



ANALYSIS

*TELEWORKING, WORKING FROM HOME, OPPORTUNITIES,
RISKS*

2021.





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RISKS*

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EXECUTIVE SUMMARY

The emergence of the COVID-19 epidemic has radically transformed the world of work over the course of a few weeks. It has become essential to maintain the continuity of work and ensure people's livelihood while ensuring the protection of human health. The number-one solution to “business continuity” was to use work performed by people from their homes using digital devices. This posed new organizational, legal, and technological challenges and drew the attention to the wider social context of telework and work from home. During the epidemic, digital technology made it possible also for public administration to remain continuous.

The analysis below clearly suggests that year 2020 was a breakthrough in the spreading of telework and work from home in Hungary, as this form of work was one of the necessary solutions to combat the COVID-19 epidemic in order to reduce the number of personal contacts. Both employers and the masses of workers were able to experience the pros and cons of this. This period can therefore be considered as the “dress rehearsal” of working remotely or from home, which undoubtedly required the necessity due to the COVID-19 epidemic.

“Necessity is the mother of invention, it is true, but its father is creativity, and knowledge is the midwife.”¹ That is, in order for an innovation to be born – in this case the success of telework and work from home –, creativity, knowledge and awareness-raising are equally needed.

The conditions necessary for creativity were provided by emergency legislation, which, through decrees, allowed a complete deviation from legal rules for parties to adjust their employment relationships. Thus, it is up to employers and workers now whether, and to what extent, they can take advantage of this opportunity and whether they have the knowledge – the third factor necessary for innovation – to successfully consolidate the institution of telework and work from home, and possibly to spread it further.

The analysis below provides an assessment of risks affecting awareness-raising concerning telework and work from home. By these, we mean employer and worker competence, information, proficiency, experience, professionalism, and appropriate skills allowing them to mutually shape the content of telework and work from home. There are elements, such as digital literacy, data protection and cyber security risks, the lack of which preclude the success of work from home; and there are elements, such as knowledge of the basic aspects of mental health, that do not exclude the possibility of work from home, but a lack of appropriate risk management has an unfavourable impact on both balanced work and private life. Therefore, the aim of the analysis below is to take stock of these risks and to provide guidance for successfully managing them and for raising awareness of the conditions required for working remotely or from home.

Additionally, the analysis below highlights some opportunities opened up by the epidemic: experience gained through the state of emergency may contribute to modern rules developed to support telework and work from home. For example, when normal working hours are given secondary importance, performance may become of prime importance, a situation which the legal framework should also be adapted to. Working from home, used by necessity, has drawn the attention to the fact also that a predictable combination of work from home and in the office can, for both performance and mental health, be the optimal solution in the long run. The epidemic has given new impetus to the digitalisation of public services and procedures available to citizens for administering official matters, a move which not only simplifies administrative procedures but also represents a solution to the prevention of corruption and the whitening of the economy.

¹ Jonathan Schattke, IT specialist, USA

The present analysis of the State Audit Office of Hungary (SAO) used statistical information, research results and current legislation to examine the opportunities and challenges posed by, and the effects of, telework and work from home, and the experiences gained in connection with it. The analysis reviewed solutions – similar to telework and work from home – which allow the replacement of personal contact in the relationship between the state and citizens. The analysis focused on telework and work from home: telework is done somewhere spatially separated from the employer, while work from home takes place in the worker's home; however, in both cases technological devices transmit the results of the work. The analysis examined these forms of work in terms of an employer-worker relationship that is based on their super- and subordination, as considered typical.

The results of the analysis may contribute to the drafting of public policies affecting the world of work and the digital state, by providing information for the development of a modern system of labour law conditions and offering considerations for public and private sector employers to create conditions for telework or work from home.

CONCLUSIONS – OPPORTUNITIES AND RISKS

Telework? Work from home?

Telework is the name of work done spatially separated from the employer, while work from home is performed specifically in the worker's home, and in both cases technological devices convey the result of the work. From this aspect any work from home is also a telework. Although the two forms of work are regulated under separate labour law provisions in Hungary, statistical reports typically show figures for teleworkers with home workers included, and we do not differentiate between the two forms of work in common language. During the epidemic, work was characteristically carried out from home; legislators reacted immediately and provided flexible rules to allow people to work from home in order to protect their health. Experience from the epidemic may be used to create up-to-date and realistic rules for data protection, data security and work safety to support work carried out from home.

The spreading of telework and work from home has significant potential

The situation caused by the epidemic in Hungary has brought with it a spectacular breakthrough in the spreading of telework and work from home. In the first half of 2020, the proportion of teleworkers and workers from home increased more than sixfold, not falling back to pre-epidemic levels even after the end of the first wave of the epidemic. Today, social, and technological conditions already allow an increased proportion of work to be done remotely or from home. The analysis below shows that those who already have their own experience in this form of work view it much more positively, so the epidemic facilitated the acceptance of telework and work from home.

Performance becomes of prime importance

In the management of telework and work from home, the focus is on monitoring the results of work, so the central role of working hours is becoming less important. This may lead to a shift in emphasis in the content of employment relationships: instead of availability, the focus is on the result, so the employment relationship may transform into something similar to private law obligations (assignment, undertaking). All this should be considered when developing the legal framework.

Balance between data security and privacy

One of the basic requirements of all work is controlling workers and the security of their data. Telework and work from home definitely represent an increased data security risk, especially when workers use their own devices. The analysis below shows that a proper balancing between worker control and privacy will contribute to the acceptance and success of telework and work from home.

Success factors: proper working conditions and mental health

The analysis points out that home quality is a critical success factor. Defining standards for working conditions is one of the achievements of civilization, and it is important that the implementation of these requirements in homes is supported by appropriate rules. Working from home also poses mental health challenges – families with small children are the most vulnerable in that respect. The new form of work cannot be successful unless the mental health of workers is also considered. The analysis highlights that – from the aspect of mental hygiene too – a controlled and predictable combination of work from home and from the office may be the optimum solution in the long run.

The collapse of spatial barriers frees up resources

The analysis points out that the relaxation of spatial constraints of work may improve the employment rate in groups of society that have been less able to participate in the labour market due to barriers in terms of transport, housing or living conditions. In addition, the rise of telework and work from home may reduce territorial disparities in the real estate market and reduce the use of transport infrastructure. As the role of the state is significant in shaping the transport and housing infrastructure serving the world of work, it is expedient to take into account the forecasts examining the spread of telework and work from home.

The digitalization of the state has received another impetus

In Hungary, the advanced state of electronic public administration and public services allowed one million more of our compatriots to use such services during the first wave of the epidemic than before. The epidemic situation has also contributed to the spread, or the implementation, of several digital administration solutions (iCheque, e-Prescription, simplification of payment with contact, reduction of cash use, digital language exam, electronic procedural documents). Their wider application may be consolidated after the epidemic; and, the more citizens use the state's digital services, the more feedback may be used to improve such services. The digitalisation of the public sector not only simplifies the administration of official matters but also minimizes the number of abusive situations, thus offering a solution for preventing corruption and whitening the economy.

INTRODUCTION, METHODOLOGY

Justification

The global outbreak of the COVID-19 epidemic has radically transformed people's everyday lives in the spring of 2020, in a matter of weeks. In addition to the direct health consequences of the virus, the epidemic has had a significant impact on the functioning of society, people's lifestyles, and a fundamental impact on the world of work. It has become essential to maintain the functioning of the world of work while limiting social contacts. One of the number one tools of "business continuity" was the wider application and introduction of telework and work from home. The suspension of the operation of nurseries, kindergartens, and schools, and thus the need for day care for children, also contributed to an increase in the importance of atypical forms of employment: telework and work from home. Their large-scale use required new corporate organizational, management and technological solutions, created a new labour law situation and transformed the relationship between home and work.

The Fundamental Law of Hungary provides that Hungary's economy is based on work that creates value and the freedom of enterprise; and everyone is obliged to contribute to a growth in the community's assets by working in accordance with their abilities and opportunities; and Hungary strives to create the conditions for all able-bodied people to work when they want.² An important strategic mission of the State Audit Office is to monitor and analyse the implementation of the values defined in the Fundamental Law and the relationship of these values to public finance, thus contributing to the functioning of a well-governed state.

In view of all this, some topics are worth examining, namely the opportunities and challenges of the wider use of telework and work from home; and the experience gained in connection with the epidemic and the impact of its expansion on the economic and infrastructural environment surrounding the world of work. Additionally, some solutions are worth analysing in the relationship between the state and citizens, as they allowed the replacement of personal contact by digital technology.

Purpose of the analysis

The analysis below aims to assess the opportunities and risks of using telework and work performed from home. It describes the rules that apply to telework and work from home; the factors contributing to the spreading of them; and the effects of the epidemic on all this. The opportunities offered by telework and work from home are examined from the perspective of the employer, the employee, the workplace and the home, and the challenges and risks of using such work are also discussed. The analysis reviews how telework and work from home affect systems related to the world of work: housing and transport. Additionally, the analysis describes the digitalization solutions available to help replace personal presence in the relationship between the state and citizens.

Utilization

The analysis below may contribute to an effort aimed at assessing the conditions under which telework and work from home may be maintained in part or in full once the threat of the epidemic has passed, and the benefits and the challenges these forms of work represent. The analysis may contribute to the understanding of means required for modernizing the national economy, as well as the development of state policies and incentives related to the implementation of such means. Thereby, the analysis provides guidance to legislators and governmental and non-governmental organizations for the steps they may consider to take in order to further develop telework and work from home to ensure that these forms of work are effective for employers,

² Article XII of Article M of the Fundamental Law of Hungary.

workers and society as a whole, considering the aspects of mental and social integrity as well. The analysis may confirm the efforts which are aimed at the extension of solutions allowing citizens to administer their affairs online.

Questions of the analysis

To achieve its analytical goal, the analysis examined the following issues.

- What does telework and work from home mean?
- What is the legal framework for telework and work from home, how have labour rules changed in the wake of the epidemic?
- What is the prevalence and sectoral distribution of telework and work from home, what factors influence it?
- What is the impact of telework and work from home on the economic, social, and spatial environment of the world of work?
- What opportunities and challenges do telework and work from home offer in terms of employment relationships?
- What are the experiences from a home and family perspective? What are the social and mental health consequences to be reckoned with?
- What digital solutions help the state and citizens stay in touch, how E-government changed during the pandemic?

Sources, methods

The analysis used the method of document analysis to review, process and synthesize scientific research papers covering the topics concerned; representative and non-representative opinion polls conducted during the epidemic; publicly available documents, articles and publications; and current legislation covering the topics reviewed; and, additionally, the analysis processed statistical information made available by the Hungarian Central Statistical Office (CSO) and the EUROSTAT until November 2020.

Terminology

- Laws in Hungary make a distinction between telework and work from home.
- During the epidemic situation, people performed their work characteristically from home, regardless of the legal framework applicable to their work, and common language does not differentiate between the two concepts either. In English-language literature, the terms „remote work” „telework” „telecommuting” „home office” „working from home (WFH)” do not always make a distinction between the different forms of work in a legal sense. Where relevant, the original term is also included in a footnote.
- CSO data quoted in the analysis concerning teleworkers cover both those who have a telework employment relationship as regulated by the Labour Code and those who worked from home on an occasional basis³. Labour market statistics from EUROSTAT processed in the analysis use the term “working from home”⁴. For each source, the analysis explains the aspects (e.g., definition, age group, groups of occupation) used to classify workers as teleworkers or workers from home; and provides the location where statistical methodological descriptions are available.

³ <https://www.ksh.hu/docs/hun/modsz/modsz910.html>

⁴ https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa_ehomp

Limitations

The analysis focuses on the most typical work situation, where there is a hierarchical employment relationship between employer and worker based on a super- and subordinate relationship. This is the area where the use of teleworking and working from home primarily raises issues of labour law, work organization and technology. Therefore, the analysis below does not examine in detail the issues of telework and work from home in self-employed professions, i.e. in the areas of informal work (home-related, house chore and reproductive work, self-sufficient farming, backyard production).

1. WHAT DOES TELEWORK AND WORK FROM HOME MEAN?

The use of telework and work from home – and at the same time the discourse on it – has started to explode in the wake of the COVID-19 epidemic. However, when referring to telework, work from home, or “home office,” common language leaves it unclear what exactly is meant by work from home or telework; whether there is a difference between these terms; and how these forms of work organization affect the employment relationship. First, therefore, a conceptual clarification is required. In order to understand the special features of teleworking and working from home, it is necessary to briefly review the essence of the traditional form of work, and the context in which atypical forms of working appeared.

1.1 History, emergence of telework

Henry Ford introduced the assembly line at his Detroit-based car factory in 1913 to provide controlled and fast work for employees. As a result, the industrial work organization called “Fordist” – which, of course, has several centuries of history to it – is based on the spatial concentration of the means of production (plant, factory) and the supervision and management of the workforce in this space, the workplace. Another key concept used by this form of work organization is the defined time frame, during which workers are available to their employer: working time. In the first two-thirds of the twentieth century, this work organization solution was so predominant that even non-industrial productive work, i.e. administrative and intellectual work was organized in no other way but *at the workplace* and based on *working time*.

Labour law has long considered this situation as a starting point, as a result of which the terms workplace and working time have been the key concepts of labour law to this day. After the Second World War, consumer capitalism in the Western world brought with it an economic growth which sought to satisfy an increasingly diverse demand; and, therefore, mass production was replaced by flexible specialization; traditional industrial production was increasingly relocated to the Third World; and the service and financial sectors were strengthened (deindustrialisation and financialization). The protection afforded to workers by workplaces has slowly disappeared, and the often life-long employment relationships have been replaced by various forms of atypical employment. Atypical forms of employment include flexible working hours; work by retirees; work under casual employment; fixed-term and part-time employment; working as outworker; self-employment; and teleworking (Arnold, H. 2005). In this period – the mid-seventies – emerged the prior forms of today's teleworking and working from home and were referred to as “teleworking” or “telecommuting”. In addition to the transformation of the social conditions for work organization, the explosive development of the info-communications technology was also necessary for the development of today's form of telework. The phenomenon of telework is emblematic among the new forms of work organization, as it is based on the trend of making work more flexible and individualized, and of increasing the use of info-communications technology, while telework itself strengthens these processes. (OECD 2020)

1.2 Key concepts and domestic rules

1.2.1 What does telework mean?

Telework, a name still used in this form today, is connected to Jack Nilles, who coined the terms “teleworking” and “telecommuting” in the early 1970s. He interpreted the term “telework” as the replacement of *work-related travel* by an information technology device (e.g., a computer), and the term “telecommuting” as the situation where it is not the worker who commutes between his home and his workplace, but the work itself. Of course, several definitions of telework are known. Teleworking in common language means when the work is not traditionally done at the workplace, but away from it and the result is typically delivered to the worker by means of information technology. In the broadest sense, when the employee and the worker are in spatially separated places, we may talk about telework, so it includes, for instance, traveling agency work. In a

narrower sense, telework is work that takes place within a work organization but is independent, in terms of space and time, of traditional features of organization, and work is supported by computer and telecommunications equipment. (Olson, 2003). According to Sikora's definition (2002), teleworking is a form of employment where most of the work takes place in a chosen permanent or variable location, outside the workplace. The worker and the employer keep in touch with each other by means of communications devices, by communicating reports on employee performance by the same means. (Sikora, 2002).

