

SOCIAL PARTNERS TOGETHER TOWARDS A BETTER AND EFFECTIVE REGULATION OF ARTIFICIAL INTELLIGENCE FOR A JUST TRANSITION TO THE WORK OF THE FUTURE

**TransFormWork 2** Project 101145650



The project is implemented with the Financial Support of the European Commission – Employment, Social Affairs and Inclusion DG, SOCPL-2023-SOC-DIALOG The sole responsibility of this National Report lies with the author and the European Commission is not responsible for any use that may be made of the information contained here.

Confederation of Employers CONCORDIA (CPC)

# NATIONAL REPORT ROMANIA

Liviu Neagu/CPC Concordia, Gabriel Zvîncă/CPC Concordia

SOCIAL PARTNERS TOGETHER TOWARDS A BETTER AND EFFECTIVE REGULATION OF ARTIFICIAL INTELLIGENCE FOR A JUST TRANSITION TO THE WORK OF THE FUTURE

TransFormWork 2 Project 101145650

> The project is implemented with the Financial Support of the European Commission – Employment, Social Affairs and Inclusion DG, SOCPL-2023-SOC-DIALOG

> The sole responsibility of this National Report lies with the author and the European Commission is not responsible for any use that may be made of the information contained here.

Bucharest, 2025

## **Table of Contents**

### Introduction 3

<ul> <li>A. Historical trends, developments, legal framework, and social partners' perspec</li> </ul>	<b>tives</b> 3
I. Historical trends and developments of digital and technological adoption in Ro	mania3
<ol> <li>Government policies. Legal framework for AI, algorithmic management and dig</li> </ol>	jitalization
1. Algorithmic Management and AI in the Romanian context	6
2. Data, statistics and facts about AI in Romania	7
3. Key players in the Romanian AI ecosystem	8
4. Romanian ICT Sector Overview	10
5. DESI Index and Digital Economy performance of Romania	12
<ol> <li>Romanian Legal Framework and Government Plans for the Implementation of t</li> <li>Act 13</li> </ol>	he EU AI
a) The National Strategy for Artificial Intelligence for 2024-2027	14
b) The National Strategic Framework regarding AI (2023-2027)	15
c) The National Strategy for the Development and Support of the Digital Innovation (CID) from Romania 2024-2027	
d) Other legislative initiatives	17
e) The EU AI Act's implementation in Romania	17
II. Views & policies of national social partners. Results of previous research projec analysis	
a. Social partners' initiatives and projects	20
b. Social partners' perspectives	28
B. Findings of TransFormWork 2 survey and interviews	29
Research findings	29
1. Media Sector	30
2. Industry	32
3. Financial Services Sector	34
4. Education Sector	37
Conclusions	39
1. Stage of AI adoption varies widely	39
2. Impacts on work and services are positive but uneven	40
3. Consultation and worker involvement are partial	40
4. Training and support practices are uneven	40
5. Governance, transparency, and safeguards are emerging but incomplete	41
6. Awareness of EU-level policy debates is limited	41
C Conclusions	<b>/11</b>

#### Introduction

Romania has a complex relationship with technological development and digitalization. While the country has the capacity and talent to make use of technology, having a strong and capable IT workforce, the government's focus on other priorities made the research and development sector lack behind others. The reasons behind it are complex and multifaceted, while clear vision and applicability are one of the main arguments.

The present national report analyzed Romania's relationship with technology throughout the years, focusing on the implementation of artificial intelligence in economy. To do so, the report was divided into two main parts. The first analyzed the existing legal framework, social partners' initiatives in preparing the workforce for the implementation of new technologies, but also their official positions on the topic. The second analyzed the results of the interviews and questionnaires with representatives from economic sectors selected by the TransFormWork II project, namely: education, financial services, media, and industry.

The national report analysis showcased that Romania has good potential to make use of the emerging technologies to grow its GDP and solve many social issues, but a lack of clear strategy, implementation, and decision, continue to place the country at the bottom of ranking lists.

A. Historical trends, developments, legal framework, and social partners' perspectives

# I. Historical trends and developments of digital and technological adoption in Romania

Romania had been a digital pioneer long before 'digitalization' became a principle and objective of public policies. During the Communist regime, when it was in Bucharest's interest to pursue technological development to assure a proportionate economic development, Romanian academic teams projected and built one of the first Romanian computers, the <u>CIFA-1</u> (Calculatorul Instituțional de Fizică Atomică / Institutional Computer of Atomic Physics) in 1957. CIFA-1 was followed by other generations, CIFA-2 in 1959, CIFA-3 in 1961, and CIFA-4 in 1962. Their purpose was simple, to serve as a scientific research tool for Romania's emerging nuclear and engineering programs, and to establish a domestic foundation for computer technology development independent of imports.

CIFA-1 was followed by <u>MECIPT-1</u> (Electronic Computing Machine of the Timișoara Polytechnic Institute), developed by the Polytechnic University Timișoara in 1961, and designed as a general-purpose scientific and engineering calculator for academic, industrial, and economic applications. Shortly after, <u>DACICC-1</u> (Automatic Computing Device of the Cluj Computing Institute) was developed in 1963, its purpose being that of both theoretical research in mathematics and practical industrial computation for the northwestern region of the country.

As a result of these developments, Romania was one of the few Eastern European states that were capable of projecting and operating computing machines, forming the first informatics and computing engineering schools in the country. During the same time, several institutes were created to systematically develop the sector, namely the Institute for Computing Technology, and the National Institute for Informatics, in 1968-1970.

During the same period, technologization was an explicit part of the industrial priorities of Romania, the country investing heavily in basis electronics, including in semi-conductors, founding I.P.R.S. Băneasa in 1962. The enterprise started the production of integrated circuits in 1970 with Thomson-CSF technology and later had a vast portfolio including logic series, transistors and microwave devices. In electronic computing, the strategic option was combined with local production with Western licenses. In 1968 – 1970 Romania bought licenses from the French Company CII for the IRIS-50 family and launched the mainframe series FELIX C-256 with operating system SIRIS-2, later extended to C-512/1024 and implemented the local software HELIOS. The strategy was simple: acquire licenses and develop them in families of products, which later led to the development of FELIX systems and the forming of an integrated network, service, and training in enterprises. Efforts of "informatization" were visible also in education and consuming, in 1980s a few Romanian micro calculators for schools and daily use were introduced, namely the CIP family, a clone of ZX Spectrum, produced at ICE Felix, but also aMIC, an academic project meant to prepare a new generation in programming.

Given Romania's interest in computers and programming during the Cold War, its development of technology, and implementation at a small scale, one could argue that Bucharest had the premises of being at the forefront of technological development during the late 1990s and early 2000s.

As a result of the liberalization of the market, the first decade after the fall of communism witnessed the spread and expansion of private internet providers coverage over Romania, but also the rapid extension of mobile phone, that with the lending of <u>GSM digital licenses in 1996</u> to <u>consortiums led by European operators</u>, and to the "Romtelecom" National Society. Despite this,

the infrastructure was at a modest level, and the quality of copper lines had slowed down the spread of residential internet, but the mobile quickly became the main dominant channel of access. The whole process was accelerated also by Romania's objective to join the European Union and the implementation of structural reforms, which aligned the country to the European standards.

In 2000s – 2010s, fixed broadband and cable/fibre networks have spread to large cities, and EU-funded projects have started to bridge the urban-rural divide. The RO-NET project constructed the backhaul infrastructure in "white zones", allowing commercial operators to bring services in cities uncovered previously. Investments continued on successive cycles of founding, while, in parallel, Romania started to introduce large scale online payments by the administration and first e-governance services, creating the premises for later fiscal and administrative transformations.

The last cycle of modernization in communication was marked by the <u>5G bid in November 2022</u>, when ANCOM (National Authority for Administration and Regulation in Communications) allocated 420 MHz in the 700 MHz, 1500 MHz, 2600 MHz and 3400–3800 MHz bands to Orange, Vodafone and Digi, for a total of about 433 million euros. By May 2024, the Authority signaled that over 4.300 5G stations were in function, while the market continued to strengthen. However, Romania is still lacking behind regarding 5G coverage, <u>ranking</u> among the lowest places in the EU, with only 35.3% 5G availability.

Despite the progresses made in recent years, Romania is lacking behind other countries in terms of digital initative and implementation. A recent study by <u>Digital Nation</u> showcased that Romania's overall performance in digital area averages around 3.1 out of 10, this being a direct suggestion to the fact that there are foundational building blocks, but their execution remains uneven. This reaffirms Romania's complex relation with technology and digitalization.

Romania faces a paradoxical situation: it is one of Europe's technological talent exporters but lags in domestic digital transformation. The DESI 2024 report, as presented below, places Romania near the bottom of the EU ranking in digital public services and integration of digital technologies by businesses, yet among the top in ICT graduates per capita. Urban areas display strong connectivity and competitive data speeds, while rural zones still experience access gaps and digital illiteracy.

The private sector remains the driver of innovation, particularly through fintech, e-commerce, and software-as-a-service models. Clusters such as *Cluj IT* and *Transilvania Digital Innovation Hub* act as focal points for cooperation between academia, business, and local administration. However, the public sector's digital governance remains fragmented, with insufficient central coordination mechanisms and inconsistent implementation of EU strategic

frameworks like the Digital Europe Programme. The technological infrastructure is in place, but institutional usage and integration lags.

# I. Government policies. Legal framework for AI, algorithmic management and digitalization

#### 1. Algorithmic Management and AI in the Romanian context

Al development in Romania is progressing, though it faces several challenges and limitations that temper its growth. While the country has a strong foundation in software development and a relatively technically skilled workforce, the Al sector is still in its early stages compared to more advanced European nations. Romania's educational institutions, such as the University of Bucharest, the Polytechnic University of Bucharest or the Technical University of Cluj-Napoca, offer courses in Al and related fields, but the overall investment in research and development remains limited¹. This has resulted in a talent pool that, while competent, is not as large or specialized as in countries with more established Al ecosystems.

Government support for AI in Romania is growing, but it has been slow to materialize in concrete policies and substantial funding. While there are initiatives aimed at fostering innovation and integrating Romania into broader European AI strategies, the impact of these efforts has been somewhat limited by bureaucratic inefficiencies. The public sector's adoption of AI technologies is also lagging, with many government agencies and public services still in the early stages of digital transformation, which hinders the broader application of AI in critical areas like healthcare and education. <u>The National Strategy for Artificial Intelligence</u><sup>2</sup>, adopted in July 2024 by the government, is set to establish the framework for Romania to adapt to the changes brought by AI, with a special focus on public services, and on the adaptation of the population to the new realities.

