

Generative AI Adoption in Bulgaria: Users, Businesses, Institutions, and the Emerging AI Economy

Executive Summary

The EU Data Stories article “Artificial intelligence in Europe: how is AI entering everyday life?”, published on 20 July 2026, captures a Europe in which generative AI has moved into mass use among individuals while enterprise adoption is accelerating from a lower base. In 2025, 32.7% of EU residents aged 16 to 74 had used generative AI during the previous three months, rising to 63.8% among 16 to 24-year-olds. At the same time, 20.0% of EU enterprises with at least 10 employees used at least one AI technology, up from 7.7% in 2021. The article also reports strong sectoral differences and mixed public attitudes, combining expectations of productivity gains with concerns about employment and decision quality. Bulgaria is not discussed by name in the article's prose, although Bulgaria appears in the underlying Eurostat datasets and comparative figures on which the story relies. [1]

For Bulgaria, the central finding is a two-speed diffusion pattern. Consumer adoption has become substantial, especially among younger and university-educated Bulgarians, but remains well below the EU average. In 2025, 22.5% of Bulgarians aged 16 to 74 had used generative AI in the previous three months, compared with 32.66% across the EU. Bulgaria therefore stood 10.16 percentage points below the EU average. Among Bulgarians aged 16 to 24, usage reached 50.0%; among those with tertiary education, it reached 41.2%. Private use, at 20.2% of the population, substantially exceeded professional use, at 8.4%, and formal-education use, at 5.2%. [2]

The business gap is wider. Only 8.55% of Bulgarian enterprises with at least 10 employees used one or more AI technologies in 2025, compared with 19.95% in the EU. Bulgaria ranked among the three lowest EU countries on this harmonized measure. More important for competitiveness, the absolute gap with the EU widened from 4.36 percentage points in 2021 to 11.40 points in 2025. Bulgaria's adoption rose, from 3.29% to 8.55%, but the EU moved faster, from 7.65% to 19.95%. Methodological change accounts for part of the 2025 increase because Eurostat added AI generation of pictures, video and audio to the questionnaire. [3]

The gap cannot be explained only by Bulgaria's large population of small firms. In 2025, AI adoption reached 7.2% among Bulgarian firms with 10 to 49 employees, 13.3% among those with 50 to 249 employees, and 26.2% among firms with at least 250 employees. Comparable EU rates were about 17.0%, 30.4%, and 55.0%. Even large Bulgarian enterprises used AI at less than half the EU large-enterprise rate. [4]

Official Bulgarian enterprise data point to a diffusion problem more than a perceived lack of usefulness. Among firms that had considered AI but had not adopted it, 72.7% cited lack of relevant expertise, 55.7% cost, 51.8% incompatibility with existing systems, and 50.3% uncertainty about legal consequences. This combination suggests a capability, integration, and governance bottleneck. [5]

Bulgaria nevertheless possesses AI assets that are stronger than its adoption statistics imply. INSAIT has developed Bulgarian-first open language models and the free BgGPT service; the country was selected for the BRAIN++ EuroHPC AI Factory, with a reported project value of €90 million; public institutions have begun pilots using sovereign Bulgarian-language models; banks have launched customer-facing generative-AI assistants and large internal AI programs; and the Ministry of Health published a national vision for AI in healthcare in February 2026. [6]

This creates a notable Bulgarian paradox: research capacity, language infrastructure, computing investment, and a substantial technology-services industry coexist with weak diffusion into the median enterprise. Dealroom's current public profile records 275 funded startups in Bulgaria and about \$7.7 billion in combined startup enterprise value, while AIBEST identifies 833 Bulgarian firms in business-process, IT-sourcing, and R&D services employing more than 105,000 people. Neither source provides a defensible public count of specifically AI or generative-AI startups, which illustrates one of the country's measurement gaps. [7]

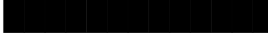
For policy and management, Bulgaria's priority should therefore shift from demonstrating AI capability to diffusing controlled, measurable AI use. The highest-return interventions are likely to involve SME adoption support, AI literacy tied to real work processes, Bulgarian-language and domain-specific models, reusable public procurement and risk-assessment templates, secure access to organizational data, sector-specific test environments, and systematic measurement of productivity, quality, risk, employment, and citizen outcomes. The evidence does not support treating AI adoption as a simple software-purchasing problem. It points to complementary investments in skills, data, process redesign, governance, and evaluation. [8]

Key adoption indicators, 2025:

Share using the relevant form of AI

Scale: ■ $\approx$ 2 percentage points

Individuals using generative AI, EU	32.7%	
Individuals using generative AI, Bulgaria	22.5%	
GenAI for work, EU	15.4%	
GenAI for work, Bulgaria	8.4%	
Enterprises using any AI, EU	20.0%	
Enterprises using any AI, Bulgaria	8.6%	

Large enterprises using any AI, EU	55.0%	
Large enterprises using any AI, Bulgaria	26.2%	

