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SOCIAL PARTNERS TOGETHER FOR DIGITAL TRANSFORMATION OF THE WORLD OF WORK. NEW DIMENSIONS OF SOCIAL DIALOGUE DERIVING FROM THE AUTONOMOUS FRAMEWORK AGREEMENT ON DIGITALISATION – TRANSFORMWORK VP/2020/001/0083

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**TransFormWork**

# **NATIONAL REPORT**

# **BULGARIA**

*This survey was conducted as a part of the project: “Social partners together for digital transformation of the world of work. New dimensions of social dialogue deriving from the Autonomous Framework Agreement on Digitalisation” (TransFormWork VS/2021/0014), funded by EC, DG Employment, Social Affairs and Inclusion done by the Bulgarian research team: Lyuboslav Kostov, Rositsa Makelova, prof. Elena Shoikova and Mariya Mincheva.*

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# 1. Historical trends and development of Digital transformation in Bulgaria

## 1.1. The structure of the economy in Bulgaria<sup>1</sup>?

Gross Domestic Product (GDP) at current prices for the first quarter of 2021 is 27 054 million BGN (preliminary data). GDP per person is 3 912 BGN. In Euro, GDP reaches 13 833 million EUR in total and 2 000 EUR per person. Seasonally adjusted data show a decline of 1.8% compared to the first quarter of 2020 and an increase of 2.5% compared to the fourth quarter of 2020.

The highest contribution (21.7%) to the Gross national value-added in 2020 is made by the Sectors B-E (Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities). The most contributing sectors G-I (Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities) and O-Q (Public administration and defense; compulsory social security; education; human health and social work activities), represent 19.0% and 17.1% of the Gross value added (GVA) in 2020.

The Agriculture, forestry and fishing sector amounts to 3.9% of the GVA. The Information and communication sector formed 8.0% of the national GVA in 2020.

There were 419 681 non-financial enterprises in 2019. When grouped by size, the micro-enterprises (0-9 employed) dominate in number (388 980 or 92.7% of all non-financial enterprises), followed by the small enterprises<sup>2</sup> (25 204 or 6.0%) and medium enterprises<sup>3</sup> (4738 or 1.1%). The large enterprises represent only 0.2% of all non-financial enterprises in 2019. The small and medium-sized enterprises (SMEs) can be referred to as the backbone of the Bulgarian economy, providing a potential source for jobs and economic growth. When grouped by economic activity, the non-financial enterprises are concentrated unevenly across the economy. The NACE sections where most of the enterprises can be found include Wholesale and retail trade; repair of motor vehicles and motorcycles (34.2% of all non-financial enterprises operate in the sector); Professional, scientific and technical activities (11.5% of all non-financial enterprises); Manufacturing (7.5% of all non-financial

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<sup>1</sup> National Statistics Institute of Bulgaria and Eurostat have been used as sources throughout this chapter.

<sup>2</sup> 10-49 employed

<sup>3</sup> 50-249 employed

enterprises); Accommodation and food service activities (6.5% of all non-financial enterprises); Real estate activities (6.0% of all non-financial enterprises).

The official statistics for the first quarter of 2021 reveal 3 million employed persons and 204 thousand unemployed persons. Respectively the employment rate was 51.4%<sup>4</sup> Despite the low unemployment and the targeted employment policy of the government, 25.0% of the industrial enterprises pointed out the labour shortage as a factor limiting their activity (data provided by the national statistics business inquiries in June 2021). And the unemployment rate was 6.3%. The shrinking labour supply, along with the pandemic government support measures and the increase of high-qualified workers, contributed positively to the remuneration level nationwide. The total hourly labour cost rose by 4.9% compared to the first quarter of 2020. In March 2021, the average wage and salary was BGN 1 500 and rose by 4.8% compared to the previous month and by 13.6 % compared to March 2020.

## **1.2. Recent developments**

Digital penetration and development are being analyzed by different stakeholders in the country. Data indicates that Bulgaria has large numbers of artificial intelligence (AI) players across the industry as well as energetic and indigenous private sector successfully competing internationally in areas such as machine-building and IT. According to the 2019 InnovationShip survey by the EDIT network of digital Bulgaria, the most crucial segments of the emerging deep tech in Bulgaria include platform building, big data analytics, machine learning and AI, cloud computing, automation systems, blockchain/API and Connectivity/IoT.

According to the data of the Bulgarian Association of Software Companies (BASSCOM) the average compensation of the software sector employees remains three times higher than the national average, and when (adjusted through PPPs) remains even higher than compensation of their colleagues in the UK and Germany.

Since 2013 the ICT sector as a percentage in the national GDP has constantly been increasing and reached 6.1% in 2018. At the same time, the ICT personnel in total employment is just 2.85%. Compared with advanced EU economies, Bulgaria registers a high rate of business

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<sup>4</sup> The employment rate of persons aged 15 years or more.

expenditure on Research and Experimental Development (R&D) in the ICT sector as % of total R&D expenditure.

Enterprise data indicates that almost all (95.5%) enterprises have access to the Internet. Despite the increase in the share of enterprises providing company portable devices that allow mobile internet connection, Bulgaria is still quite below the EU average rates of employees equipped with such devices. About half (48.0%) of the enterprises still do not have their own website, and even few use paid cloud computing services (10.9%) or performed big data analysis (6.3%).

The country is still below the EU average when security is concerned: enterprises with formally defined ICT security policy (19% of Bulgarian enterprises compared to 31% in EU 27 in 2015); enterprises which made persons employed aware of their obligations in ICT security-related issues (51% in Bulgaria, 61% in EU 27 in 2019); enterprises using any ICT security measure (85% in Bulgaria, 92% in EU 27 in 2019); enterprises having insurance against ICT security incidents (3% in Bulgaria, 21% in EU 27 in 2019).

About half of the Bulgarian SMEs still do not have an innovation strategy in place. About one-third of the SMEs report that personnel have no digital skills at all, and 38% report difficulties in finding employees with any digital skills. SMEs still encounter problems in finding information on digital projects/programs, applying digital marketing tools, allocating funds on the digital transformation of the business processes (BCCI data for 2019).

Official data concerning the digitalization of society indicates that 78.9% of Bulgarian households have access to the Internet at home; however, there are still significant regional disparities in terms of access. 69.2% of the Bulgarians report using the Internet regularly (every day or at least once a week), but the highest share of the indicator is within the youth group (up to 35). Still, 20.9% of the Bulgarians have never used the Internet (in contrast, the EU 27 average is 9%). Many digital skills are underdeveloped. For example, Bulgarians still find difficulties in installing and using different software products/apps.

Training initiatives related to acquiring (digital) competencies have been organized over the years by both public and private sector entities. Special attention is paid to the women,

vulnerable youths and young children so that a wider audience is reached and equal access to training is guaranteed. The higher education programs have been currently paying interest in digital industrial technologies, and there are already available studying opportunities. As to public administration employees, the Bulgarian Institute of Public Administration (IPA) provides training using modern technologies, methods and programs. Data show that just in the first half of 2021, nearly 11 000 public administration servants have participated in IPA training.

Despite the active government policy related to the digital transformation of the economy, Bulgaria still occupies the bottom position within different international rankings. The 2020 IMD World Digital Competitiveness Ranking positioned Bulgaria in 45<sup>th</sup> place among 63 researched economies. According to the 2020 Digital Economy and Society Index (DESI), Bulgaria performs quite under the EU average and currently has the lowest score on the index.

### **1.3. Forecasts and future developments**

According to a **McKinsey report**, digitization can be the next big engine for sustainable growth for Bulgaria, adding 1% extra growth per year to the Gross Domestic Product (GDP) of the country by 2025.

Harnessing even more significant digital opportunities requires decisive policy interventions. To strengthen Bulgaria's digital status, future efforts need to be channeled in the following areas:

- ✓ **building skillset** for the future by developing a wide-ranging reskilling strategy, updating youth education for the future and actively counteracting brain drain;
- ✓ individuals should prepare for the digital economy and **invest in lifelong learning**;
- ✓ investments in human capital through both primary and secondary education are a significant step towards the economy's digitalization. Digital and soft skills for the general population need to be developed. Private and public education efforts should be coordinated and build on each other. Furthermore, training should encounter population groups prone to exclusion (such as females, ethnic minorities, etc.) and ensure the dissemination of cost-efficient technological devices;
- ✓ **technology adoption in the public sector** (e.g. speeding up the development of online public services and their adoption);

- ✓ **technology adoption among businesses** (e.g. promote digitization benefits and digital transformation).

The private sector should embrace a pro-digital organizational culture. SMEs are exposed to high competition but do not have enough human, financial and technical capital to maintain and increase their competitiveness in the context of the digital transformation. Since SMEs still lack financial resources to integrate digital instruments into their business processes, improving the legal framework for digital and digitally-driven SMEs is a must. Measures may be aimed at funding, provision of simplified e-services and lower taxation.

- Strengthening **regional cross-border digital collaboration** (e.g. create a strong digital pillar within regional collaboration platforms)
- Further, **stimulate the startup ecosystem** through, e.g. improving entrepreneurial talent pool and increasing access to capital).
- **Overcoming labour market shortages.**

Companies declare that software engineers and developers are the hardest to find; talent shortage is encountered. Strengthening business-education relations can contribute to sparking interest in ICT and STEM disciplines among students. Comprehensive research on the inclusion barriers (prejudice, lack of skills, unattractiveness, etc.) may support the process.

## 2. National framework of digitalisation and collective bargaining

### 2.1. Strategic framework

Bulgaria has adopted various strategies related to digital transformation. The first National Programme “DIGITAL BULGARIA 2015” was approved in 2012. It identifies seven interrelated priority areas: 1. A vibrant digital single market; 2. Interoperability and Standards; 3. Trust and Security; 4. Fast and Ultra-fast Internet Access; 5. Research and Innovation; 6. Enhancing Digital Literacy, Skills and Inclusion; 7. ICT-enabled Benefits for EU Society

Before that a number of strategic and program documents have been developed, covering partially the topic of digitalization: National Reform Programme 2012-2020 (*Development of e-Health; Development of e-Government; Broadband development; Promoting investments aimed at creating new jobs in high-tech industries and knowledge-based services (education, R & D, ICT, etc.); ICT for Energy Efficiency; ICT to improve the Education system*),

National Strategy for Scientific Research 2020 (*the main emphasis is on supporting research and technological development in the fields of research, ICT infrastructure, e-Government, online health, smart home, digital skills, security in cyber-space*), Innovation Strategy of Bulgaria, National Strategy for Broadband Access Development, Common Strategy for e-Government Development 2011-2015. In December 2019, the Council of Ministers adopted an updated National Program "Digital Bulgaria 2025".

The situational analysis provided in National Program "Digital Bulgaria 2025" gives an overview on some main domains, related to the scope of the TransFormWork project:

*Human resources:*

The overall level of digital skills in Bulgaria is among the the lowest in the EU: the proportion of people with at least basic skills in the field of digital technologies amounts to around 29%, while on average for the EU this share is 57 %. This trend was also confirmed among young people: 54% of young people between the ages of 16 and 24 have at least basic digital skills (relative to the EU average of 81 %). People with more advanced user skills (above basic digital skills) accounted for 11% of the total number of less than one-third of the EU average. There have also been policy changes – the education system is in the process of reforms at all levels, and although the measures are not fully in line with the with the scale of the digital transformation, however, the focus on improving digital skills. In the context of higher education reform, measures have been taken to strengthen cooperation between educational institutions and businesses.

*Using Internet services:*

Although it has improved its performance, Bulgaria is below the average level in internet services: 64% of citizens use the internet (in the EU average is 83%), while 27% have never used it – this is the highest value across the EU. Among EU internet users Bulgarians make the most video calls; they are well above the average level and in terms of social networking activity (79% of the total number of compared to 65%). There are significant differences for regular internet users in education - 89.6% of persons with higher education and 37.7% of persons with primary or lower education regularly use the global network. Employment status also affects the activity of the population in the global network. The most common use of it is those in education (unemployed), 98.6% of who surf regularly and in the case of workers

(employed and self-employed) the relative share is 80.8%. Almost half of the unemployed (45.1%) also regularly used on the internet.

### *Deployment of digital technologies*

The adoption of digital technologies by businesses in the Bulgaria is going slowly. In recent years, there has been a gradually evolving ecosystem of digital and technological entrepreneurs, but investment in the digitisation of the economy is still limited. These insufficient investments, together with the shortage of ICT professionals, are defined as possible reasons for slower digitisation in Bulgaria compared to other Member States.

Bulgarian businesses are facing difficulties to use the opportunities provided by online trading: 6% of the total number of SMEs sell online (compared to 17% on average in the EU), 3% of all SMEs make cross-border sales and only 2% of their turnover is from online trading. Although Bulgarians use social media intensively for personal use, only 9% of businesses use them for personal use compared to 21% on average in the EU. Finally, the number of enterprises with a high intensity index represent only 7.81 % of all enterprises. It is positive that 23% of companies share information online, with an average of EU 34%.

The insufficient digital, communication and entrepreneurial skills of the citizens and deepening the problem of the shortage of a highly skilled workforce in high-tech activities is barriers to the development of the digital economy. According to the government, a strategically coordinated approach involving all stakeholders is needed to ensure an update of the programmes for the digital skills at all levels and parts of the educational system, additional qualification and retraining of employees and unemployed, an increase in the number of graduates in the field of accurate science, technology, engineering and mathematics (TNTIM), inclusion of employers in vocational training, reducing the digital economy and reducing the division with a focus on disadvantaged social groups. The use of ICT in industry and services involves the deployment of ICT applications to optimise the management, production and processes, e-commerce and e-business, the provision of interactive online services, increased opportunities for flexible, flexible and remote and part-time work, etc. The low level of investment of enterprises in ICT limits Bulgaria's ability to benefit from the benefits of the digital economy.

## **2.2. Social dialogue and collective bargaining**

### *Social dialogue*

Digitalisation is at the focus of social partners in recent years. In 2010 all nationally representative organisation of employers and workers concluded a national agreement, arranging telework. This agreement was based on the 2002 EU Social Partner Autonomous agreement on telework<sup>5</sup> Based on the agreement and on joint request by the social partners, the Labour code was amended. With these amendments a new section was introduced to arrange telework. Despite that, according the Eurostat, for the period 2011-2019, the percentage of employed people working from home on a regular basis, varies from 0.2 to 0.6.<sup>6</sup> The percentage, reported for the pandemic 2020 is 1.2 – again the lowest rate for 2020, compared to EU 27 – 12 %.

In 2019 and 2020, the Economic and social council<sup>7</sup> adopted three opinions, related to digital transformation – challenges faced by workers and businesses in terms of digitalization, as well as challenges and opportunities for digital transformation in Bulgaria. All three opinions were elaborated by two co-rapporteurs – from the employers’ and workers’ side. Among the main conclusions we can highlight the following:

- ✓ the digital transformation and its impact on all social processes is an issue of strategic importance for developing economic potential, improving working conditions and quality of life, especially in the context of an ageing population, but at the same time confronts society with so far unknown risks;
- ✓ with the right policies in place, the opportunities for technological development could be used in an appropriate way, thus – reducing the risks to the minimum;
- ✓ the digital transformation, expressed through the introduction and use of modern digital technologies in the field of tangible and intangible production in order to increase the overall factor productivity and competitiveness of enterprises, leads to professional transformation;
- ✓ the digital transformation will require significant investments from the private and public sectors. The more these investments slow down over time, the more difficult it is to access finance, the more money each worker will need in the future to increase his productivity, and every entrepreneur to increase his competitiveness;
- ✓ the degree of technological advancement predetermines the productivity of the workers;

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<sup>5</sup> <http://erc-online.eu/european-social-dialogue/database-european-social-dialogue-texts/>

<sup>6</sup> <https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>

<sup>7</sup> The Economic and social council of the Republic of Bulgaria is comprised of three groups – Group 1 Employers, Group 2 Workers and Group 3 – Various interests

- ✓ substantive changes in the rules are needed in order to establish transparent and democratic rules for interaction between people and digital technologies;
- ✓ emphasizes the importance of digital skills and competencies to increase the ability to adapt human capital to changing demands of the workplace and labour market. The educational infrastructure will play a crucial role, which must provide conditions and opportunities for their acquisition. The Bulgarian government should focus more efforts on measures to stimulate digital competence and digital culture from early childhood throughout working life;
- ✓ The development of the process of "lifelong learning" (LLL) precisely because of the rapid development of technology and the need for continuous retraining of the workforce. It is important for such a policy to be aimed at the pilot creation of sectoral qualification funds, where the social partners have a key role to play. According to ESC, the state and the social partners must offer and develop alternative forms of education (digital platforms, mobile applications, online courses, etc.).

### *Collective bargaining*

Telework and digitalization is a new topic for discussion for social partners, when it comes to collective bargaining. Only in 2020 the collective agreement *in education* was amended in order to reflect the new realities, posed by Covid-19 and the need to switch to *mandatory* telework. Here we need to underline that as described above, the Labour code was amended based on the social partners' agreement, providing extensive regulation of telework. For that reason, clauses in the sectoral collective agreements cover mainly issues, related to pay and digital tools available for teleworking. According to data provided by the National institute for arbitration and conciliation (also responsible for analyzing the collective bargaining arrangements) for the period 31.12.2017-31.08.2021 the number of collective agreements, covering telework is constantly growing, but still remaining rather low from 11 undertakings covering 566 employees in 2017 to 74 undertakings covering 5 668 employees in 2021 (60 in the education sector). On a sectoral level, there are just 2 collective agreements – in education and construction sector.

The pandemic clearly had an impetus for this increase. However, the low number of bargaining on this issue can be explained to a large extent with the low use of telework in pre-Covid times as well as low level of use of flexible working arrangements. Now, as Covid

imposed the mandatory use of telework, the topic is becoming more and more relevant for all companies, regardless of whether they bargain collectively or not.

### **3. The role of social partners**

#### **3.1.State of play on the main issues, arranged by the FAA on Digitalisation**

##### **Digital Skills**

Digital skills are identified by the social partners as one of the key components in the process of the digital transformation of the economy. The social partners joined their efforts to arrange a separate scheme for the social partners to be financed by ESF managed by the Ministry of Labor and Social Policy. Under the scheme "Development of digital skills", the social partners launched joint projects in partnership with the Ministry of Labor in Bulgaria. The projects aim to develop, test and approves *unified profiles of the digital skills of the workforce in Bulgaria for key professions in 97 out of 99 economic activities*. They will focus on identifying the specific levels of digital skills of the workforce at the sectoral level, the specific deficits and supporting the acquisition of digital skills needed to perform daily work tasks. The definition of digital competence levels must be in line with the European DigComp2.1 framework. Other activities that will be supported are the development, testing and testing of non-formal learning programs for the development of specific digital skills. The duration of the project is two years with the financial support of the ESF.

##### **Modalities of Connecting and Disconnecting**

There are no specific rules neither in legislation nor in collective bargaining covering the modalities of connecting and disconnecting. The general working time rules apply as it is expected that despite of new technologies entering progressively our lives in the recent decade, rights and obligations of employers and employees remain the same. The employers are obliged to respect the working time in all cases – this also covers telework. This is explicitly arranged in the Labour code.

There are no regulations on the possibility to use digital tools for private purposes during the working time. These issues are left to be regulated at a company level and might also be subject to collective bargaining. Here again the general requirement applies, that the workers need to perform the task he is assigned to during the working time.

Issues, related to overtime and its pay are also covered the Labour code.

The other issues, covered by the Digitalisation agreement, such as culture that avoids out of hours contact, alert and support procedures. Prevention of isolation at work, are to a large extent part of companies' HR policies.

### **AI and guaranteeing the human in control principle. Respect of human dignity and surveillance**

AI is not covered neither by legislation, nor by collective bargaining. With regard to *Respect of human dignity and surveillance*, the only provisions we have in place are those deriving from the GDPR regulation. Both topics are to be explored by the social partners in the coming years where they have a role to play in establishing jointly recognised standards and tools to support their members.