Romania's tech startups are playing a pivotal role in the AI landscape, with many emerging companies focusing on AI-driven solutions across various industries, including healthcare, finance, and e-commerce, despite facing challenges such as limited access to capital and a small domestic market to develop. Additionally, the focus of many Romanian tech companies has traditionally been on outsourcing and IT services rather than on developing

<sup>&</sup>lt;sup>1</sup> https://fmi.unibuc.ro/planuri-de-invatamant/, https://acs.pub.ro/admitere/licenta/, https://ac.utclui.ro/oferta-educationala.html (accessed 10 October 2024).

 $<sup>^2\,</sup>https://www.mcid.gov.ro/wp-content/uploads/2024/01/HG-SN-IA-22012024.pdf$  (accessed 29 September 2024).

proprietary technologies, placing Romania between the states with a low percentage of innovation<sup>3</sup>.

Multinational corporations have recognized Romania's potential as a source of skilled labour for Al-related projects, but this has not yet translated into a significant increase in Research&Development operations in the country. Most foreign investments remain focused on software development and IT services, rather than on cutting-edge Al research and development. Consequently, while Romania is making progress in Al development, it still has a long way to go before it can compete with the leading Al hubs in Europe. The country's success in this area will depend on its ability to address these challenges and build a more robust and supportive environment for Al innovation.

#### 2. Data, statistics and facts about AI in Romania

Artificial Intelligence impact on Romania and its future is profound and implies a cross-sectorial influence. However, Romanian authorities and companies have lagged behind European peers in adapting to the changes, with only 2% of the companies adopting an AI technology in 2023, comparatively to 4% by CEE companies, and 8% the European average. In 2024, the percentage only rose to 3.1%, as per the data made available by Eurostat, while the EU average was 13.48<sup>4</sup>. Despite this, 40% of Romanian companies are planning to implement AI in the next five years<sup>5</sup>.

The main reason Romania has lagged behind other European countries in adapting and implementing AI is due to financial shortcomings, where lack of financial resources makes it difficult for investments in research and development of AI to happen. Aside, the lack of experienced personnel and a reluctance to the unknown also makes it difficult for Romania to benefit from AI.

Perspectives are also optimistic for the future as a <u>study by Google</u> focusing on Romania and other Central and Eastern European (CEE) countries revealed that the widespread use of GenAl could lead to a 5% increase in GDP over the next 10 years, equivalent to 14-16 billion euros<sup>6</sup>.

Romania has the possibility of *leapfrogging* technological developments, by skipping one generation and jumping directly to the new generation of generative AI tools. By doing so, Romania can boost its GDP increase with the help of GenAI to 7%, estimated to 20-22 billion euro. This could happen if the

<sup>&</sup>lt;sup>3</sup> https://therecursive.com/techcelerator-ai-map-10-romanian-ai-startups-2023/ (accessed 29 September 2024).

<sup>&</sup>lt;sup>4</sup> https://ec.europa.eu/eurostat/statisticsexplained/index.php?title=Use\_of\_artificial\_intelligence\_in\_enterprises (accessed 21.10.2025).

<sup>&</sup>lt;sup>5</sup> https://www.startupcafe.ro/afaceri/studiu-google-2024-locuri-munca-romania-inteligenta-artificiala-generativa.htm (accessed 29 September 2024).

<sup>&</sup>lt;sup>6</sup> https://cms.implementconsultinggroup.com/media/uploads/articles/2024/The-economic-opportunity-of-generative-Al-in-CEE/The-%E2%82%AC100-billion-economic-opportunity-of-generative-Al-in-Central-Eastern-Europe.pdf (accessed 30 September 2024).

GenAI is adopted faster, which could help boost productivity in industries where Romania is lagging comparatively to other European states.

This type of AI is also expected to have an impact on the job market, with 42% of jobs, or approximately 3.3 million positions, unlikely to be affected by automation. In contrast, 54% of jobs, or around 4.2 million positions, are expected to be augmented by AI. Additionally, as the study presented, 4% of jobs, about 0.3 million, will have more than half of their tasks fully automated by GenAI. This increase is expected to happen in the information and finance sectors, with an increase of 1,5% in productivity, in the business services and real estate & public administration, education and healthcare with 1,4%, in tourism, agriculture and retail trade with 1,0%.

A more negative scenario taken into consideration by the study is where Romania will fail to adapt to the new changes in due time. Therefore, a slow gradual adoption and development of GenAI in the next ten years, with a delay of five years, will have a lower increase in annual GDP contribution from 5% to just 1%, 1-2 billion euro. Therefore, Romania must enhance the welfare and GDP contribution of GenAI by making sure that policies are in place and that the widespread adoption scenario will be implemented.

As host to the European Cybersecurity Industrial, Technology and Research Competence Centre, Romania has the possibilities to elevate to the objectives of the EU. Beneficiating from this, Bucharest is in the position to be a major contributor to the international ecosystem<sup>7</sup>. As of October 2025, Romania will also host one of the EU EuroHPC AI Factories named *RO AI Factory*, aimed to acquire and operate a last generation supercomputer optimized for AI, and the development of a set services and advanced infrastructure dedicated for research, business and public sectors<sup>8</sup>.

#### 3. Key players in the Romanian AI ecosystem

The key players which are in the AI ecosystem are made up of government agencies, private sector and academia. The cooperation of these bodies has been productive so far, with the approval of the Government of the National Strategy for Artificial Intelligence (2024-2027)<sup>9</sup>, the National Strategic Framework regarding AI (2023-2027) <sup>10</sup>.

The main **government agencies** involved in the ecosystem are the following:

• The Romanian Parliament – initiates and adopts acts and amendments to laws regulating the AI sector;

<sup>&</sup>lt;sup>7</sup> https://european-union.europa.eu/european-cybersecurity-competence-centre-eccc\_en (accessed 30 September 2024).

<sup>&</sup>lt;sup>8</sup> https://upb.ro/premiera-nationala-politehnica-bucuresti-si-ici-construiesc-prima-ai-factory-din-romania/ (accessed 21 October 2025).

<sup>&</sup>lt;sup>9</sup> https://www.mcid.gov.ro/wp-content/uploads/2024/01/HG-SN-IA-22012024.pdf (accessed 29 September 2024).

<sup>&</sup>lt;sup>10</sup> https://www.mcid.gov.ro/wp-content/uploads/2023/10/Propunere-Cadru-Strategic-National-IA-.pdf (accessed 30 September 2024).

- The Romanian Government proposes and approves acts, strategies and regulations in the AI sector;
- The Ministry of Economy, Digitalization, Entrepreneurship and Tourism (MEDAT) focuses on the digitalization of the public sector and on the implementation of policies and reglementations;
- The Ministry of Education and Research (MEC) assures the research and development of digitalization policies by public institutions;
- The Authority for the Digitalization of Romania develops and coordinates the implementation of the National Strategy for Artificial Intelligence by also including and coordinating with the Digital Innovation Hubs aligned with the objectives of the EU Commission's Digital Europe Programme 2021-2027.
- The Romanian Committee for Artificial Intelligence develops and updates strategic projects, coordinates AI development efforts, supporting the National AI Strategy, facilitates cooperation at national and international levels, and enhances education and ethical standards in AI. It also collaborates with academic, public, and private sectors, and informs government authorities about AI.
- <u>The Scientific and Ethical Council on Artificial Intelligence</u>, offers council in regard to responsible and ethical use of artificial intelligence by the government and national agencies.

From the **private sector**, some of the more visible bodies which are involved in the ecosystem and are playing different but key roles:

- <u>Employers'</u> Association of the Software and Services Industry in Romania (ANIS).
- National Trade Union Bloc (BNS).
- Romanian Association for Artificial Intelligence (ARIA).
- Artificial Intelligence in Romania (AIR).
- Edge Institute

The **academia** is involved in developing strategies, regulations and frameworks for AI and is working closely with the governmental agencies to keep up with the latest developments in the sector. The academia also developed research groups to analyze AI, and have been, so far, included in drafting the National Strategy for AI, as well as the National Strategic Framework regarding AI. The main academic bodies which are involved in these processes are:

- "Mihai Drăgănescu" Research Centre for AI (ICIA).
- Technical University of Cluj-Napoca.
- "Politehnica" University of Bucharest.
- University of Bucharest.

- "A.I. Cuza" University of Iași.
- West University of Timișoara.

Aside the above, Centre for Advanced Research on New Materials, Products and Innovative Processes (CAMPUS), the Faculty of Automation and Computers of "Politehnica" University, as well as the Electronic and Computers Department of "Transylvania" University of Braşov are part of the Confederation of Laboratories for Artificial Intelligence Research in Europe (CLAIRE).

#### 4. Romanian ICT Sector Overview

The Information and Communication Technology (ICT) sector in Romania contributed 7.1% to GDP in 2023 and is projected to reach 10% of GDP by 2025. In terms of added value, the ICT sector already accounts for 10.5% of the total added value in Romania, according to Eurostat. The industry is primarily driven by software development, IT services, and telecommunications, with Bucharest serving as the central hub, responsible for about 60% of the total market volume.

In 2023, the total market value of the ICT sector reached €9 billion. The expansion rate of this sector has consistently outpaced the overall economic growth rate in the country.

As of 2022, the average number of employees in the ICT sector stood at 229,841 (representing 4.41% of total employment), with 141,590 in the IT subsector alone, according to data from INS. In 2023, the number of employees in the IT subsector grew by 5.1%, although this growth rate has slowed compared to previous years, where the average annual increase was around 10% (source: FSEGA, UBB Cluj). Notably, the proportion of ICT specialists in total employment remains one of the lowest in Europe, according to Eurostat.

A study published in 2021 by the Employers' Association of the Software and Services Industry measured the direct and indirect impact of the software and IT services sector on the Romanian economy in 2020. Although the data has not been updated since, it remains relevant: the total market demand generated by the software and IT services industry was €30 billion in 2020. According to the study, every €10 of gross value added generated directly by the software and IT services industry contributes an additional €5 to the national economy through indirect and induced impacts. Additionally, every 10 employees in the software and IT services industry support approximately 10.5 jobs in the national economy through similar indirect and induced effects.

Romania's IT industry is heavily focused on outsourcing, serving international clients. This focus makes the sector sensitive to global economic fluctuations. While global tech giants have experienced significant layoffs, leading to concerns about a ripple effect, Romania's IT sector has not seen a systemic crisis. Some layoffs have occurred, but these are part of broader adjustments in the global market rather than indicators of a deep crisis specific to Romania. Despite the concerns, Romania's IT sector remains robust. The demand for tech talent, particularly in outsourcing, continues to be strong. Romania is still seen as an attractive destination for IT services due to its skilled workforce and cost advantages. The reliance on outsourcing does pose a risk, especially if global clients reduce spending or shift to other markets.

