

EUROPEAN COMMISSION

> Brussels, 16.6.2025 SWD(2025) 294 final

PART 2/27

### COMMISSION STAFF WORKING DOCUMENT

**Digital Decade 2025 country reports** 

Accompanying the document

Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee and the Committee of the Regions

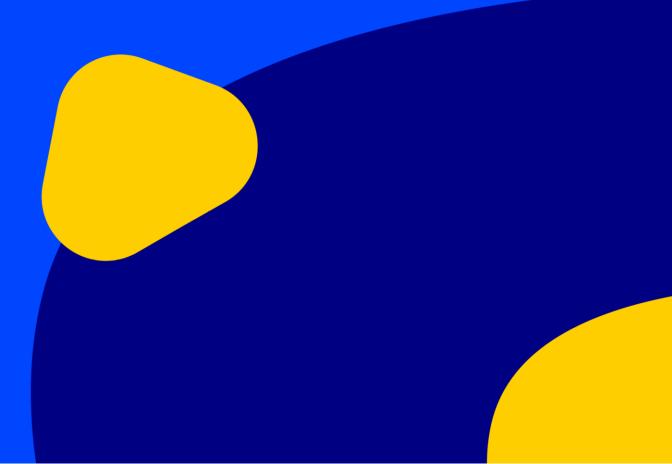
State of the Digital Decade 2025: Keep building the EU's sovereignty and digital future

{COM(2025) 290 final} - {SWD(2025) 290 final} - {SWD(2025) 291 final} - {SWD(2025) 292 final} - {SWD(2025) 293 final} - {SWD(2025) 295 final}



# **DIGITAL DECADE 2025** COUNTRY REPORTS

Belgium



### Contents

Executive summary1
A competitive, sovereign and resilient EU based on technological leadership5
Building technological leadership: digital infrastructure and technologies6
Connectivity infrastructure6
Semiconductors10
Edge nodes10
Quantum technologies10
Supporting EU-wide digital ecosystems and scaling up innovative enterprises11
SMEs with at least basic digital intensity12
Take-up of cloud/AI/data analytics12
Unicorns, scale-ups and start-ups15
Strengthening Cybersecurity & Resilience16
Protecting and empowering EU people and society18
Empowering people and bringing the digital transformation closer to their needs
Equipping people with digital skills19
Key digital public services and solutions – trusted, user-friendly, and accessible to all23
Building a safe and human centric digital environment and preserving our democracy28
Leveraging digital transformation for a smart greening
Annex I – National roadmap analysis
Annex II – Factsheet on multi-country projects (MCPs) and funding
Annex III – Digital Rights and Principles

# **Executive summary**

Belgium benefits from a dynamic tech ecosystem and rapid technology adoption among enterprises. It holds a leading position in VHCN (gigabit) coverage, although there remains room to expand FTTP coverage and address persistent gaps in digital skills. The country has positioned itself as a leader in cybersecurity, strategic technology development and online service provision.

Belgium shows a high level of ambition in its contribution to the Digital Decade, having set 14 national targets, 93% of which are aligned with the EU 2030 targets. The country is following its trajectories, with 86% of them on track (on the basis of the 2024 trajectories defined for 7 KPIs out of 8 analysed). Belgium addressed 75% of the 8 recommendations issued by the Commission in 2024, either by implementing significant policy changes (50%) or making some changes (25%) through new measures.

Belgium stands out for its performance in gigabit coverage and rapid progress in 5G deployment. While fibre coverage still has room to grow, efforts to expand its deployment are accelerating. Business digitalisation is improving, with a focus on AI adoption and support to SME and start-up innovation. In cybersecurity, Belgium leads by engaging SMEs and committing to resilience-building initiatives. Digital skills development remains an area that needs to be prioritised, with programmes addressing ICT and STEM shortages and promoting gender inclusion. Belgium excels in online public services. Aligning with EU priorities, Belgium embeds sustainability in its strategies, and enhances the EU's sovereignty and competitiveness, such as in R&D for semiconductors.

	Belgium				EU		Digital Decade target by 2030	
Digital Decade KPI <sup>(1)</sup>	DESI 2024 (year 2023)	DESI 2025 (year 2024)	Annual progress	National trajectory 2024 (3)	DESI 2025	Annual progress	BE	EU
Fixed Very High Capacity Network (VHCN) coverage	91.2%	93.8%	2.8%	82.0%	82.5%	4.9%	100.0%	100%
Fibre to the Premises (FTTP) coverage	25.0%	30.7%	22.8%	30.0%	69.2%	8.4%	82.0%	-
Overall 5G coverage	40.4%	96.9%	140.0%	99.5%	94.3%	5.9%	100.0%	100%
Edge Nodes (estimate)	15	30	100.0%	18	2257	90.5%	164	10000
SMEs with at least a basic level of digital intensity (2)	-	83.7%	4.1%	-80.3%	72.9%	2.8%	90.0%	90%
Cloud	47.7%	-	-	62%	-	-	75.0%	75%
Artificial Intelligence	13.8%	24.7%	78.9%	15.0%	13.5%	67.2%	75.0%	75%
Data analytics	44.5%	-	-	-44%	-	-	75.0%	75%
Al or Cloud or Data analytics	64.2%	-	-	-	-	-	-	75%
Unicorns	7	7	0.0%	-	286	4.4%	14	500
At least basic digital skills	59.4%	-	-	63%	-	-	80.0%	80%
ICT specialists	5.4%	5.7%	5.6%	7.1%	5.0%	4.2%	10.0%	~10%
eID scheme notification		Yes						
Digital public services for citizens	83.2	81.4	-1.1%	87.0	82.3	3.6%	100.0	100
Digital public services for businesses	91.6	95.4	4.1%	94.0	86.2	0.9%	100.0	100
Access to e-Health records	100	100	0.0%	100.0	82.7	4.5%	100.0	100

(1) See the methodological note for the description of the indicators and other metrics.

(2) DESI 2025 reports the version 4 of the Digital Intensity Index, that is comparable with the DII value from DESI 2023 (referring to year 2022) for the calculation of the annual progress. It is not comparable to the national trajectory that is based on version 3 of the index.
 (3) National trajectory value if present in the national roadmap and if the indicator was measured in DESI2025 (year 2024).

According to the 2025 special Eurobarometer on the Digital Decade, 72% of Belgian citizens consider that the digitalisation of daily public and private services is making their lives easier. Concerning the action of the public authorities, 87% consider it important to counter and mitigate the issue of fake news and disinformation online, and regarding competitiveness, 84% consider it important to ensure that European companies can grow and become 'European Champions' able to compete globally.

# A competitive, sovereign, and resilient EU based on technological leadership

In recent years, Belgium has made significant **progress with its connectivity infrastructure's coverage**. Belgium is now in the leading position on **VHCN (gigabit) coverage**. By now, Belgium has recovered the lag in 5G spectrum assignment and has scope to improve its **FTTP coverage**, which is below the EU average, but deployment is gaining pace on that front. Moreover, the country's **5G coverage** now surpasses the EU average as it has rapidly improved since 2023. This firmly puts Belgium on track to achieve its 2030 targets. While Belgium has made progress in increasing the share of high-speed broadband subscriptions and 5G SIM card usage, it still lags behind the EU average in 5G coverage for households in sparsely populated areas and in the 3.4-3.8 GHz band. The country's strong growth rates in these areas indicate a positive trajectory, but there is still room for improvement to catch up with the EU average.

Belgium and its regions prioritise advances in AI take-up by companies and the digitalisation of online public services, which shows a strong dynamic in particular for businesses. It is also home to strategic assets such as R&D in semiconductors, and actively promotes quantum computing and quantum ecosystem. The Centre for Cybersecurity Belgium (CCB) and its activities position Belgium as a leader in cybersecurity, but also strengthens its capacity for technological innovation and resilience by narrowing the cybersecurity skills gap. Regarding cybersecurity, Belgium continues to lead by example through a range of initiatives. Looking ahead, the continued implementation of the current National Cybersecurity Strategy, the development of its successor, and efforts to enhance SME participation in cybersecurity measures will be key to ensuring long-term resilience and success.

### Protecting and empowering EU people and society

Belgium's digital transformation is under pressure due to **persistent gaps in digital skills, ICT talent shortages, and gender imbalance among ICT specialists.** The low performance in advanced digital skills hampers labour market outcomes and competitiveness. However, Belgium excels in delivering **digital public services**, especially for businesses (above the EU average), and in the uptake of **e-ID** by citizens. Belgium leads the EU in terms of **access to e-Health records** in 2023 with a maximum score of 100. **Authorities focus on closing skills gaps** through lifelong learning and targeted reskilling, with **special attention given to women** in digital roles. Efforts also target combating disinformation and promoting digital literacy to protect citizens online, fostering a safer and more inclusive digital environment.

### Leveraging digital transformation for a smart greening

Regarding progress in its **twin transition**, Belgium is actively engaged in both greening its digital infrastructure and supporting digital solutions for carbon reduction in other sectors. While several initiatives show promise, a comprehensive strategy that links the digital and green transitions would likely accelerate these efforts.

### National Digital Decade strategic roadmap

Belgium submitted an addendum to its national Digital Decade roadmap on 11 December 2024, addressing all the roadmap recommendations issued in 2024. The country pledged to improve coordination across governance levels and to transition to an annual roadmap update cycle starting in 2025. The roadmap includes 13 updated and 5 new measures added to last year's 161 measures. The new measures focus on people, digital skills, accessibility and inclusion. Most trajectories remain unchanged, with updates limited to missing KPIs for edge nodes and FTTP. The revised roadmap is composed of 166 measures with a budget of EUR 913.71 million (equivalent to 0.15% of GDP), up from EUR 892 million. It still covers all objectives of the Digital Decade such as a human-centred digital space, resilience and security, sovereignty, sustainability, and protection of society. Stakeholder engagement is planned for 2025, with Belgium committing to a more coordinated national strategy to close identified gaps and align with the EU's 2030 digital objectives. The country also decided to deliver a yearly roadmap, starting in 2025, instead of one every two years as the DDPP requires.

### Funding & projects for digital

Belgium allocates 26% of its total recovery and resilience plan to digital (EUR 1.2 billion)<sup>1</sup>. In addition, under cohesion policy, EUR 329 million, representing 13% of the country's total cohesion policy funding, is dedicated to advancing Belgium's digital transformation<sup>2</sup>.

**Belgium hosts the EUROPEUM EDIC.** It is also a member of the Local Digital Twins towards the CitiVERSE EDIC and participates as an observer in the Alliance for Language Technologies EDIC, for which the region of Flanders is a member. Belgian entities are indirect and/or associated partners in the IPCEI on Microelectronics and Communication Technologies (IPCEI-ME/CT) and in the IPCEI on Next Generation Cloud Infrastructure and Services (IPCEI-CIS). Belgium is a participating state of the EuroHPC Joint Undertaking (JU) and of the Chips JU.

Within the Digital Decade's **Best Practice Accelerator**<sup>3</sup>, Belgium leads the 'Technology Uptake' Cluster, organising workshops on AI adoption for SMEs and other key topics, with active participation across Europe and plans for ongoing collaboration and knowledge sharing.

### Digital rights and principles

According to a support study, Belgium has been one of the most active Member States in implementing the European Declaration on Digital Rights and Principles, with over 100 initiatives overall and 12 new initiatives launched in 2024. Belgium is most active in the areas of digital education, training and skills and fair and just working conditions. Less activity has been identified with regards to sustainability. Measures in the area of freedom of choice appear to have most impact on the ground, in contrast to those addressing safety, security and empowerment and sustainability.

<sup>&</sup>lt;sup>1</sup> The share of financial allocations that contribute to digital objectives has been calculated using Annex VII to the Recovery and Resilience Facility Regulation. Last data update: 16 May 2025.

<sup>&</sup>lt;sup>2</sup> This amount includes all investment specifically aimed at or substantially contributing to digital transformation in the 2021-2027 Cohesion policy programming period. The source funds are the European Regional Development Fund, the Cohesion Fund, the European Social Fund Plus, and the Just Transition Fund.

<sup>&</sup>lt;sup>3</sup> The Best Practice Accelerator (BPA) is a platform that enables Member States to share successful measures and challenges encountered in their efforts to meet their Digital Decade targets and objectives. Best practices are made available to Member States via the BPA Repository and showcased in regular workshops, currently focused on three thematic clusters: Digital Skills, Green IT, and the Uptake of Digital Technologies.

### **Recommendations**

- **Basic digital skills:** Address the gender gap in digital skills, provide support for the less educated, assist older adults in becoming digitally savvy, and improve online safety skills to ensure comprehensive digital inclusion.
- **ICT specialists:** Sustain efforts to boost the number of female ICT specialists and female ICT graduates.
- Digitalisation of SMEs and advanced technologies take-up Cloud: Expand efforts to advance cloud infrastructure and promote cloud adoption among SMEs through broader national coordination across all regions and more concrete actions.
- **Artificial intelligence:** Continue to support innovation in AI to reinforce leadership in the sector and create future global leader companies.
- **Fixed and mobile connectivity:** To enhance digital infrastructure, (i) focus on accelerating FTTP deployment, particularly in sparsely populated areas; and (ii) direct efforts towards increasing the assignment of harmonized spectrum in the 5G pioneer bands.
- **Green and digital transition:** Continue to coordinate efforts and develop more structured monitoring mechanisms for emission reductions, linking environmental sustainability with digital innovation.
- **Cybersecurity:** Continue efforts in cybersecurity to address evolving threats, particularly maintaining vigilance for enterprises and administration.

