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THE COMMITTEE ON ECONOMIC AND DEVELOPMENT POLICY

REPORT∗
"Artificial Intelligence for Sustainable Socio-Economic Development in the BSEC Region-Economic Aspects"

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I INTRODUCTION

1. Once unimaginable to people and entirely in the realm of science fiction, artificial intelligence (AI) has entered the everyday life of humans. It is a nascent concept that refers to computer systems and models that can perform tasks, take actions, or propose decisions that would normally necessitate human intelligence. Artificial intelligence systems have the capacity for autonomous improvement and learning and are designed to assist, augment human capabilities, and execute assigned tasks, much faster and more efficiently. The digital revolution, along with the emergence and proliferation of new technologies and machines, enabled a booming expansion of AI-based systems and services, changing the world by storm.

2. Economies worldwide face a digital transition, with AI being an integral part. Artificial intelligence transforms the economies and societies of a multitude of countries in the world, including the BSEC Member States. AI systems as general-purpose technology are increasingly being used in numerous societal and industry fields, contributing to a wide array of economic, environmental, and societal benefits. The successful uptake of AI technologies has the potential to accelerate the socio-economic development and global competitiveness of states. Moreover, AI systems can not only promote economic growth and social well-being but also contribute to addressing a number of complex global challenges and help achieve the Sustainable Development Goals (SDGs).

3. Despite its numerous economic applications in today's society, AI is still a developing field. The economic, social, political, ethical, environmental, and technical consequences of its further development are not yet fully known and comprehensible. Substantial concern exists over the ethical framework and directions in which AI implementation might take the economies and societies in the future. Thus, AI is a matter of significant global, national, and regional interest that is calling for comprehensive discussion, regulation, and cautiousness. Establishing and implementing the norms in this field to promote its responsible use and sustainable economic growth remains a paramount challenge for policymakers.

4. The Parliamentary Assembly of the Black Sea Economic Cooperation has recognised the importance of artificial intelligence, as well as the need for strengthening cooperation in the sphere of AI in the BSEC Member States. The PABSEC adopted the Report and Recommendation 193/2023 "National Strategies in the field of Artificial Intelligence in the BSEC Member States" in which it emphasised the deep potential of artificial intelligence for the development of states, increasing their competitiveness and economic growth and extended its support to further use of AI innovation. Taking into consideration the rapidly evolving field of AI and its broad transformative character for the economies, it was decided that the Sixty-Fifth Meeting of the PABSEC Committee on Economic and Development Policy, to be held in Belgrade, on 14 October 2025, will discuss "Artificial Intelligence for Sustainable Socio-Economic Development in the BSEC Region-Economic Aspects".

5. The present Report uses the information from the national delegations of the Republic of Armenia, the Republic of Bulgaria, the Hellenic Republic, the Republic of Moldova, the Republic of North Macedonia, Romania, the Republic of Serbia, the Republic of Türkiye, and Ukraine. It also uses the research material and reports of relevant international organizations, such as the United Nations (UN), the UN Trade and Development (UNCTAD), the Organization for Economic Cooperation and Development (OECD), the International Monetary Fund (IMF), the World Bank (WB), the World Economic Forum (WEF), International Telecommunication Union

(ITU), the European Union (EU), the UN Educational, Scientific and Cultural Organization (UNESCO), etc., as well as the relevant information from various Internet sources.

II ARTIFICIAL INTELLIGENCE-TRENDS AND ECONOMIC ASPECTS

6. The world is witnessing a tremendous breakthrough in AI on a global scale. Artificial intelligence burgeons across economies and societies, bringing numerous changes. It has transformed from a futuristic concept into a core technology that drives innovation in various industries. Technological and socioeconomic developments relating to AI are very dynamic, and some compare its importance with the discovery of steam engine or electricity. Artificial intelligence inception dates back to the 1950s. In the following decades, AI activities began to progressively expand, opening new horizons. The recent upsurge in computing power and infrastructure, availability and increased amounts of data, innovative algorithms, and improved connectivity gave impetus for AI technologies and machine learning. Today, progress in other fields of technology is creating an environment favorable to an even more rapid acceleration of AI technology.

7. According to the UN Trade and Development, artificial intelligence is defined as the capability of a machine to engage in cognitive activities typically performed by the human brain. The EU Regulation 2024/1689 of the European Parliament and of the Council defines "AI system as a machine-based system that is designed to operate with varying levels of autonomy and that may exhibit adaptiveness after deployment, and that, for explicit or implicit objectives, infers, from the input it receives, how to generate outputs such as predictions, content, recommendations, or decisions that can influence physical or virtual environments". The AI systems are able to convert huge volumes of complex information and properly utilise it. These systems can be implemented in software, such as voice assistants, speech and image recognition systems, search engines, etc., or can be embodied in hardware devices such as drones, self-driven cars, robots, etc.

