
TELEWORK TRENDS IN EUROPE: WHO ARE UP-AND-COMING, LEADERS, LOSING GROUND OR LAGGARDS?

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Abstract. Telework in Europe has seen a significant surge, especially due to technological advancements and the COVID-19 pandemic. This paper focuses on the incidence and changes in telework in European countries before and after the COVID-19 pandemic and proposes a classification of European countries in terms of share of teleworkers and the rate of increase in teleworking. This classification provides insights into the varying stages of teleworking adoption across different European countries and can be used by practitioners, researchers and policy makers. Furthermore, we focus on Greece as a critical example of digital underachievement. The study uses data from the European Union Labour Force Survey (EU-LFS) and covers the European Union countries, Iceland, Norway and Switzerland. The paper shows that the pandemic significantly boosted remote work across Europe. However, the disparity in remote work adoption between regions within Europe remains significant displaying a divide between North-Western and South-Eastern Europe regarding remote work adoption.

Keywords: *COVID-19, distant work, Europe, Greece, telework.*

INTRODUCTION

Telework in Europe has seen a significant surge, especially due to technological advancements and the COVID-19 pandemic. It encompasses remote work, flexible schedules, and digital connectivity, enabling employees to work from locations outside traditional office settings. Several European countries have embraced telework as a means to enhance work-life balance, reduce commuting stress, and increase productivity.

An increasing number of employers, policymakers, and workers are recognising the substantial advantages of telework. It is no longer viewed as an exclusive practice for specialized individuals or a privilege limited to a few; instead, it is seen as a transformative shift in the workplace. The integration of Information and Communication Technologies (ICTs) is fundamentally reshaping work dynamics, impacting every facet of work, and altering how organisations compete and function across diverse tasks and workforce segments (Baltina & Vitola, 2014).

According to the EU social partners' Framework Agreement (2002), telework is "a form of organising and/or performing work, using information technology, in the context of an employment contract/relationship, where work that could be performed at the employer's premises is carried out away from those premises on a regular basis". Furthermore, hybrid work refers to an intersection between telework or remote work and on-site work. Telework and hybrid work arrangements are not novel concepts, yet their integration into the daily work routines of numerous EU employees has notably solidified since the onset of the COVID-19 pandemic (Eurofound, 2023).

Information regarding the extent and breadth of telework in Europe remains constrained, despite heightened attention from policymakers and researchers (Eurofound and the ILO, 2017). Telework had the highest prevalence in Scandinavian nations within the EU, with Denmark and Sweden leading to 38 % and 33 % of their respective workforces adopting this approach. Additionally, countries such as the Netherlands (31 %), Luxembourg (29 %), the United Kingdom (27 %), France (26 %), and Estonia (25 %) demonstrated relatively substantial proportions of teleworking. These trends indicate that teleworking setups are more prevalent in the northern and western regions of Europe (Eurofound, 2020).

According to research conducted by Eurofound and the ILO (2017), differences among countries can be attributed to various factors. These include disparities in ICT dissemination, internet accessibility, proficiency in ICT skills, economic framework, GDP, geographical considerations, and work culture, encompassing diverse managerial models.

While comprehensive longitudinal data are lacking, there is a widespread perception that an increasing number of employees throughout Europe utilise ICT for flexible work, particularly among the self-employed (ETUI, 2013; Holtgrewe, 2014). For instance, in France, the proportion of employees engaging in teleworking rose from 7 % in 2007 to 12.4 % in 2012 (Greenworking, 2012). Similarly, in Sweden, the percentage of businesses with teleworking employees surged from 36 % in 2003 to 51 % in 2014 (Statistics Sweden, 2015). This upward trajectory is anticipated to persist with the continued ascent of digitalization, increased female labour force participation, and the growth of flexible employment and work structures (Eurofond, 2023).

Telecommuting surged across all EU nations as over a third of the employed population began remote work during the onset of the COVID-19 pandemic, often with limited or no prior experience in this mode of work (Eurofond, 2023). In 2022, the EU-27 observed a rise in employees working from home, both regularly and occasionally, with the share increasing from 14.4 % in 2019 to 22.4 % in 2022 (Eurostat, 2023).