# A competitive, sovereign and resilient EU based on technological leadership

**Belgium's digital has been a key focus for policymakers**, who aim to position the country as a forerunner in several areas of Europe's tech landscape. While Belgium's competitiveness in ICT faces hurdles overall, there is potential for further growth.

Government initiatives at both federal and regional levels, such as participation in the European Startup Nations Alliance and the establishment of an AI Campus hub, reflect strong support for startups and innovation. Additionally, significant public support for business R&D and a stable ICT sector contribution to gross value added indicate progress in research and innovation (R&I) performance. However, these improvements are tempered by decreasing venture capital (VC) intensity, inconsistent VC investments, and relatively low R&D spending and low numbers of ICT specialists. Furthermore, the need for small firms to better grow and commercialize innovations, along with limited employment in high-growth and innovative businesses compared to EU averages, highlights ongoing challenges.

**Belgium's ICT sector** represented **4.08%** of the gross value added in 2022, which is its lowest performance since 2019 and below the EU average of 5.46%, pointing to an overall underperformance of the country<sup>4</sup>. **R&D spending** in Belgium's ICT sector is not among the highest, at **16.91%** of the total R&D business expenditure in 2021. R&D personnel in the ICT sector made up **23.5%** of the total R&D workforce, which is below the average compared to other EU countries for which data was available.

**High-growth businesses** account for only 4.53% of employment, vs an EU average of 12.23%, according to Eurostat. In innovative sectors, despite the good performance of Belgium in R&I, employment in fast-growing enterprises in 50% of the most innovative sectors is low (2.2% in 2019 vs 5.5% EU average).

**Public support to business R&D** is one of the highest in the from EU (0.31% of GDP compared with the EU average of 0.24% of GDP), with two-thirds of it provided through tax incentives. However, the share of R&D tax support that small firms benefit from is low by OECD standards. Furthermore, evidence indicates that the impact of these R&D tax incentives diminishes as firm size increases.

**Belgium remains a strong performer in R&I,** although this does not fully translate into business dynamism. The 2024 European Innovation Scoreboard ranks Belgium as a 'strong innovator', with performance well above the EU average and nearly on a par with the 'innovation leader' countries. Belgium's innovation performance relative to the EU average (2.22% in 2023) has steadily increased over the last decade alongside its overall R&D intensity, which reached 3.35% of GDP in 2023 (compared to 2.06% in 2010). This growth has been achieved thanks to a very substantial increase in business R&D intensity (2.47% in 2022), now the second highest in the EU.

**On connectivity,** Belgium is in the leading position on VHCN (gigabit) coverage, rapidly caught up on its 5G backlog. Although it has scope to expand its FTTP coverage, deployment is gaining pace on that

<sup>&</sup>lt;sup>4</sup> Most of the indicators mentioned in the country report are explained in the DESI 2025 Methodological Note accompanying the State of the Digital Decade report 2025.

front as well. However, the country needs to further monitor 5G coverage for households in sparsely populated areas and in the 3.4-3.8 GHz band, and fibre coverage.

**Regarding critical technologies,** Belgium remains a European leader in chip R&D with Flanders' Imec research lab. The country also plays a key role in advancing semiconductor innovation and production through public and private sector commitments (such as through the Semicon Coalition and a Chips Act's pilot line). Belgium continues to promote quantum computing and is likely to meet its edge nodes target.

The tech ecosystem for SMEs and start-ups growth in Belgium keep developing with a rather encouraging dynamic, thanks to ongoing support measures. The digital landscape for businesses in Belgium is positive overall.

On the state of enterprise digitalisation, in 2023 and 2024, Belgium made significant and consistent progress in the uptake of digital technologies by businesses, particularly in accelerating the uptake of AI in 2024. Of note, Belgium is the host and lead Member of the 'Technology Uptake' Cluster of the Digital Decade's Best Practice Accelerator (BPA). Belgium leads or participates in six European Digital Innovation Hubs (EDIHs) and is engaging discussions to potentially participate in an AI factories project at EU level.

Belgium continues to lead in **cybersecurity** by example through a host of initiatives. Moving forward, the continued implementation of the National Cybersecurity Strategy and efforts to boost SME participation in cybersecurity initiatives will be crucial for sustained success.

According to the 2025 Eurobarometer<sup>5</sup>, 83% of Belgian people think that building efficient and secure digital infrastructures and data processing facilities should be a priority for the public authorities.

### Building technological leadership: digital infrastructure and technologies

**Belgium excels in Fixed Very High-Capacity Network (VHCN) coverage, semiconductor R&D, and digitalisation**, with strong growth in AI adoption by enterprises and cybersecurity leadership. However, the country needs to further monitor 5G for households in sparsely populated areas and in the 3.4-3.8 GHz band, and fibre coverage. Belgium also needs to increase SMEs' participation in cybersecurity initiatives.

### Connectivity infrastructure

**Belgium's digital infrastructure exhibits a complex landscape and mixed performance.** While it leads the EU in total VHCN coverage and shows impressive growth in 5G coverage, **it lags in Fibre-to-the-premises (FTTP) coverage. The lag in 5G spectrum assignment has been solved in 2022.** The country's performance in expanding to sparsely populated areas varies, with strong growth in some areas but low coverage in others. Belgium's broadband take-up indicators show a mixed performance compared to the EU average. The country leads in the share of fixed broadband subscriptions at speeds of 100 Mbps or higher but lags behind in subscriptions at speeds of 1 Gbps or higher and in the share of the population using 5G SIM cards. However, Belgium's growth rates in these areas are generally positive and, in some cases, outpace the EU. Some of the measures in place include regulatory interventions to facilitate network deployment, spectrum management, promotion of VHCN and 5G take-up through awareness campaigns, the establishment of the Broadband Competence Office (BCO), and project fundings for 5G pilots, VHCN in white areas and 6G research.

<sup>&</sup>lt;sup>5</sup> Special Eurobarometer 566 on 'the Digital Decade' 2025: <u>https://digital-strategy.ec.europa.eu/en/news-redirect/883227</u>

**Regarding consumers**, Belgium remains **expensive** for **small mobile plans**, **fixed internet**, **and premium bundles**, but competition is improving with **DIGI's entry as a fourth mobile operator**. In addition, changes to the **universal service rule** that took effect on 1 March 2024 redefined the affordable adequate Internet access service by introducing a new social internet offer. This new version of the social tariff system was adopted by 20 123 beneficiaries as of January 2025, while the old system still covered 162 701 users by the end of 2024. The number of beneficiaries of the **new system is expected to grow** as awareness increases.

**Belgium's broadband take-up indicators show a mixed performance compared to the EU average**. In 2023, 72.25% of fixed broadband subscriptions in Belgium were at speeds of 100 Mbps or higher, surpassing the EU's 65.9%. This figure rose to 75.87% in 2024, still ahead of the EU's 71.88%. However, the growth rate for this indicator in Belgium was 6.3%, which is lower than the EU's 9.1%.

For fixed broadband subscriptions at speeds of 1 Gbps or higher, Belgium lagged behind the EU. In 2023, only 4.57% of Belgian fixed broadband subscriptions were at this speed, compared to the EU's 18.47%. This rose to 5.53% in 2024, still below the EU's 22.25%. However, Belgium's growth rate of 22.4% outpaced the EU's 20.5%.

The share of the population using 5G SIM cards in Belgium was 13.26% in 2023, lower than the EU's 21.7%. This figure rose to 31.19% in 2024, still below the EU's 35.56%. Belgium's growth rate of 135.2% for this indicator was significantly higher than the EU's 63.9%.

### VHCN and FTTP

Belgium's VHCN coverage is at 93.8% (2030 national target 100%), after a progression of +2.9% in 2024 and stands far above the EU average of 82.49%. The country is on track according to its national trajectory. However, the 2.9% growth rate between2023 and 2024 was lower than the EU's 4.9%. For households in rural areas, Belgium's VHCN coverage was 80.83% in 2024, above the EU's 61.89%. The VHCN growth rate was 12.2%, outperforming the EU's 11.3%.

**On regional disparities**, Wallonia historically had the lowest VHCN coverage, but this changed with Orange's Docsis 3.1 network upgrade. However, while Belgium reported that near-full VHCN coverage will be achieved by 2030, **white areas persist.** 

Belgium's FTTP coverage is at 30.7% (2030 national target 82%), after a progression of +22.8% in 2024 and stands far below the EU average of 69.24%. The country is on track according to its national trajectory. The growth rate of 22.8% between 2023 and 2024 significantly outpaced the EU's 8.4%. For households in rural areas, Belgium's FTTP coverage was 2.05% in 2024, far below the EU's 58.78%. The FTTP growth rate was 6.8%, lower than the EU's 11.9%. However, by 2024, FTTH made up 10.8% of broadband lines (555 000 lines), with Proximus seeing a 23.6% increase in FTTH retail sales.

**The entire German-speaking region will be fully covered by an FTTH network by 2026** as GO Fiber, in the framework of a public-private partnership, is reducing white areas. For Belgium as a whole, Proximus and its joint-venture subsidiaries (Fiberklaar and Unifiber) are expanding coverage independently. Wyre (a joint venture between Telenet and Fluvius – a utility company) and DIGI have also started deploying fibre. Wyre's ambition is to cover 78% of their footprint in the northern part of Belgium with fibre by 2038 and is aiming at 70% by 2029.

**Potential cooperation between Proximus/Fiberklaar and Telenet/Wyre** may have a positive impact on the FTTH roll-out trajectory in **Flanders**: a Memorandum of Understanding aims to deploy FTTH in 2 million medium-density homes and allow reciprocal network access, pending review by competition

authorities. The possibility of a similar agreement with Orange is under discussion for **Wallonia**. If approved, such partnerships could boost rollout speed and service quality.

**2024 recommendation on fixed connectivity:** Accelerate efforts to ensure full FTTP coverage, addressing the remaining issues such as limited speed and service in rural areas

Belgium made some efforts to address the recommendation through new policy actions in 2024. The country is making moderate progress with some promising initiatives to reduce disparities in Flanders and a commitment to FTTP expansion. There is a lack of specific new measures to tackle rural connectivity issues, which are however limited given the wide availability of VHCN. Pursuing the Digital Decade's FTTP roll-out targets is considered to be a major point of attention. Given that many measures from the 2023 roadmap were rolled out to encourage deployments and are still ongoing, Belgium did not introduce new measures in 2024. As deployment continues, inflation, labour shortages, and infrastructure challenges could impact investment capacity and rollout efficiency.

Take-up of high-speed broadband is low, with the share of fixed broadband subscriptions reported at 5.53% for speeds greater than 1 Gbps (vs EU average of 22.25%), despite Belgium being above the EU average (72.25% vs 65.9%) for subscriptions to services of speeds greater than 100 Mbps.

Looking at the market status of Belgium's operators, Proximus continues to hold its position as the dominant mobile operator in the market, followed by Orange and Telenet.

**Regarding copper switch-off,** a gradual shutdown was initiated in 2023, with a full switch-off expected by 2035. Fibre replacement takes approximately five years per area. The Belgian Institute for Postal Services and Telecommunications (BIPT) continues to monitor the transition, ensuring transparency and improvements to communication.

### 5G

**Belgium's 5G coverage is at 96.87% (2030 national target 100%), after a progression of +140.1% in 2024 and stands just above the EU average of 94.35%.** The country is on track according to its national trajectory. The growth rate of 140.1% between 2023 and 2024 vastly outperformed the EU's 6.0%. For **households in rural areas**, Belgium's 5G coverage was 69.77% in 2024, below the EU's 79.57%. The 5G growth rate was 141.1%, far surpassing the EU's 11.9%.

In the 3.4–3.8 GHz band for 5G coverage, Belgium showed remarkable growth, with a growth rate of 246.5% between 2023 and 2024 compared to the EU's 32.6%. However, Belgium's coverage was lower than the EU's in both years, at 14.24% in 2023 and 49.34% in 2024, compared to the EU's 51.06% and 67.72%, respectively. For households in sparsely populated areas, Belgium's coverage was 3.76% in 2023 and 39.64% in 2024, compared to the EU's 15.86% and 26.19%, respectively. Their growth rate was 954.3%, significantly outperforming the EU's 65.1%. Belgium started from very low initial coverage, and was late to auction its 3.5 GHz spectrum (mid-2022), compared to many other EU countries. These high growth rates are in part a **reflection of the country's efforts to catch up from a low base**, driven by **delayed spectrum deployment**, **policy incentives**, and **strategic investments** made after 2022.

**On 5G spectrum**, Belgium's assignment of harmonized spectrum in the 5G pioneer bands was 65.83% in both 2024 and 2025, lagging behind the EU's 73.4% and 74.63% respectively. Belgium showed no

growth in this area between both years, while the EU's growth was 1.7%, owing to a lack of market demand.

**2024 recommendations on mobile connectivity:** (i) Accelerate efforts to ensure full 5G coverage, addressing the remaining issues such as limited speed and service in rural areas; (ii) Ensure sufficient access of new players to spectrum for innovative business-to-business (B2B) and business-to-consumer (B2C) applications and encourage operators to speed up the deployment.

In 2024, Belgium made some efforts to address the recommendation through new policy actions. Regarding the progress on 5G coverage expansion (B2C and rural areas), Belgium acknowledges the financial and market challenges but, in part due to 2024 being an election year, does not introduce concrete **new incentives** or regulatory interventions to accelerate nationwide 5G standalone (SA) deployment or improve rural connectivity.

