

Sociological outlook towards ICT based telework in Bulgaria before the COVID-19 pandemic

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Abstract. The aim of the present study is to analyse the socio-demographic profile of persons under 45 years of age in Bulgaria who worked remotely with IT before the Covid-19 pandemic, as well as to outline the specifics of this form of paid work related to work arrangements, health and safety at work as well as how work and personal/family life are reconciled. For the purposes of the analysis, we use data from the survey undertaken by Eurofound and entitled 'European Working Conditions Survey' 2015. The results from the descriptive statistical analysis show that out of all flexible forms of employment, remote work used to be the least spread across Bulgaria prior to the COVID-19 pandemic. In the group of respondents, aged up to 45, teleworking using IT was most of all applied by individuals of higher education levels, most commonly employed in the private sector. The analysis shows that there is a higher degree of satisfaction of this form of labour as well as a good level of reconciliation of professional, private and family life. Other specificities of IT teleworking refer to the flexible working hours, which however in a number of cases are accompanied by additional hours of labour. From a perspective of health and safety at work, the most common complaints and health problems that result from prolonged work hours with computers and electronic devices are sleep problems, headaches, eye pain, chronic fatigue and decreased physical activity. Ensuring health and safety at work and good level of reconciliation of professional, private and family life for teleworkers requires prevention of health risks and update of the regulations relevant to this increasingly widespread form of employment.

Keywords: telework, ICT, labour management, health and safety, work-life balance

1. Introduction

The COVID-19 pandemic places new challenges in all areas of social life. In the area of labour, the digitalization and dissemination of teleworking based on the use of information and communication technologies (ICT) raises questions regarding changes in the way work tasks are performed outside employer's premise, health risks and occupational safety, reconciliation of professional and

private/family life, etc. As the COVID-19 pandemic unfolds, it goes accompanied by a significant growth in the number of teleworking people and this would require a more in-depth analysis of what the specificities are of this form of labour.

Teleworking as a form of paid labour based on ICT in Bulgaria was a sparsely studied phenomenon prior to the COVID-19 pandemic. One of the reasons would refer with the scarce spreading of this form of employment in this country. According to Eurostat data, only 0.3% of all employed worked from home in 2018 (Eurostat 2020). As a matter of comparison, in a number of EU Member States, those teleworking predominated among women and young people. In the surveys conducted in Bulgaria, telework is considered in the context of the prevalence of various forms of flexible employment (shift work, flexible working hours, teleworking) (Vachkova 2008). The results from a survey made by Vachkova (2008) on the flexible forms of employment in Bulgaria show that the most widespread scheme is shift work while teleworking is applied the least. Based on data retrieved from an international survey, the author indicated that in 2003, 4.5% of all organizations in the country made use of telework. The analysis of Vladimirova and Atanasova (2008) on flexible forms of employment and practices among workers in small and medium enterprises in Bulgaria shows the need for information and in-depth understanding of the rights and obligations of workers and employers practising flexible forms of employment, including remote work, in order to avoid practices that would violate the labour and social security rights of workers. A survey conducted by Kanev et al. (2013) on the flexible forms of employment in companies belonging to the food industry systematized managerial assessments of the extent, scope, challenges and problems associated with telework. The results of the survey show that in Bulgaria, there was a small share of food producers who applied flexible forms of employment - 16.8% used teleworking and 38.4% used rotational employment. The authors make the conclusion that flexible forms of employment, including telework, are not sufficiently applied or used in Bulgaria (Kanev et al. 2020, 193). The research of G. Yordanova on the people employed in the ICT sector in Bulgaria shows that better reconciliation of professional and family duties is an important aspect of the remote form of work in this sector (Yordanova, Kirov 2008, 347-362; Yordanova 2020).

The aim of this article is to describe the socio-demographic profile of the individuals in Bulgaria in the demographically most active ages (up to 45), who did telework with ICT prior to the COVID-19 pandemic, and to outline some specificities regarding teleworking and work organization, health and safety of working people and the reconciliation of professional and private/family life. According to the definition of the European Foundation for the Improvement of Living and Working Conditions - Eurofound, "Work organisation is about the division of labour, the coordination and control of work: how work is divided into job tasks, bundling of tasks into jobs and assignments, interdependencies between workers, and how work is coordinated and controlled in order to fulfil the goals of the organisation. It encompasses the tasks performed, who performs them and how they are performed in the process of making a product or providing a service. Work organisation thus refers to how work is planned,

organized and managed within companies and choices on a range of aspects such as work processes, job design, responsibilities, task allocation, work scheduling, work pace, rules and procedures, and decision-making processes” (Eurofound 2021, Work organisation). Health and safety rules fall within the scope of the definition adopted by Eurofound, the International Labour Organization (ILO) and the World Health Organization (WHO): “health and safety regulations are aimed at the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations; the prevention among workers of leaving work due to health problems caused by their working conditions; the protection of workers in their employment from risks resulting from factors adverse to health; the placing and maintenance of the worker in an occupational environment adapted to his or her physiological and psychological capabilities” (Eurofound 2015). The definition of work-life balance adopted by Eurofound is as follows: “Work-life balance is a term used to describe the division of an individual’s time between work and other spheres of life, as well as strain (for example, stress) that may spill over from work to life or vice versa” (Eurofound 2021, Work-life balance).

This analysis is based on the data from the latest wave of the European Working Conditions Survey (EWCS) conducted in 2015 by the European Foundation for the Improvement of Living and Working Conditions - Eurofound. For this purpose, we use the definition of Eurofound, according to which teleworking and ICT-based mobile work is each type of work organization where workers work at a place, which is distant and different from the employer’s premise, by using digital technology, i.e., Internet, computers and mobile handsets (Eurofound 2020a, 3). Work with ICT devices performed at more than one location (with different degree of mobility) involves flexibilization in terms of both place and time where job tasks are performed. ICT-based teleworking would most often be performed from worker’s home or at another location, different from the employer’s location (public locations, means of transport), i.e., from customer’s location, from online platforms or at shared offices (Eurofound and the ILO 2017). Publications on the matter use different terms to designate teleworking such as telecommuting, smart work, remote work, mobile e-work, telework, and ICT-based mobile work (ETUI 2016). The development of technology and digitalization go accompanied by a transition from a bureaucratic to a flexible model of working time management (Eurofound 2020a, 13-26).