### **3.2.Examples of good practices of social partners**

- ***Bulgarian Chamber of Commerce and Industry (BCCI)***

The BCCI, together with six other partner organizations, participate in the CVETNET project. The project aims at building the capacity of CVET (continuous vocational education and training) provider's networks and its members in order to better adapt their organizations and trainers in supporting SMEs to reskill and upskill their managers and employees on intergenerational learning and adaptation to digital transformation. Up to 2021, BCCI participated in the "Supporting Knowledge Capacity in ICT among SME to Engage in Growth and Innovation" (SKILLS+) project. It aimed to advance public policies promoting information and communication technologies (ICT) skills among SMEs in rural areas helping them seize fully the opportunities offered by a digital single market and benefits of a digital economy. As part of the project "DIGITAL SMEs- Promoting SME contribution in the implementation of policies on digitalization of the economy", BCCI conducted a national survey among 550 employers. The major share of surveyed employers represented the micro, small and medium enterprises, and thus valuable insights on digitalization processes were generated for small economic players.

- ***Bulgarian Industrial Association (BIA)***

BIA currently participates in the "Upskilling Lab 4.0" project, co-funded by the European Union's Erasmus+ Program. Through international collaboration, the project aims to provide skills improvement opportunities to companies' staff (managers and employees) so that

modern technologies and innovation practices (related to Industry 4.0) can be successfully integrated into Bulgarian enterprises. Detailed step-by-step guidance will be developed, and the Upskilling lab 4.0 model will be introduced to national organizations and businesses interested in digital transformation. In 2018 BIA and Friedrich Ebert Stiftung Bulgaria participated in the project "Industry 4.0- Challenges and impact on the economic and social development of Bulgaria". A list of proposals concerning Industry 4.0 was presented to the Ministry of the economy.

The National Competency Assessment System "MyCompetence" has been created as part of a project carried out by the Bulgarian Industrial Association (BIA). The "MyCompetence" System is an online platform in the field of human resource management and development. It offers competency profiles and job descriptions for key positions, lists of competencies, assessment tools, e-learning resources and other services for the assessment and development of workforce competencies.

- ***Bulgarian Industrial Capital Association (BICA)***

In July 2021 the Sofia University started the implementation of the project “MODERN-A: MODERNIZATION in partnership through the digitalization of the academic ecosystem”. It is implemented in partnership with eight other universities in Bulgaria, three national employers' organizations (BIA, BCCI, BICA) and over 20 associate partners from abroad. One of the main project goals is the implementation of programs with digital content, promoting distant learning and the development of electronic and cloud technologies within the learning process. The project activities envisage teacher training, specializations in foreign universities, scientists and students mobility. Student clubs for the development of entrepreneurial skills, presentation skills and digital creativity will be established within Sofia University and two other partner universities.

In 2019 BICA and the United Nations Industrial Development Organization (UNIDO) renewed their 2016 cooperation agreement and extended its application. The signed Partnership Memorandum empowers both organizations to develop projects and policies increasing SMEs competitiveness both to tackle key global challenges such as digitalization and cyber security and to balance knowledge and skills of the future workforce.

- ***Confederation of Employers and Industrialists in Bulgaria (CEIB)***

CEIB actively participate in national forums dedicated to the digital transformation of the economy. In 2017 CEIB organized together with major tech companies the first national cloud summit where strategic partnership arrangements were discussed. In 2021 CEIB

presented its views during a high-level conference, "The Green deal and digital transformation- opportunities for the competitiveness of the Bulgarian economy", organized by the Deputy Chair of the Renew Europe Political Group in the European Parliament. As part of the annual awards "Mr and Mrs Economy", CEIB rewards individual contributions to the ICT development.

- ***Confederation of Independent Trade Unions in Bulgaria (CITUB)***

CITUB has started in 2021 a project dedicated to the development of unified digital profiles where a detailed list of competencies and skills will be elaborated. The project encompasses 17 economic sectors and foresees employee training on digital competence development. The project will be implemented in partnership with BIA, BICA, BCCI and the Ministry of Labor and Social Policy.

- ***Confederation of Labour "Podkrepa" (CL "Podkrepa")***

The sector structures of CL "Podkrepa" actively analyze the digital penetration within the sectors and pay specific attention to the development of digital skills through collectively agreed initiatives.

- ***Union for Private Economic Enterprise (UPEE)***

UPEE pays specific attention to the cyber security issue, and since June 2021, a UPEE representative has joined the European Cyber Security Organisation (ECSO). Seeking to communicate the business needs to the government representatives, at the beginning of 2021, UPEE, together with a leading Bulgarian university, organized an online event called "Talking about policy, digitalization and sustainability: youth questions". During the event, discussions focused on the cyber security and education-business dimensions.

- **In the "Education" sector**

1. In Bulgaria for 2020 and 2021, the social partners agreed with the Sectoral employment contract in the system of school and pre-school education additional payments for teachers who work in the conditions of the online learning process (work from a distance in real-time).
2. Example in the field of pre-school and school education after the introduction of the state of emergency in Bulgaria due to the spread of the COVID-19 virus and the adoption of the Law on Pre-school and School Education changes in a number of normative acts were adopted, incl. and of the LC. With the provision of art. 20 of the Law on the Protection of Human Rights and Freedoms stipulates that by the end of the 2019-2020 academic year, students' education, as well as support for personal development, shall be carried out as far as possible

from a distance in an electronic environment using ICT tools. The training includes distance learning hours, self-preparation, ongoing feedback on learning outcomes and assessment.

#### **4. Presentation of the results of the empirical study among the identified target groups under the project**

Within the period March - April 2022, a questionnaire survey was conducted among three groups of respondents: 1) representatives of the social partners and other stakeholders regarding the Framework Agreement; 2) human resources managers / line production managers / data protection officers; 3) workers and employees. The applied questionnaires reflected the structure of the Framework Agreement and covered sections dealing with: digital skills and employment; the right to be excluded from the digital working environment; artificial intelligence and guaranteeing the principle of human control; respect for human dignity and surveillance.

##### **4.1. Analysis of the social partners' questionnaires**

The survey was conducted among 11 branch/sectoral organizations, affiliated to **CITUB and BIA**. Some organizations are actively involved in collective bargaining at the branch/ sectoral level, while others are not. The organizations covered in the study are as follows:

➤ **Beer, Food and Beverages Union (SBHN)**

The union functions as a voluntary professional organization of workers and employees in the brewing industry system, its service activities and related and close sub-sectors of the food industry. The union was established in 1990 and actively participates in collective bargaining at the branch level. SBHN has so far signed a significant number of collective labor agreements, which, as a rule are extended to the entire sector. The last contract was signed on March 30, 2022 and was extended to all workers in the brewing industry by order of the Minister of Labor and Social Policy dated May 12, 2022. SBHN is a member of CITUB.

➤ **Trade Union Federation "Metallici"**

The Federation is a voluntary association of equal, autonomous, independent trade union organizations and formations and individual members working in the metallurgy sector and related companies, industries, institutes, establishments and others. The Federation was established in 1992 and maintains a good social dialogue with the

employer's side – the Bulgarian Association of the Metallurgical Industry. The last signed collective labor agreement for the metallurgical branch is from June 15, 2021. Member of CITUB.

➤ **Independent Trade Union Federation of Trade, Cooperatives, Tourism and Services (NSFTKTU)**

The Federation was established in 1990 and represents a voluntary national association of independent and equal trade union organizations and their associations, which are built and function according to production, professional, branch and territorial characteristics in domestic trade, cooperatives, economic tourism, banking, savings and insurance business, restaurants, bakery, production of goods and services, material and technical supply, commercial furniture, social recreation and other related activities of the public services. Member of CITUB.

➤ **Federation of the Independent Trade Unions in Construction (FNSS)**

The Federation is a voluntary association of independent and equal trade union organizations from construction and the production of building materials. Together with the "Construction, Industry and Water Supply" Federation of the CL "Podkrepa", it participates in the sectoral agreement with the Chamber of Builders in Bulgaria. In November 2020, the FNSS signed a sectoral collective labor agreement. Member of CITUB.

➤ **Union of Brewers in Bulgaria (UBB)**

The Union of Brewers in Bulgaria is the representative organization of beer producers in the country. The mission of the association is to support and encourage the development of the Bulgarian brewing industry, to raise the professional status of workers and employees in the branch, to promote the natural qualities of raw materials and good manufacturing practice in beer production, to enhance tradition, rituals and moderate beer consumption as an important part of the modern lifestyle. Takes active part in collective bargaining at branch level and concludes collective labor agreements, which are usually further extended in coverage. Affiliated to BIA.

➤ **Bulgarian Association for Business Software Development (BABSD)**

The main goals of the Association are to assist developers, distributors and users of business software in carrying out their activities and protect their rights and interests. BABSD has set up a number of major goals amongst which the objective to stimulate fair competition between members, as well as providing assistance in raising their

professional qualifications and awareness, including the one of business partners and business software users. The association is working for the implementation of European and international regulations, incl. application of established standards and good business practices in the sector. The association does not participate in collective bargaining at branch level. Member of BIA.

➤ **Bulgarian Tourist Chamber (BTC)**

Bulgarian Tourist Chamber (BTC) is a non-profit legal entity - an association that carries out activities for public benefit, according to the Law on Non-Profit Legal Entities. The Chamber was founded at the end of 1990 in Sofia and is the first non-governmental organization in tourism. Members of the Chamber are: Bulgarian and foreign legal entities and people performing commercial and economic activities in accordance with the Commercial Law and the Law on Tourism; public-private institutions; national and regional non-profit legal entities (as collective members); individual members (people) - long-term actors and professionals in the field of tourism. It takes part in collective bargaining at branch level and concludes collective labor agreements. Member of BIA.

➤ **National Transport Chamber (NTC)**

It takes part in collective bargaining at branch level and concludes collective labor agreements. Member of BIA.

➤ **Bulgarian Association of the Metallurgical Industry (BAMI)**

The Bulgarian Association of the Metallurgical Industry (BAMI) is a non-profit association whose members are employers, Bulgarian and foreign legal entities and individuals engaged in activities in the field of the metallurgical industry and its related productions, activities and services. Non-profit legal entities and higher education institutions also participate in the Association with the status of associate members. The member companies of the Association carry out their economic activity in the following areas: Manufacturing of metals, rolled products and various items/articles; Refractories and auxiliary materials; Repair activities, trade, services, etc.

Participates in collective bargaining at the branch level and concludes collective labor agreements. Member of BIA.

➤ **Bulgarian Soft Drinks Association (BSDA)**

Members of the Association are legal entities and individuals who are engaged in activities related to the production and bottling of soft drinks, juices, table and mineral waters, as well as companies producing packaging, raw materials and materials for the non-alcoholic beverage industry, educational and scientific institutions with a similar subject of activity. The Association does not participate in collective bargaining at branch level. BIA member.

➤ **Association of Incoming Agencies**

Tourism Association. Among its objectives are as follows: to elaborate strategies and programs for the development of the emitative markets and the promotion of commercial activities of its members; to promote modern commercial practices and technological solutions; to present the national tourism strategy to the trade partners; to carry out cooperation with other branch organizations; to stabilize the tourism industry from a marketing point of view; to carry out an active dialogue with Bulgarian and European institutions, experts, journalists, to promote Bulgaria as a tourist destination.

The Association does not participate in collective bargaining at branch level. Member of BIA.

## **I. DIGITAL SKILLS AND EMPLOYMENT**

At national level, the social partners participate in a number of joint initiatives and formats where they can exchange views and opinions. Over the last few years, the social partners at national level have developed several joint opinions within the Economic and Social Council<sup>8</sup>, focused mainly on the institutional framework and the need for change. A number of joint projects in the field of digital skills needs research are also being implemented. The largest joint projects of the social partners in this field are funded through a joint scheme within the "Development of Digital Skills"<sup>9</sup> Human Resources Development Operational Program.

In the period 2010-2015, BIA, together with CITUB, developed a large-scale competency assessment system "MyCompetence"<sup>10</sup>, containing sectoral competency models for key positions, a number of which provide for digital competences. The project covers 25 sectors of economy, and in the process of research, testing and implementation more than 20 branch

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<sup>8</sup> Described on page 9

<sup>9</sup> More info at: <https://esf.bg/procedures/razvitie-na-digitalnite-umenija-komponent-2/> and <https://digital.bia-bg.com/en/>

<sup>10</sup> <https://mycompetence.bg/en/>

organizations and trade union federations were involved. The system was recognized by the Ministry of Labor and Social Policy and is already state-owned. The content is available free of charge (after registration) at: <https://mycompetence.bg>

In the field of collective bargaining, the topic of digital skills is gradually beginning to fall within the scope of issues discussed. For example, the social partners in the **brewing industry** with several consecutive Branch Collective Bargaining Agreements (BCBA) have adopted rules for upgrading the competencies of those working in the sector, incl. as regards the digital skills of workers and employees. Given the innovative development of the brewing industry and the full automation of processes, each brewing company conducts in-house digital skills training for its own workers and employees.

It is quite often based on the principle that younger employees train their older colleagues. In recent years, training opportunities have expanded and become even more accessible, thanks to European-funded projects implemented by BIA and other nationally representative employers' organizations.

In the **tourism** industry, the activities for raising the qualification of workers and employees, incl. digital skills are conducted in cooperation with the branch trade unions: Trade Union of Tourism in Bulgaria - CITUB, NTUF of Trade, Cooperatives, Tourism and Services - CITUB and NF "Trade, Services, Control Bodies and Tourism" with "Podkrepa" CL. The qualification of workers and employees is assessed as very important, as it is the basis for increasing the quality and competitiveness of the offered tourist products on the international and domestic markets. A positive impetus to the joint work of social partners in this regard is provided by the BIA project, within which MyCompetence National Information System for Competence Assessment, is established by the BIA (together with the trade unions). Subsequently, again thanks to project activities implemented by BIA, an Annex to the branch CLA was developed and signed, which ensures performance of activities to promote lifelong learning and the transfer of knowledge and experience between generations in the workplace. A branch partnership commission of the Branch Employers' Organization and the Branch Trade Unions has also been established to coordinate these activities.

In the **transport** sector, basing upon an agreement between the social partners, the adopted national funds allocated for workers and employees' training programs are being used, in view of the plans for development of competencies in digital environment.

Aiming to ensure sustainable development and competitiveness of enterprises, employers in the **metallurgical industry** provide organizational and financial conditions for training and

qualification of workers and employees in accordance with the necessary business objectives and company development programs. Social partners are actively involved through proposals and initiatives when elaborating human resources development programs and performing impact analyses of various forms of education and training.

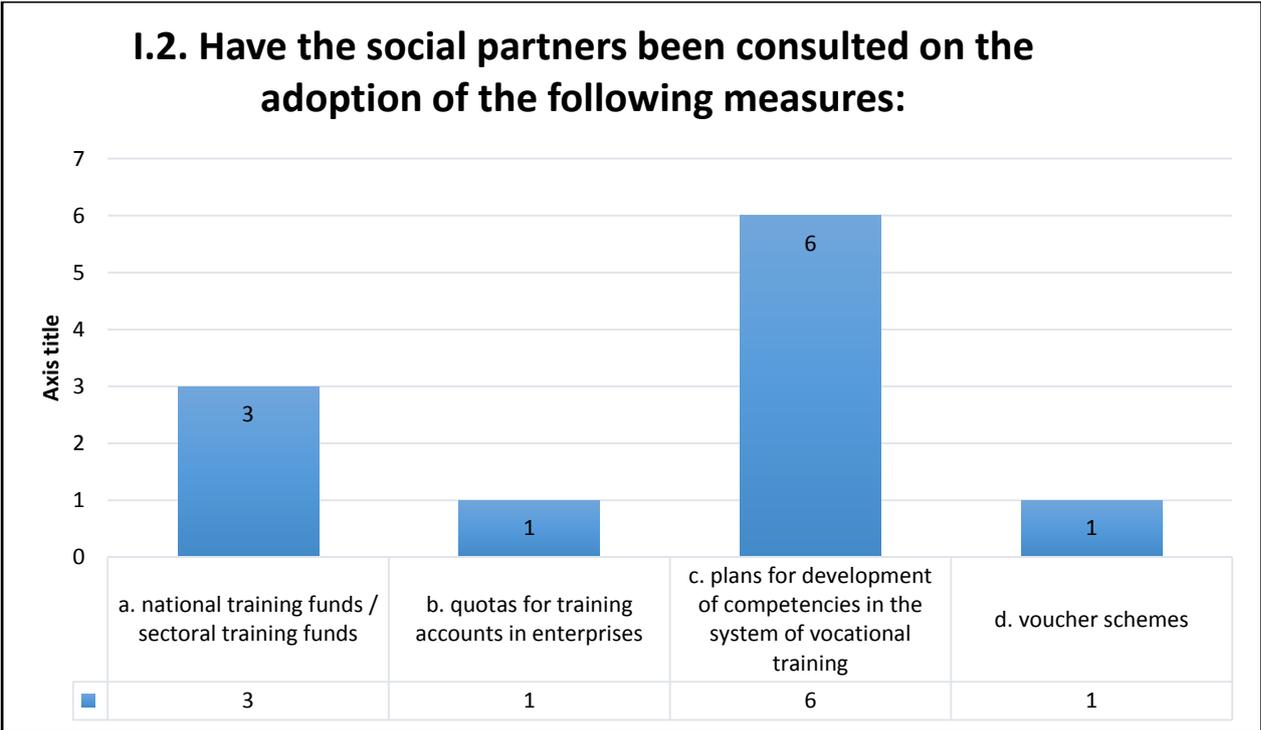
The **producers of soft drinks** also positively acknowledge the contribution of the project initiatives of the nationally represented employers' organizations, which provide modern and specifically developed tools for addressing problems and mitigating challenges caused by the deficit of digital skills to the branch organizations - their members and the industries represented by them (enterprises and employees).

In the **construction sector**, the Chamber of Builders together with the Federation of the Independent Trade Unions in Construction have developed a program to ensure an efficient workforce. The goal is continuous improvement of those employed in this sector, as well as meeting the needs of qualified labor through training of unemployed persons or employed persons with experience, but without a formally acquired qualification. The core concept is based on three pillars: a) creation of training centers for qualification and re-qualification; b) development of an inter-institutional unit for construction planning, as well as c) development of a model for active employer participation. The cooperation between the social partners in construction is also manifested in the vocational training centers that both branch organizations of the social partners have established. FNSS participates in various projects, the last of which is related to gathering information to what extent workers in the industry have gone through training or have digital skills.

### **Questionnaire analysis**

In Bulgaria, social partners at national level take part in various advisory bodies related to education and training. In this context, social partners (and through them, in accordance with their internal procedures and their members) are being consulted both in the development of strategic documents and in the regulatory changes, the elaboration and implementation of various vocational training programs, as well as in the development of the state educational standards.

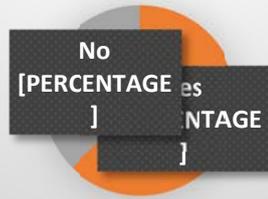
**Fig. 1**



In Bulgaria, collective agreements are concluded at various levels, including sectoral and branch level. Some industries are already beginning to discuss the topic of 'digitalisation', generally speaking, in order to create a framework that can be further developed at enterprise level. Such is the case with the brewing industry, where the last BCLA, adopted on March 25, 2022 for the "Production of beer and malt" economic activity, contains a framework for undertaking of digital skills training of industry workers. Specific programs for this are being developed by individual companies.

**Fig. 2**

### I.3. Do collective bargaining agreements cover digital transformation and training opportunities?



At national level, employers' organizations have set up and licensed their own vocational training centers (either as part of their internal structure or as independent legal entities owned by them). They provide training to their members as well as market-based training. For example, the Bulgarian Industrial Association has licensed two Vocational Training Centers, one of which is aimed entirely at developing digital competencies.

