level.

Finally, innovation-oriented procurement also deserves further attention. It is already recognised by the various governments in Belgium as a valuable tool for strengthening the innovation ecosystem. In the Brussels-Capital Region, Innoviris aims to serve as a support centre for innovative public procurement for collaborating with the Brussels administrations to implement innovative public procurement policies. At the federal level, FPS BOSA runs the 'Innovative Procurement' pilot programme that informs and supports federal purchasers in applying innovation-oriented procurement. Finally, Flanders has a specific Programme for Innovation Procurement (PIO) that helps the Flemish government and public sector have innovative solutions developed, tested and validated by enterprises (including start-ups), knowledge and/or research centres. The Flemish government and other public organisations can contact PIO not only for advice and guidance but also for obtaining co-financing for innovative procurement projects.

In the future, innovative procurement should be further incorporated as a strategic tool to strengthen innovation policy. This requires the provision of the necessary resources¹⁴, not only for the purchases themselves but also for capacity building within administrations (e.g. support services such as acquiring expertise, organising training and information dissemination). The access for start-ups to public procurement contracts should also be further improved, including by better connecting the two parties. Finally, there is also a need for better disclosure of European innovation-oriented tenders to Belgian start-ups and scale-ups.

d. Talent

Challenge

The success of a start-up is largely determined by access to highly skilled talent (EC, 2025a). A European survey of SMEs with plans for growth shows that in Belgium, the difficulty of recruiting or retaining qualified staff is seen as the main barrier to further growth, more so than the EU average (71 % in BE versus 43 % in the EU) (EC, 2025d).

A survey of European enterprises using VC shows that IT skills, marketing and sales professionals, and experienced senior executives pose a particular challenge (Kraemer-Eis et al., 2023). The latter is confirmed by an EIB study (2024) in which attracting top managers with a strong technical background in life sciences and greentech in particular was identified as a major issue. However, this involves a wide range of profiles, ranging from specialised technical skills to commercial and leadership skills.

There are some worrying trends in Belgium in this regard. Despite targeted actions, the proportion of students and graduates in STEM fields remains low, and women remain under-represented. In 2023, Belgium had only 17.2 new higher education graduates in STEM fields (sciences, mathematics, computer science, engineering, manufacturing and construction) per 1,000 people between the ages of 20 and 29, which is lower than the European average of 22.4. The number of female STEM graduates is even lower and the gap with the EU is also relatively larger (10 versus 15.5 STEM graduates per 1,000 women between 20 and 29 years of age in Belgium and the EU27, respectively). In Belgium, the proportion of ICT graduates is also lower than the European average: 15.6 % of the total number of STEM graduates versus 18.6 % in the EU. On the other hand, the proportion of

¹⁴ In this regard, the FPS BOSA refers to the German SPRIN-D initiative; in the SPRIND Challenges, teams with disruptive innovation potential receive between EUR 500,000 and EUR 3 million per competition stage in the form of a pre-commercial contract for research and development. In the SPRIND Funke, teams with world-changing ideas receive up to EUR 350,000 per competition stage, again through pre-commercial contracts.

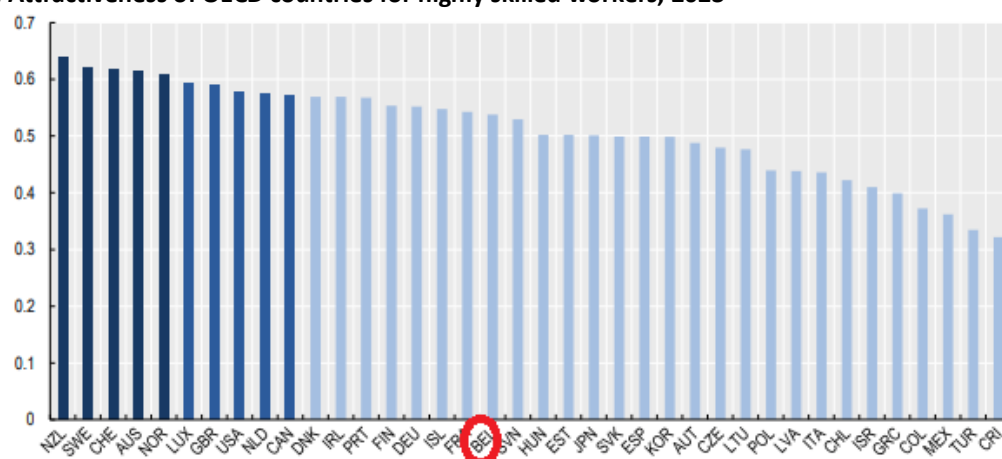
graduates in the health domain in Belgium is much higher than the EU average: 20.7 % of the total number of higher education graduates in 2023 versus the EU average of only 11.5 %.

Apart from access to a sufficient supply of skills, the EC (2025b) also points to challenges for start-ups in offering wages that can compete with the benefits offered by large enterprises and highlights the importance of employee stock options as a possible tool to make start-ups more attractive to employees. Belgium also has a system of employee stock options, but ESNA rates this scheme less attractive for start-ups than in other countries (a score of 50 % vs., for example, 100 % in FR, 92 % in AT and 58 % in NL). VARIO (2025, p. 69) also stresses the need to make the current tax environment for stock options sufficiently competitive. As part of its Blue Carpet Initiative, the EC is already planning to explore best practices regarding the treatment of employee stock options for start-ups and to consider legislative measures to harmonise certain aspects of their treatment.

In addition to developing home-grown talent through education and lifelong learning, foreign talent can also provide an answer to the skills shortage. However, the use of foreign talent must take into account the unique characteristics of regional labour markets¹⁵.

According to the OECD's *Talent Attractiveness*¹⁶ indicator, Belgium scores average in Europe in this area, both in terms of attractiveness for highly skilled workers and for entrepreneurs.

Graph 20. Attractiveness of OECD countries for highly skilled workers, 2023



Source: OECD (2023).

When it comes to attracting highly skilled workers, Belgium scores weakest on the income and taxes subcategory, and to a lesser extent on family-related aspects (opportunities for partner and children of potential migrants) and inclusiveness (OECD, 2023)¹⁷.

But the ease of obtaining work and residence permits is also important. Several sources indicate that improvement is possible in this area, such as parallel processing between regional authorities and the

¹⁵ Wallonia is thus seeking to strike a balance between the increased use of foreign talent and the employment of job seekers within its territory.

¹⁶ This indicator is composed of seven dimensions: quality of opportunities, income and taxes, future prospects, family-related aspects, skills environment, inclusiveness and quality of life. A 'penalty' is applied for unfavourable visa and admission procedures. When the health dimension (resilience and performance of health care system) is added, Belgium (like the Scandinavian countries, Austria, Germany, the Netherlands and Italy) scores two to five places higher.

¹⁷ The Income and Taxes subcategory is measured based on the income of highly skilled workers, the price-level index and the tax wedge. The Family-Related Aspects subcategory takes into account the partner's right to accompany the migrant and to work; the ease with which children of migrants can obtain citizenship; PISA scores for mathematics; public spending on family benefits; and effective taxation when the partner is employed. The Inclusiveness subcategory was measured based on the proportion of highly skilled migrants in the working population; the Migrant Acceptance Index and the SIGI Gender Equality Index.

Immigration Office. The processing time of the single permit, which combines work and residence permits, has already been reduced from six to three months, but VARIO (2025) argues that the procedure for highly skilled knowledge workers must be even smoother and faster to compete with neighbouring EU member states. In terms of administrative simplification, the Regions and the federal government are also continuing to develop the one-stop shop in order to offer applicants an efficient and modern tool.

Policy

In Belgium, the various governments recognise the importance of strong STEM skills and are taking initiatives to further develop them. For example, Flanders formulated a long-term vision with the STEM Agenda 2030, in which a number of strategic STEM objectives were established. The Brussels Region, through Innoviris, also has a plan to raise awareness of science and scientific careers, which includes awareness-raising, mentoring and outreach activities (Women Award in Technology and Science) and events for the general public (I Love Science Festival). In June 2025, the Walloon Government and the Government of the Wallonia-Brussels Federation announced a redefinition of the Lifelong Guidance (OTLAV) system, which will focus primarily on shortage occupations and STEM fields. This reform demonstrates a strong commitment to promoting skills-based fields, developing a culture of science and technology for all, and ensuring that the skills developed are in line with the needs of the economy. At the federal level, FPS Economy coordinates the 'Women in Digital' strategy with the goal of reducing the gender gap in the digital sector.

