

Remote working across the European Union before and in Covid-19 pandemic



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Introduction

The Covid-19 outbreak has certainly changed our working and living conditions. As social distancing was introduced as a form of health restriction to reduce contagion, many governments strongly encouraged minimising physical presence at work. In line with the Governments' recommendations, a large number of businesses accelerated the use of remote work, with personnel working mainly from home and using ICT and digital devices as laptops, smartphones, videoconferencing, cloud services and private and public networks.

1. A defining framework

Policymakers, social parts, businesses, employees, media and citizens became familiar with a broad use of words such as remote working, teleworking, working from home, mobile worker, ICT-based worker. One problem is that, despite a growing use of the terms, there is not a common accepted definition among the European Members for when the work takes place outside the company's premises¹. Different definitions are adopted, depending on the place of work, the intensity of ICT usage, the distribution of time between the office and other locations². While some studies focus on specific types of remote work some others analyse it with a different approach, that leads to different conclusions and results which impede to have a single and unique perspective on the issue as well as comparable data. Currently, different countries are using slightly different and often overlapping definitions.

In this view, it is of crucial importance to define a general conceptual framework related to the terms referred to when a person works from a distance. Even though there is no international statistical definition, the term "remote work" can be considered the broadest concept as it refers to situations in which the work is fully or partly carried out at an alternative worksite than the default place of work³: "working anytime, anywhere". Both dependent and independent workers can be regarded as remote workers if they perform just one part of their work away from their default worksite. Based on the criteria used to observe remote working, two different but often overlapping conceptual clusters can be identified:

- A "remote work" cluster based on the criteria of mobility and the intensity of ICT usage: **telework and ICT-based mobile work (TICTM)**. This term refers to any type of work arrangement where workers (dependent and independent) work remotely, and so outside the employer's premises, using digital technologies and ICT devices. It is possible to distinguish four types of TICTM based on degree of mobility, use of ICT and employment status:

- regular home-based: employees who frequently use ICT to work from home
- highly mobile: employees who frequently use ICT to work and have a high level of mobility
- occasional: employees who occasionally use ICT to work from locations other than their employer's premises
- self-employed: self-employed workers who occasionally or frequently use ICT to work from locations other than their own premises;

¹ Eurofound and the International Labour Office (2017), Working anytime, anywhere: The effects on the world of work, Publications Office of the European Union, Luxembourg, and the International Labour Office, Geneva

² CBS and TNO (2014), Nationale enquête arbeidsomstandigheden [Netherlands working conditions survey], available at <http://www.monitorarbeid.tno.nl/publicaties/netherlands-working-conditions-survey>

³ According to ILO definitions, the "The default place of work can be understood as the place or location where the work would typically be expected to be carried out, taking into account the profession and status in employment" - ILO (2020) "Defining and measuring remote work, telework, work at home and home-based work". ILO policy brief.

- a “remote” cluster based on the criteria of the spatial distribution of work: telework, working from home and home-based work. All these forms of “remote work” can be fully or partly performed at home:
 - o similarly to remote work, there is not an international statistical definition of telework. Nevertheless, a general definition can be taken from the 2002 EU social partners’ framework agreement on telework: *“a form of organising and / or performing work, using information technology, in the context of an employment contract / relationship, where work which could also be performed at the employer’s premises is carried out away from those premises, on a regular basis”*⁴. What is often considered specific to telework is that the work carried out remotely entails the use of personal electronic devices, such as computers, tablets or mobile phones and is often restricted to employees only⁵;
 - o working from home refers to work that takes place fully or partly within the worker’s own residence. Work at home is an option of the variable “type of workplace” in the resolution concerning statistics on work relationships⁶. Working from home can be performed by both dependent and independent workers and does not necessarily entail the use of digital devices;
 - o home-based work is a sub-category of “working from home” and is defined in the resolution concerning statistics on work relationships as *“workers whose main place of work is their own home”*⁷. Generally speaking, home-based workers are those who are used to carry out their work at home, regardless of whether the home is the default place of work.

All the above definitions of “remote work” are strictly interrelated and have some degree of overlap. In this paper and more generally in IRSmart project the main focus of interest is the type of remote work that has become common since the advent of the COVID-19 crisis, with employees working remotely from home, using ICT, as opposed to working from an employer’s workplace. Regardless of the specific peculiarities of each different definition, the IRSmart project adopts an inclusive defining framework of “remote work” without making any limitation in terms of spatial distribution of work, intensity of ICT use, employment status or mobility of worker. The project will take into consideration all forms of work that during the pandemic have experienced an intensification or a radical switch in working from distance or outside the default place of work. The only exception is for platform workers. Although theoretically they are a form of ICT-based mobile work, platform workers are not included in our analysis for at least three reasons:

- platform workers are digital workers in which the default place of work does not coincide with any employers’ premises but with the online labour market. That means that work of platform workers can not be performed alternately outside or inside the employers’ premises;
- for platform workers, the employer is formally the digital platform that is then in charge of the command and control management (a organisation issue explored in our studies);

⁴ Vargas Llave, O., Mandl, I., Weber, T. and Wilkens, M. (2020), Telework and ICT-based mobile work: Flexible working in the digital age, New forms of employment series, Publications Office of the European Union, Luxembourg <https://www.eurofound.europa.eu/publications/report/2020/telework-and-ict-based-mobile-workflexible-working-in-the-digital-age>

⁵ Mandl, I., Curtarelli, M., Riso, S., Vargas, O. and Gerogiannis, E. (2015), New forms of employment, Publications Office of the European Union, Luxembourg

⁶ ILO. 2018. Resolution concerning statistics on work relationships, adopted by the 20th International Conference of Labour Statisticians (Geneva, 10–19 October). Available at: <https://ilostat.ilo.org/resources/methods/icls/icls-documents/#icls20>.

⁷ Ibidem

- on line outsourcing, actually, represents a risk of an excessive and unleashed use of “remote work” and not simply a form of it.