1.2.2 Teleworking in the labour law of Hungary

According to Section 196 (1) of Act I of 2012 on the Labour Code (Mt.), “teleworking” shall mean activities performed on a regular basis at a place other than the employer’s facilities, using computers and other means of information technology, where the end product is delivered by way of electronic means. With regard to telework, Sections 196-179 of the Labour Code stipulate that a telework employment relationship must be agreed under an employment contract. In addition, the employer must inform the worker concerning inspections conducted by the employer and the rules for using computers or electronic devices. Unless otherwise agreed, the employer’s right of instruction is limited solely to the *definition of duties to be discharged* by the worker. Unless otherwise agreed by the parties, the employer will determine the method of inspection. However, such inspection must not impose a disproportionate burden on the worker or on any other person using the property concerned. Unless otherwise agreed by the parties, the worker's working arrangements are flexible. In the light of the above, it is clear that the labour law of Hungary regulates telework as a form of work that is basically a working arrangement of flexible schedule, which requires a high degree of employee independence, and the place of work may be anywhere, spatially far away, from the employer. However, telework is not an occasional form of work subject to the current choice of the parties, it is explicitly described by the Labour Code as an activity performed on a “regular basis”.

1.2.3 What does “working from home” mean? – labour law rules of the epidemic situation

In working from home, also known as 'home office', the employee works from a specific place, namely from his or her home, or usual place of residence. However, domestic labour law had before the outbreak of the epidemic mentioned this legal institution expressly only in certain legal acts of the public sector (see 1.2.4 below). The Labour Code uses the concept of teleworking only, by providing no separate rules for working from home. However, legislators want to distinguish between teleworking and working from home, a fact clearly indicated by the two different sets of rules to them included in the Act on Governmental Administration (Kit.)⁵ and the Act on Special Status Bodies (Küt.)⁶.

Adopted in view of the epidemic situation, Government Decree 47/2020. (III. 18.)⁷ sets out in Section 2b) of Article 6, that: “the Labour Code shall be applied for thirty days after the end of a state of emergency, with the difference that employers may unilaterally order workers to work from home or do telework”. Pursuant to Article 6 of the Decree, employers may unilaterally order workers to work from home or remotely without amending the employment contract for 30 days after the end of a state of emergency.

Following the re-proclamation of the emergency on 11 November 2020, the government once again regulated the conditions to telework. Government Decree 487/2020. (XI. 11.)⁸ stipulated that the parties may agree to

⁵ Act CXXV of 2018 on Governmental Administration

⁶ Act CVII of 2019 on Bodies with Special Legal Status and the Status of their Employees

⁷ Government Decree 47/2020. (III. 18.) on Immediate Measures Necessary to Mitigate the Impact of the Coronavirus Pandemic on the National Economy entered into force on 19 March 2020; later, its term of validity was extended under Section 1b) of Government Decree 73/2020. (III. 31.) until such time when the state of emergency (set forth under Government Decree 40/2020. (III. 11.) on the Declaration of the State of Emergency) ceases to exist; and, as a result, it expired on 18 June 2020. After that date, however, Act LVIII of 2020 on Transitional Rules and Epidemiological Preparedness in Association with the End of the State of Emergency entered into force and continued to allow employers to unilaterally order workers to work from home or do telework after the end of the state of emergency.

⁸ Government Decree 487/2020. (XI. 11.) on the Application of Rules to Telework in a State of Emergency

deviate from the rules of teleworking set out in the Labour Code; and this Decree no longer uses the expression *working from home*.

It is noteworthy that the Government Decree promulgated in view of the epidemic situation provides for the ordering of work from home, however, it does not contain a definition of the content of working from home itself. We can find a precise legal definition of working from home in certain laws adopted before the epidemic situation concerning legal statuses in the public sector.

1.2.4 Teleworking and working from home in the public sector

Governmental administration bodies and special status bodies. The Kit. regulates teleworking and working from home separately. Article 125 of the Kit. stipulates that teleworking – essentially as defined in the rules of the Labour Code – is a regular activity carried out by means of information or computer technology at a place other than the normal place of work, with the results of the work transmitted electronically, excluding work from home. By agreement, telework may be performed at a place specified by the person entitled to exercise the employer’s rights and, unless otherwise agreed, the means of work and communications must also be provided by such person. The person entitled to exercise the employer’s rights may regulate the use of the computer equipment provided by him; he may physically inspect the working conditions; he must specify the manner of inspection; but such inspection must not impose a disproportionate burden on any government official or any other person using the property concerned.

The Kit. defines the term “work from home” (Article 126) as work in which a government official may perform his/her work at his/her place of residence or stay, other than his/her usual place of work, using his/her own equipment. Work from home is allowed if the nature of the work to be performed so permits and if working from home does not cause disproportionate harm to either party. The agreement on working from home must specify the schedule of working from home, the tasks to be performed, and the manner and the dates for keeping contact and the delivery of the work performed. Concerning employees of bodies with a special legal status⁹, the Act on Bodies with Special Legal Status makes a distinction between telework and work from home, essentially in a similar way as seen above.

Telework in case of civil servants. Concerning workers employed under Act CXIX of 2011 on Civil Service Officials (Kttv.), legislation does not include the possibility of working from home, it sets out rules only for teleworking. Under Article 259 (1) of the Kttv., the detailed rules for teleworking are stipulated under a special a government decree. Articles 11 and 12 of Chapter IV of Government Decree 30/2012. (III. 7.) on Working Time and Rest Periods for Civil Servants, Administrative Breaks, Certain Obligations of Civil Servants and Employers, and Teleworking sets out the rules of performing telework. According to the definition, which is essentially the same as before, teleworking is a regular activity carried out in a place separate from the employer's premises by means of information technology or computer technology, where the result of work is transmitted electronically. The appointment must include the conditions of keeping contact and the method of accounting for the costs incurred in connection with performing the telework. Unless otherwise agreed, the means to perform the work shall be provided by the employer. Unless otherwise agreed, the employer shall, in writing, transfer the right of setting the work schedule to the civil servant at least for half of the daily working hours.

Working from home in law enforcement. As far as working from home is concerned, Article 153/A of Act XLII of 2015 on the Service Status of Professional Staff of Law Enforcement Agencies (Hszt.) sets out, effective

⁹ Bodies with Special Legal Status include the Office of the President of the Republic, the Office of the Constitutional Court, the National Authority for Data Protection and Freedom of Information, the Office of the Commissioner for Fundamental Rights, the Hungarian Energy and Public Utility Regulatory Authority, the National Media and Infocommunications Authority, the Hungarian Competition Authority, the Secretariat of the Hungarian Academy of Sciences, the Secretariat of the Hungarian Academy of Arts, the Historical Archives of the Hungarian State Security, the Office of the Hungarian Equal Treatment Authority, the Public Procurement Authority, the National Electoral Office and the Committee of National Remembrance

from 1 July 2018, that any member of the professional staff may, in agreement with the competent commander of the staff, perform his/her duties at his/her place of residence or stay, different from his/her place of service, using his/her own means.

Based on the above, the table below provides a schematic overview of the most important features and differences between teleworking and working from home:

1. Table 1: Telework and work from home – substantial differences based on domestic legislation

	Teleworking	Working from home
Legislation	(Mt., Kttv., Kit., Küt.)	(Kit., Küt., Hszt.)
Place of work	a place separated from the employer's site or the normal place of work	a place of residence or stay other than the normal place of work
Duration, regularity	regular	to be defined under agreement
Work schedule	unless otherwise agreed, flexible (Mt.) – partly flexible (Kttv.)	fixed
Legal basis	employment contract, appointment document	agreement between the parties

1.2.5 Occupational safety, accidents at work

In the case of work not performed at the employer's premises, the application of the rules of labour law on occupational safety and accidents at work raises questions. The general rules of occupational safety also apply to telework, and these rules must be applied with such deviations as defined in Article 86/A of Act XCIII of 1993 on Occupational Safety (Mvt.).

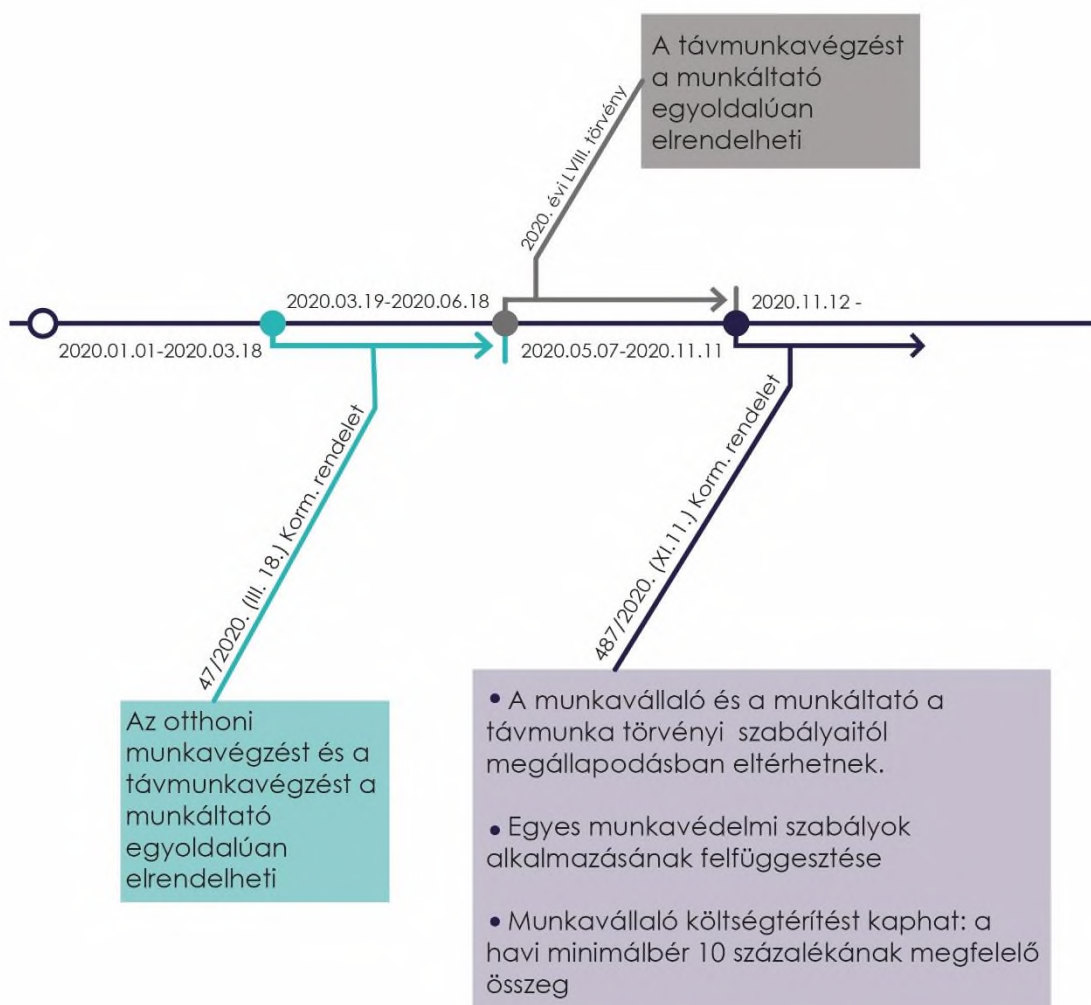
Work equipment. Generally, workers perform their work tasks at the employer's premises, using the work equipment provided by their employers, however, in the case of telework, it is possible for the parties to agree that the work equipment necessary for the performance of the work task is provided by the worker. In this case, the worker takes care of maintaining the safe condition of the work equipment. However, the worker's obligation does not relieve the employer of his objective liability, i.e. he must ensure that the work equipment acquired or used by the worker meets the requirement of safe work and does not endanger health. If the work equipment required for the work concerned is provided by the employer and the employer does not stipulate that the computer or electronic device provided by the employer may be used by the worker only for work, then the employer may inspect no data which is unrelated to the employment relationship and stored by the worker in such computer equipment.

Accidents at work. An accident at a place of telework is considered to be an accident at work if the accident involves a work activity and a workplace pre-defined by the employer and the worker.

Government Decree 487/2020. (XI. 11.) promulgated during the second wave of the epidemic made it clear that the rules of the Labour Protection Act on telework shall not be applied. However, during a state of emergency, the employer must inform the employee about the rules of non-hazardous and safe working conditions necessary for the work, and the employee may choose the place of work having regard to the fulfilment of these working conditions.

The figure below provides an overview of the main rules to teleworking and working from home as adopted in the wake of the epidemic.