In addition to existing initiatives, it may be useful to carry out a systematic assessment of future STEM needs (types, numbers) to ensure that sufficient and appropriate STEM profiles are available in the long-term. As part of this, education/training actors, employers, social partners and governments must work together, improve their coordination and strengthen partnerships to identify STEM needs and ensure sufficient investment in education and training.

In addition to promoting STEM profiles, Belgium is also focusing on encouraging entrepreneurship among young people, including in education. However, according to the EC (2025c), implementation challenges remain. Specifically, it points to a lack of evaluation and coordination of existing initiatives for the French-speaking community and to the limited evidence of the impact of existing initiatives on student behaviour in Flanders.

There are also initiatives in the various regions to strengthen the (leadership) skills of innovative start-ups and scale-ups, including coaching and mentoring by experienced managers - such as, for example, the Scaleup Flanders initiative in Flanders or the Starters Award in Brussels - or support for hiring an interim manager and an independent director to strengthen the middle management and the company's organizational structure. Paying particular attention to leadership in support programmes for start-ups and scale-ups increases the likelihood that more of them will grow into consistent scale-ups.

Finally, there must also be a focus on increasing the access of start-ups and scale-ups to foreign talent. This requires further work on simplifying and accelerating procedures for attracting foreign (tech) talent. In this context, the EC plans to develop an EU visa strategy to better attract students, researchers, entrepreneurs and skilled workers from third countries to the EU. But Belgium should also explore possible initiatives to reduce processing times for applications for combined permits for highly skilled migrants. This will require collaboration between the federal and regional levels, responsible for residence and work permits, respectively. Also worth exploring is what can be learned from international examples such as the French Tech Visa or the Dutch Knowledge Migrant Scheme.

e. Infrastructure, networks and services

Challenge

Start-ups need cutting-edge research, technology facilities and expertise to quickly test, scale up and validate new products. However, many innovative start-ups cannot easily find and access the appropriate research and technology infrastructure. It is difficult for them to navigate the web of available services and they often have to rely too much on informal, ad hoc collaborations built through personal networks. A key challenge, therefore, is to ensure start-ups and scale-ups have streamlined access to these services (EC, 2025a and b).

An effective model for this is for start-ups to engage in R&I ecosystems. These ecosystems generally foster a culture of competitive collaboration, interdependencies and value chain integration, providing essential resources - such as incubators, accelerators, educational institutions, funding networks and business partners - that enhance a start-up's chances of success (EC, 2025b).

It is important for start-ups to have adequate access to appropriate ecosystems. Moreover, it will be important to connect ecosystems across borders to integrate ecosystem actors into broader networks in a structural and strategic manner (EC, 2025b).

Policy

The three regions are working hard on networking initiatives. Initially via the clusters, structured through a triple helix model in which enterprises (including start-ups), knowledge institutions and government work together within specific priority sectors or domains. But there are also other networking initiatives for stimulating innovation around strategic innovation domains and value chains (see, for example, the regions' smart specialisation strategies).

In addition to these networking initiatives, start-ups and scale-ups in the three regions can also count on guidance from relevant services and actors. In Flanders, VLAIO provides support through business advisors who guide entrepreneurs in developing their growth strategies. VLAIO hereby refers to the broader network of Flemish knowledge institutions and clusters, but also collaborates with private actors such as incubators, investors and sector federations. The Flemish priority clusters also help start-ups find support instruments and puts them in contact with knowledge institutions and capital providers. In the Walloon Region, Wallonie Entreprendre (WE) provides funding and mentoring. In so doing, it works with more than 90 partners, including incubators, accelerators, competitiveness clusters and industry organisations. Through this network, enterprises receive support in areas such as digitisation, intellectual property, HR and strategic management. In the Brussels-Capital Region, hub.brussels acts as a central contact point that supports and guides enterprises throughout their life cycle. It also serves as a bridge to specialised actors such as Finance.brussels, Innoviris, incubators and accelerators, and the research community. Through its *Innovation Journey* initiative, Innoviris (with partners) provides customised support for the various stages of the innovation process - from ideation and validation to further development. This instrument combines financial support with a wide range of support services.

So within the three regions, efforts are being made to provide support and guidance to enterprises so that they can find the right partners within the ecosystem. This involves a wide variety of actors, including universities, research centres, incubators, clusters, investors and mentoring partners, each playing a specific role in supporting start-ups and scale-ups. However, collaboration between these various actors is still too often done on an ad hoc basis. It is important to continue working on structural and strategic alignment between these different actors to maximise the complementarity between initiatives and services.

Furthermore, it is important that the regional ecosystems are also connected across borders with international clusters, enterprises, investors, etc. Several European-level initiatives focus on this, such as IPCEI, EIT & KICs, the EIC, and more. It is also important for our (regional) ecosystems to participate in these European initiatives as much as possible. Collaboration between ecosystems across regional borders can also be reinforced within Belgium and their strengths combined to achieve economies of scale and synergies. More collaboration within Belgium can also enable us to better position ourselves at the European level.

4.3. Conclusion

The lack of a European definition and corresponding indicators makes it difficult to get a clear picture of the start-up and scale-up landscape in Belgium. However, based on the available data, Belgium does not seem to be a frontrunner. We are among the laggards in terms of the number of start-ups and in terms of scaling up young enterprises.

In its Start-up and Scale-up Strategy, the EC identified five key policy areas: 1) innovation-friendly regulation, 2) financing, 3) access to a sufficiently large and innovation-friendly market, 4) talent support, and 5) access to infrastructure, networks and services. The various governments in Belgium are already taking numerous

initiatives within each of these areas, laying the foundations for a functioning start-up and scale-up ecosystem. It is important to further strengthen these efforts and explore where collaboration between different levels of government - both internationally, and within Belgium - can provide opportunities such as knowledge sharing, market access and access to financing and infrastructure.

Finally, it is essential that the impact of the policy also be evaluated. This requires further investment in a monitoring system of the start-up and scale-up landscape in Belgium, in line with European initiatives in this area.

5. Activity report

5.1. The Board

Creation of the Board

Following the report "[Completing Europe's Economic and Monetary Union](#)" prepared by the "Five Presidents" (22 June 2015), the Council of the European Union adopted a [recommendation](#) on 20 September 2016 encouraging Member States to set up a National Productivity Board. The creation of such a board responds to a commitment to enhance competitiveness in the long term so that economies are more resilient and can therefore recover more quickly from economic shocks. The role of the Productivity Board is to analyse competitiveness in the broadest sense, to enrich the knowledge base and to contribute to the national debate, in order to strengthen the take-up of policies and reforms.

In Belgium, the National Productivity Board was officially set up on 14 May 2019, in accordance with the [law of 25 November 2018 establishing the National Productivity Board](#) (published in the Belgian Official Gazette on 7 December 2018), which transposes the European recommendation.

Mission of the board

The National Productivity Board in Belgium is responsible for:

- performing diagnoses and analysing trends in productivity and competitiveness;
- analysing policy issues in the area of productivity and competitiveness;
- assessing the consequences of policy options in the aforementioned areas.

In performing these tasks, the National Productivity Board may forge contacts with Productivity Boards in other Member States, communicate publicly when opportune, obtain appropriate access to information available from public administrations and consult stakeholders.

The National Productivity Board performs its tasks in the context of the European Semester, in particular by assisting the European Commission in collecting data and by assisting governments in preparing the drafting of the national reform programme.

The National Productivity Board publishes an annual report.

Composition of the Board

The National Productivity Board is managed by a Bureau composed of:

- a Chair, proposed by the secretariat of the Central Economic Council (CEC), and
- two Vice-Chairs, one proposed by the National Bank of Belgium (NBB) and one by the Federal Planning Bureau (FPB).