Regarding access to spectrum and the promotion of 5G SA for B2B and B2C, the market in Belgium has **focused its efforts on B2B**, with private networks benefiting from **dedicated spectrum and funding**. However, the **B2C market lacks strong incentives** for SA deployment, since the regulation in Belgium is technology-dependent.

There have been some noteworthy developments in Belgium:

- Belgium strengthened competition by allowing a fourth mobile operator with a full spectrum portfolio to enter the market. Citymesh/DIGI, became active in the retail market in December 2024 after acquiring reserved 5G spectrum for newcomers.
- In 2024, NRB sold its spectrum to Proximus.
- A Royal Decree and the BIPT decision with technical conditions of 2023 allows BIPT to issue private 5G licences, but there have been some applications for private 5G spectrum up to now.
- A Royal decree was published in 2024 to allow 5G deployment in the North Sea. Multiple 5G networks are in operation there.
- The remaining 20 MHz spectrum at 3.6 GHz was offered to the market in April 2024, but there were no bidders.
- No significant industrial demand for 26 GHz band has been identified, but a new consultation on the Royal decree is expected in 2025.

On 5G coverage, challenges include operators' preference for **5G Non-Standalone (NSA)** by reusing existing LTE sites, which slows down the deployment of full 5G SA. In addition, financial constraints and concerns about return on investment are limiting large-scale 5G SA roll-out. Many customers **do not perceive a clear benefit** of SA over NSA, reducing demand pressure. A significant portion of users still rely on **4G devices**, and rapid replacement is not seen as ecologically desirable.

Belgium has not pushed for SA deployment. While 5G networks are expanding, there is no targeted intervention to **improve speed and service in underserved areas**.

**There is progress on B2B**: Belgium has allocated **3800-4200 MHz spectrum** for private 5G networks. Federal funding is **exclusively awarded to B2B projects**, supporting **private 5G SA networks**. Some private networks are using **SA** structures, indicating progress in adoption by industry.

**On B2C and spectrum access challenges**, there is **limited demand** for private spectrum: Few parties are requesting 3800-4200 MHz spectrum, as **MNOs already offer private 5G solutions** within their licensed bands. There is **no major push for consumer (B2C) 5G SA adoption**: Belgium notes that no "crucial" B2C 5G SA application exists yet. Finally, there is a **lack of regulatory leverage**: Belgium states

that, due to technology neutrality, it cannot force operators to **speed up SA deployment**, limiting its role in actively driving the transition.

### Semiconductors

**Belgium remains a European leader in chip R&D** with its Imec research lab, and plays a key role in advancing semiconductor innovation and production through public and private sector commitments.

In March 2025, <u>Imec and Dutch chip printing machine supplier ASML struck a five-year partnership</u>, that will bring some of ASML's machines to the new pilot line funded under the EU Chips Act by the EU and the Belgian region of Flanders. The pilot line aims to make microchips even smaller (to below 2 nanometres); it has started its activities and will focus on the procurement of tools in the early stage. The ASML investment in the partnership is complemented with **funding made available by the Chips Joint Undertaking (JU) and the Flemish government** (which invested EUR 1.4 million through the EU Chips Act for the realisation of the EU Chips Act NanolC pilot line), and by the Dutch government (as an Important Project of Common European Interest). Bringing together ASML and Imec's respective knowledge and expertise will foster EU competitiveness by developing solutions that advance the semiconductor industry and initiatives focused on sustainable innovation.

**Wallonia** is involved in the FAMES pilot line, one of the three main pilot lines of the Chips Act. UCLouvain (ICTEAM) is a member of the consortium responsible for setting up and providing services for FAMES, and this initiative is co-financed by Wallonia. The Chips JU will fund the initiative through the chips competence call, and the required 50% co-financing the JU will make will be covered by the funding possibilities in the Walloon decree on R&I. Dedicated funding is planned for several European partnerships, including the Chips JU.

In March 2025, Belgium joined eight other EU countries to establish the <u>IPCEI on Next Generation</u> <u>Cloud Infrastructure and Services (IPCEI-CIS</u>), committing to strengthening Europe's semiconductor industry. The coalition aims to: (i) Expand semiconductor production capacity within the EU; (ii) Enhance Europe's leadership in key areas of the global semiconductor value chain; and (iii) Respond to increasing global public investment in the semiconductor sector. In collaboration with the European Commission, the Semicon Coalition will explore additional long-term support mechanisms to maintain and strengthen Europe's competitive position in the global semiconductor industry.

Also in March 2025, the Commission selected two Belgian projects led by advanced materials company Umicore, as part of its efforts to secure strategic resources. Both projects target germanium, a critical semiconductor metal used in the defence and space sectors: 'GePETO' focuses on refining the metal and 'Re-looks' explores substitutions for it.

### Edge nodes

According to the Edge Node Observatory, Belgium is estimated to have deployed a total of 30 edge nodes by 2024, a progression of +100% since 2023. This is doubling (+15 edge nodes) the amount estimated for 2023 (15, number revised since the 2024 Digital Decade Report).

#### Quantum technologies

**Belgium is steadily developing its capabilities in high-performance computing and quantum technologies**, through initiatives at both regional and federal levels. While efforts are primarily focused on research, education, and ecosystem-building, they are laying important groundwork for future strategic developments.

**Flanders** invested EUR 8.6 million in the purchase of a <u>new Flemish supercomputer</u>. It will be installed at the VUB Green Energy Park in Zellik. The computer will be operational from November 2025. Japanese high-tech company NEC Deutschland GmbH (NEC) will supply this new Flemish Tier-1 supercomputer. This supercomputer is part of a platform of systems providing computing power, data storage, and cloud applications offered by the Flemish Supercomputer Centre (VSC) to researchers in knowledge institutions and companies across Flanders.

In September 2024, the Belgian Ministry of Economy (FPS Economy) hosted 'Guiding the Quantum Technology Landscape', a workshop for government officials at all levels together with high-level executives from the private sector (IBM) on quantum, in order to raise awareness of and explain more about this technology. The Ministry also drafted a paper to assess quantum technologies' economic impact, and to map the ecosystem at national and EU levels. The Ministry also launched an ad-hoc quantum working group in 2024 to share all relevant developments on the country's different levels and organise strategic discussions about Belgium's next steps. As quantum computing (which the Digital Decade indicator is linked to) will be in a research phase for several years to come, for now, Belgium prioritises research, education and attracting/retaining quantum skilled researchers, rather than rolling out a national strategy.

**The Centre for Cybersecurity Belgium (CCB)** is engaged in the Quantum Technologies Cooperation Group at EU level, as well as participating to the NIS Cooperation Group Work Stream on PQC to work on a European roadmap. In addition, the BeQCI initiative signed a MoU with Luxembourg in 2024. Belgium held discussions with France, but assessed it too expensive up to that point to connect both infrastructures. Furthermore, the BeQCI initiative is considering organizing a hackathon in 2025, to further promote quantum.

**Wallonia is currently building its own quantum ecosystem**, and plans to take part in the next DEP calls for projects.

# Supporting EU-wide digital ecosystems and scaling up innovative enterprises

**Belgium is making strong progress in digitalisation, with 2024 marking an acceleration in technology adoption among businesses.** All has become a priority in new government strategies following the 2024 elections, though concrete plans and budgets were still pending at the time of reporting.

The country benefits from high business R&D investment (2.47% of GDP, well above the EU average) and strong science-business linkages. In 2024, Belgian companies filed 741 ICT patent applications—a 59.35% increase from 2023—making it a record year over the past five years<sup>6</sup>. Belgium excels in patents related to agri-food, health, and electronics.

Despite public support, business dynamism remains moderate, and SMEs struggle to scale up. While Belgium offers tax incentives for start-ups and scale-ups, their impact remains unclear.

**Regulatory challenges persist, particularly for SMEs.** Belgium lags behind OECD top performers in easing the administrative burden, market entry, and regulatory efficiency. Further reforms are needed to foster innovation and business growth.

Of note, Belgium is the host and lead Member of the Cluster 'Technology Uptake' of the Digital Decade's Best Practice Accelerator (BPA). It has presented two of its initiatives as part of the BPA

<sup>&</sup>lt;sup>6</sup> Source: Ministry of Economy, SPF Economie, Direction générale de la Réglementation Economique (2025)

workshops: Start IA by DigitalWallonia4.AI; and Athumi, a data utility company working with the Flemish government that streamlines processes in smart societies by putting citizens in control of their personal data.

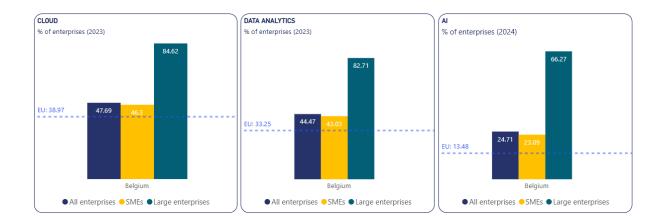
#### SMEs with at least basic digital intensity

**83.7% of Belgian SMEs had at least a basic level of digital intensity** (2030 national target 90%) after a progression of +4.1% annually between 2022 and 2024; it stands well above the EU average of 72.91%, maintaining a leading position.

Belgium is driving digitalisation, AI, and sustainable innovation through federal and regional initiatives. The Ministry of Economy (FPS Economy) and regions along their competences support businesses via financial incentives, digital transformation programmes, public-private partnerships (such as with Digital Wallonia), and EU collaboration.

Regional initiatives foster innovation through strategic frameworks and financial support. Wallonie-Entreprendre (WE), SPW Recherche Flanders' Innovation & Entrepreneurship (VLAIO) agency and Innoviris (Brussels region) offer grants, including for university-business collaboration. The Agence du Numérique supports projects under StartIA, funding up to 70% for private and 100% for public sector projects. In Flanders, VLAIO backs SME innovation, while Innoviris plays a similar role in Brussels. Belgium prioritizes AI, smart automation, and ethical digitalisation, with a strong AI ecosystem (AI4Belgium, top universities, Robovision). Industry 4.0 and robotics are advancing in aerospace, healthcare, and logistics, while sustainable digitalisation integrates AI, IoT, and blockchain for green tech.

**Belgium leads or participates in six European Digital Innovation Hubs (EDIHs),** including Walhub, SustAin.brussels, and Flanders AI. Wallonia hosts two EDIHs: WalHub (Industry 4.0 & logistics) and CONNECT (Construction 4.0), supporting over 500 companies since 2023. Key priorities include AI, cybersecurity, IoT, and digital transformation for SMEs. In 2024, WalHub has developed an e-learning tool on cybersecurity dedicated to SMEs, while CONNECT developed several resources to help very small enterprises take their first steps in digital transformation. To further strengthen industry expertise, train-the-trainer sessions have been organized around digital technologies in collaboration with the Wallonian employment agency (FOREM) and training centre (IFAPME). Both EDIHs also contribute to the regional programmes '*Industrie du futur*' and '*Construction du futur*'.



### Take-up of cloud/AI/data analytics

### <u>Artificial intelligence or Cloud or Data analytics</u>

According to new data collected in 2024, 24.71% of Belgian enterprises adopted AI (2030 national target 75%) after a progression of +78.93% in a year; this performance stands considerably above the EU average of 13.48%. The country is on track according to its national trajectory. Belgium experienced a significant growth in the use of AI by enterprises (78.93%) from 13.81% in 2023, surpassing the EU average increase between 2023 and 2024 (67.2%). At the same time, a significant difference existed between SMEs, which had an uptake rate of 23.09%, and large enterprises, which demonstrated a significantly higher uptake rate of 66.27%. As such, the gap between SMEs and large enterprises was 43.18 percentage points, which was higher than the EU gap of 28.53 percentage points.

Adoption of cloud, data analytics, and the three technologies together were not measured in 2024.

In 2023, 47.69% of Belgian firms adopted cloud technologies (2030 national target 75%), which is considerably above the EU average of 38.97%. More specifically, 46.3% of SMEs used cloud services, while a much higher proportion of large enterprises – more than 4 out of 5 (84.62%) – adopted these services. This indicates a percentage point difference of 38.32 in uptake between SMEs and large enterprises in Belgium, which was higher than the EU gap of 31.68.

Data from 2023 showed that 44.47% of Belgian firms adopted data analytics technologies (2030 national target 75%), considerably above the EU average of 33.25%. More specifically, while 43.03% of SMEs made use of data analytics, the uptake was considerably higher among large enterprises, with 82.71% engaging in such activities. This reflects a 39.68 percentage point difference between SMEs and large enterprises in Belgium, which is in line with the EU gap.

When taking the three technologies together in 2023, 64.21% of enterprises in Belgium engaged with either AI, cloud, or data analytics technologies (2030 national target 75%), considerably above the EU average of 54.7%. More specifically, the uptake among SMEs was slightly lower at 63.05%, while large enterprises demonstrated a significantly higher engagement at 94.98%. This indicates a percentage point difference of 31.93 in uptake between SMEs and large enterprises in Belgium, which is in line with the EU gap.

Indicators on the adoption of cloud computing, data analytics, and AI technologies in Belgium demonstrated a strong overall performance, with the country exceeding EU averages in all three areas. However, a significant disparity exists in technology adoption between SMEs and large enterprises. While large enterprises demonstrated high levels of adoption, SMEs lagged behind, particularly in AI adoption, and there was a sizeable gap in cloud computing and data analytics uptake. This mirrors broader EU trends, where large enterprises consistently outpace SMEs in technology adoption. Given that SMEs accounted for 95.8% of enterprises with more than 10 employees in Belgium and produced 38% of the country's value added in 2022, addressing these disparities is crucial to promoting digital transformation and driving economic growth.

