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ANNEX 4

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to the

**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

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SHORT COUNTRY REPORTS 2025

Bulgaria

Executive summary

Bulgaria has a well-developed connectivity infrastructure and is strengthening its role in critical technologies, like semiconductors and quantum computing. However, its competitiveness potential is hampered by a fragmented ecosystem; persistent R&D gaps; weak innovation and tech uptake by SMEs and start-ups; and cybersecurity concerns. While the country is advancing in digital public services, challenges remain in digital skills, inclusion, and integrating sustainability into its digital infrastructure.

Bulgaria's contribution to the Digital Decade is moderately ambitious, with 12 national targets, half of which are aligned with the EU 2030 targets. The country is following its trajectories well with 75% of them being on track (based on the 2024 trajectories established for 8 KPIs out of 8 analysed). Bulgaria did not address the 13 recommendations issued by the Commission in 2024 through new measures.

Bulgaria excels in assigning 5G spectrum and is gradually bridging geographical divides in access to high-speed connectivity. The country positions itself as a growing player in critical technologies, with initiatives in semiconductors and quantum computing. While enterprise digitalisation is progressing, particularly in AI adoption, the overall adoption of advanced digital technologies remains below par. Recent actions, such as the launch of an AI Factory at Sofia Tech Park confirm Bulgaria's ambition to enhance its tech ecosystem. Despite its ongoing reliance on Chinese telecommunication components, Bulgaria is orienting its digital policies towards greater sovereignty by strengthening European partnerships in critical technologies.

Digital Decade KPI ⁽¹⁾	Bulgaria				EU		Digital Decade target by 2030	
	DESI 2024 (year 2023)	DESI 2025 (year 2024)	Annual progress	National trajectory 2024 (3)	DESI 2025	Annual progress	BG	EU
Fixed Very High Capacity Network (VHCN) coverage	88.6%	90.4%	2.0%	93.0%	82.5%	4.9%	100.0%	100%
Fibre to the Premises (FTTP) coverage	88.6%	90.4%	2.0%	93.0%	69.2%	8.4%	100.0%	-
Overall 5G coverage	78.9%	81.3%	3.1%	91.0%	94.3%	5.9%	100.0%	100%
Edge Nodes (estimate)	5	10	100.0%	-	2257	90.5%	-	10000
SMEs with at least a basic level of digital intensity (2)	-	49.9%	2.9%	-	72.9%	2.8%	60.0%	90%
Cloud	14.2%	-	-	-	-	-	15.0%	75%
Artificial Intelligence	3.6%	6.5%	78.7%	5.0%	13.5%	67.2%	11.0%	75%
Data analytics	21.9%	-	-	-	-	-	9.0%	75%
AI or Cloud or Data analytics	29.3%	-	-	-	-	-	-	75%
Unicorns	0	0	-	-	286	4.4%	-	500
At least basic digital skills	35.5%	-	-	-	-	-	52.0%	80%
ICT specialists	4.3%	4.6%	7.0%	4.2%	5.0%	4.2%	5.0%	~10%
eID scheme notification		Yes						
Digital public services for citizens	67.5	68.0	0.8%	83.0	82.3	3.6%	100.0	100
Digital public services for businesses	91.9	94.0	2.4%	92.0	86.2	0.9%	100.0	100
Access to e-Health records	77.2	87.5	13.3%	82.8	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, 76% of Bulgarian citizens consider that the digitalisation of daily public and private services is making their lives easier. Concerning the action of the public authorities, 86% consider it important to counter and mitigate the issue of fake news and disinformation online, and regarding competitiveness, 82% 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

Bulgaria boasts a robust connectivity infrastructure. It excels in assigning 5G spectrum and in rolling out gigabit networks to progressively bridge geographical divides. In 2024, Bulgaria's total VHCN and FTTP coverage outperformed the EU averages. Overall, 5G coverage lags behind EU coverage, and is growing at a slower pace. However, Bulgaria's coverage for households in sparsely populated areas shows improvement. Bulgaria is making strides in improving its broadband take-up indicators, with growth rates outpacing EU growth rates, but remaining below EU averages. The country is strengthening its position in **critical technologies**, notably through its integration in the European semiconductor ecosystem and initiatives in quantum computing. Despite these advancements, Bulgaria faces challenges in fully realising its **tech ecosystem's** potential. This is true particularly for SMEs and start-ups, due to persistent R&D and innovation gaps compared with the rest of the EU. Recent government initiatives and the establishment of European Digital Innovation Hubs (EDIHs) are positive steps, but the broader ecosystem issues constrain the ICT sector's growth. EU funding has supported Bulgaria's **enterprise digitalisation**, including the growing adoption of AI, the forthcoming AI Factory at Sofia Tech Park, and the development of supercomputers and Centres of Excellence in ICT and Big Data under Cohesion Policy. However, the overall uptake of digital technologies in the country still lags behind the EU average. Moreover, Bulgaria's **cybersecurity preparedness remains a concern**, and a significant part of its telecommunications infrastructure continues to depend on Chinese components, raising strategic and security-related challenges.