The individual and enterprise indicators measure different populations and concepts and should not be treated as directly equivalent adoption rates. Individual data refer to generative-AI use within the previous three months; enterprise data measure use of any of several defined AI technologies among firms with at least 10 employees in specified non-financial industries. [9]

What the EU Data Stories Article Shows, and What It Misses for Bulgaria

The article combines Eurostat's 2025 household and enterprise ICT surveys with Eurobarometer evidence on attitudes toward AI and digital technologies. Its strongest message is that AI adoption has crossed from specialist use into everyday behavior, but age, education, work context, sector, and country continue to structure access and use. [10]

At the individual level, the article reports that 32.7% of people aged 16 to 74 in the EU used generative-AI tools in the previous three months. Adoption is strongly age-related: about 64% among 16 to 24-year-olds, about one-third among ages 25 to 64, and roughly 7% among those aged 65 to 74. Estonia and Denmark were near 47% to 48% overall, while more than 80% of young people used generative AI in several leading countries. [11]

Purpose also matters. Across the EU population, 25.49% used generative AI for private purposes, 15.36% for professional purposes, and 9.32% for formal education. Among EU generative-AI users specifically, roughly 77% reported private use, 46% work use, and 29% formal-education use, illustrating the difference between population-based and user-based denominators. [12]

Enterprise adoption is rising quickly. The share of EU enterprises using at least one AI technology moved from 7.65% in 2021 to 8.06% in 2023, 13.48% in 2024, and 19.95% in 2025. Information and communication was the leading sector at 62.5% in 2025, followed by professional, scientific, and technical services at about 40.4%. Construction, transportation, and accommodation-related activities remained much lower. [13]

Generative technologies have become visible inside those enterprise figures. Across EU enterprises in 2025, 11.75% used AI for written-language analysis, 9.55% used AI to generate pictures, video, or audio, and 8.76% generated written or spoken language or programming code. The media-generation category was newly added in 2025, which limits strict year-to-year comparability. [14]

The article also describes a public-attitude tension. More than 70% of respondents see potential productivity benefits from AI and robots, while approximately two-thirds expect job losses or believe more jobs will disappear than be created. Only about half

associate AI with more accurate decisions. The findings therefore show acceptance of AI as a productivity technology without equivalent confidence about labor-market or decision-quality consequences. [15]

Bulgaria receives no substantive discussion in the article's written narrative. This omission matters because Bulgaria is an informative case. Eurostat places it close to the bottom of the EU distribution in both population generative-AI use and enterprise AI uptake, while domestic evidence reveals large differences by age, education, firm size, and industry. [1]

The underlying Bulgarian position can be summarized as follows:

Indicator	Bulgaria	EU-27	Bulgaria gap	Reference
Individuals using GenAI in previous 3 months, 2025	22.50%	32.66%	-10.16 pp	Eurostat, harmonized household ICT survey. [16]
GenAI for private purposes	20.15%	25.49%	-5.34 pp	Eurostat. [16]
GenAI for work	8.43%	15.36%	-6.93 pp	Eurostat. [16]
GenAI for formal education	5.17%	9.32%	-4.15 pp	Eurostat. [16]
Enterprises using any defined AI technology	8.55%	19.95%	-11.40 pp	Eurostat enterprise ICT survey. [17]
Large enterprises using AI	26.2%	55.0%	about -28.8 pp	NSI and Eurostat. [18]
Information and communication enterprises using AI	42.0%	62.5%	about -20.5 pp	NSI and Eurostat. [18]
Professional, scientific and	26.4%	40.4%	about -14.0 pp	NSI and Eurostat. [18]

Indicator	Bulgaria	EU-27	Bulgaria gap	Reference
technical services				
Manufacturing enterprises using AI	5.25%	17.27%	-12.02 pp	Eurostat sector dataset. [19]

The resulting picture is more concerning for business competitiveness than for consumer familiarity. Bulgarian individual adoption reached about 69% of the EU rate in 2025. Bulgarian enterprise adoption reached only about 43% of the EU rate. Professional GenAI use among individuals reached about 55% of the EU rate. These ratios are calculations from Eurostat data, rather than separately published indicators. [\[20\]](#)

Bulgarian Users: Adoption, Skills, Trust, and the Language Question

The most reliable current measure of Bulgarian user adoption comes from the NSI's 2025 ICT household survey, harmonized with Eurostat. NSI interviewed 8,421 individuals in 4,258 households during April to June 2025. Its key result is that 22.5% of people aged 16 to 74 had used generative-AI tools during the previous three months. [\[21\]](#)

Age produces the largest observable divide. Half of Bulgarians aged 16 to 24 used generative AI, compared with 36.4% of those aged 25 to 34, 29.3% of ages 35 to 44, 18.6% of ages 45 to 54, 12.6% of ages 55 to 64, and only 3.3% of ages 65 to 74. The difference between the youngest and oldest groups is therefore almost 47 percentage points. [\[22\]](#)

Education produces another large divide. Generative-AI use reached 41.2% among Bulgarians with tertiary education, compared with 15.3% among those with upper-secondary education and 13.6% among people with lower levels of formal education. Men reported 23.3% usage and women 21.7%, a much smaller difference than the age and education gaps. [\[23\]](#)