<u>Cloud</u>

The **BIPT** and other EU national regulatory authorities (NRAs) are monitoring the growing integration of telecom and cloud services, driven by technologies like **cloud and edge computing**. Key concerns include **interoperability, market competition, and the dominance of hyperscalers**.

**Belgium had decided to engage in the IPCEI-CIS on Cloud in 2023.** All IPCEI projects are coordinated by the Ministry of Economy but competences to engage lay often in the hands of the Regions. Belgium ultimately participated with two projects supported in Flanders and therefore 'indirect partners'

(funding via non-IPCEI funds managed by Flanders' VLAIO). Both projects are based on detailed IPCEI measures, and they focus on: (i) The development of smart charging solutions for electric vehicles; and (ii) software for decentralizing computing and storage infrastructure and decentralizing data ownership.

**2024 recommendation on cloud:** Support the broad uptake of the next generation of cloud infrastructure and services under development in the IPCEI-CIS by companies of all sizes, including by liaising with the direct participants to develop a country-specific dissemination strategy reaching beyond the participating organisations.

In 2024, Belgium continued the implementation of existing measures but did not take any new measure. The country has taken initial steps by supporting projects – especially in Flanders, but its engagement is still limited, and broader national coordination is needed. Belgium joined the IPCEI-CIS initiative in 2023, signalling its commitment to advancing cloud infrastructure. Belgium's involvement is regionally focused (Flanders), with no indication of broader engagement across Wallonia and Brussels. The projects were supported via regional funds, not through IPCEI itself, which may limit their alignment with EU-wide cloud initiatives. The recommendation calls for ensuring that companies of all sizes benefit, but Belgium's report lacked concrete actions to promote cloud adoption among SMEs.

#### • Data Analytics

No specific new measures were introduced or signalled by the adjusted roadmap submitted by Belgium in 2025.

### • Artificial Intelligence

**Some efforts were made to accelerate the uptake of AI in 2024.** At federal level, the Ministry of Economy's recent state of play shows a good performance of Belgium regarding the adoption of AI, with almost one out of four businesses (of more than 10 full-time equivalents) using at least one AI tool. Furthermore, AI is taking into account in all government agreements. Al4Belgium, led by the Federal Public Service Policy and Support (BOSA), provides an overview of Belgium's AI ecosystem with its <u>Observatory for AI and new digital technologies</u> to monitor the progress and transparently inform the public. The Ministry has also published the yearly <u>update of its National Productivity Board</u> in December 2024, a report that takes stock of Belgium's productivity growth, with the perspective that AI can be a catalyst to boost it.

Belgium allocates **3.2% of its RRF budget** to AI projects, slightly below the **EU average of 3.7%**. While budgets were not set at the time of reporting, the new federal government's coalition agreement highlights **AI as a priority**, potentially leading to increased funding.

Wallonia is exploring an AI sandbox at federal and regional levels and developing a new digital strategy aligned with EU recommendations, focusing on AI and cybersecurity. The region currently hosts two EDIHs (with their potential fusion considered at the time of reporting), one TEF, and is considering joining an AI factory.

**Flanders, a member of the ALT-EDIC,** is working on a follow-up for EDIHs despite budget constraints, aiming for **one AI-focused EDIH supporting digital innovation in SMEs.** The region is advancing AI with generative AI guidelines for government, M365 Copilot deployment, and LLM training for AI4Gov. Its 2024 AI Policy Plan allocates EUR 35 million annually for research, business adoption, and training.

Flanders is also investing in AI Factories, TEFs (Smart Cities, Agrifood, Edge-AI chips), and data-driven innovation, with AI linked to 40% of funded innovation projects in 2024.

**2024 recommendations on AI:** Belgium should continue to support innovation in AI to reinforce its leadership in the sector and create future global leader companies, including by engaging in an EU AI factories project or the ALT-EDIC.

Belgium addressed fully the recommendation by putting significant policy actions into place in 2024.

### Unicorns, scale-ups and start-ups

At the beginning of 2025, Belgium had 7 unicorns (2030 national target of 14), which is equal to last year. Based on Dealroom data, these include 3 firms in enterprise software: Deliverect, Odoo, and Team.blue (enterprise software). One more unicorn has emerged in 2024 (Lighthouse). As signs of a gradually maturing ecosystem, Belgium is home to five of the top 150 of Europe's leading start-up hubs according to the Financial Times, including two on technology, namely Hexa in Brussels, and CAP Innove in Nivelles.

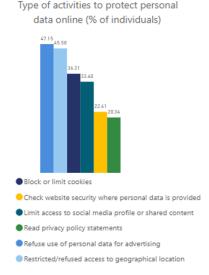
Belgium's **business dynamism** has faced challenges, particularly for small firms struggling to grow and commercialise innovations. Despite a slowdown in the European tech industry in 2023, **Belgium** is since then recovering fast. Recent reports by industry (such as Agoria) suggest that **Belgium's tech ecosystem** is maturing and showing positive changes, with an improving **investment climate** and growing **Venture Capital (VC) activity**. In 2024, Belgium saw <u>a record EUR 1.43 billion in tech investments</u>, nearly doubling the 2023 total. **Flanders** led with **EUR 1.06 billion**, followed by **Wallonia** and **Brussels**. **Ghent** emerged as the tech capital, with **EUR 520 million** invested in 26 companies. The pace of investment in **start-ups** is accelerating, with early-stage rounds accounting for **77%** of the capital raised, significantly higher than the European average. federal level, the **Belgian government** has shown strong support for **start-ups**, with activities such as active participation in the **European Startup Nations Alliance (ESNA)**, hosting its **2024 Forum**. The new government has announced measures, including an **SME plan** with a focus on **start-ups**, and it plans to review the **tax shelter system** to better support growth. A 2025 study from the Ministry of Economy (FPS Economy) is also assessing ways to boost federal support for digital start-ups.

**Flanders** is also boosting support for **start-ups and scale-ups** with programmes like **'scale-ready'** (targeting innovative start-ups) and **IMEC I-start**. In **2025**, the **University of Ghent** will establish <u>an AI</u> <u>Campus hub</u> to foster collaboration between **AI specialists** and **research institutions**.

### Strengthening Cybersecurity & Resilience

Belgium is on a strong footing to achieve the Digital Decade's cybersecurity objective. Many initiatives in place continue to strengthen the country's capabilities and preparedness, especially through awareness raising and educational efforts by the Centre for Cybersecurity Belgium (CCB).

In Belgium, 68.2% of individuals took at least one action to protect their personal data online in 2023, which was slightly below the EU average of 69.55%. 40.22% of individuals engaged in three or more precautionary actions (and therefore could be considered as having above basic digital safety skills). The measure most frequently taken was refusing the use of personal data for advertising purposes (47.15% of individuals). In contrast, reading privacy policy statements before providing personal data was the measure taken the least (only 20.34% of individuals).



By 2022, 96.12% of Belgian enterprises deployed some ICT security measures (just above the EU average of 92.76%) and 62.82% of enterprises made their employees aware of their obligations in ICT security related issues, above the EU average (59.97%). In 2024, 3.96% of enterprises reported ICT security incidents caused by external cyberattacks (slightly above the EU average of 3.43% and down from 5.22% in 2022). In March 2025, the hacker collective NoName057 took down several Belgian government websites, including the government portal MyGov.be, which gives citizens access to official documents.

**Concerning the deployment of secure internet standards, Belgium is one of the EU countries' best performers** in the <u>roll-out of Internet Protocol version 6</u> (IPv6) for end users (58%, EU average: 36%) despite a slightly decreasing trend. Belgium is also well above the EU average on the server side (31%, against 17% for the EU). IPv6 is an important protocol as it ensures the scalability, stability, and security of the Internet. The deployment of this new version has become increasingly urgent, as traditional IPv4 addresses have long been depleted. Domain Name System Security Extensions (DNSSEC) is also an important standard to be rolled out as it introduces security features to DNS. In Belgium, the <u>DNSSEC validation rate</u> is 39% (Q3 2024), below the EU average of 47%.

**Overall, the data on several dimensions of cybersecurity suggest that Belgium performs overall above the EU average**, demonstrating strong adoption of ICT security measures and a leading position in IPv6 deployment. However, higher-than-average vulnerability to hardware and software failures, and a below-average DNSSEC validation rate, highlight areas where further improvements are needed to strengthen overall cybersecurity resilience.

According to the Digital Decade Eurobarometer 2025, 87% of Belgian citizens think that improved cybersecurity, better protection of online data, and safety of digital technologies would facilitate their daily use of digital technologies. This figure remains unchanged from last year, reflecting a stable perception.

**2024 recommendations on cybersecurity:** (i) Continue support its national Centre for Cybersecurity's (CCB) activities, including to raise awareness among enterprises for their internal strategies; (ii) Continue the implementation of the 5G Cybersecurity Toolbox to ensure secure and resilient 5G networks.

**Belgium addressed fully the recommendations by putting significant policy actions into place in 2024.** No recommendation is suggested for 2025 as Belgium has fully addressed the 2024 recommendation beyond its basic requirements.

The country's progress reflects a comprehensive approach, covering enterprise awareness, regulatory compliance, SME support, and 5G security. Through strong national coordination, enterprise support, and regulatory alignment, Belgium and **the multiple activities of its Centre for Cybersecurity Belgium (CCB)** keep demonstrating a clear commitment to enhancing cybersecurity at all levels, ensuring both large enterprises and SMEs are protected. Proactive measures to secure 5G infrastructure further reinforce this commitment. **Belgium should therefore continue its efforts in cybersecurity to address evolving threats, particularly for enterprises and administration.** 

**Belgium has made significant strides in cybersecurity in 2024, with ongoing support for the CCB.** The CCB is leading the development of a **new National Cybersecurity Strategy**, coordinating government efforts, and spearheading awareness campaigns, including its Multi-Factor Authentication (MFA) initiative. **Belgium is one of the first EU countries to have fully transposed cybersecurity rules for critical entities and now has adequate national rules in place.** In October 2024, Belgium, along with Croatia, became one of the first countries to apply the NIS2 Directive, which was approved in 2022 to protect critical entities like energy, transport, and banking from major cyber threats.

The country has also introduced **the Cyber Fundamentals framework**, offering a structured approach to cybersecurity with certification, and actively participates in international initiatives. The CCB's Spear Warning system monitors threats, sending targeted warnings to vulnerable systems. Belgium is focusing on SMEs and micro-SMEs, providing tailored resources through the National Cybersecurity Coordination Centre (NCC-BE) to boost digital skills and resilience. EU funding opportunities are also being made available through the Financial Support to Third Parties (FSTP) program.

Belgium has implemented the 5G Cybersecurity Toolbox and improved security measures across its telecommunications infrastructure. The 5G rollout requires prior authorization, and inspections ensure ongoing compliance. The country has also seen the expansion of cybersecurity skills development programmes and is working to internationalize its CyberFundamentals Framework. In response to regional threats, the Flemish government is launching the Flemish Centre for Digital Security, integrating EU cybersecurity policies, while also addressing digital security in healthcare.

Belgium's proactive cybersecurity stance includes the Active Cyber Protection (ACP) initiative, with the launch of ethical hacking events like 'Hack the Government' in November 2024. The CCB also integrates practical NIS2 guides into SafeOnweb@Work to assist businesses in compliance. **Belgium's efforts have been recognized globally**, ranking in the highest category of the UN Global Cybersecurity Index (GCI) and winning the European Cybersecurity Award for Best Awareness Video. Additionally, Belgium's CyberFundamentals scheme was adopted by Romania, marking a significant step in international cooperation.

On <u>implementation of</u> the NIS2 Directive, following this transposition, the CCB has been conducting awareness-raising webinars to explain the Directive's legal framework and requirements for NIS2 entities. **The NIS2 Directive makes reporting incidents mandatory.** During this period, and at the time of reporting <u>on March 17</u>, reports of cyber incidents had increased by 80%. In addition, by that time, 2 410 organisations from critical sectors had registered with the CCB. Figures from the Ministry of Economy estimated that about 2 500 of those organisations are in the scope of NIS2. These results are therefore in line with the CCB's expectations and contribute to a better threat picture.

Of note, the CCB played a **role in the overall Belgian Presidency of the Council of the EU (January-June 2024).** During this six-month period, Belgium – and the CCB – contributed to several initiatives that will help strengthen Europe's digital resilience.

# Protecting and empowering EU people and society

Belgium is actively addressing gaps in the population's digital skills through various initiatives, focusing on women in digital roles and lifelong learning to enhance labour market outcomes. However, significant challenges remain, including high ICT and STEM shortages, gender imbalance, and one of the EU's levels of skills mismatches. The country excels in providing public services online, particularly for businesses, and is committed to combating disinformation and promoting digital literacy. While online civic participation is increasing, concerns about hostile online messages and disinformation persist, especially among young people. Continued efforts and public engagement are crucial to improving Belgium's digital environment and supporting its competitiveness.