The Bureau determines the agenda for meetings and the topics to be discussed by the Board.

The National Productivity Board has 12 members, six at federal level and six at regional level:

- Siska Vandecandelaere (CEC)
- Luc Denayer (CEC)
- Catherine Fuss (NBB)
- Tim Hermans (NBB)
- Chantal Kegels (FPB)
- Bart Hertveldt (FPB)
- Micael Castanheira (Brussels-Capital Region)
- Koen Declercq (Brussels-Capital Region)
- Caroline Ven (Flemish Region)
- Joep Konings (Flemish Region)
- Maxime Fontaine (Walloon Region)
- Vincent Vandenberghe (Walloon Region)

The FPS Economy acts as Secretariat for the Board.

The members of the Board and the Secretariat are appointed by the King.

5.2. 2025 Activities

Board meetings

The National Productivity Board met five times, on:

- 27 April 2025: Preparation of the 2025 annual report;
- 27 June 2025: Progress report on the 2025 annual report and discussions on the NPB's contribution to the MAKE2025-2030 inter-federal plan working groups;
- 12 September 2025: Discussions on the first draft of the 2025 annual report;
- 20 October 2025: Discussions on the second draft of the 2025 annual report;
- 7 November 2025: Finalisation and validation of the 2025 annual report.

External activities

In addition to the meetings of the National Productivity Board, the members of the Board participated in a number of activities initiated by external organisations, notably:

- 24 January 2025: IMF – Article 4 country visit – Presentation of the annual report (Chantal K.)
- 17 February 2025: Economic Policy Committee – Fact Finding Mission – Presentation of the annual report (Chantal K.)
- 3 March 2025: Groen – Presentation of the NPB and the role of productivity (NPB Bureau)
- 14 March 2025: Central Economic Council – Presentation of the 2024 annual report (Siska V., Chantal K., Catherine F. and Céline P.)
- 8 April 2025: Austrian Productivity Board – Presentation of NPB and latest results (Siska V. and Chantal K.)
- 10 June 2025: Bureau meeting with Minister for the Economy David Clarinval. Discussions on MAKE2025-2030.
- 30 June 2025: Participation in the National Productivity Board Workshop on trade fragmentation and the Single Market.

6. References

- Alogoskoufis, S., Dunz, N., Emambakhsh, T., Hennig, T., Kaijser, M., Kouratzoglou, C., ... & Salleo, C. (2021). *ECB economy-wide climate stress test: Methodology and results* (No. 281). ECB Occasional Paper.
- Barreca, A., Clay, K., Deschenes, O., Greenstone, M., & Shapiro, J. S. (2016). Adapting to climate change: The remarkable decline in the US temperature-mortality relationship over the twentieth century. *Journal of Political Economy*, 124(1), 105-159.
- Benatti, N., Groiss, M., Kelly, P., & Lopez-Garcia, P. (2024). Environmental regulation and productivity growth in the euro area: Testing the porter hypothesis. *Journal of Environmental Economics and Management*, 126, 102995.
- Benatti, N., Groiss, M., Kelly, P., & López-García, P. (2025). *The impact of environmental regulation on clean innovation: are there crowding out effects?* Energy Economics, forthcoming.
- Bijnens, G., & Swartenbroekx, C. (2024). Hunting “Brown Zombies” to Reduce Industry’s Carbon Emissions. *Economie et Statistique/Economics and Statistics*, 544, 27-44.
- Bijnens, G., Anyfantaki, S., Colciago, A., De Mulder, J., Falck, E., Labhard, V., ... & Strobel, J. (2024). The impact of climate change and policies on productivity. *ECB Occasional Paper*, (2024/340).
- Bijnens, G., Montoya, M., & Vanormelingen, S. (2024). *A bridge over troubled water: flooding shocks and supply chains* (No. 466). NBB Working Paper.
- Caggese, A., Chiavari, A., Goraya, S., & Villegas-Sanchez, C. (2025). Climate change, firms, and aggregate productivity. Centre for Economic Policy Research.
- CCE (2019), *Financiering voor doorgroei van ondernemingen in België – Analyse enquête en focusgroepen*, documentatienota, CRB.
- Crotti, R. et al. (2025), *Data and Methods for entrepreneurial ecosystem diagnostics*, OECD SME and Entrepreneurship Papers, No. 69, OECD Publishing, Paris, <https://doi.org/10.1787/5173f4a2-en>.
- Deloitte (2025), *2025 Scale-Ups – Confidence Survey Belgium*, Survey in collaboration with Wallonie Entreprendre en PMV, Mei 2025.
- Dietz, S., & Lanz, B. (2025). Growth and adaptation to climate change in the long run. *European Economic Review*, 173, 104982.
- EC (2023), *Monitoring industrial ecosystems – EU Member States Fact Sheets Belgium* (EA-02-24-732-EN-N, Brussel: Europese Commissie.
- EC (2024), *Country Profile Belgium – Benchmarking of national policy frameworks for innovation procurement*, Report prepared for the EC by PwC EU Services EESV, Brussel: Europese Commissie.
- EC (2025a), *The EU Startup en Scaleup Strategy – Choose Europe to start and scale*, COM (2025) 270 final, Brussel: Europese Commissie.
- EC (2025b), *Staff Working Document accompanying the document: The EU Startup and Scaleup Strategy – Choose Europe to start and scale*, SWD (2025) 138 final, Brussel: Europese Commissie.
- EC (2025c), *2025 Country Report – Belgium*, Commission Staff Working Document, SWD(2025) 201 final, Brussel: Europese Commissie.
- EC (2025e), *European Innovation Scoreboard 2025*, 15 juli 2025.

EC (2025d), *Startups, scaleups and entrepreneurship, Flash Eurobarometer 559*, Eurobarometer Report, February – April 2025, Brussel: Europese Commissie.

EIB (2024), *The scale-up gap – Financial market constraints holding back innovative firms in the European Union*, EIB Thematic Studies, June 2024.

EPO (2020), Valorisation of scientific results, Patent commercialisation scoreboard: European universities and public research organisations, November 2020.

ESNA (2025), *EU Startup Nations Standards, Report 2024*, report published by the Europe Startup Nations Alliance.

FOD BOSA (2024), *Spending Review – L'efficacité de l'aide fédérale en matière de recherche et développement (R&D)*, rapport van Werkgroep Fod BOSA, POD Wetenschapbeleid, FOD Financiën en Inspectie van Financiën.

Gagliardi, N., Grinza, E., & Rycx, F. (2024). The Productivity Impact of Global Warming: Firm-Level Evidence for Europe.

INR (2017), *“Regionale rekeningen. Toelichtingen van conceptuele en methodologische aard ESR 2010”*, Brussel.

Kegels, C. (2024), *De administratieve lasten in België voor 2022*, Working Paper 01-24, Federaal Planbureau.

Kraemer-Eis, H. en A. Croce (2023), *VC Survey 2023: market sentiment, scale-up financing and human capital*, Working Paper Series No. 2023/93, European Investment Fund.

Matous P, Todo, K., & Kashiwagi, Y. (2019). International Production Networks and Disaster Resilience. VOX, CEPR Policy Portal.

Neves Costa, R. & Perez-Duarte, S., “Not all inequality measures were created equal. The measurement of wealth inequality, its decompositions, and an application to European household wealth”, European Central Bank. Statistical Paper Series N° 31, Frankfurt am Main, December 2019.

OESO (2022), *OECD Economic Surveys: Belgium 2022*, OECD Publishing, Paris.

OESO (2023), *What is the best country for global talents in the OECD?*, Migration Policy Debates, N°29, March 2023.

OESO (2024), *OECD Economic Surveys: Belgium 2024*, OECD Publishing, Paris.

Sala-i-Martin, X. X. (1990), “On the Growth of States”, Ph.D. Dissertation, Harvard University, Cambridge, MA.

Standaert, T., C. Lecocq, P. Andries, T. Evens (2024), *AI-barometer – Adoptie en gebruik van Artificiële Intelligentie bij Vlaamse bedrijven – situatie 2023*, Rapport ECOOM-STORE 23-029.

Syndicate One, Sofina en Bain&Company (2024), *State of the Belgian Tech Report 2024*, 1 oktober 2024.

