



www.amcham.hr

Američka gospodarska komora u Hrvatskoj | American Chamber of Commerce in Croatia

Zagreb, May 2025

# Accelerating AI Adoption in Croatia



# **Contents**

Introduction	2
EU steps and views on AI	2
Economic potential of AI	3
Croatia should become fast AI adopting economy	3
AmCham recommendations	4
Increasing public awareness of AI	4
AI adoption in public administration	5
Transforming the educational system	5
Promoting lifelong learning and labor market mobility	5
IT infrastructure at the center of AI development	6
Research and development subsidies	6
Enhanced utilization of EU funds	7
National Plan for the Development of AI	7
Regulatory sandboxes	8
Contributing to shaping EU AI policy	9
Conclusion	9





# Introduction

In the last 30 years, two technological achievements have dramatically changed the way we live and do business. In the mid-1990s, the Internet became publicly accessible and quickly became the center of global communication and information. Then, in 2007, the first smartphone appeared, which also revolutionized the world. Over the last 15 years, both personal and professional life have been unimaginable without (high-speed) internet and smartphones.

We are currently at the beginning of a new technological leap that will impact the way we live and conduct business – Artificial Intelligence (AI).

AI is the capability of computer systems to perform tasks commonly associated with human intelligence, including reasoning, discovering patterns and meaning, generalizing, applying knowledge across spheres of application, and learning from experience.

Some AI technologies have been around for more than 50 years, but advances in computing power, the availability of vast amounts of data and new algorithms have led to major breakthroughs in the field in recent years. AI is already part of daily life, from smart assistants helping us manage our schedules, set reminders, or answer quick questions to algorithms that curate content tailored to our interests and preferences.

In our workplaces, AI streamlines processes and boosts productivity. It helps filter spam from our inboxes, assists in data analysis, and even contributes to enhanced cybersecurity measures. As we navigate through city streets, AI optimizes traffic flow and powers navigation apps to find the quickest routes.

Continued development of AI presents a major opportunity for Croatia's economy. To harness AI's full potential, it is crucial to create an environment that supports its growth and application.

# EU steps and views on AI

AI is considered fundamental to the digital transformation of society and has become an EU priority. In August 2024, the EU adopted the **AI Act**, the world's first comprehensive AI regulation, setting obligations for AI systems based on their potential risks and level of impact. It is already applicable in all EU Member States, while the full implementation will occur gradually, with different provisions coming into effect at various dates until August 2, 2027.

The EU aims to strike a smart balance between ensuring safety and fostering innovation. Balancing these interests is a complex task and finding the right equilibrium could be crucial for the EU's competitiveness in the global AI landscape.

While many AI systems present minimal risk, from the EU's perspective it is important to carefully identify and control those with unacceptable (e.g. cognitive behavioral manipulation of people, social scoring systems, biometric identification systems) and high risk (e.g. management of critical infrastructure, education and vocational training, recruitment, law enforcement).

The AI Action Summit in Paris, held in February 2025 and attended by representatives from over 100 countries, including heads of state, government officials, international organizations, businesses, academia, and civil society, marked a significant shift in the EU's approach to AI. This strategic shift highlights the need to balance between regulation and innovation. By recalibrating its policies, the EU is positioning itself to compete more effectively on the global stage while maintaining its commitment to ethical AI development.

EU citizens should fully benefit from innovation and the same applies to AI. Potential risks of new technologies must be carefully balanced with fundamental rights, economic growth and competitiveness. Including both fundamental rights protection and the "right to innovate" in regulators' mission statements will ensure a balanced approach, leading to fairer outcomes that benefit society.





# **Economic potential of AI**

AI is rapidly transforming the way companies and governments operate. AI systems can, and will automate tasks, improve decision-making, and optimize processes, all of which can lead to significant cost savings. Numerous studies emphasize that AI will have a significant economic impact.

Research launched by consulting company Accenture<sup>1</sup> forecasts that by 2035, AI could double annual global economic growth rates. A study by McKinsey & Company<sup>2</sup> found that AI could deliver an additional economic output of around \$13 trillion by 2030, increasing global GDP by about 1.2% annually. This growth would be driven in part by cost savings, as AI systems automate tasks and make businesses more efficient.