Romania's IT sector faced significant challenges in 2024, with fewer new contracts, longer sales cycles, and rising labor costs due to legislative changes. According to the Employers' Association of the Software and Services Industry (ANIS), the industry experienced stagnation in the last two quarters of the year. While layoffs occurred, they were balanced by new hires in emerging roles. Despite this, hiring trends slowed, and workforce availability increased as companies adopted a more cautious approach.

Fiscal instability was a major factor affecting the sector, with changes to tax incentives impacting over 90% of ANIS member companies. Labor costs rose by 5-10%, further exacerbated by inflation, effectively neutralizing planned salary increases. Global economic uncertainty also played a role, as large international firms restructured operations, indirectly affecting teams in Romania.

Although new business acquisition proved more difficult, Romania's IT sector remained a key net exporter, with a slight increase in exports observed by October 2024 compared to the previous year. Looking ahead to 2025, preliminary findings from the ANIS Sentiment Survey indicate concerns over potential tax hikes and regulatory instability. However, companies see an opportunity for growth through increased domestic demand for IT products and services. Accelerated digitalization – especially in public services – could strengthen the sector's resilience and reduce reliance on foreign markets.

ANIS has outlined strategic directions to position Romania as a regional leader in digital innovation. The association emphasizes that policy stability and proactive digital transformation efforts will be crucial for the industry's growth. However, recent government decisions, such as the elimination of tax incentives for IT employees, could undermine competitiveness. ANIS warns that these abrupt fiscal changes, introduced without business consultation, risk further job losses and increased labor costs, potentially slowing the sector's recovery.

Despite these risks, Romania's IT industry retains strong fundamentals, with the potential to resume growth in 2025 – provided that the government fosters a stable and supportive economic environment.

#### 5. DESI Index and Digital Economy performance of Romania

In 2023, Romania made significant efforts in the digitalization of public services and SMEs and maintained high performance in the Fiber to the Premises (FTTP) coverage with 95%, the highest in the EU. Digital transformation has gained political backing in the past years in Romania, the country allocating significant amounts of EU funding, with about 21,8% of its Recovery and Resilience Plan allocated for the digital, 5,8 billion euro. Under the Cohesion Policy, Bucharest is allocating 10% of its funds, about 3 billion euro, for the country's digital transformation<sup>11</sup>.

However, despite these ongoing efforts, major challenges remain in enhancing basic digital skills among the population and in the deployment of 5G networks. Romania is the EU Member State with:

- the lowest basic digital skills among its population, with 27,73% (55,56% EU average).
- the lowest with the least basic digital content creation skills, only 40,89% of individuals have relevant skills (68,28% EU average).
- the lowest 5G coverage, only 32,75% of households being covered (89,3% EU average).
- the lowest rate of SMEs with at least a basic level of digital intensity, 26,8% of enterprises (57,7% EU average).

<sup>11</sup> https://ec.europa.eu/newsroom/dae/redirection/document/106692 (accessed 30 September 2024).

More exact details about Romania's performance in reaching the Digital Decade KPIs can be reviewed in the table below.

Digital Decade KPI (1)	Romania			EU		Digital Decade target by 2030	
	DESI 2023	DESI 2024	Annual progress	DESI 2024 (year 2023)	Annual progress	RO	EU
Fixed Very High-Capacity Network (VHCN)	95.6%	95.0%	-0.6%	78.8%	7.4%	99%	100%
Fibre to the Premises (FTTP) coverage	95.6%	95.0%	-0.6%	64.0%	13.5%	99%	-
Overall 5G coverage	26.8%	32.8%	22.4%	89.3%	9.8%	62%	100%
Semiconductors		NA					
Edge Nodes		5		1 186		113	10 000
SMEs with at least a basic level of digital intensity	22.2%	26.8%	9.9%	57.7%	2.6%	75%	90%
Cloud	11.3%	15.5%	17.1%	38.9%	7.0%	40%	75%
Artificial Intelligence	1.4%	1.5%	3.5%	8.0%	2.6%	10%	75%
Data analytics	NA	21.9%	NA	33.2%	NA	15%	75%
Al or Cloud or Data analytics	NA	28.7%	NA	54.6%	NA		75%
Unicorns		0		263		X	500
At least basic digital skills	27.8%	27.7%	-0.2%	55.6%	1.5%	50%	80%
ICT specialists	2.8%	2.6%	-7.1%	4.8%	4.3%	4%	~10%
e ID scheme notification		No					
Digital public services for citizens	47.6	52.2	9.7%	79.4	3.1%	100	100
Digital public services for businesses	44.6	50.0	12.1%	85.4	2.0%	100	100
Access to e-Health records	57.1	58.6	2.7%	79.1	10.6%	X	100

<sup>\*</sup>Source: Digital Decade Country Report 2024: Romania

# 6. Romanian Legal Framework and Government Plans for the Implementation of the EU AI Act

The existing legal framework regarding AI and algorithmic management in Romania has seen small steps in the direction of regulating this domain, given the Parliament and Government limited actions in the past years. Therefore, at the moment, there are no specific laws regulating AI, but various other laws and regulations might apply to AI and its implications across sectors.

Despite no concrete legal action taken by the Romanian officials, Romania aligns its regulatory framework with EU directives and regulations to ensure consistency and facilitate smooth cross-border activities. The country adopted and entered into force the NIS Directive, transposed by Romanian authorities as Law 362/2018 regarding cybersecurity. The NIS2 Directive was adopted by the government on December 2024 by which the National Cyber Security Directorate (DNSC) was designated as the key authority for supervision, registration, monitoring, and sanctioning. Amendments were brought through Law no. 124/2025. Furthermore, Romania also adhered to the EU Commission's White Paper on AI, which includes 13 recommendations regarding AI. In the future, the country is expected to enter into force the following EU regulations and directives:

- The EU AI Act by August 2026 in full, the first provisions (Chapters I and II) are to be incorporated into Romanian law by the end of September 2024.
- The Cyber Resilience Act to enter into force in the last part of 2024.

• <u>The Artificial Intelligence Liability Directive (AILD)</u> – set to complement the EU AI Act, official EU procedure to continue.

So far, the National Strategy for Artificial Intelligence (2024-2027) (NS-AI), the National Strategic Framework regarding AI (2023-2027), and the National Strategy for the Development and Support of the Digital Innovation Centers (CID) from Romania 2024-2027, are the main official documents approved by the Romanian Government in relation to AI, enshrining the vision of the officials regarding the sector. Besides these, the Romanian Parliament debates and plans to adopt an initiative regarding Deepfake<sup>12</sup>, by regulating the responsible use of technology, including AI, in combating the deepfake phenomenon.

#### a) The National Strategy for Artificial Intelligence for 2024-2027

The National Strategy for Artificial Intelligence for 2024-2027 aims to enhance the efficiency of public institutions in their interactions with citizens and improve the development and coordination of national institutions. This strategy seeks to shape Romania's evolution in AI to promote economic growth, social well-being, democratic values, stability, and national security.

The strategy, drafted between July 2021 and February 2023, and approved by the Government in July 2024, envisions that by 2030, 70% of companies will integrate AI technologies, potentially generating an annual global GDP increase of around 1.2%. The strategy serves multiple purposes, including providing a source of information on optimal governance frameworks in the AI field and acting as a reference point for creating sector-specific strategies in key economic areas.

Among the national priorities outlined in the strategy is the 2021-2024 Governance Program, which highlights artificial intelligence as part of strategic projects and digital transformation initiatives. These priorities span across digital public administration, digital economy, digital education, cybersecurity, digital communications, and future technologies.

The mission statement of the strategy focuses on leveraging AI to boost economic advancement, social welfare, and national values such as democratic integrity, stability, and security. AI is expected to positively impact the quality of life by improving working conditions and enhancing the digital skills of employees both in the public sector and private enterprises.

In the business sector, the strategy emphasizes adopting AI across various priority areas, including infrastructure and transport, research and

<sup>12</sup> https://www.cdep.ro/pls/proiecte/upl\_pck2015.proiect?idp=20853 (accessed 3 October 2024).

development, health, education, information and communication technology (ICT), and agriculture. By promoting AI use in these sectors, the strategy aims to foster innovation, improve service delivery, and enhance economic competitiveness. It also aims to build capacity for training and educating AI specialists within the educational system and to spread fundamental AI knowledge and skills among the general population and businesses.

The objectives outlined by the Strategy encompasses the main directions that the Commission envisaged for AI in the EU, develops certain measures in order to promote Romania as a top player in this field, and follows to enhance the population's adaptation to the changes brought. The Strategy also presents the main measures and changes that are going to be adopted by Romania following the applicability of the EU AI Act. The Strategy also mentions that "further changes will be brought by the modification of the Act's Annexes" and recommends that an *Authority for Regulating AI* shall be formed in Romania in 2024, to apply the specificities of the AI Act.

#### b) The National Strategic Framework regarding AI (2023-2027)

The "National Strategic Framework for Artificial Intelligence 2023-2027" outlines Romania's plan to integrate artificial intelligence into its economy and society while ensuring ethical and responsible use. The strategy emphasizes trust, excellence, economic growth, and social welfare as core pillars. It aims to align Romania with European Union initiatives, such as the AI Act and Digital Europe Programme, while addressing national challenges like low digital skills and underfunded research.

The framework defines six general objectives: fostering AI education and skills, building resilient infrastructure and datasets, strengthening research and innovation systems, promoting technology transfer, encouraging AI adoption across society, and creating governance and regulatory mechanisms for AI. These objectives are supported by specific measures to ensure progress in sectors like healthcare, education, public administration, and cybersecurity.

The strategy highlights the transformative potential of AI in improving quality of life, economic performance, and public services. It identifies key opportunities such as Romania's strong tradition in mathematics and computer science, a growing number of ICT graduates, and access to EU funding for innovation. However, it also addresses barriers like limited digital literacy, insufficient funding for research, and resistance to technological change. Public consultation played a significant role in shaping the strategy by involving stakeholders from academia, government, and business to ensure a comprehensive approach. The strategy also emphasizes ethical principles such as transparency, human-centered AI development, non-discrimination, and robust security measures.

Implementation will focus on leveraging partnerships between academia, industry, and government while ensuring alignment with EU standards. A dedicated inter-ministerial committee will oversee progress through clear monitoring frameworks and indicators. By 2027, the Strategy aims to position Romania as a regional hub for AI innovation while fostering societal trust in technology. Expected outcomes include enhanced digital skills among citizens and workers, increased adoption of AI solutions in public services and private sectors, strengthened research capabilities, and improved competitiveness on the global stage.