This paper focuses on the incidence and changes in telework in European countries before and after the COVID-19 pandemic and proposes a classification of European countries in terms of share of teleworkers and the rate of increase in teleworking with a special focus on Greece as a critical example of digital underachievement.

The study covers the European Union countries, Iceland, Norway and Switzerland. The data were collected from Eurostat, the European Union Labour Force Survey (EU-LFS), which provides population estimates for the main labour market characteristics and includes detailed information on employed persons working from home. Data are analysed using MS Excel software and the findings are illustrated by graphs and maps.

The remainder of the article is organised as follows. Results section presents an analysis of current state and changes in the prevalence of telework in the European countries before and after COVID-19 pandemic. It also highlights the roots of Greece's digital underachievement. Finally, the next section proposes a classification of European countries in terms of share of teleworkers and the rate of increase in teleworking. Discussion section provides the findings of the paper. The final section concludes the study.

1. RESULTS

1.1. Telework Trends in Europe before and after COVID-19 Pandemic

As mentioned before, the pandemic prompted a significant increase in remote work setups. These developments have been documented by the European Union Labour Force Survey (EU-LFS), which provides detailed information on employed persons working from home.

In EU-27, the share of employees **usually** working from home increased from 5.4 % in 2019 to 10.2 % in 2022 (Fig. 1). Countries with the highest prevalence of work from home usually in 2022 are Ireland (25.3 %), Finland (23.1 %), Sweden (18.1 %), the Netherlands (17.8 %) and Luxembourg (17.7 %). At the same time, such countries as Romania (1.4 %), Bulgaria (1.6 %), Greece (2.5 %), and Hungary (2.8 %) have the lowest share of employees working usually from home.

The highest increase in the share of employees **usually** working from home was recorded in Ireland (by 18.3 percentage points), Sweden (by 12.2 percentage points), Belgium (by 9.5 percentage points), Germany (by 9.3 percentage points) and Finland (by 9.0 percentage points).

Furthermore, the share of employees **sometimes** working from home in EU-27 increased from 9.0 % in 2019 to 12.2 % in 2022 (Fig. 2). European countries with the highest prevalence of work from home sometimes in 2022 are Iceland (35.7 %), the Netherlands (35.1 %), Norway (33.5 %) and Switzerland (28.8 %). The lowest share of employees working from home sometimes was recorded in Romania (2.9 %), Bulgaria (2.8 %), Latvia (2.6 %), and Lithuania (5.3 %).

The highest increase in the share of employees **sometimes** working from home was recorded in Norway (by 28.3 percentage points), the Netherlands (by 12.1 percentage points), Iceland (by 11.6 percentage points) and Malta (by 10.6 percentage points).

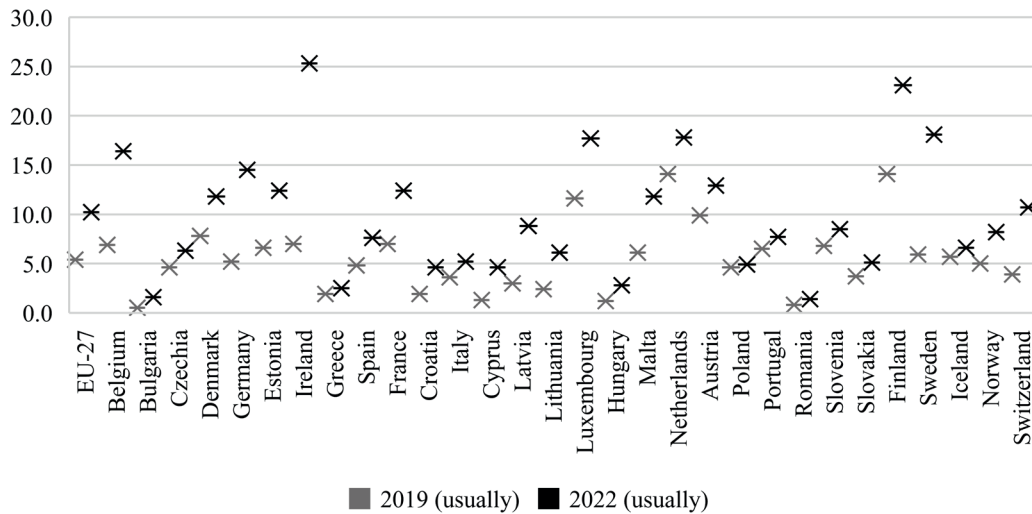


Fig. 1. Shares of employees usually working from home by country, EU-27, Iceland, Norway and Switzerland, 2019–2022 (%) (Eurostat, 2023).