As far as sectoral / branch level is concerned, trainings are mostly conducted on company level and rarely at sectoral / branch level. Sectoral trainings in the brewing industry, seminars and other forms of knowledge exchange are usually organized by BIA, CITUB and some other institutions specialized in this type of activity, such as The University of Food Technology in Plovdiv and other academic units.

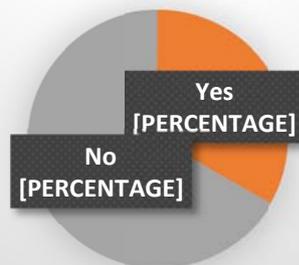
The metallurgical branch provides conditions for the participation of employees in training and qualification courses, seminars and other events related to labor and social legislation. Employers and Trade Unions work together to raise the digital skills of employees in the enterprises.

Organizations in the food industry benefit from the services of the Vocational Training Center of the **Union of the Food Industry**. The Center is licensed for 55 different professions and 76 food industry specialties as well as some coming from other areas of country's economy. However, it does not deliver any trainings for acquisition of digital skills yet.

The federation of Independent Trade Unions in Construction (FNSS) has its own VET center for training, with licensed construction specialties. The federation is considering the possibility of including such trainings for digital skills.

**Fig. 3**

#### I.4. Do social partners have training institutions/vocational centers of their own?



All branch organizations covered by the survey are aware of the importance of skills and take various actions to increase the motivation to participate in trainings.

The Bulgarian Tourist Chamber, for example, provides support to its member companies in developing **programs to improve the professional and language skills** of staff.

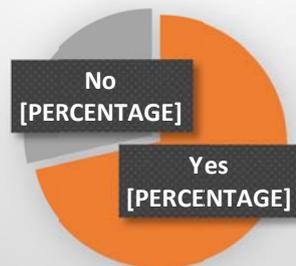
When preparing the CLAs at the enterprise level, the Independent Trade Union Federation of Trade, Cooperatives, Tourism and Services (NSFTKTU) recommends the inclusion of specific clauses and plans related to the training and qualification of workers. During trade union events, the federation conducts motivational talks to create a positive attitude towards changes and easier overcoming of difficulties related to them. If possible, targeted trainings are also organized.

The branch level social collaboration bodies in the metallurgical industry are discussing the elaboration of an action plan aimed at fair transition and sustainable development within the context of emerging digitalization.

The Bulgarian Soft Drinks Association provides an opportunity for all its members to actively participate in **projects** (see listed above) and to use the **tools** created within their implementation, targeted to specific needs and extremely easily accessible for use by enterprises and workers in the industry. Another tool is the **promotion of good practices** of leading companies in the sector.

**Fig. 4**

## I. 5. Do you respond to the need to motivate staff to participate in trainings?



## II. THE RIGHT TO DISCONNECT FROM DIGITAL WORKING ENVIRONMENT

**Do the social partners at national / branch / sectoral level address compliance with the rules on working hours and the ones on remote/teleworking and mobile working through ICT?**

According to the software manufacturers, the issue is not being addressed by neglecting the right to fair working hours reporting/recording.

In **the brewing industry**, these issues are generally discussed, but it was decided not to explicitly include and regulate the topic in the BCLA at this stage.

The social partners in **the tourism sector** are working to enforce company internal rules, as well as the rules on remote/teleworking and mobile work through ICT, especially in the context of the COVID-19 pandemic.

In **the transport sector**, the issues of compliance with the rules on working hours and the rules on remote/teleworking and mobile work through ICT are addressed through periodic briefings on health and safety at work.

The Federation of Independent TU in Construction - FNSS is actively involved in the topic of working hours, insisting that the right to exclude the worker after the end of the working day be regulated by law. Observations in **the construction sector** reveal a tendency for self-exploitation of home workers, as well as a tendency to fall into depressive states. For this reason, collective agreements are recognized as a tool for imposing compensatory mechanisms in the form of additional breaks and holidays for people working from home.

Employers and trade unions **in the metallurgical industry** adopt social partnership as a form of joint action aimed at sustainable development and prosperity of the sector, increasing its competitiveness, creating good working conditions, responsibility for the development of

enterprises and personnel. In view of the specifics of the production process, which is continuous and requires constant monitoring and control, for these processes remote work is to a greater extent not applicable. At this stage, remote work is applied mainly to employees performing administrative activities that are not directly related to production processes.

**Soft drinks manufacturers** are not a part of any specific discussion on the topic. The companies in the branch strive for strict observance of the legal requirements, incl. those referring to working hours, mobile and remote/teleworking (confirmed and extremely rare non-compliant practices found by control bodies as a whole in the industry), as well as applying practices that exceed the regulatory requirements in an effort to create the most favorable working environment. The pandemic's widespread use of remote/teleworking in the sector so far does not indicate the existence of practices that require intervention to ensure compliance with rules.

The Independent Trade Union Federation of Trade, Cooperatives, Tourism and Services (NSFTKTU) shares that the rules for remote work and mobile work through ICT were not the focus of attention during the dialogue with employers. However, the specificity of the work in the covered companies (mainly physical presence at the workplace is required, which in some commercial and tourist sites can exceed the 8-hour working day), as well as the prevalence of the cumulative calculation of working hours, predetermines the commitment of the federation to the topic of compliance with working time rules.

In general, topics related to the **right to disconnect, preventing isolation** of workers when working in digital environment as well as developing policies **regulating the use of digital tools for personal use** during working hours are just starting to be highlighted in the field of activities of the social partners at all levels. 90 percent of the respondents mainly discuss workload and health and safety at work. The mentioned-above issues are usually settled at enterprise level, within the framework of human resources management activities.

### **III. ARTIFICIAL INTELLIGENCE (AI) AND GUARANTEEING THE PRINCIPLE OF HUMAN CONTROL**

None of the organisations have an agreement in place that includes policy or instructions related to the introduction of artificial intelligence (AI) systems at company level.

Only one organisation reported initiatives related to impact assessment of AI deployment in enterprises, and this was mainly related to personal data protection.

None of the organisations involved in collective bargaining addressed the topic of controlling the use of AI systems applied in human resource management procedures (e.g. recruitment, appraisal, promotion and dismissal).

#### **IV. RESPECT FOR HUMAN DIGNITY AND SURVEILLANCE**

Similarly to issues related to artificial intelligence, social partners are expected to develop own policies ensuring the protection of rights and freedoms of employees with regard to processing their personal data in the context of the employment relationship. As far as there was a broad campaign in Bulgaria when the General Data Protection Regulation came into force, issues concerning employees' personal data have been regulated mainly at company level. The Bulgarian Industrial Association has been particularly active in the awareness-raising campaign, and draft rules have been developed which can be further applied by its member regional and branch affiliates. These rules also cover personal data collected, processed and stored in the framework of employment relationships.

#### **4.2. Analysis of questionnaires for representatives of HR managers/line production managers/data protection managers**

##### **A DESCRIPTION OF THE INTERVIEWEES AND THE ORGANISATION THEY REPRESENT**

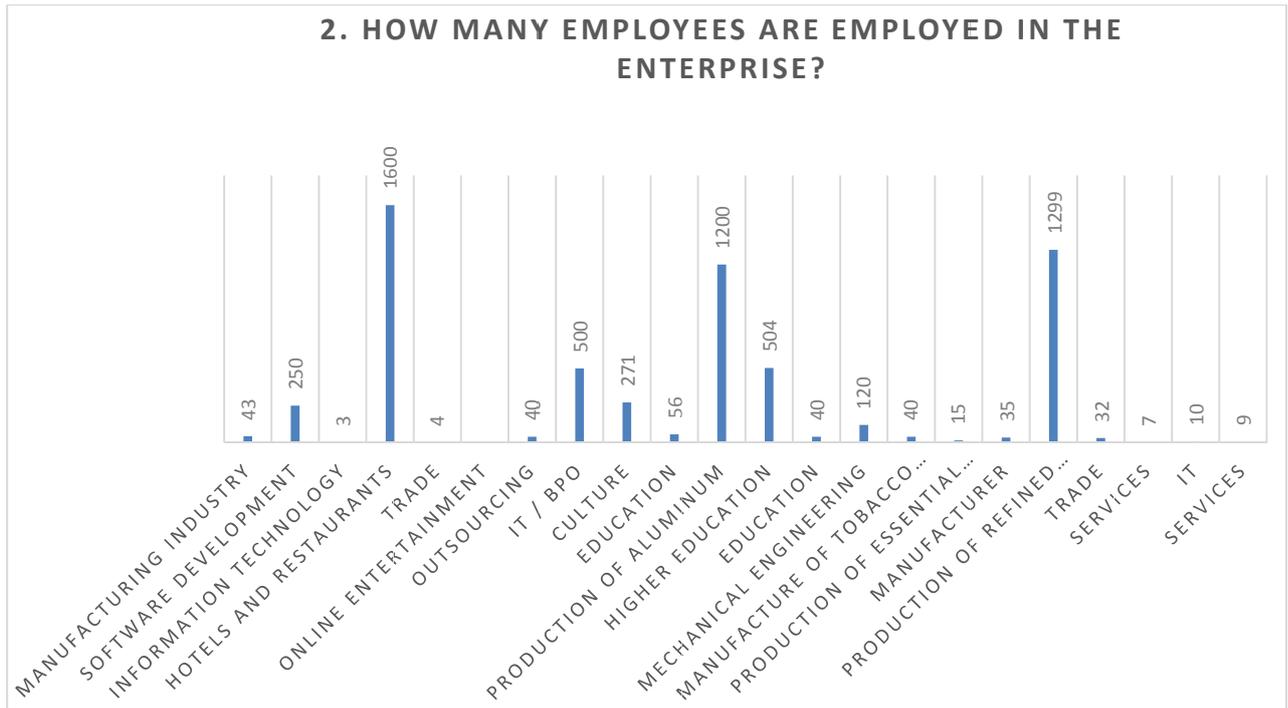
The study of these target groups covered 22 representatives of enterprises from over 10 different economic activities in the field of manufacturing, processing industry, trade and commerce, services, education, culture<sup>11</sup>. Micro and small enterprises as well as medium and large companies<sup>12</sup> are covered.

#### **Fig. 5**

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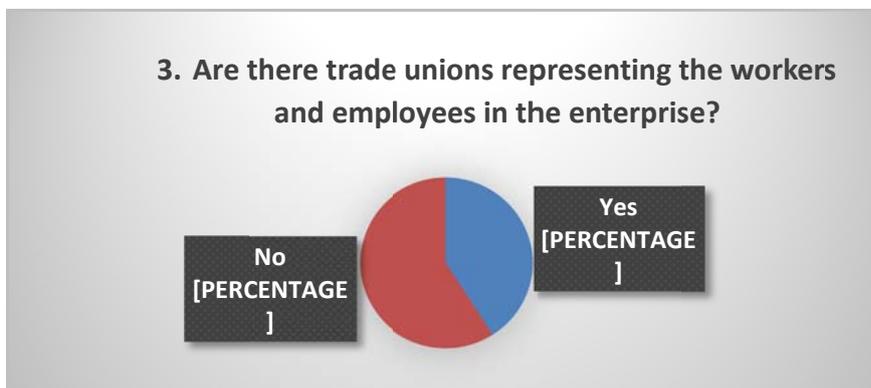
<sup>11</sup> Processing industry, Aluminium production, Mechanical engineering, Manufacturing of tobacco products, Manufacturing of essential oils, Manufacturing of refined petroleum products, Software development, Information Technologies, Hotels and restaurants, Trade, Online entertainment, Outsourcing, Culture, Education.

<sup>12</sup> Only the indicator number of persons employed is reported.



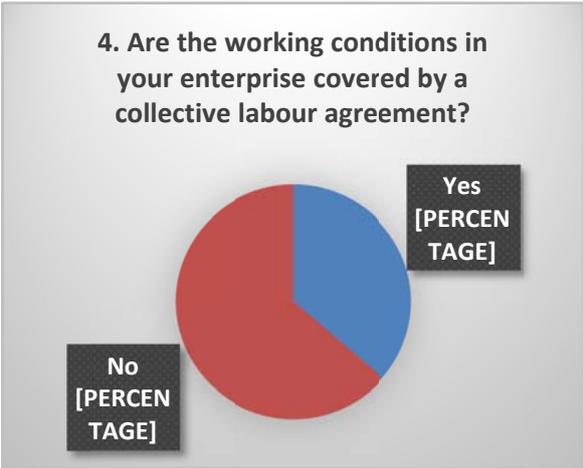
There are functioning trade unions in the enterprises of 41% of respondents. They operate in the Processing Industry, Tourism, Culture and Education sectors.

**Fig. 6**



In 36% of the enterprises represented in the survey, a collective agreement (CLA) covering working conditions was concluded (processing industry, education, culture, hotels and restaurants). In the vast majority of cases where there is a CLA (74%), it does not cover issues related to the digital transformation of the enterprise. Only 10% of respondents give an affirmative answer to this question. These are the representatives of the hotel and restaurant industry. The clauses covered by the CLA and related to some of the FA on Digitalisation issues are mainly aimed at developing digital skills and providing employment.

Fig. 7



**I. DIGITAL SKILLS AND EMPLOYMENT**

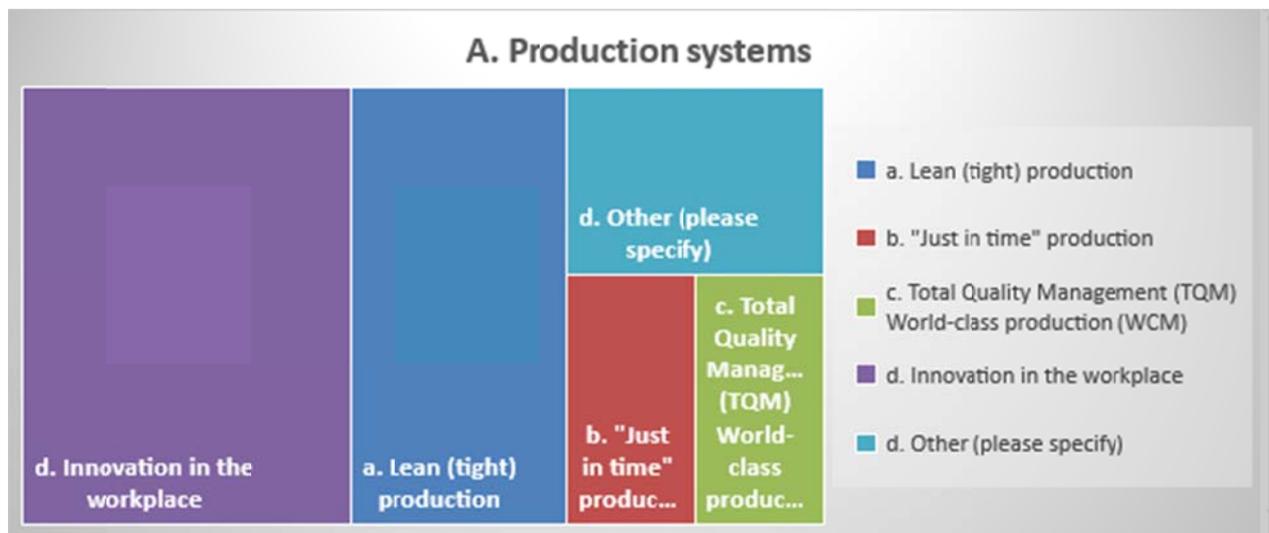
According to 45% of respondents, their enterprise has a **digital strategy in place**. Expectedly, these are companies from the **IT sector**, but also **hotels and restaurants, outsourcing, processing industry, education**. However, the share of enterprises lacking such a strategy remains predominant (55% of the surveyed enterprises).

A significant proportion of respondents (82%) said that **new technologies had been introduced into the enterprise** in the last 5 years. The introduction of new technologies has brought to various changes concerning: employment levels (indicated by 47% of

respondents), qualification and/or skills requirements (77%), health and safety policies and procedures (66%), organisation of working hours (47%).

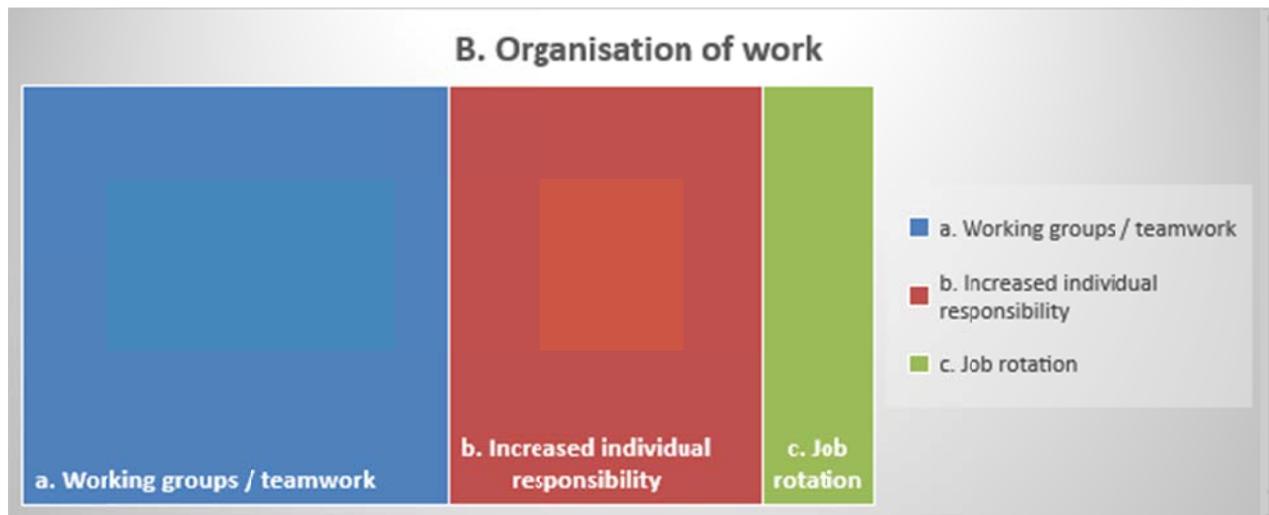
New forms of production systems and/or changes in work organisation have been introduced in 48% of enterprises as a result of new technologies.

**Fig. 1**



The largest proportion (or 41%) of respondents noted workplace innovation (in the hotels and restaurants, IT sector, culture, education, services and processing industries) as the **main change related to production systems**, followed by Lean production (in the processing industry with 27%), Just-in-time production and Total Quality Management TQM (9% each in the processing industry).

**Fig. 2**



In terms of changes related to work organization, the leading share is taken by the increase of working groups and teamwork (indicated by 68% of respondents), increased individual responsibility (50%), job rotation (18%). An interesting example is the introduction of a SAFE Agile environment in an IT company, aimed at increasing productivity and quality, reducing time for products and services' release to the market, increased employee commitment and job satisfaction.

The introduction of new technologies has not generally led to changes in workers and employees' labour contracts. Only 11% of respondents answered affirmatively to this question (processing industry and IT sector). **In the vast majority of cases (70%) workers and employees and/or their representatives (e.g. trade unions, other workers/employee representatives, etc.) have been involved in the process of introducing new technologies in the enterprise.** In almost half (45%) of the places where this occurred, this involvement was at every stage of the process (planning, testing, implementation, training) and in 55% of the cases employees and/or their representatives were informed. Overall, however, the **subject remains outside the scope of collective bargaining.**

#### **Impact of the introduction of new technologies on the organisation of work**

When asked how the introduction of new technologies in the enterprise has affected the organization of work, 75% responded that the **organization of work has improved**, the **qualifications and skills of the workforce** have also improved (70%), and the **organization of working time** has also improved (50%). Only 20% believe that the introduction of new technologies has led to improved levels of health and safety at work, the working environment and the well-being of workers. According to 25% of respondents, the introduction of new technologies has improved work-life balance and increased job satisfaction and motivation.

Fig. 10



According to 65% of respondents, **new technologies do not negatively affect employees** overall. Among the negative impacts, the risk of increased stress (20%), increased work intensity (15%) and less collective action/solidarity in industrial relations, changed working hours (10%) and more responsibilities without increased remuneration (0.5%) occupy the largest share.