PricewaterhouseCoopers (PwC)<sup>3</sup> study comes to a similar conclusion. They estimate that global GDP may increase by up to 14% (the equivalent of \$15.7 trillion) by 2030 as a result of the accelerating development and take-up of AI. Also, they found that AI could save businesses up to \$1.2 trillion annually by 2030 and could help businesses to improve their productivity, innovation, and customer satisfaction.

IDC<sup>4</sup> released a significant study in September 2024, which provides key insights into AI's economic impact. AI is projected to contribute \$19.9 trillion to the global economy by 2030 and it is expected to drive 3.5% of global GDP in 2030. AI is predicted to reshape industries, create new markets, and alter the competitive landscape. Technology is entering a phase of accelerated development and deployment, leading to increased enterprise investments.

Another study, by the World Economic Forum<sup>5</sup>, found that AI could create up to 90 million new jobs by 2030, while displacing 75 million jobs. The net impact on employment would be positive, but the study also found that there would be a significant redistribution of jobs, with some sectors being more affected than others. The International Monetary Fund (IMF) report<sup>6</sup> has reached a similar conclusion, stating that AI is anticipated to impact approximately 40% of jobs globally.

Finally, several studies (OECD<sup>7</sup> and others) highlight the enormous potential that can be unlocked through the adoption and use of AI in the public sector, notably in enhancing productivity, improving the responsiveness of public services, and strengthening government accountability.

In summary, the economic potentials of AI are enormous, and it's crucial for Croatia to recognize these potentials in a timely manner.

# Croatia should become fast AI adopting economy

AI will once again disrupt the status quo, allowing countries that harness its benefits to make rapid economic progress. AI presents a significant opportunity for Croatia to achieve robust economic growth and make a substantial leap forward in a short period.

Also, the smart use of this advanced technology can contribute to more efficient government operations, development of data-based public policies, personalization of public services, relief of administrative burden, more efficient communication between public authorities and citizens, and better collaboration between the private and public sectors. To maximize this potential, Croatia should be proactive in developing its National Plan for the Development of Artificial Intelligence.

Croatia has taken the first step in this direction by introducing the Digital Strategy of Croatia for the Period Until 2032. That Strategy defines the guidelines for a green and digital transformation of



Accenture, "The art of AI maturity", June 2022

Accenture, "The art of AI maturity", June 2022

McKinsey & Compan, "Notes from the AI frontier: Modeling the impact of AI on the world economy", September 2018

PwC, "The macroeconomic impact of AI", February 2018

IDC, "The Global Impact of Artificial Intelligence on the Economy and Jobs", September 2024

World Economic Forum, "The Future of Jobs Report 2018', September 2018

International Monetary Fund, "Gen-AI: Artificial Intelligence and the Future of Work", January 2024

Governing with artificial intelligence: are governments ready?, June 24



Croatia, as a precondition for sustainable economic growth and social development. In addition, this Strategy envisions the application of advanced technologies, including AI. The importance of AI is emphasized not only for the digital transformation of the economy but also for the digital transformation of public administration.

Equally, the implementation of the AI Act at the national level in Croatia must be carefully managed and prioritized. While striving to meet the EU's goals for digital transformation and the use of AI, it is important to avoid imposing additional burdens on businesses and public administration that could stifle innovation and competitiveness. To support long-term growth, Croatia should also actively contribute to shaping future AI policies advocating for a balanced pro-innovation approach at the EU level.

All of this will enable Croatia to make a more substantial contribution to the EU's goal in line with EU Digital Decade Policy Programme 2030, which anticipates that at least 75% of companies in the EU will use cloud computing services, big data, and AI in their operations.

In this fast-paced digital era, swift and strategic actions are essential for staying competitive and relevant.

# **AmCham recommendations**

# Increasing public awareness of AI

Several recent studies<sup>8</sup> have examined public awareness and attitudes towards AI, revealing a complex picture of growing recognition but mixed feelings about its incorporation into daily life. These studies highlight a growing awareness of AI among the general public but also reveal persistent concerns and a cautious approach to incorporating AI into everyday life.