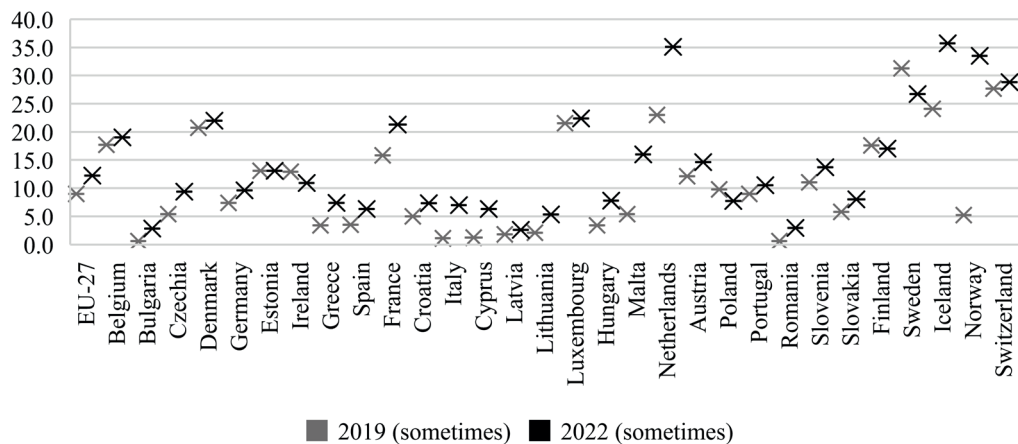


Fig. 2. Shares of employees sometimes working from home by country, EU27, Iceland, Norway and Switzerland, 2019–2022 (%) (Eurostat [lfsa_ehomp], 2023).

In total, the share of employees **usually and sometimes** working from home in EU-27 increased from 14.4 % in 2019 to 22.4 % in 2022. European countries with the highest prevalence of work from home in 2022 are the Netherlands (52.9 %), Sweden (44.8 %), Iceland (42.3 %), Norway (41.7 %) and Finland and Luxembourg (40.1 % in both). The lowest share of employees working from home sometimes was recorded in Romania (4.3 %) and Bulgaria (4.4 %), followed by Greece (9.9 %), Hungary (10.6 %), and Cyprus (10.9 %) (Fig. 3).

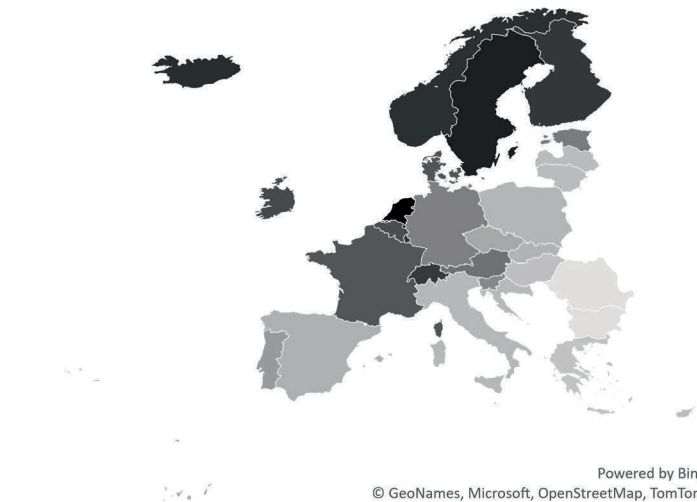


Fig. 3. Share of employees working from home by country, EU27, Iceland, Norway and Switzerland, 2022 (%) (Eurostat [lfsa_ehomp], 2023).