In 30% of the enterprises surveyed (mostly in the manufacturing sector), the introduction of new technologies has led to changes in the enterprise's remuneration systems.

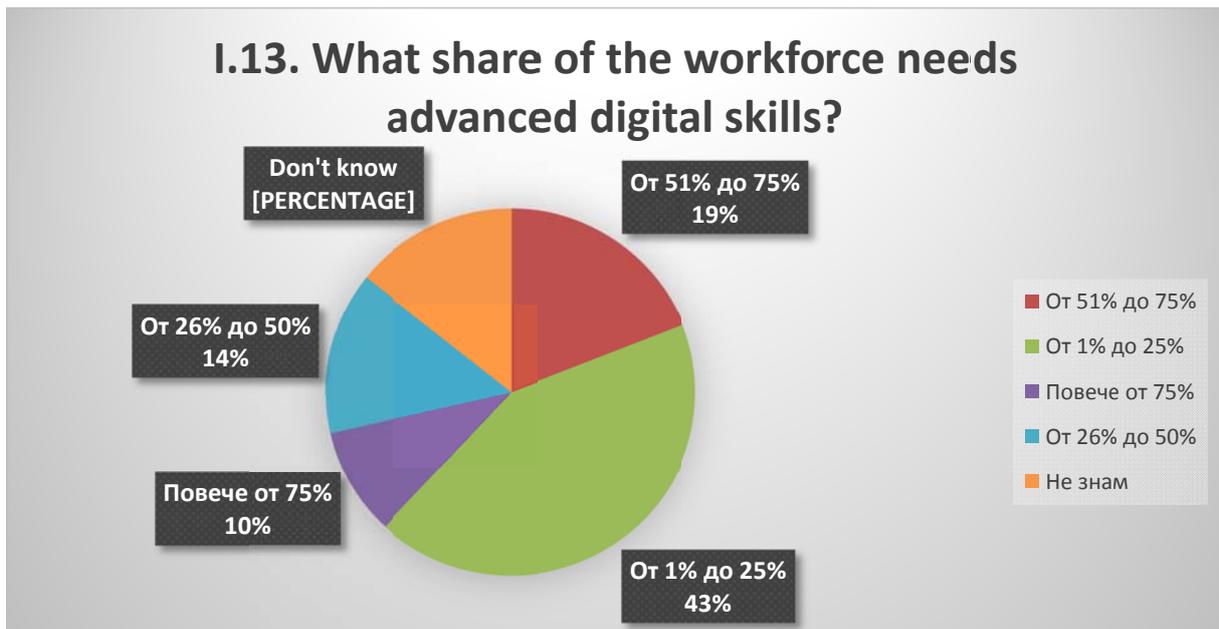
In more than 80% of the enterprises surveyed, there is a procedure allowing managers and employees to communicate what kind of training they would like to participate in. In 9 out of 10 enterprises, the introduction of new technologies is accompanied by training of the workers who are going to use them.

### Skills

100% of respondents said that their employees' **basic digital skills** were **essential**. In terms of the importance they placed on interpersonal '**soft**' skills, the weight of responses was evenly split between **fairly and very important**.

These attitudes go some way to explaining the proportion of the workforce that needs to improve digital skills.

Fig. 11

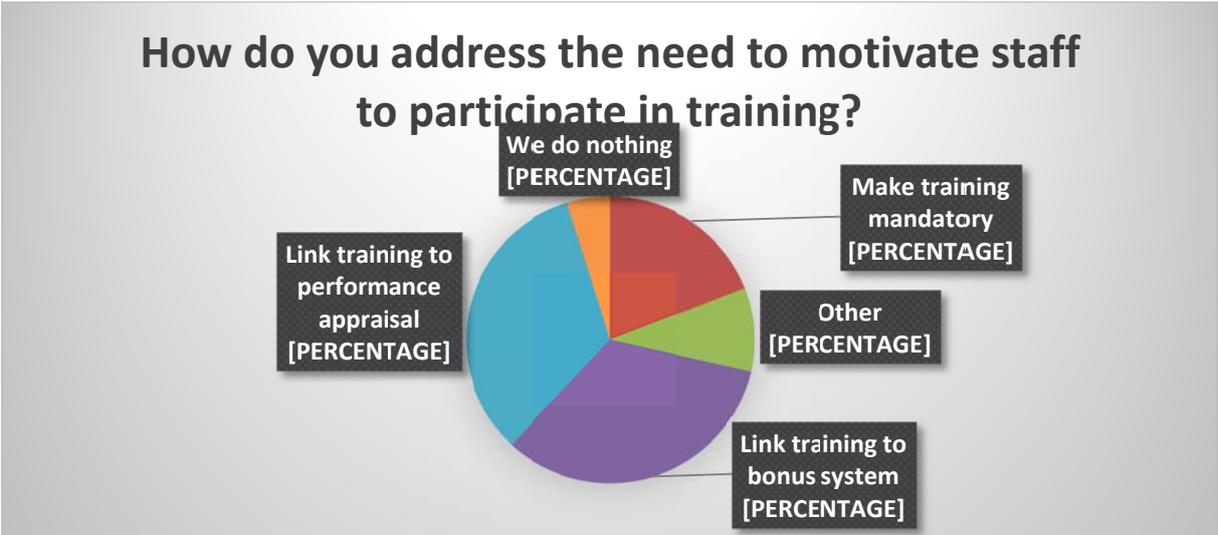


Human resource (HR) managers do not expect a sharp jump in digital skills development in the next 5 years. Significant increases are predicted by the IT sector and parts of the processing industry, weighing in at just 27% of overall attitudes. The vast majority of respondents (69%) expect a slight increase and 14% foresee no change.

Particularly interesting is the share of respondents who believe there is no shortage of digital skills in their businesses - 68%. This information is in fact different from the official data, according to which the level of digital skills in Bulgaria remains significantly low. Companies that have identified a shortage of digital skills have either provided on-the-job training or engaged external training providers. On a positive note, there was not a single response that the company had not responded to identified training needs. The same applies to the assessment of how important a lifelong learning approach to competency development is for employees- 76% strongly agree with this statement, while 24% tend to agree.

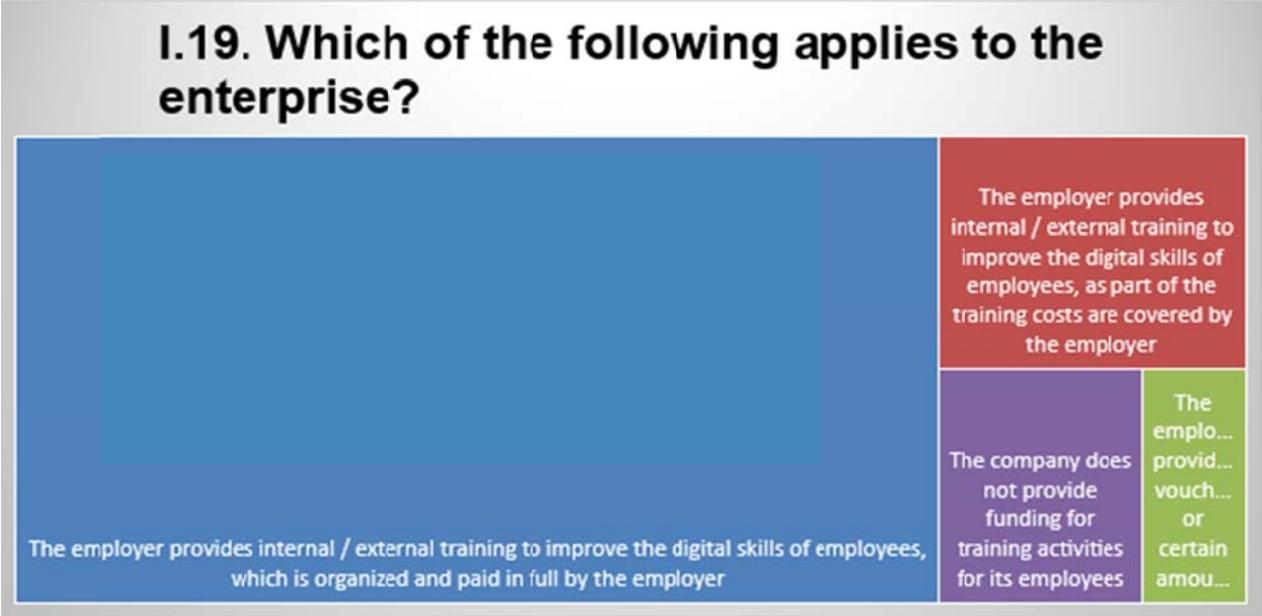
Companies refer to several main approaches to **motivate their staff to participate in training**: an equal share is attributed to linking training to performance appraisals and the bonus system (33% each), while 19% attribute a mandatory character to training.

Fig. 12



It is also a positive signal that the **majority** of respondents (55%) say that their company has a **system for recognition of informally acquired skills** that are not validated by a diploma. The tendency for over **90% of work-related training to be paid for by the employer** persists. Survey data shows that 82% bear the full cost of training to improve workers and employees' digital skills, 14% bear only part of the cost, and there is also the case of providing training vouchers.

Fig. 13



## II. THE RIGHT TO DISCONNECT FROM DIGITAL WORKING ENVIRONMENT

The right to disconnect from digital working environment refers to the right of the worker to disengage from work and refrain from participating in work-related electronic communications (including emails or other communications) during non-working hours. This concept has evolved as a result of advances in communications technology and its impact on people's daily lives. The widespread use of smartphones and other digital devices means that constantly 'being available' has become a reality in many workplaces, and continuous remote access can create pressure on employees to be constantly accessible<sup>13</sup>.

The survey showed that 45% of the enterprises surveyed have some system in place to control (monitor, calculate and record) **regular working hours** in the enterprise, including remote/teleworkers/mobile workers (on-site control). When asked why such a system was not in place, respondents gave a variety of reasons, including the nature of the work, a focus on the outcome of the work rather than the amount of time it takes; some respondents also gave financial reasons.

The results are also significant with regard to the **discussion with workers and employees** in the enterprise on the organisation of working time with regard to the "**right to disconnect from digital working environment**". 24% answered affirmatively to this question (including in the context of flexible working hours) and they belong mainly to the IT and education sectors. Possible explanations for this result could be the Covid pandemic, which has led to a significant share of distance learning, as well as working "online" in the IT sector and the overall introduction of digitalisation in the Bulgarian society.

In a relatively small proportion of companies (32%) covered by the survey, there are **rules about the use of digital tools** (software and electronic devices) for **personal purposes** during working hours. Some companies have imposed restrictions on access to certain groups of sites and personal accounts, others have restrictions on the use of personal electronic devices<sup>14</sup>.

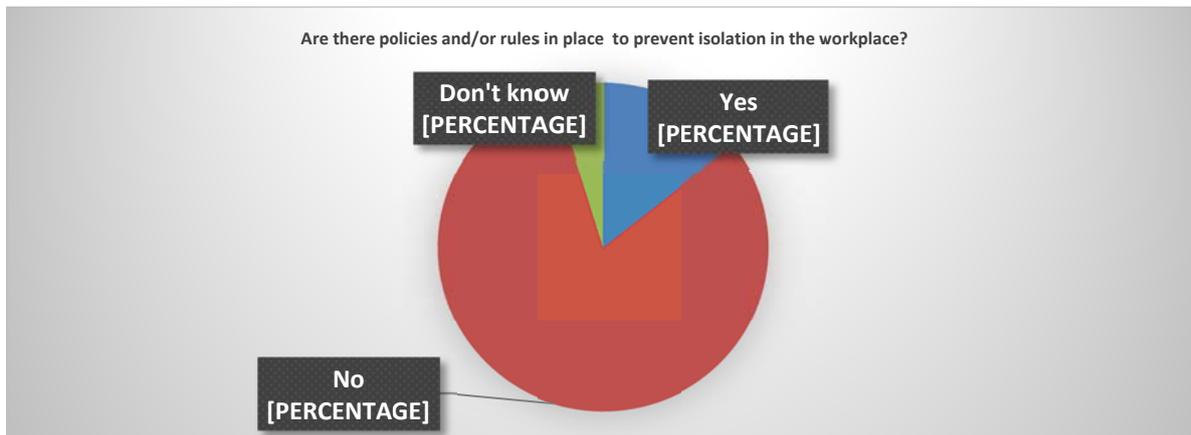
The share of respondents applying rules to prevent isolation in the workplace (when remotely/teleworking or working individually, without a team, on the employer's premises) is alarmingly low - only 14%. All of them operate in the IT sector. A possible explanation is the low share of teleworking/remote work, as well as the inability of companies to adapt in the pandemic period.

#### **Fig. 14**

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<sup>13</sup><https://www.eurofound.europa.eu/observatories/eurwork/industrial-relations-dictionary/right-to-disconnect>

<sup>14</sup> In the processing industry.



### III. ARTIFICIAL INTELLIGENCE (AI) AND GUARANTEEING THE PRINCIPLE OF HUMAN CONTROL

Even though only 32% of the surveyed companies use AI systems, all respondents are aware of the concept. Among the implemented tools, the most frequently mentioned are those for marketing purposes, chatbots, virtual/smart assistants, and chats between teams in companies. Respondents remain **divided** on the **compliance of artificial intelligence (AI)** with current **personal data protection legislation** to ensure employee privacy and dignity. 46% responded that such compliance exists, but the same percentage responded that it does not. Only 8% could not determine whether there was such a link between AI and the current personal data protection legislation.

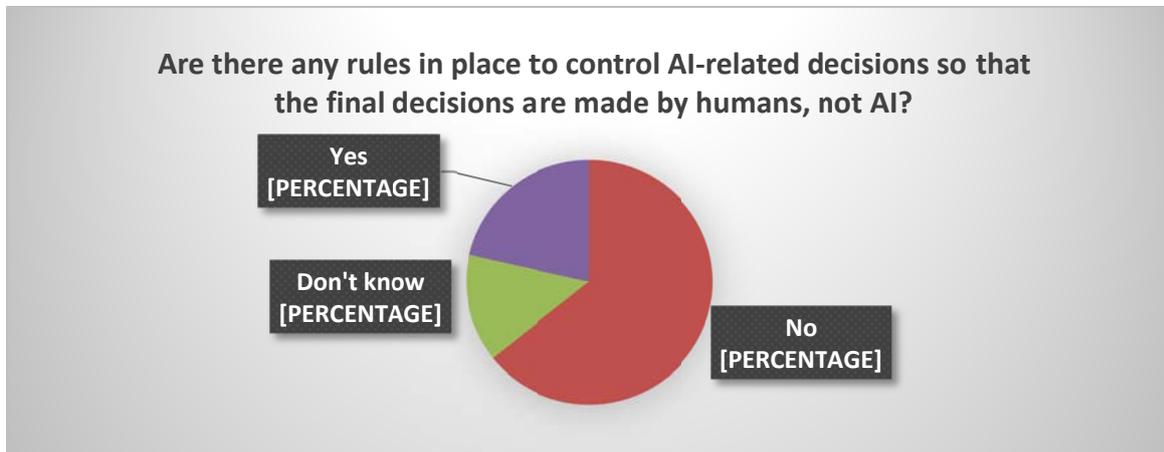
When asked to share what the **impact of AI has been on work practices in the enterprise**, respondents point out to **facilitating the workflow and time savings; easing employee engagement** in the relevant department (when using chatbots), **identifying segments and exceptions in large volumes of data**, which is found to be extremely useful. The impact is seen in a positive light. In the meantime, according to 86% of respondents, **no change in specific work tasks was observed after the introduction of AI**.

Only **13%** of respondents said they have **internal H&S policies** related to AI to ensure that the use of robotics and AI applications complies with safety and security controls. Given the nature of the deployed AI tools described above, this percentage, though being low, is not a matter of concern at this stage.

An interesting question is the **existence of rules to control decisions** related to AI (if the principle of human control applies), so that final decisions are made by humans and not AI.

Only 22% answer yes to this question, and they belong to the IT sector and processing industry.

**Fig. 15**



The **proportion of companies using AI systems in HR management procedures** such as recruitment, appraisal, promotion, dismissal and performance analysis also remains low (13%)<sup>15</sup>. In these companies, transparency is ensured by providing information or by giving the affected worker/employee the opportunity to request human intervention and/or to challenge the decision, along with testing the results of the AI.

#### **IV. RESPECT FOR HUMAN DIGNITY AND SURVEILLANCE**

The issues related to monitoring the performance of workers and employees through digital tools or an artificial intelligence monitoring system are of particular interest. In 33% of the companies covered in the survey such a policy does exist and is implemented.

**In 36% of enterprises with an AI or other surveillance system**, measures are reported to limit the risk of **intrusive surveillance of workers and employees and misuse of personal data**, as required by the Data Protection Regulation.

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<sup>15</sup> Online entertainment and outsourcing

**89%** of respondents indicate that they **consult/inform** workers and employee representatives on **personal data protection issues**.

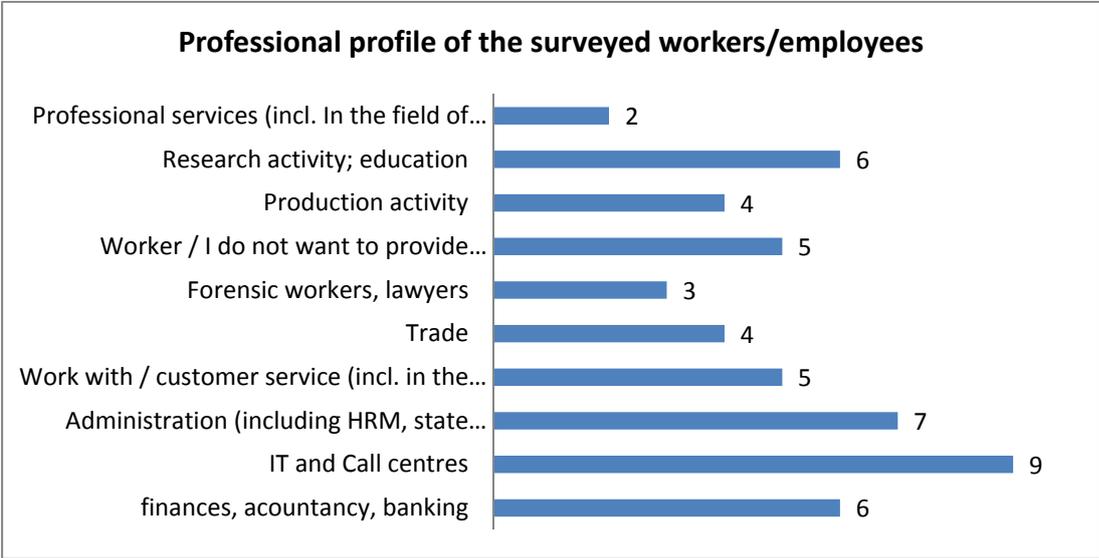
Almost the same percentage (82%) responded affirmatively to the question of whether workers and employee representatives in the enterprise have equipment and software tools to support their activities in a digital working environment.