2. Regulation of remote working in the EU pre-Covid-19

As the impact on the regulation system of remote work will be addressed by the IRSmart project, it is of interest to understand how remote work has been regulated at Eu level and in the different EU member states before the Covid-19 outbreak. First of all, it should be pointed out that remote work is not regulated at EU level through hard-law mechanism. No specific EU Directives are dedicated to remote working but many directives and EU regulations indirectly have some implications on it:

- As emerged in many studies⁸, duration and organisations of working time are critical aspects for who performs his work from distance. With this regard, the [EU Working Time Directive \(Directive 2003/88\)](#) includes provisions aimed at protecting the safety and health of workers (maximum of 48 working hours per week, etc.), including those performing telework;
- the [Framework Directive on Safety and Health at Work \(Council Directive 89/391/EEC\)](#) when dealing with the health and safety of workers in the workplace, does not specify the work location and, accordingly, also applies to remote workers;
- the [Transparent and Predictable Working Conditions Directive \(Directive \(EU\) 2019/1152\)](#) indirectly affects remote workers as it requires that provisions be made in relation to the place of work and that work patterns be clarified in the employment contract. Moreover, the directive seeks to protect workers from on-demand requests and this could help to reduce the unpredictability of irregular working time patterns and have a positive impact on the work–life balance of workers;
- although it does not deal with the potentially negative impact of telework⁹, [the Work-Life Balance Directive \(Directive \(EU\) 2019/1158\)](#), includes telework as one of the flexible working arrangements to which working parents and carers are entitled. Remote workers who exercise this right are protected against discrimination or any unfavourable treatment resulting from the request;
- the [General Data Protection Regulation \(Regulation \(EU\) 2016/679\)](#), replacing Directive 95/46/EC, regulates the collection, use and transfer of personal data, and establishes provisions related to data-processing operations, including employee monitoring. In this view, this regulation requires that employees’ consent be given prior to the introduction of any employee monitoring system¹⁰.

With regard to telework, the main EU regulation was introduced through the [EU Framework Agreement on Telework](#) (2002). This is an autonomous agreement between the European social partners (ETUC, UNICE, UEAPME and CEEP) that commits the affiliated national organisations to implementing the agreement according to the ‘procedures and practices’ specific to each Member State, and not incorporated into EU Directives, and so it is not legally binding. The framework agreement requires that telework be voluntary for both side and that teleworkers have the same active and passive collective rights as workers at the employer’s premises.

Finally, in 2021 the [European Parliament](#) approved by a large majority the proposal for a European Directive aimed at recognising the right to disconnect as a “fundamental right”. In addition, the law should also

⁸ Eurofound (2020), *Regulations to address work–life balance in digital flexible working arrangements*, New forms of employment series, Publications Office of the European Union, Luxembourg.

⁹ Eurofound (2020). *Regulations to address work-life balance in digital flexible working arrangements*. Publications Office of the European Union, Luxembourg.

¹⁰ Eurofound (2020). *Employee monitoring and surveillance: The challenges of digitalisation*. Publications Office of the European Union, Luxembourg.

establish minimum requirements for telework and provide clarity on working conditions, working hours and rest periods. Lastly, the amendment asking for a three-year postponement of the start of the legislative process was also passed, in order to leave room for the social partners to implement the autonomous agreement signed in 2020: the European cross-sector social partners (CES – BusinessEurope – CEEP – SME) signed the European Framework Agreement on Digitization, an agreement that also regulates the modalities of connection and disconnection and that must be implemented by an Interconfederal Agreement with the employers' associations.

3. National regulations in a comparative perspective

In a comparative perspective among EU countries, remote work, before the advent of Covid-19 outbreak, was regulated either through legislation or by collective bargaining or by both types of regulation depending on historically and traditionally constituted configurations of national institutions¹¹. Accordingly, those countries with strong traditions of voluntarist regulation (such as EU Nordic countries) have mainly addressed telework through collective bargaining, whereas statutory legislation has been more prominent in 'state-centred' industrial relations models (France, Portugal, etc.).

Considering the role played by statutory regulation on telework, two groups of countries can be identified:

- **those countries with statutory definitions and specific legislation on the use of telework** (in terms of working condition and employment conditions) established in the labour code or other forms of legislation. This group is made up of Belgium, Bulgaria, Czechia, Spain, Germany, Estonia, France, Greece, Hungary, Croatia, Italy, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovenia and Slovakia;
- **those countries without statutory definitions and specific legislation on telework** or where remote work is addressed indirectly in different laws dealing with data protection, health and safety, working time, work-life balance. This group consists of Austria, Cyprus, Denmark, Finland, Ireland, Latvia and Sweden.

In **countries with a specific legislation on remote working**, telework is conceived as a work arrangement rather than a labour contract and is limited only to dependent employment relationships. In part of these countries (Bulgaria, Hungary, Luxembourg and Slovenia), terms and procedures have to be established in a collective or individual employment contract and in some other countries (Estonia, Spain, France, Greece, Croatia, Italy, Malta, Portugal) the legislation requires only a written agreement. As regards ICT use, in some countries telework is understood only for jobs where mobility is ICT-enabled (Belgium, Bulgaria, Czechia, Spain, France, Malta), while in other countries (Czechia, Croatia, Spain, Italy, the Netherlands) legislation does not make explicit references to ICT use or ICT use is not necessary. In terms of frequency, in some of these countries the definition of "telework" only includes those forms of work arrangements that are carried out on a regular basis (Germany, Spain, Hungary, Lithuania, Luxembourg, Malta, Poland, Romania), whilst in others of these countries legislation makes a distinction among regular and not-regular teleworkers. With regard to new employment rights for teleworkers, a particular attention should be drawn to those four countries that have introduced the right to disconnect, namely Belgium, Italy, Spain and especially France that was the first European country to legislate the right to disconnect in the Labour Code in 2016.

¹¹ Hall, P. A. and Soskice, D. (2001). 'An introduction to varieties of capitalism'. In P. A. Hall and D. Soskice (eds), *Varieties of Capitalism*, Oxford University Press, Oxford, pp. 1-68

In countries with a specific legislation on the use of telework, the degree of intervention of collective bargaining in the regulation of telework issues is strictly dependent on the different collective bargaining coverage and the centralised/decentralised collective bargaining structure. In countries such as Spain and Portugal, very few collective agreements deal with telework. Collective bargaining has played a more prominent role in the regulation of telework in Germany, France or Italy. In Germany, telework regulation at company level has a longstanding tradition tracing back to the 1990s and it is worth mentioning the first pioneering agreement concluded in 2011 in Volkswagen that prevented emails from being sent to staff mobile phones between 18.00 and 7.00. In France, 25% of employees were covered in 2017 by a collective telework agreement concluded at company level that established more provisions for the protection of employees¹², while in Italy, about 30 % of the national collective bargaining agreements contain clauses on telework and/or smart working¹³.

In the **countries without statutory definitions of remote working or specific legislation on telework** before the pandemic, telework issues were dealt with different and alternative legislations. Especially in EU Nordic countries (eg. Denmark in which there are “Guidelines for telework or home-based work” under the Working Environment Act), telework is addressed by the frameworks of national Occupational Safety and Health (OHS) regulation. With this regard, the Austrian case it is worth mentioning as in some companies works councils have bargained for specific OSH standards for teleworkers. In some other countries, telework issues have been addressed through data protection legislation (eg. Austria with the [Data Protection Act 201816](#) within the Labour Constitution Act) or national legislation on working time (eg. Finland in which the Working Hours Act introduces a concept of working time that is not longer tied to a workplace). In the lack of a specific legislation on telework, collective bargaining plays a relevant role in these countries. With this regard, two groups are identifiable. A first group (Cyprus, Latvia and Ireland) in which telework is mainly regulated through individual negotiations and the EU Framework Agreement on telework has not been implemented or only formally implemented by tripartite or bipartite agreements¹⁴. In the second group of countries (Austria, Denmark, Finland and Sweden), the EU Framework Agreement has been implemented and applied in most of the industry-wide collective agreements and telework is extensively regulated in sectoral and company collective agreements. Nevertheless, in the EU Nordic countries occasional telework, that represents a considerable part of it¹⁵, is mainly regulated by individual and informal agreements in line with a cultural tendency that sees telework as a work arrangement largely self-regulated based on trust between employees and employers¹⁶.