The European legal framework setting the basics for the regulation of telework is the European Framework Agreement on Telework, the Working Time Directive (2003/88/EC), the Work-Life Balance Directive (COM/2017/0253), the Transparent and Predictable Working Conditions Directive (COM/2017/0797), and the European Pillar of Social Rights.

One of the latest reports of Eurofound, published in 2020, derives a number of specifics of telework. According to this report, part of the advantages of this form of employment involves a higher autonomy at work, a better work-life balance, a higher degree of labour productivity and reduced commuting times. Deficits will mostly be associated with longer working hours, overlapping of workplace and home and growth of labour intensity (Eurofound 2020a). Publications discuss the so-called paradox of autonomy, according to which

remote work offers greater autonomy in the performance of work tasks, but at the same time it is accompanied by greater work intensity, longer working hours and building a work culture of competition and increased expectations for the results of work (Mazmanian, Orlikowski, Yates 2013, 1335-1357; Sewell, Taskin 2015, 1507-1529; Boell, Cecez-Kecmanovic, Campbell 2016, 114-131).

Implications of telework on the work-life balance are contentious (Ammons, Markham 2004, 191-238; Galvez, Martinez-Arguelles, Perez 2011, 273-297; Den-Nagy 2014, 193-211; Allen, Golden, Shockley 2015, 40-68). The results of Eurofound's analysis show that some teleworkers, especially parents, often experience a conflict between their professional and family responsibilities (Eurofound 2020a). Prolonged working hours and irregular work rhythms, as well as work in unsocial hours, have a negative effect on work-life balance and often lead to role conflicts (Eurofound 2020a). Lack of visibility and physical contact with colleagues may be accompanied by negative assessments such as lack of sufficient commitment to the organization, which could negatively affect the professional and career development of teleworkers (Eurofound 2020a; Boell, Cecez-Kecmanovic, Campbell 2016, 114-131; Huws 2017, 29-48).

According to the results from EWCS 2015 ICT-based telework is performed by 2.8% of those employed and 3.0% of self-employed people in EU (Eurofound 2020a). The factors that affect the prevalence of this type of work are access and skills to work with ICT, Internet coverage, digitalization and the structure of the economy, GDP, labour culture, including management models, legislation and collective bargaining (Eurofound and the ILO 2017). According to the Digital Economy and Society Index (DESI), in 2019, Finland, Sweden and Denmark had the highest levels of digitalization, while Romania, Greece and Bulgaria had the lowest (DESI)¹. The prevalence of telework also depends on the dominant managerial style in organizations, trust and personal responsibility (Wojcack et al. 2016). Eurofound's analysis shows that teleworkers are most often professionals in science and education, ICT industry, wholesale and retail. This type of work is least common in the manufacturing, transport, public administration and healthcare (Eurofound 2020a). In EU Member States, the proportion of men working remotely with ICT is higher than that of women, while women predominate among those working from home. According to the authors of the report, this relates to the traditional division of labour by gender in the private and employment sphere (Eurofound 2020a). Women choose to work from home so that they can better combine paid work and care for the household and children. Young people are the predominant group among those working in the ICT sphere, where remote employment is more common. It is expected that an increasing share of the older generations will switch to this form of employment in the future. Eurofound's report outlines some geographic differences between the EU Member States. In Southeast Europe, teleworking is less widespread compared with North Europe (Eurofound 2020a).

¹ The Digital Economy and Society Index (DESI): <https://ec.europa.eu/digital-single-market/en/digital-economy-and-society-index-desi> [Accessed: 6 November 2021].

A number of studies have shown that before the COVID-19 pandemic, some discriminatory patterns were observed, with telework being perceived as a compromise and less efficient way of working, mostly practised by people who are prevented from working through the established office model of full-time work (ETUI 2016). This concerns mainly women and workers with health problems, whose work, due to its remote nature, could be underestimated in terms of quality and performance of work tasks. This is why in many cases, telework is perceived as a more unstable and compromise form of employment, which is mostly practised by people who have to take care of the family or are otherwise unable to work according to established standards (Eurofound 2020a).

The transition to teleworking in the current context of the COVID-19 pandemic puts forward even more pronouncedly on the agenda the regulation and elimination of stereotypes regarding this form of paid labour. Moreover, surveys show that the prevalence and assessment of teleworking with ICT is also relative to the dominating work culture in a given country (Wojcak, Barath 2017, 65-74.). In societies where a high degree of trust exists in the area of paid work, e.g., the Scandinavian countries, teleworking as a form of employment is more widespread and the attitude toward it is not discriminatory (Eurofound 2020a). This form of employment is accompanied by a new work culture and a new paid work regime where fixed working hours, the continuous control by the supervisors in the working hierarchy and the physical presence are replaced by the flexibility and autonomy while performing the work tasks. In addition, teleworking is in many cases associated with unstable employment, temporary employment contracts, lower pays, and with limited opportunities for occupational training and career development (Eurofound 2020b).

The method of organization of work and working hours do influence health and welfare of workers. Eurofound's report shows that the most common health problems among teleworkers using ICT are stress, chronic fatigue, sleep problems associated with overworking with electronic devices, eye problems and problems in the upper part of the musculoskeletal system (Eurofound 2020a).

2. Data and methods

The European Working Conditions Survey is a nationally representative survey covering people aged over 16+, which is conducted at 5-year intervals by the European Foundation for the Improvement of Living and Working Conditions - Eurofound². The latest wave of this survey was conducted in 2015 and included 43,850 employees and self-employed in 35 European countries. The questionnaire covers a wide range of topics, such as socio-demographic

² More information about this survey may be found at the following web address: <https://www.eurofound.europa.eu/surveys/european-working-conditions-surveys-ewcs> [Accessed: 6 November 2021].

profile of employees, specifics of paid work, working conditions, working hours, work organization, skills development and autonomy at work, work-life balance, social environment at work, health and safety and subjective well-being of workers. The Bulgarian sample included 1,064 employees and self-employed, of whom 46% were men and 54% were women. The average age of the respondents was 44.7 years (standard deviation 12.2 years). The employees made 83%, while self-employed accounted for 17% of the respondents.