1. Figure: Legislative solutions for telework and work from home during the epidemic



Magyar	Angol
A távmunkavégzést a munkáltató egyoldalúan elrendelheti	Telework may be ordered unilaterally by the employer
2020. évi LVIII. törvény	Act LVIII of 2020
2020.01.01-2020.03.18	01.01.2020 – 18.03.2020
2020.03.19-2020.06.18.	19.03.2020 – 18.06.2020
2020.05.07.-200.11.11.	07.05.2020 – 11.11.2020
2020.11.12-	12.11.2020 –
47/2020. (III.18) Korm. rendelet	Government Decree 47/2020. (III.18)
487/2020. (XI.11.) Korm. rendelet	Government Decree 487/2020. (XI.11.)
Az otthoni munkavégzést és a távmunkavégzést a munkáltató egyoldalúan elrendelheti	Working from home and teleworking may be ordered unilaterally by the employer
A munkavállaló és a munkáltató a távmunka törvényi szabályaitól megállapodásban eltérhetnek	Workers and employers may deviate from the statutory rules of telework under an agreement between them
Egyes munkavédelmi szabályok felfüggesztése	Suspension of certain health and safety rules
Munkavállaló költségtérítést kaphat: a havi minimálbér 10 százalékának megfelelő összeg	A worker may be reimbursed: for an amount equal to 10 percent of the minimum monthly wage

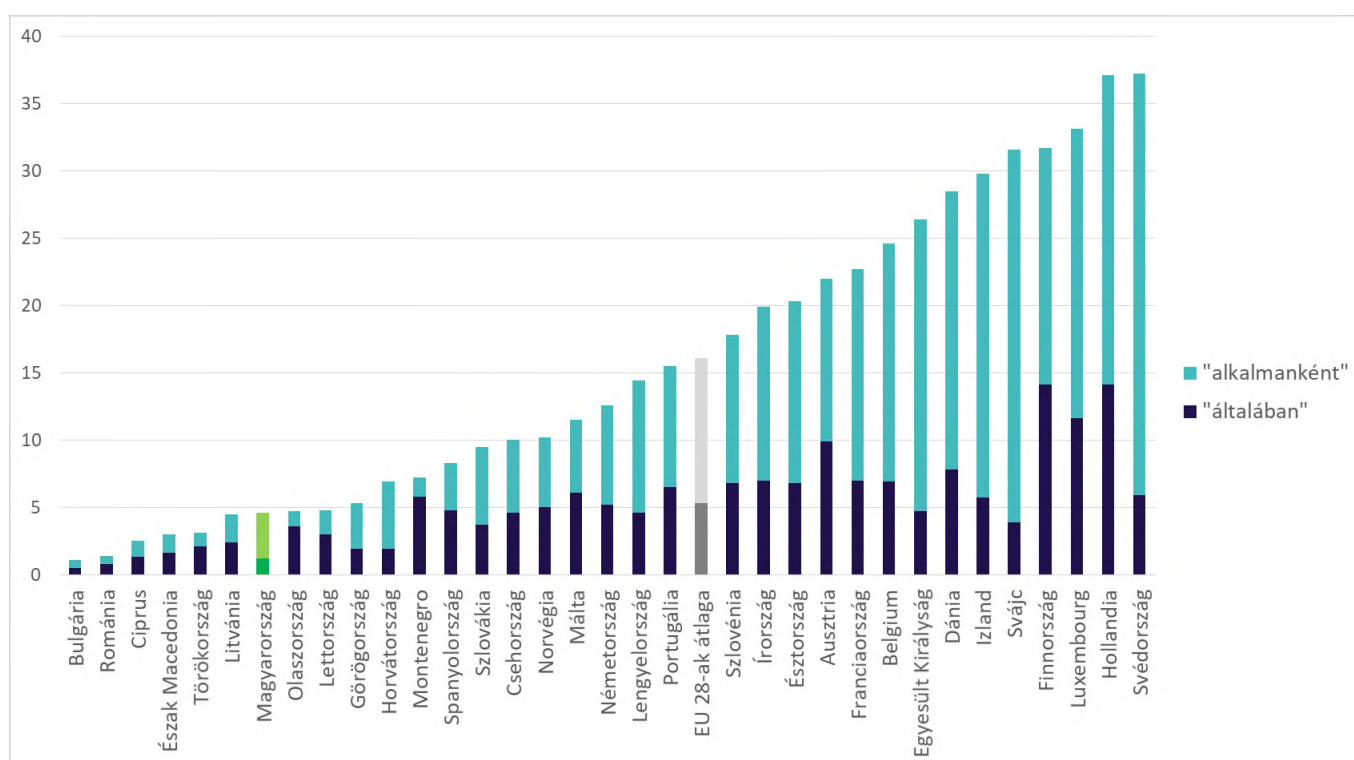
2. PREVALENCE OF TELEWORK AND WORK FROM HOME

In some economies, telework and work from home were already present as a dominant form of work in the early 2000s and are gaining ground as technological opportunities are expanding. The intensification of the phenomenon had, prior to the epidemic, been driven by strengthening economic competition and the need for more efficient use of human resources. The spreading of telework and work from home has received a boost worldwide by government measures to create modern working methods and more attractive working conditions (Forgács 2004). Below is an overview of the prevalence and the sectoral distribution of telework and work from home, as well as some of the factors influencing their spreading.

2.1 Proportion of those engaged in telework and work from home

Based on data for 118 countries, the International Labour Organization (ILO) has estimated that about 7.9% of the global workforce had worked from home on a permanent basis before the Covid-19 epidemic, representing approximately 260 million workers (ILO, 2020). Figure 2 below shows the proportion of people working sometimes or usually from home in the age group of 15-64 in some countries of Europe, according to EUROSTAT data for 2019.

2. Figure: Employees working "sometimes" or "usually" from home ¹⁰ as a proportion (%) of employed persons aged 15-64 (2019)



Source: edited by SAO using data from EUROSTAT and LFSA_EHOMP ¹¹

Magyar	Angol
Bulgária	Bulgaria
Románia	Romania

¹⁰ "Employed persons working from home", "usually", "sometimes" Code: lfsa_ehomp. For further description of methodologies, please visit:

https://ec.europa.eu/eurostat/statistics-explained/index.php/EU_labour_force_survey_-_methodology#EU-LFS_concept_of_labour_force_status

¹¹ https://ec.europa.eu/eurostat/databrowser/view/lfsa_ehomp/default/table?lang=en

Ciprus	Cyprus
Észak-Macedónia	Northern Macedonia
Törökország	Turkey
Litvánia	Lithuania
Magyarország	Hungary
Olaszország	Italy
Lettország	Latvia
Görögország	Greece
Horvátország	Croatia
Montenegró	Montenegro
Spanyolország	Spain
Szlovákia	Slovakia
Csehország	Czech Republic
Norvégia	Norway
Málta	Malta
Németország	Germany
Lengyelország	Poland
Portugália	Portugal
EU 28-ak átlaga	EU-28 average
Szlovénia	Slovenia
Írország	Ireland
Ausztria	Austria
Franciaország	France
Belgium	Belgium
Egyesült Királyság	United Kingdom
Dánia	Denmark
Izland	Iceland
Svájc	Switzerland
Finnország	Finland
Luxembourg	Luxembourg
Hollandia	The Netherlands
Svédország	Sweden
„alkalmanként”	"occasionally"
„általában”	"usually"

Looking at the year before the epidemic, there was no European country where the proportion of people working “usually” from home exceeded one-sixth of the workforce, while there was a significant variation in this proportion across countries. Hungary was one of the countries in which the proportion of people working from home was less significant than in other European countries.

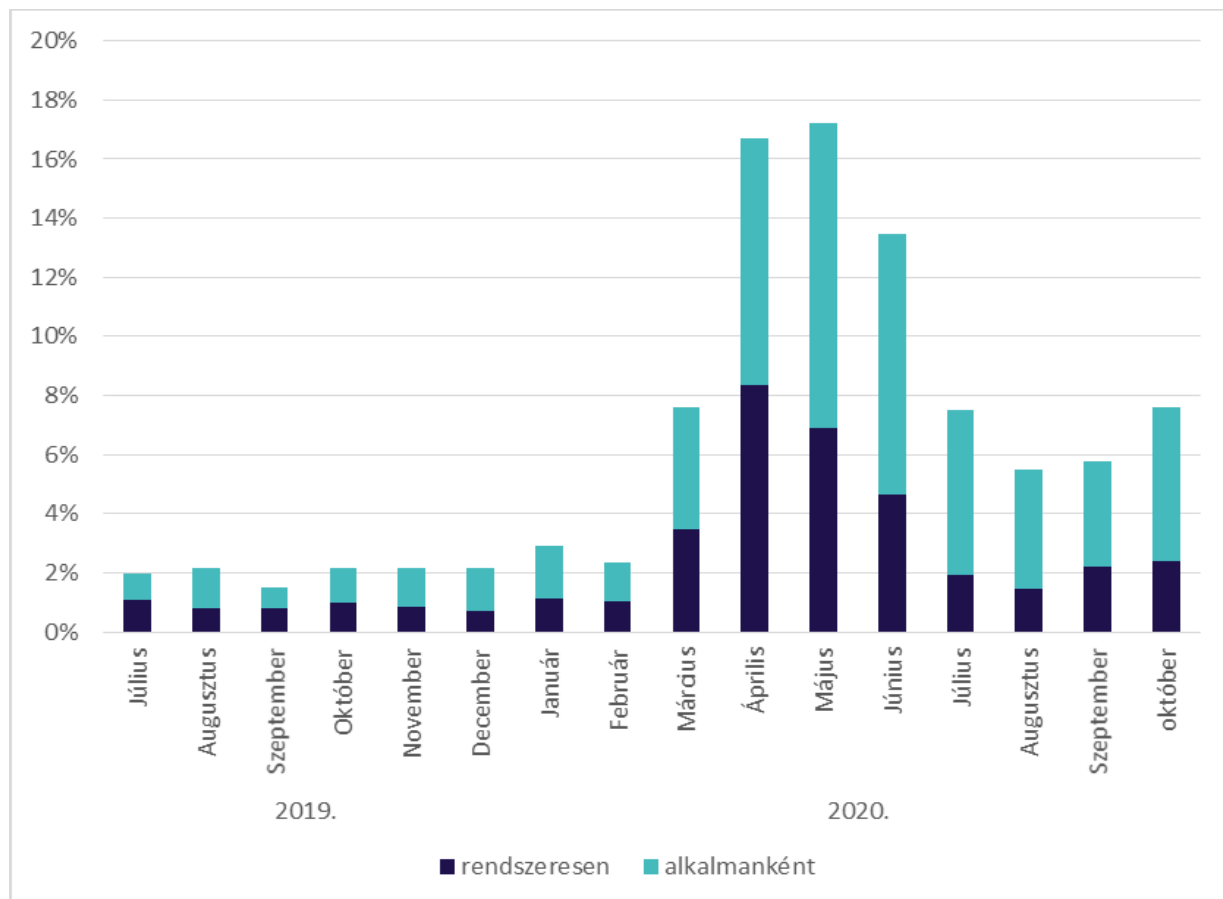
2.1.1 The evolution of telework and work from home in Hungary

In Hungary, according to CSO data, an average of 2.9% of employees performed telework occasionally or regularly in years 2010 through 2019 (the CSO methodology uniformly uses the term “telework” for teleworking and working from home and, in contrast to the above EUROSTAT data, shows it for the age group of 15-74¹²).

¹² The CSO Methodological Guide provides information on this as follows: "Telework is any work in which the employer and the worker are spaced apart in the course of the work, there is a telecommunications connection between them, and the work presupposes the use of electronic equipment. The worker transmits the results of his/her work via a telecommunication channel. (...) The results of the supplementary survey to the Labour Force Survey for the mapping of atypical forms of employment in the first quarter of 2018, as well as methodological research, show that respondents

The chart depicting telework data in a breakdown by month for 2020 illustrates the relationship between the expansion of telework and the first wave of the epidemic and restrictive measures in spring 2020.

3. Figure: Persons engaged “regularly” or “occasionally” in telework¹³ as a proportion (%) of employed persons aged 15-74 (July 2019 – October 2020)



Source: CSO 9.17.3¹⁴, edited by SAO

Magyar	Angol
Július	July
Augusztus	August
Szeptember	September
Október	October
November	November
December	December
Január	January
Február	February
Március	March

generally include the "home office" phenomenon within the framework of "telework". While the conditions of telework as an atypical form of employment are regulated by the Labour Code, "home office" is subject to individual, internal employer regulations. The combined treatment of the two phenomena was also confirmed by the results obtained during the first wave of the Coronavirus epidemic, when employers provided a much higher proportion of their employees with a "home office" option, which was reflected in an increased rate of telework revealed through the evaluation of the results of the survey." See: <https://www.ksh.hu/docs/hun/modsz/modsz917.html>

¹³ Telework is regular if the worker performed telework during at least half of the time spent on working in the previous four weeks. If the time spent on telework does not reach fifty percent of the time spent on work, but has occurred in the previous four weeks, it falls into the "occasional" category.

See CSO methodology: <http://www.ksh.hu/docs/hun/modsz/modsz917.html>

¹⁴ https://www.ksh.hu/docs/hun/xstadat/xstadat_evkozi/e_tavmunk9_17_03.html#

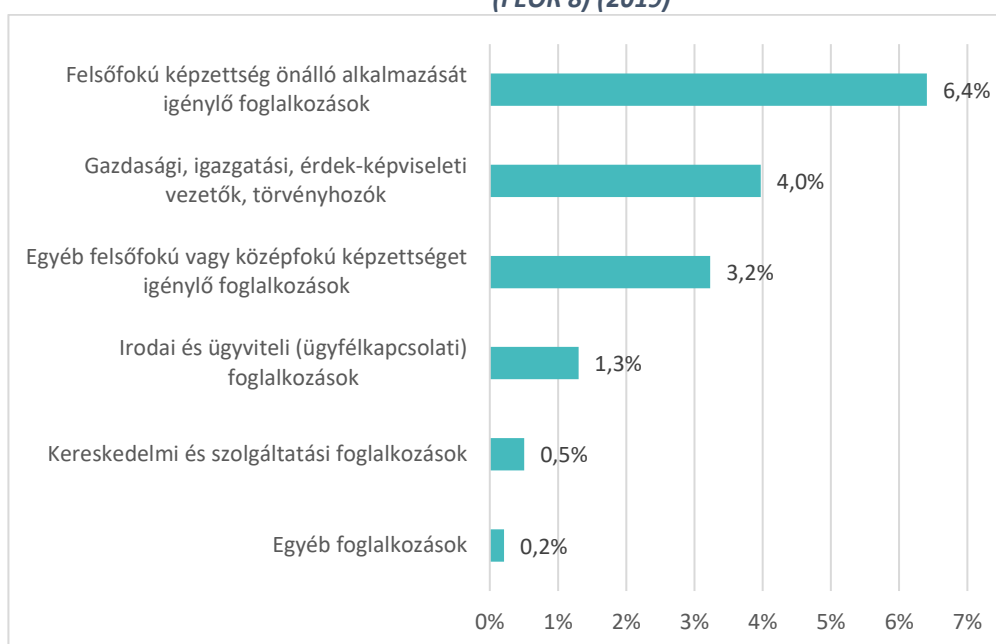
Április	April
Május	May
Június	June
rendszeresen	regularly
alkalmanként	occasionally

In Hungary, the proportion of teleworkers had been consistently below 3 percent until March 2020. It increased to 17% by May 2020, then it was declining until August 2020 as the first wave of the coronavirus epidemic subsided, but finally it stabilized at a level of around seven percent, which is higher than the pre-epidemic level. Data for September and October show a situation where the epidemic was intensifying but no significant restrictions were in effect. While the epidemic situation was considered a temporary situation by the labour market, the proportion of regular teleworkers was increasing.

2.2 How the sectoral and job distribution of telework is evolving?

It is known that the possibility to carry out their work from their place of residence by means of a telecommunications device is relevant primarily to those doing intellectual work. Prior to the COVID-19 epidemic, the prevalence of telework in the EU varied across sectors and occupations. From a sectoral point of view, the share of telework was high in knowledge- and infocommunications(ICT)-intensive services. More than 40% of those employed in this field had already teleworked frequently before the outbreak. In the field of knowledge intensive business services, as well as in educational and publishing activities, the proportion of those who teleworked on a daily or regular basis was also relatively high (JRC 2020). These data also confirm that before the outbreak of the epidemic, telework had been more common in knowledge-intensive activities with higher-skilled workers, who typically performed their work with a high degree of autonomy and the use of computers. In Hungary, according to employers' main activity sector, workers in the *service sector* accounted for the vast majority of teleworkers (85%), followed by industry, which employed about a quarter of teleworkers, and finally agriculture, forestry and fishing with a rate of participation ranging between 1% and 3% (CSO 9.17.5). On the backdrop of this, we examined how the share of teleworkers developed by main employment groups.