4. Remote working in the EU, before and after Covid-19 pandemic

After the illustration of the conceptual scope of our analysis in the previous chapters we present here how remote work has changed because of Covid-19 pandemic. As addressed in the previous section, the scope of the analysis includes all the possible forms of remote work, with particular attention towards the type of remote working that spread after Covid-19 pandemic, that is home working by means of ICT. However,

¹² DARES (2019). ‘[Quels sont les salariés concernés par le télétravail?](#)’ DARES Analyses, November 2019. No 051.

¹³ Cetrulo, A. (2021). [Early adoptions of remote work in Italian collective bargaining agreements: from flexible working time to the risk of surveillance and unpaid overtime. Lessons for the postCovid agenda](#)

¹⁴ Eurofound (2010). Telework in the European Union, Publications Office of the European Union, Luxembourg.

¹⁵ Sostero M., Milasi S., Hurley J., Fernández-Macías E., Bisello M., Teleworkability and the COVID-19 crisis: a new digital divide?, Seville: European Commission, 2020, JRC121193

¹⁶ Sanz de Miguel, P. (2020) [Exploring the contribution of social dialogue and collective bargaining in the promotion of decent and productive virtual work](#). Deep View Final Report, VP/2017/004/0050

despite the growing interest both in the research and policy arena on remote working, accurate and comprehensive data in some countries are rare or only relate to people working from home.

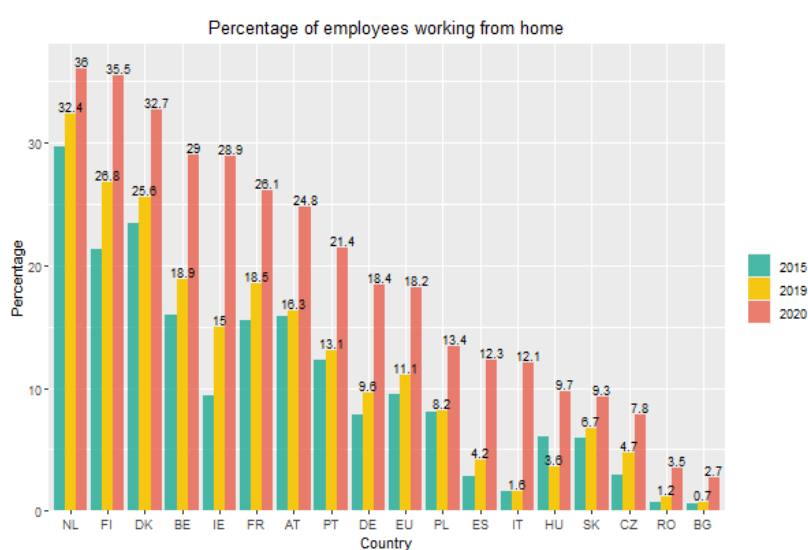
In this chapter we present the evolution of remote working across European countries by means of the available data, acknowledging that they describe only part of the overall picture, although the most important in the light of the focus of IRSmart project.

The following graphs show the percentage of dependent employees and self-employed working from home sometimes or usually in a number of selected European countries in 2015, 2019 and 2020.

In 2015 the average percentage of employees (Fig. 1) working from home in the EU-27 was just below 10%, increased slightly to 12% in 2019 and jumped to 18% in 2020. The effects of the Covid-19 pandemic on the growth of the percentage of people working from home is thus very clear as it increased by 6 percentage points in one year only. Beyond the average data, the differences across European countries are relevant: some countries reported much higher rates of employees working from home already in 2015, such as the Netherlands, Denmark, Finland, Belgium, France (between 16% and 30%) while Italy, Romania and Bulgaria reported quotas of employees working from home almost close to zero. Even if all the analysed countries experienced a jump between 2019 and 2020, for some of them such as Italy, Spain and Ireland the growth has been greater. It is also interesting to note that for some of the examined countries, such as Romania and Bulgaria, experienced a very little growth in the percentage of employees working from home, even if this quota was very small before the pandemic, in other words in these two countries the pandemic had no significant impact on the number of people working from home.

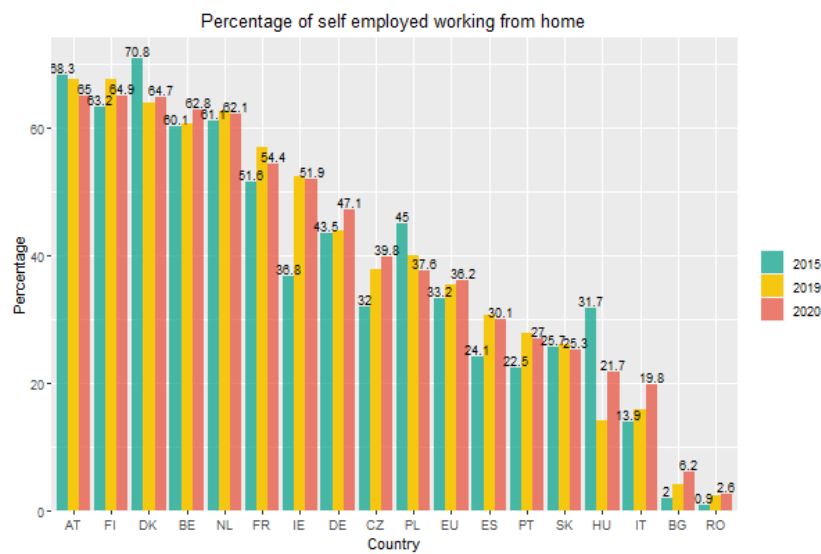
The picture changes if we look at self-employed workers (Fig.2), and it is not surprising to see that the average percentage of self-employed working from home in the EU-27 was above 30% already in 2015, with this share remaining stable in the following years. However, also among these workers there are relevant differences across European countries. In Austria, Finland, Denmark, Belgium the percentage of self-employed working from home was higher than 60% already in 2015 while in Bulgaria and Romania was much lower, close to zero.