8. AI can be regarded as the latest in a series of industrial revolutions, all of which have reformed production systems. The World Economic Forum estimates that innovation and technology convergence across main industries are bringing us closer to the fifth industrial revolution (Industry 5.0) that is building on the fourth industrial revolution (Industry 4.0). While Industry 4.0 involves modern technological and social changes associated with rapid digital transformation and automation, Industry 5.0 is emerging as a new phase of industrialisation that sees humans working alongside advanced technology and AI-powered robots, enhancing workplace processes. The diffusion of AI accelerated in 2023 and 2024, with the release of generative artificial intelligence, i.e. the use of AI to create new content based on a set of training data. The launch of ChatGPT by OpenAI in late 2022 transformed accessibility and application of generative AI. This application became the fastest-growing consumer application in history, reaching millions of users in a very short time. ChatGPT, as well as Gemini (Google DeepMind), Llama (Meta), etc., belong to the category of "narrow AI" designed to perform specific tasks in specialised domains. On the other hand, the artificial general intelligence (AGI) concept is a hypothetical stage in the development of machine learning in which an artificial intelligence system can match human cognitive abilities across any task. Artificial Superintelligence (ASI) surpassing human intelligence could be the next stage. However, there is uncertainty regarding the pace of AI development and its ability to reach the levels of AGI or ASI. Projections about the future of AGI and ASI imply a high degree of uncertainty.

9. According to the United Nations Trade and Development (UNCTAD) Technology and Innovation Report 2023, AI, as part of Industry 4.0 is labeled as a frontier technology – a quickly developing, transformative solution that takes advantage of digitalization and connectivity. Industry 4.0, green and renewable energy technologies, and other frontier technologies have experienced great growth: in 2023 their total market value was 2.5 trln USD, and it is estimated to increase sixfold, reaching 16.4 trln USD by 2033. The global AI market continues to grow. The latest UNCTAD Technology and Innovation Report, Inclusive Artificial Intelligence for Development 2025, projects that AI will be the frontier technology with the largest market size by 2033. It is expected that the global AI market size will rocket from 189 bln USD in 2023 to 4.8 trln USD by 2033, representing 25 times increase in just a decade, accounting for 30 % of the overall market.

10. AI already has a transformative effect on the global economy, but there are uncertainties regarding the exact scale and nature of AI's economic impact due to the complex nature of the phenomenon. The economic impact of AI is a topical issue that has triggered a great deal of research and ongoing evaluation. Studies expect certain economic productivity gains from AI technology, but the size of the benefits varies across institutions and research. The majority of data stress that AI will show economic effects as it could boost productivity and advance GDP growth trajectories. It is perceived as a motor for increased efficiency by automating tasks, optimizing processes, and analyzing data across various sectors, which results in cost reduction, faster production cycles, and improved decision-making, increasing overall productivity. Research done by Accenture consulting company predicts that by 2035, AI could double annual global economic growth rates by increasing labour productivity, creating a new virtual workforce and innovation diffusion. According to Goldman Sachs' findings in 2023, a wide adoption of AI innovations has been estimated to increase GDP by 7 % over a 10-year period. A study by PricewaterhouseCoopers (PwC) assesses that take-up of AI might contribute 15.7 trln USD to the global economy by 2030.

11. Artificial intelligence is a competitive and thriving industry, and countries and major economies are intensely striving to secure their technological power. The global efforts to fund, develop, and acquire artificial intelligence technology are intensifying, with commercial uses for AI increasing in advanced and emerging economies. The past year has witnessed advancements in the capabilities of AI systems, coupled with numerous international, national, and civil society initiatives to govern and regulate this field. Many states approach AI as a strategic technology that has the potential to improve their competitiveness and increase economic growth.

12. AI is advancing rapidly, and governments must adapt accordingly. Over 70 countries have already published AI policies or initiatives, with many more advances in that direction. The strategic directions for the activities of states envisage an analysis of global trends in the development of artificial intelligence and the tasks for developing AI in a country. While various stakeholders take part in implementing AI, governments play an essential role in setting AI policy direction, accelerating its development and adoption, as well as establishing an environment that fosters the adoption and effective use of new technologies. Many countries, as well as the BSEC Member States, are developing standards to govern AI and implementing a set of coordinated policies aiming to maximise the benefits of AI while mitigating its risks for the economy and society. The development of artificial intelligence technologies in the BSEC Member States is carried out based on holistic state policies that combine institutional coordination, regulatory and legal regulation, and the implementation of practical projects. The BSEC Member States invest in AI research and development, ensuring sustainable funding for research projects and the

development of new AI technologies; apply AI in specific industries; create inclusive AI ecosystems, facilitate small and medium-sized enterprises' access to AI infrastructure and support the digital transformation of businesses; ensure a fair labor market transition, improve human capacity on AI, etc.

13. The global economy is increasingly shifting towards AI-driven production and innovation. Investing in AI and digital innovation prepares countries to generate new business models and participate in the global economy. According to the OECD findings, investment in AI-related ventures has increased three times over the past five years, and AI research intensity has increased fivefold in the last two decades. Governments worldwide are stimulating AI development and adoption through various measures, including funding research, providing tax breaks, and enacting and reforming regulations. These incentives aim to advance innovation, enhance economic growth, and ensure a country's competitiveness in the global AI setting. Tax incentives are provided for AI businesses and infrastructure, as well as for specific AI technologies and industries that are estimated to be strategic for future economic growth.

14. Some economies have applied AI at a faster rate because of the effective diffusion of technology, quicker adaptation, support of growth of new industries, and a smooth transition for those affected by technological advancements. An AI Preparedness Index developed by the International Monetary Fund measures the readiness of 174 countries in areas such as digital infrastructure, human capital and labour-market policies, innovation and economic integration, and regulation and ethics. The 2023 ranking of the BSEC Member States[1] is as follows: Albania (0.53); Armenia (0.49); Azerbaijan (0.47); Bulgaria (0.58); Georgia (0.53); Greece (0.58); the Republic of Moldova (0.48); North Macedonia (0.48); Romania (0.58); the Russian Federation (0.56); Serbia (0.54); Türkiye (0.54) and Ukraine (0.51).