### 4.3. Analysis of the workers/employees questionnaires

#### I. Description of the interviewees and the organisation they represent

The total number of persons interviewed for the project was 53. After a logical review of the surveys, two questionnaires were excluded because they contained scarce and contradictory information. This reduced the final number of cards processed and analysed to 51. Individuals from a variety of economic sectors were covered, with a more substantial preponderance of responses coming from the IT sector, company administration, institutions, finance and accounting, the education sector

**Fig. 16**



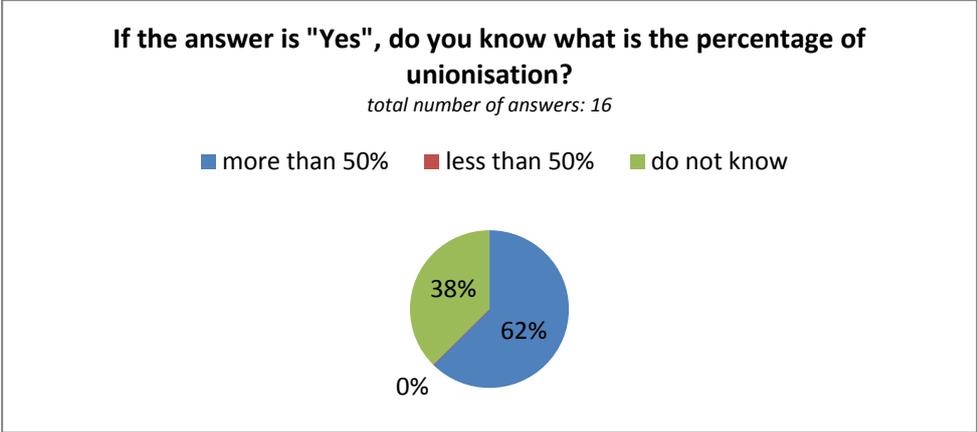
Nearly 1/3 of respondents said that there was a trade union organisation in their workplace. Accordingly, the remaining two-thirds of the respondents reported either that there was no union in their workplace or that they were not aware if there was such type of workers/employee representatives in their workplace.

**Fig. 17**



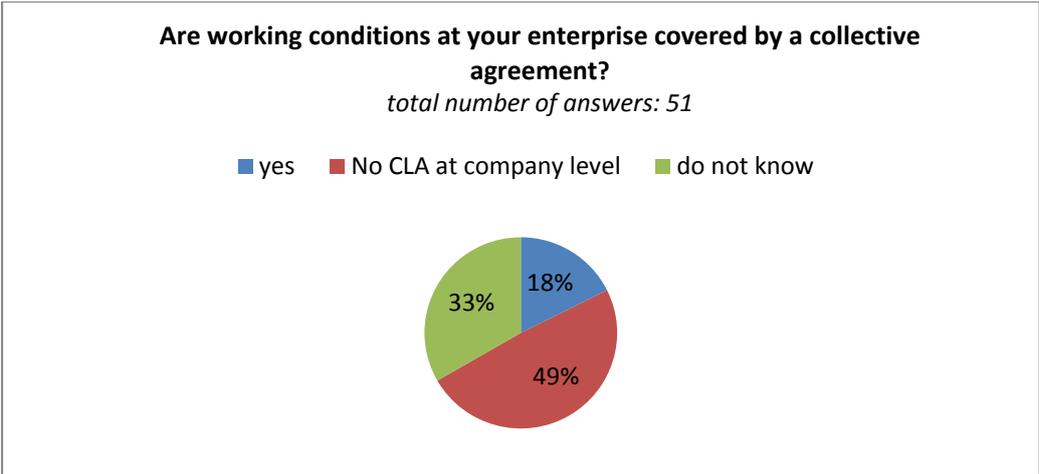
The degree of unionization in enterprises can be defined as relatively strong (over 50% coverage among employees). However, it should not be underestimated that a significant number of respondents are not aware of how large and representative the existing trade union organisation is.

**Fig. 18**



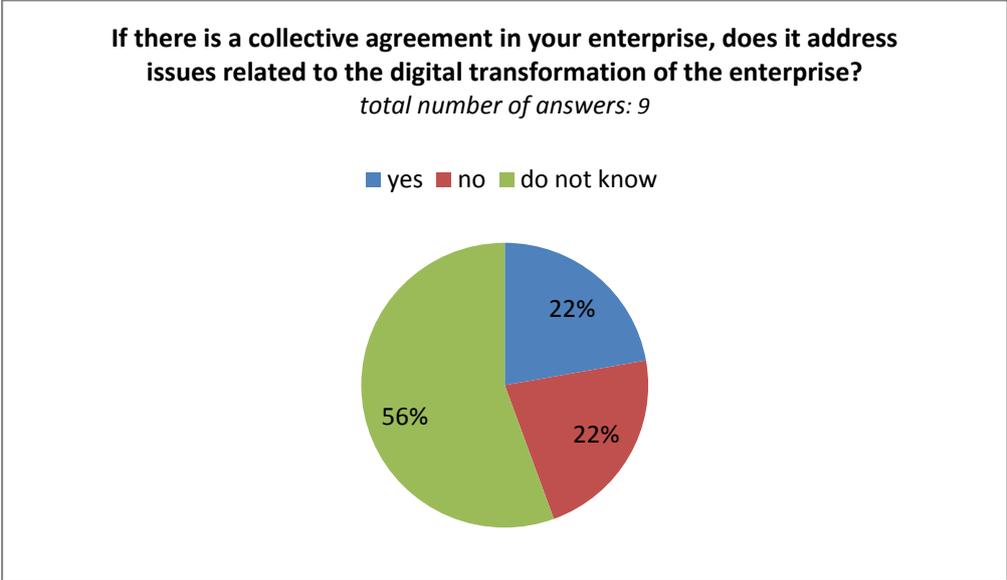
However, the existence of a trade union does not automatically imply the existence of a collective labour/bargaining agreement (CLA/CBA). Half of the respondents said that there was no CBA in their workplace. A significant share of respondents are also not aware whether their working conditions are regulated by a CBA.

**Fig. 19**



Collective bargaining is not yet strongly oriented towards the topics related to the digital transformation of employment. Where such clauses exist, they are inscribed as texts on the provision of digital skills and employment and respect for human dignity and surveillance. Again, a lack of awareness among respondents about the content of the company CBA can be drawn as a conclusion.

**Fig. 20**

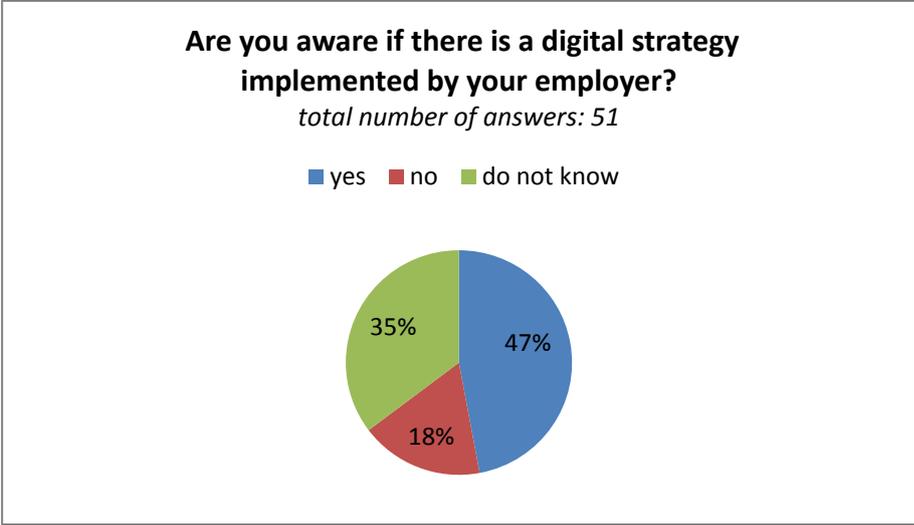


**I. DIGITAL SKILLS AND EMPLOYMENT**

Almost half of respondents said their enterprise is implementing a digital strategy. The remainder of respondents were either unaware of the existence of such a strategy (nearly a

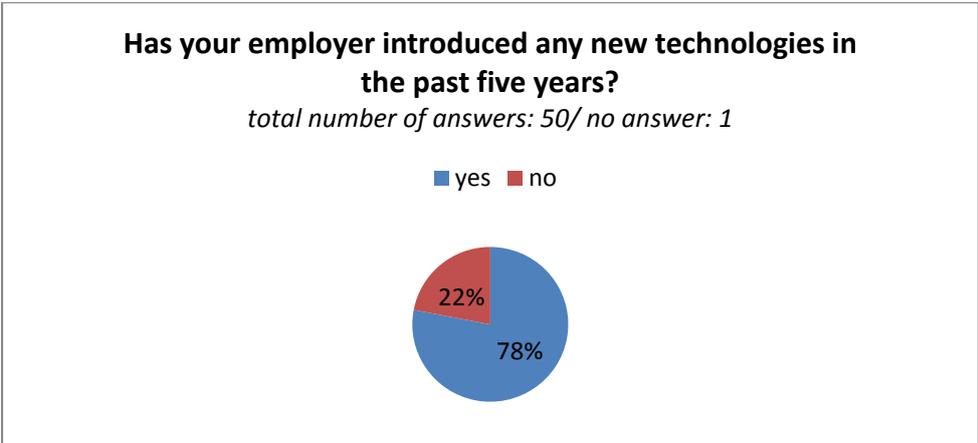
third of all respondents) or said that their employer did not have a digital strategy in place (18% of respondents).

**Fig. 21**



The introduction of new technologies is happening more and more frequently in workplaces, with employers embracing the benefits this brings. A very large proportion of respondents (nearly 80%) said that new technologies had been introduced in the last five years. However, approximately one in five respondents report a lack of technology investment by the employer.

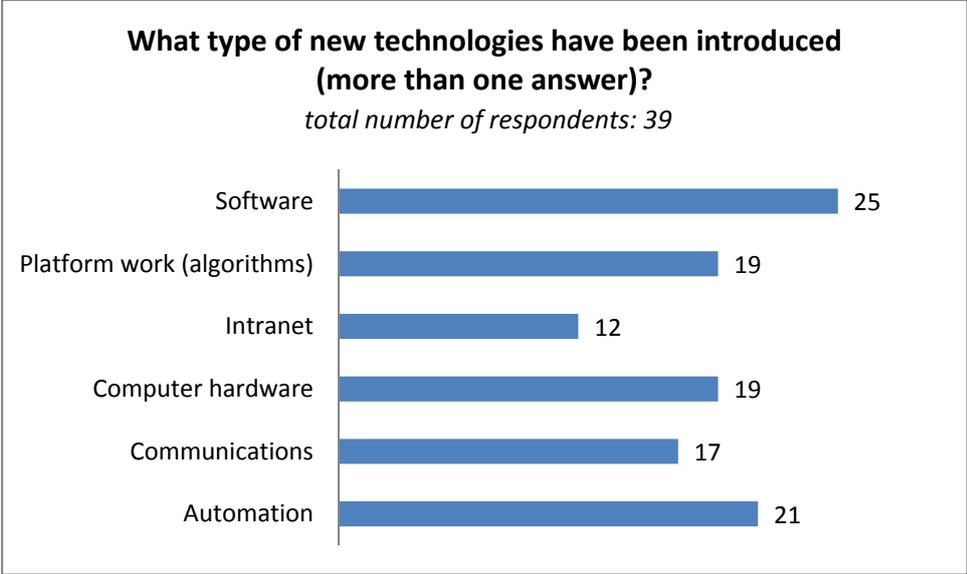
**Fig. 22**



Following the global trends for comprehensive business process support, the largest number of respondents said they are in favour of introducing software products and process

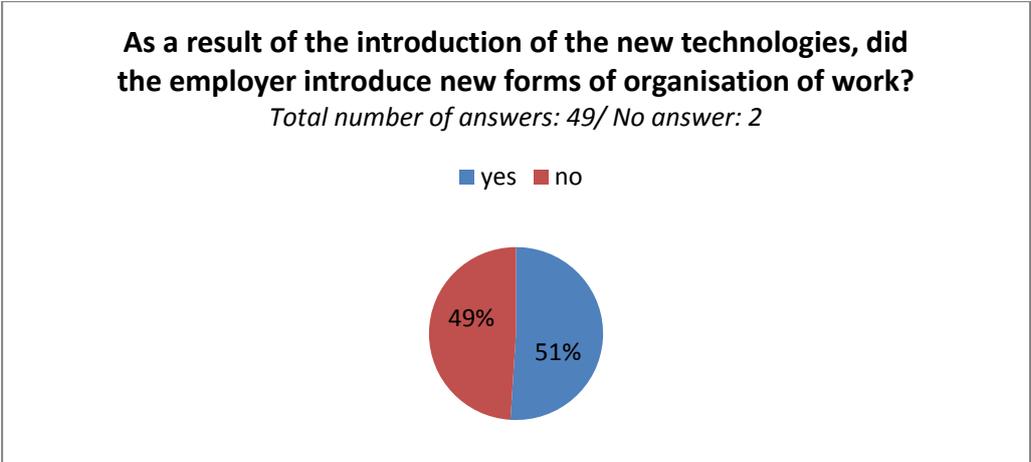
automation. Working across platforms (through algorithms), the use of computer hardware and communication technologies are also highly prevalent. Internal private networks are the least cited as workplace innovations.

**Fig. 23**



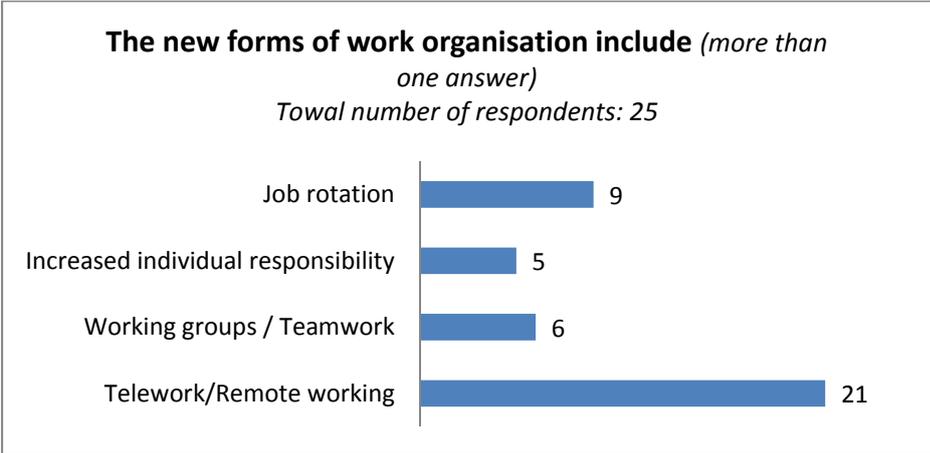
The introduction of new technologies (including in the last five years) seems to be linked to the introduction of new forms of work organisation. Half of the respondents report such a correlation, while the remaining half of the individuals indicate that no change in work organisation has followed.

**Fig. 24**



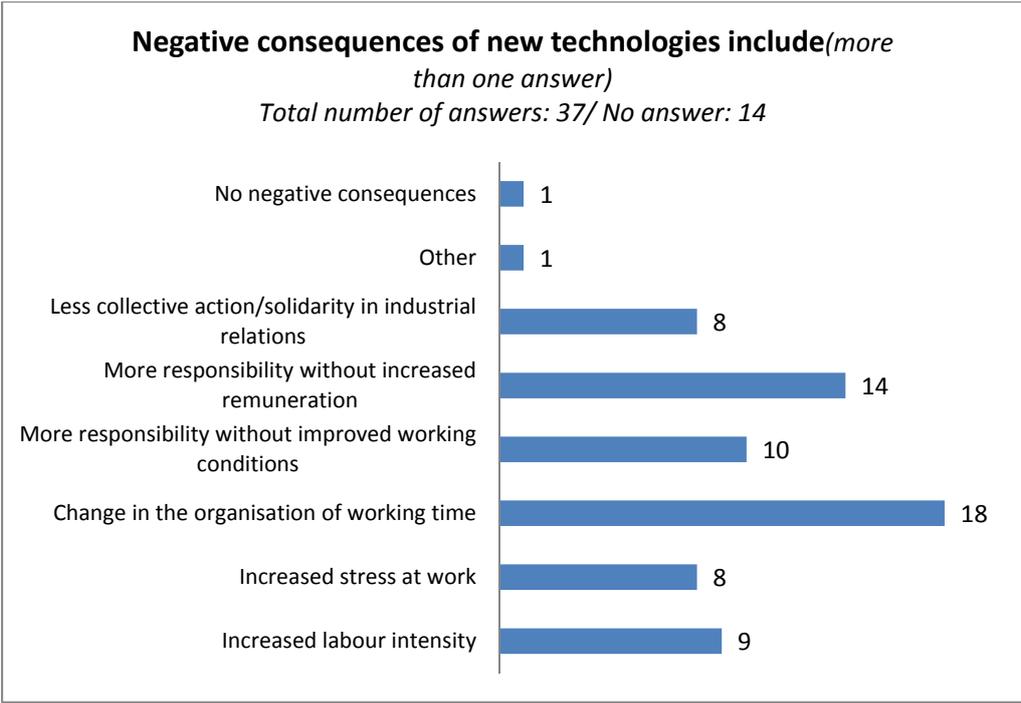
The most frequently cited new form of work organisation was 'remote working'/'telework' (mentioned by 21 individuals). The next most common responses were 'job rotation' and 'working groups/teamwork'. Lastly, respondents reported 'increased individual responsibility' as a new form of work organisation.

**Fig. 25**



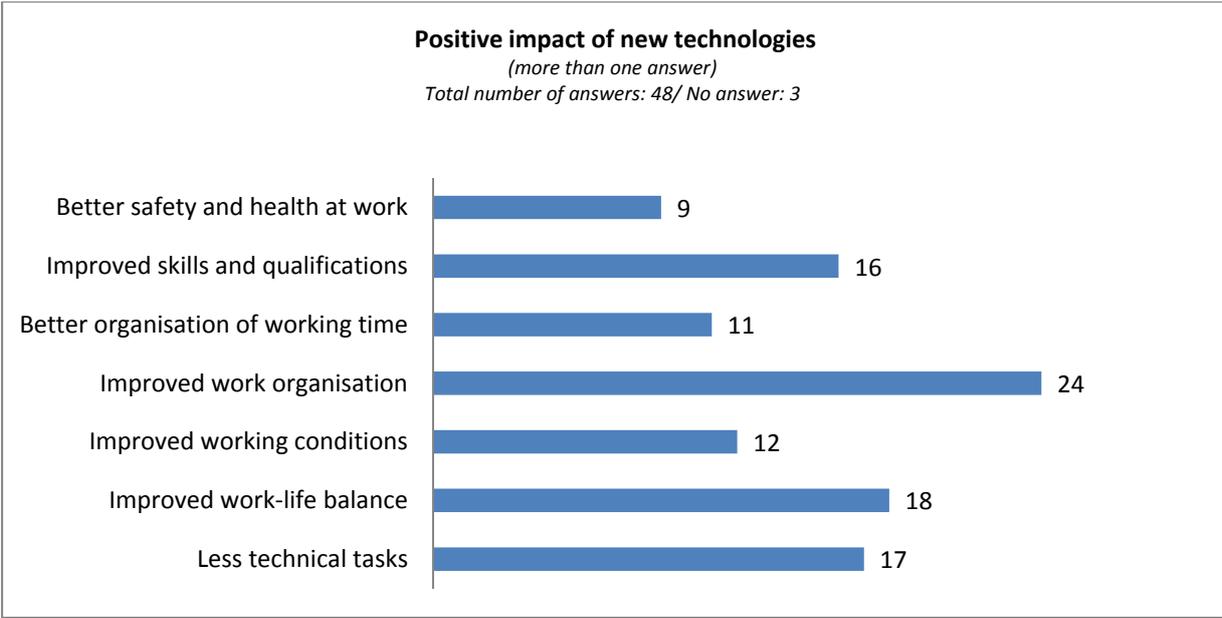
Changing the organisation of working time was the most frequently mentioned negative consequence of the introduction of new technologies (cited by 18 respondents). Digitalisation is also having a negative impact on the level of responsibilities assigned in the workplace - a high proportion of respondents report an increase in responsibilities, but without this being accompanied by a change in pay or working conditions. Despite the common perception that digitalisation is being introduced to facilitate the work process, it should not be disregarded that a significant number of respondents pointed out the increase in stress and work intensity at work as a negative impact. New technologies are also leading to a disruption of industrial relations- nearly one in five respondents report less collective action/solidarity in industrial relations.