Use is also considerably more personal than work-related. NSI reports that 20.2% of Bulgarians used generative AI for private purposes, 8.4% for professional purposes, and 5.2% for formal education. Because respondents may report multiple purposes, these percentages should not be added together. [\[24\]](#)

The non-user data deserve equal attention. Among people who did not use generative AI, 45.5% said they had no need for it, 9.3% said they did not know how to use such tools, and 6.3% were unaware of them. The Bulgarian pattern therefore combines an awareness and skills problem with a larger perceived-relevance problem. The policy implication is different for each group: awareness campaigns address the third group,

training helps the second, but the first requires compelling applications tied to work, learning, government services, health, or everyday tasks. [21]

Digital skills remain a structural constraint. Only 38.3% of Bulgarians had at least basic digital skills in the 2025 NSI survey. The rate was 56.6% among ages 25 to 34 and 52.8% among 16 to 24-year-olds, while 49.8% of people aged 65 to 74 were classified as having no digital skills. This makes AI literacy policy inseparable from broader digital inclusion. [21]

Bulgarian user indicator	Result	Interpretation	Source
GenAI use, ages 16 to 74	22.5%	Harmonized, previous three months	NSI/Eurostat 2025. [24]
Ages 16 to 24	50.0%	More than twice national rate	NSI 2025. [21]
Ages 65 to 74	3.3%	Major age-based adoption gap	NSI 2025. [21]
Tertiary education	41.2%	Education strongly associated with use	NSI 2025. [23]
Professional use	8.4%	Far below private use	NSI/Eurostat 2025. [24]
Formal-education use	5.2%	Population-based measure, not student-only	NSI/Eurostat 2025. [16]
At least basic digital skills	38.3%	Broad adoption constraint	NSI 2025. [21]
Non-user: “no need”	45.5%	Relevance is a larger barrier than awareness	NSI 2025. [21]
Non-user: does not know how	9.3%	Direct skills barrier	NSI 2025. [21]
Non-user: unaware of GenAI	6.3%	Residual awareness gap	NSI 2025. [21]

A separate nationally representative Alpha Research survey, reported by the Bulgarian News Agency in July 2025, produced a higher usage figure: 44% of Bulgarian adults said they used systems such as ChatGPT or Gemini, with 13% describing themselves as active users and 31% as occasional users. The survey interviewed 1,000 adults face

to face between 7 and 14 July 2025. It also found usage among 62% of university graduates versus 21% among people with lower education, and roughly one-third of 18 to 29-year-olds reporting active use. [25]

The 44% Alpha Research result should not replace the 22.5% NSI estimate. The surveys measure usage differently, use different age frames, and apply different reference-period and questionnaire structures. Eurostat's 22.5% specifically means use during the previous three months among the harmonized ICT-survey population. Alpha Research captures a broader self-reported active or occasional usage concept. Taken together, the surveys indicate considerable familiarity with GenAI, but they do not support a claim that 44% of Bulgarians meet Eurostat's standardized use definition. [26]

Trust is similarly mixed. In the Alpha Research survey, 36% viewed generative AI primarily as beneficial for humanity, including possible contributions to science and medicine, while 32% primarily viewed it as a threat. This near balance helps explain why exposure to AI does not imply unqualified acceptance. [25]

A 2025 Bulgarian Academy of Sciences study provides a stronger academic basis for analyzing attitudes and literacy. Researchers surveyed 1,006 adults between 19 and 30 March 2025 using Bulgarian adaptations of the General Attitudes towards Artificial Intelligence Scale and the Meta AI Literacy Scale. Age and education significantly predicted AI literacy; younger and more educated respondents tended to score higher, while positive and negative attitudes were distributed differently across demographic groups. The dataset used a multistage design and census-based quotas and has been released for research use. [27]

Privacy concerns form part of the wider trust context. NSI found that 54.4% of individuals took steps to manage access to their personal data, while 47.0% expressed concern about online activities being recorded to provide tailored advertising. These measures are not AI-specific, but they establish the digital-privacy environment in which AI services enter Bulgarian households. [21]

Language is both a barrier and a Bulgarian competitive opportunity. International LLMs often perform less consistently in lower-resource languages, and the BgGPT research specifically reports problems such as models reverting to English or showing language confusion when prompted in Bulgarian. INSAIT's BgGPT work therefore focuses on Bulgarian continued pretraining and Bulgarian-specific evaluation. [28]

This problem extends beyond model weights. Bulgarian researchers presented IfGPT at the 2025 LowResNLP workshop, a dataset designed to consolidate and expand Bulgarian-language corpora with metadata suitable for domain-specific fine-tuning and retrieval-augmented generation. This work indicates that high-quality Bulgarian data, provenance, deduplication, domain metadata, and evaluation remain part of the localization problem. [29]

BgGPT 3.0, released by INSAIT in March 2026, provides a domestic response. The public service supports text, documents, images, voice, and web search; open models