15. Frontier Technologies Readiness Index, developed by UNCTAD, assesses a country's capacity to effectively utilize, adopt, and adapt to frontier technologies. Although the Index is not specific to artificial intelligence, it can be considered an important indicator of the countries' artificial intelligence ecosystems. The indicators are compiled under 5 pillars: ICT deployment, skills, R&D activity, industry activity, and access to finance. Among the 170 economies, the 2024 ranking of the BSEC Member States[2], is as follows: Albania (89); Armenia (82); Azerbaijan (104); Bulgaria (51); Georgia (79); Greece (41); the Republic of Moldova (73); North Macedonia (63); Romania (46); the Russian Federation (33); Serbia (48); Türkiye (44) and Ukraine (57).

16. Artificial intelligence has the potential to reshape industries, production processes, and the ways business is organised. The application of AI technologies across various industries is centered around three major goals: optimising product development cycles, optimising complex operations, and informing the next best action for customers. Due to its general-purpose character, AI can be deployed across the entire economy and can be adapted to meet the needs of different industries. High-tech industries such as electronics, aerospace, and automotive use AI to reduce development time and improve product quality, while resource-intensive sectors like mining, oil and gas use AI to increase efficiency and reduce costs. The pharmaceutical industry and telecom use AI for innovation and customer engagement. In industrial sectors, AI solutions are becoming increasingly important as they help to optimise production processes, predict machinery failures, and develop more efficient smart services. In transportation, the main uses of AI include self-

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[1] On a scale from 0 to 1, higher values represent more favorable AI preparedness.
[2] The lesser value represents more favorable AI preparedness.

driving cars, sensor technology, and traffic prediction. In healthcare, AI is used in diagnostics, drug prescription, personalised treatment, and remote monitoring. AI can also be used to optimise manufacturing processes. It can analyse production data, identify problem areas, and suggest improvements to enhance efficiency and reduce costs. In agriculture, AI is used in precision farming and resource optimisation, disease and pest detection, using drone and satellite images to acquire real-time data, etc. The COVID-19 pandemic has accelerated the adoption of AI systems in the financial sector and services due to the increased use of digital channels. Further adoption of AI may enhance financial stability and bring benefits to financial institutions, such as efficiency improvements and higher productivity, and can enhance personalised customer service. Artificial intelligence is also increasingly used in economics for data analysis and forecasting. It is capable of processing large amounts of information, identifying trends and patterns, and predicting future events and outcomes. Even in sectors that were not the fastest to adopt digital technologies, such as the public sector, AI can notably further improve efficiency.

17. AI offers transformative opportunities for the environment. It can play a role in areas such as climate action, nature protection, and pollution prevention. AI can potentially reduce overall carbon emissions by accelerating advances in low-carbon technologies across the power generation, food production, and transportation sectors. According to the UN Environment Programme's Climate Technology Progress Report 2024, the importance of AI is increasing for mapping renewable energy potential, optimising efficiency, and enabling interconnectivity with other sectors, such as water and agriculture. However, the other side of the coin is that AI's rapid development raises concerns over the environmental footprint of the full AI life cycle. As AI has evolved, its demand for larger datasets, increased computational power, and electricity has grown, with correlated pressures on natural resources. Its proliferation will generate more electronic waste, resulting in a surge in water and energy consumption, as well as increased greenhouse gas emissions. The IMF in its 2025 World Economic Outlook: A Critical Juncture Amid Policy Shifts estimates the cost of AI emissions at around 50.7 bln -66.3 bln USD or 1.3-1.7 % of the AI-driven increase in real world GDP between 2025 and 2030. However, the IMF assesses that despite challenges related to GHG emissions and higher electricity prices, the gains to global GDP from AI are expected to be greater than the costs of the additional emissions.

18. The private sector plays a dominant role in research and development, as well as the deployment of AI in the digital economy. Technology giants such as Google, Apple, Yandex, Microsoft etc., accelerate knowledge creation and use of AI. Companies like Apple, Nvidia, and Microsoft each have a market value of around 3 trln USD. In 2024, the total global corporate investment in artificial intelligence reached 252.3 bln USD (the Artificial Intelligence Index Report 2025, Stanford University). To achieve higher profit margins, reduce operational costs, and provide better customer experience, many companies, both large and small, adopt AI technology. In 2018, the McKinsey Global Institute estimated that around 70 % of companies would adopt at least one type of AI technology before 2030, while less than 50 % of large companies would use the full spectrum. The latest 2025 McKinsey report shows that almost all companies invest in AI, but only 1 % believe they are at maturity, meaning full integration of AI into business. Moreover, AI patents have been on the rise worldwide indicating a growing public and private investment in the field. The number of AI patents has grown from 3,833 in 2010 to 122,511 in 2023.

19. AI applications have the potential to address challenging societal problems and provide solutions to achieving the targets of the SDGs. AI innovation and adoption could contribute to progress towards goals in transport, agriculture, health care, disease prevention, climate change,

natural disaster and crisis management, and many others. For example, by using a wide array of data and pattern recognition, AI can provide weather predictions and early warnings of natural disasters, thereby providing additional time for mitigation of consequences. Likewise, it could help reduce energy consumption by optimising resources or contribute to a cleaner environment by lessening the need for pesticides. Recent analysis shows that AI could have a beneficial impact on 79 % of SDG targets, especially those related to environmental issues. Furthermore, data indicate that social SDG targets are at the other end of the AI utilitarian spectrum, while additional research needs to be conducted relating to the achievement of the economic targets and the positive correlations of the AI.