Protecting and empowering EU people and society

Bulgaria's approach to digital inclusiveness shows promise, with targeted investments in education, digital infrastructure, and improvements in the digitalisation of public services for both businesses and citizens. However, its **journey towards a fully inclusive digital society is complex and might require sustained effort**. Despite ongoing and well-targeted measures, Bulgaria still faces a host of educational challenges, including digital skills proficiency, persistent digital divides, and a lack of scientific research capacity. In 2023, the **basic digital skills** of Bulgaria's population trailed behind the EU average. Adult learning participation is also alarmingly low and declining. **Bulgaria's ICT training provision and ICT specialist workforce** are below the EU average, although the country is showing positive growth in these areas. Bulgaria has a **strong legal framework for digital services**, a well-developed e-government system, and is digitalising more services. It is progressively **improving its administrative processes** to alleviate the burden for citizens and enterprises. **However, and despite substantial Cohesion policy support in the field, Bulgaria lags behind in overall digital public services for citizens, and only one third of Bulgarians use e-government services.** A low proportion of public services is fully online, and the lack of digital inclusion for minorities and people living in remote areas remains a major obstacle to the wider use of online services. **Bulgaria's performance on e-ID use is currently very poor** – the lowest in the EU – but there are positive signs of improvement thanks to

recent regulatory changes in 2023. The population's access to **e-Health** records is steadily improving, with some areas already surpassing EU averages. Digital democracy based on public participation, the protection of children online and the fight against disinformation is also expanding, with scope for further acceleration.

Leveraging digital transformation for a smart greening

Bulgaria's progress in its **twin transition** is hampered by the lack of a practical, integrated approach to making digital infrastructure greener or tracking emission reductions.

National Digital Decade strategic roadmap

Bulgaria did not submit a revised national roadmap. Instead, it presented minor updates to the roadmap initially submitted on 8 April 2024, primarily correcting clerical errors and updating dates, but **without introducing significant changes or new measures**. The roadmap aligns with the values and measures in the National Recovery and Resilience Plan and the European programmes. Bulgaria addressed most of the State of the Digital Decade 2024 recommendations through written responses and references to existing measures. A full stakeholder consultation was conducted. The roadmap continues to prioritise: the digitalisation of secure, interoperable, human-centred public services; basic digital skills; and the digitalisation of businesses (SMEs, smart farming). It contains **60 measures** and has a budget of EUR 2.19 billion (equivalent to 2.11% of GDP) that covers all the Digital Decade objectives, such as digital inclusion; cybersecure and resilient infrastructure; sovereignty; and governance of the digital transformation.

Funding & projects for digital

Bulgaria allocates 23% of its total recovery and resilience plan to digital (EUR 1.3 billion)¹. In addition, under cohesion policy, EUR 1.3 billion, representing 12% of the country's total cohesion policy funding, is dedicated to advancing Bulgaria's digital transformation².

Bulgaria is a member of the 'Alliance for Language Technologies' EDIC. It is also a member of the European High-Performance Computing Joint Undertaking (JU) and of the Chips JU.

Bulgaria has not yet contributed to the Digital Decade's **Best Practice Accelerator**².

Digital rights and principles

According to a support study, Bulgaria has been relatively active in implementing the [European Declaration on Digital Rights and Principles](#), with 79 initiatives overall and 4 new initiatives launched in 2024. Bulgaria is most active in the area of putting people at the centre of the digital transformation. Less activity has been identified with regards to privacy and individual control over data. Measures in the area of putting people at the centre of the digital transformation appear to have most impact on the ground, in contrast to those addressing safety, security and empowerment.

¹ 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.

² 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.

Recommendations

- **Digitalisation of SMEs and take-up of advanced technologies:** Improve the business climate and investment in R&D, notably strengthen Bulgaria's public science base and its linkages with the business ecosystem, while boosting private R&D efforts through well-calibrated public support tools.
- **Artificial Intelligence:** Continue the initiatives to promote AI development and adoption, with a focus on collaboration, ethical considerations, and policy alignment with the EU and across sectors.
- **Basic digital skills:** Leverage the strong performance of women in basic digital skills to reduce disparities linked to education, age, and geography, and to raise the overall level of digital competence. Prioritise targeted investments in teacher training, curriculum reform, and the development of digital and green skills.
- **ICT specialists:** Develop clear, targeted measures to help companies hire ICT experts in less populated areas. Set out a strategy addressing broader factors like infrastructure, economic conditions, and researcher mobility, and identify the most effective funding strategies. Expand ICT training and increase the number of female ICT specialists to help close the gap.
- **Cybersecurity:** Increase efforts in cybersecurity, particularly by supporting the development and deployment of cybersecurity capabilities, and by increasing awareness amongst private and public entities.
- **Key public services:** Continue the efforts to improve the digitalisation and user-friendliness of public procedures and to reduce the administrative burden, also by expanding the use of e-ID. Address the persisting societal and regional imbalances in the delivery of online services by, for example, cooperating with local stakeholders. Focus on accelerating the number of digital public services for citizens, particularly in cross-border services.
- **e-Health:** Ensure the timely and full availability of all types of medical images via the e-Health platform and app and provide clear information to the public. Expand online access to e-Health data to the entire population. Introduce technical functionalities that authorise persons to access this data on behalf of others. Strengthen communication to raise awareness of platform functionalities, especially among vulnerable groups.
- **Fixed and mobile connectivity:** Accelerate the expansion of both VHCN/FTTP and 5G coverage, with a focus on ensuring that deployment pace in sparsely populated areas is maintained. Continue investment to consolidate Bulgaria's strong position, especially in 5G deployment.
- **Green and digital transitions:** Set up clear mechanisms for measuring and promoting the environmental benefits of digital solutions across sectors. Work towards fully integrating green and digital priorities into the country's development strategy, through better alignment between political agendas, funding allocation, and private sector engagement.