In this study, the category of the individuals teleworking with ICT is built up as follows. It includes all employees and self-employed people working with desktops, laptops, smartphones or any other type of ICT “always” or “most of the time” at at least one location different from the premise of the employer at least several times a week³. Of all individuals within this age group, those always or most of the time working with electronic devices account for 30%. 5% worked at client’s premises every day or several days a week over the last 12 months, 2.7% worked at a means of transport, 6.0% worked in the public place, 3.3% in their homes and 2.2% worked at public places.

3. Results

3.1. Socio-demographic profile of teleworkers using ICT in Bulgaria

According to the results from the analysis, the number of individuals aged not more than 45 and teleworking using ICT was 50, with the sample being equally distributed by gender (Table 1)⁴. The distribution by age shows that among the youngest age group, teleworking is least widespread. 10% of the respondents were aged 18-25, 44% were aged 36-35, while 46% fell within the age interval 36-45 years. Individuals with no children made 60%, 24% had one child, while 16% had two or more children. While single individuals accounted for 32%, those living with a partner made 68%. ICT-based teleworking was most frequently practised by individuals of higher levels of education, with 60% having higher education degrees. Most of the respondents lived in households with relatively high incomes: 60% claimed the total monthly income of their household was sufficient to make ends meet either easily or very easily. According to the employment sector, the respondents most often work in the field of trade and hospitality.

³ The methodology of Eurofound has adopted a wider limit and therefore, it also includes the individuals teleworking at least once a month (Eurofound 2020a). For the purposes of this analysis to outline more clearly the profile of those teleworking with ICT on a permanent basis in Bulgaria, we lower the period needed to perform the work tasks down to at least once a week at a location different from that of the employer’s premise.

⁴ Due to the sample nature of the study, the small number of people working remotely with ICT in the aggregate, and the age restrictions introduced, the conclusions drawn later in the analysis cannot be generalized. Additional specialized research is needed on this form of paid work and the persons who practise it in Bulgaria.

Table 1. Socio-demographic profile of teleworkers using ICT in Bulgaria

Socio-demographic characteristics of R.	Number	Percentage
Gender		
Men	25	50
Women	25	50
Total	50	100
Age		
18-25	5	10
26-35	22	44
36-45	23	46
Total	50	100
Number of children		
No children	30	60
One child	12	24
Two children	7	14
Three children	1	2
Marital status		
Married/with a partner	34	68
Without a partner	16	32
Education		
Secondary	20	40
Higher	30	60
Total	50	100
Working time		
Full time	38	76
Part-time	12	24
Total	50	100
Labour status		
Employees	38	76
Self-employed	12	24
Total	50	100
Sector of employment		
Private	44	88
State	4	8
Mixed-ownership company	1	2
Other	1	2
Total	50	100

Table 1 (continued)

Socio-demographic characteristics of R.	Number	Percentage
How many hours do you work at you main job?		
Not more than 40 hours	27	54
41–50 hours	10	20
51–60 hours	12	24
No answer	1	2
Total	50	100
Sector of employment		
Agriculture	1	2
Industry	3	6
Civil engineering	2	4
Trade and hospitality	21	43
Transportation	2	4
Financial sector	2	4
Administration and defence	3	6
Education	2	4
Other	13	27
Total	49	100

Source: European Working Conditions Survey (2015) - authors' estimates.

Teleworkers are most often employed full-time (76%). While the vast majority of them (92%) have one main job, 8% have a second job, too. The vast majority of people are employees (76%), while those who are self-employed make 24%. This shows that, although rarely practised, this form of employment is accepted as an equivalent alternative to the traditional model of full-time main job. The remote form of employment is prevalent primarily in the private sector (88%), while in the public sector 8% of the respondents work remotely. It is noteworthy that almost half of the respondents work above the established working time standards, i.e., 40 hours per week, 54% work at their main job up to 40 hours a week, 20% work between 41 and 50 hours, and 24% work between 51 and 60 hours (Table 1).

Men have longer working hours, with 36% of them saying that they work more than 51 hours, while for women the percentage is about twice lower, with 16% (Fig. 1).

Regarding the satisfaction with the working conditions, the predominant part of the persons (88%) are very/satisfied, while the dissatisfied account for 12%. Differences by gender are not statistically relevant. A significant part of the participants in the survey perceive telework as a stable form of paid work, with 80% saying that they could work in their current job until the age of 65.

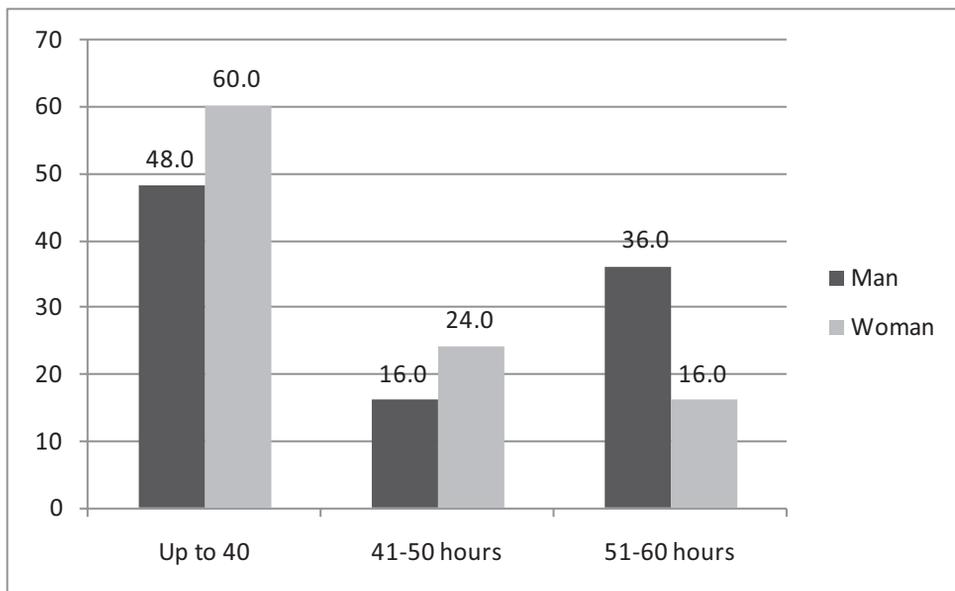


Fig. 1. Distribution of the answers to the question “How many hours do you usually work per week in your main paid job?” by gender of the respondent (%)

Source: European Working Conditions Survey (2015) - authors’ estimates.