Most people in Europe believe that digital technologies, including AI, have a positive impact on their jobs, the economy, society, and on quality of life. Although the potential benefits of AI are widely acknowledged, a significant segment of the population remains cautious or uncertain about its implications. Primarily around ethical and bias issues, misinformation, security and privacy risks, and job displacement.

To mitigate the general public's reluctance to adopt AI, several strategies can be implemented:

- Launch and support comprehensive public awareness campaigns aimed at demystifying AI and its applications across traditional and social media,
- showcase tangible benefits of AI in everyday life, such as improved healthcare diagnostics or more efficient public services,
- educate users to help them understand how to effectively and responsibly use AI tools, maximizing their benefits while minimizing risks and misconceptions,
- promote reskilling programs and emphasize AI's role in augmenting, rather than replacing, human jobs.

By implementing these measures, the Government can help build public trust in AI technologies and encourage wider adoption across society.

Collaboration between the public and private sectors is essential for effective awareness campaigns. Therefore, the public sector should also actively support and amplify initiatives led by businesses and civil society associations, ensuring broader reach and impact. Likewise, joint efforts can leverage resources, expertise, and networks from both sides, creating more compelling and influential campaigns.



<sup>&</sup>lt;sup>8</sup> UK Government, "Public attitudes to data and AI: Tracker survey report", December 2024; Stanford University, "AI Index Report 2024", April 2024; Pew Research Center, "Public Awareness of Artificial Intelligence in Everyday Activities", February 2023.

<sup>&</sup>lt;sup>9</sup> European Commission, "Artificial Intelligence and the future of work", February 2025.



#### • AmCham's proposal:

Build public trust by showcasing real-world examples of AI solutions that improve quality of life through all available communication channels. Help users understand how to effectively and responsibly use AI tools, maximizing their benefits and minimizing risks and misconceptions.

## AI adoption in public administration

AI adoption can significantly accelerate the digital transformation of Croatia's public administration, but execution is challenged by lack of expertise. Despite being the largest tech investor in absolute numbers, the Government lacks a cohesive strategy. To boost AI adoption in public administration, we recommend collecting feedback and valuable data directly from citizens through dialouge, preferably using AI tools, and identifying key public-sector use cases. Further, we suggest involving the private sector in the selected cases through public tenders or public-private partnerships. This approach would tap into the private sector's capabilities and help ensure a successful and efficient transition into the digital age.

The proposed solution yields a dual positive impact - in addition to the benefits realized in the public sector, it also enables the private sector to acquire additional expertise during the process and generate more employment opportunities.

#### • AmCham's proposal:

Develop public AI solutions relevant for citizens and utilize the private sector to achieve effective digital transformation of public administration and AI implementation.

# Transforming the educational system

The Government should take immediate steps to adopt AI-related subjects into school and university curricula. This includes an analysis of the overall educational process, since AI is affecting all scientific fields.

Educational programs should recognize two key areas: standalone AI-focused programs that deal with AI or its fundamental components and programs that cover other fields that can benefit from introducing AI as a tool. Both students and teachers will need support, requiring a well-thought-out approach.

These concrete measures will equip students with the skills needed to succeed in an AI-driven job market and foster a workforce capable of driving innovation.

#### • AmCham's proposal:

Define a long-term plan for integrating AI literacy into the core components of modern education to keep pace with rapid technological advancements.

# Promoting lifelong learning and labor market mobility

The rapid advancements in AI and automation are transforming industries and the job market at an unprecedented pace. To thrive in this evolving landscape, individuals must continuously acquire new skills and adapt to changing technologies.

Several studies<sup>10</sup> and initiatives demonstrate a growing focus on leveraging AI to create new job opportunities rather than simply displacing existing roles. They emphasize the importance of reskilling and upskilling to prepare workers for these emerging positions.



World Economic Forum, "Jobs of Tomorrow: Large Language Models and Jobs", September 2023; World Economic Forum, "The Future of Jobs Report 2023", April 2023.