**Fig. 26**



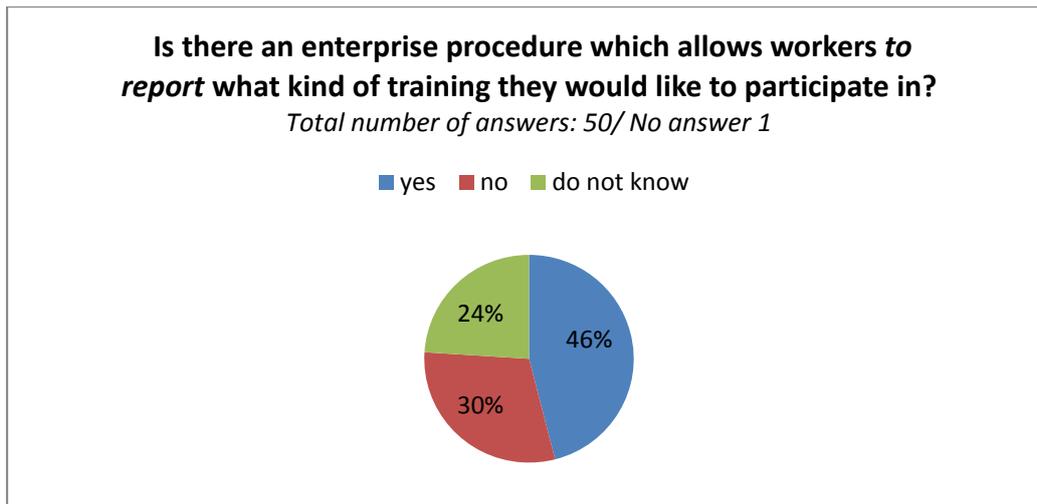
The biggest benefit of the emergence of new technologies was considered to be the improvement of work organisation (indicated by 24 respondents). This was followed by improved work-life balance and a reduction in technical tasks. Respondents also perceived improved skills and qualifications as a positive effect of new technologies. The least recognised benefits of digitalisation are still improvements in working conditions, working time organisation and safety at work. In general, respondents are more likely to report the pros of new technologies than the cons as a result of their introduction. This may be due to the fact that digitalization creates a better working environment at first and directly affects the work performed, adding benefits for the worker. However, the extent to which this positive attitude gives way over time to meaningful negative consequences cannot be explained by the present study.

**Fig. 27**



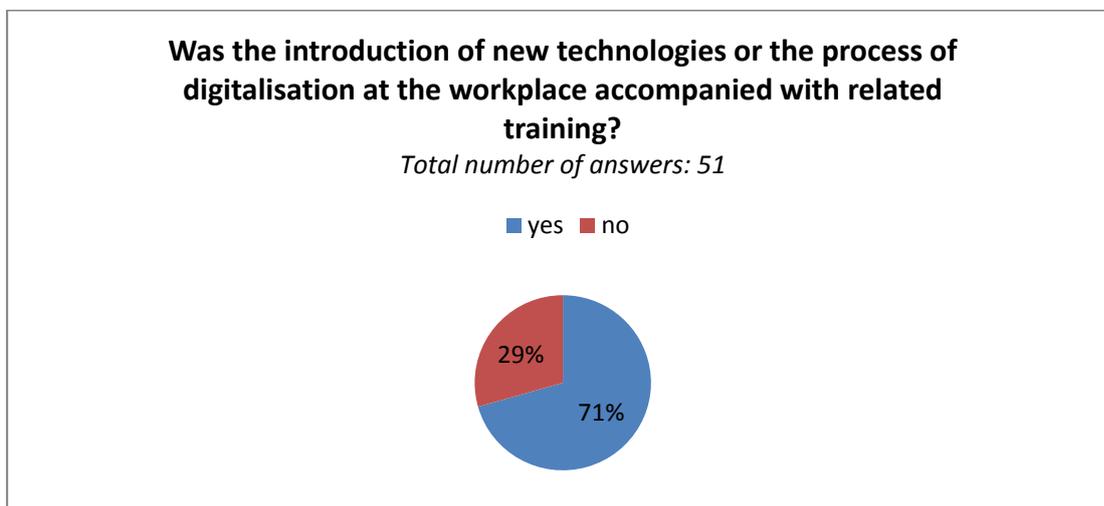
With the introduction of new technologies, employers are faced with the question of whether employees have the necessary qualifications and digital skills to handle the new tasks. Almost half of the respondents answered that there is a procedure at company/organisational level that allows employees to communicate what kind of training they would like to participate in. At the same time, it should be noted that a significant proportion of respondents reported the absence of such a procedure (30% of respondents) or the lack of awareness in regard to the possibility of individual reporting to the employer for inclusion in training (24% of respondents).

**Fig. 28**



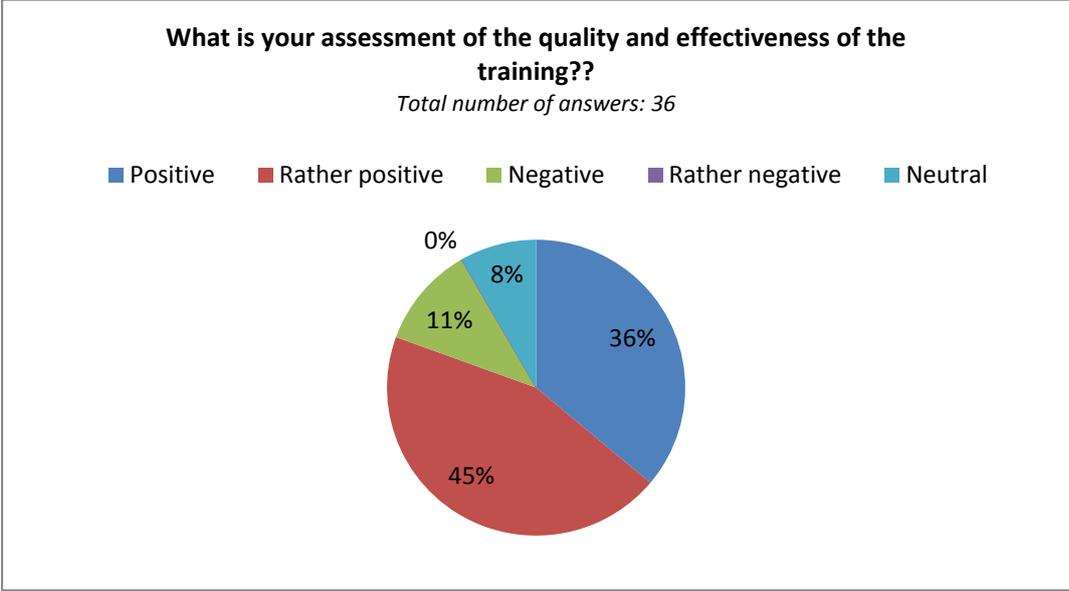
More than two thirds of the respondents reported the existence of a (positive) practice that the digitalization process is accompanied by training of employees. This means that most employers enable acquisition of necessary skills to handle the new technologies introduced. However, 1/3 of the responses signal the lack of such a practice, which should be corrected in order to adapt the workforce in the country more quickly to the changing work environment and (more globally) to maintain the competitiveness of our economy on the European market.

**Fig. 29**



A very large part of the respondents (over 80%) evaluated the trainings as effective in terms of acquiring the necessary knowledge and experience to handle the newly introduced technologies. At the same time, 11% of all respondents were of the opposite opinion and 8% could not determine whether the trainings were effective.

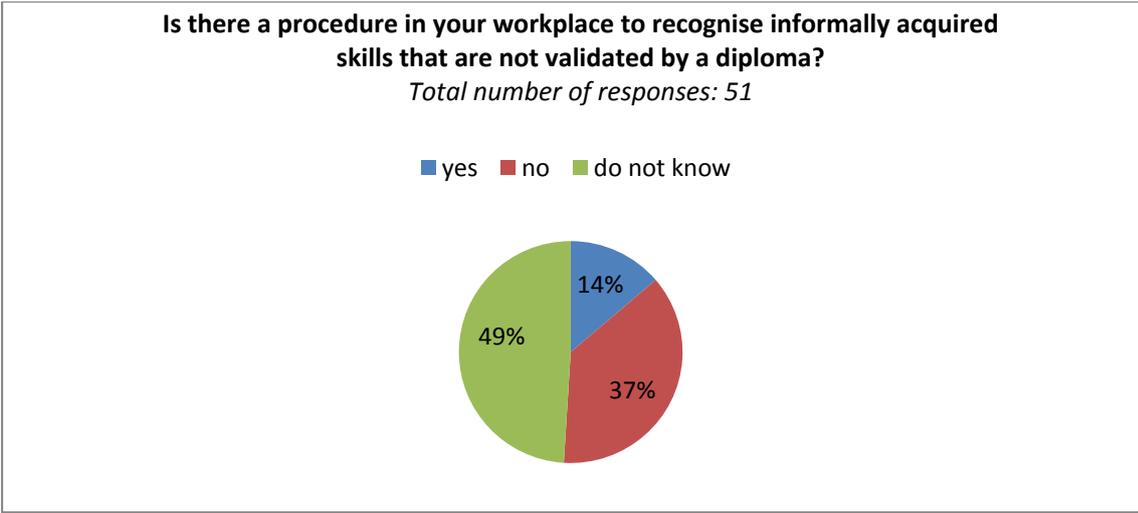
**Fig. 30**



Only 14% of respondents reported the existence of a workplace procedure for the recognition of informally acquired skills; at the same time, 37% stated the absence of such a procedure introduced by the employer. Only one of the respondents that there is a workplace procedure for the recognition of informally acquired skills said that this procedure happens through the company's Skills Assessment Centre.

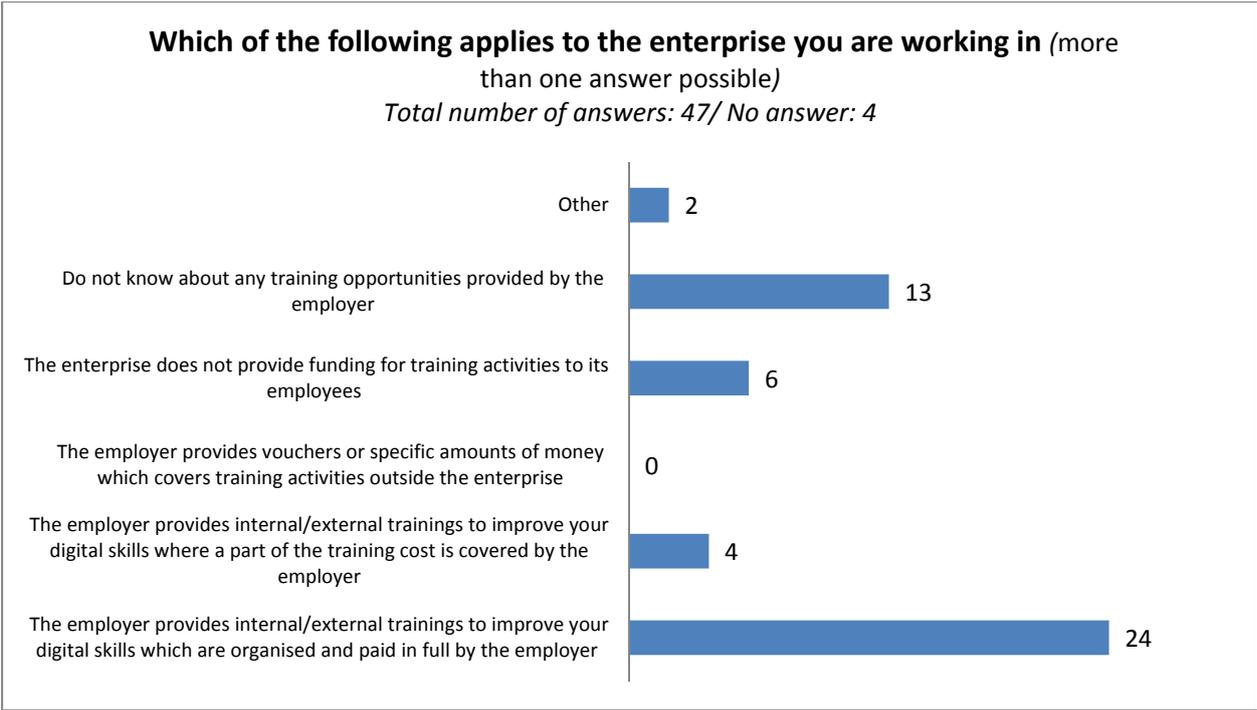
Nearly half of the respondents were not aware of the existence of such a procedure. This may be due to both a lack of interest in the respondents themselves in having their existing skills recognised and a lack of clarity about the range of organisational practices aimed at employee development. If we focus solely on those respondents who had answered 'yes' and 'no' to the question, it can be concluded that informal training and the skills generated through it are not yet prioritised as an essential element in company policies for documenting employee profiles and capabilities.

**Fig. 31**



Apart from the fact that employers do not at this stage highlight non-formal training as an important element of company/organisational policy to take into account the qualification profile of employees, there is also concern that in some places there is a lack of funding for training or a lack of a clear communication strategy to employees about the training available. The majority of respondents said that employers fully/partly provide funding for training to improve employees' digital skills (with the majority of cases being paid for entirely by employers, and a smaller proportion covering only part of the cost of the training provided). In addition to the above response options, the questionnaire provided the opportunity to indicate another model of training applied by employers. Two respondents reported precisely such models used. In one of the enterprises, training was at the employer's expense, but concerned specific individuals, and only when there was a work-related need. In another enterprise, access to a professional profile on LinkedIn is set up where employees can select training courses and obtain a certificate verifying the skills acquired.

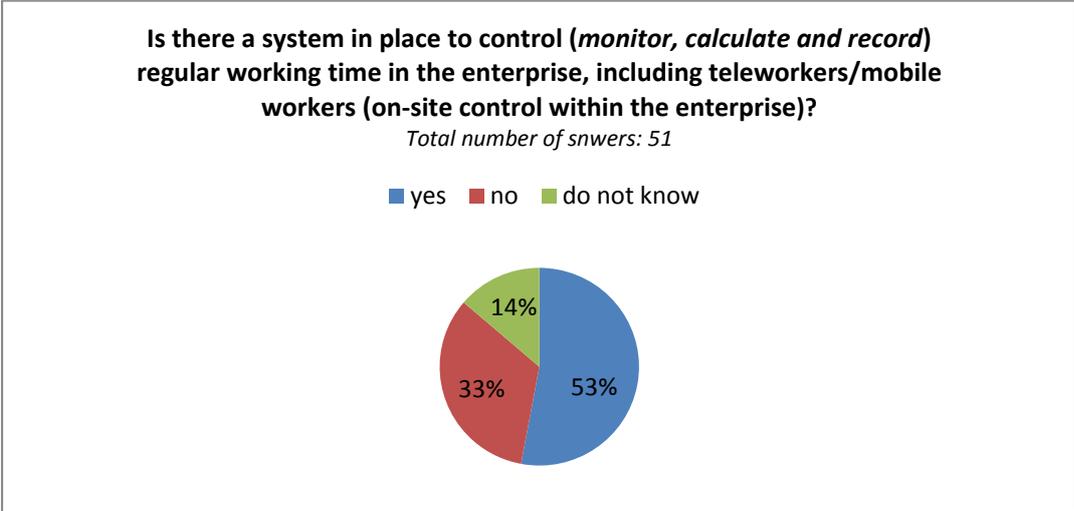
**Fig. 32**



**II. RIGHT TO DISCONNECT FROM THE DIGITAL WORKING ENVIRONMENT**

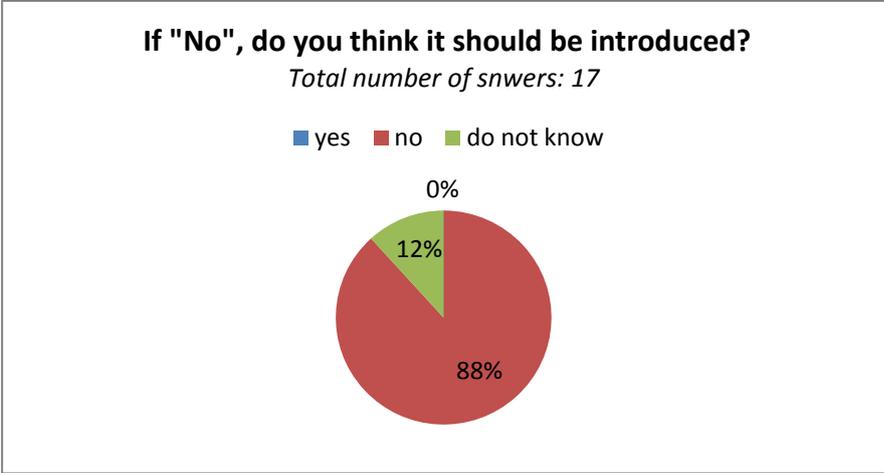
Slightly more than half of the respondents stated that there is a system for controlling working hours in the enterprises/organisations where they work. Around 1/3 of respondents state that no such type of control system is used in their workplace, and there are those (or 14% of respondents) who admit that they do not know whether the duration of their presence (including remote/teleworking) at work is taken into account.

**Fig. 33**



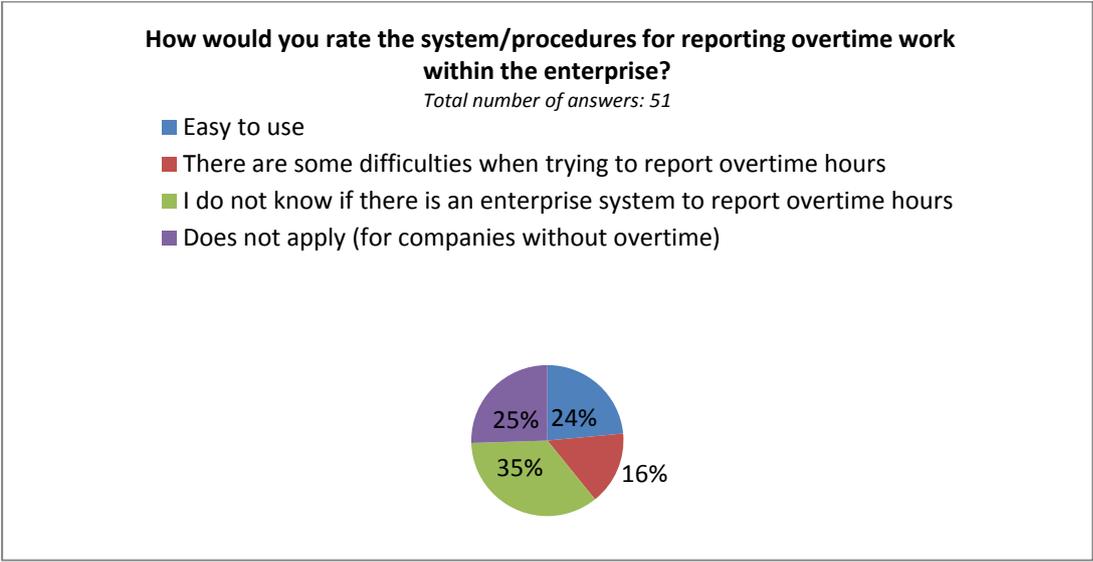
In enterprises where no working time control system is in place, the vast majority of workers surveyed stated that there was no need to introduce such a system.