20. Approaches towards AI differ, and progress in its development and implementation depends largely on the socio-economic and political situation of a country. The IMF warns that the economic benefits of AI may not be evenly distributed across countries and among different groups within societies, potentially aggravating existing inequalities. AI adoption can be uneven across regions and industries, as well as within countries, which can lead to uneven economic development. Implementation of AI varies across economies and is far from being unified. Most AI development and applications are currently produced in developed states and affluent economies. It could also broaden the already existing digital divide, given the fact that almost one-third of the world's population, i.e., around 2.6 billion people, are still offline. According to the OECD findings, AI may have the potential to recover slow productivity growth and lead to gains in aggregate welfare. But it could also worsen distributional divides and create wider societal risks, which could rebound on AI developments and productivity. World Bank assesses that the aforementioned, AI-related, widening of the gap between the rich and the poor countries could manifest in several manners. Historically, as with all industrial improvements and progress, AI would likewise generate most wealth and income in the richest, highly developed countries since the majority of AI technologies are developed and utilised in those very countries. The AI "frontrunner" states are also likely to reap all or most of the gains and profits brought by these innovative technologies, thus making themselves the "superstar countries" in this field, but also in the field of GDP and their respective position in the world. The remainder of the world could very easily be left behind, hence the governments' necessity to keep up with AI trends and developments in this new industrial race. The current advantage of middle to low-income countries, in economic terms, namely their low price of labour and natural resources, makes them interesting for investors. These practices could very likely be reversed in a not-so-distant future, as the degree of automation in labour has a high probability of replacing human workers, thus making large workforces obsolete, and erasing countries' comparative advantages in terms of the global economic game.

21. The effects of AI on jobs and the labour market sphere are seen as both an opportunity and a complex challenge in economic policy discourse, especially as these impacts are intricate and multifaceted, with both immediate effects and long-term consequences. The rapid advances and proliferation of AI, particularly generative AI, are expected to restructure labour markets and have an impact on both the quantity and quality of employment. There are prospects and risks that AI may present for employment, including potential job creation in new sectors and the risk of job displacement in traditional industries. The exact impact of AI on employment volumes is hard to predict, but it is certain that advancements in contemporary AI in the field of robotisation could lead to an even greater automation. Current estimates by the IMF are that AI could affect 40 % of jobs, with up to one-third in advanced economies at risk of automation. According to the World

Economic Forum's 2025 Future of Jobs Survey, 86 % of employers expect AI and related technologies to significantly transform their business by 2030. The International Labor Organization stresses that the impact of AI on employment varies widely across countries depending on income levels and occupational structures. AI will affect workers differently depending on their occupational exposure to the technology and the extent to which it will automate or augment their work. However, it should be noted that AI also provides new opportunities for job creation and the development of new professions in areas such as data annotation, engineering, and machine learning modelling. AI might contribute not only to the disappearance of jobs but also to their evolution.

22. Despite the announced economic gains from AI systems, they bring many unique risks resulting from the opacity of their decisions, embedded biases, vulnerability to manipulation, and privacy concerns, to name but a few. Risks also stem from the potential emergence of Artificial Superintelligence, which may surpass human intelligence in all areas. Governments worldwide strive to regulate this fast-evolving technology to mitigate economic, societal, and ethical risks of AI systems and ensure AI advances people's lives without threatening their wellbeing and rights. Efforts to regulate AI present an immense challenge, given the wide range of systems that the broad term AI can cover. National policies must steer the complexities of AI, addressing the interconnectedness of economic growth, efficiency, productivity, transparency, privacy, and societal impacts while keeping pace with technological evolution.

III NATIONAL AI POLICIES OF THE BSEC MEMBER STATES-ECONOMIC ASPECTS

23. ***The Republic of Armenia*** is taking steps to keep pace with global technological progress and more effectively utilise its AI potential. AI development has been carried out simultaneously in several interconnected areas, shaping the holistic and systemic development in the field.

24. The Ministry of High-Tech Industry, as the policy-making body in the fields of digitalisation and high technology, attaches great importance to the development of AI. AI development has been identified as one of the Government's priority areas for the first half of 2025. The Ministry is currently developing a draft Government Decree "On Approving the Pilot Program and Procedure for Providing State Access to High-Performance Computing Resources in the Field of AI," regulating the procedures and conditions for providing state access to high-performance computing resources in the field of AI.

25. In July 2025, the Ministry of High-Tech Industry, with the support of Amazon Web Services and Mistral AI, a leading European AI company, launched the "Virtual Institute of Artificial Intelligence", a strategic initiative aimed at becoming an open platform for innovation and collaboration. With the support of the Armenian government, FirebirdAI, in partnership with NVIDIA, will build the region's most powerful supercomputer and AI data centre in Armenia, costing approximately 500 million USD. The Armenian government has established special conditions for large-scale technological investments, including tax incentives, simplified procedures, and coordinated state-level cooperation. This approach has significantly increased the confidence of investors and international partners and contributed to Armenia's selection as the location for the regional supercomputer centre.

26. ***The Republic of Bulgaria*** is at a key moment in which the development of artificial intelligence can become a major driver of economic growth and sustainable development, supported by a strong ICT sector, European funding programs, the Discoverer supercomputer, and initiatives such as the upcoming AI factory BRAIN++. Studies show that widespread adoption of generative AI could increase the country's annual GDP by several billion euros over the next decade. The current share of enterprises using AI is around 7 %, which provides an opportunity for significant economic development.