For Bulgarian users, language localization should therefore be understood as four separate requirements: fluent Bulgarian generation, Bulgarian factual and institutional knowledge, culturally appropriate behavior, and enough Bulgarian-domain data for professional use. Work published in the Bulgarian Academy of Sciences' computational-linguistics community shows that multilingual model quality has improved substantially over successive generations, while cultural and language-specific limitations have not disappeared. [31]

Official enterprise evidence shows acceleration without convergence. Bulgaria's AI adoption rate rose from 3.29% in 2021 to 3.62% in 2023, 6.47% in 2024, and 8.55% in 2025. Over the same observations, the EU moved from 7.65% to 8.06%, 13.48%, and 19.95%. Bulgaria gained 5.26 percentage points across the period, while the EU gained 12.30 points. [32]

EU-27	2021	7.65%	————	2023	8.06%	————	2024	13.48%	————
2025	19.95%								
Bulgaria	2021	3.29%	————	2023	3.62%	————	2024	6.47%	————
2025	8.55%								

Enterprise size	Bulgaria using AI, 2025	EU using AI, 2025	Interpretation
10 to 49 employees	7.2%	about 17.0%	Bulgarian small firms at about 42% of EU rate
50 to 249	13.3%	30.4%	Similar relative shortfall

Enterprise size	Bulgaria using AI, 2025	EU using AI, 2025	Interpretation
250+	26.2%	55.0%	Scale helps, but does not close the national gap

Sources: Bulgarian NSI and Eurostat. [4]

The NSI technology breakdown provides the best official picture of how AI-using Bulgarian enterprises deploy the technology. Among AI adopters, 58.1% used text analysis, 52.9% used AI to generate images, video or audio, 44.0% used AI to automate workflows or support decisions, 37.7% generated written or spoken language or programming code, and 31.2% used speech-recognition functions. Because these are percentages of AI-adopting enterprises, they should not be reported as percentages of all Bulgarian firms. [5]

Combining the 8.55% overall AI-adoption rate with these conditional shares gives a useful approximate sense of penetration: media-generating AI is used by roughly 4.5% of all in-scope Bulgarian enterprises, and language, speech, or code generation by roughly 3.2%. These calculated values are consistent with Eurostat-based series for these technology categories, but firms may use multiple technologies and the calculations should not be interpreted as mutually exclusive market shares. [33]

Among Bulgarian enterprises already using AI, marketing and sales is the leading reported purpose at 36.1%, followed by business administration and management at 32.5%. This resembles the EU pattern, where marketing and sales and administrative or management processes also lead. [34]

The more important finding lies among non-adopters that had considered AI. NSI records:

Barrier among Bulgarian firms considering AI	Share
Lack of relevant expertise	72.7%
Costs too high	55.7%
Incompatibility with existing equipment, software, or systems	51.8%
Lack of clarity about legal consequences	50.3%

Source: Bulgarian NSI enterprise ICT survey, 2025. [5]

The sequence is informative. Skills rank first, but cost, technical integration, and regulation all exceed 50%. A strategy centered only on AI training therefore leaves three major barriers untouched. Firms need process redesign, integration support, secure

data architectures, procurement expertise, and legal templates alongside employee skills. [5]

The underlying digital stack also limits readiness. In 2025, 26.6% of Bulgarian enterprises used ERP, 11.9% CRM, and 6.8% business-intelligence software; 27.1% performed data analytics and 17.8% purchased cloud-computing services. Large firms had considerably higher adoption. AI therefore enters businesses with uneven levels of data integration, analytics capability, and cloud infrastructure. [5]

The enterprise statistics also require an important scope qualification. Eurostat and NSI cover enterprises with at least 10 employees in specified NACE activities, exclude the financial sector, and do not measure Bulgaria's large population of microenterprises. The national 8.55% rate therefore cannot be generalized to every registered business. [35]

A second source, the EIB Investment Survey 2025, confirms the broader digital-investment lag from a different sampling and weighting framework. The EIB reports that Bulgarian firms had increased investment in innovation, with 35% investing in new products, processes, or services, yet still lagged EU peers in digital investment and AI adoption. EIBIS covers roughly 13,000 firms across the EU and a US comparison sample and weights results to represent firms' economic contribution. [36]

These differing surveys should not be forced into one adoption number. Eurostat supplies the more suitable harmonized prevalence indicator; EIBIS provides complementary evidence about investment behavior and firm strategy. Industry and management surveys can capture experimental or employee-level tool use that official enterprise surveys may classify differently. [37]

The vendor environment now falls into four broad layers. First are global hosted tools such as OpenAI, Microsoft, and Google products. Second is Bulgarian-language infrastructure led by BgGPT. Third are local and multinational systems integrators, business-services firms, and software companies. Fourth is emerging public compute and testing infrastructure through BRAIN++. AIBEST's 2025 industry report identifies 833 Bulgarian BPO, ITO, and R&D companies with 105,436 full-time employees in 2024, indicating a sizable service-delivery base even though the report does not measure GenAI adoption across all those firms. [38]