Tyros, S, D Andrews, and A de Serres (2023), “Doing green things: Skills, reallocation, and the green transition”, OECD Economics Department Working Papers 1763.

Vandeplas, A., Vanyolos, I., Vigani, M. and Vogel, L. (2022), “The Possible Implications of the Green Transition for the EU Labour Market”, Discussion Paper 176, Directorate-General for Economic and Financial Affairs, European Commission.

VARIO (2024), *Meer impact door excellentie in innovatie en ondernemerschap*, VARIO - Memorandum 2024-2029.

VARIO (2025), *Strategisch inspelen op de volatiele situatie voor onderzoekers in de VS*, Advies nr. 42, Vlaamse Adviesraad voor Innoveren & Ondernemen.

VBO (2024), *Horizon België 2030 – Toekomstvisie voor een beter België – Versie 2.0*, 84 blz.

VLAIO (2025), *Kompas naar een performanter ecosysteem voor innovatieve en snelgroeiende ondernemingen in Vlaanderen*, Vlaams Agentschap Innoveren & Ondernemen.

Vona, F, G Marin, D Consoli, and D Popp (2018), “Environmental regulation and green skills: An empirical exploration”, *Journal of the Association of Environmental and Resource Economists* 5(4): 713–53.

Worldbank Metadata Glossary, <https://databank.worldbank.org/metadataglossary/world-development-indicators/series/SI.POV.GINI>, geraadpleegd op 17/10/2025.

Annex: Avis du Conseil Central de l'Economie (CCE 2025-2440) – 17 décembre 2025

La productivité au centre d'une économie compétitive, inclusive et soutenable

1. Saisine

L'article 4 de la loi du 25 novembre 2018 portant création du Conseil national de la productivité (CNP) prévoit dans son paragraphe 2 que les études et les rapports de cette institution puissent faire l'objet d'un débat au sein du Conseil central de l'économie (CCE), préalablement à leur publication. Si ce dernier souhaite formuler un avis, cet avis sera joint en annexe lors de la publication de l'étude ou du rapport. Le rapport annuel 2025 sur la productivité a été transmis au Conseil central de l'économie le 12 novembre 2025. Ce rapport a pour objectif de dresser l'état de la connaissance sur la productivité et la compétitivité pour permettre d'en apprendre davantage sur les sources de la croissance de la productivité et d'identifier les causes éventuelles de son ralentissement.

Ce rapport du CNP intervient dans un contexte marqué par de nombreux défis qui appellent des réponses collectives et coordonnées des pouvoirs publics à tous les niveaux de pouvoir, ainsi que des interlocuteurs sociaux et des acteurs économiques.

Le présent avis du CCE vise à identifier les principaux enseignements économiques et sociaux du rapport du CNP, à en éclairer les implications pour la politique socio-économique belge et à formuler, le cas échéant, des recommandations en vue d'une stratégie nationale de productivité intégrant de manière cohérente la dimension compétitive, sociale et environnementale.

Le projet d'avis, issu des discussions menées au sein de la sous-commission « Conseil de la productivité », a été approuvé en séance plénière le 17 décembre 2025.

1. Les concepts de productivité et de compétitivité

Productivité et compétitivité

La croissance de la productivité a un rôle essentiel à jouer dans le processus de création de richesse et dans la réponse aux défis sociétaux et environnementaux auxquels la Belgique fait face (le changement climatique, le vieillissement de la population, la transition numérique, les soins de santé, la mobilité, l'inclusion, l'autonomie stratégique...).

Selon la théorie économique, les gains de productivité devraient être le fondement d'une amélioration des revenus réels et de baisses des prix relatifs. Grâce aux gains de productivité, les entreprises peuvent aussi maintenir leur rentabilité, laquelle est déterminante pour les investissements futurs et la création d'emplois. Ces différents éléments sont nécessaires pour un maintien de la compétitivité. Le CCE définit ainsi la compétitivité comme « la capacité d'une économie d'améliorer, à un rythme similaire ou supérieur à celui observé dans des pays de structure comparable, le niveau de vie de ses habitants et à leur procurer un taux d'emploi élevé et un haut niveau de cohésion sociale, et ce, de manière durable, c'est-à-dire sans détérioration de l'équilibre extérieur, et en s'assurant de la soutenabilité des finances publiques et de la soutenabilité environnementale ». Dans une économie compétitive, les entreprises se trouvent dans une position concurrentielle par rapport aux entreprises étrangères ([CCE 2024-2700](#)).

Une stratégie européenne pour améliorer la compétitivité

La Boussole européenne de compétitivité, présentée par la Commission européenne en janvier 2025, constitue un instrument de pilotage visant à renforcer la capacité de l'Union européenne et de ses États membres à générer une croissance durable, innovante et résiliente. Elle traduit la volonté de doter l'Union d'une vision

commune de long terme afin de préserver sa prospérité et son autonomie stratégique dans un contexte marqué par les transitions écologique, numérique et géopolitique.

Pour la Belgique, la mise en œuvre de cette **Boussole européenne de compétitivité** revêt une importance particulière. Économie ouverte et fortement intégrée aux chaînes de valeur européennes, la Belgique est directement exposée aux évolutions du cadre concurrentiel international et aux politiques européennes de compétitivité. Les défis identifiés par la Commission européenne – croissance limitée de la productivité, dépendances énergétiques et technologiques, pénurie de main-d'œuvre qualifiée – concernent pleinement les politiques socio-économiques belges. L'alignement des politiques publiques sur les orientations de la Boussole pourrait dès lors contribuer à renforcer la base productive et technologique du pays, tout en soutenant l'innovation, la transition énergétique compétitive, la modernisation du tissu industriel et la requalification des travailleurs pour des emplois de qualité. Ces leviers constituent autant d'atouts susceptibles d'améliorer la productivité, la durabilité et la résilience de l'économie belge.

Dans le cadre de son Rapport Emploi-Compétitivité 2024, le Conseil central de l'économie a également souhaité contribuer à cette dynamique en élaborant **une vision et une stratégie** visant à développer un modèle socio-économique résilient, compétitif, inclusif et soutenable en Belgique, tant du point de vue environnemental que de celui des finances publiques ([CCE 2025-0050](#)).

Productivité et finances publiques

La question de la productivité revêt une importance cruciale pour la soutenabilité budgétaire ([CCE 2025-1930](#)). La croissance de la productivité facilite en effet la capacité de l'économie à générer des recettes publiques suffisantes pour financer les politiques économiques et sociales, tout en stabilisant la dette à long terme. Une progression durable de la productivité permet ainsi d'élargir la base fiscale et de créer un environnement favorable à l'emploi et à l'investissement. Dans cette perspective, le renforcement de la compétitivité passe également par une augmentation des investissements liés aux transitions démographique, écologique et technologique.

Le CCE souligne que le lien entre productivité et finances publiques est intrinsèquement circulaire. D'une part, le dynamisme productif constitue un moteur de soutenabilité budgétaire ; d'autre part, la qualité de la dépense publique influence directement la productivité globale de l'économie. Une structure budgétaire qui préserve et privilégie les dépenses favorisant la formation, l'innovation, la recherche et la modernisation des infrastructures peut ainsi soutenir la croissance potentielle et, par conséquent, renforcer la stabilité des comptes publics à long terme.

Le CCE recommande de développer une véritable culture d'évaluation des politiques publiques, en généralisant l'usage des *spending reviews* afin d'améliorer la qualité de la dépense et d'identifier de nouvelles marges de financement. Il invite également les autorités belges à défendre activement, au niveau européen, une approche pragmatique qui tienne compte des effets positifs des investissements sur la croissance potentielle et les recettes futures dans les évaluations de soutenabilité de la dette.