### c) The National Strategy for the Development and Support of the Digital Innovation Centers (CID) from Romania 2024-2027

The government also adopted and entered into force, on 30th September 2024, the *National Strategy for the Development and Support of the Digital Innovation Centers (CID) from Romania 2024-2027*<sup>13</sup>. The National Strategy aims to accelerate Romania's digital transformation by fostering innovation and collaboration across public and private sectors. It identifies Digital Innovation Hubs (*in Romanian: CID*) as essential tools to address Romania's low ranking in the Digital Economy and Society Index (DESI) and to enhance competitiveness through advanced technologies such as artificial intelligence, blockchain, and cybersecurity. The strategy outlines a framework for creating, supporting, and sustaining CID to drive digitalization, focusing on improving infrastructure, fostering expertise, and ensuring financial sustainability. Key objectives include increasing SMEs' access to digital resources, boosting digital skills among employees, and fostering partnerships between technology providers, public authorities, and research institutions.

The strategy is built on principles of transparency, evidence-based policymaking, and innovation while aligning with European Union frameworks like the "Digital Compass 2030." It emphasizes collaboration between national stakeholders such as the Ministry of Research, Innovation, and Digitalization (MCID) and the Authority for Digitalization of Romania (ADR), as well as integration with European initiatives. By leveraging financial instruments like the Recovery and Resilience Facility and the Digital Europe Program, the Strategy's objective is to enhance Romania's digital maturity. Further regulation of AI in Romania is set to be crafted in the future, with the main intention to facilitate the application of the EU AI Act in Romania. The closest concrete action regarding this is the creation, expected at the end of this year, of the AI Regulatory Authority tasked with overseeing the market, participating in regulatory testing environments and accrediting relevant

<sup>&</sup>lt;sup>13</sup> https://www.mcid.gov.ro/wp-content/uploads/2024/04/STRATEGIE-.pdf (accessed 5 October 2024).

bodies. Other legislative changes are expected to happen in the future in the form pf updates for existing laws.

#### d) Other legislative initiatives

A <u>legislative initiative regarding Artificial Intelligence</u> was proposed by two Romanian deputies, but the chances of this law to be adopted by the Parliament are low, given the limited political support. The proposal was also written in an unprofessional manner, numbering two pages, and could be challenged for unconstitutionality.

The initiative was rejected by the Senate in May 2024, being sent to the Chamber of Deputies, the decisive legislative chamber on such initiatives, for adoption. The proposal aims to regulate the "implementation, use, development and protection of Artificial Intelligence in the economic, social, technological, medical, cultural and military environment". According to article 7, Al shall be developed through institutional, interinstitutional and intra institutional research and cooperation. Article 9 prohibits "the use of Al for the automation of the human resource flow within any organization, as well as the use of biometric data of individuals, other than for purposes of crime prevention and detection".

A positive aspect of the initiative is its attempt to establish a definition of Artificial Intelligence within Romania. However, the text lacks scientific rigor and does not align with the definitions set out in the EU AI Act. In reference to this Act, Article 13 of the proposal stipulates that the initiative should be "supplemented by the provisions of the Regulation on Artificial Intelligence of the European Parliament 2024 (0138)."

The initiative received an unfavourable opinion from the Government, the main argument invoked being that the EU AI Act is in process of being implemented, and further legislation would only hamper the implementation and correct efficient application of the EU regulation. Moreover, the Government opined that the proposal lacks constitutionality, and that it was written in a rudimentary manner, without respecting technical legislative writing principles.

The proposal shows us the interest of the deputies in regulating the sector, but it also hints at the low level of knowledge and understanding of the domain. At the moment, there are no other proposals or government policies in discussion, nor a future perspective on those, as the Romanian officials are preparing the entering into force of the EU AI Act.

#### e) The EU AI Act's implementation in Romania

The EU AI Act was officially adopted by the European Commission in April 2021, and the European Parliament and the Council of the EU adopted it in April and May 2024. On 12 July 2024 it was published in the EU's Official

Journal as <u>Regulation (EU) 2024/1689</u>. On 1 August 2024 it entered into force and will become applicable from 2 August 2026. Following the procedure, Romania must implement the Act in 24 months from its entering into force.

On 11 July 2024, Romania's government approved the National Strategy for Artificial Intelligence 2024-2027, which will be playing a key role by setting the frame by which the government agencies will align, connect and intensify the efforts regarding AI implementation. The Strategy also indicated that a robust system of governance and regulation of AI will be dealt with by an Interministerial Commission for coordinating the implementation of the Strategy, which will include 34 institutions.

Despite these, the Romanian government did not give clear mentions of the timeline of the implementation of the EU regulation. Any news might come from the main institutions responsible for AI, the Ministry of Digitalization (MCID) and the Authority for the Digitalization of Romania (ADR).

The main bodies responsible for the regulation and the implementation of the EU AI Act are the Romanian Parliament, the Romanian Government, the Ministry of Research, Innovation and Digitalization (MCID), the Authority for the Digitalization of Romania, and the Romanian Committee for Artificial Intelligence. Other bodies which are involved in the implementation of the AI Act, but have limited attributes are:

- <u>the Data Protection Agency</u> for matters related to personal data processing.
- the National Directorate for Cybersecurity concerning cybersecurity matters
- <u>the Financial Supervisory Authority (ASF)</u> for overseeing financial services and Al-driven financial products.
- <u>the National Agency for Consumer Protection</u> regarding Al-enhanced products and services.
- <u>the National Commission for Anti-Discrimination</u> for concerns related to the application of AI in relation to anti-discrimination policies.
- <u>the Romanian Competition Council</u> for cases where the use of AI results in anti-competitive effects in the Romanian market.
- the National Technical Committee for Standardisation in the Field of Artificial Intelligence, under the Romanian National Standardisation Organisation (ASRO), to issue standards in the Al field.

It is anticipated that additional bodies may assume regulatory responsibilities following the entry into force of the EU AI Act in Romania, with some potentially taking a leading role in its implementation.

As there are no laws adopted by the Romanian authorities, the possibility of legal gaps to hinder the understanding of AI by authorities is high. Most

notably, Romania does not have a legal definition for AI, and its national laws do not grant legal personality to AI. Additionally, there is no specific legislation addressing liability for damage caused by AI. The Copyright Law only provides legal protection to works considered original, which implies the requirement of human authorship.

To enter the EU AI Act into force, Romania must come up with internal laws that will align with the EU directives and regulations. This effort might mean that the officials might need to amend the existing laws or to enact new ones. Moreover, Romania will have to establish regulatory bodies and mechanisms to oversee the compliance with the EU AI Act and its associations with Romanian internal laws.

Legal gaps exist at the moment, such an example being related to the legal definition given to AI. Now, Romania has given no legal definition of AI, except the mentioning from the National Strategy for AI, which can be considered non-comprehensive comparing it to the broader definition given by the EU AI Act:

- Romanian definition (as per NS-AI): "Artificial intelligence (AI) refers to systems that exhibit intelligent behaviors by analyzing their environment and that take action with some degree of autonomy to achieve specific goals."
- EU definition (as per EU AI Act): "Artificial intelligence system' (AI system) means a system that is designed to operate with a certain level of autonomy and that, based on machine and/or human-provided data and inputs, infers how to achieve a given set of human-defined objectives using machine learning and/or logic and knowledge based approaches, and produces system-generated outputs such as content (generative AI systems), predictions, recommendations or decisions, influencing the environments with which the AI system interacts, which identifies AI as a "systems that exhibit intelligent behaviors by analyzing their environment and that take action with some degree of autonomy to achieve specific goals."

Analyzing the two definitions together we have a few legal gaps that can be identified:

- The EU definition is more detailed, providing a clearer framework for understanding what constitutes an AI system, including data input, processing methods, and types of outputs.
- The broad nature of the Romanian definition may provide greater flexibility but also risks creating ambiguities and challenges in enforcement. In contrast, the EU definition's higher level of specificity supports the development of more targeted regulations, though it may prove less adaptable to rapidly evolving technologies.
- The lack of specificity in the Romanian definition could result in legal gaps concerning liability, ethical considerations, and data protection, as it does not cover the mechanisms by which AI systems operate and interact with their environment. In contrast, the EU definition provides a more solid foundation

for regulatory frameworks but still leaves room for improvement in addressing new AI technologies and ethical dimensions.

Similar differences in regulatory frameworks are expected to exist until the provisions of the EU AI Act are applied in Romania.

# II. Views & policies of national social partners. Results of previous research projects' analysis

#### a. Social partners' initiatives and projects

In Romania, Law nr. 367/2022 establishes the foundation for social dialogue, having a direct impact on how policies related to AI and algorithmic management are adopted. In this context, trade unions and syndicates are among the key participants in the process, representing employees in negotiations with employers. Their role is to advocate for the professional, economic, and social interests of workers, including potential impacts on employment rights related to AI and algorithmic management. Romanian federations and confederations, such as <u>Cartel Alfa</u> and <u>Blocul Naţional Sindical (BNS)</u>, may be involved in these discussions.

Employers and employer organizations also play an essential role in representing the business sector. <u>Concordia Employers' Confederation</u> participates in social dialogue to advocate for the position of their members, including those in relation to technological transitions like AI.

While AI is a relatively new area of focus, employers' organizations recognize its potential to enhance productivity and competitiveness. Accordingly, they support policies that promote innovation while ensuring appropriate regulatory safeguards.

On behalf of the government authorities, aside the Ministry of Education and Research, and the Ministry of Economy, Digitalization, Entrepreneurship and Tourism, other entities involved are the Ministry of Labor, Family, Youth and Social Solidarity and local public authorities, such as the Labor Inspection authorities in each county. The government is responsible for balancing technological innovation with labor market policies, ensuring Al adoption aligns with national and EU regulations, such as the EU Al Act.

All the entities listed above can engage in more structured forms of social dialogue, including through the <u>National Tripartite Council for Social Dialogue</u>, where government, employers' organizations, and trade unions can negotiate collectively and shape policies concerning labour and Al management. Social dialogue is also conducted through the <u>Economic and Social Council</u>, where trade unions, employers' organizations, can cast

favourable or unfavourable votes on legislative initiatives and proposals. Alrelated initiatives are also supposed to be discussed in this body.

Alongside the government and institutional bodies, Romania's social partners are increasingly engaged in proposing policy initiatives recommendations for the regulation of the AI sector. Their primary objective is to ensure that the transformations driven by new technologies do not adversely affect their objectives or those of the groups they represent whether workers, employers, or the broader economy. Thus, they are actively organizing research projects aimed at identifying potential impacts of new technologies on the workforce, the skills needed to adapt to these changes, and the ways in which the economy may evolve in this new technological landscape.