Figure 1 Percentage of employees working from home (Sometimes+Usually), selected European countries, 2015, 2019, 2020



Source: own elaborations on Eurostat data

Figure 2 Percentage of self-employed working from home (Sometimes+Usually), selected European countries, 2015, 2019, 2020



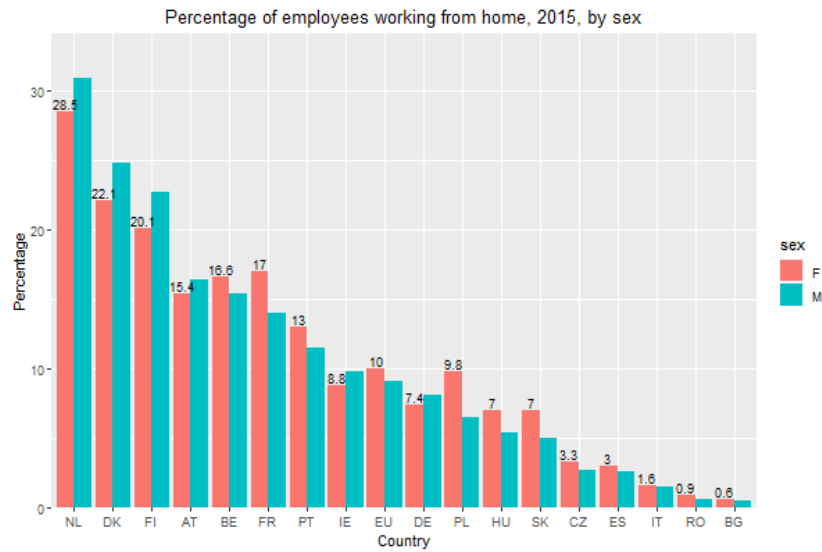
Source: own elaborations on Eurostat data

From this initial statistical overview, the likelihood of working from home before the pandemic looks to be influenced by some cultural or normative Country-specific aspects as those countries that reported higher percentages of employees working from home in 2015 are the same that showed higher percentages of self-employed working from home in the same year. According to their normative status, self-employed workers should be much more free than dependent workers to choose their place of work, thus in theory we shouldn't expect that the percentage employees and self-employed working from home are positively correlated as instead they look to be.

As the major changes in terms of people starting to work from home with the pandemic were experienced among employees rather than among self-employed, we focus on the first ones, providing further analysis which take into consideration in particular the variables of gender and age.

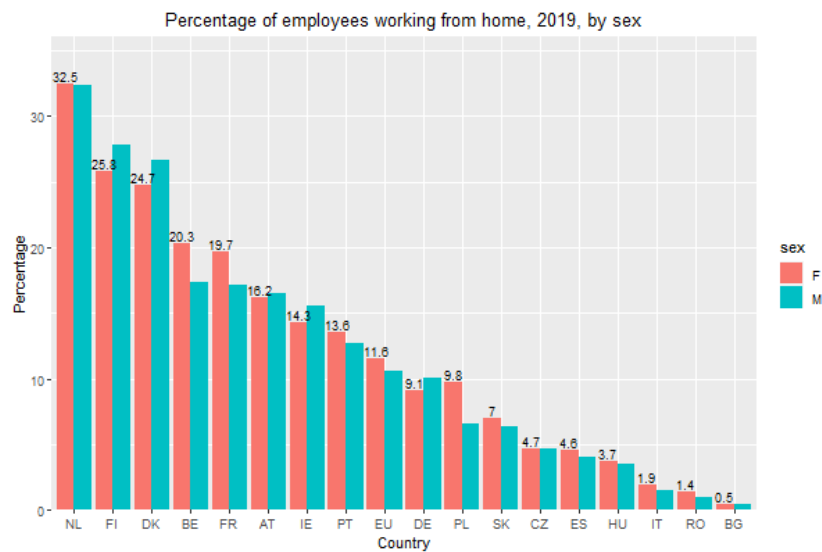
Before the pandemic, both in 2015 and in 2019 (Fig. 3 and Fig. 4), in the EU-27 on average the percentages of male employees and female employees working sometimes or usually from home were almost the same, approximately 10% even if relevant differences can be found across countries. During that period, we can see important differences with regard to gender in countries where working from home was more widespread. For example, the share of men working from home was higher than the one of women in a number of Nordic countries, like Netherlands, Finland and Denmark. Differently, in Belgium, Portugal, France we see an opposite picture. In those countries with a limited diffusion of homeworking, before Covid-19 pandemic working from home looked to be slightly more diffused among women than men, like in the case of Poland, Spain, Hungary, Italy and Romania.

Figure 3 Percentage of male and female employees working from home (Sometimes+Usually), selected European countries, 2015



Source: own elaborations on Eurostat data

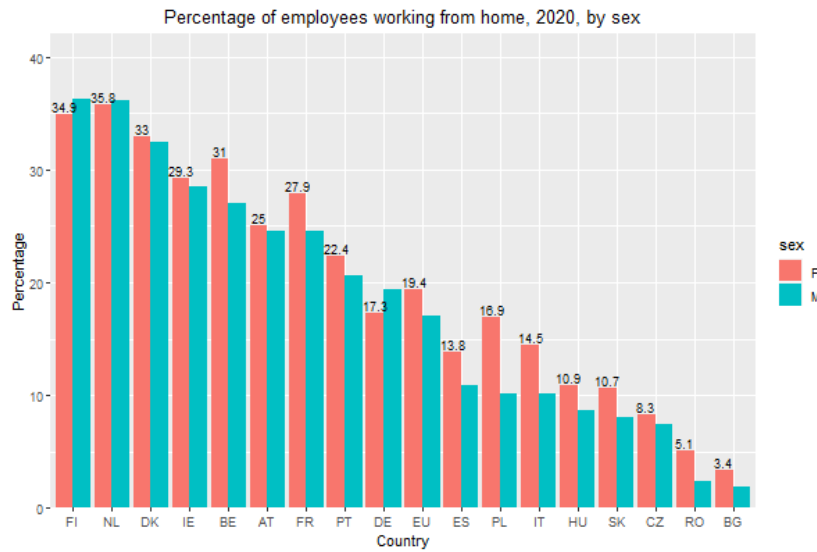
Figure 4 Percentage of male and female employees working from home (Sometimes+Usually), selected European countries, 2019



Source: own elaborations on Eurostat data

Between 2019 and 2020 (Fig. 5), the average percentage at EU-27 level of women employees that worked from home sometimes or usually jumped from 12% to 19%, while among men from 10% to 17%, again with some relevant differences between countries. In some countries like Portugal, Belgium and France the growth in the percentage of employees working from home has been almost the same for men and women, without significant differences, whereas in Finland, Denmark, Poland, Italy and Spain the percentage of women working for home grew much more rapidly, leading the first two countries to reach equal proportions of men and women working from home and the last three to have significant more women than men working from home, in relative terms.