# Empowering people and bringing the digital transformation closer to their needs

Despite **persisting gaps in both basic and advanced digital skills**, Belgium and its regions have **maintained and accelerated initiatives** to close those gaps, building on existing programmes and reinforcing measures. Belgium has performed well in increasing ICT training and growing the share of ICT specialists (above the EU average), based on a proactive approach to digital integration. However, the decline in female participation in the ICT workforce calls for corrective action. Recognizing the significant potential that the female workforce holds for boosting the country's competitiveness and growth, Belgium has been stepping up efforts through its inter-federal Women in Digital strategy and a host of other initiatives. **Strengthening lifelong learning, especially among low-skilled individuals, and targeted up- and re-skilling of adults** remain essential for improving Belgium's labour market outcomes and supporting competitiveness. **High ICT and STEM shortages** hinder economic performance as the educational system alone does not fully address labour market needs. **Skills mismatches** are also among the highest in the EU, at 25.9% compared to 19.6% at EU level. According to the dedicated <u>Eurobarometer</u> survey on SMEs and skills shortages in March 2025, in Belgium, 68% of SMEs identified 'difficulties in finding employees with the right skills' as one of the most serious problems they currently face, the highest percentage among all EU Member States.

Belgium remains one of the EU's forerunners with respect to the **provision of public services online**, **further improving those delivered to businesses in particular**, and in terms of e-ID uptake. The new government has renewed the country's commitments to **combating disinformation**. Awareness campaigns and digital literacy actions continue supporting a currently dynamic civic engagement online and protecting Belgian citizens across regions.

According to the 2025 Eurobarometer, 85% of Belgian people think that accessing public services online will be important for their daily life in 2030. Concerning human support to help access and use digital technologies and services, 82% consider it would improve their daily use of digital technologies, and 90% think public authorities should consider it important to ensure that people receive proper

human support to help them adapt to the changes in their lives brought about by digital technologies and services.

### Equipping people with **digital skills**

Belgium demonstrates a strong commitment to developing basic digital skills and ICT training, and continues to outpace the EU average in the percentage of ICT specialists in employment. However, the decline in the share of female ICT professionals signals a potential gender imbalance in the sector.

**Overall, Belgium made some progress in fostering digital skills.** The regions and communities' government programmes referred to initiatives to pursue upskilling and reskilling the workforce. In the country's recovery and resilience plan (RRP), several initiatives, both at federal and at regional levels, are planned and have started to be implemented. These include measures to bring in individual learning accounts to boost lifelong learning and adapted support to vulnerable jobseekers to strengthen their social and labour market integration.

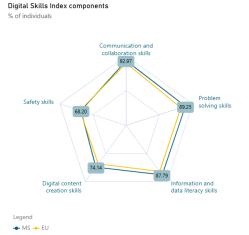
**Belgium's RRP includes several measures to support the development of digital skills,** allocating <u>EUR</u> <u>233 million</u>. The plan includes the digitalisation of schools and higher education institutions. It also includes e-inclusion projects targeted at supporting the digital inclusion of vulnerable groups, in particular people lacking basic digital skills and prison inmates. Upskilling and reskilling of labour force includes measures to digitalise and improve services and training offered by public administrations services.

### Basic Digital Skills

Belgium is at 59.4% of adults with at least basic digital skills (2030 national target 80%), after a progression of +4.6% between 2021 and 2023 and stands above the EU average of 55.56%. While there was no new data collection in 2024, a deeper analysis reveals several areas where Belgium can focus its efforts to ensure even broader digital proficiency:

- **Gender Gap**: With 60.67% of males and 58.11% of females having basic digital skills, the gender gap in Belgium is at 2.56 pp., exceeding the EU average gap of 2.23pp.
- Educational Level: The gap between individuals with higher education and those with lower or no formal education is striking. While 80.83% of the highly educated have basic digital skills, only 32.32% of the less educated do, creating a substantial national gap of 27.07pp, which is wider than the EU average gap of 21.95pp.
- Living Areas: Urban areas in Belgium surprisingly lag with a 57.37% level of basic digital skills, which is below the EU average for urban areas of 62.55%. However, the country shows a relative homogeneity. The internal gap between living areas is narrow, at a difference of 3.24 pp, with towns and suburbs leading at 60.61%.
- Age Groups: For the 25 to 34 age group, a high 72.35% have basic digital skills, outperforming the EU average of 70.18%. However, the senior cohort of 65 to 74-year-olds falls behind with only 39.06% skilled, despite being significantly above the EU average of 28.19%.

**Digital Skills Index Components**: Belgium's strong performance in four of the five areas of the Digital Skills Index is noteworthy. The country excels in communication and collaboration skills at 92.97%, well above the EU average of 89.33%. Safety skills, however, are a point of relative weakness, with Belgium scoring 68.20%, just below the EU average of 69.55%.



**2024 recommendations on basic digital skills:** (i) Integrate the learning of digital skills into all levels of education and training, notably on AI, cybersecurity, and ethics of technology; (ii) Accelerate efforts to strengthen adults' participation in up- and reskilling training and elevate lifelong learning initiatives.

**Belgium addressed fully the recommendations by putting significant policy actions into place in 2024.** The country has made substantial progress in digital skills by integrating digital competencies into education, upskilling, and lifelong learning. It has introduced new measures covering both digital skills and cybersecurity, emphasizing the need for coordinated efforts across the education system. The country's latest roadmap reaffirms its commitment to closing digital skills gaps through national, regional, and EU-aligned initiatives. The full impact of these measures will become clearer as additional resources are allocated in 2025.

Last year's Digital Decade report showed that the country already had rolled out an extensive range of programmes and measures to support digital skills. The Ministry of Economy expects that Belgium's efforts at all levels regarding digital inclusion and programmes on upskilling and reskilling people will bear fruit in time. The launch of new programmes and additional measures is expected to gain momentum in the second half of 2025, once the 2025 governmental budgets are finalised.

**For the limited update in 2025, two new measures** were added to Belgium's roadmap that address the 2024 recommendation for basic digital skills:

(i) A call for projects aiming to the enhancement of basic and female digital skills (total budget: EUR 1.2 million).

(ii) Two studies released by the Ministry of Economy, mapping potential digital inclusive actions within companies and proposing an inclusive click-call-connect principle. The studies were recently published and will have been presented to the private sector in January 2025. They are expected to raise awareness among companies of the benefits of an inclusive digital strategy by discussing a potential ROI, and to show that they also have a role to play alongside the government to reach this objective.

In its roadmap update, Belgium also highlighted several measures that encompass skills and cybersecurity. The CCB is actively supporting the integration of digital skills into all levels of education and training, with a specific emphasis on AI, cybersecurity, and the ethics of technology.

In **Wallonia**, a book aimed at students was published at the end of 2024 and is now widely distributed in schools. Its goal is to provide best practices and cyber hygiene guidance to help students better

understand cybersecurity challenges. The book also supports teachers in addressing the topic in class, promoting awareness and encouraging appropriate responses to threats.

**Beyond these national efforts, Belgium is actively addressing digital skills inclusion by participating in EU-wide initiatives.** As a member of the Digital Decade's **Best Practice Accelerator (BPA)** in the 'Digital Skills' cluster, Belgium has showcased two notable programmes: 'Women in Digital Revolution,' a strategy aimed at tackling gender disparities in the tech sector, and 'Connectoo,' a training initiative designed to reduce the digital divide by equipping public officials with the skills to support citizens facing digital exclusion.

# In addition to these initiatives, since last year's Digital Decade report, Belgium's regions have been implementing targeted measures to strengthen digital education.

**In Wallonia**, several ongoing programmes are expanding access to digital training and educational tools. The region organizes an annual event, 'Ludovia#Be,' which brings together educators and the EdTech sector to foster innovation in digital teaching. **Wallonia's network of Public Digital Spaces (EPNs) which assists citizens with digital administration and training, established eight new spaces in 2024.** The Federation of Wallonia-Brussels (FWB) is further enhancing these efforts through international and national collaborations. It has partnered with France to create a cross-border digital skills observatory, aligning competency frameworks and monitoring trends in digital education. The FWB is also actively integrating AI into education, aligning with the Digital Decade report's recommendations by reforming curricula, providing teacher training, and developing regulatory frameworks. AI is now formally embedded in the digital education framework, with specialized teacher training programmes designed to support the effective pedagogical use of AI.

**Flanders has also made significant progress in advancing digital skills,** announcing initiatives to increase the participation of its workforce in training and improve access to training for everyone, regardless of their employment status, in particular to improve the workforce's digital knowledge. The region is also preparing to launch a Digital Strategy for Flanders, which includes a dedicated action plan on digital skills. Since 2021, an ICT Policy Planner has provided structured roadmaps, templates, and resources to help schools develop their own ICT strategies. A more dynamic version of this tool is expected in 2025 and will minimise the administrative burden while ensuring practical implementation.

In 2024, Flanders published a policy paper on 'Responsible AI in Education,' outlining principles for the ethical integration of AI into schools. These principles are now being translated into concrete actions, including research, legal analysis, knowledge development, and awareness campaigns. The region's Innovation & Entrepreneurship Agency (VLAIO) is also funding the 'Digital School: Teacher Training' project, which began in late 2024. This initiative improves future teachers' digital skills by embedding the DigCompEdu framework (set out in the project) into initial teacher training programmes. With four projects launched in September 2024, this programme will run for two years, with a total budget of EUR 1.4 million.

**Flanders** has set targets to boost STEM participation in secondary education and improve study efficiency in higher education. STEM academies have shown some positive results, particularly among girls. Policy responses in the French Community have been slower, with no regional STEM strategy currently in place.

**The German-speaking Community** is providing ICT equipment for every pupil and sick kids for example get 'replaced' by a small robot in the classroom, that way these kids don't have to miss out on anything.

### ICT specialists

Belgium is at 5.7% of ICT specialists in total employment (2030 national target 10%) after a progression of +5.6% in 2024 and stands above the EU average of 5.0%. The country is on track according to its national trajectory.

**Among the Digital Decade targets, the ICT specialists goal is the most challenging for Belgium.** The country has set an ambitious target of having over 500 000 ICT specialists by 2030 – an increase of at least 220 000 from current levels. Skills shortages in ICT and STEM fields continue to hinder business growth and the adoption of digital technologies. At the same time, **on ICT training, Belgium consistently outperforms the EU average.** In 2022, 33.0% of enterprises with 10 or more employees in Belgium provided ICT training, compared to 22.37% at the EU level. This upward trend continued in 2024, with 36.83% of Belgian enterprises offering such training (EU: 22.29%). The country's annual growth rate in this area was 5.6%, significantly above the EU's -0.2%.

**However, progress on gender balance among ICT specialists has been less positive**. In 2023, the share of female ICT specialists in Belgium matched the EU average at 19.4%. In 2024, this figure fell to 19.0%, below the EU's 19.5%. This means Belgium's growth rate of female ICT specialists was -2.1%, compared to a modest increase of 0.5% in the EU.

Belgium currently has the highest job vacancy rate in Europe, particularly in ICT (5.4% in Q3-2024), nearly double the EU average (2.8%). STEM graduates remain scarce, with only 18.3% of tertiary students enrolled in these fields (EU average: 27.1%), and ICT enrolments are also below average.

**Belgium's education and training systems are under pressure**, struggling to keep up with demand for highly qualified STEM professionals. This is compounded by declining basic skills among young people and critical teacher shortages. The number of new STEM graduates (12.9 per 1 000 aged 25-34) is below the EU average (17.5), and the number of ICT graduates is among the lowest in the EU (2.4 per 1 000 vs EU average 3.6). Participation in adult learning, especially among low-skilled individuals, remains insufficient to support the green and digital transitions.

Despite several initiatives aimed at strengthening the ICT talent pipeline through academic and industry collaboration, Belgium faces economic headwinds. According to the <u>Agoria Economic</u> <u>Monitor</u> (October 2024), job losses in the tech sector have reached a 12-year high, threatening employment targets.

To address these challenges, Belgium supports an EU-wide strategy to attract and retain ICT experts, particularly in emerging fields like AI and quantum. The country also recognizes the urgency of accelerating workforce reskilling and increasing female participation in ICT. Persistent efforts are needed to improve retention and gender diversity in the ICT workforce. Expanding training through consultancy services and flexible learning modules could further alleviate skills shortages. Continued policy support and potential funding incentives may be required to offset job losses.

On labour market demand, Eurostat experimental statistics based on web scraping show that in Belgium, the profiles of 'software and applications developers and analysts' are the most sought after,

representing 62.9% of online job advertisements for ICT specialists (compared to 58.0% at EU level). Two types of profiles are more in demand in Belgium than in the EU on average: 'information and communications technology operations and user support technicians' (11.1%) and 'telecommunications and broadcasting technicians' (2.5%).

2024 recommendations on ICT specialists: (i) Pursue academic and industrial partnerships, lowering barriers to attract and employ digital talent; (ii) Seek to increase the number of female ICT graduates.
Belgium addressed fully the recommendations by putting significant policy actions into place in 2024. Boosting the number of female ICT-specialists and female ICT graduates remains a promising low-hanging fruit for Belgium to reach the target of doubling its ICT specialists.

The country has taken concrete steps to address the first recommendation by launching new initiatives and reinforcing existing programmes. The Al4Belgium coalition has played a crucial role in bringing together stakeholders from government, the private sector, academia, and civil society to promote Al adoption and talent development. Additionally, the FARI institute, founded by VUB and ULB, has focused on responsible Al implementation by offering research capacity and training programmes. Belgium has also intensified its efforts to address the second recommendation, i.e., to promote and increase female participation in ICT, aligning its initiatives with the <u>Women in Digital</u> (WID) strategy. WID was kept very active through collaborations, working group meetings, communication activities such as public engagements and awareness campaigns, and high-level events maintaining the focus of policymakers on its work and the Decade's target.

On Belgium's progress on ICT specialists as a Digital Decade target, several recent developments across the country's regions support this goal and are worth mentioning.

At federal level, **the CCB** launched the CySec Education and Research Pool in 2023 to expand the number of qualified cybersecurity professionals and support IT security experts and organisations. Pending additional funding, this initiative is set to grow further in 2024 and beyond.