The first of such projects was <u>Danube@Work</u>, coordinated by the Austrian Trade Union Federation (ÖGB) with CNSLR-Frăția as Romania's national partner. Formally titled *Social partners for fair digital work*, the project ran from January 2017 to December 2019 across Austria, Bulgaria, Romania, and Serbia. Its consortium brought together trade union confederations and employer-side organisations. The project's purpose was to strengthen social dialogue and equip labour-market actors to manage the opportunities and risks of work digitalisation in a way that safeguards decent work.

The project's objectives focused on two complementary directions: first, raising awareness of the challenges and opportunities created by the digitalisation of work; and second, co-creating nationally adapted solutions through structured cooperation between social partners. To that end, Danube@Work built a cross-border network of trade-union digitalisation experts, delivered international and national conferences and seminars, developed case studies and a comparative study on digitalisation for the project area.

Research under Danube@Work examined digitalisation's impact on key sectors across the participating countries, combining literature review and secondary data with expert interviews, enterprise case studies, and online surveys of HR managers and works councils. Early findings discussed in Romania highlighted expected efficiency gains and improved working conditions alongside practical challenges such as missing employee qualifications, high investment costs, and systems compatibility; respondents also reported tight labour markets rather than net job loss, reinforcing the need for workforce development. These results informed guidance for social partners on training, collective bargaining, worker protection, and data-protection compliance.

Al and related technologies featured explicitly in the project's framing and outreach in Romania. CNSLR-Frăția's referred to the spread of RPA, chatbots,

artificial intelligence, and machine learning in Romanian companies and discussed their implications for task content, employment forms, and working conditions. The project therefore approached AI as part of the wider digital transition – an accelerant of changes in workflows, skills, and workplace governance that social dialogue must anticipate and steer toward decentwork outcomes.

<u>WorkTransitionCEE</u>, coordinated by the Employers' Confederation Concordia, formally titled *Renewed social dialogue for the new world of work. Job transitions* & digitalisation in two industrial sectors in CEE countries – Romania, Hungary, Slovakia, was implemented between April 2021 and January 2023. It involved a consortium of employers' associations and trade unions from Romania, Hungary, and Slovakia, with the support of European-level organizations. Its core aim was to strengthen social dialogue while preparing companies, workers, and policymakers for the challenges and opportunities emerging from digitalisation, automation, and Industry 4.0.

The project's objectives revolved around three main directions: raising awareness of technological transitions, fostering social dialogue, and producing actionable research. Awareness-raising sought to inform employers, employees, and their representatives of the dual impact of technology – both risks, and opportunities, such as new forms of work and productivity gains. In terms of dialogue, the project aimed to empower social partners with tools and practices to negotiate fair transitions. On the research side, it undertook sector-specific studies to assess which jobs and skills are most exposed to automation and digitalisation.

AI featured explicitly in the project's framing as one of the main forces of change, alongside robotics and digitalisation. In particular, AI was identified as an accelerant of change in industrial sectors, reshaping tasks, workflows, and skill requirements. For example, in the automotive industry, AI is embedded in smart factories, connectivity, and electrification trends, while in oil & gas, it supports monitoring, predictive maintenance, and efficiency optimization. These sectoral insights underline how AI-driven tools can significantly alter the demand for human labor and the distribution of tasks.

The project noted that current labour shortages are driving the uptake of automation and AI to raise productivity and competitiveness. The recommendations prioritised tripartite cooperation to build effective training systems that close skills gaps through upskilling, reskilling and efficiency-oriented training. The project also called for clear rules on telework and the "right to disconnect," negotiated at company level and discussed nationally via social dialogue forums. The WorkTransitionCEE insisted on "human-oriented digitalisation": AI should reorganise tasks while preserving human oversight; systems must be lawful, fair, transparent, safe and robust; and any

workplace data collection must be strictly purpose-bound and co-designed with social partners. Co-creation workshops during the project messages further underlined collective bargaining on work organisation, flexibility agreed by both sides, and cooperation-based labour relations.

The proposed policy mix of the project centred on flexible, navigable up-/reskilling pathways (including micro-credentials and short courses), a strengthened culture of lifelong learning with targeted career management, and a redesign of public employment services toward personalised, holistic support that integrates digital, cognitive and technical skill assessment. Complementary social policies were presented as levers to raise women's labour-market participation. Additional measures included active multistakeholder partnerships for skills intelligence, periodic evaluation and retargeting of incentives for NEETs/older workers, a short-time work scheme coupled with training during downtime, targeted attraction of white-collar migrants, green-skills awareness, and a stronger, evidence-based role for social partners in monitoring and shaping adult learning and employment policies.

The project highlighted that digitalisation and AI should be human-centred and dignity-preserving, rapid skills transformation and lifelong learning are indispensable to competitiveness and inclusion, and robust social dialogue is the mechanism to balance flexibility with protection. The project explicitly ties these priorities to implementing the European autonomous framework on digitalization.

<u>Digital Skills Training</u>, organized by Blocul Naţional Sindical (BNS), was a project co-financed by the European Social Fund and implemented from 7 October 2022 to 31 December 2023. Formally titled *Digital Skills Training for Employees from SMEs and Other Enterprises in Competitive Economic Sectors*, it involved a consortium targeting employers and employees from small and medium enterprises operating in competitive economic sectors and smart specialization domains. Its core aim was to enhance digital competencies while preparing companies, workers, and stakeholders for the challenges and opportunities emerging from digitalization and digital transformation in competitive economic sectors.

The project's objectives focused on three main directions. By raising awareness, it sought to inform employers operating in competitive economic sectors about the importance and necessity of employee participation in continuous professional training programs, with special emphasis on developing digital skills. In terms of competency development, the project aimed to develop digital skills for 320 employees from at least 32 SMEs through participation in continuing professional education programs in digital literacy and advanced ICT competencies. On the enterprise support side, it

undertook assistance for at least 32 SMEs in developing and implementing workplace learning programs in digital literacy and information and communication technologies.

Digital competencies featured in the project's framework as the primary focus for workforce development in competitive economic sectors. The project identified digitalization as fundamentally reshaping enterprise potential and development perspectives through digital technology introduction and integration, requiring corresponding professional training needs assessment in the ICT domain. The training program was structured into 16 professional training courses, with each course stage accredited by the National Qualifications Authority (ANC) with an 80-hour duration comprising both theoretical and practical components.

The key activities included implementing comprehensive employer awareness campaigns across three development regions, establishing collaboration protocols with relevant stakeholders to ensure project sustainability and result replication for at least 6 months post-implementation, organizing and conducting professional training stages in digitalization, and supporting enterprises in developing workplace learning programs in digital literacy and information and communication technologies. The project emphasized workplace learning program development to enable enterprises to capitalize on their digitalization potential and development perspectives through digital technology introduction and integration.

The project highlighted that digital competency development should be aligned with competitive economic sectors and smart specialization domains, that comprehensive employer awareness and stakeholder collaboration are essential for sustainable digitalization outcomes, and that workplace learning programs serve as the primary mechanism to integrate digital technology adoption with professional development. The project explicitly contributed to implementing European Social Fund objectives, emphasizing the need to bridge digital skills gaps across Romanian development regions while supporting SME competitiveness through targeted digital literacy and advanced ICT competency development.

Hope4AI (Helping Organizations Prepare Employees for AI), coordinated by the Employers' Confederation Concordia, is a European-cofinanced social-partner initiative that builds directly on WorkTransitionCEE to prepare employees, employers, and their representatives for transformations driven by artificial intelligence and automation. The project launched in April 2024 and is ongoing, bringing together a Romanian–Hungarian consortium made of employers' organizations and trade unions. The core aim of the project is to strengthen social dialogue and equip organisations for a fair, human-

centred transition as AI reshapes tasks, workflows, and skills across key sectors.

The project's objectives revolve around three complementary pillars. Resilience focuses on equipping industries to manage Al's labour-market impact; cooperation fosters structured collaboration between unions and employers to address emerging technological challenges; and continuity leverages insights and relationships established through WorkTransitionCEE to accelerate preparedness for Al at company and sector level. Across these pillars, Hope4Al commits to assessing Al's impact, identifying necessary competences, and ensuring that transitions are smooth and just.

On the research side, Hope4AI runs a Skillscape workstream, made of surveys, qualitative interviews, national seminars, webinars, and co-creation workshops, to generate evidence and scenarios for policy and practice. In Romania, the research concentrates on the energy and retail sectors, analysing how digital transformation, including AI adoption, is reshaping skill needs, restructuring processes, and social dialogue. Outputs include sector studies, national workshops with social partners, and calls for specialist inputs through an Updated Trends Report and a study capturing technology providers' insights on enabling effective AI integration).

Al features explicitly in the project's framing as a primary driver of change. The Hope4Al underscores the scale of potential change, positions for social dialogue, up-skilling and reskilling, and inclusive policies as the levers for a fair transition.

Policy-wise, the project advances a coherent set of directions aligned with a well equilibrated transition to an Al-enabled economy. It prioritises raising awareness of digital-skills gaps and building lifelong-learning pathways, strengthening workplace cooperation and national-level social dialogue, and developing coordinated labour-market policies to support employment and inclusion. Practically, Hope4Al uses national seminars, validation workshops, and co-creation events with unions, employers, government, and labour-market experts to turn evidence into actionable guidance for companies and sectors.

In sum, Hope4AI is a reference through which Romanian and Hungarian social partners are systematising AI readiness, by consolidating evidence, convening structured dialogue, and producing targeted studies to inform employer practices and public policy.

Based on the project initiated, we can identify the interest of social partners from Romania on consistently framing AI as an accelerant of a broader digital transition that must be governed through strong social dialogue to protect decent work while enabling competitiveness. Across the sequence of

initiatives, AI is treated not as an isolated technology but as part of systemic change that reshapes tasks, workflows, and skills. Methodologically, the projects combine surveys, interviews, enterprise case studies, and co-creation workshops to translate evidence into guidance for bargaining, company practices, and policy.

From employers' organizations, the emphasis falls on productivity, competitiveness, and organized job transitions in tight labor markets. Concordia's WorkTransitionCEE and Hope4AI view AI as a lever to address labor shortages and to optimize operations. Their preferred policy mix centers on "human-oriented digitalization", more exactly, AI should reorganize tasks with human oversight, the systems must be lawful, fair, transparent, safe, and robust, and any workplace data collection must be purpose-bound and codesigned with social partners. Employers advocate tripartite cooperation to close skills gaps through flexible, navigable upskilling and reskilling pathways, a stronger lifelong-learning culture and career management, and a redesign of public employment services for personalized support. They also advance complementary levers, such as clear rules on telework and the right to disconnect negotiated at company level, active skills-intelligence partnerships, targeted incentives for NEETs and older workers, short-time work schemes coupled with training, green-skills awareness, measures to raise participation, and strategic attraction of white-collar migrants.