This underscores the critical role of the Government in fostering lifelong learning, by investing in affordable and accessible education and training programs. This can include subsidies for online courses, vocational training, and upskilling programs.

Further, the Government can encourage businesses to create a culture of continuous learning by providing incentives or tax benefits to companies that invest in employee development. Additionally, the Government can support initiatives that promote digital literacy and access to information, ensuring that citizens are equipped to navigate the digital age.

A notable initiative is the "National data platform to labor market mechanics and dynamics" developed by Ministry of Labor, Pension System, Family and Social Policy (MRSOP), as unique EU digital tool able to track individual educational and labor market paths for every city in Croatia. Another notable project is the voucher system launched by the Croatian Employment Service (HZZ). Voucher system along with similar initiatives across the EU is to be improved into Individual Learning Accounts¹2 project with aim to empower all adults to continuously develop their skills throughout their working lives, regardless of their employment status.

#### • AmCham's proposal:

Continued implementation of lifelong learning programs focused on digital skills and AI, in collaboration with both public and private education providers.

## IT infrastructure at the center of AI development

While the public often perceives AI advancements as primarily software-driven, the true driving force behind rapid AI progress lies in its underlying IT infrastructure - high-performance computing power, robust storage solutions, and seamless networking. As AI models grow in complexity, infrastructure limitations are becoming the biggest bottleneck to further advancements.

For Croatia to play a significant role in the AI revolution, the Government should take decisive action in encouraging development of AI-centric IT infrastructure. This includes expanding data centers, deploying high-speed fiber-optic networks and ensuring access to affordable renewable energy.

Key actions include establishing a national AI supercomputing center or providing funding to expand existing HPC facilities to provide universities, research institutions and startups with access to cutting-edge GPUs, TPUs and quantum computing resources that would accelerate AI innovation. Collaboration with industry leaders through public-private partnerships can help build and maintain these facilities efficiently while also encouraging private sector innovation. Additionally, introduction of tax incentives or subsidies for data center expansion could attract investment in fiber-optic networks, edge computing and AI-dedicated cloud services.

By combining these strategies, Government can play a pivotal role in building a robust, scalable and accessible AI infrastructure that drives competitive AI development and innovation across industries.

#### • AmCham's proposal:

Establishing national High-Performance Computing or supporting expansion of existing HPC facilities.

Attract investments in AI-centric infrastructure through tax incentives and subsidies.

# Research and development subsidies

The Government is encouraged to implement adequate policy procedures to record data on R&D, both in academia and industry, as the current process is unorganized and ineffective. Once in place, financial support in the form of grants, subsidies or tailored tax incentives and credits for companies engaged in AI research and development can be introduced. These resources have to be channeled



<sup>11</sup> https://trzisterada.gov.hr/

https://year-of-skills.europa.eu/news/individual-learning-accounts-where-are-we-now-2023-11-21\_en



into research, development and implementation efforts and can help offset the costs associated with innovative AI projects or ease pressure on long-term investment plans.

Stable financing is one of the most important elements for innovation. Any insecurity or delay in the financing, like delayed R&D call, delayed or non-transparent evaluation process, limited types of funding lines, result in direct damage to the ecosystem. Timing and planning are very important for the process of "capturing innovation value". If R&D tenders are not managed properly it results in an erosion of the quality of ideas, therefore cannot produce full-fledged candidates for technology transfer. It is important to increase the number of grant applications at the EU level which are more competitive, and to implement clear reporting policies on R&D investment and impact on national level.

#### • AmCham's proposal:

Implementing a robust and usable reporting system to record R&D investments and impact. Introducing various types of financial aid for companies engaged in AI research and development.

#### Enhanced utilization of EU funds

A stronger focus on directing EU funds towards the development of new technologies will further strengthen the economy and pave the way for Croatia towards comprehensive digitalization of society. From a national-level strategic planning standpoint, the incorporation of AI and Big Data into the proposed draft of Smart Specialization Strategy until 2029 (S3) is undeniably a beneficial aspect.

While the previous experiences within the context of available EU co-financing, referring to the current period of 2021-2027, have been positive, there is room for additional emphasis on the use of advanced technologies.