27. Artificial intelligence contributes to Bulgaria's economic development through several key interconnected channels. The greatest effect will be to increase the productivity of individual employees in various fields. The development of new AI products and services from the business ecosystem, as well as from institutions such as the Institute for Computer Science, Artificial Intelligence and Technology (INSAIT), the Big Data for Smart Society Institute (GATE), the Discoverer supercomputer in Sofia Tech Park, and the associated future BRAIN++ AI factory, will help accelerate the growth of the sector. Attracting foreign investment will be supported by the availability of talent, competitive costs, and sustainable energy infrastructure, which will help accelerate the digitalisation of Bulgarian enterprises.

28. Bulgaria is committed to reducing greenhouse gas emissions in the energy sector by 40 % by 2025, with AI technologies optimising energy systems, for example, through smart grids that improve the integration of solar and hydroelectric power and reduce dependence on coal. In the buildings sector, AI-based systems reduce energy consumption by up to 30 %, while increasing comfort and reducing costs. In terms of the circular economy, AI platforms support industrial symbiosis through machine learning, which allows for the efficient exchange of waste and resources between enterprises, following the principles of Industry 5.0. When building AI infrastructure, sustainability is critical, with Bulgaria leveraging the benefits of low-carbon nuclear energy provided by the Kozloduy Nuclear Power Plant to power artificial intelligence factories like BRAIN++. In transport and logistics, Bulgarian companies are applying AI for optimization, which reduces fuel consumption and environmental footprint while improving the quality of services.

29. ***The Hellenic Republic*** introduced the national AI strategy in November 2024 to drive sustainable socio-economic growth. It envisages AI implementation in the fields of healthcare, education, social protection, and public administration. The main goals are to improve public services, support inclusive education, enhance healthcare, and reduce inequalities, while ensuring ethical and responsible AI use. To implement the AI strategy, the Hellenic Republic launched several key initiatives. The AI Factory "PHAROS" will rank among Europe's top 13 factories and will support AI applications in health, sustainable development, culture, and language. The second AI Factory, "PHAROS 2", is also proposed, focusing on energy and agriculture. Furthermore, the "Smart Manufacturing" Program, supported by the National Recovery and Resilience Plan, helps SMEs to digitise their operations and adopt AI and Big Data technologies. It enhances competitiveness and industrial resilience and has been recognised as Good Practice by the OECD.

30. As an EU member, the Hellenic Republic integrates its AI strategy into the EU's regulatory framework. The EU identifies "critical technologies" as vital for security, prosperity, and strategic autonomy, with AI, semiconductors, quantum technologies, and biotechnology ranked as highly sensitive and essential for competitiveness and the green–digital transition.

31. In January 2022, the Hellenic Republic founded the "Archimedes" Centre for Research in AI, Data Science, and Algorithms under the Athena Research Centre, funded by the EU Recovery and Resilience Facility. It supports basic and applied research and encourages international collaboration and research hubs to create "islands of excellence".

32. *The Republic of Moldova* has engaged in the strategic development of its artificial intelligence ecosystem, integrating it into the national legislative and strategic framework, while closely aligning with European initiatives and standards. This multi-functional approach aims to harness AI for socio-economic growth, sustainable development and improved public services.

33. The AI Factory Antenna Moldova (AIFAM) represents a strategic initiative designed to accelerate national artificial intelligence capabilities and digital transformation, in line with the EuroHPC JU objectives of providing European startups, industrial, and scientific communities with improved access to AI-optimised computing capacities. The AIFAM will focus on sectors vital to the Republic of Moldova's economy and social well-being, including precision agriculture and sustainable agriculture, healthcare, public sector, big data and AI in e-government, the data and IT services sector, and cybersecurity.

34. The Digital Transformation Strategy of the Republic of Moldova (2023–2030) aims to create an innovative and inclusive digital society. It pursues six general objectives, with a Medium-Term Implementation Programme (2025-2027): digital society; robust and competitive ICT sector; innovative and resilient digital economy; efficient, smart and transparent digital state; accessible, secure and inclusive digital environment; strengthening the image of the Republic of Moldova as a digital nation.

35. *The Republic of North Macedonia* has recognised the importance of artificial intelligence as a strategic priority for its digital transformation agenda and long-term economic modernisation. While AI law is under development, AI has been incorporated into key state policies to promote innovation and the digital economy. The AI Strategy 202 -2027 includes specific measures to promote AI adoption in the following economic sectors: agriculture-smart farming, crop monitoring, and climate prediction systems; healthcare: AI-assisted diagnostics and predictive models for resource allocation; transport and urban planning - intelligent traffic control systems; banking and finance-fraud detection systems and customer analytics.

36. Incentives for private sector adoption are in place, including tax benefits for AI-related R&D, grants from the Fund for Innovation and Technology Development, and support for startup accelerators. The integration of AI technologies has started to show a positive impact on productivity and innovation capacity, especially in SMEs. Key contributions include economic competitiveness: boosting digital entrepreneurship and high-value services; labour market transformation-encouraging reskilling and digital upskilling initiatives; green economy-supporting energy efficiency and circular economy models through AI-driven analytics; etc. The Government estimates that AI will contribute between 1.5 % and 2 % to GDP growth annually by 2030, if current trends and investments are sustained.