From trade unions, the anchor is decent work, worker protection, and enforceable safeguards as AI diffuses. Danube@Work, frames AI within digitalization's opportunities and risks, highlighting efficiency gains and improved conditions alongside practical challenges such as missing qualifications, high investment costs, and systems compatibility. Findings in Romania reinforced that tight labor markets call for workforce development rather than accepting net job loss, guiding unions toward training, collective bargaining clauses on technology use, and robust data-protection compliance. BNS's Digital Skills Training project operationalizes this approach by building accredited digital-competence programs and workplace learning in SMEs, coupling awareness campaigns with direct enterprise support to embed training into day-to-day practice. Across these efforts, unions stress human-centered and dignity-preserving adoption, co-creation of solutions, and the need to anticipate governance issues – work organization, flexibility, data use – within collective bargaining.

Convergence between employers and unions is clear on three fronts. Firstly, Al's impact is primarily about rapid skills transformation, making lifelong learning the decisive adjustment mechanism. Secondly, effective social dialogue at company, sector, and national level is considered the vehicle to balance flexibility with protection and to codify rules on telework,

disconnecting, and data governance. Thirdly, evidence-driven implementation is essential, with sector studies informing targeted upskilling and reskilling and company-level change management. Hope4AI crystallizes this joint vision by systematizing AI readiness through structured cooperation, shared research, national workshops, and co-creation events to turn findings into actionable guidance.

In practical terms, the shared future-of-work vision is a managed transition: Al is expected to reorganize tasks and raise productivity, provided that human oversight, purpose-limited data practices, and collectively negotiated arrangements are in place. Employers prioritize competitiveness and adaptive training systems, while unions prioritize enforceable worker safeguards and structured bargaining on technology's effects. Both sides commit to scalable learning pathways, workplace learning embedded in firms, and stronger public-policy alignment so that Al adoption simultaneously advances efficiency, inclusion, and decent-work standards.

Another initiative coming from Al Romania, a community of volunteers from the private sector from Romania and the Romanian Diaspora, has developed "A strategy for the development and adoption of Al technology at a country level". The strategy, launched in June 2019, focuses on transforming Romania in an active partner and contributor at the European and global level in the Al domain. The main strategic directions outlined by the strategy focus on: Al talent, by developing and retaining Al talent in Romania; Al research&development: by creating frameworks to facilitate collaboration between academia and industry, by having joint funding for research in Al; industrialization, by creating incubators, start-ups to support implementation of ideas; future of work, by conducting impact studies on the changes brought by Al development and adoption on the job market; international cooperation, by promoting and syncing Romania interests with EU priorities and global challenges; regulation, by developing proper regulation to facilitate Al adoption at national level.

The strategy also identified key sectors where AI can have an impact. The first of these would be agriculture & environment, in which AI system can have a positive impact, such as accurate weather forecasts, autonomous machines, wildlife and forest monitoring, smart irrigation systems. Healthcare is another domain where AI can have an impact, by enhancing effectiveness of prevention programmes, supporting doctors in diagnosis and treatment, monitoring chronic diseases or improving management of public healthcare system. Education, as well, can benefit from AI, by personalising classes with blended learning, encouraging further studying and augmenting classes with AR & VR technologies. AI can also help improve Infrastructure and develop smart cities, by smart traffic lights, timetable prediction for public transport,

autonomous driving for transportation of goods, or smart sensors for irrigation in urban areas. Energy production and distribution can benefit from AI augmentation, by better estimating available resources of oil & gas and helping with exploitation & storage decisions and have smart sensors for better maintenance of machines and equipment. Other domains benefiting from AI could be manufacturing, services, public administration, tourism, and national security.

The strategy also proposed a series of projects related to AI, such as developing master's programs in AI, facilitate training programs for Romania's high-school teachers, facilitate companies to fund universities for AI experts to teach and lead research groups, and many more. Bearing in mind the year the strategy was launched, some of its suggestions have already found themselves in the National Strategy for AI, adopted five years later.

#### b. Social partners' perspectives

Romanian social partners have each positioned on the theme of digitalization, implementation of AI, and their impact on the work market. Through official positions, actions, and initiatives, they shared their perspective on the topic and how this technology shall be implemented taking into account all factors.

<u>Blocul Naţional Sindical</u> has been a proactive supporter of digitalization, focusing on workers' protection and digital competencies. BNS also aims to be become the first fully digitalized trade union organization in Romania. To do so it launched the MyBNS mobile application to strengthen organizational capacity and facilitate rapid communication between member organizations. BNS also participates actively in studies, research, and analysis on digitalization and consistently implements projects offering digital skills training for both employers and workers.

CNSLR-Frăția (Confederația Națională a Sindicatelor Libere din România - Frăția) has a more nuanced position, suggesting a more critical approach, but still engaged, recognizing opportunities but emphasizes need for worker protection. It follows closely the European Trade Union Confederation stance, by which it does not oppose digitalization, but believes it should always improve working conditions and be developed in cooperation with workers and trade union. Also, gender perspective must be at the centre of all digital initiatives, increasing women's participation in STEM sectors and avoiding gender bias in algorithms.

<u>Cartel ALFA</u> favours a process by which modernization can be achieved through digitalization with focus on social dialogue. It did so by implementing the project "+CAP – Capacitarea CNS Cartel ALFA pentru îmbunătățirea și

modernizarea dialogului social la toate nivelurile". The project aimed to modernize social dialogue through integrated packages including digitalization, awareness raising, legal consultancy and assistance. It developed digital membership card application for members to access benefits, discounts, and dedicated offers, and focused on modernizing institutional activities through digitalization of social partner activities via specific digitalization actions.

On the employers' side, Employers' Confederation Concordia is a strong advocate for digital transformation as national priority. In October 2023, Concordia sent an open letter to Romanian Parliament advocating for accessibility of electronic signatures on a large scale. Concordia also runs a working group on digitalisation. This working group comes to support, not duplicate, the effort that ANIS is already making and will continue to make through its own digitalization working group. Concordia facilitates interaction between the IT sector and other relevant industries or sectors in the economy that can support Romania's digitalization process, both in the public and private spheres. The Concordia "Digitalization of Romania" working group complements the ANIS working group at those points—or moments—when the involvement of multiple industries is necessary or when broader alliances need to be facilitated at the level of Concordia, the business environment, or even beyond it.

Consiliul Naţional al IMM-urilor din România (CNIPMMR) is an initiator and strong advocate for a national framework agreement on digitalization. It did so by organizing in the April 2023 a debate at the Romanian Government regarding the signing of the Framework Agreement for Digitalization of Social Partners from Romania. CNIPMMR argues that the national framework agreement represents the common commitment of social partners from Romania regarding the digitalization of labor relations concerning new employment opportunities, productivity growth, improvement of working conditions, and new ways of organizing work.

As a result of these efforts, social partners, at different levels and with complex positionings about digitalization, each emphasised the importance of the new technologies to beneficially impact the economy.

### B. Findings of TransFormWork 2 survey and interviews

#### Research findings

For the development of the national report research section, structured questionnaires were distributed, following the template agreed within the project, to organizations and professionals across the targeted sectors. In parallel, targeted discussions were held with some respondents in order to gather additional insights and better understand both the concrete use of

artificial intelligence and the perceptions regarding its impact on work. The analysis presented below synthesizes the collected responses and observations without attributing individual opinions, aiming to capture the main trends and concerns at the sectoral level.

These findings should be interpreted with caution, as they reflect the realities of small and informal workplaces rather than structured company-wide policies

#### 1. Media Sector

In the media sector, the use and perception of artificial intelligence show both opportunities and challenges. Respondents indicated that AI tools are already being explored, particularly for social media content and investigative tasks, with plans to further expand their use in the future.

Consultation with employees prior to adoption was reported inconsistently. However, this should be understood in context: in very small workplaces, where respondents in this sector are mostly located, formal procedures are often replaced by informal communication, and written policies are less common. In addition, in some cases AI is not yet rolled out across the company but used by managers for their own tasks, which may explain why staff members did not identify themselves as being formally consulted.

Al adoption has already influenced job content, especially for social media managers, where responsibilities have shifted. Experiences with Al-generated content also highlighted reputational risks: inaccuracies in posts led to strained relations with external sources, as these could not easily distinguish between human and Al authorship. At the same time, respondents also reported innovative and beneficial applications. A notable example is the use of Al software to investigate disinformation trends on TikTok at scale, which was perceived as a valuable tool for strengthening investigative journalism capacities. This illustrates the potential of Al to enhance the reach and depth of media monitoring and analysis when applied appropriately.

However, the quality and utility of AI outputs varied considerably depending on the task. One respondent reported frustration with colleagues using AI to draft written content, which frequently required substantial manual redrafting due to poor quality. This added rather than reduced workload, as the effort of correcting AI-generated text exceeded the time that would have been needed to write it from scratch.

Beyond content creation and investigative work, AI integration has also entered the production process through video editing software. Respondents noted that AI enhancement tools have been incorporated into standard editing programmes, though their application remains limited in scope. These tools are used primarily for minor technical enhancements – such as colour

correction, audio levelling, or stabilisation – rather than for substantive editorial decisions. Notably, the adoption of these features was not a deliberate organisational choice: the tools were embedded in software updates, meaning editors now work with Al-enhanced programmes by default rather than by selection. This passive integration reflects a broader trend in which Al becomes part of the technical infrastructure without triggering formal decision-making processes or consultation mechanisms.

Yet within the same workflow, AI tools delivered significant time savings in other areas. The same respondent who criticised AI-drafted text noted that AI had substantially reduced their workload in video production tasks, particularly in identifying precise timestamps for editing purposes – easily locating where cuts should be made, where subtitles should appear, or which sections of lengthy video call recordings warranted focus. This contrast highlights that AI's impact on efficiency is highly task-dependent: it may create additional work in tasks requiring nuanced judgement or tone, while streamlining technical, time-intensive processes that benefit from pattern recognition and indexing capabilities.

Perceptions of the impact on working time varied. Some respondents noted that processes were simplified and workloads reduced, while others saw no significant effect. Access to training was similarly uneven: in some cases management offered guidance, while in others employees were left to self-learn. The example of video editing software illustrates this dynamic: because AI tools arrived as part of routine software updates rather than as standalone adoptions, no accompanying training or guidance was provided, leaving users to discover and assess functionalities independently.

Rules on occupational health and safety (OSH) and the "human-in-control" principle were reported to exist in some workplaces, but not all, again reflecting the informality typical of small organizations.