The wider software economy adds capacity. BASSCOM's 2025 industry assessment, reported by BTA, placed the Bulgarian software industry's projected 2025 revenue at about BGN 11 billion, with more than 6,100 companies and more than 60,000 employees; AI, machine learning, and cybersecurity were among the areas showing strongest demand. These are software-sector statistics, not a GenAI market-size estimate. [39]

An authoritative Bulgaria-specific GenAI revenue market-size series does not yet exist in the official sources reviewed. The most cited economic-impact estimate comes from research presented by Google and AmCham Bulgaria in March 2025, which estimated

that wider generative-AI adoption might add approximately €4 billion to €5 billion to Bulgarian GDP over the following decade. This is a modeled economic-opportunity scenario, not current AI-sector revenue, investment, or market capitalization, and it should be presented as such. [40]

Sectoral Adoption, Infrastructure, Public Policy, and the AI Ecosystem

Bulgaria's sectoral evidence shows pockets of intensive adoption embedded in an economy where diffusion remains limited.

Information and communication is the leading measured Bulgarian sector, with 42.0% of enterprises using AI in 2025. Professional, scientific, and technical services follow at 26.4%. Construction stands at only 3.0%. For comparison, information and communication reached about 62.5% across the EU, while professional, scientific, and technical services reached about 40.4%. [18]

Manufacturing presents a particularly large gap. Eurostat records AI use by 5.25% of Bulgarian manufacturing enterprises in 2025, versus 17.27% across the EU. Bulgaria's manufacturing adoption rate was therefore about 30% of the EU manufacturing rate. [19]

There are nevertheless advanced individual plants. Schneider Electric's Plovdiv facility is an established smart-factory case using connected industrial systems and AI-related machine-management applications. Such cases demonstrate technical feasibility but should not be treated as representative of Bulgarian manufacturing, given the 5.25% sector-wide adoption rate. [41]

Bulgarian academic work is also starting to address GenAI in industrial process design. A 2026 University of Plovdiv and Teletek Electronics paper proposes an enterprise GenAI architecture combining retrieval-augmented generation, bounded agents, access controls, human validation, logging, and escalation across industrial processes. The paper explicitly treats its improvement scores as expert-assessed maturity/readiness rather than measured causal productivity effects, a useful distinction for companies evaluating AI pilots. [42]

Finance is absent from the official Eurostat enterprise AI denominator, so bank case studies provide a more useful picture. DSK Bank launched a customer-facing generative-AI assistant in July 2025 using OpenAI technology and its own product and service context. The assistant supports natural-language questions and is designed for expansion into more personalized banking functions. [43]

Postbank provides a broader organizational case. In late 2025 it reported a program of more than 100 planned AI initiatives covering customer service, lending, communications, risk, operations, marketing, security, and analytics. The bank reported 12 implemented projects, eight additional projects under implementation, internal GenAI assistants, AI plus RPA tools across more than 24 departments, and estimated time

savings from deployed systems. These figures come from the bank itself and should therefore be treated as company-reported operational metrics rather than independently audited productivity estimates. [44]

The Bulgarian National Bank has likewise framed LLMs as a material banking technology. In June 2026, a BNB deputy governor described machine learning as already established in risk analysis, credit scoring, fraud detection, and anti-money laundering, and identified LLMs as extending AI into interactions among clients, employees, documents, regulation, and internal systems. The BNB stressed data governance, transparency, accountability, cybersecurity, and human control. [45]

Healthcare entered a more formal policy stage in 2026. On 16 February, the Ministry of Health published a national vision for AI in healthcare covering early diagnosis, prevention, medical-image analysis, clinical decision support, hospital operations, administrative burden, research, and health-system planning, with doctors retaining final medical decision authority. [46]

A concrete enabling investment is the National Digital Platform for Medical Diagnostics under Bulgaria's Recovery and Resilience Plan. The Ministry of Health reports a total budget of €14.459 million for 2023 to 2026, covering a national imaging infrastructure and four data centers, with provision for validated machine-learning and neural-network algorithms and initial focus areas including oncology, radiology and dermatology. This represents infrastructure for AI-enabled healthcare rather than evidence of widespread clinical GenAI use. [47]

Public administration is moving from strategy to selected pilots. Bulgaria adopted its national AI Development Concept to 2030 in December 2020, identifying education, public services, agriculture, healthcare, and environmental protection among priority areas and linking AI development to research, infrastructure, skills, data, and trustworthy governance. [48]

INSAIT reports projects using Bulgarian models with the National Revenue Agency and the Bulgarian National Audit Office. The Audit Office's Odis project, announced in November 2025, uses AI to extract, organize, and summarize information from public-procurement data for auditors. Sofia Tech Park reported an estimated reduction in processing time for a procurement audit from about four days to one in the targeted workflow; this should be treated as a project estimate rather than an independently established system-wide productivity effect. [49]

Bulgaria's largest AI infrastructure commitment is BRAIN++, selected as a EuroHPC AI Factory in March 2025. Plans combine the Discoverer++ AI-optimized supercomputer with an AI service hub offering compute, models, data infrastructure, training, compliance support, and a planned AI sandbox for startups, SMEs, researchers, public bodies, and other users. The reported project value is €90 million. [50]