Coopération entre les niveaux de pouvoir

Le CCE insiste sur l'importance de la coopération entre les diverses entités du pays en vue de répondre aux défis posés. À l'occasion des élections de juin 2024, neuf conseils consultatifs¹⁸ ont ainsi lancé un appel aux différents gouvernements qui seront mis en place aux niveaux fédéral, régional et communautaire afin qu'ils œuvrent à mettre en place une meilleure coopération structurelle entre les niveaux politiques, qui permette aussi un renforcement mutuel de ceux-ci ([CCE 2024-1719](#)). Par ailleurs, le CCE estime que lorsqu'une politique menée par un niveau de pouvoir entraîne des répercussions sur d'autres niveaux, il serait utile d'informer les autorités

¹⁸ Les conseils consultatifs en question représentent la société civile active dans les Régions, les Communautés et au niveau fédéral. Il s'agit du Conseil fédéral du développement durable, du Conseil national du travail et du Conseil central de l'économie pour le niveau fédéral, du Milieu- en natuurraad van Vlaanderen, du Sociaal-Economische Raad van Vlaanderen, du Conseil de l'environnement de la Région de Bruxelles-Capitale, du Conseil économique, social et environnemental de Wallonie, du Conseil économique et social de la Région de Bruxelles-Capitale (BruPartners) et du Conseil économique et social germanophone (WSR).

concernées de la politique menée et de se concerter lorsque des frictions sont susceptibles de survenir. La coopération est également indiquée lorsqu'elle permet de relever les défis communs avec plus d'efficacité et d'efficience, tout en affinant la délimitation des compétences, si nécessaire.

2. Constats

Dans ses différents rapports, le CNP a observé un ralentissement de la croissance de la productivité de l'économie totale en Belgique, comme dans les autres pays de comparaison, au cours des dernières décennies. Sur l'ensemble de la période 2000-2024, le taux de croissance annuel moyen de la productivité horaire du travail est inférieur à 1 % en Belgique, poursuivant le déclin tendanciel des gains de productivité entamé depuis la fin de la décennie 1970.

Tableau 2-1 : Taux de croissance annuel moyen de la productivité horaire du travail et décomposition

	2000-2024			2012-2019			2019-2024		
	VA	H	VA/H	VA	H	VA/H	VA	H	VA/H
Belgique	1,6%	0,9%	0,7%	1,5%	0,9%	0,6%	1,6%	0,8%	0,8%
ZE 20	1,3%	0,5%	0,8%	1,6%	0,8%	0,8%	1,1%	0,7%	0,4%
Allemagne	1,1%	0,2%	0,9%	1,6%	0,7%	0,9%	0,1%	-0,3%	0,4%
France	1,3%	0,6%	0,6%	1,3%	0,5%	0,8%	1,0%	1,4%	-0,3%
Pays-Bas	1,6%	0,9%	0,7%	1,9%	1,5%	0,4%	1,7%	1,3%	0,3%

Source : Rapport annuel 2025 du Conseil national de la productivité

Combiner croissance du volume de travail et productivité élevée

La croissance de la valeur ajoutée, principal indicateur de richesse d'une économie, dépend d'une part de la productivité apparente du travail et d'autre part des heures travaillées. Pour que l'économie belge se développe, il est important de combiner un niveau élevé du volume de travail et une croissance élevée de la productivité du travail. Entre 2019 et 2024, ces deux facteurs ont contribué positivement à la croissance de la valeur ajoutée en Belgique. La croissance moyenne récente de la productivité apparente du travail (0,8 %) a été similaire à celle sur l'ensemble de la période (0,7 %) et supérieure à celle des pays de référence entre 2019 et 2024 (Tableau 2-1). Parmi les pays étudiés dans le rapport, seuls les Pays-Bas ont connu un taux de croissance annuel moyen de la valeur ajoutée (en volume) supérieur à celui de la Belgique, en parvenant à accroître simultanément le volume de travail et la productivité. L'Allemagne a, quant à elle, connu une contraction du volume de travail, tandis que la France a enregistré une croissance négative de la productivité.

Parallèlement à la productivité, la croissance du volume de travail doit également rester un point d'attention dans le futur, d'autant plus que les dernières projections macroéconomiques pour la Belgique tablent sur une croissance plus modérée de l'emploi à moyen et long terme. Selon le dernier rapport du Comité d'étude sur le vieillissement, la croissance économique devrait s'élever en moyenne à 1,4 % par an sur la période 2024-2070, principalement soutenue par des gains de productivité de 1,1 % par an en moyenne. En revanche, la croissance de l'emploi ne s'élèverait qu'à 0,3 % par an en moyenne (Conseil supérieur des finances 2025, p. 25).

Des divergences sectorielles

Bien que la productivité apparente du travail ait progressé plus rapidement en Belgique que dans la zone euro depuis 2019, cette amélioration relative provient surtout des services marchands, alors que la productivité industrielle ralentit. Seules deux branches d'activité industrielle, l'industrie pharmaceutique et l'industrie alimentaire, enregistrent un taux de croissance positif de la productivité apparente du travail sur la période 2019-2024 tout en connaissant une hausse des heures travaillées.

Or, l'industrie constitue généralement le moteur des gains de productivité, en Belgique comme dans les principaux pays voisins. Entre 2000 et 2024, les gains de productivité ont été significativement supérieurs dans l'industrie belge (1,9 %) par rapport aux services marchands (0,7 %). Comme l'observe le CNP, le taux de croissance de la productivité de l'industrie manufacturière n'a cependant cessé de ralentir au fil des périodes en

Belgique comme chez les trois pays voisins. Il convient dès lors de se pencher sur les causes de ce déclin de la productivité dans l'industrie et de s'entendre sur une politique industrielle à mettre en œuvre pour y remédier.

Tableau 2-2 : Taux de croissance annuel moyen de la productivité horaire du travail et décomposition dans l'industrie manufacturière et les services marchands belges

	2000-2024			2012-2019			2019-2024		
	VA	H	VA/H	VA	H	VA/H	VA	H	VA/H
Industrie m.	0,5%	-1,4%	1,9%	1,4%	-0,6%	2,0%	-0,2%	-0,7%	0,5%
Services m.	2,1%	1,4%	0,7%	2,0%	1,3%	0,7%	1,9%	1,1%	1,0%

Source : Rapport annuel 2025 du Conseil national de la productivité

Au niveau sectoriel, le CNP mesure aussi la productivité dans les services non marchands. À l'heure actuelle, cette mesure de la productivité ne permet pas de refléter la manière dont l'efficacité des services publics et des services rendus par les institutions sans but lucratif évolue au cours du temps. Et ce, alors que ces acteurs jouent un rôle essentiel dans la société. Le CCE souligne à ce titre la nécessité d'établir rapidement un consensus européen pour définir une méthodologie harmonisée sur l'ajustement de la qualité des services dans le cadre de la méthode « output » pour les biens et services individualisés non marchands. Cette démarche vise à améliorer la mesure de la productivité dans les secteurs tels que l'éducation, la santé, les services sociaux et les administrations publiques, où la qualité des services fournis est essentielle mais difficile à quantifier¹⁹ ([CCE 2024-2700](#)).

Analyser les niveaux de productivité

Le rapport du CNP met l'accent sur la croissance de la productivité. Le CCE estime qu'une analyse approfondie pourrait être réalisée tant par rapport au niveau de la productivité qu'au niveau de la croissance. Ainsi, le niveau de productivité, tel que calculé à l'aide de la productivité apparente du travail en valeur, est plus élevé en Belgique (pour le secteur marchand) que dans ses principaux pays voisins²⁰. Par conséquent, la Belgique pourrait être confrontée à des écarts de croissance de productivité avec ses principaux voisins qui s'expliqueraient par la proximité de la frontière technologique²¹.

3. Productivité et cohésion

Le CNP observe également une divergence croissante de la productivité horaire nominale entre les régions NUTS-2 belges (soit la Région de Bruxelles-Capitale et les 10 provinces belges) sur l'ensemble de la période 2003-2022.