4. Figure: Proportion (%) of teleworkers¹⁵ in the age group of 15-74, by main employment group (FEOR 8) (2019)



Source: edited by SAO using CSO 9.17.5. data

Magyar	Angol
Felsőfokú képzettséget önálló alkalmazását igénylő foglalkozások	Occupations requiring self-use of higher education
Gazdasági, igazgatási, érdek-képviselési vezetők, törvényhozók	Economic, administrative, interest representation leaders, legislators
Egyéb felsőfokú vagy középfokú képzettséget igénylő foglalkozások	Other tertiary or secondary education occupations
Irodai és ügyviteli (ügyfélkapcsolati) foglalkozások	Office and administration (customer relations) occupations
Kereskedelmi és szolgáltatási foglalkozások	Trade and service occupations
Egyéb foglalkozások	Other occupations

The proportion of teleworkers was the highest among those engaged in occupations requiring them to independently apply the knowledge from tertiary education. The second largest group of teleworkers were those employed in management positions. Among other occupations requiring tertiary or secondary education, the use of telework is only around the national average. The lowest share of occupations using telework was clearly found in retail trading and service occupations, where workers are typically self-employed.

2.3 What factors affect the prevalence of telework and work from home?

The prevalence of work outside the workplace within the same occupation can vary significantly from country to country. While more than 60% of ICT professionals in the Netherlands teleworked regularly or occasionally,

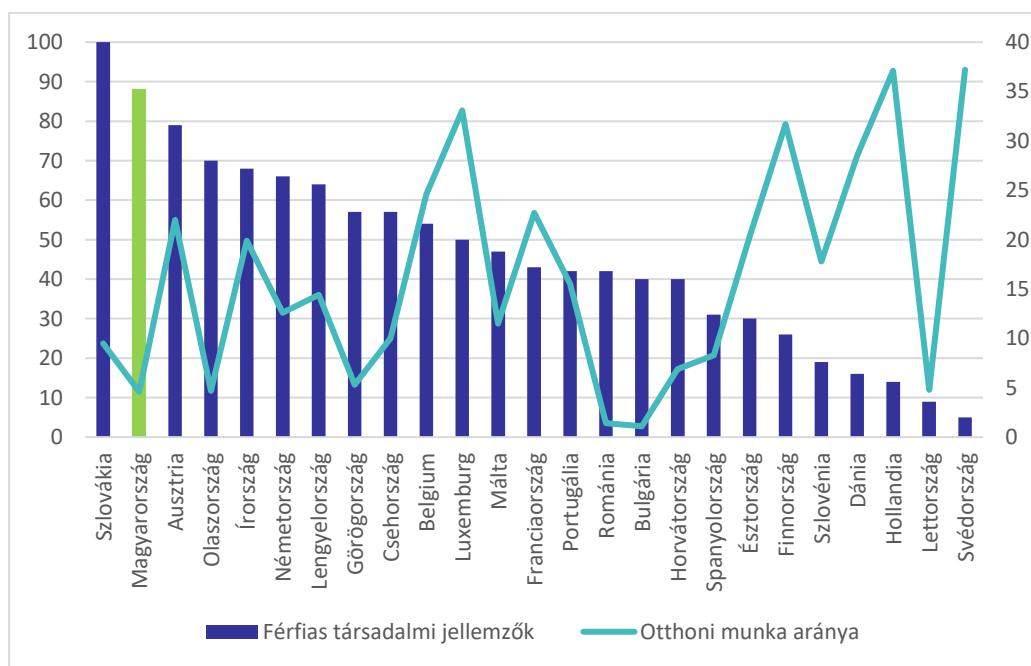
¹⁵ The CSO uniformly refers to teleworking and occasional working from home as telework, the figure shows the total proportion of teleworkers working "regularly" and "occasionally".

in Germany and Italy their share was only 32% and 11%, respectively (JRC, 2020). As a result, it can be concluded that not only the characteristics of the sector and a given profession influence the share of teleworking, but also other factors such as social value structure, corporate culture, economic development, or country-specific labour policy. Following this, we review below some of the factors associated with the prevalence of telework.

2.3.1 Cultural factors

The prevalence of telework and work from home is also influenced by cultural factors. While in individualist societies – such as the Hungarian society, according to Hofstede’s dimensions¹⁶ – the possibility of telework and work from home may increase employee satisfaction, in collectivist cultures (e.g., Asian ones) such a correlation was not detected: in Asian countries, it is interpreted as a lack of commitment between worker and company, in fact. The penetration of telework may also be affected by power distance, because it determines the degree of independence that company managers expect from their subordinates. According to some research, when examining the prevalence of telework and Hofstede’s cultural dimensions, we find that there is a correlation between cultural characteristics according to masculine and feminine values¹⁷, i.e. feminine societies are more prone to telework, while masculine societies have a lower proportion of telework. (Mrs. Kazai, 2020, Ollo-Lopez et. al. 2020). The relationship between masculine societies and telework is shown in the figure below.

5. *Figure: Masculine societies (dimension value – left axis) and share of work from home¹⁸ (% - right axis) in selected countries of Europe (2019)*



Magyar	Angol
Szlovákia	Slovakia
Magyarország	Hungary

¹⁶ In his research, Hofstede identified four dimensions along which differences in individual cultures can be characterized. These are power distance, individualism and collectivism, uncertainty avoidance, masculine and feminine values. (Borgulya – Barakonyi, 2004)

¹⁷ Masculinity-femininity: a national culture may be characterized by behaviour associated with gender roles. There are distinct masculine traits, such as assertiveness, performance, success, competition, perseverance, and feminine traits, such as tenderness, solidarity, support, and willingness to compromise. In masculine societies, gender roles are more segregated than in feminine ones. The masculine value system is characterized by competition, the pursuit of performance, excellence, and the pursuit of money, greater workplace stress, and conflicts. In feminine societies, the quality of care, quality of life and human relationships precede performance, making money, and advancing in the career ladder. (additionally, see Borgulya – Barakonyi, 2004)

¹⁸ Employed persons working “regularly” and “occasionally” from home as a ratio of all employees aged 15-64 https://ec.europa.eu/eurostat/data-browser/view/lfsa_ehomp/default/table?lang=en

Olaszország	Italy
Írország	Ireland
Németország	Germany
Lengyelország	Poland
Görögország	Greece
Csehország	Czech Republic
Belgium	Belgium
Luxembourg	Luxembourg
Málta	Malta
Franciaország	France
Portugália	Portugal
Románia	Romania
Bulgária	Bulgaria
Horvátország	Croatia
Spanyolország	Spain
Észtország	Estonia
Finnország	Finland
Szlovénia	Slovenia
Dánia	Denmark
Hollandia	The Netherlands
Lettország	Latvia
Svédország	Sweden
Férfias társadalmi jellemzők	Masculine social characteristics
Otthoni munka aránya	Share of working from home

Source: edited by SAO using Hofstede insights¹⁹ and EUROSTAT, LFSA_EHOMP²⁰

Though this comparison is not based on an analysis involving the use of mathematical or statistical tools, it illustrates that if there is a connection between the two factors, then the strength of the masculine value system is inversely proportional to the prevalence of telework. Hungary's masculine value structure may also explain the current level of prevalence of telework. The exceptions also show that the masculine value system alone has no explanatory power, so it is worth examining an additional point of view.

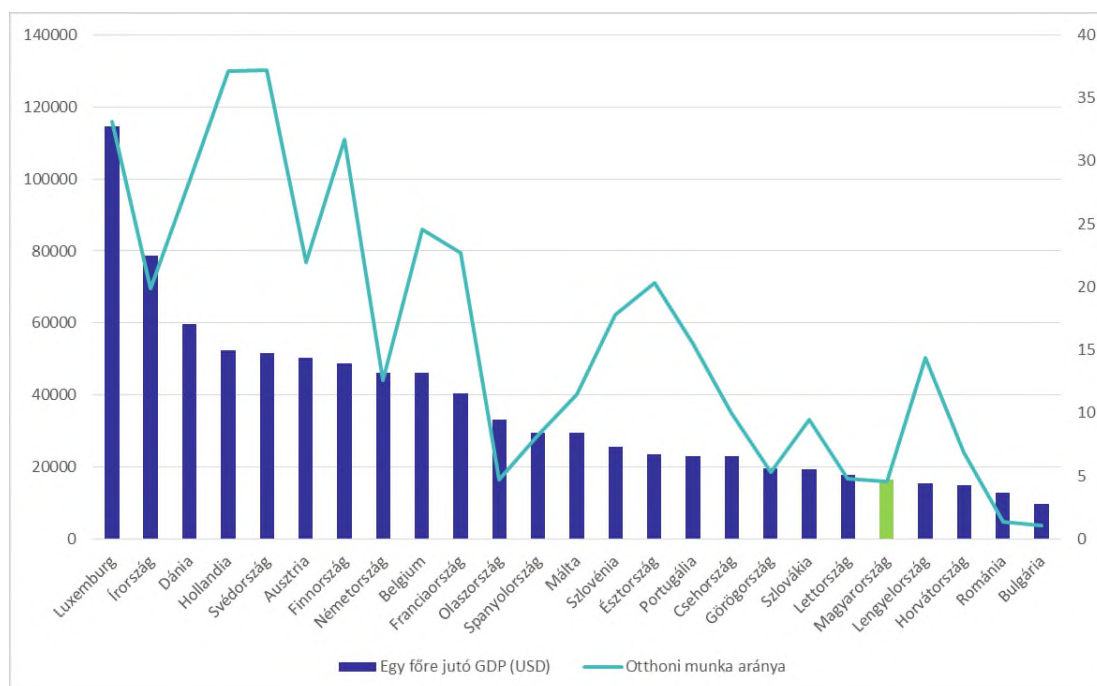
2.3.2 Economic development

It is widely believed that economic development and modern forms of work such as telework go hand in hand. The figure below shows the relationship between GDP per capita and the ratio of telework.

¹⁹ <https://www.hofstede-insights.com/country-comparison/> and http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_iw_hem&lang=en (date of download: 02 November 2020)

²⁰ https://ec.europa.eu/eurostat/databrowser/view/lfsa_ehomp/default/table?lang=en

6. Figure: Per capita GDP (left axis - USD) and ratio of work from home²¹ (right axis -%) in selected countries of Europe (2019)



Source: edited by SAO using data from World Bank²² and EUROSTAT, LFSA_EHOMP²³

Magyar	Angol
Luxembourg	Luxembourg
Írország	Ireland
Dánia	Denmark
Hollandia	The Netherlands
Svédország	Sweden
Ausztria	Austria
Finnország	Finland
Németország	Germany
Belgium	Belgium
Franciaország	France
Olaszország	Italy
Spanyolország	Spain
Málta	Malta
Szlovénia	Slovenia
Észtország	Estonia
Portugália	Portugal
Csehország	Czech Republic
Görögország	Greece
Szlovákia	Slovakia
Lettország	Latvia

²¹ Employed persons working "regularly" and "occasionally" from home as a ratio of all employees aged 15-64 https://ec.europa.eu/eurostat/data-browser/view/lfsa_ehomp/default/table?lang=en

²² https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?name_desc=false és http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=isoc_iw_hem&lang=en (date of download: 02 November 2020)

²³ https://ec.europa.eu/eurostat/databrowser/view/lfsa_ehomp/default/table?lang=en

Magyarország	Hungary
Lengyelország	Poland
Horvátország	Croatia
Románia	Romania
Bulgária	Bulgaria
Egy főre jutó GDP (USD)	GDP per capita (USD)
Otthoni munka aránya	Share of working from home

Although there is a correlation between the prevalence of telework and GDP per capita, it is coloured by clearly visible exceptions that indicate the presence of other factors. In the case of Ireland, a high GDP per capita is not coupled with a higher proportion of telework, which may be partly explained by the masculine social and cultural characteristics shown in the previous figure.

3. SPATIAL AND ECONOMIC CONTEXT

As economy, the world of work is spatially organized. People's access to housing and transport is closely linked to the functioning of the labour market. Thus, telework and work from home also have significant impacts on the economic, social, and spatial environment that directly serves the world of work. They tend to change commuting and transport usage habits, thereby reducing the utilisation rate of transport infrastructure (roads, public transport). The rise of telework and work from home may reduce the demand for residential properties close to workplaces, thereby curbing the price-increasing effect in settlements with large employers present; and may also reduce the need to maintain office buildings. The importance of change is also underlined by the fact that the state traditionally plays a significant role in the infrastructure surrounding the world of work. In this context, the analysis below examines the possible effects of a rise in telework and work from home on the geography of the labour market, the real estate market and transport.

3.1 Internal migration

One of the major factors shaping property prices and rents is the demand for housing in the vicinity of workplaces that offer jobs or higher wage levels. Today, in Hungary, as in other countries, internal migration, which can be traced back to the supply of jobs, has led to increasing territorial inequalities and a fragmented real estate market: settlements affected by depopulation coexist with settlements that are the targets of welfare migration. The spreading of telework and work from home may reduce this type of migration and the resulting inequalities in demand in the real estate market. According to Lennert (2020)²⁴, the expansion of telework may lead to a decrease in the migration balance²⁵ in districts with high population concentration in the inner ring of the Budapest metropolitan area, which may reduce the extra environmental and infrastructural burden caused by the intensive suburbanization of previous decades. The deterioration of the migration balance may diminish in the outer ring of the metropolitan area, while the natural environment and cheaper real estate prices may lead to extra migration into the northern districts on the current edge of the metropolitan area. Other target areas could be the Lake Balaton area, and the mountainous and hilly areas of the territories of the Őrség region, Bakony Hills and the Northern Low Mountains. Metropolitan centres may continue to be attractive, especially to younger age groups, so no significant change is expected with the spread of telework and work from home in areas belonging to the centres of large cities. (Lennert, 2020)

3.2 Labour supply – Real estate market inequalities

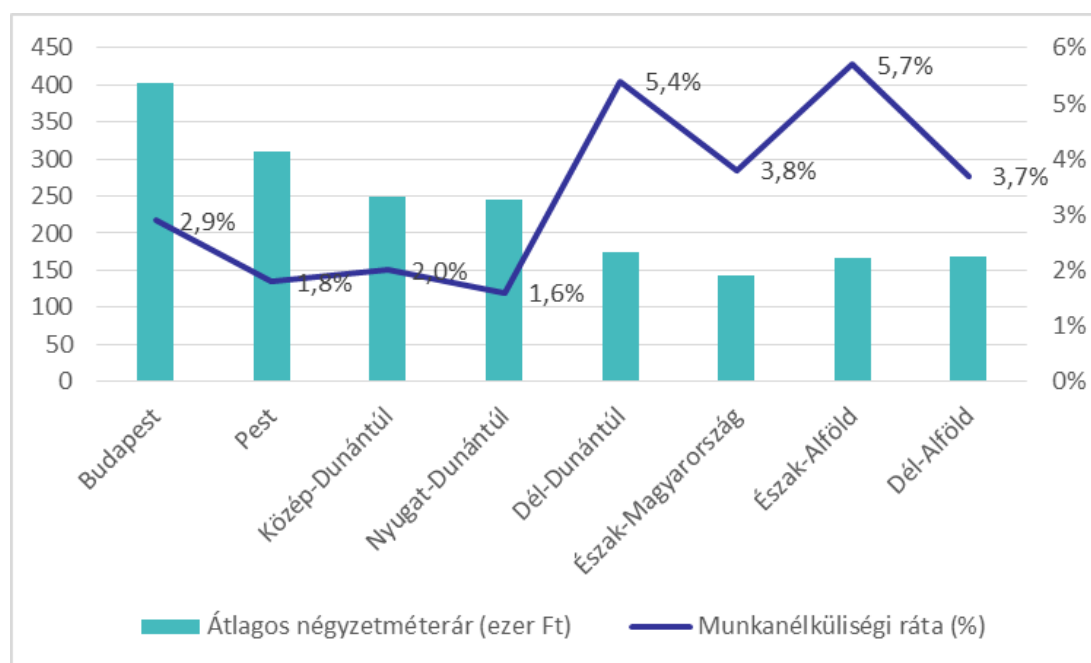
Telework and work from home may improve labour supply, allow groups to enter a certain segment of the labour market who, due to geographical distance, have not been able to take on higher-paid, higher value-added jobs, or whose residence would need to be changed permanently, however, this cannot be done due to property prices. The use of telework also gives employers better access to the employment of a workforce that would not otherwise be available due to their personal location (taking care of children, nursing an elderly relative) (Clancy, 2020). Telework also provides an opportunity to improve the employment rates of a municipality or even an entire micro-region, despite the fact that the local economic environment is not favourable due to traditional site selection criteria, for example below-average transport conditions (Forgács, 2004).