Figure 5 Percentage of male and female employees working from home (Sometimes+Usually), selected European countries, 2020

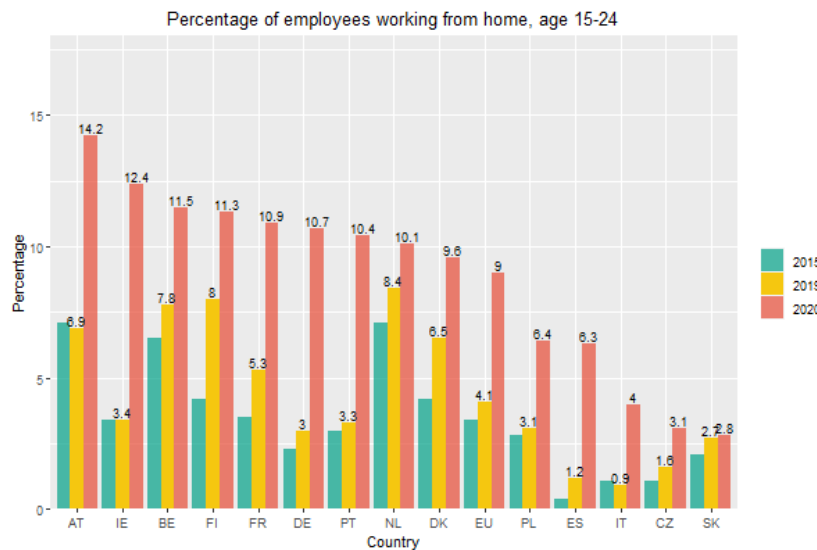


Source: own elaborations on Eurostat data

With the Covid-19 pandemic all employees of different age groups experienced a growth in the rate of people homeworking, although with some relevant differences across age groups and countries. In 2019 (Fig. 7) the youngest employees (age 15-24) at the EU level were those experiencing the lowest diffusion of people working from home (4,1%), while in the other age groups this rate was between 11% and 12%. However, in those countries where homeworking was in general more diffused before the pandemic, also the rate of young employees homeworking was higher, as in the case of Netherlands, Finland, Belgium, Denmark and Austria. If we look instead to countries where working from home for the youngest was quite uncommon, we find significant differences in the growth experienced in 2020.

While in Ireland, Germany, Portugal the rate of young employees working from home jumped by approximately 7-10 percentage points, in other countries like Italy and Czech Republic the growth was much smaller.

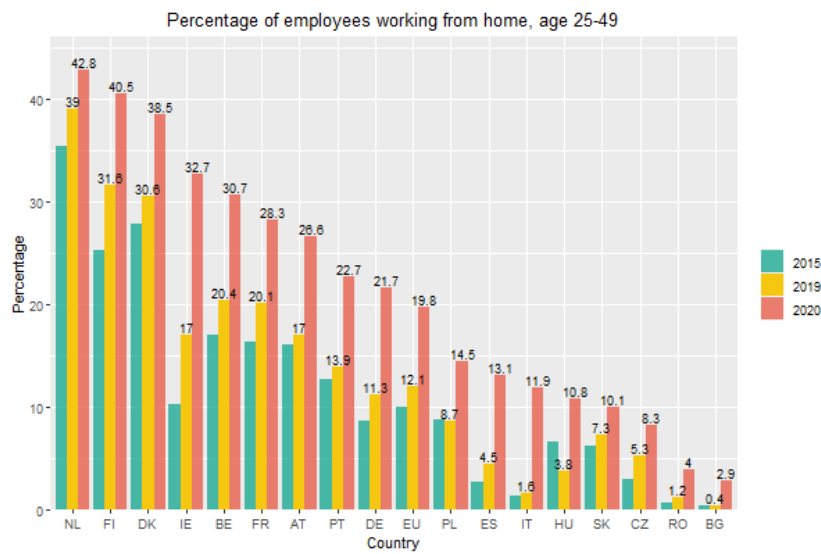
Figure 6 Percentage of employees working from home (Sometimes+Usually) by age, selected European countries, 2015



Source: own elaborations on Eurostat data

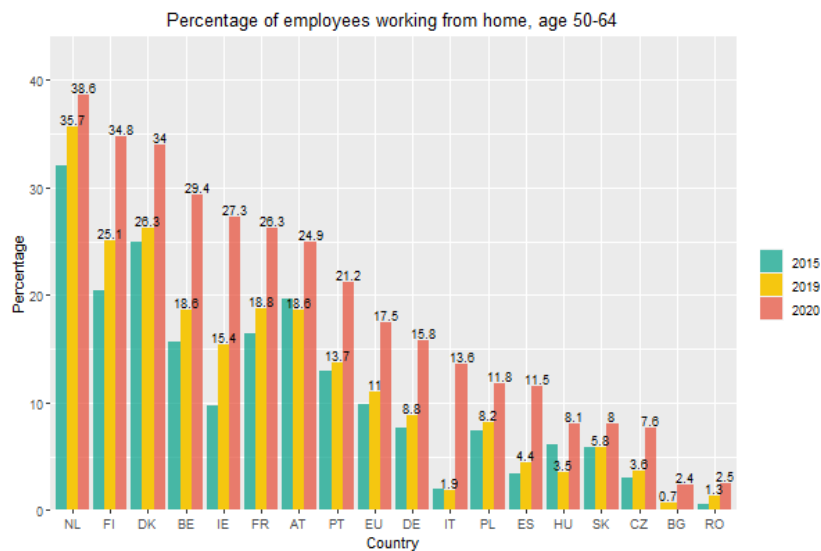
The diffusion of homeworking in 2019 was higher among elder workers and also the growth in 2020 (Fig.7 and Fig. 8) was bigger as compared to 15-24 years employees. With the only exception of Netherlands, where the rate of people working from home was the highest before the pandemic, and of Czech Republic, Romania and Bulgaria where instead the rate was the lowest, in all the other countries the growth of people working from home jumped significantly, on average by 8-10 percentage points in most of the Countries both in the age groups 25-49 and 50-64. Finally, it is interesting to underline the case of Ireland, the Country that experienced the absolute highest increase in the percentage of employees working from home for all the three age groups analysed.

Figure 7 Percentage of employees working from home (Sometimes+Usually) by age, selected European countries, 2019



Source: own elaborations on Eurostat data

Figure 8 Percentage of employees working from home (Sometimes+Usually) by age, selected European countries, 2020



Source: own elaborations on Eurostat data

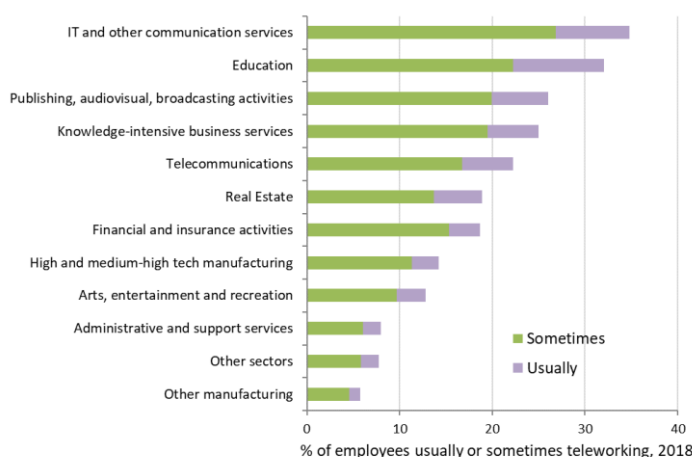
There are of course several factors that influenced the diffusion of remote working both before and after Covid-19 outbreak. The industrial structure and characteristics of local labour markets play a relevant role. The paper on Teleworkability by Eurofound (2020)¹⁷ analyses data on the widespread of teleworking before