37. *Romania* aims to become a regional hub for AI research, development, and deployment, promoting an ethical, human-centred, and sustainable approach to AI. It has announced its intention to host the Black Sea AI Gigafactory, to develop AI capacity and enhance collaboration with EU and non-EU states in the Black Sea region through innovation, technological sovereignty, cybersecurity, inclusion, and resilience. The Black Sea AI Gigafactory, as a part of a European

strategic initiative focused on strengthening AI capabilities, will provide innovative infrastructure for Romania, the Republic of Moldova, the Republic of Türkiye, and Ukraine.

38. Romania has a comprehensive strategic framework comprising three national strategies: research, innovation, and smart specialisation; artificial intelligence; and quantum technologies. These strategies aim to enhance the role of science, research, and innovation as the main drivers of economic growth, paving the way for the integration of digital technologies, particularly artificial intelligence, into the economy and social life. They also aim to facilitate the country's technological advancement, boost the business environment, and expand cooperation among governmental institutions, research and academic communities, and the private sector.

39. The National Strategy in the Field of Artificial Intelligence (SN-AI) seeks to contribute to the adoption of digital technologies in the economy and society. General objectives of the Strategy are increasing economic competitiveness through the adoption of AI in the public and private sectors; developing a robust AI ecosystem based on innovation, education, and collaboration; ensuring responsible and ethical governance of AI, in line with EU law; and increasing citizens' trust in AI technologies through transparency and the protection of fundamental rights. One of the strategic pillars of the Strategy is the adoption of AI in the private sector by incentivising companies to integrate AI through financing schemes and tax cuts; supporting the adoption of AI in key industries (e.g., IT, agriculture, health, energy), etc.

40. *The Republic of Serbia* actively promotes the development and application of AI-based solutions. It has adopted the Artificial Intelligence Development Strategy for the period 2025-2030 that identifies the following key objectives: enhancement of the legal and institutional framework; support for AI development and scientific research; human resource and capacity development; development of computing and other hardware infrastructure, as well as ecosystem connectivity; improved data governance; support for the implementation of AI-based solutions.

41. It is planned to undertake a range of activities aligned with each of these objectives, including: adoption of an AI-specific law; support for development projects; support for reskilling and upskilling programmes; curriculum improvements in schools; enhancement of computing capacity; development of language resources; creation of data management systems and investment in agriculture, energy, healthcare, and other sectors.

42. The Republic of Serbia has established the Ethical Guidelines for the Development, Implementation and Use of Trustworthy and Responsible Artificial Intelligence, which are intended to steer the development and application of AI in line with recognised principles of the EU, UNESCO, OECD, and other international bodies. Furthermore, Serbia has enacted legislation that enables the testing of motor vehicles with automated control systems ("autonomous vehicles") up to Level 4 on public roads. Serbia also established a Council for Artificial Intelligence, which is responsible for the implementation of the Strategy and coordination in this domain.

43. *The Republic of Türkiye* is accelerating the integration of AI into socio-economic development through national strategies, international studies, and comprehensive programs, directly contributing to economic growth and working towards achieving sustainable development goals. AI technologies are rapidly spreading across critical sectors such as agriculture, industry, energy, healthcare, transportation, and finance. Smart agricultural practices increase productivity, while AI-powered industrial production and robotic automation enable the development of high-value-added products. AI algorithms increase energy efficiency in the energy sector and contribute

to improving diagnostic and treatment processes in the healthcare sector. Such cross-sectoral integration is accelerating the country's economic digital transformation and laying the foundation for sustainable development.

44. Within the scope of the 2030 Industry and Technology Strategy elaborated by the Ministry of Industry and Technology, AI has become a fundamental tool that strengthens Türkiye's technological independence, transforms competitive industry, and provides a strategic advantage in the global balance of power. In this context, the development of domestic generative AI models has become a priority. In addition, the ongoing Artificial Intelligence Supercomputer Investment Program aims to strengthen the country's data processing and high-computing capacity. The Digital Transformation Support Program assesses the digital maturity levels of small, medium-sized, and large enterprises operating in the manufacturing industry and encourages digitalisation investments in line with roadmaps and investment plans.

45. Significant investments are also being made in the field of space and satellite technologies. New generation satellite systems are being developed, and the design, production, and testing processes of critical technologies and subcomponents are being supported by AI. Pre-Competitive Collaboration Projects, which are carried out in this field, aim to increase domestic and national technology development capacity through high-amount grants. To maximize the opportunities offered by AI technologies, Türkiye prioritizes strengthening human resources and technological infrastructure.

46. The Artificial Intelligence Research Commission, established within the Grand National Assembly of Türkiye (GNAT), is a crucial component of this transition. The Commission has worked in numerous sectors such as informatics, agriculture, healthcare, and industry. During this process, the opportunities and risks of artificial intelligence were addressed in a holistic manner at the Commission meetings attended by representatives of the public sector, private sector, academics, and civil society members. These efforts, conducted at the parliamentary level, aim to establish a solid foundation for Türkiye's artificial intelligence vision, encompassing ethical, legal, and economic dimensions.

47. The development of artificial intelligence technologies in *Ukraine* is carried out based on a holistic state policy that combines institutional coordination, regulatory and legal regulation, and the implementation of practical projects. According to the results of the study "AI – Ecosystem of Ukraine: Talents, Companies, Education", prepared by the Ministry of Digital Transformation of Ukraine together with AI House (2024), there are more than 250 companies in Ukraine that develop or integrate AI solutions, and about 30 thousand specialists working in the field of data and machine learning. The Ukrainian AI market demonstrates high average annual growth rates.