²⁴ Of the possible effects of the extensive spread of telework on society and economy, Lennert analysed the effects on the future pattern of internal migration in Hungary, using his own agent-based model in his research effort. As part of this research, which was aimed at the spatial modelling and forecasting of the processes of natural population movement and internal migration movement in Hungary until 2051, he examined the demographic vision of our country along several possible scenarios, of which those assuming an increased future prevalence of atypical forms of employment and autonomous transport has increased in relevance in the last six months.

²⁵ The migration balance shows the per mille value of growth or decline in population occurring as a result of internal migration in a given settlement in a given year.

An important component of the real estate price inequality is the demand for residential real estate in settlements providing employment opportunities. Territorial inequalities in house prices are, of course, influenced by several other factors (parameters of housing market subsidies, family home creation programmes CSOK/village CSOK, or the development of tourism, and the concentrated emergence of foreign purchasing power). The chart below shows the development of average prices for used homes by region²⁶ and illustrates regional unemployment rates.

7. Figure: Average per square prices for used apartments (left axis – HUF '000) and unemployment rates (right axis - %) by region (Q4, 2019)



Source: edited by SAO using CSO STADAT tables 6.2.3.14. and 6.2.1.11,

Magyar	Angol
Budapest	Budapest
Pest	Pest
Közép-Dunántúl	Central Transdanubia
Nyugat-Dunántúl	Western Transdanubia
Dél- Dunántúl	Southern Transdanubia
Észak-Magyarország	Northern Hungary
Észak-Alföld	Northern Great Plain
Dél-Alföld	Southern Great Plain
Átlagos négyzetméterár (ezer Ft)	Average price per square meter (thousand HUF)
Munkanélküliségi ráta (%)	Unemployment rate (%)

The average per square meter prices of apartments show significant regional differences, and the average price was the highest in Budapest, and the average per square meter price in four regions was less than half of the average price in the capital city. The effect that the highest average real estate prices occur in regions with good employment indicators may also be clearly identified, with the exception of the Southern Great Plain region, that “proves the rule”. The spread of telework may free up regional reserves of human resources without increasing spatial mobility and, consequently, inequality in property prices. Whether unemployed

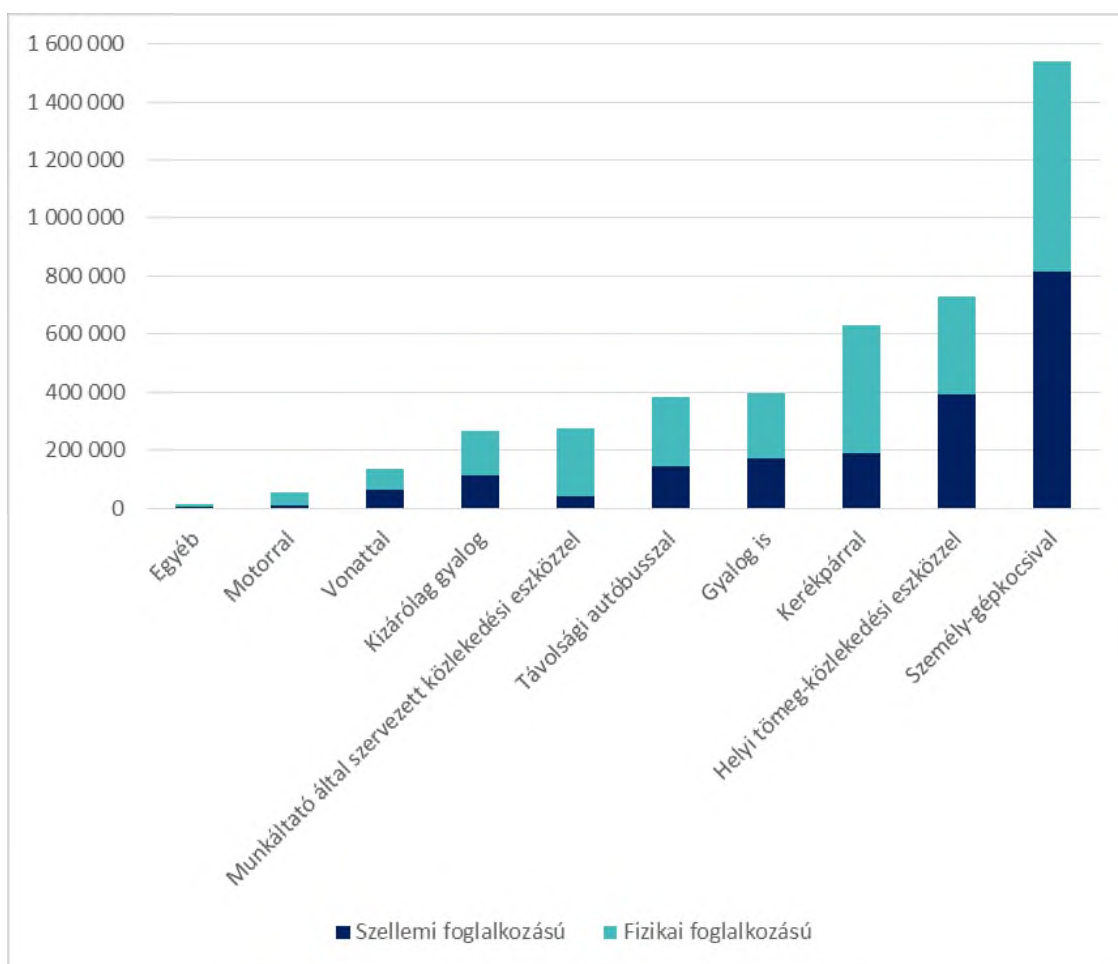
²⁶ The source of CSO's price observations is the Tax Office database of the National Tax and Customs Administration (NAV).

groups may enter the labour market through teleworking depends, of course, on their fulfilment of a number of additional educational and social preconditions. A wider spread of telework may, on the whole, have an equalising effect on regional differences in residential property prices. The most striking effect will certainly be witnessed in “sleeping towns” located in metropolitan areas, where citizens tend to move to specifically because of the proximity of job opportunities offered by big cities.

3.3 Going to work and commuting

There are three million eight hundred thousand workers in Hungary who use some means of transport on a weekly basis to get to work, and about 88% of workers use some means of transport to get to their places of work, and Hungarians going to work spend an average of 25 minutes every day commuting to their workplaces (CSO STADAT table 9.9.10). Most people choose their cars as the mode of transport, as it gives them the most freedom.

8. Figure: Number of employees commuting / going to work (persons) and nature of their jobs according to how they get to work (2018)



Source: edited by SAO using CSO STADAT table 9.9.6

Magyar	Angol
Egyéb	Other
Motorral	With motor
Vonattal	By train
Kizárólag gyalogosan	On foot only

Munkáltató által szervezett közlekedési eszközzel	By means of transport organized by the employer
Távolsági autóbusszal	By long-distance bus
Gyalog is	Also on foot
Kerékpárral	By bicycle
Helyi tömegközlekedési eszközzel	By local public transport
Személygépkocsival	By car
Szellemi foglalkozású	White-collar worker
Fizikai foglalkozású	Blue-collar worker

Examining the manner of going to work and the type of work, it is established that nearly one and a half million people engaged in intellectual occupations use cars and public transport for going to work. This will be the group that includes most of those whose daily traffic may decrease if the share of telework and work from home increases.

Nearly half a million intellectual workers use public transportation. Restrictions introduced to reduce the epidemic and partly the spread of work from home will have an impact on the operating results of transport companies as early as in 2020. At its meeting on 30 September 2020, the Budapest General Assembly approved the business plan of the BKK Centre for Budapest Transport for 2020. By 2020, the business plan projected a 29.5 percent decline in ticket revenue compared to the original budget (BKK 2020). The Budapest metropolitan area accounts for about half of the rail passenger traffic of the Hungarian State Railways (MÁV). At the first wave of the epidemic, total passenger traffic fell by 80%, and the utilization ratio of trains going towards the metropolitan area was typically under 50% (portfolio.hu).

Commuting. Commuting is travelling to work on a daily basis or less frequently but regularly if the worker lives in a settlement other than the location of his/her workplace²⁷. Suburban, interurban daily commuting is typical of large cities, and the transport (commuting) infrastructure must be highly developed when masses of people are involved in commuting (Kiss – Matyusz 2015)²⁸. In 2018, more than 38% of the workers using transport in Hungary, or about one and a half million people, had a job in a settlement other than where they lived (CSO STADAT table 9.9.3.). The highest number of commuters were in Pest county, living in the Budapest metropolitan area, some of whom commuted to Budapest and others within the metropolitan area. At the same time, there was also a significant commuting from Budapest towards the metropolitan area (the fifth largest share). Telework and work from home have a significant potential in areas and jobs affected by commuting and may significantly reduce commuting in relation to jobs grouped around the capital city.

3.4 Commercial Real Property Market

When employers are not required to provide a workplace for the purpose of working, then some real properties maintained for the purpose doing work may become redundant. This may represent a noticeable change in the category of commercial real properties specifically used for non-residential purposes, typically offices and office buildings.

²⁷ A daily commuter is an employee who does not work in the same locality where he/she actually resides. In terms of daily commuting, Budapest is considered to be a single settlement, but travelling to work between districts of Budapest is considered commuting.

²⁸ After 1990, following the disappearance of large industrial employers in Hungary, the former spatial balance of jobs disintegrated, and new jobs were increasingly located in the capital metropolitan area and other dynamic urban areas (e.g., Győr, Székesfehérvár), which resulted in some workers being forced to commute or migrate. Spatial de-concentration of jobs took place in metropolitan areas, with service activities increasingly moving from city centres to suburban areas in search of more favourable financial, fiscal and infrastructural opportunities, leading to the emergence of new forms of commuting, such as between suburban settlements, between major centres, or from the centre to the suburbs. In the latter case, the reasons behind the commuting are no longer necessarily economic but rather lifestyle related. (Kovács et al. 2015)

Due to the strong economic expansion concentrated in the capital city in recent years, the office market in Budapest had been characterized by a shortage of supply and a strong demand. Of all offices under construction at the end of 2019, pre-lease agreements were already signed for 56 percent of those to be handed over in 2020 and for 53 percent of those to be handed over in 2021, and future tenants have already been found for 94 percent of those to be handed over in 2022 (Central Bank of Hungary (MNB), 2020a). In the first six months of 2020, the demand on the office market showed a 38 percent decline compared to the same period of the previous year. The net demand (new lease, pre-lease, expansion, BTS²⁹) as a ratio of all demand also fell from 73% to 51% (Eston, 2020; MNB 2020a). Once the immediate effects of the epidemic are over, the fact that telework and work from home stabilizes at a higher level than before may also have an effect on the demand for office buildings.

²⁹ Built-to-suit developments – as opposed to speculative developments – are aimed at satisfying special tenant requirements.

4. THE ASPECT OF WORK – WORK ORGANIZATION AND TECHNOLOGY

Telework and work from home entail significant changes in work organization, proper technical conditions, and the effectiveness of work organization solutions to serve them are critical. Communications and organizational management are crucial, in which information technology devices play a significant role. Telework and work from home tend to loosen the concepts of workplace and working time, and they do not leave the control of working activities untouched either. An important question for employers is whether telework and work from home can achieve or exceed the productivity ensured by work performed at workplaces. Whether telework and work from home are generally supported within a company and what criteria are used to decide on their use are also important aspects. Based on the above, we review the most important issues of telework and work from home within the work organization, such as work efficiency, organizational and management solutions, as well as the technology and technical devices that serve them, and the experiences and attitudes related to them.

4.1 Introduction of telework and work from home – aspects, attitudes

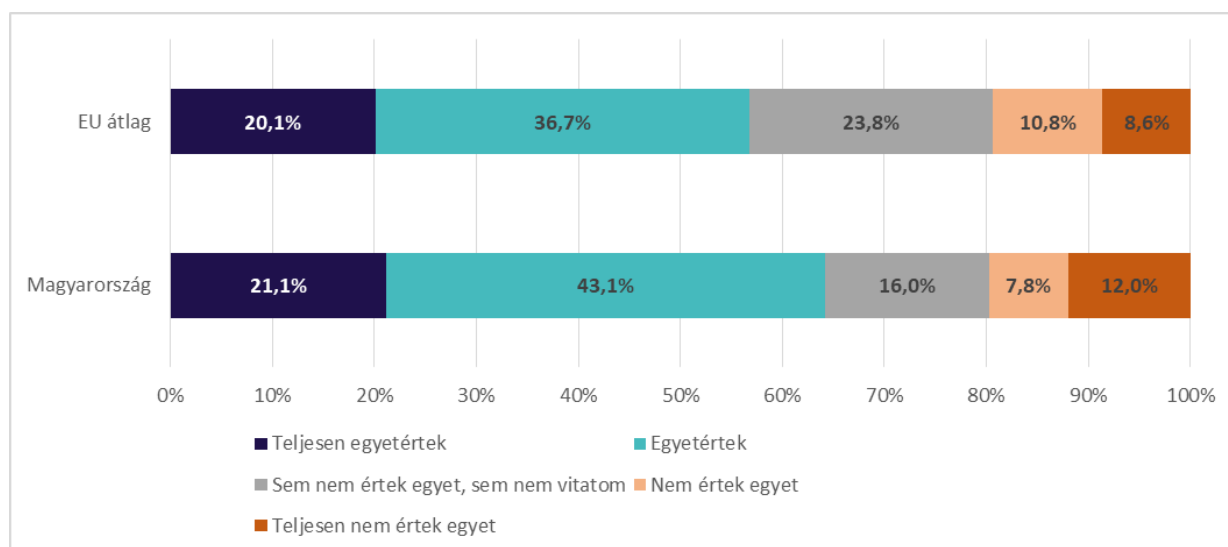
An important precondition to the introduction of telework and work from home is that it is accepted and supported by both management and workers. The following is an overview of the reception of telework and work from home in the world of work, with special regards to the epidemic situation.