In terms of the increase in the share of employees **usually and sometimes** working from home from 2019 to 2022, the highest increase was recorded in Norway (by 31.5 percentage points), mainly due to a large increase in the share of people sometimes working from home. High increase in teleworking was recorded also in Ireland (by 16.3 percentage points), Malta (by 16.3 percentage points), the Netherlands (by 15.3 percentage points) and Iceland (by 12.5 percentage points) (Fig. 4).

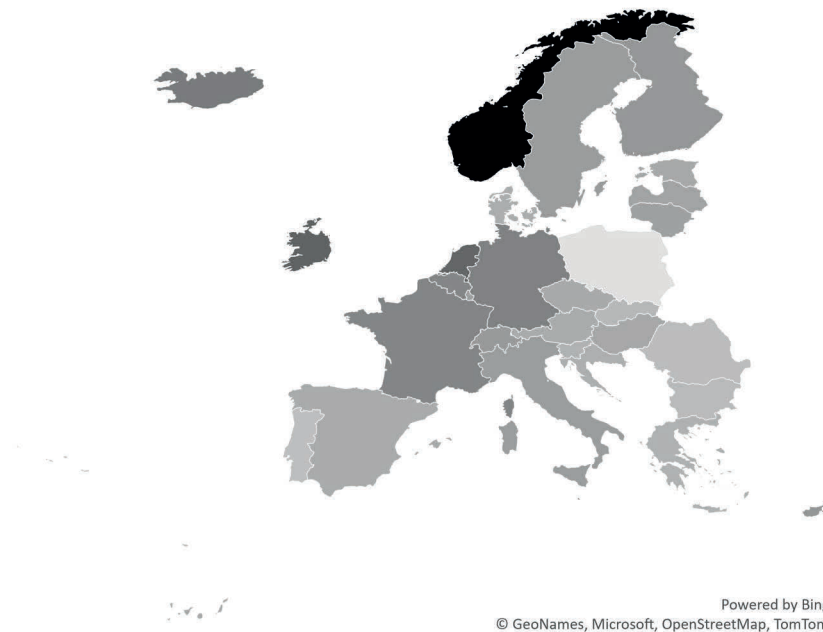


Fig. 4. Change in share of employees working from home by country, EU27, Iceland, Norway and Switzerland, from 2019 to 2022 (percentage points) (Eurostat [lfsa_ehomp], 2023).

By merging the data on the share of teleworkers and the changes in the share of teleworkers in European countries, we propose to classify European countries into four types (Fig. 5):

1. Up-and-coming – countries with lower-than-average share of teleworkers, but with a higher-than-average rate of increase in teleworking;
2. Leaders – countries with higher-than-average share of teleworkers and higher than average rate of increase in teleworking;
3. Losing ground – countries with higher-than-average share of teleworkers, but with a lower-than-average rate of increase in teleworking;
4. Laggards – countries with lower-than-average share of teleworkers and lower than average rate of increase in teleworking.