48. The priority areas for the development of the artificial intelligence industry are education and vocational training, science, economy, cybersecurity, information security, defence, public administration, legal regulation and ethics, justice, etc. Measures are being taken to: stimulate the development of entrepreneurship in the field of AI by ensuring access of innovative enterprises to investments, partnership with venture funds, organization of business events with the participation of Ukrainian IT entrepreneurs abroad, improvement of the business climate, provision of predictable tax policy, creation of closed information environments for isolated testing of AI technologies, development of computing infrastructure, etc.; motivating business entities to implement AI technologies to increase efficiency by ensuring accessibility to AI educational programs; developing a Roadmap for retraining people whose work may be automated in the next

five to ten years; introducing a state order for artificial intelligence systems, IT specialists and data researchers; stimulating state-business partnerships in the field of innovative projects, as well as improving legislation in the relevant field.

49. From the point of view of economic dynamics and ecosystem capacity, in 2024, Ukraine's real GDP grew by 2.9 %, which sets the macro context for assessing the contribution of the digital and AI sectors to economic recovery. According to the World Bank in 2024, the share of ICT services exports in total services exports was about 38.4 %.

IV INTERNATIONAL AND REGIONAL FRAMEWORK AND EXPERIENCE

The United Nations framework

50. The UN recognises both positive and negative aspects and the highly transformative nature of AI technology. It adopted the Resolution "Seizing the opportunities of safe, secure and trustworthy artificial intelligence systems for sustainable development" in 2024 as the first global regulation on AI.

51. The different bodies, agencies, and departments of the UN system have been exploring ways to use the potential of AI to direct change across their issue areas. In 2020, the Interagency Working Group on AI was established, co-led by ITU and UNESCO. It combines the technological and ethical pillars of the United Nations to provide a foundation for existing and future system-wide efforts on artificial intelligence with the aim of stepping up progress on the SDGs and ensuring respect for human rights. The Working Group prepared the United Nations System White Paper on AI Governance in 2023.

52. The UN and ITU, as a UN specialised agency on digital technology, have taken steps towards international coordination by articulating an approach for the UN system to support AI adoption in developing countries and by hosting the annual Artificial Intelligence for Good Global Summit in partnership with other United Nations entities and partners.

The Organization of the Black Sea Economic Cooperation (BSEC) framework

53. Artificial intelligence is currently undergoing development on a global scale, and the need arises to speed up the deployment of AI technology in the BSEC Member States, as well as to facilitate collaboration across AI in the region. The application of advanced and trustworthy AI technologies could lead to enhancing the economic prosperity of the Wider Black Sea Region, which is a matter of high relevance due to its strategic importance as one of the main suppliers of energy to the world market. Moreover, regional innovation systems are emerging as important drivers of AI transformation. They bring together government agencies, businesses, universities, research institutions, and regional organizations to facilitate knowledge exchange, pull local capacities, such as infrastructure and resources, together, including finance and data, and share experiences and best practices on AI use. The fields of scientific research, technological development, and advanced frontier technologies are major assets for the sustainable socio-economic development of the BSEC Member States. Likewise, regional cooperation in the field of AI could contribute to furthering the dynamic and sustainable economic growth and the prosperity of the peoples of the Wider Black Sea region.

54. The Organization of the Black Sea Economic Cooperation represents a central platform for member states to collaborate in various economic sectors. In the updated strategic BSEC document

"The BSEC Economic Agenda-Towards a sustainable future of the Wider Black Sea area" adopted on 15 December 2023, Goal 12 is dedicated to "a sustainable information society with advanced information and communication technology infrastructure" and Goal 11 to "strengthening regional cooperation in scientific research and technology". Goal 12 calls for enhancing cooperation of BSEC Member States on new trends in the information technology sector, such as digital transformation, 5G, artificial intelligence, blockchain, big data, quantum computing, i-Cloud, and e-government.

55. The main activities of the BSEC Member States in the above-mentioned fields are conducted within the BSEC Working Group on Information and Communication Technologies. The Republic of Armenia is the Country-Coordinator for the period until 31 December 2025. The priority areas of the WG Plan of Action are inter alia: exchange of ideas on developing joint projects on new trends in ICT sector, such as digital transformation, digital public infrastructure, biometric technologies, blockchain, big data, open data, quantum computing, e-government, robotics etc.; sharing experience and cooperation on cloud technologies, government clouds; cooperation on ICT innovation and start-ups, establishment of BSEC Innovation Cooperation Network; expansion of cooperation among Computer Emergency Response Teams for the experts from the BSEC Member States; promotion of collaboration among in the AI field with focus on ethical, transparent, and inclusive innovation. The Action plan recognizes the aim of the BSEC Member States to ensure the positive impact of AI technologies on their societies, economies, and environments, while upholding shared ethical principles and respecting diverse perspectives within the regional context. It is planned to discuss the AI topic at one of the upcoming meetings of the BSEC Working Group on Information and Communication Technologies.

The European Union framework

56. Artificial intelligence is high on the agenda of the EU. It governs the field in multifaceted ways, maintaining its own distinctive approach to AI, fostering AI innovation, and ensuring trustworthiness. Delivering on the European strategy for AI adopted in April 2018, the EU's AI Act (2024) aims to regulate the use of AI systems based on risk levels, reflecting a commitment to responsible development of AI. Moreover, the EU's pursuit of home-produced AI innovation highlights AI's critical importance in strengthening the EU's technological sovereignty and reducing strategic dependencies.