Fig. 34



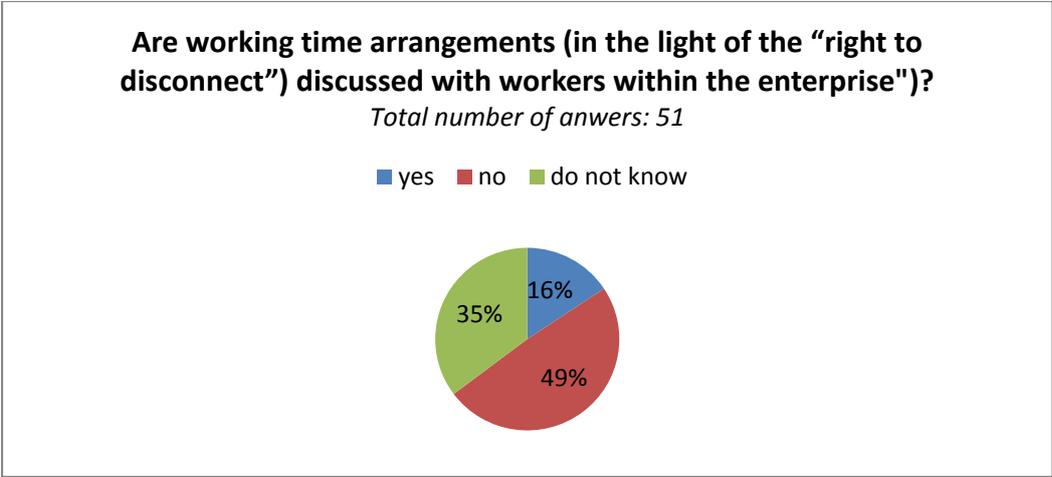
A significant part of respondents (or 25% of them) said that no overtime was performed at their workplace. Where it is undertaken, a higher proportion of respondents indicated that it is not difficult to report. However, responses from nearly half of respondents highlight two worrying findings. A total of 35% of respondents are not aware whether a system for reporting overtime exists at all in their company; another 16% say they experience some difficulty in reporting it.

Fig. 35



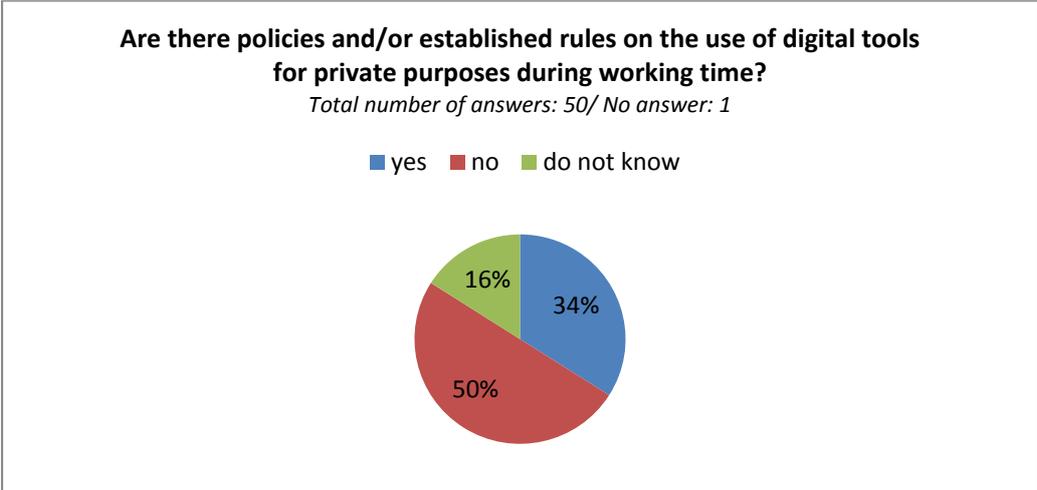
According to the survey responses, a conclusion can be drawn that there is still a perception in a large number of enterprises that the organisation of working time is not a topic for discussion with employees. A total of 35% of respondents said that they did not know whether they could discuss working time arrangements with their employer at their workplace. Nearly half of the respondents, on the other hand, stated that there is no practice in their current place of work to discuss working time arrangements with employees. In companies/organisations where there is such a practice, it does happen formally (by email) or informally (verbally, in meetings) with the team.

**Fig. 36**



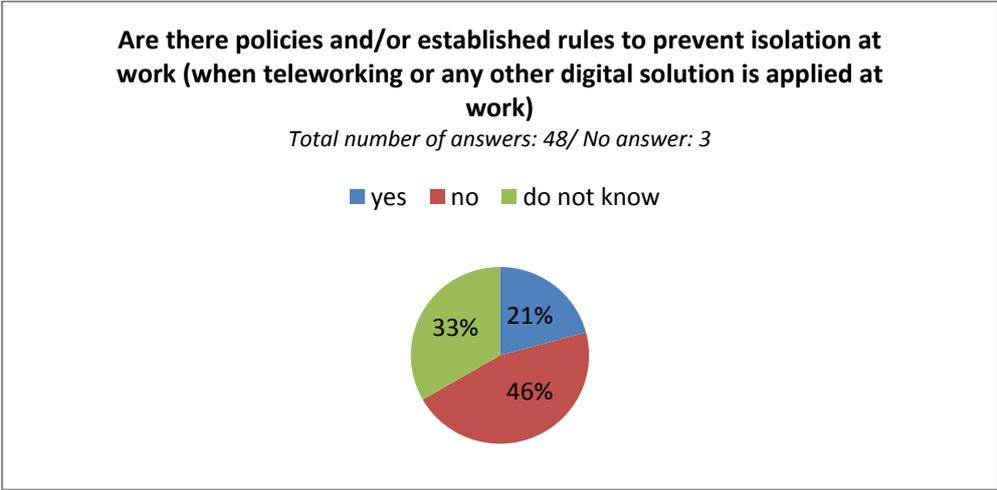
Another fact of concern is that employers generally do not set and communicate formal barriers to their employees' use of digital tools for personal purposes during working hours well enough. Around 1/3 of respondents said that there are policies/rules in place about the use of company software/electronic devices for personal purposes. On the other hand, 50% of respondents said that there were no such policies/rules in their workplace; another 16% said that they did not know whether their employer had imposed any restrictions on the use of digital tools for personal purposes at work.

**Fig. 37**



The implementation of policies/rules by employers to prevent isolation in the workplace (when working remotely/individually) is not yet widespread. The majority of respondents reported either that such policies/rules do not exist or that they are not aware if their employer enforces them. However, 21% of respondents indicated that tools are available to address employee isolation. This proportion may increase or hold steady in view of the spread of remote work/teleworking following the Covid pandemic.

**Fig. 38**



**III. ARTIFICIAL INTELLIGENCE (AI) AND GUARANTEEING THE PRINCIPLE OF HUMAN CONTROL**

This section of the survey tracks whether AI is subject to human control in enterprises/organizations-i.e., whether there is the option to correct or disable it in the event of

unforeseen behavior. Several examples can be quoted in this regard. For example, when AI is used in public health areas (e.g. robot-assisted surgery, smart prostheses, predictive medicine), patients' personal data must be protected and the principle of equal treatment respected. In the justice sector, the use of AI can help speed up proceedings and make decisions more rational; however, final judicial decisions must be made by a human and subject to rigorous scrutiny.

The questions in this section aim to give a clearer picture of the extent to which Bulgarian employees and workers are familiar with AI and use it in their work processes. In cases where AI is used, it is important to identify the types that are used and the extent to which the processes are under human control.

The majority of respondents (or 88%) answered strongly that they were familiar with the concept of AI. Only 12% of respondents were still unaware of its nature.

**Fig. 39**

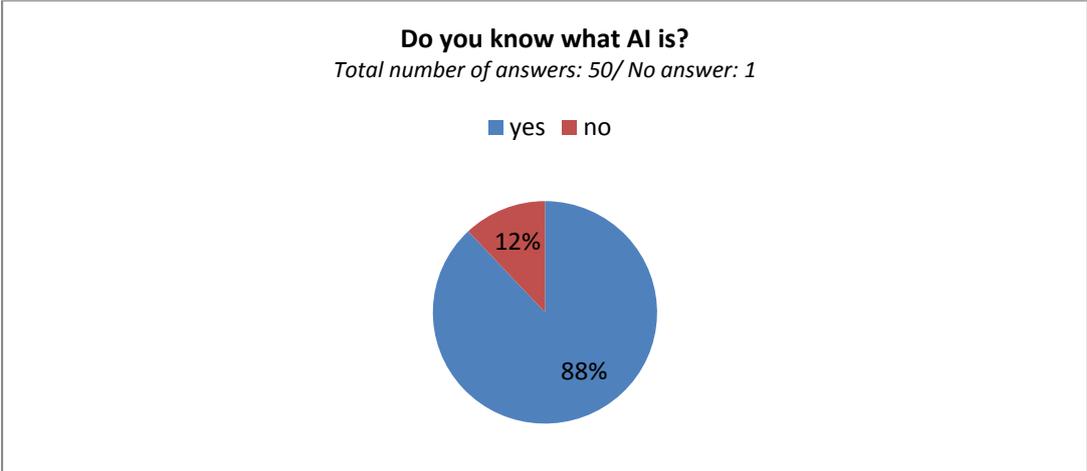
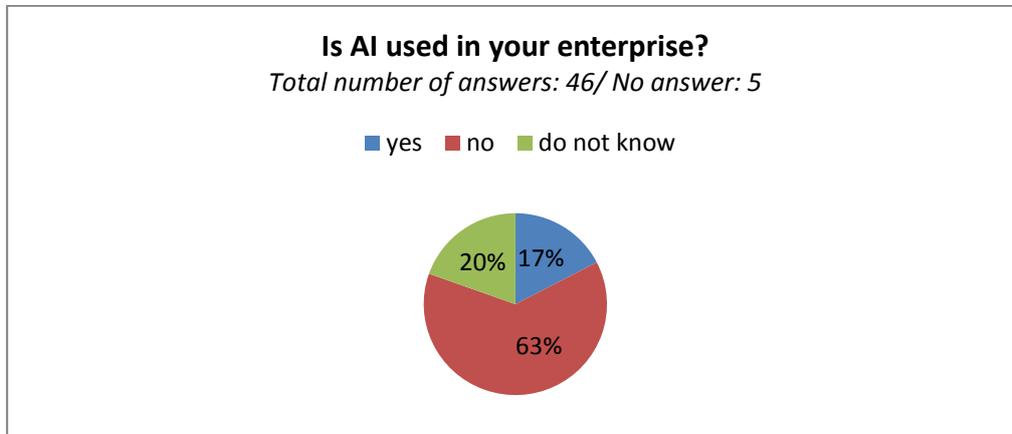


Figure 39 shows the distribution of responses on the extent of the deployment of AI in enterprises/organisations. The majority of respondents indicated that no AI is used in their workplace. Correspondingly, 20% said that they were not aware if there was AI in their workplace. However, 17% of respondents said that their employer has already implemented AI.

**Fig. 40**



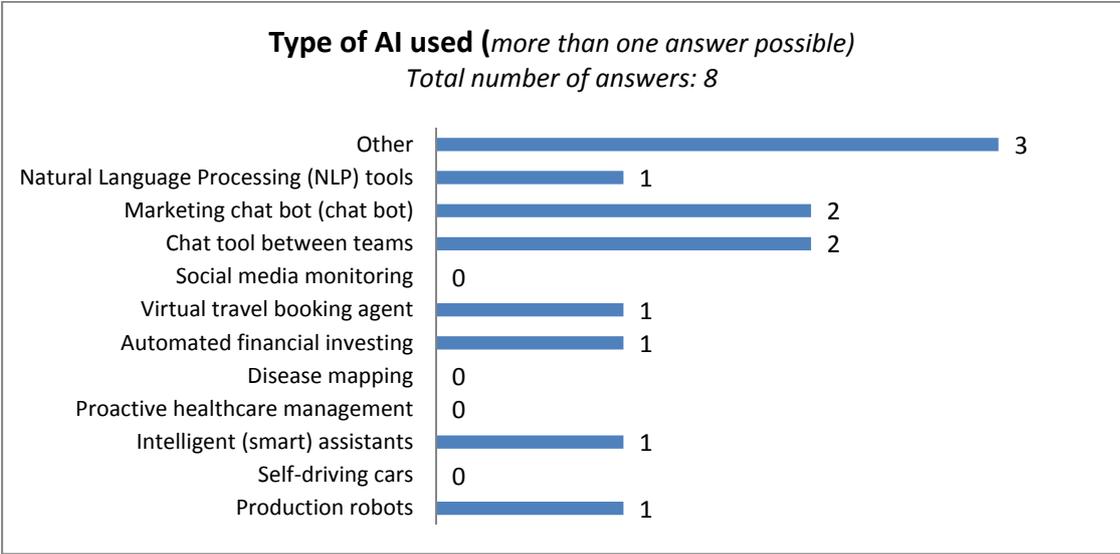
A breakdown of the type of AI applied was derived from those who answered affirmatively to the previous question. This includes both the use of a marketing chat bot (indicated by 2 individuals), a team chat tool (again 2 responses), production robots (1 reporting case), virtual travel booking agent (1 reporting case), natural language processing tools (1 reporting case), automated financial investing (1 reporting case), intelligent assistants (1 reporting case).

Respondents who marked "Other" as their answer said that AI consists of:

- Software to process and verify data by linking to other software, covering the nature of the work.
- An algorithm that automatically forwards data to other company departments and consequently learns from the actions of the people receiving the data.
- Robot to automatically call and confirm orders to customers.

Looking at the distribution of responses in Figure 41, it can be seen that there are no recorded instances of social media monitoring, disease mapping, proactive healthcare management, self-driving cars being used. This data is explained on the one hand by the fact that there are no respondents working in the health and transport sectors, and on the other hand by the lagging adoption of such technologies in the country.

**Fig. 41**



The presence of AI in the workplace does not always affect work assignments. In only half of the cases where it has been introduced do employees report that work tasks are directly affected. Although starting from an insignificantly small number of responses, it can be concluded that AI has a positive effect on the work process. Respondents whose work is affected by AI report facilitation of work in terms of elimination of routine and time-consuming tasks.

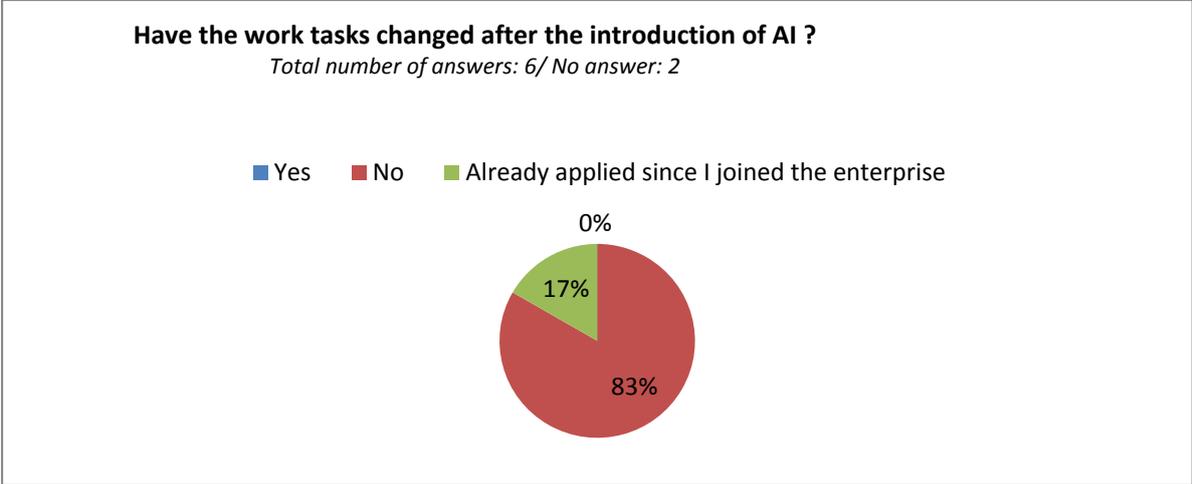
**Fig. 42**



AI does not change the nature of work tasks where its application is registered. Overall, 83% of respondents felt that there was no change in work tasks. It is also stated that AI was

introduced prior to the commencement of the workplace, therefore it is not possible to comment on the extent to which it has affected the nature of the work.

**Fig. 43**



None of the respondents reported having any internal health and safety policies related to artificial intelligence. Therefore, the extent to which robotics and desktop applications are controlled, and in the direction of ensuring worker safety, cannot be ascertained.

**Fig. 44**

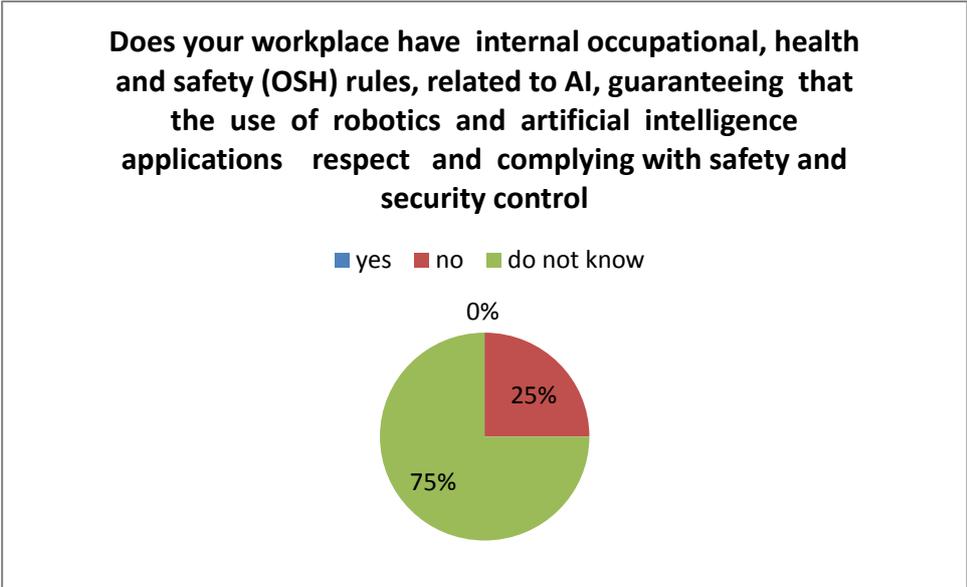
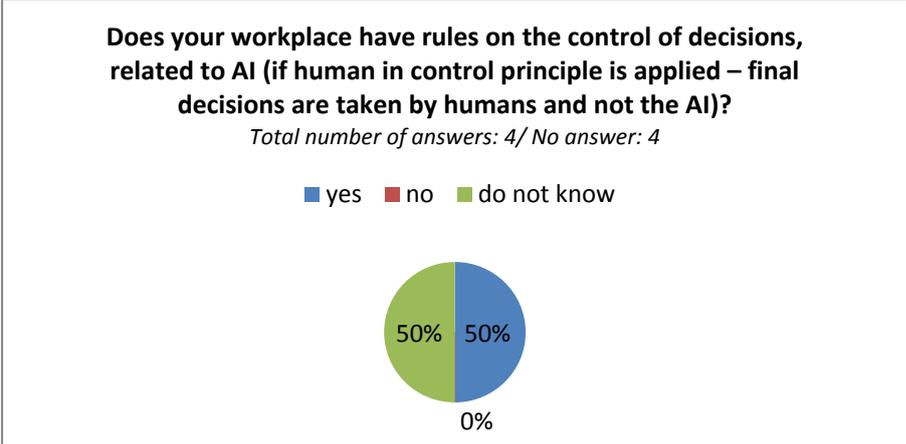


Figure 45 reveals that in some places there is still a lack of active communication from employers to employees about the controlled empowerment of artificial intelligence - or ensuring that final decisions are made by humans, not AI.