In the pursuit of enhancing the integration of digital technologies, there is room for improvement in facilitating the co-financing of what are commonly referred to as "cloud" solutions, or more precisely, "licensed solutions". An excellent illustration of a call that has addressed this is the NRRP Call for "non-repayable grants for digitalization".

This type of solution is extremely important in increasing the penetration of AI and Big Data technologies in the economy, considering that solutions and services in the market with integrated advanced technologies are, in most cases, based on a licensing model – monthly subscriptions. Market trends of all major ICT technology and equipment suppliers and manufacturers are increasingly leaning towards these licensing models.

Finally, the InvestAI Initiative was launched in February 2025 at the AI Action Summit in Paris, which aims to mobilize €200 billion for AI investments across Europe and includes a dedicated €20 billion European fund to develop AI gigafactories.

#### • AmCham's proposal:

A stronger focus on utilizing EU funds for AI adoption and development can significantly boost economic growth.

## National Plan for the Development of AI

The Government initiated work on a national AI strategy in 2018 through the Ministry of Economy and Sustainable Development, establishing a working group for drafting the document. Early drafts aligned with the EU's 2018 Coordinated Plan on AI, emphasizing ethical frameworks, workforce reskilling, and public-sector adoption. However, the document missed its original 2019 completion deadline mainly due to the COVID-19 pandemic's disruptive impacts and has not advanced beyond its draft stage to this day.

As outlined in the Government's 2024-2028 Work Program, the plan is to adopt the National Plan for the Development of Artificial Intelligence to facilitate and encourage the development and adoption of AI-based services, while ensuring safe and reliable AI use. To make this strategy effective, an





accompanying Action Plan is needed to drive implementation, promote innovation and create opportunities for businesses, researchers and policymakers to fully harness the benefits of AI.

#### AmCham's proposal:

Prompt adoption of the National Plan for the Development of Artificial Intelligence and an accompanying Action plan could help foster a positive AI environment and create greater opportunities for all stakeholders to fully harness the benefits of AI.

# Regulatory sandboxes

Under the EU AI Act, each Member State must ensure that its competent authorities establish at least one AI regulatory sandbox at national level, which must be operational by August 2026. That sandbox may also be established jointly with the competent authorities of other EU Member States.

The EU AI Act envisions regulatory sandboxes as a key mechanism to foster innovation in AI while ensuring compliance with regulatory requirements. The aim is to reduce barriers to entry and lower the cost of innovation, especially for SMEs and startups.

Sandboxes are controlled environments that allow AI providers to develop, train, test, and validate innovative AI systems before market deployment. They foster a collaborative relationship between innovators and regulators by providing a space for direct interaction and information sharing. Sandboxes allow for experimentation with actual customers and market conditions, while still maintaining regulatory oversight.

Regulatory sandboxes should follow relevant standards like ISO 42001 and actively participate in EU initiatives which shape the AI ecosystem. These include: Joint Action Towards the European Health Data Space (TEHDAS)<sup>13</sup>, Big Data Value Association/Data, AI and Robotics (BDVA/DAIRO) iSpaces<sup>14</sup>, Euro HPC<sup>15</sup> and AI Factories<sup>16</sup>.

The following recommendations outline key principles for establishing agile, risk-based, and sectorspecific AI sandbox framework that will enable the competent regulators to adapt the rules dynamically, while ensuring higher scrutiny in sensitive sectors such as healthcare, finance, and law enforcement.

- 1. Legislative Approach: a hybrid regulatory approach comprising both (i) a general legislative framework ensuring consistency by establishing core principles for AI sandboxes across sectors and (ii) sector-specific regulations to address unique risks and compliance requirements in industries such as healthcare, finance, and law enforcement.
- 2. Public-Private Collaboration: engaging all relevant stakeholders (the Government, regulatory bodies, industry leaders, academia, and civil society) early in the development process to ensure a balanced approach to innovation and regulation.
- 3. Risk-Based Approach & Industry-Specific Restrictions: prioritizing the testing and regulation of high-risk AI systems, such as Healthcare & Biotech, Finance & Insurance, Critical Infrastructure & Energy, Law Enforcement & Public Safety.
- 4. Resource Allocation for SME and Start-up Support: offering financial and technical assistance to smaller organizations to ensure they have the necessary resources to participate effectively.
- 5. Exit Strategy & Scaling Pathways: defining clear conditions for transitioning AI solutions from the sandbox to the broader market.