57. Through the Horizon Europe and Digital Europe programmes, the EU invests more than 1 bln EUR annually in AI, to mobilise additional investment from the private sector and the Member States to reach an annual investment amount of 20 bln EUR during this decade. There are more than 6800 AI startups in the EU. The 2024 AI Innovation Package puts forward a broad range of measures to support innovation through AI startups and SMEs. The 2025 AI Continent Action Plan sets the course for the European Union to become a leader in AI. The plan aims to increase economic growth, boost competitiveness, and strengthen European sovereignty with AI. It includes actions to support the development of robust computing infrastructure, improve access to data, promote AI adoption in strategic sectors, foster AI skills and talent, and facilitate the implementation of the AI Act. Key components include the establishment of a network of AI factories and gigafactories, the Invest AI Facility to stimulate private investment, and the launch of the AI Skills Academy. Invest AI aims to mobilise 200 bln EUR for AI investment, including a new European fund of 20 bln EUR for AI gigafactories.

58. According to the State of the Digital Decade 2024, the net impact of AI on Europe's economy is projected to contribute an additional 600 bln EUR to a previously estimated 2.8 trln EUR by 2030. The European Commission will allocate 1.3 bln EUR for the deployment of critical technologies through the Digital Europe Programme (DIGITAL) work programme for 2025-2027. The Programme focuses on the deployment of AI and its adoption by businesses and public administration, cloud and data, cyber resilience, and digital skills. The key priorities under the Programme include, inter alia, improving the availability and accessibility of generative AI applications and supporting the European Digital Innovation Hubs. GenAI4EU initiative represents funding opportunities amounting to almost 700 mln EUR to integrate generative AI across the EU's industrial systems, such as manufacturing and engineering, robotics, health, energy, agrifood, mobility, aerospace, etc.

59. The European High Performance Computing Joint Undertaking (EuroHPC JU) should be mentioned as it gathers the European Union and the EuroHPC JU participating countries to join forces in making Europe a world leader in supercomputing. Along the European Union, non - EU Member States that are the BSEC Member States participating in the EuroHPC JU are Albania, North Macedonia, Serbia and Türkiye.

The Organization for Economic Cooperation and Development (OECD) framework

60. The Organization for Economic Cooperation and Development is working with governments worldwide to measure and analyze the impact of AI on training needs and labor markets. It aims to help countries shape better AI-related policies through its standards, analysis, and recommendations, and support for policy reform. The OECD's Programme on AI in Work, Innovation, Productivity and Skills aims to produce thorough analyses, opportunities for international dialogue, and concrete policy assessments on how AI impacts labor markets and societies.

61. The OECD Recommendation on Artificial Intelligence, which was adopted in 2019 and revised in 2023 and 2024, defines five main AI principles for the responsible management of trustworthy AI. It also provides proposals for policymakers to invest in AI research and development; foster an inclusive AI-enabling ecosystem; shape an enabling governance and policy environment for AI; build human capacity and prepare for labor market transformation and cooperate for trustworthy AI.

V CONCLUSION

62. The 21st century brought the dynamic development of AI within the global economy, which is connected with the processes of strong computational power, big data, and the expansion of services. All these contribute to the rapid growth of the AI industry, the development of technologies, which, in turn, drive economic growth and productivity, and will contribute to industrial sustainability. Macroeconomic gains from AI depend on widespread adoption of technology and its fast-evolving capabilities. The countries of the Wider Black Sea Region closely follow the latest advancements in this area and invest in the expansion of AI technologies, in line with their socio-economic development, scientific and technical progress, and innovation capacity.

63. The transformative character of AI has a vast potential to increase productivity, growth, expand economic opportunities and improve societal wellbeing, as well as to accelerate and enable progress towards reaching the SDGs. However, if not managed properly, AI applications can also

pose various significant risks that, if left unaddressed, could have an impact on countries' economic growth and development trajectories, as well as human interests.

64. The BSEC Member States are adopting AI technologies as a catalyst for economic and social development while mitigating the associated risks. They are steering the AI transition and ensuring that AI is developed and implemented in a large variety of sectors of the economy and many parts of society in a way that is responsible and human-centred, and that improves individual and societal well-being. To effectively harness AI's full potential and manage AI-related harms, the BSEC Member States aim for a comprehensive approach to ensure AI's beneficial development and diffusion, responsible innovation, including measures to promote competition, enhance accessibility, AI education, and address job displacement and inequality. These frameworks must also consider specific issues of economic sectors. Good practices in this field are to be implemented by adapting them to each BSEC Member State dynamics. To maximise the opportunities offered by AI technologies, strengthening human resources and technological infrastructure should be prioritised. To minimise consequences of AI for job displacement and inequality, prompt action related to training, education and redistributive measures is needed. Open dialogue, making informed decisions regarding AI systems and collaboration among different stakeholders can also help adapt to changes brought about by AI.

65. AI technologies are considered the cornerstone of sustainable socio-economic development in the BSEC Region, and efforts are underway to maximise the economic impact of these technologies through national policies and regional cooperation. The ethical use of AI, compatible with development goals and respectful of human rights, should be encouraged, and efforts should continue to increase regional prosperity, innovation, and competitiveness through a shared vision and strong cooperation. Cooperation in various forms-bilateral, regional, and international- is to be promoted in order to stimulate development and enhancement of the AI industry and its spread across various economic sectors in the BSEC Member States. Collaborations and partnerships contribute to knowledge transfer and building of technological capabilities in science and the AI industry, as well as the technological progress and innovation in the region. The role of the BSEC and the PABSEC is to stimulate the processes of regional cooperation in this area by using the capacities within their own competences.