**In Flanders**, initiatives such as WeGoSTEM and #SheGoesICT actively promote female participation in ICT through targeted outreach. An upcoming 2025 STEM Monitor will provide updated data on gender representation. New STEM pathways and partnerships launched by Flanders Innovation & Entrepreneurship (VLAIO) aim to strengthen connections between STEM education and societal challenges like digitalisation, climate, and the circular economy. Additionally, the 'STEMhub' initiative from Flanders will support entrepreneurs in developing STEM skills, and sector agreements will continue to guide lifelong learning efforts.

**Wallonia** has expanded digital training opportunities through centres such as Technobel, Technocité, TechnofuturTIC, Technifutur, and FOREM Cepegra Centre, which offer specialized education in AI, cybersecurity, and Industry 4.0. The Skills Validation Consortium is working on new qualifications for IT roles (business analyst, architect, developer) to improve job market integration. By 2026, five Digital Factories will be established to train professionals in construction, industry, logistics, and transport in digital transformation.

### Key digital public services and solutions - trusted, user-friendly, and accessible to all

In 2024, Belgium continued to excel in the provision of e-Government services, the delivery of digital public services for businesses, and giving access to e-Health records, with scores and growth rates that outperform the EU average. Digital public services for citizens, both total and cross-border, show

a decline in scores and growth rates that fall short of the EU average – but the country's performance overall exceeds it by far.

Under its national RRP, Belgium aims to accelerate the digitalisation of different administrative services at federal level, for instance, by redesigning the landscape of digital counters and encouraging entrepreneurship by digitalising interactions with the government. **Belgium's RRP** allocates <u>EUR 907</u> <u>million</u> to digital public services. Key measures include: (i) the **digitalisation of social security services** and user-administration interactions; (ii) **12 federal investment projects** targeting digitalisation in areas such as justice, employment, foreign affairs, food safety, asylum and immigration, and crisis management, along with cross-cutting projects on public data use and the Single Digital Gateway; (iii) **e-Health initiatives**, providing tools for video consultations and home hospitalisation, promoting secure health data use, and establishing a Health Data Authority for data governance; and (iv) **Regional and local digitalisation** projects in Wallonia, Brussels, and Flanders, including targeted efforts like digitising the services of the Office of Birth and Childhood and urban/environmental permit procedures.

### e-ID

**The share of e-Government users is very high in Belgium: 84.87%** of Belgian internet users engaged with e-Government services in 2024, well above the EU average of 74.71% (DESI 2025) but down from 85.85% the previous year, similarly to the EU average which was slightly higher at 75% in 2023.

**In 2023, 77.08% of Belgian people had used their e-ID** to access online services for private purpose in the last 12 months, which was well above the EU average (41.11%).

Belgium's largest digital investment (EUR 391.2 million) under its RRP is dedicated to further increasing the use of digital public services. The use of Belgium's e-ID system remains high across both EU and national services. While 77% of citizens used their e-ID for private services in 2023 (vs. 41.11% EU average), usage for national public services stood at 59.1% (vs. 36.14% EU average).

According to the FPS Policy & Support, the country's results for the various indicators of the e-Government Benchmark 2025 assessing accessibility, user-friendliness, and the reduction of burden for businesses broadly show a status quo in terms of User Support & Cross-border User Support (96.8% and 85.2% respectively – well above the EU average). Unfortunately, Transparency of Service Delivery is decreasing, from 58.3% to 52.8% (below the EU average of 66.8%). However, the use of e-ID on Belgian websites increased from 80.3 to 81.3 (EU average: 81.5). For Mobile friendliness, Belgium scored almost the maximum last year (99.3), remaining approximately stable at 99.2 in 2024 (EU average is 96.1). The <u>Digital Dashboard</u> is also worth mentioning in this regard.

**The Commission's DESI e-Government benchmark** suggests varying data and results for Belgium. For instance, its indicator for Pre-filled Forms indicates an increase of over 9 points between 2024 and 2025 (from 75.1 to 84.3 out of a score of 100). This reflects significant progress for the number of online services requesting data through a form which present already available data to the user. Other indicators such as User Support and Mobile Friendliness remained stable, and a slight decrease was observed for Transparency of Service Delivery (from 64.8 to 63) due to a changed composition for this indicator.

**100% of Belgians currently have access to a form of e-ID notified under the eIDAS Regulation.** Belgium offers six e-ID schemes (e-Cards, itsme<sup>®</sup>, email one-time password (OTP), SMS OTP, TOTP and

Username/Password). Itsme in particular remains a success as Belgium's authentication app, and is a good example of collaboration between the public and private sector. It is now regularly used by 7 million Belgians – about 90% of the active population over 16 years of age. However, Belgium has not yet set up and notified e-ID schemes for legal persons under the eIDAS Regulation. This means that Belgian businesses cannot authenticate themselves to access public services offered by other Member States, including those enabled by the Once-Only Technical System.

A development worth noting is the preliminary success of the new Belgian Digital Identity Wallet MyGov.be, whose launch in May 2024 was mentioned in the 2024 Digital Decade report. It now has over 300 000 activations (by May 12, 2025), and the app has been equipped with numerous new functionalities (social statutes, activation using FaceID, etc.). There are plans to continuously expand it with even more of those features.

As noted in last year's report, Belgium's stakeholders, both public and private, are present in three of the Large-Scale Pilots (LSPs) consortia (POTENTIAL, EWC, DC4EU) proceeding to the grant agreement preparation stage. This includes government ministries and agencies both national and local. Use-cases Belgium will be involved in include: (i) POTENTIAL: Electronic identification/ authentication for eGovernment services, electronic attestation of driving licence, remote qualified electronic signature; (ii) EWC: piloting the use-cases of Digital Travel Credentials, payments and organisational digital identities; and (iii) DC4EU: social security documents. Belgium did not take any new measures, but progress is being made on the numerous and significant measures that are already in place and benefit from RRP support.

#### Digitalisation of public services for citizens and businesses

Belgium's digital public services for citizens scored 81.43 (2030 national target of 100) after a slight decline of -1.1%, just below the EU average of 82.32. The country is lagging behind compared to its national trajectory. For cross-border digital public services for citizens, Belgium scored 74.38 in 2023 and 71.64 in 2024, both higher than the EU's 68.37 and 71.28, respectively. However, Belgium's growth rate of -3.7% lagged behind the EU's 4.3%.

On digital public services for businesses, Belgium scored 95.37 (2030 national target of 100) after an increase of 4.1%, well above the EU average of 86.23. The country is on track according to its national trajectory. For cross-border digital public services for businesses, Belgium scored 83.17 in 2023 and 90.74 in 2024, both higher than the EU's 73.13 and 73.76, respectively. Belgium's growth rate of 9.1% also surpassed the EU's 0.9%.

**Belgium recognised early the need to link digital transformation with administrative simplification.** The Directorate-General for Simplification and Digitalisation (DG SD), housed within the FPS BOSA, reflects this integrated approach. This structure evolved from earlier simplification services that were part of the FPS Chancellery of the Prime Minister, and later merged with the <u>Directorate-General for</u> <u>Digital Transformation</u> to support streamlined federal services.

A remarkable initiative of the Belgian government is its **Federal Action Plan for Administrative Simplification (PAFSA, or 'Kafka Plan'),** in place since 2022 to implement the federal government's ambitions for administrative simplification and digitalisation. It is updated every two years and contains 70 measures in various areas. By implementing measures linked to administrative services, it is estimated that EUR 116.2 million in public savings will be made. Belgium's '<u>Kafka test'</u>, which was **already** introduced by the government in 2004, aims to prevent unnecessary administrative burden

by requiring a brief questionnaire for policy proposals with significant impacts, aligning Belgium with international efforts to streamline regulations.

Online public services have progressed in terms of accessibility, user-friendliness, and reduction of **burden** on businesses. The trends in Belgium's performance with respect to the Digital Decade's targets were very dynamic in 2023-2024, but with regional variations and slower growth for the digitalisation of public services for citizens.

The measures provided in the Belgian RRP aim to further digitalise the public administration, in view of streamlining access to public services and thereby supporting SMEs. Cybersecurity support is being provided to SMEs. The online creation of a business will be made easier and federal public procurement will be further digitalised in order to make them more easily accessible. In Belgium, business and labour regulations come now only fourth and fifth place respectively in the list of barriers cited by enterprises in the EIB investment survey.

The country has undertaken several initiatives to simplify administrative procedures. However, there is scope for Belgium to further strengthen its mechanisms for simplifying regulation and cutting administrative burdens. For example, when preparing legislation, regulators are not required to identify and assess the impact of a 'no regulation' option or to identify and assess the impact of a alternative non-regulatory options. Key challenges remain due to a lack of coordination across federal government departments which has hindered the sharing of best practices. Policy planning and evaluation would be improved by making the policymaking process more transparent.

Belgium is making progress in enabling a search-free automated exchange of authentic documents and data between authorities across the EU. It has already successfully tested its first transactions through the Once-Only Technical System, part of the EU Single Digital Gateway. Belgium is in the process of connecting up the first authorities, but more effort is needed to further reduce administrative burden.

**In September 2024, the 'SME Office' of the Brussels-Capital Region came into force**, with the aim of supporting impact analyses of Brussels regulations in order to minimize the potential negative impacts on SMEs. A digital platform for submitting planning and environmental permits in all 19 municipalities in the Region was created, with the possibility to submit applications digitally since December 2024.

Additional **developments have taken place towards data-driven public administration** in Flanders. In 2025, the region will launch a **programme to reduce the administrative burden and regulatory pressure**. Flanders is planning to improve digital services for entrepreneurs in the region through the existing *e-loket*, with the coalition agreement for 2024-2029 explicitly highlighting the government's ambition to **expand the use of regulatory sandboxes and experimental legislation**. Politician, administrations, and stakeholders will collaboratively develop initiatives, including by using digital applications. This will lead to the centralisation of digital services, proactive service provision, and publishing open data via <u>Datavindplaats</u>, Flanders' consolidated catalogue of datasets. The Flemish government has set digitalisation goals and created an **investment programme**, **Flanders Radically Digital 3 (VRD 3)**, to promote the digital transformation of the Flemish government through crosspolicy initiatives and to **work towards becoming a government as a platform**.

**Wallonia** has also fully committed to the administrative simplification process, aiming to reduce the burden on both citizens and businesses. In October 2024, a task force coordinated by the Minister for

Administrative Simplification was established to develop the Pact for Administrative Simplification, expected in the first quarter of 2025. This Pact will be guided by four key principles: (i) **User experience as a foundation**, ensuring that services are designed around the needs of users; (ii) **Digitisation of procedures**, while preserving access to physical service desks; (iii) **A generalised principle of trust**, where the administration relies on user declarations and avoids systematic checks; and (iv) **The 'Only Once' principle**, requiring users to provide their data just once, even when interacting with different public services.

#### e-Health

Belgium's access to e-health records remains exemplary, with a score of 100.0 in both 2023 and 2024, well above the EU's 79.12 and 82.70, respectively. The country is on track according to its national trajectory; it continues to strengthen its performance in line with its national target of 100% by means of measures that consistently improve access to health data and empower citizens through advanced digital health systems.

In its RRP, Belgium includes measures that can strengthen the resilience of its health system; for example, investments in digital health services and investments to improve health data collection and availability. The measures included in the RRP have been partially completed to date.

According to the 2025 Eurobarometer, 73% of Belgian people think that digital technologies will be important when accessing or receiving healthcare services (e.g., telemedicine, artificial intelligence for diagnosing diseases) during their daily life by 2030.

**2024 recommendation on e-Health:** To improve the quality of service, Belgium could consider going beyond the requirements of the e-Health methodology and monitor the supply of a diverse set of health data by all categories of healthcare providers, as well as establish a feedback system for citizens enabling them to report any limitations in access to their data.

**Belgium addressed fully the recommendation by putting significant policy actions into place in 2024.** Ongoing initiatives have aimed to improve data access, empower citizens, and ensure interoperability across its health systems. All data categories investigated in this framework are available and timely for citizens and are supplied by all relevant healthcare providers in Belgium. Belgium is advancing beyond the basic requirements of the recommendation, with comprehensive plans in place to continue this progress. However, the success of these initiatives will depend on the continued implementation of an upcoming renewal to its e-Health action plan, and the integration of further EU regulations.

Belgium's '<u>e-gezondheid'</u> (e-Health) Interfederal Action Plan is central to its digital health strategy and aligns with last year's Digital Decade recommendations. Running through 2024 and set for renewal for 2025-2027, the plan focuses on improving access to health data, empowering people, and improving interoperability across healthcare providers. Key initiatives include the 'Access to Health Data' project, which standardises rules on informed consent, access management, and mandates, ensuring a harmonised system for data sharing. Individuals can share personal health data – such as insights from wearable technology and medication intake – via a user-friendly interface, improving accessibility and control over such data. The Belgian Integrated Health Record (BIHR) improves patient care by ensuring the interoperability of data and services throughout a patient's lifetime. This system facilitates a seamless data exchange between healthcare professionals and aligns with broader EU initiatives, including the European Health Data Space and the Data Governance Act.

# Building a safe and human centric digital environment and preserving our democracy

In Belgium, efforts to strengthen digital democracy and online safety are under way with initiatives aimed at combating disinformation and protecting citizens online. The country has seen a steady increase in online civic participation, though it remains below the EU average. Concerns persist about the prevalence of hostile online messages and disinformation, particularly among young people. The federal government and regional authorities are implementing campaigns and legislation to promote digital literacy and critical thinking. However, **maintaining efforts** to stay vigilant and sustain public engagement will be essential to improving the public's online environment.