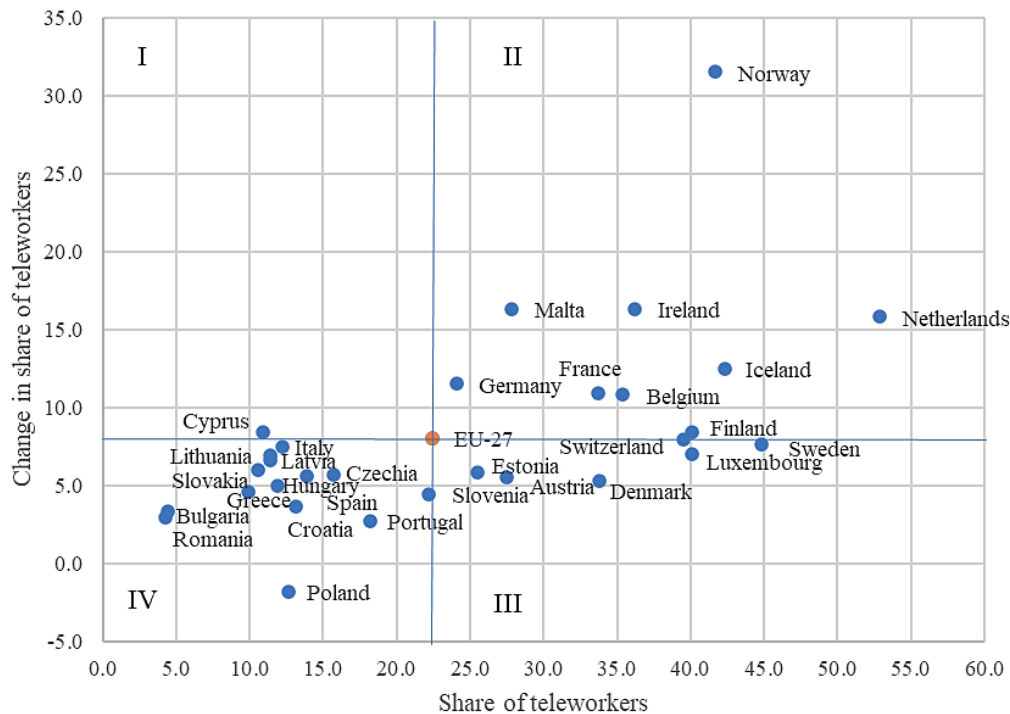


Fig. 5. Classification of European countries in terms of share of teleworkers in 2022 and the rate of increase in teleworking from 2019 to 2022, EU27, Iceland, Norway and Switzerland (Eurostat [lfsa_ehomp], 2023).

The leading countries in terms of teleworking include numerous Scandinavian countries, such as Norway, Iceland and Finland, but also western European countries, such as the Netherlands, Ireland, Belgium, France and Germany. From southern European countries Malta is included in this group. These countries are leading the way in adopting and increasing remote work practices. They benefit from established practices and a culture that embraces remote work, allowing for flexibility and efficient work arrangements. Being at the forefront of teleworking gives these countries a competitive advantage in terms of adaptability, attracting talent, and responding effectively to changing work dynamics.

The up-and-coming group showed a rapid surge in telework from a low starting point. It includes only Cyprus, which, albeit having a low share of teleworkers, has witnessed a rapid increase in the incidence of telework from 2.8 % in 2019 to 10.9 % in 2022. Cyprus has the advantage of experiencing a swift surge in teleworking despite starting from a lower base. This rapid growth indicates potential for further expansion and adaptation to remote work practices.

The losing ground group includes numerous countries with higher-than-average share of teleworkers – Sweden, Denmark, Switzerland, Luxembourg, Austria and Estonia. However, the increase in the share of teleworkers in these countries was lower than average. These countries, despite having a higher prevalence of teleworkers, risk losing their leading positions if the pace of adopting telework does not accelerate. Despite slower growth, these countries possess a foundation for telework. They have established some remote work practices, which can be further developed and expanded to maintain their competitive positions.

Finally, the laggards group includes majority of Southern and Eastern European countries, illustrating the above-mentioned divide of north-west and south-east regions of Europe. More specifically, it includes Eastern European countries, such as Bulgaria, Romania, Latvia, Lithuania, Poland, Slovakia, Croatia, the Czech Republic, Hungary, and Southern European countries, such as Greece, Portugal, Spain and Italy. These countries are significantly lagging behind in adopting remote work practices compared to their counterparts in other parts of Europe.

1.2. The Case of Greece: A Digital “Underachiever”

In the previous section, we highlighted the low share of people working digitally in several countries, including Greece. Recent research of KANEP-GSEE (2022) highlights the roots of Greece’s digital underachievement.

Although the research focused mainly on the participation of adult Greeks in digital education and training programs, there were important findings that could be put in a more general use.

Digital skills level of adults in Greece and the EU: According to Eurostat’s Digital Skills Index (DSI), only 52 % of the country’s adult population (25–64 years old) is assessed as possessing at least basic digital skills, a percentage that falls short of 9 percentage points of the European average (61 %). In any case, the assessment of the level of digital skills is undeniably important both for the digital convergence of the country with the rest of the EU member states through the digital transformation, and for the development and upgrading of the workforce in order to be able to cope with the new digital requirements in all sectors, since here factors emerge that contribute to the exclusion of certain population groups and the formation of significant socio-economic inequalities.