3.2. Health and safety at work

People working remotely with ICT believe that they are very well informed about the health and safety risks associated with the performance of work tasks (58%) (Fig. 2). On the question “Does your work affect your health?” a significant part of the respondents stated that it had no impact (58%), a third (28%) said that the impact was negative, and according to 14% telework had a positive effect on their health.

A large proportion of teleworkers (36%) report that they experience stress at work always or most of the time, in 14% this happens sometimes, and in 50% say it happens either rarely or never (Fig. 3).

The most commonly shared health and safety risks are associated with working with electronic devices, with 64% of the respondents using these devices all the time. 52% of the teleworkers perform repetitive hand movements (in this case related to the work with electronic devices) all or almost all the time. Reduced physical activity is a problem for 60% of respondents who report sitting all the time or almost all the time. 80% work every day or almost all the time directly with people who are not employees of the company, e.g., customers, passengers, students, patients, etc., which in many cases can be a source of stress and emotional strain. One third of the teleworkers (28%) work regularly with angry clients, patients, students and others (Fig. 4).

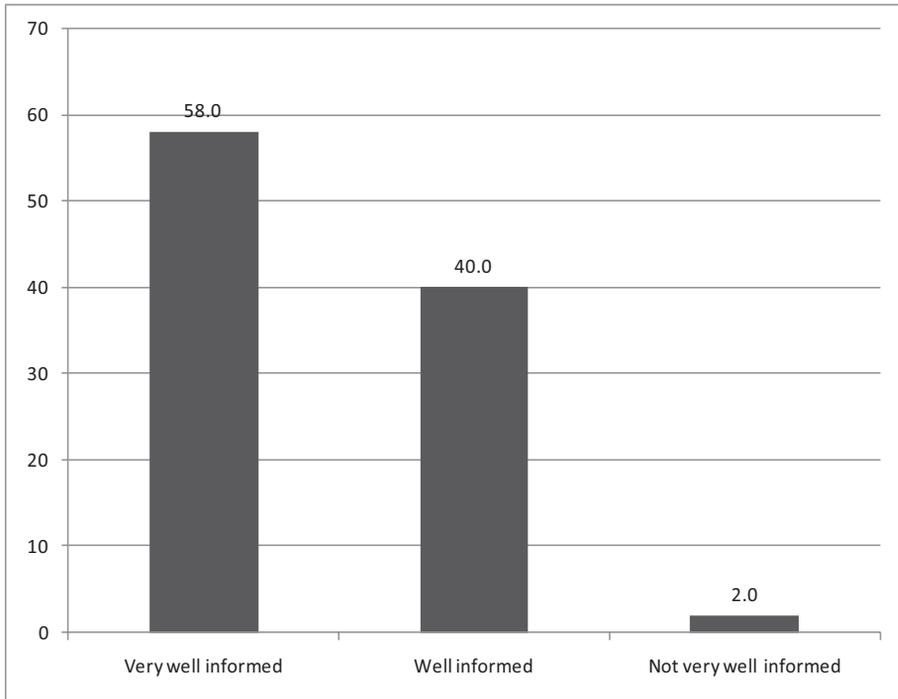


Fig. 2. Distribution of the answers to the question “Regarding the health and safety risks related to the performance of your job, how well informed would you say you are?” (%)
Source: European Working Conditions Survey (2015) - authors’ estimates.

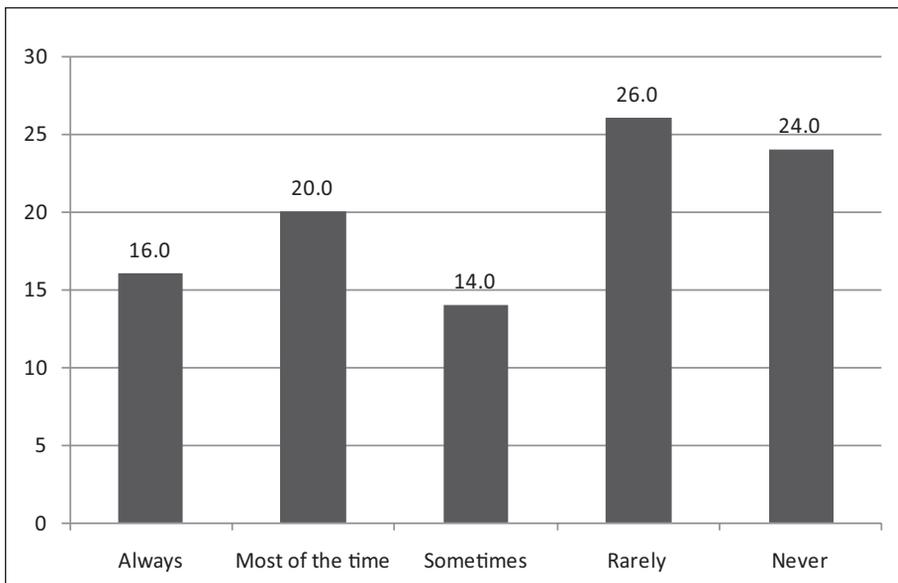


Fig. 3. Experiencing stress at work (%)

Source: European Working Conditions Survey (2015) - authors’ estimates.