¹⁷ Op. cit.

and after Covid-19 pandemic. As stated in the paper (p. 6) and recalled in the previous chapter, “telework can be considered as a subcategory of the broader concept of remote work. Although there is no internationally recognized definition, what is often considered specific to telework is that the work carried out remotely entails the use of personal electronic devices, such as computers, tablets or mobile phones. Moreover, the concept of telework is often restricted to employees only [...]. In line with this definition, the 2002 EU social partners’ framework agreement on telework defined telework as ‘a form of organising and / or performing work, using information technology, in the context of an employment contract / relationship, where work which could also be performed at the employer’s premises is carried out away from those premises, on a regular basis’[...]”.

Before the pandemic, teleworking was more diffused in a small number of sectors. In IT and other communications services, Education, Publishing, audiovisual, broadcasting activities, Knowledge-intensive business services¹⁸ and Telecommunications the percentage of total employment (including dependent and self-employed) teleworking was higher than 20% out of the total, approaching 35% in IT and communication services. Among these sectors it might look surprising that in education the rate of people doing teleworking is among the highest as Education is traditionally place-dependent being linked to specific locations such as schools and colleges. However, it should be recalled that usually teachers work remotely, out of classes, to prepare lessons and correct homework.

Figure 9 Percentage of employed people teleworking Sometimes and Usually by sector, Eu-27, 2018



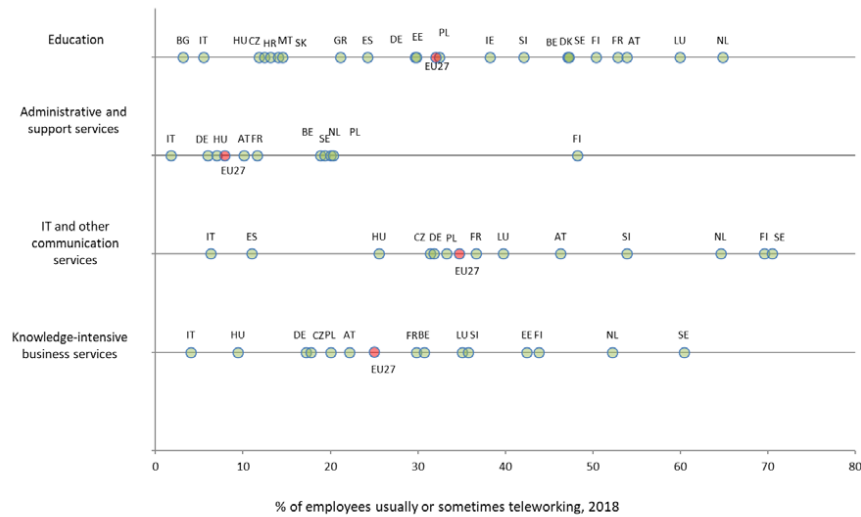
Source: Eurofound (2020)

The following graph confirms that before the pandemic in some countries teleworking was not a common practice, even in those sectors where in general terms it was more diffused. For example, in Italy, Spain, Hungary and Czech Republic which were among the countries with the lowest percentages of teleworkers before the pandemic, reported the lowest levels of teleworking also in IT and other communication services and similarly occurs in Education, and Knowledge-intensive business services. This picture confirms in our view that, even if there are factors that influence the likelihood of teleworking, as we will better illustrate later on, in some countries this way of working was not a concrete option regardless of sectors, occupation and profile on the labour market.

¹⁸ The group “Knowledge-intensive business services” includes the following sectors: Legal and Accounting Activities - Activities of Head Offices; Management Consultancy Activities - Architectural and Engineering Activities; Technical Testing and Analysis - Scientific Research and Development - Advertising and Market Research - Other Professional, Scientific and Technical Activities. The group IC and other communication services include: Computer Programming, Consultancy and Related Activities - Information Service Activities.

However, according to Eurofound (2020, p.10) “differences in industrial structures is one of the main factors explaining varying prevalence of telework across EU countries. Countries such as Sweden, Finland, and the Netherlands, where workers in knowledge- and ICT-intensive service sectors account for a larger share of total employment” were those where telework was more widespread already before Covid-19 pandemic.

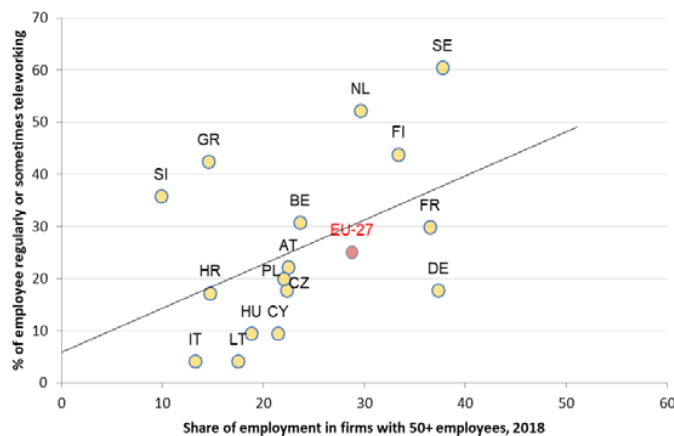
Figure 10 Percentage of employed people teleworking (Sometimes+Usually) by sector, UE-27 countries, 2018



Source: Eurofound (2020)

Also firms size looks to influence the degree of teleworkability as this tends to be higher in larger firms. The smaller average size of companies in some countries such as Italy and Hungary could be one important factor explaining the lower diffusion of teleworking. However is also interesting to note that there are some countries characterized by smaller average size of companies like Greece and Slovenia that show relatively high percentages of employees teleworking. From this graph, Germany looks to quite peculiar as despite the presence of large companies the share of employees working sometimes or usually from home is lower than in the majority of other EU countries.