Ces divergences ne doivent pas être négligées. En effet, la recherche de gains de productivité ne peut être envisagée indépendamment de la cohésion sociale. La manière dont les fruits de la productivité sont répartis conditionne la stabilité économique et la confiance dans le fonctionnement du modèle socio-économique. À cet égard, plusieurs études internationales soulignent qu'une diffusion incomplète des gains de productivité peut contribuer à une plus grande hétérogénéité des revenus et des trajectoires professionnelles, et ainsi exercer une

¹⁹ L'OCDE, en collaboration avec l'Office for National Statistics (ONS) du Royaume-Uni, a conduit une étude comparative approfondie sur les pratiques nationales en la matière (Mitchell et al., 2022). Cette recherche met en évidence les écarts méthodologiques entre pays et leurs implications pour la mesure de la productivité du secteur non marchand. Le rôle de l'ONS est intéressant dès lors que le Royaume-Uni a développé des approches intégrant explicitement des indicateurs de qualité pour évaluer les volumes de production dans la santé et l'éducation.

²⁰ Cf. le rapport sur le handicap des coûts salariaux ([CCE 2025-0380](#)) pour une discussion plus détaillée sur cet indicateur.

²¹ La « frontière technologique » renvoie à l'utilisation de la meilleure technologie disponible (dans un certain domaine de production) à travers le monde. Un pays qui se situe en deçà de la frontière peut, par imitation des technologies existantes, accroître rapidement sa productivité. Un pays qui, en revanche, se situe à la frontière technologique, doit s'employer à la déplacer par le développement d'innovations.

pression sur la classe moyenne, dont le dynamisme est un facteur essentiel de stabilité économique et de cohésion sociale²². En Belgique, la BNB (Basselier et Jonckheere 2025) a mené une étude qui se penche, entre autres, sur le lien entre la productivité et la rémunération horaire réelle. Le CCE en fait l'analyse dans son rapport sur la situation macroéconomique des entreprises (à paraître). Il convient toutefois de rappeler que la cohésion sociale résulte d'un ensemble de facteurs et ne peut être réduite à la seule question de la répartition des gains de productivité.

L'OCDE (2018) a exploré dans une étude les liens entre le ralentissement de la productivité et le creusement des inégalités dans les pays membres. Le rapport met en garde contre le phénomène de divergence entre entreprises, dans le cadre duquel seules les plus performantes capturent les gains, freinant ainsi leur diffusion dans l'ensemble de l'économie et contribuant à un accroissement des inégalités. Le rapport de l'OCDE invite les décideurs politiques à adopter une approche plus large et plus inclusive de la croissance de la productivité, qui tienne compte de la manière d'accroître les actifs productifs d'une économie en investissant dans les compétences de sa population et en offrant un environnement où toutes les entreprises ont une chance équitable de réussir, y compris dans les régions en retard. Plus récemment, une autre étude de l'OCDE (2024) insiste sur l'équilibre nécessaire entre incitations — investissement, environnement des entreprises — et capacités — compétences, mobilité intersectorielle — pour rendre la productivité réellement inclusive.

4. Climat et productivité

Le changement climatique représente un risque majeur pour la productivité. Dans son rapport, le CNP identifie clairement les différents canaux de **risques liés au changement climatique** : les risques physiques chroniques (réchauffement), les risques physiques aigus (catastrophes) et les risques de transition. Au niveau mondial, les coûts de l'inaction sont bien supérieurs aux coûts d'adaptation. Pour le CNP, la transition est donc un impératif de compétitivité à long terme. Et ce d'autant plus que les derniers chiffres et études montrent qu'à politiques inchangées, la Belgique n'atteindra pas ses objectifs de la transition écologique (SPF Santé publique, Sécurité de la chaîne alimentaire et Environnement 2025).

Une transition réussie vers une économie décarbonée, tant du point de vue environnemental que de celui des finances publiques, consiste à développer un modèle socio-économique résilient, compétitif, inclusif et soutenable et ainsi offrir des opportunités significatives.

Aux yeux du CCE ([CCE 2024-2700](#)), les objectifs de productivité, de progrès social et de transition environnementale ne sont pas antagonistes, mais peuvent au contraire se renforcer mutuellement lorsqu'ils s'inscrivent dans une stratégie cohérente de développement durable. Dans ce contexte, l'environnement ne constitue pas une contrainte externe, mais un facteur structurant des conditions de production et de la création de richesse. Si aucune action n'est entreprise au niveau mondial et donc aussi chacun de son côté, le coût de l'adaptation sera de plus en plus important. Il ne faut cependant pas négliger le défi à court terme, pour les finances publiques et tous les acteurs, que représentent les coûts et investissements nécessaires à la transition.

Le CCE souligne que le modèle de développement économique doit désormais intégrer pleinement les limites écologiques et viser un découplage progressif entre la croissance économique et l'utilisation des ressources naturelles, notamment des combustibles fossiles. La préservation du capital naturel — biodiversité, qualité de l'air, de l'eau et des sols — ainsi que la lutte contre le changement climatique (et ses conséquences) sont des conditions préalables à la soutenabilité du développement économique. Dans cette perspective, la transition vers une économie neutre en carbone et davantage circulaire devrait, à terme, représenter une opportunité de modernisation du tissu productif, de renforcement de la compétitivité et de création d'emplois durables. Force est de constater qu'à court terme, et en l'absence d'un *level playing field*, certaines entreprises connaissent de grandes difficultés face aux coûts élevés de la transition et aux désavantages concurrentiels qui en résultent, ce qui peut entraîner la disparition de certaines d'entre elles. De même, des travailleurs voient leur emploi disparaître ou se transformer.

²² OCDE (2019), Eurofound (2024), Commission européenne (2024).

À cette intention, le CCE a, de concert avec la Commission consultative spéciale « Consommation » et le Conseil fédéral du développement durable, récemment appelé à **une vision belge intégrée de l'économie circulaire**, cruciale pour des politiques cohérentes, qui devrait conduire à des mesures complémentaires et qui se renforcent mutuellement aux différents niveaux de pouvoir ([CCE 2025-0385](#)). Ils plaident pour que celle-ci soit traduite en un plan d'action interfédéral, intégré et cohérent dans lequel la répartition des compétences soit respectée et où les spécificités socio-économiques de chaque Région soient prises en compte. Les organes consultatifs demandent à rester étroitement associés à ce processus. Ils mettent par ailleurs l'accent sur différents points importants pour concrétiser une vision stratégique intégrée : éliminer les barrières réglementaires, fiscales et financières à la transition vers une économie circulaire ; orienter les marchés publics vers l'économie circulaire et les simplifier ; accroître la connaissance et la sensibilisation des citoyens à l'importance des modes de production et de consommation durables afin de stimuler la demande ; en matière de numérisation : s'intéresser non seulement aux avantages, mais aussi à l'impact sur la consommation d'électricité et la demande de matières premières critiques ; porter une attention suffisante aux défis sociaux (développer les connaissances nécessaires dans une économie circulaire, assurer la sécurité des personnes et la protection de l'environnement).

Plus largement, la transition écologique induira une obsolescence accélérée d'une part importante des équipements et du capital. Des **investissements** sont nécessaires dans les infrastructures liées, entre autres, à l'énergie et à la mobilité. Outre les investissements en capital physique, des investissements seront aussi nécessaires dans des innovations conduisant à des produits et services neutres en carbone ainsi que dans la formation aux nouveaux métiers.

L'enjeu principal pour le marché du travail est la **réallocation de la main-d'œuvre**. Le CCE partage l'inquiétude face au risque de disposer de travailleurs dont les compétences deviendraient obsolètes dans une économie décarbonée²³. Compte tenu de l'évolution rapide des besoins du marché du travail, il est important d'encourager et de promouvoir l'éducation et la formation tout au long de la vie ainsi que la mobilité professionnelle afin que les travailleurs, et plus globalement chaque citoyen, puissent maintenir et acquérir les compétences qui permettent de participer pleinement à la société et de négocier avec succès les transitions vers et au sein du marché du travail.

Les interlocuteurs sociaux, représentés aux différents niveaux (international, européen, fédéral, régional, mais aussi via l'implication des représentants des travailleurs dans les conseils d'entreprises, dans les comités pour la prévention et la protection au travail et dans les délégations syndicales), disposent de l'expertise et des outils (par exemple les conventions collectives interprofessionnelles et sectorielles, les fonds sectoriels de formation, etc.) pour relever les défis concrets de la transition en termes, notamment, de formation et d'accompagnement de carrière ou encore d'organisation du travail ([CCE 2023-2500](#)).