As of 16 September 2026, this infrastructure should not be described as fully operational. EuroHPC published the Discoverer++ procurement tender in March 2026

with an estimated value of about €54.23 million and a submission deadline of 16 October 2026; installation was planned for the end of 2026. Bulgaria therefore has an important AI-factory commitment, but part of the core compute capacity remains under procurement at the date of this report. [51]

The startup picture is promising but poorly measured specifically for AI. Dealroom's current Bulgaria profile lists 275 funded startups and about \$7.7 billion in combined startup enterprise value, including two unicorn outcomes, but its public page does not expose a separate AI-company count. Sofia accounts for most of the visible value, with about \$7.3 billion in combined startup enterprise value in Dealroom's public city profile. [52]

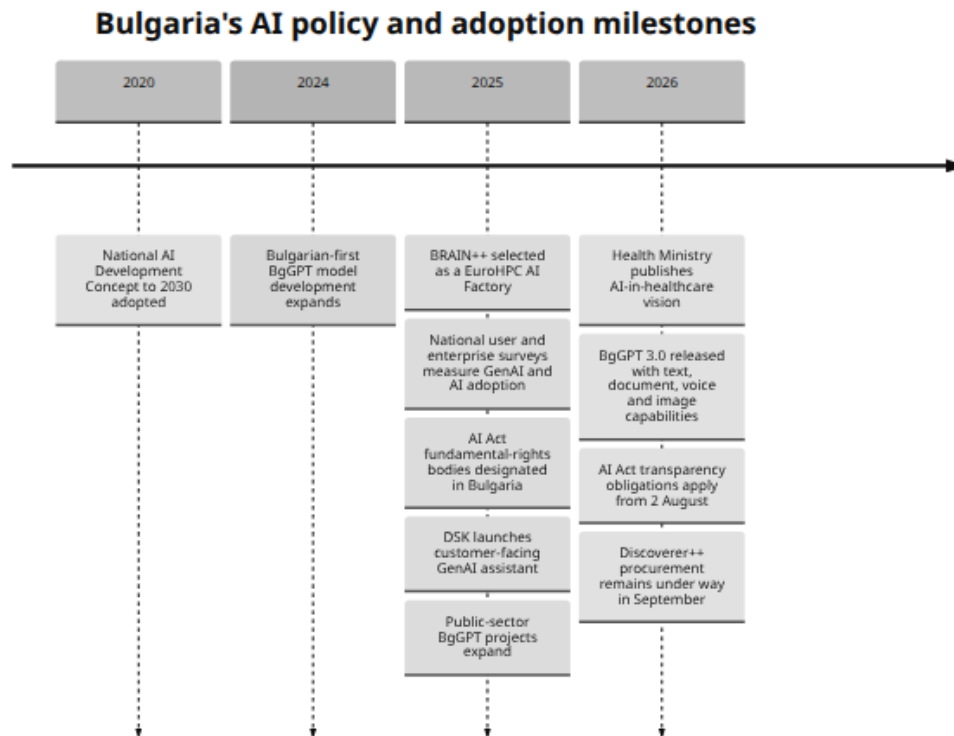
This distinction matters because estimates such as “number of AI startups in Bulgaria” vary widely across commercial websites and often lack transparent inclusion criteria. A rigorous baseline should therefore report the broader startup ecosystem and state that a reproducible AI-specific census is currently missing rather than presenting an unsupported precise number. [53]

Labor-market exposure is similarly better measured as task exposure than as “jobs lost.” A 2026 Bulgarian analysis by CNTS, combining NSI and Eurostat employment data with an occupation-level AI-exposure methodology, estimates that 622,000 workers, around 21% of the labor market covered by the analysis, belong to occupations that are simultaneously growing and highly exposed to current AI capabilities. These include accountants and economists, sales and bookkeeping roles, IT professionals, lawyers and journalists, engineers and scientists, and customer-service workers. The estimate measures exposure to task transformation, not predicted unemployment. [54]

The direction is consistent with European Commission Joint Research Centre work published in 2026. The JRC mapped 352 AI benchmarks to cognitive abilities, tasks, and 127 occupations and found rapidly increasing AI exposure across the European labor market, especially in information processing, reading and writing, reasoning, search, and problem solving. Higher-skilled occupations remain more exposed than elementary occupations. [55]

ILO research reaches a similar conceptual conclusion at global scale: approximately one in four workers holds an occupation with some GenAI exposure, but transformation of tasks is more likely than complete automation for most occupations because human input remains necessary. The Bulgarian 622,000 estimate should therefore be read as a reskilling and work-redesign indicator, not a forecast of 622,000 lost jobs. [56]

The policy and infrastructure sequence can be summarized as follows:



The chronology draws on Bulgarian government, EuroHPC, INSAIT, NSI, banking, and European Commission sources. [\[57\]](#)