According to the **Digital Decade Eurobarometer 2025**, there is strong awareness among the Belgian population that the rights which apply offline should also be respected online, with 70% of respondents reporting so — up from 65% in last year's survey, and well above the EU average of 59%. 92% of Belgian citizens believe it is urgent for public authorities to address the negative impact of social media on children's mental health, including cyberbullying and online harassment. Similarly, 91% support the urgent implementation of age assurance mechanisms to restrict access to age-inappropriate content.

**In Belgium, online participation to political and civic life is growing steadily.** In 2024, 14.66% of people used the internet to participate to consultation, for voting or sharing opinions online. This share is below the EU average but trending upwards (13.34% in 2022), which is in line with the trend observed at the EU level (17.59% in 2022 and 20.45% in 2024).

**Individuals encountering hostile and degrading online messages:** In 2023, in Belgium, 30.86% of individuals encountered messages online that they considered hostile or degrading towards groups of people based on characteristics such as political views, LGBTIQ identities, or racial origin. This figure was slightly below the EU average of 33.5%. Among young Belgians, 41.78% reported encountering such messages, compared to a considerably lower 31.74% of adults (25–64), showing higher exposure among the youth (16–24), consistent with EU-wide trends. Males (32.76%) and females (28.98%) reported similar exposure rates, reflecting a minimal gender difference.

**Individuals evaluating data, information and digital content:** In 2023, 55.93% of individuals in Belgium declared having encountered information or content on internet news sites or social media that they considered untrue or doubtful, notably higher than the EU average of 49.25%. Of those who came across such content, 30.58% took the initiative to verify its truthfulness. This indicates that while a significant proportion of individuals faced potentially misleading content, nearly 1 in 3 individuals made efforts to check its accuracy, reflecting a relatively high level of critical engagement compared to the EU average. Youth (16–24) (66.35%) were significantly more likely than adults (25–64) (35.94%) to report encountering such content, and among those, 35.94% of youth checked its truthfulness compared to 32% of adults. Males (59.3%) were more likely than females (52.58%) to report seeing untrue or doubtful information, as well as to check its truthfulness (34.72% of males vs 26.47% of females).

**The 2023 data on online interactions in Belgium reveals a concerning picture**, with a significant proportion of individuals, particularly young people (16–24), exposed to perceived hostile and degrading online messages and potentially misleading information. Despite being slightly below the EU average in terms of exposure to hostile content, Belgium surpassed the EU average in terms of the prevalence of potentially untrue or doubtful information. These findings underscore the need for

continued efforts to promote digital literacy, critical thinking, and a safer online environment, especially among young people, to empower them to effectively navigate the online world.

**The 2025 Eurobarometer** shows that 86% of Belgian people think that public authorities should prioritise shaping the development of Artificial Intelligence and other digital technologies to ensure that they respect our rights and values. This represents an increase of five percentage points compared to last year and is above the EU average (83%), which has also increased, reflecting the growing interest of the citizens in this respect.

The 2024 municipal, regional, federal and European **elections in Belgium have seen attempts at foreign interference, mainly through disinformation campaigns.** During the two electoral days of June 9 (regional, federal and European elections) and October 13 (municipal elections), the Belgian secret services detected interference of this type. In 2025, Belgium's military intelligence flagged Russian disinformation campaigns linked to the country's pledge to deliver F-16 fighter jets to Ukraine. Its annual report notes rising influence operations aimed at undermining public trust. The service plans to double its staff by 2040 to counter political tensions and espionage, and is launching a major recruitment campaign.

The coalition agreement of the new Belgian federal government pledged to **focus on combating disinformation**, linking it to Russian destabilisation efforts. Domestically, the government will explore **AI for police use**, including facial recognition to track criminals and detect mobile phone use while driving, although privacy concerns remain. The government will also be linking online accounts to real identities.

**In Flanders**, the Flemish government's campaign <u>'Klopt dat wel'</u> was launched to run through the 2024/2025 school year to help young people recognise disinformation. An interesting citizen science campaign about visual and AI-manipulated disinformation, the <u>VISAVIS project</u>, was launched in October 2024 by the Imec-SMIT, VUB research group, Mediawijs (Imec's Flemish Knowledge Centre for Digital and Media Literacy), Filmpedagogerna (S) and CERTH (G), supported by the European Media and Information Fund (EMIF). The aim is to: (i) provide practical solutions for awareness-raising, such as AI tools, among 25-35 and 55+ year olds; and (ii) make digital checks more accessible to the general public. The consortium-based project will run through 2026.The **BIPT was formally recognised as Belgium's Digital Services Coordinator (DSC).** Belgium is now able to start enforcing the Digital Services Act (DSA) for platforms based in the country, for example the social media platforms Telegram and BlueSky.

**On the protection of the Belgian public and their data,** the Belgian Data Protection Authority opened an investigation following a complaint by consumer rights organisation Testachats into Chinese **AI DeepSeek**. Testachats has argued that DeepSeek's data processing practices breach EU data protection rules, citing concerns over data transfers, profiling, and child protection. It has requested a temporary restriction on processing Belgian users' personal data. The complaint has been deemed admissible and referred to the authority's inspection service.

**Flanders actively promoted the protection of minors throughout 2024.** For instance, Mediawijs launched campaigns in formal education called <u>Nieuws in de Klas</u>. This includes manuals, online interactive lessons and contests: (i) on journalism for those aged 12-14; (ii) on fact-checking for those aged 14-16; and (iii) on opinions and constructive social engagement for those aged 16-18. Mediawijs organised extra training for teachers at VRT, at DPG-media and at the Ghent University Museum (in spring 2025).

# Leveraging digital transformation for a smart greening

The environmental and circular economy priorities remain at the heart of Belgium's federal and regional strategies and funding programmes. Belgium's strategy aligns with EU priorities on digital and green transitions, well positioning the country in responsible tech adoption.

**Belgium's green transition is a comprehensive effort to achieve climate neutrality by 2050, in line with EU targets.** The country is investing in renewable energy, energy efficiency, and sustainable mobility, supported by significant EU funding. The national RRP, including revised measures and the REPowerEU chapter, allocates 51% (EUR 2.7 billion) of its total funding to climate-related objectives. Notably, the REPowerEU chapter alone contributes 88% (EUR 637 million of EUR 726 million) to climate goals, well above the 37% threshold set by the RRF Regulation. This green transition is closely tied to Belgium's digital transformation, with measures to enhance digital skills, support SME digitalisation, and promote the development of green technologies.

In 2024, 14% of people in Belgium considered energy efficiency to be important when purchasing ICT devices (below the EU's 19.35% average), and the device's ecodesign was also considered to be important by 9.49%, below the EU average as well (12.04%). Those two eco-friendly criteria take on less importance for Belgian buyers than the price, performance (speed), and design of the ICT device.

Belgian people tend to recycle their mobile phones, laptops and tablets and desktop devices (12.84% for mobile phones, 14.07% for laptops or tablets, and 16.43% for desktops) more than the EU average (10.93%, 11.31% and 14.66%, respectively).

As the scope of the twin transitions is quite broad, many of Belgium's measures outlined in the initial roadmap already contributed to the twin transitions. Belgium is aiming to improve the way it communicates about the Digital Decade's objectives to the right bodies concerned. The addition of a new, specific target or KPI in time would be helpful to foster these efforts.

The twin transitions were already high on the agenda of the Belgian Presidency of the EU Council, which hosted a two-day event in Ghent, with its integration into new policies as well as the revision or review of existing policies. Belgium committed to collecting more measures on this topic in time, in particular in its roadmap's next revision in 2025, as it has pledged to provide a yearly update.

According to the Digital Decade Eurobarometer 2025, 73% of Belgian people consider digital technologies important to help fight climate change (standing slightly below the EU average of 74% and showing an decrease of four percentage points since last year), while 78% of Belgian respondents think that ensuring that digital technologies serve the green transition should be an important action for public authorities (slightly below the EU average of 80%).

**2024 recommendations on green & digital:** (i) Greening digital: Develop a coherent approach to twinning the digital and green transitions. Promote improvements in energy and material efficiency of digital infrastructures, in particular data centres.

(ii) Digital for green: Support the development and deployment of digital solutions that reduce the carbon footprint in other sectors, such as energy, transport, buildings, and agriculture, including the uptake of such solutions by SMEs;

(iii) Digital for green: Monitor and quantify the emission reductions of the deployed digital solutions in line with the relevant EU guidance and with the support of the methodology developed by the European Green Digital Coalition, in view of future policy development, as well as of attracting relevant financing.

In 2024, Belgium continued the implementation of existing measures but did not take any new measure. The country has made progress in aligning digital and green transitions, particularly in telecom efficiency, AI for sustainability, and sustainable semiconductors. However, its approach remains fragmented, lacking a comprehensive strategy and structured monitoring of emission reductions from digital solutions. This makes it difficult to assess the effectiveness of digital solutions in reducing emissions across sectors, which is a key aspect of the 2024 recommendations. While individual initiatives show promise, a more coherent framework is needed to fully integrate these efforts, so as to scale and mainstream solutions and encourage more widespread adoption particularly by SMEs.

**Belgium is consistently improving the energy efficiency of its digital infrastructure**, particularly in telecoms. Recent commitments from Proximus (by 2030), Telenet, and Orange (through 2040-2050) reinforce the sector's commitment to net-zero emissions. The BIPT's environmental footprint study (updated in 2024) revealed a 9% drop in energy consumption (2018-2022) and that 77% of energy used in 2022 came from renewable sources. A new update to this BIPT study expected by Q2 2025 will refresh sustainability indicators, assess new metrics, and expand its scope to smaller infrastructure operators, MVNOs, and service providers. It will also set out scenarios for lowering emissions, quantifying their costs and benefits. However, there are no plans to extend this scope beyond telecoms as this is outside the remit of the BIPT. As mentioned in the 2024 Digital Decade report, the study analyses the telecom networks' footprint, specifically looking into the evolution of energy consumption, carbon emissions and waste processing over the past five years<sup>7</sup>.

**There are several 'digital for green' initiatives**, through which Belgium is actively supporting recent and ongoing R&D projects that use digital solutions to cut emissions across sectors. Imec's <u>Sustainable</u> <u>Semiconductor Technologies and Systems</u> programme, launched to assess and disrupt chip fabrication processes for reduced environmental impact. The Flemish AI Research Programme includes new and <u>ongoing projects</u> that use AI for renewable energy, smart grids, and sustainability solutions.

The postal sector is under growing pressure to reduce its environmental impact. For some operators, sustainability has even become a key differentiator — take, for example, ecological city delivery services. In 2022, CityDepot (now BD Logistics) and the University of Antwerp launched a  $CO_2$  calculator. Based on a scientifically calibrated method, this tool enables the calculation of total  $CO_2$  emissions at the level of individual shipments, factoring in customer-defined dispatch and destination points. It also allows for comparisons between major operators. To support this, the full logistics

<sup>&</sup>lt;sup>7</sup> The update of the study in 2023 had revealed that during the 2018-2022 period, the energy consumption of the three examined operators (Proximus, Telenet and Orange) dropped by 9%. The electricity consumed by the network as such decreased by 77%. The consumption of the mobile network turns out to be up to 40 times more energy efficient per bit transferred than fixed networks. In 2022, 77% of the total energy consumed was renewable. Over the same period, the carbon emissions dropped by 19%. Although the Belgian telecommunications market is already carbon neutral thanks to the purchased emission allowances, further efforts are being made to continue reducing the carbon emissions. The objective is to achieve net zero emission based on science-based targets (SBTi) by 2040 at the earliest. However, in 2022 the carbon emissions increased compared to 2021 due to post-Covid normalization. The energy consumption of the set-top boxes and modems turned out to be almost as high as the energy consumption of the three largest operators combined.

network of these operators was mapped — from sorting and distribution centres to vehicle fleets — enabling business clients to estimate potential  $CO_2$  savings.

Following a Royal Decree, all large operators in Belgium are now required to publish sustainability indicators. The BIPT has developed a dedicated <u>methodology</u> for this purpose and will oversee audits to ensure compliance.

Bpost (the Belgian postal service) has accelerated its green logistics efforts: since 2021, it has introduced reusable (parcel) packaging, <u>expanded e-bike trailers</u>, and in 2024, it <u>launched a CO<sub>2</sub></u> <u>tracking tool</u> for parcels. <u>A pilot project</u>, <u>which started in January 2025</u>, will test packaging-free, label-free shipping via Parcel Machines, making it the first provider to offer such a solution.

On 24 April 2025, the **Walloon Government** adopted the 2025 roadmap outlining priority measures under the PACE 2030 (Air-Energy-Climate Plan). It focuses on reducing the digital sector's carbon footprint by promoting innovation through several actions: aligning Digital Wallonia with EU CO<sub>2</sub> reduction targets, raising public awareness of the climate impact of digital technology (especially mobile use), encouraging recycling of old devices, fostering energy-efficient digital investments, and supporting both 'Green IT' and 'IT for Green' solutions for businesses.

Meanwhile, the Ministry of Economy's Energy department is **developing a database on data centre energy use** (in line with Regulation (EC) 1099/2008), with the first national dataset (2024 reference year) expected by March 2026. The reporting deadline for 2023 data has been repeatedly extended, with submission now in progress. Meanwhile, an Energy Efficiency Directive database is now in place, containing various performance indicators for ongoing evaluation.