5. Leviers de la productivité et de la compétitivité

5.1. Start-ups et scale-ups innovantes

Pour le CNP, la croissance future de la productivité dépend intrinsèquement de la capacité de l'écosystème belge à générer et à faire croître des start-ups et des scale-ups innovantes.

Selon une étude récente de la BNB (Bijmens 2025, p.2), la Belgique ne manque pas de nouvelles entreprises, mais elle manque d'entreprises en croissance. Le taux de création d'entreprises dans le pays est comparable à celui de ses voisins, mais trop peu de jeunes entreprises se développent pour devenir des employeurs importants²⁴.

Les start-ups et scale-ups sont cruciales car elles sont souvent à la pointe de l'innovation et poussent les entreprises existantes à innover. Le CCE souligne l'importance de ces jeunes entreprises pour la création de

²³ « Human stranded assets ».

²⁴ Ce que confirme l'analyse du CCE selon laquelle la part des entreprises à forte croissance en Belgique est nettement inférieure à la moyenne de l'UE ([CCE 2025-1170](#)).

valeur et l'innovation. Le gouvernement fédéral a annoncé son ambition de développer un plan PME avec une attention particulière pour les start-ups, une initiative que le CCE salue. Il insiste également sur la nécessité que ce plan soit cohérent avec la Stratégie européenne en faveur des jeunes pousses et des entreprises en expansion, et qu'il examine les obstacles à l'agrandissement des entreprises (scale-ups).

Le rapport du CNP se penche sur cinq défis majeurs auxquelles sont confrontées les start-ups et les scale-ups : l'accès au financement, une réglementation favorable à l'innovation, une adoption rapide par le marché et une expansion, l'attraction de talents et, enfin, les infrastructures, réseaux et services.

En matière de **financement**, le capital-risque est sous-utilisé en Europe et en Belgique, en partie à cause d'un écosystème d'offre trop fragmenté et insuffisamment internationalisé, ainsi que d'un manque de connaissances en matière de financement non bancaire. Le CCE propose de renforcer mutuellement les initiatives fédérales et régionales dans ce domaine et d'encourager la coopération structurelle entre la Société fédérale de participations et d'investissement et les sociétés régionales d'investissement. Il recommande également de faciliter l'accès des start-ups innovantes aux marchés publics, en s'assurant que les critères d'expérience et de performances antérieures dans l'attribution des marchés ne leur soient pas défavorables.

Il est essentiel de disposer d'un **cadre réglementaire** permettant d'atteindre les objectifs de la réglementation tout en favorisant la simplification administrative et en assurant la sécurité juridique, sans compromettre l'intérêt général ni les niveaux de protection des consommateurs, des travailleurs et de l'environnement.

Enfin, le CNP indique que le succès d'une start-up dépend en grande partie de son accès à des **talents** hautement qualifiés. Le CCE rappelle que cela implique en premier lieu de disposer d'un enseignement qui prépare à la société et au marché du travail de demain, mais aussi de renforcer la formation tout au long de la vie – comme il l'a détaillé dans son Rapport Emploi-Compétitivité 2024 ([CCE 2025-0050](#)).

5.2. Autres leviers de la productivité

Le CCE souhaite mettre en évidence quelques thématiques complémentaires qui sont également importantes pour assurer la croissance de la productivité et la compétitivité : les innovations numériques (et en particulier l'intelligence artificielle), les investissements, le fonctionnement des marchés et la politique industrielle.

Innovations numériques et IA

Les innovations numériques sont à l'origine de nombreuses innovations actuelles et sont un moteur clé de la croissance de la productivité.

Le gouvernement prévoit de définir une stratégie ambitieuse de l'IA visant à positionner la Belgique comme un acteur clé. Pour le CCE ([CCE 2025-1170](#)), il est essentiel que cette stratégie se concentre non seulement sur le développement de l'IA, mais aussi sur son application large et structurelle au sein de toute l'économie, car c'est cette diffusion qui apportera les gains de productivité les plus importants initialement.

Le CCE propose de définir pour chaque volet (développement et diffusion) des objectifs concrets et mesurables ainsi que des points d'action prioritaires détaillés dans des feuilles de route avec un calendrier clair. Une approche itérative et d'apprentissage est nécessaire pour suivre l'évolution rapide de l'IA, nécessitant également un alignement et une coordination avec les initiatives régionales.

Pour assurer une adoption large, il est crucial de sensibiliser les entreprises et les travailleurs aux opportunités de l'IA pour la croissance de la productivité, tout en abordant les défis qu'elle implique. Le CCE insiste sur une approche orientée sur l'humain et le soutien à des formations sur l'IA en milieu de travail, encadrées par une concertation sociale. Une attention particulière doit être accordée à l'intégration verticale²⁵ de l'IA dans les secteurs stratégiques (comme l'industrie pharmaceutique ou la finance) pour rester compétitifs.

²⁵ Soit une intégration de l'IA à chaque maillon de la chaîne de valeur.

Enfin, le CCE souligne l'importance d'un cadre réglementaire propice à l'innovation qui garantit parallèlement la sécurité, les droits fondamentaux et la sécurité juridique. Si elles sont bien conçues, les *sandboxes* réglementaires, créant un environnement contrôlé d'expérimentation et d'essai, peuvent aider et contribuer à ce que la réglementation stimule l'innovation et garantisse parallèlement la sécurité, les droits fondamentaux et la sécurité juridique. Il est important que les informations apprises grâce aux *sandboxes* réglementaires (environnements de test contrôlés) soient relayées pour qu'elles puissent être prises en compte dans les politiques.

Investissements

Selon les perspectives économiques 2025-2030 du Bureau fédéral du plan, la progression des investissements publics au cours des prochaines années sera principalement impulsée par les investissements dans la défense. Les investissements des Régions et des Communautés seraient en recul dans toutes les entités en 2027 en raison de la fin des plans de relance (Bureau fédéral du plan 2025).

Les **investissements publics** constituent un levier important pour stimuler la productivité. Le CCE plaide dès lors pour une ambition renforcée dans les domaines de l'énergie, de la mobilité et du numérique, et souligne l'importance d'une utilisation optimale du cofinancement européen. Les investissements de défense, s'ils peuvent stimuler l'activité et l'emploi, devraient autant que possible être orientés vers les infrastructures, la recherche et l'innovation afin de soutenir la croissance potentielle.

Le CCE invite également les autorités belges à analyser l'opportunité et la faisabilité de la création d'un fonds d'investissement européen pour soutenir l'augmentation des investissements des États membres dans leurs efforts de transformation. Par ailleurs, la création d'un tel fonds pourrait contribuer à un *level playing field* en finançant des initiatives s'inscrivant dans une politique industrielle coordonnée, supprimant les barrières commerciales et stimulant une concurrence loyale. Elle permettrait également de mieux répondre aux chocs économiques et aux crises financières susceptibles d'affecter différents États membres de l'UE ([CCE 2025-1930](#)).

Les investissements publics doivent avoir un effet d'entraînement significatif sur l'**investissement privé** et sur sa résilience en général, ainsi qu'un effet multiplicateur démontrable sur le reste de l'économie. Pour **encourager les investissements privés**, il faut un cadre réglementaire clair, cohérent et stable, garantissant aux investisseurs la sécurité juridique nécessaire. Celui-ci doit simultanément garantir les droits fondamentaux des travailleurs et des citoyens, la protection de la santé et de l'environnement et éviter un impact négatif sur la vitalité des entreprises ([CCE 2024-2700](#)).

Politique de concurrence et fonctionnement des marchés

Le CCE a pris connaissance des orientations fixées par l'Autorité belge de la concurrence (ABC) pour l'année 2025 (Autorité belge de la concurrence 2025). L'ABC y réaffirme son engagement à garantir le maintien d'une concurrence saine, ouverte et dynamique en Belgique, condition essentielle au bon fonctionnement du marché intérieur et à la croissance durable de l'économie.