Regulation now matters operationally. The EU AI Act entered into force in August 2024 and applies in stages. From 2 August 2026, new transparency duties apply to specified AI interactions and AI-generated or manipulated content, including requirements to inform users when they interact with certain AI systems and labeling obligations in defined situations. This moves AI governance from future planning into current operating requirements for Bulgarian deployers and providers. [\[58\]](#)

Bulgaria had already designated a set of national authorities under Article 77 of the AI Act in June 2025 for fundamental-rights oversight in relation to high-risk AI. The designated bodies include the Ombudsman, Commission for Protection against Discrimination, Commission for Personal Data Protection, Consumer Protection Commission, State Agency for Child Protection, General Labour Inspectorate, and other bodies within their legal mandates. [\[59\]](#)

Strategic Implications and Recommendations

For Bulgarian users, the main divide is no longer simple access. It is the ability to use AI critically, safely, and productively. Half of 16 to 24-year-olds already use generative AI, while only 38.3% of the overall population has at least basic digital skills. Education and training should therefore move beyond “how to prompt” and cover source verification, uncertainty, personal-data handling, synthetic media, model limitations, intellectual property, and deciding when human expertise must override an AI output. [60]

Schools and universities should treat the 50% youth adoption rate as an existing behavior to govern rather than a future technology to introduce. Institutions need explicit assessment rules defining acceptable assistance, disclosure requirements, citation and verification practices, and tasks where independent performance is required. The low population-level formal-education usage rate of 5.2% does not contradict heavy youth exposure because the denominator includes the entire 16 to 74 population. [24]

Bulgarian-language AI deserves continued investment, but evaluation should become more independent and task-specific. BgGPT and Bulgarian corpora address real localization constraints. Government and universities should complement developer benchmarks with public evaluation suites covering Bulgarian law, public administration, healthcare terminology, education, factual accuracy, regional language use, hallucination rates, bias, security, and citation quality. The existing BgGPT benchmark work and IfGPT corpus provide foundations for such an effort. [61]

For businesses, the data argue against enterprise-wide GenAI licensing as the first step. Firms should begin with a process inventory and identify tasks with high information-processing effort, measurable baseline costs, low initial decision risk, and accessible data. Bulgarian adopters already concentrate AI in marketing, sales, administration, and management, which makes these suitable areas for controlled pilots. [5]

A practical Bulgarian enterprise adoption sequence is:



The sequence responds directly to the four leading Bulgarian barriers: expertise, cost, system integration, and legal uncertainty, and aligns with the human-control and auditability approaches emerging in Bulgarian enterprise research. [62]

Companies should quantify value using paired operational metrics. A customer-service pilot, for example, should track handling time and first-contact resolution, but also incorrect-answer rates, escalation rates, complaints, and sensitive-data incidents. A coding assistant should track development cycle time alongside defects and review

effort. A document assistant should track processing time alongside factual and citation accuracy. Company claims of time savings, such as those reported by Postbank, are useful hypotheses for other organizations, but each adopter needs its own baseline and controlled evaluation. [44]

SMEs require a different model from large companies. Only 7.2% of Bulgarian firms with 10 to 49 employees used AI in 2025, compared with 26.2% of large enterprises. Shared expertise through European Digital Innovation Hubs, chambers, universities, vendor-neutral diagnostic services, and BRAIN++ can reduce fixed experimentation costs. Public support should reward verified deployment outcomes rather than software purchases alone. [63]

Public policy should focus on the widening diffusion gap. The national enterprise gap relative to the EU increased from 4.36 percentage points in 2021 to 11.40 points in 2025. Maintaining excellent research institutes and supercomputing infrastructure without raising adoption in established businesses would leave much of the economic return unrealized. [64]

BRAIN++ should therefore be measured against adoption outputs, not only installed computing capacity. Suitable indicators include SMEs assisted, pilots entering production, Bulgarian datasets made reusable, models deployed, AI Act compliance assessments completed, staff trained, external investment attracted, public-sector projects evaluated, and verified productivity gains. EuroHPC describes the factory as a service environment for companies, startups, government and research, so diffusion metrics fit its stated purpose. [50]

Healthcare policy requires a particularly high evidence threshold. Bulgaria's 2026 vision correctly emphasizes human medical control, security, ethics, and phased deployment. Clinical AI procurement should require prospective validation on Bulgarian populations and workflows, monitoring for model drift and subgroup performance, clear accountability, interoperability with the national health-data architecture, and post-deployment outcome evaluation. [46]

Financial institutions face a different challenge. Their adoption appears ahead of the aggregate enterprise statistics, but finance is absent from Eurostat's main enterprise denominator. Regulators and the banking sector should therefore establish separate Bulgarian indicators for GenAI use in customer interaction, fraud, risk, compliance, software development, internal knowledge search, and document processing. BNB's emphasis on governance, cybersecurity, transparency, and human control provides an appropriate supervisory frame. [65]

Public administration should publish more pilot evaluations. Projects at the Revenue Agency and Audit Office are strategically important because they offer a path to Bulgarian-language, locally controlled AI for sensitive information. Their value will become clearer if agencies publish task definitions, pre-AI baselines, accuracy metrics, human-review requirements, realized time savings, error categories, data-protection safeguards, and total lifecycle costs. [49]