Al was used regularly in some roles—on a daily or weekly basis—while others did not integrate such tools into their tasks. Where Al was used, it did not determine task prioritisation. Transparency also varied significantly, ranging from very high openness about Al use to a complete absence of communication. Importantly, no Al-based monitoring of employees was reported.

Awareness of EU-level policy debates remains limited, with little knowledge of the proposed Directive on platform work. This points to a gap between practical experimentation with AI tools at workplace level and understanding of broader regulatory frameworks.

#### 2. Industry

The industry sector respondents represented large enterprises, ranging from several hundred to over ten thousand employees. In all cases, workers were unionised and covered by collective agreements, which provides an important institutional framework for consultation and social dialogue. Against this background, companies reported significant use of automation, robotics, and artificial intelligence (AI), particularly in production processes, as well as in administrative and data management functions.

The majority of respondents report that AI and automated systems are already in use within their organizations, with most identifying as management and a smaller portion as employees. However, there is a significant proportion of *Don't know* responses, indicating uncertainty or lack of awareness about specific AI-related procedures and protections.

#### Areas of application

Al and automation were most commonly applied in production, where companies highlighted the automation of previously manual operations, the introduction of robotics, and the use of computer vision for defect detection. Some respondents reported implementing collaborative robots (cobots) to work alongside human operators, as well as integrating IoT devices for real-time monitoring of production. Applications were also noted in predictive maintenance and process optimisation, though less frequently. On the administrative side, Al systems were used mainly for general data management, accounting and finance, and supply chain management. Importantly, respondents did not report significant use of AI in recruitment or HR decision-making.

#### Impact on production and quality

The introduction of AI and automation was almost unanimously seen as improving productivity, product quality, and ergonomics at the workplace. Reported outcomes included reduced downtime, fewer quality defects, and faster execution times. Companies also mentioned that the technology freed up time for employees to focus on more value-added activities, suggesting a shift in the nature of work rather than outright substitution. These perceived benefits reflect a largely positive assessment of AI's contribution to competitiveness and efficiency in industrial settings.

#### Changes in job content and working time

Responses on the impact on job tasks and working time were more nuanced.

Some companies noted a transition from manual task execution to monitoring and control roles, along with the emergence of new skill requirements and even new occupations. Others reported no major changes. Similarly, while one respondent indicated changes in overtime hours, others did not observe significant effects on working time. These divergences highlight that the degree of impact depends strongly on the specific technologies deployed, the stage of implementation, and the organisational approach.

#### Consultation and worker involvement

When asked about consultation prior to introducing AI and automation, only one respondent reported formal involvement of worker representatives, while others either answered negatively or did not know. This does not necessarily mean that workers were excluded from the process. In large industrial enterprises, the introduction of new technologies often follows complex decision-making chains, and communication may occur at a later stage of roll-out. This response might also reflect the fact that implementation is still limited to specific departments or pilot projects, meaning that information has not yet reached the broader workforce or been formally addressed through company-wide consultation mechanisms. Moreover, where AI is used mainly by management for process optimisation, employees may not perceive themselves as directly consulted because the technology is not embedded in their own tasks. The strong presence of unions and collective bargaining structures suggests that social dialogue channels exist, but the responses show that these are not always systematically activated in relation to AI-specific initiatives, at least not at this stage and in the very small number of cases reflected in our sample.

#### Training and skills

Training and transparency are mixed: While some respondents confirm that training programs and internal safety norms exist, many answers are missing or indicate that training was not provided or not considered adequate. Transparency regarding AI monitoring and data collection is described as 'somewhat transparent' or 'very transparent' by most, but a notable minority find it 'not very transparent', indicating uneven practices across firms.

Training, when provided, was associated with a growth in competences, particularly for workers shifting from operational roles to supervisory or monitoring positions.

#### Health, safety, and governance

The majority of companies reported having internal health and safety (OSH)

rules for the use of AI and robotics, although not universally. Similarly, some respondents confirmed that they apply the "human-in-control" principle, ensuring that final decisions remain with people, but others did not provide clear information. This reflects a partial but not comprehensive governance framework for AI at this point in the examined responses.

#### Monitoring and transparency

Most respondents stated that their organisations do not monitor employees through AI-based systems, with only one case reporting digital monitoring. Where such systems existed, safeguards such as limited access, data encryption, deletion protocols, GDPR compliance, and third-party audits were reported. Transparency on AI and monitoring practices varied, with companies rating themselves from "very transparent" to "not very transparent." Again, this suggests differences in internal communication practices rather than an absence of procedures.

#### Awareness of EU policy

Awareness of EU-level regulatory initiatives, such as the proposed Platform Work Directive, was limited. Only one management respondent reported knowledge of the initiative, while others either did not know or were unaware. This indicates a gap between operational adoption of AI technologies and engagement with ongoing policy debates at European level.

#### Overall assessment

The industry sector illustrates both the potential and the challenges of AI adoption in the workplace. On the one hand, companies highlighted clear gains in productivity, quality, and efficiency, alongside improvements in ergonomics and opportunities for workers to engage in higher-value tasks. On the other, practices around consultation, training, transparency, and governance remain uneven. This must be understood in context: in large, complex organisations, the implementation of AI often proceeds in stages, with formal social dialogue structures in place but not always specifically mobilised for AI-related changes. The responses therefore point less to a lack of dialogue and more to the fact that AI has so far been integrated primarily into administration and production processes, with only partial and uneven implications for employees' day-to-day work.

#### 3. Financial Services Sector

The financial services sector respondents represented a large enterprise a few thousand people, with strong trade union presence and full coverage by collective agreements. This institutional setting indicates a structured framework for worker representation and dialogue. At the same time, it is important to emphasise that the findings presented here are drawn from questionnaire responses only. They therefore provide useful insights but require deeper exploration and should be read as concise examples rather than a comprehensive picture of the entire sector.

#### Scope of Al use

All respondents confirmed that AI systems are already in use, covering a variety of functions. Applications were reported in data processing, automated systems, cloud services, predictive modelling, and diagnostic analysis. In addition, AI was applied to finance, accounting, and HR-related functions such as training and task management, albeit on a smaller scale. The most widespread uses appear to be automation of repetitive tasks and back-office processes, which respondents emphasised as key areas for productivity gains. Importantly, the roll-out of AI was described as still in an early stage, often piloted in specific operations, with plans to scale up in the near future.

#### Impact on work and services

Respondents generally highlighted positive outcomes of AI adoption. Many noted that routine and repetitive tasks had been automated, enabling employees to focus on higher-value activities and reducing time spent on manual processes. Improvements in data processing speed and service delivery times were also emphasised, with some employees observing a doubling of productivity in activities involving unstructured data. For client-facing services, AI was credited with enabling quicker responses. At the same time, some respondents underlined that the process is ongoing, with systems still in testing phases and not yet fully integrated. This explains why a number of responses reflected only limited impact so far.

#### Consultation and involvement

A majority of respondents indicated that employees had been consulted prior to the introduction of AI systems. In most cases, this consultation took the form of informing the workforce at large, rather than through representative bodies such as unions. Given the presence of strong collective bargaining structures, these results should be interpreted cautiously: they suggest that employees are being informed when relevant, but the extent to which AI is

addressed through formal social dialogue remains unclear from the limited questionnaire data.

#### Training and support

All respondents confirmed that training had been offered to employees using Al systems, and this training was overwhelmingly considered adequate. This suggests a proactive approach by management in preparing staff for technological changes. One respondent described procedures allowing employees to address doubts or inaccuracies directly with the department responsible for implementing Al solutions, highlighting the existence of support channels.

#### Changes in job content and working time

The introduction of AI led to changes in tasks for some employees, particularly through the elimination of repetitive steps and simplification of processes. However, not all staff experienced these changes equally, and several respondents reported no noticeable effect on their work so far. In terms of working time, almost all respondents indicated no change, with only one reporting a reduction in hours. These divergent accounts underline that current findings represent snapshots rather than sector-wide trends.

#### Governance, transparency, and safeguards

Responses regarding internal rules and safeguards were mixed. Only a minority of respondents confirmed that occupational health and safety provisions covered AI systems, while most answered "don't know," likely reflects the early stage of implementation. A clearer result was observed regarding the "human-in-control" principle: most respondents confirmed that final decisions remained with humans, not AI, whilst others responded "don't know."

Transparency was rated as relatively high, with organisations described as either "very transparent" or "somewhat transparent" in communicating about AI use. No respondents reported AI-based monitoring of employees. Where questions on oversight and complaint mechanisms were answered, some respondents noted that decisions made by AI could be reviewed by colleagues or relevant departments.

#### Awareness of EU policy

Awareness of the proposed EU Directive on platform work was evenly split, with roughly a third of respondents familiar with it, a third unaware, and a

third uncertain. This mixed awareness suggests that regulatory developments are not yet systematically communicated across the workforce, even if management may be more engaged at the institutional level.

#### Overall assessment

The financial services sector demonstrates both the potential and the early-stage character of Al adoption. Clear productivity gains were reported, particularly in automating repetitive processes and improving back-office efficiency. At the same time, many impacts remain localised, and some employees reported little change so far, reflecting that implementation is partial and ongoing. Consultation practices appear to involve employees directly, with unions not specifically referenced, though this may reflect the early phase of roll-out. Training provision is a strong positive feature, with respondents largely satisfied. Governance and transparency are developing but not yet fully developed, and awareness of EU-level regulatory debates remains uneven. Overall, the responses provide valuable snapshots but must be interpreted cautiously, as they cannot be assumed to represent sectorwide practice.

#### 4. Education Sector

In Romania, the public pre-university education sector is highly unionised, with a collective agreement in place at national level. This context suggests that the questionnaire responses in our sample, all of which reported no union representation or collective bargaining coverage, most likely come from private institutions or from the higher education sector, where unionisation exists but is less present. The organisations represented were small, ranging in size from 1–5 to around 50 employees. The majority of respondents were employees, with only one representing management. This is important context for interpreting the findings, which are drawn exclusively from questionnaire data and should be considered as snapshots of individual cases rather than representative of the sector as a whole.

#### Scope of AI use

Responses indicated very limited adoption of artificial intelligence and digital systems in the institutions surveyed. Some organisations reported no use of AI at all, while others mentioned early-stage or experimental use in administrative or teaching-related support. Specific examples were sparse, and many items were left blank, which itself may reflect a lack of structured engagement with AI technologies at this stage. Where AI use was acknowledged, it was described as exploratory rather than systematically integrated into teaching or management processes.