L'ABC a défini plusieurs secteurs prioritaires, sélectionnés en raison de leur poids économique, de leur importance stratégique pour les entreprises et les consommateurs, et des risques accrus de distorsion de concurrence qu'ils présentent. Il s'agit de la *chaîne de valeur agroalimentaire*, où les tensions sur les prix et la concentration des acteurs justifient une vigilance particulière ; du *secteur de la construction*, caractérisé par des risques de collusion dans les marchés publics et par des défis liés à la transition énergétique des bâtiments ; des *soins de santé*, où les structures de marché et les innovations numériques modifient rapidement la concurrence ; des *services de base* tels que les professions réglementées, les services financiers et bancaires, l'énergie et le transport, dont la régulation a un impact direct sur le coût et la qualité de la vie économique ; enfin, de la *numérisation de l'économie*, incluant les infrastructures numériques et les télécommunications, secteurs clés de la transformation productive.

L'ABC prévoit également de renforcer ses instruments d'action par des études sectorielles, des lignes directrices et une coopération accrue avec les autorités nationales et européennes, afin de rendre la politique de concurrence plus prévisible, plus efficace et plus visible.

Le CCE souligne à cet égard l'importance du rôle que joue l'ABC pour assurer le bon fonctionnement du marché belge, prévenir les pratiques anticoncurrentielles et garantir des conditions équitables entre entreprises. Il considère que la politique de concurrence constitue un pilier fondamental de la compétitivité structurelle de l'économie, mais qu'elle doit être envisagée dans une perspective plus large, intégrant les politiques industrielles, d'innovation et de transition. Dans un contexte marqué par la double transformation écologique et numérique, le CCE estime en effet qu'il est essentiel que la politique de concurrence ne soit pas seulement un instrument de contrôle, mais également un levier d'accompagnement des mutations économiques. Elle doit permettre l'émergence d'écosystèmes innovants, soutenir l'entrée de nouveaux acteurs sur les marchés et éviter la constitution de positions dominantes susceptibles de freiner l'investissement et l'innovation.

Politique industrielle

La politique industrielle doit être conçue comme un projet stratégique, cohérent et intégré, articulant l'action des différents niveaux de pouvoir et pleinement inscrit dans les dynamiques européennes. Le CCE ([CCE 2025-1170](#)) rappelle que le développement industriel doit contribuer à réduire les dépendances critiques et à renforcer l'autonomie stratégique ouverte, en s'appuyant sur une capacité nationale d'innovation renforcée ainsi que sur une collaboration étroite avec les Régions, qui doivent pouvoir intégrer directement leurs priorités spécifiques dans l'action fédérale et européenne. Cet objectif implique une articulation optimale entre investissements publics et privés dans les technologies clés — notamment les technologies numériques, l'intelligence artificielle et les technologies de décarbonation — afin de sécuriser la compétitivité belge tout en préservant un *level playing field* dans un contexte international de concurrence accrue.

Le CCE souligne le rôle déterminant des pouvoirs publics dans la garantie d'une concurrence loyale, qu'il s'agisse de normes, de marchés publics ou d'incitants ciblés. La fondation d'un centre d'expertise et de connaissances interfédéral en matière d'aides d'État constitue, dans ce contexte, une initiative pertinente. Ce centre doit permettre une utilisation optimale des règles en matière d'aides d'État et renforcer la capacité de la Belgique à défendre des conditions de concurrence équitables entre États membres. Il pourrait également examiner comment mobiliser au mieux les instruments financiers disponibles au niveau européen.

Dans le contexte d'évolution de la politique industrielle européenne, il sera essentiel d'identifier les chaînes de valeur dans lesquelles la Belgique peut constituer un maillon crucial. Cette analyse devra s'appuyer sur les atouts nationaux, en valorisant tant la présence de connaissances et de savoir-faire innovants (clusters, écosystèmes d'innovation existants) que les forces de certaines industries matures capables d'intégrer et d'appliquer les nouvelles technologies développées dans les chaînes de valeur émergentes.

Le CCE insiste en parallèle sur l'importance d'une stratégie d'investissement ambitieuse dans les compétences, tant en développant les talents nationaux à travers l'enseignement et l'apprentissage tout au long de la vie qu'en attirant des talents à l'étranger.

La réussite de cette stratégie doit enfin reposer sur un système de concertation sociale robuste, capable d'accompagner les transformations industrielles et les transitions technologiques. À cet égard, le CCE insiste sur le respect de l'autonomie des interlocuteurs sociaux et sur la consultation des organes de concertation lors de l'élaboration des politiques publiques. Dans la transition vers une économie en mutation, le dialogue social joue un rôle essentiel pour gérer les impacts socio-économiques liés à l'évolution des activités, aux transferts d'emplois ou aux changements dans les modes de production.

6. Dialogue avec le CNP

Le CCE tient à rappeler que le dialogue avec le Conseil national de la productivité est important pour que ce dernier puisse s'informer de l'évolution du processus d'appropriation au sein du CCE ainsi que pour garantir une cohérence des analyses et des méthodologies utilisées dans le débat national en matière de productivité et de compétitivité.

Le CNP doit pouvoir mener des analyses approfondies. Pour cela, il doit pouvoir faire appel si besoin à une expertise externe. Le CCE demande que des ressources soient mises à disposition du CNP à cette fin.

7. Bibliographie

AUTORITÉ BELGE DE LA CONCURRENCE (2025), Note de priorités - 2025.

BASSELIER, R. et J. JONCKHEERE (2025), Level and development of the wage share in Belgium, NBB Economic Review n°7.

BIJNENS G. (2025), Reigniting growth: trends and challenges for business dynamism in Belgium, NBB Economic Review n°10.

BUREAU FÉDÉRAL DU PLAN (2025), « Perspectives économiques 2025-2030 ». Juin 2025.

CCE (2023), « [Avis relatif à l'emploi, l'enseignement et la formation dans le cadre de la Conférence pour une transition juste](#) », CCE 2023-2500.

CCE (2024), « [Un appel aux différents gouvernements de notre pays](#) », CCE 2024-1719.

CCE (2024), « [La productivité, un levier stratégique au cœur des politiques publiques](#) », Avis, CCE 2024-2700.

CCE (2025), « [Une vision et une stratégie pour un modèle socio-économique résilient, compétitif, inclusif et soutenable à l'horizon 2050](#) », Rapport Emploi-Compétitivité 2024, CCE 2025-0050.

CCE (2025), « [Handicap absolu des coûts salariaux, handicap absolu des coûts salariaux corrigé pour le niveau de productivité et handicap des coûts salariaux corrigé pour les diminutions de cotisations patronales et les subsides salariaux en Belgique et dans les États membres de référence depuis 1996](#) », CCE 2025-0380.

CCE (2025), « [Innovation comme moteur important d'une prospérité soutenable](#) », Avis, CCE 2025-1170.

CCE (2025), « [Rapport relatif à l'état des finances publiques en Belgique](#) », Rapport, CCE 2025-1930.

CCE, CFDD et CCS Consommation (2025), « [Le projet de vision belge intégrée de l'économie circulaire](#) », Avis, CCE 2025-0385.

COMMISSION EUROPÉENNE (2024), "Employment and Social Developments in Europe 2024", Publications Office of the European Union, Luxembourg.

COMMISSION EUROPÉENNE (2025), "A Competitiveness Compass for the EU", communication from the commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions. 2025.

CONSEIL SUPÉRIEUR DES FINANCES (2025), Comité d'Étude sur le Vieillessement - Rapport annuel, juillet 2025.

EUROFOUND (2024), "Developments in income inequality and the middle class in the EU", Publications Office of the European Union, Luxembourg.

MITCHELL, J. ET AL. (2022), "International comparisons of the measurement of non-market output during the COVID-19 pandemic", OECD Statistics Working Papers, No. 2022/03, OECD Publishing, Paris.

OCDE (2018), "The Productivity-Inclusiveness Nexus", OECD Publishing, Paris.

OCDE (2019), "Under Pressure: The Squeezed Middle Class", OECD Publishing, Paris.

OCDE (2024), "Reviving productivity growth: A review of policies", OECD Economics Department Working Papers No. 1822, 2024.

SPF SANTÉ PUBLIQUE, SÉCURITÉ DE LA CHAÎNE ALIMENTAIRE ET ENVIRONNEMENT (2025), Baromètre de la transition, Novembre 2025.