Labor policy should focus on task redesign and career transitions rather than unsupported forecasts of mass unemployment. Bulgaria's highest AI exposure occurs in many growing professional and clerical occupations. Training should therefore target accountants, customer-service workers, software professionals, engineers, legal occupations, journalists, managers, and educators while employers preserve entry pathways that allow younger staff to acquire domain expertise. [66]

For the startup ecosystem, policymakers should distinguish three objectives: producing AI research, creating AI-native companies, and raising AI productivity in existing firms. Bulgaria performs differently on each. INSAIT and BgGPT strengthen research and foundational infrastructure; Dealroom and AIBEST document a substantial technology-company base; Eurostat shows that diffusion through ordinary businesses remains weak. Using one generic “AI ecosystem” metric obscures these differences. [67]

Evidence Gaps, Uncertainties, and Research Priorities

The strongest conclusion from this review is also methodological: Bulgaria now has enough evidence to establish the direction of AI adoption, but not enough to estimate its economic and social effects with comparable precision.

The first gap is the absence of a stable Bulgarian time series for individual GenAI use. Eurostat's harmonized generative-AI individual indicator begins with 2025, so the 22.5% figure provides a baseline rather than a multi-year trend. Repeating the indicator annually will be essential for separating rapid diffusion from temporary experimentation. [16]

The second gap concerns microenterprises. Eurostat and the NSI enterprise ICT survey exclude firms with fewer than 10 employees and exclude important activities including the financial sector from the headline measure. Given Bulgaria's business structure, this leaves a substantial part of economic activity outside the 8.55% statistic. A dedicated nationally representative microenterprise survey would materially improve the evidence base. [35]

The third gap is GenAI-specific business measurement. Bulgaria's official headline indicator combines multiple AI technologies ranging from text mining and generative models to machine learning, computer vision, decision software, and autonomous systems. The technology-specific questions provide partial GenAI estimates, but a dedicated survey should measure ChatGPT-like assistants, coding copilots, enterprise retrieval-augmented generation, local LLMs, AI agents, synthetic media, and embedded AI functions separately. [68]

The fourth gap is finance. Some of Bulgaria's clearest enterprise GenAI cases come from banks, yet financial services sit outside the headline Eurostat enterprise statistic. DSK, Postbank, and BNB evidence shows why a sector-specific financial-services AI series would add substantial information. [69]

The fifth gap is a credible AI market-size estimate. Official sources measure adoption, enterprise structure, investment projects, skills, and digital activity but do not publish a Bulgaria-specific GenAI revenue market series. The Google-linked estimate of €4 billion to €5 billion over a decade measures modeled GDP opportunity, not current market revenue. Commercial estimates should not be mixed with national accounts or adoption rates unless their definitions, base data, and modeling procedures are disclosed. [40]

The sixth gap concerns startups. Current ecosystem databases can provide counts of funded startups and aggregate valuations but do not publicly expose a reproducible Bulgaria-specific count of AI-native firms. A useful national census would classify firms by AI as core product, AI-enabled product, AI services, infrastructure, robotics, and sectoral application, with founding year, employment, funding, revenue, exports, patents, and survival status. [53]

The seventh gap is productivity. Enterprise case studies frequently report time or efficiency gains, but independently evaluated Bulgarian studies linking GenAI adoption to output, quality, revenues, wages, customer outcomes, or total cost remain scarce. Academic work is beginning to specify enterprise architectures and readiness frameworks, but at least some recent Bulgarian work explicitly stops short of causal operational evaluation. [70]

The eighth gap concerns labor-market outcomes. Exposure estimates can identify where AI may alter tasks, but they cannot determine how many jobs will disappear, appear, or change. Bulgaria needs longitudinal employer and worker data that connect AI adoption with hiring, vacancies, wages, occupations, entry-level opportunities, training, task composition, and productivity. This distinction between exposure and displacement is consistent with current JRC and ILO research. [71]

The ninth gap is public-sector evaluation. Bulgaria now has visible AI projects at the Revenue Agency, Audit Office, healthcare system, and national AI infrastructure, yet comparable public dashboards of costs, model performance, savings, errors, citizen satisfaction, appeals, and risk events are not available across agencies. Transparent evaluation would improve procurement and create reusable evidence for local governments and smaller public bodies. [72]

A coherent next research program should therefore combine the official NSI and Eurostat surveys with a Bulgarian GenAI business module, a microenterprise survey, a finance-sector module, longitudinal worker data, a reproducible AI-company registry, structured public-sector pilot evaluations, and independent Bulgarian-language model benchmarks. This would allow researchers to move from the current question, “Who is using AI?”, toward the more consequential questions: “For which tasks?”, “With what quality?”, “At what total cost?”, “Under what governance?”, and “With what effects on productivity, employment, customers, students, patients, and citizens?” The current evidence establishes adoption and capacity. Bulgaria's next statistical and research challenge is to measure outcomes. [73]

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