Research by Illegems and Verbeke (2004) revealed that managers with experience in using telework and work from home have recognized several long-term, positive strategic effects. A survey of workers also showed that experience in teleworking has an important impact on changing worker attitudes; where telework and work from home were introduced, workers perceived it positively; where it was not introduced, workers were generally much more pessimistic about its introduction. Large foreign companies established in Hungary, whose corporate culture had already embraced the option of working from home before, started to use this type of work earlier than smaller, typically Hungarian-owned companies. The main argument used by the examined companies introducing the option of working from home was not primarily the aspect of economy, but to increase employee satisfaction and to retain skilled workforce. Medium-sized companies considered the aspect of cost-saving as well, but only as a secondary priority (Forgács, 2009).

An opinion survey conducted by Eurofound during the epidemic³⁰ examined how satisfied respondents were with working from their homes, and how they assessed their experiences.

³⁰ As part of the survey, 86,457 Europeans over the age of 18 were questioned, in the periods of 9 April to 1 May 2020 and 22 June to 27 July 2020.

9. Figure: Respondents agreeing with the statement that “based on my experience, I am generally satisfied with working from home” ³¹ (2020)



Source: Eurofound³², edited by SAO

Magyar	Angol
EU átlag	EU average
Magyarország	Hungary
Teljesen egyetértek	I completely agree
Egyetértek	I agree
Sem nem értek egyet, sem nem vitatom.	I neither agree nor dispute it
Nem értek egyet	I do not agree
Teljesen nem értek egyet	I totally disagree

More than sixty percent of respondents were rather satisfied, and less than twenty percent of them rated their experiences negatively. Overall, Hungarian respondents rated work from home somewhat more favourably than the European average, however, there are also slightly more of them in Hungary who completely reject it.

A survey, which is representative for active online users in Hungary, was conducted by the Economic Research Institute Századvég, and Médiapiac and Lounge Group³³ and examined the attitude of employees and workers towards the change in working conditions after the first wave of the coronavirus epidemic. The research revealed that work from home was positively received by workers, with a satisfaction rate of 59%, while their preference for changing their jobs was not affected. In addition, teleworkers, home office workers and workers with flexible working hours were less worried about their future: they think their own workplace is safer compared to 2019 (Századvég-Lounge Group, 2020).

4.2 Effectiveness and efficiency of work

The significant role of human resource in value creation in the operation of an organization has been researched and demonstrated by numerous studies in recent decades. In knowledge-based societies, the added

³¹ „(...)experience of working from home”

³² <https://www.eurofound.europa.eu/data/covid-19/working-teleworking>

³³ The survey was conducted between 24 August and 2 September 2020 by interviewing 1,009 people.

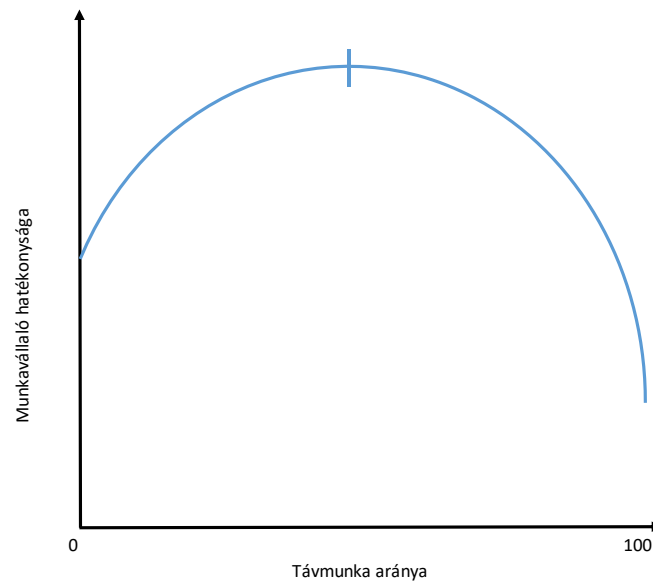
value of products is increasing, and organizations are increasingly utilizing the knowledge of their employees instead of their physical force. Assessing the performance of human resources is a complex process for which several methods are available³⁴ (Juhász 2004). The introduction of telework and work from home directly affects the performance of an organization by changing the efficiency, motivation, and knowledge creation of the workforce, in addition, it usually has a cost-reducing effect, by freeing up resources.

Benefits. Capital costs are reduced by the need for smaller office infrastructure, however, in many cases the introduction of telework requires one-off investments due to the development of the required infrastructure. The positive correlations found between telework and productivity have been greatly influenced by the fact that a higher share of better managed organizations introduced measures related to teleworking. At the organizational level, the costs of fluctuations (loss of production, costs of searching for and training specialists) can also be reduced (OECD 2020). The use of telework may improve the performance of the organization by increased employee satisfaction and thus employee efficiency. Less commuting and less external conditions distracting their attention may lead to more concentrated work by workers (OECD, 2020). In general, organizations offering telework may employ workers at lower pay than those who do not, especially when teleworking is combined with other work-life balance improvement measures, such as flexible working hours (OECD, 2020).

Challenges. Telework and work from home may reduce the number of personal interactions, which may impair communications, knowledge flow, and managerial oversight within the organization. In many cases, face-to-face meetings still allow for more effective communication than other forms of communication, such as emails, chat messages, or phone calls. The impoverishment of internal communication may also have negative consequences in maintaining relations with external parties (OECD, 2020). In addition, worker efficiency improves through teleworking for some time, but it starts decreasing in the case of excessive teleworking beyond the optimal point where worker efficiency and thus productivity are maximized, which is at a medium amount of teleworking. The optimal point may vary from sector to sector and with occupation (OECD, 2020). The figure below shows the relationship between the share of telework (on the horizontal axis) and worker efficiency (on the vertical axis).

³⁴ Some assessments use monetary indicators, others use other ones. ScoreCard-type systems (quantification and measurement of factors that increase organizational value) are the most suitable for measuring human resource performance, as they can be customized according to the characteristics of organizations. See also: SAO Analysis “Measuring Public Sector Performance” https://www.asz.hu/storage/files/files/elemzesek/2020/kozszfera_teljesitmenymerese_20200518.pdf?download=true

10. Figure: Correlation between the proportion of telework (as a % of total working time) and worker efficiency



Source: OECD (2020), edited by SAO

Magyar	Angol
Munkavállaló hatékonysága	Employee efficiency
Táv munka aránya	Share of telework

4.2.1 Efficiency of work – experiences during the epidemic

In a survey conducted by Bakonyi and Kiss-Dobronyi (2020)³⁵, in the spring of 2020, one third of respondents felt that they could do their jobs fully from home, and 43% said they could do it almost as well. However, it is striking that those who work from home as a new situation from them feel much less likely to be able to perform their tasks, with 42% of them believing that they are not able to perform their normal tasks at all or only to a lesser extent (Bakonyi and Kiss-Dobronyi, 2020). In a survey conducted by Mrs. Kazai (2020)³⁶, 80% of respondents rated work from home as effective. According to the results of a research by Kis (2020)³⁷, the question "What is more efficient, working at your workplace or from home?" received responses the average of which was 3.43 recorded on a Likert scale (0 = at workplace, 5 = from home).

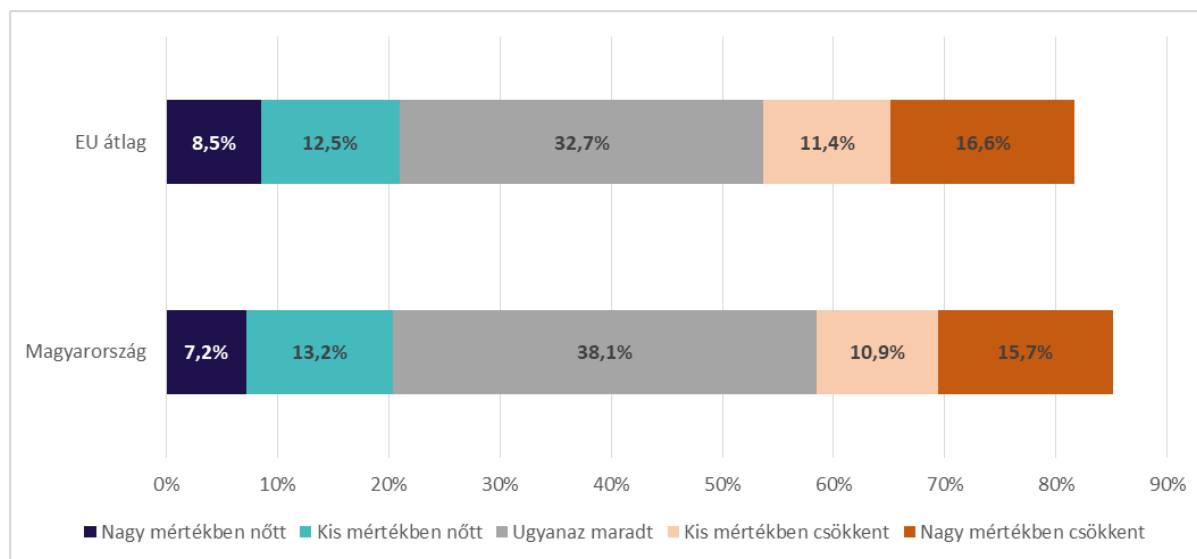
Eurofound's research also looked at how workers experienced changes in their work performance in the context of work solutions introduced during the epidemic.

³⁵ The sample of online research is not representative, young, highly educated, respondents living in the capital city are overrepresented. However, the research presents the composition of the research sample compared to the 2016 micro-census data.

³⁶ 80% of the 34 people surveyed in April 2020 had tertiary education; the survey cannot be considered representative of the Hungarian population.

³⁷ In the online survey, 520 people responded, the sample is not representative.

11. Figure: The distribution of responses that complete the sentence "The amount of work that can be done is ... " (2020)



Source: Eurofound³⁸, edited by SAO

Magyar	Angol
EU átlag	EU average
Magyarország	Hungary
Nagy mértékben nőtt	Grown to a great extent
Ki mértékben nőtt	Grown slightly
Ugyanaz maradt	It remained the same
Kis mértékben csökkent	It decreased slightly
Nagy mértékben csökkent	It has fallen greatly

The Hungarian responses were in line with the European average – one-fifth of the respondents experienced the new work situation as an increase in performance – most of them reported that they could do the same amount of work in the new situation as before, while a quarter of respondents felt that the amount of work that can be done has dropped, though to varying degrees. The results of the research also show that telework implies a significant potential for growth in worker performance, but there is also a significant number of people who feel that, when working from home, they cannot achieve the work efficiency of working in an office.

4.3 Organisational and management solutions

The introduction and the successful use of telework is subject to the advanced level of information and communication technology together with the characteristics of work organization. However, the spread of telework cannot be explained solely by the available level of infocommunications technologies. In addition to an appropriate level of technology, there is a need for a flexible organizational structure and a work organization that enables greater worker responsibility. These factors, in turn, are inseparable from the special features of the audit and evaluation systems of a corporate organization (Makó 2004).

³⁸ <https://www.eurofound.europa.eu/data/covid-19/working-teleworking>

4.3.1 Management control

Taskin's case study (2020) revealed a transformation of management tools. As part of the new work organization, new or existing technocratic management tools were used by managers for control purposes. The first step of the formalisation process was the development of a telework policy to regulate the days of telework; the timing of worker availability; the nature of work to be performed from home; and the planning of feedback from workers on their telework experience. The second step in the formalisation process was the planning of meetings, which was already part of a control process, as it included not only the coordination of teamwork but also an overview of tasks performed. The control now covered a larger area, in overall terms, and became more formal and covered issues that had not traditionally been the responsibility of the employer, such as allowing lunch time to be spent with children. In the end, the observation showed that teleworkers accepted more control than before because they valued the benefits of working from home. According to the results of a survey by Bakonyi and Kiss-Dobronyi (2020), more than a third of respondents, 36%, felt that they consulted more with their supervisors since the outbreak. Only 16% saw a decrease in supervision. The majority of respondents were satisfied with the management practices (task, responsible, deadline setting) and the communications of the management, while the weakest areas were perceived to be motivation and the maintenance of an informal relationship. According to the results of the survey by Mrs. Kazai (2020), in the field of control, 30% of respondents perceived a challenge: *"It is difficult to judge how challenging it is for a worker to complete a new task. There is no physical contact, therefore, I cannot see whether a worker can perform some task with sweaty work or as effortlessly as a game."* *"I cannot see the activities of the subordinate/colleague; more reporting is needed offline"* (Mrs. Kazai, 2020).

Performance measurement increasing in importance. Several sources point out that telework can also mean a change of attitude in employee evaluation: instead of input, i.e. the time worked, the emphasis is increasingly focused on output, which can be complemented by out-come – measuring the attainment of expected performance. This could lead to a significant transformation of control over employees. Digitalization also provides managers with tools to access employee performance data that can provide more information for effective monitoring of employee performance than is typically the case in a traditional office environment (OECD 2020). The survey conducted by Mrs. Kazai (2020) reveals that respondents think there is a need to move towards performance-based measurement: *"It is important to move towards performance-based measurement instead of accounting for hours worked. This is not possible (or not lifelike or not favourable) in some jobs and for some workers, but this may result in much greater efficiency in some other jobs."* During teleworking, managers primarily control the output and the result, rather than controlling the time spent at work; and, as a result, one of the risks of telework may be that working time may increase as "hidden overtime" becomes the norm (OECD 2020).