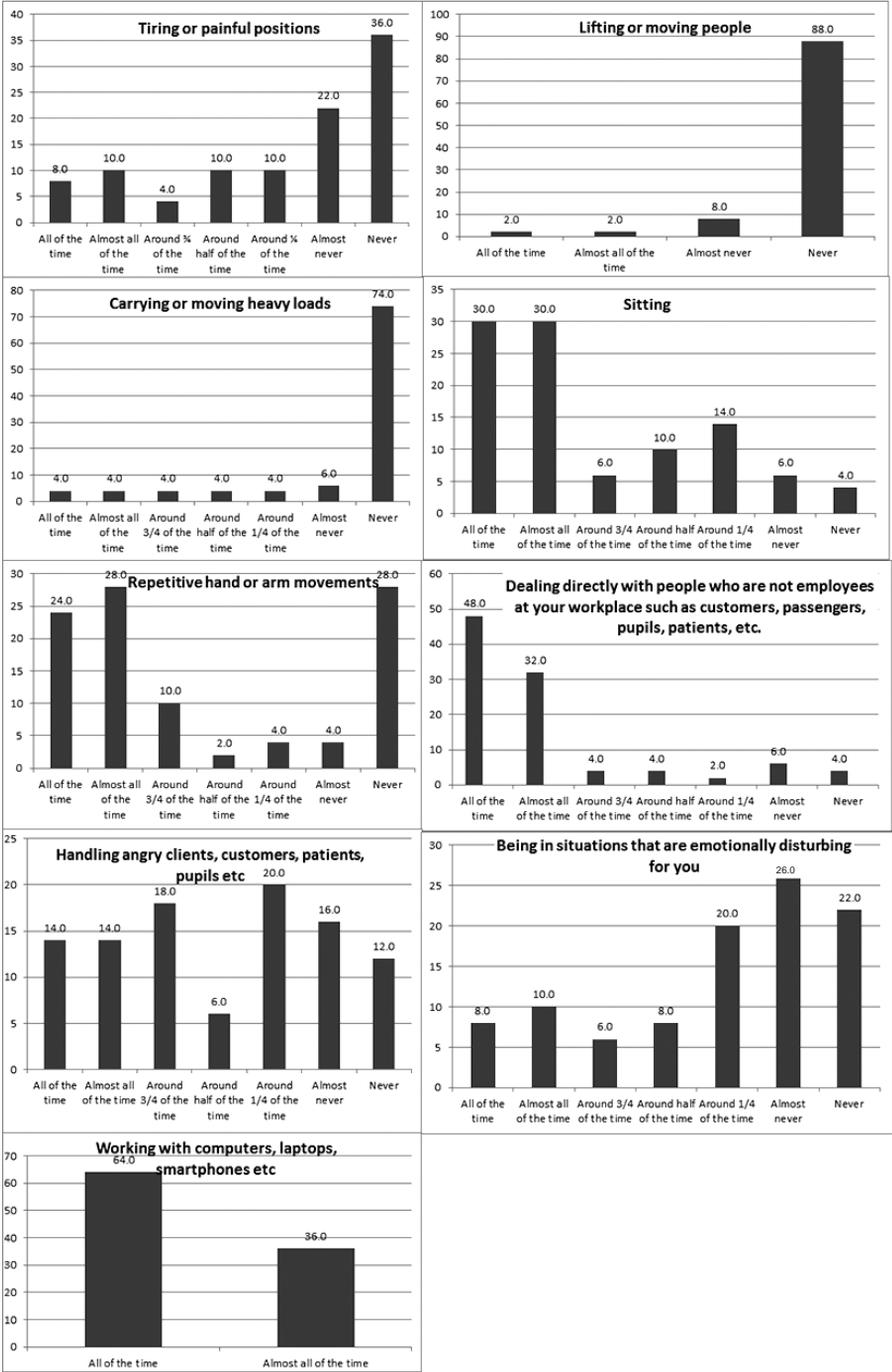


Fig. 4. Distribution of the answers to the question “Does your main paid job involve...?” (%)

Source: European Working Conditions Survey (2015) - authors’ estimates.

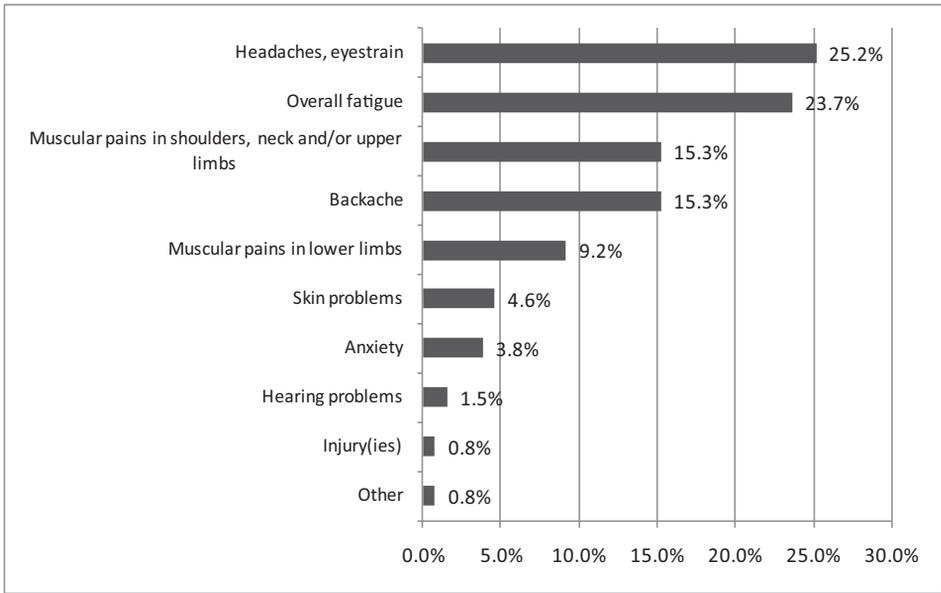


Fig. 5. Distribution of the answers to the question “Over the last 12 months, did you have any of the following health problems?” (%)

Source: European Working Conditions Survey (2015) - authors’ estimates.

The less frequently mentioned health and safety risks relate to lifting or moving people or carrying heavy loads, with 88% and 74% never performing this type of activities. Also, respondents less frequently state that their work is associated with painful and tiring body positions, with 58% responding this never happens. About half of the respondents (48%) state they have never been in a situation that is emotionally stressful or embarrassing.

The health problems most often experienced by people working remotely with ICT are headache and eyestrain (25.2%), general fatigue (23.7%), muscle pain in the shoulders, neck and/or upper limbs (15.3%), as well as pains in the back (15.3%). These complaints are related to the specifics of working with ICT, which requires prolonged use of electronic devices and prolonged sitting in one place (Fig. 5). About one-fifth of those working remotely with ICT in the past year have had difficulty falling asleep several times a month or more often or have woken up repeatedly during sleep. One third woke up feeling tired and exhausted. 42% worked when they were sick, and 48% did it for three or five days.