#### Impact on work and services

Where AI had been introduced, two respondents reported that the quality of education and training provided had been *significantly improved*. One respondent explained that AI tools supported their research activities, while another highlighted that courses had become more interactive and that student assessment methods were enhanced. These concrete examples illustrate the potential of AI to add value in both academic and pedagogical dimensions. However, beyond these cases, most respondents either reported no noticeable changes or left the question unanswered, suggesting that systematic impacts are not yet widespread. The overall picture is therefore one of isolated positive experiences rather than sector-wide transformation at this stage.

#### Consultation and involvement

The absence of union representation reported across all responses is notable, particularly in light of the broader sectoral context. This could reflect the specific type of institutions represented in the sample (private or higher education), where formal social dialogue structures are less prominent. As a result, any consultation with employees about AI or digitalisation is likely to take place on an ad hoc basis. Moreover, it should be considered that the introduction of AI tools does not always follow an institutional decisionmaking process. Individual staff members may independently decide to use Al for their own tasks – for example, researchers applying Al to support their projects, or teachers using it to prepare course materials, organise lessons, or develop student assessments. In such cases, employees may not perceive consultation as relevant, since adoption was not a top-down organisational decision but rather a self-initiated practice. With most answers in this dataset coming from employees rather than management, the available information reflects these individual experiences rather than systematic employer-driven implementation.

#### Training and support

The questionnaires provided little consistent information on whether training had been offered to staff in relation to AI tools. In some cases, respondents explicitly stated that they did not know whether training was available, again underlining the early stage of adoption. The absence of clear answers suggests that systematic training provision is not yet a feature in the small institutions represented in the sample.

#### Governance, transparency, and safeguards

Very little information was provided on internal rules, occupational health and safety provisions, or the application of the "human-in-control" principle. Where questions on data protection and monitoring were answered, most respondents indicated that their organisations did not engage in Al-based employee monitoring or intrusive data practices.

#### Awareness of EU policy

Awareness of the proposed EU Directive on platform work varied, with some respondents indicating familiarity and others not aware or uncertain. This mixed result is consistent with the overall picture of limited structured engagement with policy debates at the institutional level.

#### Overall assessment

The education sector responses suggest that AI adoption is at a very early stage in the small institutions covered by this sample. Reported use of AI was minimal, impacts on work and services were limited, and governance structures are not yet in place. The absence of unions and collective bargaining frameworks in the responses reflects the likely profile of the respondents (private or higher education institutions), rather than the sector as a whole, where unionisation is normally high. Overall, the findings highlight the lack of widespread adoption or structured policies within the specific institutions surveyed, but they cannot be assumed to represent practices across the broader education sector.

#### Conclusions

The research findings across the four sectors examined — media, industry, financial services, and education — highlight both the opportunities and challenges of integrating artificial intelligence into the workplace. While each sector has its own dynamics, several common themes emerge.

#### 1. Stage of AI adoption varies widely

In industry, AI and automation are already deeply embedded in production processes, with respondents reporting significant gains in productivity, quality, and ergonomics. Financial services also show broad adoption, though still at an early stage, with automation concentrated in back-office operations and plans for further scaling. By contrast, in education and media, AI use appears more fragmented and exploratory: often applied through individual initiative (e.g. teachers or researchers adopting tools independently, or journalists using AI for social media or disinformation analysis), rather than through systematic institutional strategies.

#### 2. Impacts on work and services are positive but uneven

Across all sectors, respondents emphasised productivity gains, reduced time spent on repetitive tasks, and in some cases improved quality of services. Industry reported better product quality and fewer defects; financial services noted faster data processing and more efficient back-office operations; education respondents observed more interactive courses and improved student assessment methods; and in media, AI supported large-scale monitoring of disinformation. At the same time, respondents also noted risks, such as reputational harm from inaccurate AI-generated content in media, or the limited reliability of systems still in testing phases in finance. Impacts on working time and job content varied: some staff reported transitions towards monitoring roles or the removal of repetitive steps, while others experienced little or no change.

#### 3. Consultation and worker involvement are partial

Formal consultation of employees or unions prior to AI adoption was inconsistently reported. In industry, only one respondent confirmed consultation of worker representatives, despite strong union presence. In financial services, employees were often informed directly, but unions were not specifically mentioned. In education and media, where many of the organisations were small or individual staff were experimenting with AI independently, consultation was either informal or absent. These findings must be interpreted carefully: in large organisations, consultation may occur later in the roll-out process or only in specific departments; in smaller or less formalised workplaces, AI use may bypass formal decision-making structures altogether.

#### 4. Training and support practices are uneven

In financial services, training provision was systematic and generally judged adequate, standing out as a positive example. In industry, training was offered in some cases, particularly where employees shifted from operational to supervisory roles, but responses also indicated gaps. In education and media, training was less visible, with many respondents unsure or reporting self-learning. This unevenness suggests that while some sectors are proactively preparing their workforce for Al adoption, others are relying more on individual initiative.

#### 5. Governance, transparency, and safeguards are emerging but incomplete

Some organisations reported internal occupational health and safety rules and confirmed application of the "human-in-control" principle, but others either did not know or lacked such measures. Transparency in communication about AI use was generally rated as "very" or "somewhat transparent," though a minority described their organisations as less open. Importantly, very few cases of AI-based employee monitoring were reported, and where monitoring systems existed, safeguards such as GDPR compliance, encryption, and deletion protocols were mentioned. Overall, governance frameworks appear partial and not yet consistently applied.

#### 6. Awareness of EU-level policy debates is limited

Across all sectors, awareness of the proposed EU Directive on platform work was low to mixed. Only a minority of respondents indicated familiarity, suggesting that while organisations are beginning to adopt AI in practice, awareness of the regulatory context remains limited among employees and even some managers.

#### Overall assessment

The evidence gathered paints a picture of AI integration that is highly uneven across sectors and workplaces. Industry and finance are further advanced, with structured applications and visible productivity gains, while education and media show more fragmented and exploratory adoption, often driven by individual initiative rather than company-wide strategies. Consultation, training, and governance practices exist in some cases but are not systematically applied, reflecting both the early stage of implementation and the diversity of organisational contexts. Importantly, the findings are based on a small number of questionnaire responses and should be interpreted with caution. They provide valuable insights into how AI is beginning to shape work in Romania, but they cannot be assumed to represent sector-wide practices. Further research and structured dialogue will be essential to capture the full range of experiences and ensure that AI adoption aligns with principles of transparency, worker involvement, and human oversight.

#### C. Conclusions

Romanian social partners and officials will need to coordinate their effort in implementing the AI changes in the national industrial and work market. Given the hardness with which the National Strategy was adopted and the government is not heavily focusing on AI regulation, the EU AI Act will be the main instrument by which the emerging technologies will be regulated. Given

the lack of national laws until the entering into force of the Act, there is a high change that Romania will miss, in the coming two years, the positive changes that the AI is creating.

Given the perspectives outline in the pages above, we can argue that the AI in Romania has a chance to have a positive impact on the economy, the size and value to this impact will depend on the situations that will be created by the officials, the openness of the private sector, employers and workers together, to embrace the changes brought by the technologies. This will very much depend on the national strategies and actions meant to adapt the population and the economy to AI, making Romania either a front runner or a later in adopting and implementing AI. Taking into consideration the speed to which the officials have adapted to the emerging technology, but having in mind the EU AI Act, is it possible that Romania will follow the middle scenario, where it will implement and make use of AI, but not at a high speed, achieving the *technological leap frog*. The extent to which this will be achieved and if it has an increased pace, it will also depend on the social partners involvement and the openness of the institutions for cooperation.

### Bibliography (not exhaustive):

- <u>Techcelerator Al Map Identifies 10 Promising Romanian Startups</u> (therecursive.com)
- <u>Artificial Intelligence 2024 Romania | Global Practice Guides | Chambers</u> and Partners
- OK Computer: Romania debuts 'world's first' Al government adviser –
   POLITICO
- <u>Mapping: which verticals are Romanian AI startups tackling?</u> (therecursive.com)
- <a href="https://start-up.ro/studiu-google-cati-bani-ar-putea-aduce-genai-in-pib-ul-romaniei/">https://start-up.ro/studiu-google-cati-bani-ar-putea-aduce-genai-in-pib-ul-romaniei/</a>
- <a href="https://implementconsultinggroup.com/article/the-economic-opportunity-of-generative-ai-in-cee">https://implementconsultinggroup.com/article/the-economic-opportunity-of-generative-ai-in-cee</a>
- <a href="https://drive.google.com/file/d/1K9N\_TwpT\_pmdLPVyO7UQYBtc6EW-R3cl/view">https://drive.google.com/file/d/1K9N\_TwpT\_pmdLPVyO7UQYBtc6EW-R3cl/view</a>
- <a href="https://www.startupcafe.ro/afaceri/studiu-google-2024-locuri-munca-romania-inteligenta-artificiala-generativa.htm">https://www.startupcafe.ro/afaceri/studiu-google-2024-locuri-munca-romania-inteligenta-artificiala-generativa.htm</a>
- Google Study: The adoption of AI could bring a 5% increase in Romania's GDP in the next 10 years (actmedia.eu)
- From Bucharest to Cluj: how is Al adoption in Romania moving (therecursive.com)
- https://digital-decade-desi.digitalstrategy.ec.europa.eu/datasets/desi/charts
- Plan-national-de-actiune-roadm-ap-pentru-publicare corectat.pdf
- https://ec.europa.eu/newsroom/dae/redirection/document/106692
- Propunere-Cadru-Strategic-National-IA-.pdf (gov.ro)
- nota-de-fundamentare-proiect-hg\_SN-IA-final-martie-intern.pdf (gov.ro)
- HG-SN-IA-22012024.pdf (gov.ro)
- Artificial Intelligence 2024 Romania | Global Practice Guides | Chambers and Partners
- Plan-national-de-actiune-roadmap-pentru-publicare.pdf (gov.ro)
- senat.ro/legis/lista.aspx?nr cls=L255&an cls=2024#ListaDocumente
- Cadrul strategic național în domeniul inteligenței artificiale 2023-2027
- pvg336\_2024.pdf (cdep.ro)
- https://legislatie.just.ro/public/DetaliiDocument/267590
- https://www.dialogsocial.gov.ro/wp-content/uploads/2023/06/Legea367-2022-privind-dialogul-social.pdf
- https://fmi.unibuc.ro/planuri-de-invatamant/
- https://acs.pub.ro/admitere/licenta/
- https://ac.utcluj.ro/oferta-educationala.html

- https://www.mcid.gov.ro/wp-content/uploads/2024/01/HG-SN-IA-22012024.pdf
- <a href="https://therecursive.com/techcelerator-ai-map-10-romanian-ai-startups-2023">https://therecursive.com/techcelerator-ai-map-10-romanian-ai-startups-2023</a>