4.3.2 Organisational level policy

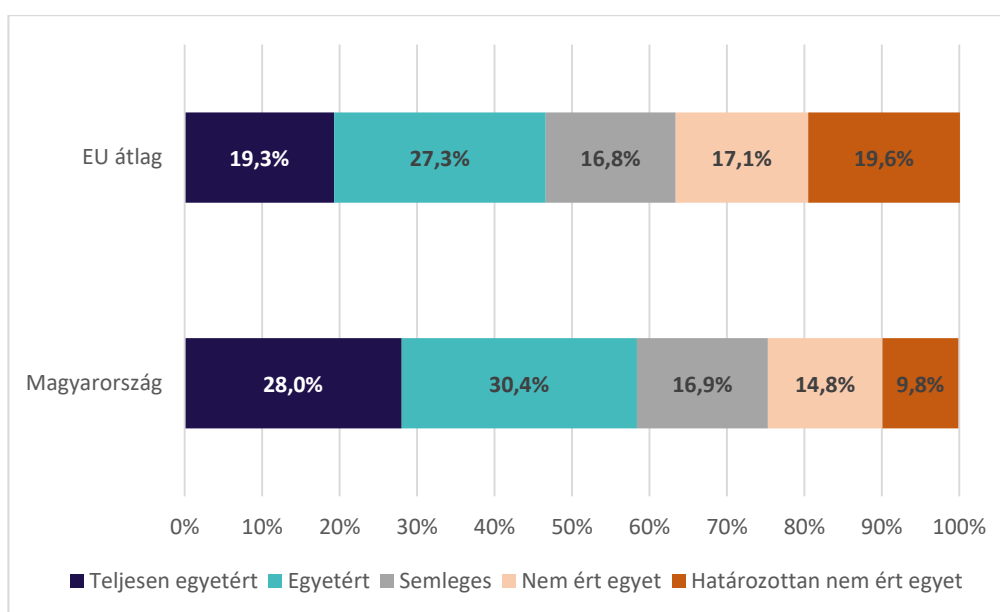
Maximizing the work efficiency of those working from home may also be influenced by organizational policies applied at company-level. The adaptability of workers and thus the increase in efficiency resulting from worker satisfaction depends crucially on working conditions, such as the availability of infocommunications technology equipment, a room used for work, or the availability of day-care facilities for children. Worker satisfaction, and thus efficiency, may decrease, if part of the costs is not covered by employer organizations and passed on to workers instead, for example if workers have to pay for more expensive housing or a higher electricity bill (OECD 2020). Policies of employer organisations on telework and work from home may promote measures to provide an appropriate work environment for employees. If such organizational policies also ensure that some part of the work from home may be optional and a possibility, it may contribute to the development of the organisational and personal balance of work from home.

4.4 Technology and devices

Access to a fast, reliable, and secure infocommunications technology infrastructure is an important prerequisite for working from home and its quality contributes greatly to the efficiency of working from home. It is important to provide efficient, real-time communications devices (video conferencing) that require a broadband network between the organization and employees' homes. The basic conditions of the national digital infrastructure are given in Hungary, since by the end of 2018 the Internet service with a speed of at least 30 Mbit/s was available to all families through the implementation of the *Superfast Internet Programme*. Against this backdrop, the analysis below reviews whether the technical conditions for work from home were available between employers and workers and what new technological solutions were introduced to support a wider use of telework in the wake of the epidemic.

Ensuring the availability of technologies and devices is traditionally the responsibility of the employer. A research by Eurofound examined the extent to which workers felt that they received proper technical conditions for work from home during telework introduced in an epidemic situation.

**12. Figure: Respondents agreeing with the statement
“the employer provided me with all equipment I need to work from home” (2020)**



Source: Eurofound³⁹, edited by SAO

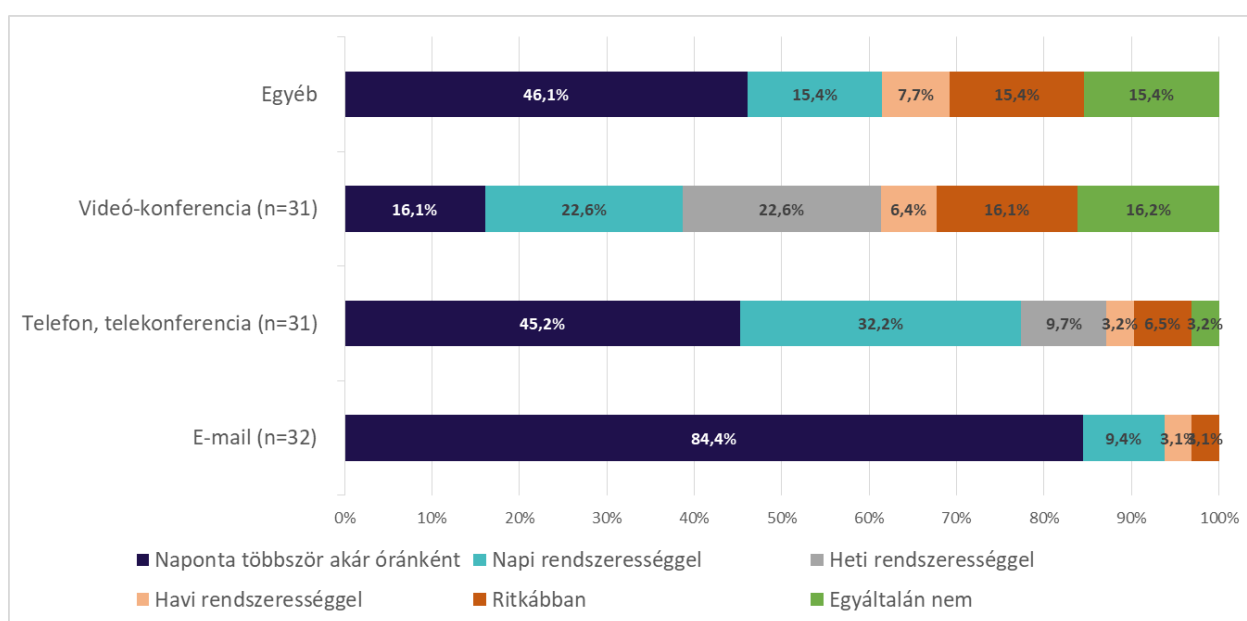
Magyar	Angol
EU átlag	EU average
Magyarország	Hungary
Teljesen egyetért	Completely agrees
Egyetért	Agrees
Semleges.	Neutral
Nem ért egyet	Disagrees
Határozottan nem ért egyet	Definitely disagrees

³⁹ <https://www.eurofound.europa.eu/data/covid-19/working-teleworking>

According to the majority of Hungarian respondents, they received proper technical conditions for work from home during the epidemic, and a higher proportion of Hungarian workers reported positive experiences in connection with that than the European average.

The results of the survey conducted by Bakonyi and Kiss-Dobronyi (2020) show that some of the technologies, although previously available, were started to be widely used only in the healthcare emergency situation. 77% and 70% of the surveyed employees used teleconferencing or chat software more often or newly after the introduction of home office. For those who had not teleworked before, there was also a significant increase in the use of email, file sharing and chat software. 14% of the respondents started using teleconferencing software during the epidemic, 89% of those who used it earlier indicated that they use this solution more often than before. While the use of teleconferencing device is definitely increasing, research on collaboration devices shows that this part of the workflow has not changed significantly.

13. Figure: Frequency of the use of communications devices when working from home (2020)



Source: Mrs. Kazai (2020) edited by SAO

Magyar	Angol
Egyéb	Other
Videó-konferencia (n=31)	Video conference (n = 31)
Telefon, konferencia (n=31)	Telephone, conference (n = 31)
Naponta többször, akár óránként	Several times a day, even every hour
Napi rendszerességgel	On a daily basis
Heti rendszerességgel	Weekly
Havi rendszerességgel	Monthly
Ritkábban	Less often
Egyáltalán nem	Not at all

Mrs. Kazai's survey (2020) conducted during the epidemic, which cannot be not considered representative, shows, concerning the means of communications used, that videoconferencing is only the third most frequently used means of communication. As the survey results revealed, communications rely mainly on e-mail and telephone contact.

4.4.1 Information and data security

Telework and work from home definitely pose increased data security risks, as company data previously stored on protected servers is displayed now in an external physical and virtual environment. Additional vulnerability is represented by private or public WIFI data transmission systems, and information transmission systems in the environment at home (e.g., Bluetooth devices). Risks may be increased by the fact that workers do their work using their own devices. It is also a challenge that the technological control of data security in worker devices may affect privacy and workers' private information. It should also be borne in mind that, when working from home, there is a risk that confidential information may be disclosed to people living in the same household.

A survey by IBM on data security (IBM, 2020) interviewed about 2,000 workers. According to the main findings of the research, 93% of workers trust that the protection of personally identifiable information will not be compromised during work from home; however, 53% of them used their own computing devices for performing their tasks without receiving any security device or IT training concerning their work. There have been shortcomings at companies in terms of personal identification policies and adequate password protection (IBM). Several sources point out that work from home needs to be designed with security and privacy in mind, ranging from cyber-attack protection to setting privacy standards, while, depending on the job, work from home may require secure remote access to confidential data (OECD, 2020, DigitalHungary, 2020, ESET, 2020). Employers' IT specialists can judge whether, from a system security point of view, it is possible to access a company's databases using a third-party device. Several sources highlight some security solutions that may increase the security of work from home.

Thin and zero client architectures. The thin client architecture is designed to perform non-independent tasks, the client's task is to enter data, and data is stored and processed on the corporate server. Zero client systems have a minimal level of operating system and no longer include a hard drive or CD/DVD reader.

VPN. Using a VPN is especially important for users who also use a public Wi-Fi network to access their employer's information.

Encrypted hard drives, SSD. If you're using a computer or laptop, it's a good idea to use encrypted drives, either a hard drive or an SSD. Thus, you may reduce the possibility of the misuse of company data in case the device is stolen or lost.

DLP software and encrypted USB keys: DLP (Data Loss Prevention) software allows you to restrict network access. However, it is useful to create an authorization list for some devices, such as uniquely identifiable encrypted USB keys. Even if they are stolen or lost, you can ensure that no one can access encrypted files, and a lost pen drive can be destroyed remotely.

Organizational training, human resources. Regular IT security and data security training for workers is essential, especially when new tools, new work situations, or new data security risks arise in the course of their work. During periods of work from home, it is important to appoint those responsible for immediately dealing with any problematic cases, correcting errors in the shortest possible time, and providing remote assistance if necessary.

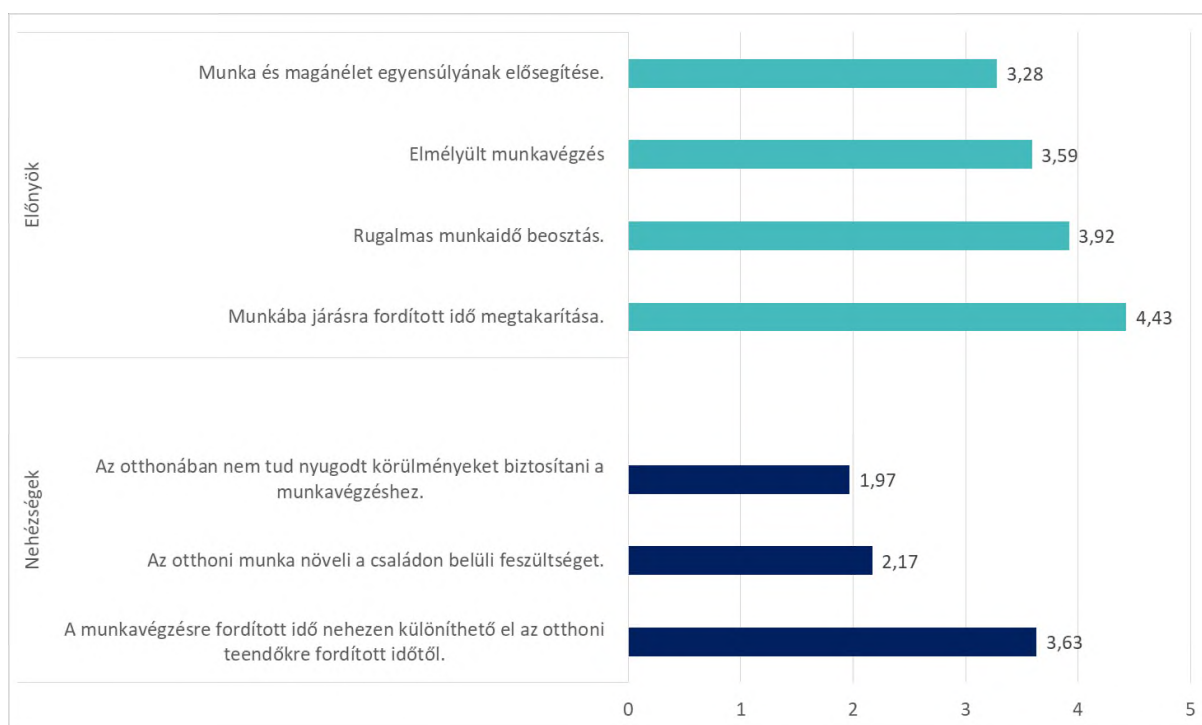
5. THE ASPECT OF HOME – BALANCE OF WORK AND PRIVACY

Working from home also affects privacy, family, and social relationships, and in addition to the insecurity and feeling of closure that comes with an epidemic, it also affects the mental health of workers. While work from home opens up opportunities for employees to spend more time on private life, it is a fundamental challenge that the place of work and private life is no longer spatially separated when working from home: work must be done in the space of the worker's home, and, in case of a worker with a family, in the space of family life, which may endanger the work-life balance, and privacy and working hours may merge, so hidden overtime may appear⁴⁰ (OECD 2020). In people's lives, every room in a home has a role to play, and rooms evoke role reactions. We sleep in the bedroom and watch home movie sitting on a couch. And during work from home, these role reactions may be mixed (Századvég-Lounge Group, 2020). The workplace is also an important platform for socialization, the loss of which may lead to the narrowing and desolation of social relations. In view of the above, we have reviewed the impact of work from home on work-life balance and its expected psychological effects.

5.1 Work and private life – advantages and disadvantages

Research conducted by Mrs. Kazai during the epidemic (2020) reports on the weight of factors experienced as advantages and difficulties during work from home.