3.3. Labour organization

Telework is associated with a significant reduction in travel time, with results showing that 56% of the teleworkers travel 30 minutes or less from home to work and back. On the other hand, a large part of the persons have longer working hours (overtime) than the established schedule, with 62% having

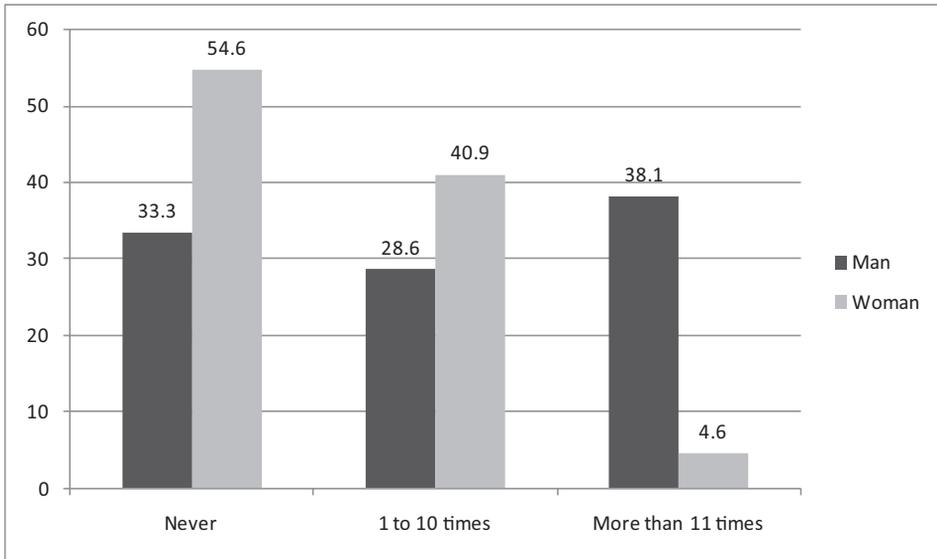


Fig. 6. Distribution of the answers to the question “Normally, how many times a month do you work more than 10 hours a day?” (%)

Source: European Working Conditions Survey (2015) - authors’ estimates.

worked several times a month for more than 10 hours a day, while 22% reported that this happened more than 10 times a month.

The analysis highlights significant gender differences related to the dominant role models in the public and private spheres. The distribution of answers to the question “Normally, how many times a month do you work more than 10 hours a day?” shows that just over half of women who work remotely with ICT say they have never had to work more than 10 hours a day (54.6%), while 66.7% of men said that they worked extended hours at least once a month (Fig. 6). 38.1% of them reported that happened over 11 times a month.

Almost half of the respondents (44%) stated that at least once a month they had to work at least two hours a night. 66% worked on Saturdays at least once a month, and 36% did so every Saturday of the month. Nearly half of the respondents (44%) worked on Sunday at least once a month. This shows that the six-day work schedule is very frequent practice among those working remotely with ICT.

To the question “Since you started your main paid job, how often have you worked in your spare time to do your job?”, 24% of respondents said that this happened every day or several times a week. 16% of the individuals worked overtime several times a month, and in 60% this hardly ever happened. The percentage of respondents who responded that they ought to work in their free time (with different frequency) is higher among men than among women: 80% and 68%, respectively.

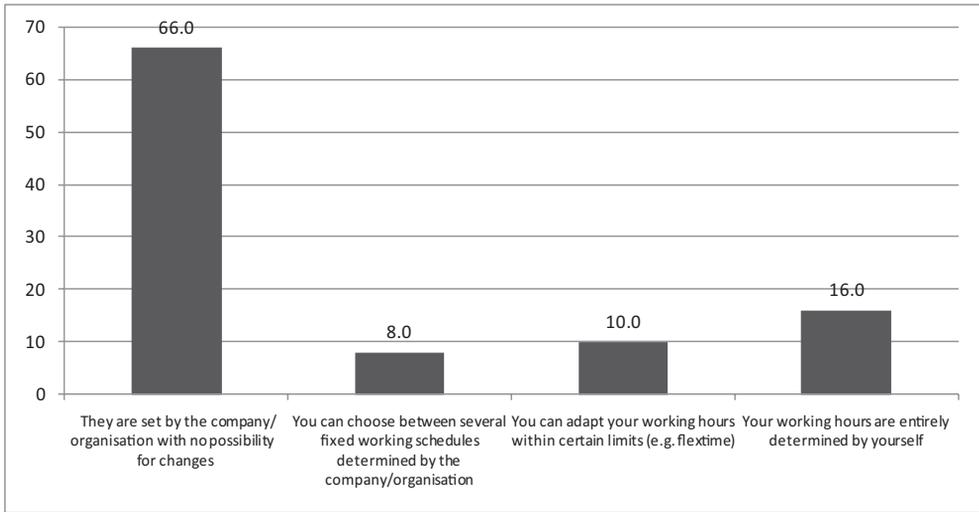


Fig. 7. Distribution of the answers to the question “How are your working time arrangements set?” (%)

Source: European Working Conditions Survey (2015) - authors’ estimates.

The results from the survey show a significant autonomy in regard to work time arrangement. Almost a quarter (26%) of the teleworkers stated that they could choose how many hours they would work (Fig. 7). Almost half of them (48%) do not work with fixed start and end times. 48% do not work the same quantity of hours every day and 40% do not have the same number of working hours every week. At the same time, most of teleworkers stated they could very or relatively easily take an hour or two off during their working time to take care of their personal or family issues (74%). Flexible working hours could have a positive effect on reconciling professional and personal/family commitments; on the other hand, however, it may be a source of stress, poor time management, role conflicts in both private and professional sphere and overload during some time intervals.

The nature of telework with ICT very often includes independent solution of unforeseen problems (90%), observance of exact quality standards (73.5%) and work quality self-assessment (66%) (Fig. 8). 82% of the respondents stated that work involved complex task solving processes and 86% claimed that it involved learning new things. This shows that ICT-based telework features a more creative and diverse nature and involves the need of training, occupational excelling and advancing.