Businesses do not invest or invest little in improving the digital skills of their employees: 1 in 5 businesses across the EU, according to 2020 data, implemented training programs aimed at developing or enriching the knowledge of their staff on topics (ICT). The corresponding percentage in Greece is 12 %, with the country ranking 25th out of 27, behind Bulgaria and Romania.

Employment of people with training in the field of Information Technology (ICT) in Greece and the EU: In total in the EU in 2020, 431,400 people specialized

in ICT were employed, which corresponded to 4.3 % of the total employment. In the same year in Greece, the employment of people with expertise in ICT amounted to 79,300 people, corresponding to 2.0 % – a percentage that was also the lowest in the EU-27. In fact, the share of people employed with ICT expertise in the total employment in the country recorded a drop of 4.8 % compared to 2019, when all the other member states (with the exception of Malta) recorded an increase in this ratio.

Demand/needs for digital skills in Greece and the EU: Greek businesses do not want to pay improved wages to the IT workforce: Almost one in 5 businesses in the EU as a whole and also in Greece employ people with ICT expertise. Of the companies that had vacancies for people with ICT expertise, 55 % in the EU and 35 % in Greece had difficulty filling them. In Greece, among the difficulties that companies reported that they faced in filling their positions, the first place was occupied by “the high salary expectations of the interested parties” (69 %), the lack of relevant work experience (63 %), and the lack of qualifications / titles related to ICT (54 %).

The gender disparity in the employment of people with ICT expertise is strong, since only 18.5 % of those employed in the category in the EU are women (2020), while in Greece the proportion of women appears more improved and stands at 26.5 %, with the country ranking 2nd best among the 27.

2. DISCUSSION

Combining both usual and occasional remote work, the EU-27 witnessed an increase from 14.4 % in 2019 to 22.4 % in 2022. The countries with the highest prevalence of remote work in 2022 were the Netherlands, Sweden, Iceland, Norway, Finland, and Luxembourg. On the other end, Romania, Bulgaria, Greece, Hungary, and Cyprus reported the lowest shares.

Overall, the findings stated in this article show that telework has a significant potential to become an even more widespread form of work. However, the divide in remote work adoption between different regions within Europe is stark, with Northern and Western European nations embracing remote work more readily than Southern and Eastern European countries as shown by the example of Greece where low digital skills, educational and societal inequalities and lack of access to internet are significant challenges in entering the digital workforce.

The proposed classification allows proposing tailored recommendation for each type of the countries in order to facilitate knowledge transfer and more equal development in Europe.

Leaders have a valuable opportunity to share their practices and a culture that embraces remote work, flexibility and efficient work arrangement with less advanced countries in terms of teleworking.

With a lower starting point, up-and-coming countries have an ample room for advancement, and these countries can implement strategies to foster and encourage remote work, leading to greater flexibility in their workforce.

Recognising the need for acceleration, losing ground countries can strategize to enhance their teleworking infrastructure and policies, ensuring they do not fall behind and can maintain their current positions.

Finally, countries in the laggard group can learn from the experiences of others and implement strategies to catch up in remote work adoption. As they are starting from a lower base, there is an opportunity for significant transformation. By investing in technology, policies, and training, these nations can bridge the gap and align themselves with remote work trends.

CONCLUSIONS

The study focused on the incidence and changes in telework in European countries before and after the COVID-19 pandemic. The findings highlight significant rise in remote work across the EU-27 due to the pandemic and technological advancements. However, as the development of Europe generally, also the dynamics of telework show lasting regional, educational and societal inequalities. The proposed classification, which is based on the share and progress in terms of teleworkers, allows dividing European countries into four types of countries: Up-and-coming, Leaders, Losing ground and Laggards. Each group has its unique advantages, whether its rapid growth potential, established practices, room for improvement, or the opportunity to catch up and transform their approach to remote work. This classification provides insights into the varying stages of teleworking adoption across different European countries and can be used by practitioners, researchers and policy makers. The case of Greece as a digital underachiever helps understand how inequalities, lack of skills, lack of education and training are strong burdens for the introduction of the labour force into the new digital era. It also highlights the need for further research on the roots of underachievement in terms of telework.

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