Figure 11 Percentage of employees teleworking (Sometimes+Usually) and share of employment in forms with 50 + employees, UE-27 Countries, 2018

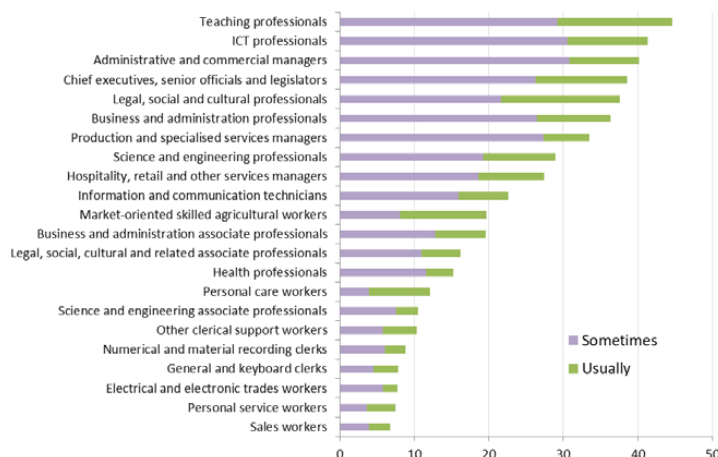


Source: Eurofound (2020)

Together with sectors also occupations experienced a significant heterogeneity in the likelihood and frequency of teleworking. Before the Covid-19 outbreak, teleworking was more common in high-skilled,

white-collar occupations, such as managers and professionals. This is shown in the following graph that pictures how the highest prevalence of telework before the pandemic was found among teachers (43%), ICT professionals (41%), followed by managers and professionals working in legal, business, administration, and science. As stated earlier in the chapter, high rates of homeworking among some professionals reflect the performance of informal overtime work, such as correcting homework for teachers but also checking emails and reading specialised literature, at home.

Figure 12 Percentage of employed people teleworking Sometimes and Usually by sector, Eu-27, 2018



Source: Eurofound (2020)

On the top of the differences across sectors and occupations, there are differences across the different contractual conditions of worker in doing telework. According to Eurofound (2020, p.7) referred to pre-pandemic period “working from home occasionally is twice as likely amongst permanent – as opposed to temporary – employees, and more likely among full-timers – as opposed to part-timers. By contrast, employees who usually work from home are just as likely to be temporary as permanent and more, not less, likely to be part-timers than full-timers.”

5. Degree of Teleworkability

The sudden growth in remote working illustrated so far raised the question of how many jobs can be properly carried out remotely. The answer to this question provides important reference information to understand whether the labour force in remote working during the Covid-19 outbreak has exceeded the teleworkability threshold and the pre-Covid-19 gap between jobs potentially teleworkable and jobs effectively performed remotely on a regular basis. Different studies have been carried out on the impact on labour market of the confinement measures and on the calculation of which jobs can be performed remotely¹⁹, in this paper we refer to the concept of teleworkability elaborated by a joint European Commission–Eurofound Report named [“Teleworkability and the COVID-19 crisis: a new digital divide?”](#)²⁰.

¹⁹ Fana, M., Tolan, S., Torrejón, S., Urzi Brancati, C., Fernández-Macías, E, The COVID confinement measures and EU labour markets, EUR 30190 EN, Publications Office of the European Union, Luxembourg, 2020, ISBN 978-92-79-18812-4 doi:10.2760/079230, JRC120578

²⁰ Sostero M., Milasi S., Hurley J., Fernández-Macías E., Bisello M., Teleworkability and the COVID-19 crisis: a new digital divide?, Seville: European Commission, 2020, JRC121193. In this paper, the concept the teleworkability is defined as “the technical possibility of providing labour input remotely into a given economic process”. To construct

Observing the teleworkability of the labour force in EU27 before the advent of Covid-19 some structural evidences emerge:

- in general, the share of employment that is potentially teleworkable is about 37% in EU ranging from 27% in Romania to 54% in Luxembourg;
- a higher share of female employment (45% against 30% for male employment) is teleworkable and in general, teleworkable employment tends to be more common among native-born workers, open-ended contracts and for who works in large companies and in cities (compared to suburbs and rural areas);
- among all EU27, the potential teleworkable employment (37%) is much higher than effective share of pre-outbreak employment working remotely (about 15%, depending on the source of the statistics);
- the gap between potential and actual teleworking is greater among dependent employees (37% of teleworkable workers against about 10% of actual teleworkers according to the Labour Force Survey 2018 EU27) than self-employed (32% against 34%);
- among white-collars the share of teleworkable employment is much higher than blue-collars for which physical requirements of the jobs and associated place-dependence render most professional categories non teleworkable; the share of potential teleworkable among white-collars ranges from 85% of “clerical support workers” to about 28% of “service and sales workers” while among blue-collars (“craft and related trades workers”, “plant and machine operators” and “elementary occupations”) is less than 2%;
- The teleworkable employment shares are higher among service sectors in which white-collar employees are prevalent. Nearly all financial-services employment is teleworkable (93%) as well as ICT services (79%). Service sectors with lower shares of teleworkable employment are health (30%), retail (27%) and accommodation/food services (16%). The primary sector, manufacturing and construction sector all have low shares of teleworkable employment (10-20%);
- Among the determinants of teleworkability, the wage and the education level of workers play a crucial role. The higher is the wage and the level of education, the larger is the share of potential teleworkable employment: 74% of those jobs in the highest-paying quintile is teleworkable and only 3% of those jobs in the lowest quintile.

the teleworkability indicators of physical and social interaction, the Joint Report relied on existing European data sources that measure the task content of specific occupations and in particular two databases are used: the Italian Indagine Campionaria delle Professioni, and the European Working Conditions Survey. Following the framework and taxonomy of tasks for occupational analysis developed in Fernández-Macías and Bisello (Fernández-Macías, E., Klenert, D., Antón, J. (2020). Not so disruptive yet? Characteristics, distribution and determinants of robots in Europe. JRC Working Papers on Labour, Education and Technology, No. 2020/01. Seville: Joint Research Centre, European Commission.), and considering the current state of technology, the Joint Report argues that the crucial determinant of whether a certain job can be done remotely or not is the relative importance of physical tasks – those involving physical interaction with objects or people.

6. Effects and desirability of remote working

The massive diffusion of teleworking because of Covid-19 outbreak allowed a large number of companies and workers across the EU to experience it for the first time and thus to recognise both positive and negative aspects. However, to better evaluate the effects of the shift to telework on workers and businesses immediate impression and effects recorded in 2020 should be differentiated from those experienced later in 2021 and afterwards. At the moment, this differentiation can be only partially done as the studies on 2021 are only a few.

Table 1 – Positive and negative effects from teleworking, before, in and after pandemic

	At the beginning of pandemic only	Before, in and after pandemic
Positive effects	Employment continuity	Higher quality of work as perceived by workers
		Flexible work schedule
		Higher degree of autonomy
		Higher individual performance, innovative behaviours and productivity
		Better work-life balance
		Reducing time and stress due to commuting
Negative effects- potential risks		Blurred boundaries between work and home life, with higher risks for female workers
		Tendency to work longer hours
		Risks of higher work-intensity
		Risks of isolation
		Risks of not paying sufficient attention to ergonomics and longer time spent on visual display
		Risks of pervasive remote control by supervisors

Source: own elaboration

Looking at the immediate effects, according to Eurofound (2020) working from home facilitated employment continuity in a context of widespread workplace closures and in countries where more employees began working from home as a result of the pandemic, a smaller share reported temporary or permanent job loss, or experienced a cut in their working time.