Specific skills (76%) and team work skills (80%) are the main elements of ICT-based telework. Specificities of teleworking involve more flexibility while arranging the implementation of work tasks, with 94% of the individuals stating they may choose or change the order of implementation thereof. Likewise, concerning methods of work, 76% of the respondents stated that they were free

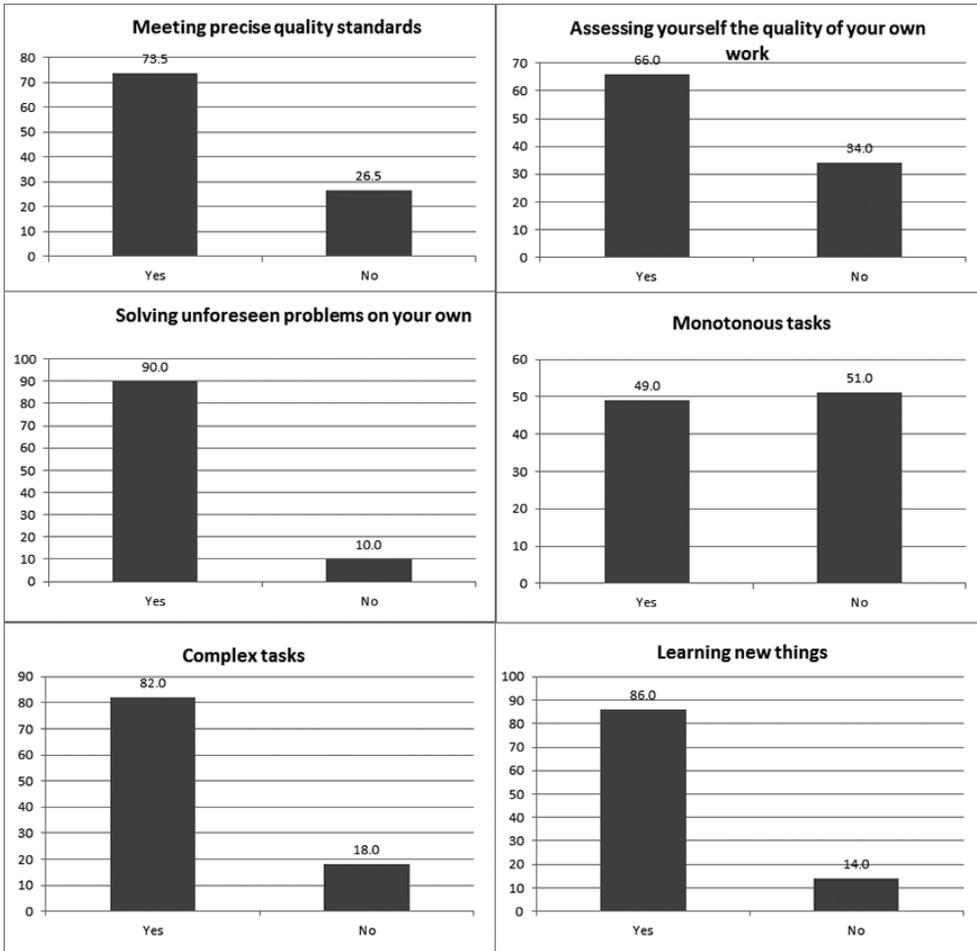


Fig. 8. Distribution of the answers to the question “Generally, does your main paid job involve...” (%)

Source: European Working Conditions Survey (2015) - authors’ estimates.

to choose what methods they would apply in their work, with 82% having control of the pace and size of the work.

Furthermore, the responses given by the persons surveyed outline some negative features of telework. Nearly half of the respondents shared that they were supposed to stick to short deadlines (46%) and that they had to interrupt quite or relatively often what they were doing because of unforeseen tasks (42%). About a third of the teleworkers (34%) believed that such interruptions had a negative effect on their work.

3.4. Work-life balance

The influence of telework on the work-life balance is multifaceted. Factors influencing such balance are the flexible working hours, autonomy in work, labour intensity and division between work and home (Eurofound 2020a). The responses to the question “In general, how convenient are your working hours for your family or social commitments outside of work?” show the presence of a good combination of commitments in both areas among those working remotely with ICT, with 76% having given a positive answer. Approximately 50% of men and women state that they had a good balance between paid work time and family commitments.

The indicators that measure work-life balance refer to the following questions: “Since you started your main paid job, how often have you: kept worrying when you were not working; felt too tired after work to do some of the household jobs which need to be done; found that your job prevented you from giving the time you wanted to your family; found it difficult to concentrate on your job because of your family responsibilities; found that your family responsibilities

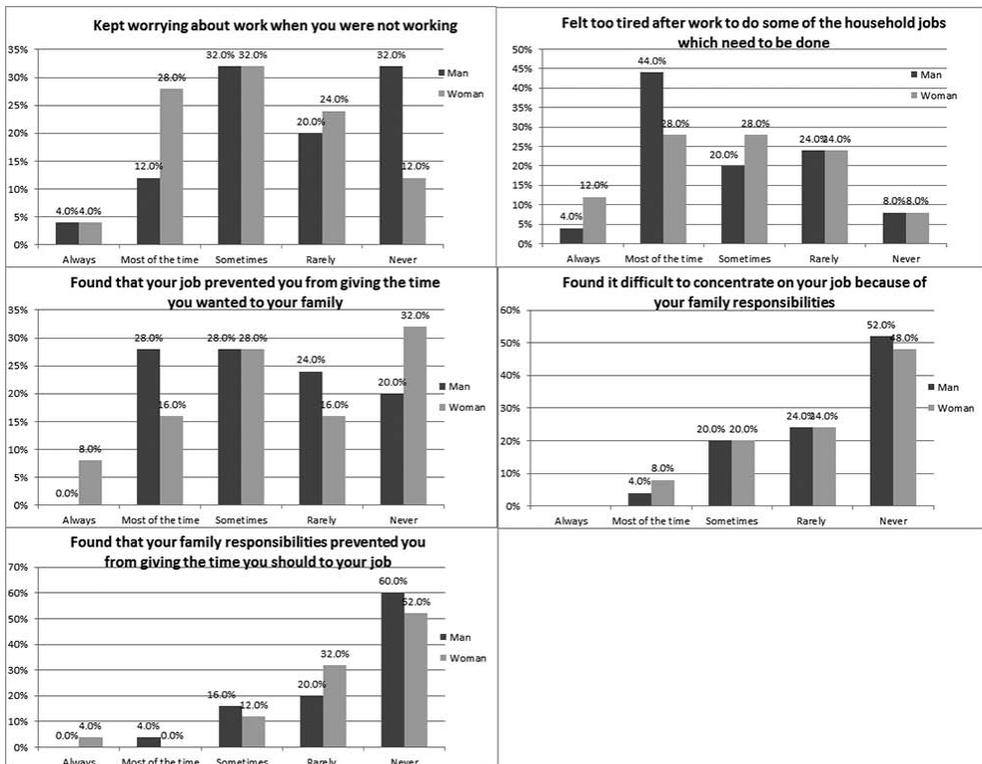


Fig. 9. Distribution of the answers to the question “How often in the last 12 months, have you...?” by gender of the respondent (%)

Source: European Working Conditions Survey (2015) - authors’ estimates.

prevented you from giving the time you should to your job“ (Fig. 9). The distribution of the responses shows that 56% of the respondents would either always or most of the time have worries about working overtime. 44% stated they felt either always or most of the time too tired after work to take care of some of their household duties. 26% either always or most of the time found out that work would not allow them to dedicate more time to their families.