Belgium is actively encouraging **new and upcoming initiatives supporting the twin digital and green transitions.** These include: (i) an upcoming AI Code of Conduct to promote sustainable AI practices; (ii) expanded energy labelling and digital product passports to increase transparency on products' environmental impact; and (iii) 69 new project proposals submitted in January 2025 to the Energy Transition Fund (ETF), which currently supports more than 118 R&D projects (the evaluation process is ongoing).

The country is promoting private investment to foster the economy through the twin transitions. A proposal to reform the system of tax deductions for corporate investment has been adopted by the federal government. The main objective of the initiative is to make the system simpler and greener. The general deduction rate for self-employed people and SMEs rises from 8% to 10%, but it can increase to 20% for digital investments and to 30% (bigger firms) and 40% (smaller firms) for green investments. The list of green investments, which is currently significantly outdated, will be updated every three years.

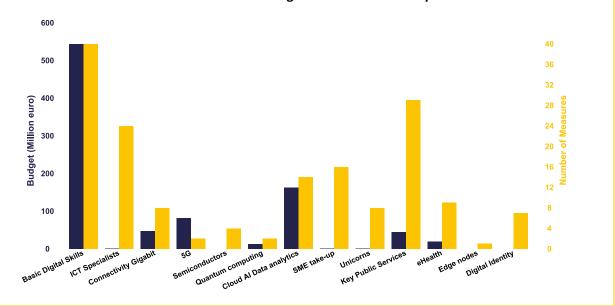
# **Annex I – National roadmap analysis**

#### Belgium's national Digital Decade strategic roadmap

Belgium submitted an addendum to its national Digital Decade roadmap on 11 December 2024, addressing all the roadmap recommendations issued in 2024:

- **Targets:** Propose a target and trajectory for FTTP and edge nodes.
- **Measures:** (i) Review and update the budget description of all presented measures, highlighting EU sources, e.g. the RRF; (ii) Include more measures and policies that contribute to the twin transition; (iii) Provide more information on the implementation of digital rights and principles (and Digital Decade general objectives), including what national measures contribute to it.
- **Consultation:** Report with more detail the results of the consultation process and include more information about the stakeholders invited.

The revised national Digital Decade strategic roadmap reflects a measured update, influenced by political considerations and a phased approach to stakeholder engagement. The adjustments focus on refining policy measures, integrating new initiatives, and addressing specific recommendations from the 2024 roadmap assessment. A notable evolution is the new trajectories, and the continuous efforts to hold consultations with coordinators and relevant administrations across governance levels, which aim to enhance alignment with the EU's 2030 digital objectives. Furthermore, the roadmap outlines a strengthened stakeholder engagement strategy, including a 2025 outreach campaign by the national digital taskforce to ensure broader participation.



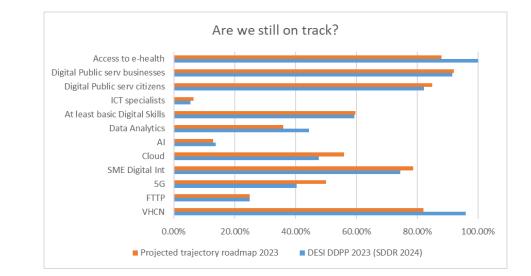
Measures and budget in national roadmap<sup>8</sup>

<sup>&</sup>lt;sup>8</sup> When referring to national roadmaps, data used in this report are those declared by the Member States in their national roadmaps, on the basis of the Commission's guidance (C(2023) 4025 final). Data might reflect possible variations in reporting practices and methodological choices across Member States. No systematic assessment of the extent to which Member States followed the guidance was carried out.

Belgium's revised roadmap is composed of 166 measures with a budget of EUR 913.71 million (equivalent to 0.15% of GDP), up from EUR 892 million. This document addresses all the roadmap recommendations issued in 2024.

After last year's Digital Decade report recommended better coordination across governance levels, Belgium pledged to take into account when developing the next roadmap. **The country also decided to deliver a yearly roadmap** instead of one every two years as the DDPP requires. Flanders did not deliver an update to its roadmap, but has consistently delivered through best practice examples and regular exchange with the Commission and the Belgian government.

The recommendations for Belgium in last year's report focused on the addition of trajectories for edge nodes and semiconductors and an updated one for FTTP which was implemented in the update to the roadmap in late 2024. **The majority of the trajectories have not been adjusted**, with an exception for the missing KPIs on edge and FTTP. Trajectories that already have been submitted will be maintained, not updated, as Belgium has judged that it is still on track with its forecasts and remains committed to achieving each target by 2030. The progress justifying this is shown below, with the orange bars showing Belgium's projected trajectories as submitted in the first roadmap, and the blue bars showing its current state.



**2024 was a year of elections** across all government levels of Belgium's federal structure and at the time of reporting, not all governments had been formed. As a result of this transition period, there remains uncertainty on new priorities, measures, policies and budgets related to the Digital Decade objectives. In addition, most of the measures mentioned in the 2023 roadmap were expected to run until 2024 (end of the previous legislature), with a possibility for renewal under the next government. As new governments will be formed and new policies will emerge in 2025, Belgium committed to provide the Commission with a revised and elaborated roadmap in 2025.

The majority of the 2024 Digital Decade Report's recommendations have been addressed, and answers were provided to all recommendations specific to Belgium, using both new and existing measures. Main novelties are the addition of 5 new measures, including on people, digital skills, accessibility and inclusion.

#### Belgium did not carry out a stakeholder consultation on the roadmap.

However, it did provide an update about the process to address the 2024 recommendation: 'Report with more detail the results of the consultation process and include more information about the

stakeholders invited'. It will likely take place in 2025, and it is not clear which private organisations will be consulted. At first, Belgium plans to identify the gaps between their projected trajectories and the Digital Decade goals (which could be a potential path to attain the 2030 target(s)). With Belgium's steering group, it will be then decided if a more coordinated national strategy between various stakeholders will be needed to close the gaps (e.g. for 5G, only one administration is authorised, so coordination for a strategy will not be needed). If such a need for a more coordinated national strategy will emerge, private organisations will feed into the strategy in a second round and through designated single contact points of each and every body or administration concerned.

While efforts have been made to expand policy measures, particularly in cybersecurity, digital skills, and AI development (e.g. AI4Belgium, CySec Education and Research Pool), some areas require further development. In particular, the requested budgetary updates, including EU funding sources, remain referenced in external documents rather than integrated comprehensively into the roadmap itself. Additionally, the roadmap acknowledges difficulties in fully implementing the twin transitions due to the lack of a KPI, indicating that further developments are anticipated in 2025.

In terms of ambition, the adjustments introduce new initiatives, such as the environmental sustainability framework for telecom networks and more digital skills projects targeting inclusion. However, compared to the EU Digital Decade trajectories, some targets – particularly on connectivity and cloud adoption – remain dependent on external factors, such as regulatory reviews and market-driven deployment. The roadmap highlights ongoing efforts to accelerate FTTP and 5G roll-out, which are contingent on private sector cooperation and regulatory decisions.

**Overall, the adjusted roadmap demonstrates a commitment to progressing toward the 2030 Digital Decade targets, albeit with a cautious and incremental approach.** Strengths include stronger cybersecurity initiatives, a structured plan for digital skills development, and measures to improve digital inclusion. However, weaknesses persist in the completeness of funding details, the concrete integration of the twin transitions, and the strategic dissemination of cloud infrastructure. The adequacy of measures remains contingent on the successful implementation of planned outreach and further policy refinements in 2025.

In terms of governance, Belgium continues to show signs and actions of its commitment to the Digital Decade and EU digital policy, including its collaboration with the Commission. In July 2024, the Benelux Union hosted a strategic meeting between the three member countries on digitalisation. A few action points have emerged from this meeting and are currently being followed up. Furthermore, Belgium's Ministry of Economy (FPS Economy) has been approached by the Dutch embassy, to set up structural calls for information sharing and to share best practices and to support each other in certain areas, such as digital skills.

Wallonia's new government is revising its digital and AI strategies, including a cloud strategy review, and Flanders' 2024-2029 government agreement 'Working Together for a Warm and Prosperous Flanders' adopted in September 2024 focuses on a significant digitalisation leap with a strong, aligned digital strategy in line with the Digital Decade targets.

# Annex II – Factsheet on multi-country projects (MCPs) and funding

#### Multi-country projects and best practices

Belgium hosts the EUROPEUM EDIC. It is also a member of the Local Digital Twins towards the CitiVERSE EDIC and an observer to the Alliance for Language Technologies EDIC, for which the region of Flanders is a member. In addition, Belgium is working towards setting up EDICs in the area of agri-food and genomics. Belgian entities are indirect and/or associated partners in the IPCEI on Microelectronics and Communication Technologies (IPCEI-ME/CT) and in the IPCEI on Next Generation Cloud Infrastructure and Services (IPCEI-CIS). Belgium is a participating state of the EuroHPC Joint Undertaking (JU) and of the Chips JU.

Belgium is leading the work of the 'Technology Uptake' cluster of the **Digital Decade's Best Practice Accelerator (BPA)**. In particular, a workshop was organised on the uptake of AI (with a focus on SMEs) in August 2024 and registered a high level of participation from across Europe, bringing together Member States, research centres, and business associations. Key insights were gathered from the EU level, businesses, research centres and countries. Belgium highlighted that resources and tools are available to share information, results and the work carried out (e.g. a Teams channel was created where past sessions are described and material is shared). Belgium invited all Member States who had not yet done so to identify their contact points and to send suggestions and best practices. The goal is to have at least two workshops a year, with a focus on examining the relevance of the topics discussed and exploring opportunities for collaboration with other clusters. Another workshop took place in March 2025. Belgium continues actively planning sessions for this cluster, including on the interoperability of data, robotics and quantum.

### EU funding for digital policies in Belgium

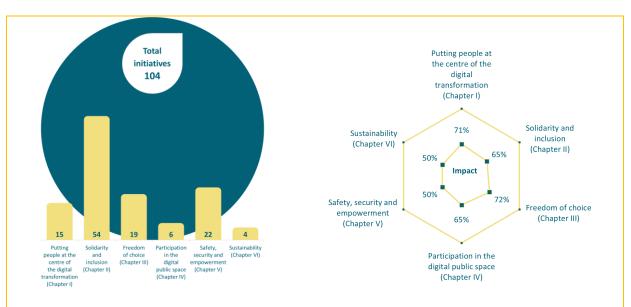
Belgium allocates 26% of its total recovery and resilience plan to digital (EUR 1.2 billion)<sup>9</sup>. In addition, under cohesion policy, EUR 329 million (representing 13% of the country's total cohesion policy funding), is dedicated to advancing Belgium's digital transformation<sup>10</sup>. According to JRC estimates, EUR 1.3 billion directly contribute to achieving Digital Decade targets (of which EUR 1.1 billion comes from the RRF and EUR 150 million from cohesion policy funding)<sup>11</sup>. The RRF and Cohesion funding similarly provide a balanced support across several Digital Decade targets, including: digital public services, digital late adopters and unicorns, and the adoption of cloud, AI and data analytics. The RRP also substantially targets basic digital skills.

<sup>&</sup>lt;sup>9</sup> The share of financial allocations that contribute to digital objectives has been calculated using Annex VII to the Recovery and Resilience Facility Regulation. Last data update: 16 May 2025.

<sup>&</sup>lt;sup>10</sup> This amount includes all investment specifically aimed at or substantially contributing to digital transformation in the 2021-2027 Cohesion policy programming period. The source funds are the European Regional Development Fund, the Cohesion Fund, the European Social Fund Plus, and the Just Transition Fund.

<sup>&</sup>lt;sup>11</sup> Joint Research Centre, Nepelski, D. and Torrecillas, J. Mapping EU level funding instruments 2021-2027 to Digital Decade targets – 2025 update, Publications Office of the European Union, Luxembourg, 2025, JRC141966. Last data update: 10 March 2025.

# **Annex III – Digital Rights and Principles**<sup>12</sup>



Activity on Digital Rights and Principles (figure 1)

Belgium has been one of the most active Member States in implementing digital rights and principles, with over 100 initiatives overall and 12 new initiatives launched in 2024, showing notable progress towards its commitments. Belgium is most active in the areas of Digital education, training and skills and Fair and just working conditions (II). There is room for improvement, especially with regards to Sustainability (VI) where less activity has been identified.

#### Impact of Digital Rights Initiatives (figure 2)

Quantitative impact indicators, developed by the support study, illustrate the level of implementation of digital rights initiatives on the ground. Based on available data, they estimate the impact of measures implemented by key stakeholders in Austria (mainly national government) and how these are perceived by citizens.

The indicators suggest that **Belgium is most successful in implementing commitments related to Freedom of choice** (III). Belgium should review and strengthen efforts in areas where the impact of digital rights initiatives appears to be limited despite relative activity, notably on Safety, security and empowerment (V) and Sustainability (VI).

According to the Special Eurobarometer 'Digital Decade 2025', **52% of citizens in Belgium think that the EU protects their digital rights well** (a 1% increase since 2024). This is above the EU average of 44%. Citizens are particularly confident about getting freedom of assembly and of association in the digital environment (69%, above the EU average of 59%). They are most worried that their right to a safe digital environment and content for children and young people is not well protected (44%, below the EU average of 48%).

<sup>&</sup>lt;sup>12</sup> Based on a study to support the Monitoring of the Implementation of the Declaration on Digital Rights and Principles, available <u>here</u>. For a more detailed country factsheet accompanying the study, click <u>here</u>.