14 https://bdva.eu/what-are-i-spaces/



<sup>13</sup> https://tehdas.eu/tehdas1/

https://deurohpc-ju.europa.eu/index\_en https://deurohpc-ju.europa.eu/index\_en https://digital-strategy.ec.europa.eu/en/policies/ai-factories



## • AmCham's proposal:

In addition to the regulatory sandboxes established pursuant to the EU AI Act, development of local and/or regional sandboxes following the guidelines above is recommended.

# Contributing to shaping EU AI policy

It is crucial for Croatian decision-makers to actively engage in future EU-level discussions on shaping AI policy. It is essential to advocate for a balanced, pro-innovation approach aligned with the adopted EU AI Act. This would help ensure regulations support, rather than hinder, Europe's overall competitiveness, AI adoption and innovation.

At the national level, implementing the EU AI Act should be carefully managed. While Croatia should strive to meet the EU's goals for digital transformation and the use of AI, it is important to avoid imposing additional burdens on businesses and public administration. To achieve this, it is important to consult industry stakeholders to ensure that policies are practical, business-friendly and foster AI-driven advancements. By focusing on efficient government operations, data-driven policies and the personalization of public services, Croatia can leverage AI to achieve economic growth and social progress while maintaining a competitive and innovation-friendly environment.

#### • AmCham's proposal:

The Government should actively engage in future EU-level discussions on shaping AI policy advocating for a balanced, pro-innovation approach, to ensure that the regulatory framework facilitates AI adoption, innovation and economic growth.

# Conclusion

AI isn't just a tool - it's a catalyst for a smarter, faster, and more capable future, a future where intelligence works alongside us, amplifying what humanity does best. The sooner we harness its power, the sooner we redefine what's possible.





#### Increasing public awareness of AI

- Build public trust by showcasing real-world examples of AI solutions that improve quality of life through all available communication channels.
- Help users understand how to effectively and responsibly use AI tools, maximizing their benefits and minimizing risks and misconceptions.

#### AI adoption in public administration

- Develop public AI solutions relevant for citizens and utilize the private sector to achieve effective digital transformation of public administration and AI implementation.

#### Transforming the educational system

- Define a long-term plan for integrating AI literacy into the core components of modern education to keep pace with rapid technological advancements.

#### Promoting lifelong learning and labor market mobility

- Continued implementation of lifelong learning programs focused on digital skills and AI, in collaboration with both public and private education providers.

#### IT infrastructure at the center of AI development

- Establishing national High-Performance Computing or supporting expansion of existing HPC facilities.
- Attract investments in AI-centric infrastructure through tax incentives and subsidies.

#### Research and development subsidies

- Implementing a robust and usable reporting system to record R&D investments and impact.
- Introducing various types of financial aid for companies engaged in AI research and development.

#### **Enhanced utilization of EU funds**

- A stronger focus on utilizing EU funds for AI adoption and development can significantly boost economic growth.

## **National Plan for the Development of AI**

 Prompt adoption of the National Plan for the Development of Artificial Intelligence and an accompanying Action plan could help foster a positive AI environment and create greater opportunities for all stakeholders to fully harness the benefits of AI.

#### **Regulatory sandboxes**

In addition to the regulatory sandboxes established pursuant to the EU AI Act, development of local and/or regional sandboxes following the guidelines above is recommended.

# Contributing to shaping EU AI policy

- The Government should actively engage in future EU-level discussions on shaping AI policy advocating for a balanced, pro-innovation approach, to ensure that the regulatory framework facilitates AI adoption, innovation and economic growth.





For additional information, please contact: American Chamber of Commerce in Croatia

Andrea Doko Jelušić | Executive director

T: 01 4836 777 | E: <u>andrea.doko@amcham.hr</u>