The reverse transfer from family to work shows that family duties impact work to a lesser extent. 74% of the teleworkers stated they had never or hardly ever experienced problems with focusing on their work because of their family duties. For 82% of the respondents family responsibilities would hardly ever deter them from dedicating as much time as was necessary for their jobs. In general, ICT-aided teleworkers evaluate positively reconciliation of work and private/family life.

The differences by gender, family status and number of children are not statistically significant. The small number of the respondents may affect this result. However, the analyses show that men are less likely to worry about working overtime than women, with 32% of men saying they never worry, while 28% of women said they worried most of the time. The percentage of men who feel too tired after work to do some of the housework was slightly higher, in 48% of the cases that would happen either always or most of the time, while the same answers were given by 40% of women. Men more frequently stated that most of the time their work prevented them from spending enough time with their families, with percentages being 28% for men and 16% for women. 60% of men said that family responsibilities would never hinder their work. Among women, the percentage of those experiencing role conflict at work was higher (48%). This shows that women working remotely with ICT were relatively more likely to experience role conflicts, due to both traditional responsibilities and obligations and the way these responsibilities were distributed at home.

4. Discussion

The results of the analysis of the socio-demographic profile of people up to 45 years of age working remotely with ICT outline the presence of high satisfaction and a good combination of professional and family roles. The advantages of ICT-based telework are related to the possibility for a better balance between work and family/professional life for both sexes. The negative aspects refer to the experience of role conflicts in the performance of work tasks and those related to the family. Challenges affecting the regulation of teleworking bring to the fore the need to rethink the traditional concept of work-life balance, which is based on the idea of separation of these two spheres. In the context of increasing practice of telework and in particular work from home, a new form of hybridity and overlapping of the spheres of personal/family and professional life appears.

One of the main conclusions of this analysis relates to the need to update the concept of occupational safety and the introduction of assessment and prevention of stress and health risks posed by working in the digital environment (Eurofound 2020a). The challenge is to ensure safe working conditions and

protect the health of workers in an environment other than the employer's office/site, especially when it comes to working from home. These risks are related to the performance of multiple tasks (multi-tasking), chronic fatigue, short-term work, the need for additional training and qualifications, unregulated and extended working hours, as well as reduced rest periods. The psychosomatic problems that result from working with computers and electronic devices, such as headaches, eye pain, sleep problems, chronic fatigue, muscle pain, reduced physical activity, require prevention and a new type of regulation of health risks and well-being of those working remotely with ICT.

ICT-aided teleworkers have flexible working hours and a high degree of autonomy when they determine what the sequence and times for implementation of work tasks should be (Eurofound 2020a). This has a beneficial effect on the quality of work and its reconciliation with family responsibilities. On the other hand, the actual measurement of the length of the working day and the workload remains a challenge. Research shows that electronic supervision can be a source of stress when it comes to intruding on employees' personal lives (Biron, van Veldhoven 2016; Eurofound 2020a). According to the Eurofound report, another disadvantage of telework with ICT is information overload as well as email overload. The EU is discussing the need to amend the labour law by introducing the right to disconnect, according to which workers would have the right not to answer emails and calls related to official duties at certain hours (Vargas-Llave, Weber, Avogaro 2020; Eurofound 2020a). Remote work from home may sometimes be due to impossibility to perform the work at the office. Another issue is the monitoring of the implementation of work tasks and permanent connectivity at home. The permanent connectivity involves expectations that the employee is continuously available and may respond at short notices, which can be a source of stress (Eurofound 2020b). Eurofound's research also shows that detachment from the workplace and from real contact with colleagues reduces opportunities for learning at the workplace through communication and sometimes creates a feeling of weaker identification with the organization, which may necessitate the need to reaffirm commitment and work ethic of workers (Eurofound 2020a).

The analyses made among ICT-aided teleworkers with in Bulgaria confirm the so-called 'paradox of autonomy'. The individuals working remotely and aided by ICT have flexible working hours, a high degree of autonomy in performing the work as methods, time and sequence of tasks. However, this flexibility and autonomy in some cases could be associated with excessive intensification of work in certain time intervals, which requires established skills for time management, work management and self-management by the employee (Kelliher, Anderson 2010, 83-106; Grant, Wallace, Spurgeon 2013, 527-546). Often, teleworkers work on customer orders or projects, and their pay is based on the performance, quantity and quality of work tasks (Eurofound 2020a). This autonomy in work is the most frequent motivation to choose remote employment (Ojala, Natti, Anttila 2014, 69-87). On the other hand however, it might be a source of uncertainty about work caused by the competitive principle of implementation of work commitments and their short-term nature.

Another challenge that the present study outlines related to the need of adoption of a common definition and regular data collection on telework whereby to evaluate how widespread are the flexible forms of employment, teleworking inclusive, and study the socio-demographic profile, opinions, attitudes, satisfaction and evaluations on work expressed by the teleworkers.

5. Conclusion

In today's world of COVID-19 pandemic, ICT-based teleworking becoming increasingly important. Many companies are realizing the advantages of remote employment as well as its disadvantages⁵. It is therefore necessary to carry out regular research and monitoring of this form of employment, to assess good practices in different countries, as well as its positive and negative effects on family and professional life, health and well-being of workers. This increasingly spread-out form of employment poses serious challenges to the traditional type of labour regulation, which needs to be updated in line with new trends in order to ensure safe and satisfying working conditions.

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⁵ For example, some of the global leaders in IT services, consulting and business solutions, such as Tata Consultancy Services (TCS), provide 95% of their workforce with remote employment and help their clients adapt to this form of paid work. More information at: www.tcs.com

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