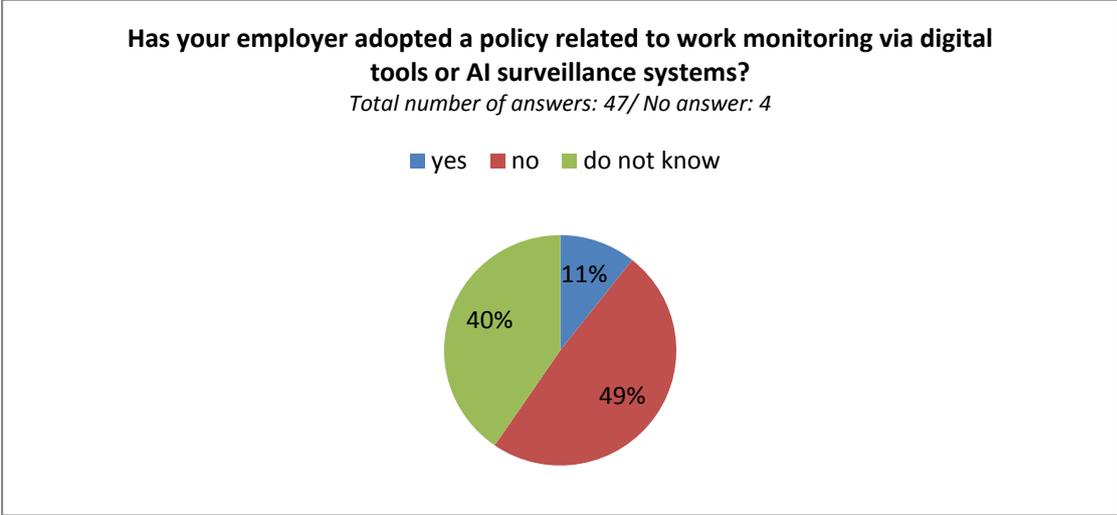
**Fig. 45**



**IV. RESPECT FOR HUMAN DIGNITY AND SURVEILLANCE**

Very few employers have undertaken monitoring of working processes using digital tools or AI-enabled surveillance systems. Nearly 50% of respondents reported the absence of such a surveillance policy. Another vast majority (40%) said they did not know if surveillance methods were being implemented. Only 11% confirm that at their workplace the workflow is monitored using digital tools or AI workflow.

**Fig. 46**

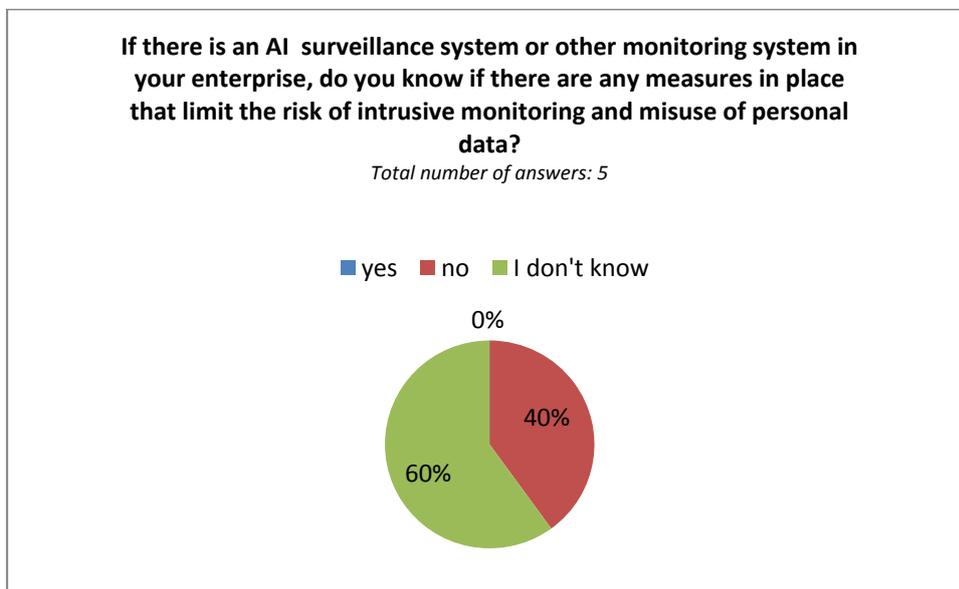


In enterprises where surveillance systems are used, they are as follows:

- A system for recording the time and number of "in/out" performed in the workplace;
- Access to business mail;
- Direct video surveillance of the premises.

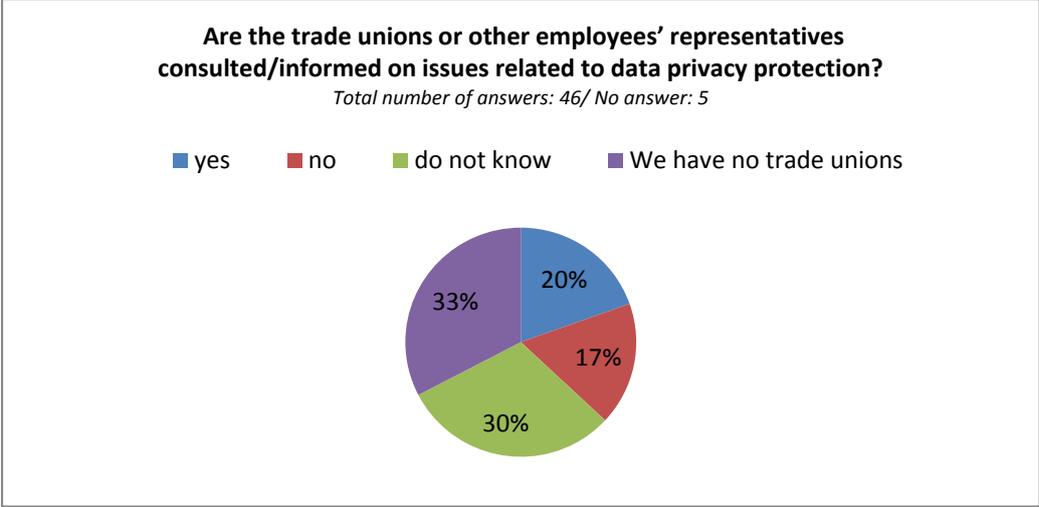
There are still no measures to limit the risk of "intrusive surveillance" and misuse of personal data. Employees are not aware of what happens to the accumulated information from their work performance. These results reinforce the need for workers to be better informed about organisational policies to respect human dignity.

**Fig. 47**



Consultation/information of workers' representatives on personal data issues is not yet sufficiently visible to employees. Although a significant proportion of respondents (20%) said that such processes are in place for releasing specific information to employee representatives, a roughly similar proportion (17%) reported a lack of such practice. Again, a substantial proportion (30%) were not aware whether such consultation/information meetings were taking place. Still 1/3 of the respondents said that they do not have any workers' representatives, which explains the lack of active dialogue and information dissemination from management to their subordinates in the company hierarchy.

**Fig. 48**



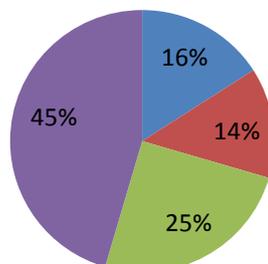
The last question of the survey shows the technical support of the activities carried out by the trade union/workers' representatives in the enterprise. In only 16% of the responses, it is shared that equipment and software tools are available to facilitate the work of workers' representatives. A similar proportion (or 14% of responses) said that such equipment was lacking. However, the high proportion (25%) of people who were unaware of the extent to which the employer supports the work of workers' representatives hides the true picture that was intended to be presented by the answer to this question. Correspondingly, the vast majority of respondents (or 45%) said that there are still no structures in their workplace for workers' voices to be heard by management.

**Fig. 49**

**Are the trade unions or other employees' representatives in the enterprise equipped with facilities and (digital) tools, e.g. digital notice boards, to fulfil their duties in a digital working environment?**

Total number of answers: 44/ No answer: 7

■ yes ■ no ■ do not know ■ We have no trade unions



## 5. Challenges to social dialogue arising from the digital transformation of the world of work

Collective bargaining in Bulgaria is conducted at different levels. Only branch/sector organisations that are members of nationally representative employers or workers organisations are entitled to conclude collective agreements (CA). National statistical institute reports for 600 272 employees<sup>16</sup> (2018) out of 2 038 040 covered by collective agreements (NSI, 2021; p.266).

Though digital transformation has been in the focus of the nationally representative social partners, the topic is not really a hot issue in the collective bargaining at the sectoral level. Only since the Covid-19 outbreak there we few collective agreements were amended in order to reflect pay issues, related mainly to mandatory introduced telework. To our knowledge, none of the four topics of the Framework agreement of digitalisation is specifically covered by collective agreements on sectoral level. To some extent this can be explained by the fact that for many years, collective agreements cover mainly issues, already arranged by the labour legislation and there is lack of experience or interest of the social partners to extend the scope of these agreements to broader topics. On the other hand, as already explained above, there is a low digital penetration in many sectors of the economy, thus digitalisation is not a natural issue to be discussed between social partners. An important factor is also that many sectors

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<https://www.nsi.bg/bg/content/18665/%D0%BF%D1%83%D0%B1%D0%BB%D0%B8%D0%BA%D0%B0%D1%86%D0%B8%D1%8F/%D1%81%D1%82%D1%80%D1%83%D0%BA%D1%82%D1%83%D1%80%D0%B0-%D0%BD%D0%B0-%D0%B7%D0%B0%D0%BF%D0%BB%D0%B0%D1%82%D0%B8%D1%82%D0%B5-2018>

where there are digital transformation processes are not covered at all by collective bargaining.

It will be exactly one of the main goals of this project to discuss with sectoral level social partners the possible actions that can be taken through collective bargaining.

#### *Some Covid-19 telework developments*

As a result of the Covid 19 pandemic in 2020 the use of telework in the public sector has significantly increased, especially in the system of higher and secondary education. This led to a reorganization of the work process and helped to maintain employment and human health. In the private sector, many of the companies in Bulgaria also had to use digital technologies to improve the organization of work in order to preserve the employment in Covid -19 situation. The Labor Code was amended immediately after the declaration of state of emergency, and new texts were introduced in it, through which telework during a declared state of emergency or emergency epidemiological situation has become a mandatory form of organization of the work process.

Telework work created challenges in home environment:

- (1) Computers/laptops, office equipment, consumables and utilities, internet connection (often slow connection speed) are often at the expense of the employee;
- (2) The home internet connection cannot take the heavy load when parents and children work and study at home at the same time;
- (3) Often there is no separate room in the home as a workplace in which to work quietly (children are at home - students are distance learning, kindergartens do not work, parents are forced due to Covid infection have moved to work remotely);
- (4) In some administrations with departmental net connection/web-based systems, access is not allowed from external computers, such as personal / home ones, and this makes remote work impossible;
- (5) Employees do not have access to their official mail for the above reasons. At the same time, there may be a ban on sending official documents by personal mail;

**The results of the survey** indicate the following challenges for the social partners (at different levels) in terms of the successful implementation of the Framework Agreement in Bulgaria:

- Digitalisation is still a **new topic** for the social partners at **branch level** when it comes to collective bargaining. Many of the social partners need to **strengthen their capacity** to extend the scope of collective bargaining in the field of digitalisation.
- **The role of the nationally represented employers' and workers and employees' organisations remains central** in giving impetus to the development of social dialogue at all levels in the field of digitalisation. Nevertheless, there is unused potential for joint action by the social partners to identify possible risks, particularly those relating to health and safety at work, the new manifestations of existing psychosocial risks (isolation, overwork, etc.)
- The data from the conducted questionnaire survey show that issues related to **digitalization** in the context of labour relations are predominantly addressed at enterprise level. In the vast majority of cases, when **new technologies were introduced**, employees were **consulted** at every stage of the implementation, and in the absence of consultation, employees were informed.
- However, the **company collective agreement** is not yet recognized as a tool for setting policies under the four pillars of the Agreement. The existence of a trade union is not a guarantee for the conclusion of a CBA; nor are trade union members always aware of the content and possibilities of the CBA covering them. The responses of the workers and employees surveyed do not provide reliable information on the extent to which the local **employee representatives** have the equipment and software tools to carry out their activities. It can be concluded that there is an **unexploited potential of collective bargaining** that can increase the benefits and reduce the possible risks for both parties in the employment relationship.
- Management staff recognizes **new technologies as facilitating** improvements in the organisation of work (including increased teamwork and personal responsibility) and working time, and in the qualifications and skills of the workforce. Nearly  $\frac{3}{4}$  of the respondents are of the opinion that new technologies do not negatively affect employees; however, where **risks for employees** appear, they mostly concern the increase in stress, the increase in work intensity and less collective action/solidarity in industrial relations, changed working time arrangements and more responsibilities

without increased remuneration. Employees' perceptions of the negative effects of the digital renewal of enterprises are similar. Employees/workers identify the biggest downside of the introduction of new technologies as the change in the organisation of working time. Given that employees/workers report that in many places there is a lack of any discussion with the employer about the organisation of working time, digitalisation may exacerbate existing tensions on the issue. According to employees, digitalisation is also negatively affecting the level of responsibilities assigned at work - a large proportion of them report an increase in responsibilities, but without this being accompanied by a change in wages or working conditions.

- The proportion of organisations that have implemented or plan to implement **a digital strategy** remains unsatisfactory. The elaboration of such **a strategy for the development of enterprises/organisations** should be based on an enhanced dialogue with employees at all levels in the hierarchy of the organisation. There is still a lack of good communication to employees regarding the measures implemented to develop the technical base and the capacity of staff to handle new technologies.
- Companies follow new trends, they are aware of the conceptual apparatus and the need for **lifelong learning and upgrading and acquiring new skills** by their employees - both digital and soft. It could be concluded that digitalization and the introduction of new technologies will significantly change the organization of work processes, interaction and communication, both of teams in an organization and with customers and partners.
- **Work-related training is primarily paid for by the employer.** Some of the questionnaires responded by the employees indicate that, although for a limited number of employers, there is still a lack of **funding for training** or a lack of a clear communication strategy to employees about available training.
- However, it is evident from the employee questionnaires that a number of employers have not yet established or communicated these **procedures** well enough to employees to allow anyone **to state the need to be involved in training**. The introduction of working procedures for declaring the needs for a specific type of training in the introduction of new technologies should be encouraged, and the increase of professional qualifications should be taken into account in professional attestation and career development.

- The presence of even a small percentage of individuals who report that **they have not been trained to use the new technologies introduced** poses quite a lot of risks for them. In addition to health and safety risks, this can lead to isolation in the workplace as a consequence of the inability to carry out work activities. There may be tensions within the collective itself (certain individuals may be seen as inadequate performers of the tasks assigned to them), as well as an inability to develop and grow.
- **In many places, non-formal training** and the skills acquired through it are not yet prioritized as an essential element in company policies for documenting employee profiles and capabilities. Whether this attempts to avoid reporting existing qualifications and corresponding promotion in rank has not been considered for the purposes of this study.
- **The right to disconnect from a digital working environment** is discussed in a small number of companies, mainly belonging to the IT and education sectors. Possible explanations for this result are national peculiarities of people's ethnopsychology, the low degree of introduction of digitalisation and the prevailing "traditional" way of working. For its part, the Covid pandemic has led to a serious share of both distance learning and "online" working in the IT sector, which in its turn leads to the need to regulate and mitigate the negative effects and health risks for workers.
- According to the data from the employees and management questionnaire surveys, in almost half of the enterprises, monitoring the **duration of working time** is still not a priority of the implemented policies for working process control. A significant proportion of employees say that they are not monitored to ensure that they keep their working hours, or that they do not know whether their working time is being recorded in any way. Even if this is not given much importance at this stage, measures to control time spent at work should not be dismissed lightly. Not only does this ensure personal peace of mind about transparency and recognition of working hours, but it also avoids tensions within the team and the creation of opportunities to cover up for disloyal employees.
- In support of the need to **monitor working time**, it can be pointed out that a significant number of the employees/workers surveyed are not aware of whether the employer reports **overtime**, but also experience difficulties in reporting it to the relevant unit (HR/line manager).

- The neglect of the risks inherent to the digital working environment is striking. The proportion of employers taking measures to **prevent isolation in the workplace** is still relatively low. A possible explanation is the low share of remote/teleworking, as well as the inability of companies to adapt in the pandemic period. There are also few employers who apply **rules on the use of digital tools** (software and electronic devices) **for personal purposes** during working hours.
- The proportion of employers using **artificial intelligence (AI)** is relatively low. Among the implemented tools are mostly those for marketing purposes, chat-bots, virtual/smart assistants, and chats between teams in companies. The use of AI has led to workflow facilitation and time savings; facilitating employee engagement in the relevant department (when using chatbots), identifying segments and exceptions in large volumes of data. While AI is still extremely low in enterprises, employees also report a lack of **internal health and safety policies** related to artificial intelligence. Therefore, the extent to which robotics and desktop applications are controlled, especially towards ensuring worker safety, cannot be ascertained.
- The proportion of organisations applying **rules to control AI decisions** so that final decisions are made by humans remains low. AI is hardly used in **human resource management procedures**.
- The data from the employee questionnaires give contradictory results on the existence of the possibility to **consult/inform the workers' representatives on the personal data issues**. Even if this is currently a sensitive and confidential topic, employees should be informed that all measures have been taken to protect their interests.

## 6. Recommendations for the social partners and collective bargaining with a view to implementing the framework agreement

In view of the identified challenges to the implementation of the Framework Agreement, it is recommended that the social partners should:

- **Encourage** the development of **digital transformation strategies** at sector/industry/enterprise level, in coordination with trade union representatives and, in the absence of trade union representatives, with employees in key positions, relevant to the digitalisation of the enterprise.

- At sectoral/industry level, join efforts to **train employees in the sector/industry** (including through sectoral qualification funds).
- In order to maximise the benefits of digitalisation in the workplace, the **associated risks should be assessed and mitigated at an early stage**. **Guidance materials** could be developed at national, sectoral and branch level to support employers, especially micro and small enterprises.
- The social partners need to be involved in the development of the institutional and legal framework related to digitalisation and continue to support their members with anticipatory information, methodological materials and toolkits.
- **Dialogue and the industrial relations system** to be preserved and developed at all levels in order to reconcile positions and find the best scenarios for developing the new digital jobs. Particular attention should be paid to sectoral/industry bargaining, which currently does not reflect the topics set out in the Framework Agreement. In this respect, targeted work with trade union and employers' representatives is needed, which will not only raise their awareness of the issues but also lead to the elaboration of new clauses in collective agreements.
- Discuss the possibilities for a **wider spread of trade union representation** in the country's enterprises. In this regard, to present to employers the advantages of dialogue with employees on the expected digital changes in the workplace.
- Use existing structures of representation and/or to regulate procedures/rules at company level to carry out **timely consultations with employees** on management's planned technological innovations and accompanying changes in the organisation and nature of work. This will ensure confidence in the digitalization process and ensure the active participation of all workers in the technological renewal of enterprises/organizations. **Information and consultation** can be key to finding the optimal solutions to avoid the negative consequences of digital transformation (including those arising from the change in the organisation of working time, the change in the nature of tasks when applying artificial intelligence, the misuse of the information accumulated through surveillance tools, etc.).
- **Workers should not be alienated** from each other at work. Ways should be found to sustain collective action/solidarity.
- Conduct **awareness/training campaigns among union presidents** at different levels so as to increase sensitivity to the issue of digital transformation. Employee

representatives should be prepared to discuss with employers the negative effects of the introduction of technology and propose solutions to address them. In this respect, the CBA should be increasingly recognised as an instrument for regulating the transformation of workplaces and its content should be updated with specific clauses presenting rights and obligations for both sides of the employment relationship.

- To be actively involved in labour market policy making aimed at protecting and retraining/ upskilling those who will be affected by digitalisation. It is important that **training programmes** are regular and cover all employees. Opportunities to engage in training programmes during working hours should be provided. At company level, the procedures for reporting the need for training, as well as those for disseminating information on trainings currently available should continue to be established and improved. Employees should be able to communicate what type of training they wish to engage in, but also know at all times what courses are offered by the employer. The training programs should be adapted to the needs of the production process, but should also be lined with indicators that assess the quality of training and the actually acquired new knowledge / skills.
- **Informal training** to become more widely embedded in company policies to document employee/worker profiles and capabilities. Reporting on existing qualifications can become an important element for human resource management, including reporting on the need for promotions, providing bonuses for good performance and initiative, etc. Therefore, rules/procedures should be put in place to give informal training legitimacy with employers.
- Discuss and encourage the implementation of working time and attendance reporting systems.
- To support the efforts of those employers who want to introduce at company level rules for the use of digital tools for personal purposes during working hours (including to assist in the development of company level procedures for effective disclosure of rules to employed people).
- While AI is still extremely poorly deployed in enterprises, its introduction should be supported by the establishment of **internal health and safety rules for its use, as well as to limit the risk of "intrusive surveillance" and misuse of personal data.** Employees and their representatives need to be aware of what happens to the information accumulated from their work performance.



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