In the same report, the data from the Living, Working and Covid-19 survey show that blurred boundaries between work and home life are one potential negative effect of working from home. This downside of homeworking was certainly experienced at beginning of the pandemic, but it was already acknowledged before, as it will be addressed later. According to the survey, “nearly a half of those teleworking (48%) reported in April 2020 working in their free time to meet work demands regularly (at least once or twice a week), over twice the share of those not teleworking (23%). This already marked differential increased in the second round of the survey in June/July 2020 (47% v 17%). At the same time, employees working from home during the pandemic were much more likely to have put in longer unpaid domestic work hours (caring and household work) than those not working at home notably for those with school-age children. School closures appear the most plausible factor influencing these patterns these differentials.”²¹

However, the second round of the survey, conducted between June and July 2020, showed that overall the experience of working from home during the Covid-19 crisis was positive for the majority of employees who

²¹ Eurofound 2020, p.22, Op.Cit.

did so. In particular, people were satisfied with the quality of their work (77%⁹), with the amount of work performed (69%) and with the overall experience (70%). Considering these results, it is not surprising to read in the survey data that the large majority (78%) of “pandemic” teleworkers would like to work from home at least from time to time after Covid-19 restrictions. However, the possibility to continue to work at the workplace and thus mixing teleworking and working at the workplace is relevant as only 13% say that they would like to work only remotely.

Among the factors that influence the preferences towards teleworking there is the personal experiences in doing it. Employees working from home were much more likely to indicate wanting to telework after the pandemic and the longer was the period they teleworked, the higher was the ambition of continuing to do so. At the same time, approximately half (45%) of those who never teleworked in Covid-19 crisis say that they would never work from home.

A research report by Eurofound and ILO published before the pandemic²² reviewed the existing literature at that time on the characteristics of teleworking, considering both home working and ICT based working. The studies collected and analysed allow to better understand the positive and negative effects of teleworking, thus impacting on the desirability to telework. Overall the studies tackle the following four issues:

- Working Time, including working hours and working time organisation,
- Individual and organisational performance,
- Work-life balance,
- Occupational Health and well-being.

With regard to first issue, the working hours of teleworkers tend to be longer than for those employees who always work at the employer’s premises. Teleworkers are also more likely to work in the evenings and on weekends than workers who always work in the office, although they are less likely to work at night. Teleworking looks also to have an impact on the organisation of working time: “The spatial flexibility of performing work-related tasks irrespective of location allows for an alteration of regular work schedules, including performing work outside of regular business hours”²³. Finally, in those countries where the information is available, teleworking is associated with employee-oriented time flexibility, that is a certain degree of autonomy in choosing how to organise and perform their work.

With regard to individual performance, working time flexibility, the ability to better concentrate and the lack of interruption led to higher individual performance and fostered innovative behaviours and productivity. These positive results may encounter a number of barriers, in particular in those cases where the use of ICT is problematic for teleworkers and in organisations where there is a high level of control over workers’ performance.

Work-life balance is improved by teleworking, mainly because of the reduction in commuting time and autonomy to organise working schedule. However, this positive characteristic has also some risks as there might be a certain degree of work-home interference that impedes to distinguish between the two, a risk that is higher for women. As there is a degree of ambiguity in the results on the relation between work-life balance and teleworking, researchers started to analyse how and not if telework might improve work-life balance, a key element look to be and optimal individual strategy for “work-life management” or “boundary-management”.

²² Eurofound and ILO, 2017, Op.Cit.

²³ Eurofound and ILO, 2017, p.23, Op.Cit.

Finally, the area “occupational health and well-being” show a number of potential negative effects and risks. The studies analysed in the Eurofound-ILO report (2017) point out that teleworking can lead to an increase of work-intensity, risks of not paying sufficient attention to ergonomics and to the longer time spent on visual display and risks of experiencing social isolation.

Both the positive and negative effects of teleworking that were acknowledged before the pandemic could be experienced also in the pandemic, even if the availability of data on the pandemic period is very limited at the moment. The wave of the survey “living, working and Covid-19” conducted by Eurofound in April 2021 confirmed difficulties in setting boundaries between work and home life, especially in a period where schools and in general care services were at least partially closed and a fall in mental well-being due to social isolation.

The work conducted by Fana and colleagues (2021)²⁴ suggests that teleworking conducted after the pandemic outbreak on its own does not affect tasks content (what people do) but mostly how they perform their tasks (how people do what they do). The study also contributed to the argument that a need for direct control which is not feasible outside the firms’ premises tends to mutate into new forms of remote control, which can be in the long run equally pervasive. However, workers’ autonomy and the possibility to resist mechanisms of close remote control were strongly related to the levels of autonomy enjoyed prior to the shift to remote work. In terms of mental well-being and subjective perceptions, mid and low-skilled workers, and more generally those working in close contact with clients often felt more satisfied working from home than in the regular office. However, in general the study shows a negative impact on social relationships. Finally, with respect to the effects of telework during the COVID-19 crisis on work-life balance, they were strongly conditioned by the household composition. As it could be expected, workers with children, especially in school age, appear to be less satisfied with the new work arrangement.

Concluding remarks

The Covid-19 outbreak changed significantly working and living conditions across the EU. One of the most significant and sudden changes was the shift towards teleworking for a large number of workers and companies. As we have seen in the paper, teleworking was already quite diffused in a small number of European countries, while for most of them it was experienced massively in 2020 for the first time.

Several characteristics of teleworking, positive and negative, were already known before the pandemic and they have substantially been confirmed by the massive shift occurred after the pandemic outbreak. As we saw in the paper, no specific EU Directives were dedicated to remote working before Covid-19 even if many directives and EU regulations had indirect implications on it.

At the same time, we saw that in some countries was already in place a specific legislation on telework or, if not, remote work was addressed indirectly in different laws. In most of the EU countries thus, the massive shift towards teleworking occurred in a context where there was at least a partial knowledge of it and/or related legislation. However, the jump in the adoption of teleworking experienced in most of the countries, especially those where it was not very diffused before the pandemic, opened up to new forms of work organisations and pushed public authorities and companies to specifically deal with it and beginning to include it as “business-as-usual way” of working.

²⁴ Fana M., Milasi S., Napierala J., Fernández-Macías E. and Vázquez I.G. (2020), “Telework, work organization and job quality during the Covid-19 crisis, a qualitative study”, JRC Working Papers Series on Labour, Education and Technology No. 2020/11, <https://www.econstor.eu/bitstream/10419/231343/1/jrc-wplet202011.pdf>

In this context, it is necessary to deepen the knowledge of the characteristics and effects of teleworking in order to avoid and control the key negative effects while benefiting of the positive ones. In particular, it should be better addressed the implications for workers but also for the more general living conditions.



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