14. Figure: Benefits and difficulties of working from home (1 light weight – 5 significant) – 2020



Source: Mrs. Kazai, 2020, edited by SAO

Magyar	Angol
Előnyök	Advantages
Munka és magánélet egyensúlyának elősegítése	Promoting work-life balance

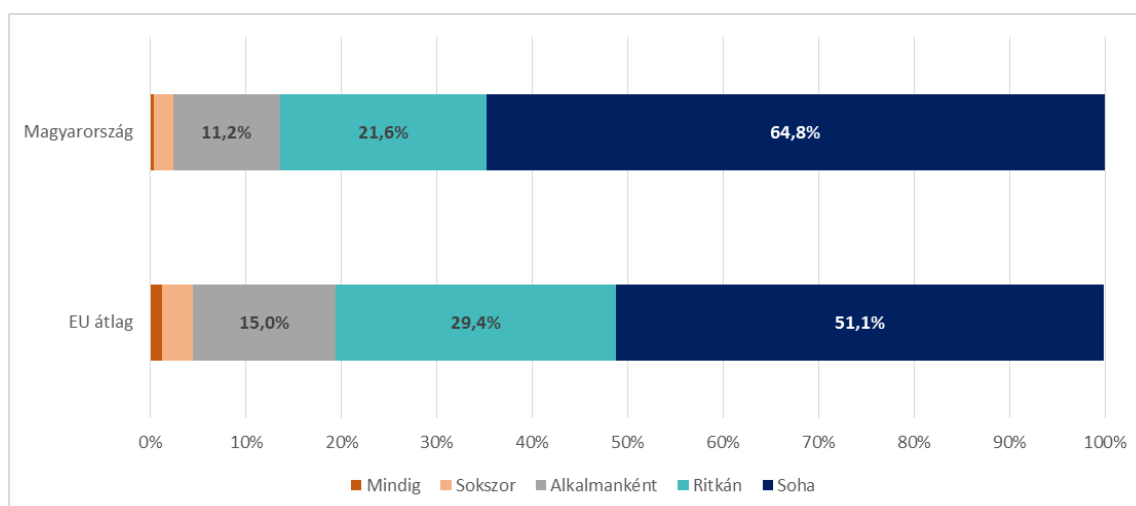
⁴⁰ Hidden overtime is such overtime that results from results-oriented management oversight. Because controlling the outcome of work takes precedence over physical presence, management pays less attention to the fact that the outcome may be achieved in more hours.

Elmélyült munkavégzés	In-depth work
Rugalmas munkaidő beosztás	Flexible working hours
Munkába járási idő megtakarítása	Saving commuting time
Nehézségek	Difficulties
Az otthonában nem tud nyugodt körülményeket biztosítani a munkavégzéshez	You can't provide peaceful conditions to work in your home
Az otthoni munka növeli a családon belüli feszültséget	Working from home increases tension within the family
A munkavégzésre fordított idő nehezen különíthető el az otthoni teendőkre fordított időtől	Time spent at work is difficult to separate from time spent on household activities

Among the benefits of working from home, the most important were the possibility of a more flexible schedule and saving the time otherwise spent by commuting to work. For respondents, ensuring calm conditions and increasing home conflicts were less of a problem, while respondents found it to be the most serious challenge to separate time spent on work from time spent on household chore.

Eurofound's 2020 research looked at work-life balance developments during the epidemic across a number of issues.

15. Figure: How often did you feel that your family responsibilities prevented you from spending enough time on your work? (2020)



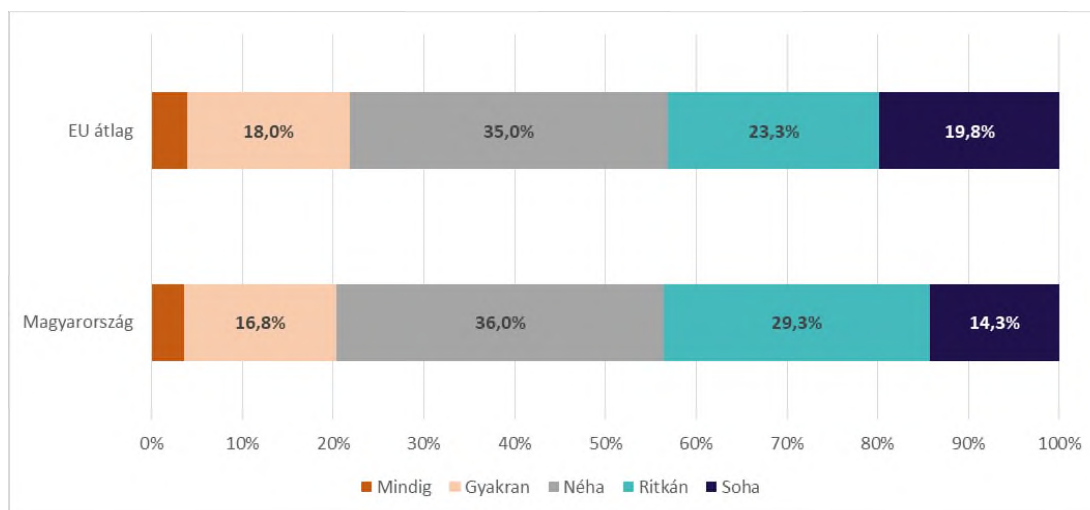
Source: Eurofound, edited by SAO

Magyar	Angol
Magyarország	Hungary
EU átlag	EU average
Mindig	Always
Sokszor	Often
Alkalmanként	Occasionally
Ritkán	Rarely
Soha	Never

Regarding work-life balance in terms of time, the vast majority of respondents felt that privacy did not take away time from the time available for work. More Hungarian respondents reported than the European average that there were no obstacles to performing family-related tasks during work at home.

When asked whether they were occasionally so exhausted after work that it was difficult to do household chores, respondents gave more diverse answers.

16. Figure: How often did you feel too exhausted after work to do household chores? (2020)



Source: Eurofound, edited by SAO

Magyar	Angol
Magyarország	Hungary
EU átlag	EU average
Mindig	Always
Gyakran	Often
Néha	Sometimes
Ritkán	Rarely
Soha	Never

Overall, more than sixty percent of respondents have already found themselves in a situation where they felt their work was too exhausting and they were unable to deal with the household. However, more than forty percent of Hungarian respondents rarely or never faced this difficulty.

An opinion survey conducted by Kis (2020) reveals that work from home was rated positively by respondents primarily because of flexible working schedule and convenience (Kis, 2020). During the epidemic a non-representative online questionnaire survey was conducted among Hungarian workers with 381 respondents taking part in. Most of them considered that they organized their daily lives more efficiently and were able to devote more time to various intellectual recreational activities (Gősi and Magyar 2020).

5.1.1 What socio-demographic factors affect the experience of working from home?

The research by Kis shows that the perception of work from home differs by gender and age group: for women, a trend observed shows that work from home is more and more positively assessed as age increases; and for men, work from home is considered less positive from the age of 49 and above (Kis, 2020). Eurofound's survey highlights that changes in work patterns have put a greater strain on families with young children, as not everyone had access to childcare in the epidemic. In some cases, home schooling also had to be supervised, which also affected families with small children. In the survey, one in five (22%) respondents raising a child under the age of 12 reported having difficulty concentrating on their work. Among those raising a child or several children between the ages of 12 and 17, this proportion is 7%, and the lowest, 5%, is among childless

workers. The case study presented by Mühlhoff and Slaby (2020) analysed the integration of a mother's part-time telework into family life. The observation over a period of one year showed that it took a long time for tasks of work to get integrated into the life of the home, and while some of them could be integrated without conflicts, others were solved only at the cost of quarrels. Overall, working from home helped the mother fulfil her role in the family and strengthened her commitment to work.

5.1.2 Mental effects

Under the epidemiological situation in the spring of 2020, GroupM and Mediacom Insight researched the experience of the work-from-home life situation introduced as a result of the restrictions on a nationally representative sample of 550 people based on 35 attitude statements (Pethes and Kun, 2020). Based on the analysis of the answers, the research identified six clusters each having a different coping strategy or "personality".

Balancing families. Men and women over the age of 30 with a higher than average level of education, 18% of society belong to this group. They are characterized by an awareness of existential and health risks. Their relationship with those living in the same household has become closer, the contact with more distant relatives and friends has also increased, and they feel the burden of family responsibilities the most. They were the group in which 'self-rediscovery' and mental-spiritual awakening definitely appeared.

Discouraged sceptics. 13% of respondents belonged to this cluster, with an outstanding share of those with secondary education and women living in smaller towns. They were spiritually exhausted, sad, anxious, and felt being farther away from everyone during the epidemic. They also had the strongest defence paradox, i.e. an attitude that questions the importance of defence measures and believes that the "whole is just inflated" and economic damage is caused by "unnecessary" measures.

Nuclear anxious. Among them, 30-39-year olds and women are over-represented. They have a higher than average level of education, and most of them have a family of their own. One may observe an extreme appreciation of the value of the nuclear family, coupled with a serious devaluation of the more distant family and all other relationships. At the same time, the sad, hopeless attitude, the "I can't count on anyone" experience is much higher than average.

Invulnerable relationship builders. Their proportion in the sample is 20%. A masculine group (61% of them male) in which middle-aged people are overrepresented or have higher-than-average educational level, and most of them live in a metropolitan milieu. They are characterized by a lack of fear of illness and optimism: they tolerate confinement well, have financial reserves, and focus more on good things. They moved away from the family, while they had a closer relationship with friends and colleagues.

Collective conformists: a group typically older than 50 years, where women are overrepresented, and their children are adults. They do not feel financially exposed, they only have to take care of themselves, but at the same time they are conformists, as they accept and obey the measures, they support the idea of social cohesion.

Loose individualists. Based on the results of the research, a surprisingly high percentage of society, 21%, can be characterized by this "personality". Among them overrepresented are 18-29-year-olds, rural people, those with a lower level of education also due to their age, and the childless. Their relationship with colleagues and friends became more important, their relationship with the distant family also strengthened, but this appeared together with a feeling of being burdened by the family. They perceive risks to a much lesser extent, and they are the ones most strongly rejecting cooperation.

In addition to showing the specific psychological effects of the epidemic, the clusters also reveal the most common negative mental phenomena that may accompany a significant amount of work from home:

- Feeling of isolation, deterioration of some connections
- Workload pressure, anxiety
- Appreciation of value of immediate family

The research also revealed correlations between the different types of personality and the extent and form of working from home as an employee.

17. Figure: Attitudes and home office correspondence map ⁴¹



Source: Pethes and Kun, 2020

Magyar	Angol
NUKLEÁRIS SZORONGÓK	NUCLEAR ANXIOUS
Elvesztette munkáját/Kényszerszabadság	Lost job / Forced leave
BALANSZÍROZÓ CSALÁDOSOK	BALANCING FAMILIES
Szabadon dönthet	Free to choose
SEBEZHETETLENKAPCSOLATÉPÍTŐK	INVULNERABLE RELATIONSHIP BUILDERS
KOLLEKTÍV KONFORMISTÁK	COLLECTIVE CONFORMISTS
Inaktívok	Inactive
CSÜGGEDT KÉTKEDPK	DISCOURAGED SCEPTICS
LAZA INDIVIDUALISTÁK	LOOSE INDIVIDUALISTS
Bejár dolgozni	Go to work

It is noteworthy that among nuclear anxious people, the share of those working in home office is twice as high as the sample average. Among them, the lowest proportion (11%) were those who travelled to work during the period of lock-down as well. Invulnerable relationship-builders represent the cluster that is the reciprocal of the previous personality, with the lowest rates of those working from home or being inactive, or who lost their jobs, while particularly high is the share of those staying in their jobs and those who decide where to do their work. The results of the research are certainly related to the differences in jobs, the choice between home office or office work may have been more characteristic in a senior position.

⁴¹ The correspondence map shows the extent to which work categories are characteristic of each personality: if two categories are close to each other on the map, these characteristics are more characteristic to them than to the distant categories.

5.1.3 Appropriate working conditions at home

As previously discussed, according to Article 86/A of the Act on occupational Safety, the essential requirements for the work must also be ensured in the case of telework, such as adequate room for movement, lighting, adequate internal height and the exclusion of external disturbing conditions. The analyses and studies presented earlier (OECD 2020, de Oliveira et al. 2020) determined the success of the introduction of work from home and the key to the efficiency of work from home in the exclusion of the so-called “disruptive conditions”. Some of these are related to the arrangement of a workstation and proper space for work at home, and some others are related to the lack of spatial separation of roles of job and family. Some studies have seen the difficulty of introducing work from home in certain cultures precisely because, for example, in some parts of Asia or in South America, larger families typically live in smaller properties, making it impossible to work with the constant presence of family members. All this confirms that the provision of appropriate work from home conditions is an essential aspect; while all this was previously the sole responsibility of the employer, now during work from home the relevant conditions affecting this are under the influence of the worker.

6. DIGITAL STATE AND THE PANDEMIC

During the epidemic, it was not only in the world of work where face-to-face meetings had to be reduced. Defence was required in public services, raising the need to carry out relations between the state and citizens, the administration of official matters, the activities of the authorities remotely by digital means, as in working from home. With the rise of digitalisation in the last decade, the reorganization of public administration has gained momentum with a view to improving efficiency and quality of service. Article XXIV of the Fundamental Law citizens have the right to manage their affairs within a reasonable time, and an important goal of the Public Administration and Public Service Development Strategy 2014-2020 is to catch up with electronic public services. Research by Mazzucato and Kattel (2020) points out that governments need dynamic skills to deal with a pandemic. Such skills are the ability to adapt and to reconcile public services and citizen needs. Governments can prepare for future crises by investing in the skills and capabilities of the public sector. In view of the above, we briefly review the conditions of the digital state and the solutions that helped to ensure that citizens could continue administering their official matters. The topic of the digital state requires an independent analysis, so this chapter explicitly addresses issues closely related to the pandemic.

6.1 The conditions to a digital state

6.1.1 Creating the strategic and legal bases

The Hungarian Government launched the Digital Welfare Programme (DWP) in 2015, by making decision on adopting the Digital Welfare Programme 2.0 under Government Resolution 1456/2017. (VII. 19.) in 2017. The Super-Fast Internet Programme was implemented within the framework of DWP 2.0, the aim of which is to have a minimum Internet speed of 30 Mbit/s for all households, and 100 Mbit/s bandwidth for at least half of the households by 2020. As a result, by the end of 2018, the Internet service with a speed of at least 30 Mbit/s was available in all households in Hungary. Based on DWP 2.0, sectoral digital strategies have been prepared, and in connection with the digital state, a comprehensive development programme for the digital transformation of public administration has been launched. The Public Administration and Public Service Development Strategy, established in 2014, aimed to introduce a modern and customer-friendly procedure.

In addition to the development of the strategic framework, the basic legal conditions of e-government have also been developed. Act CCXXII of 2015 on the General Rules of Electronic Administration and Trust Services is intended to extend electronic administration. The law established the Electronic Administration Inspectorate, whose tasks include the supervision of regulated electronic administration services and certification bodies designated in connection with document management software used by public service bodies. Government Decree 451/2016. (XII. 19.) defined the detailed rules of electronic administration. Under the Code of Civil Procedures⁴², a private document with full probative value can also be created electronically with the service called Document Authentication Based on Identification. Act LIII of 2017 on the Prevention and Combating of Money Laundering and Terrorist Financing established the conditions for digital identification.

6.1.2 Introduction of some key tools

The portal serving as the basis of e-government in Hungary was created under the name ekormanyzat.hu in 2001. The site was replaced by an improved version, called magyarorszag.hu, which has been continuously developed ever since. The Customer Portal was established in 2005 for the purpose of digital administration

⁴² Article 325(1) g) of Act CXXX of 2016 on the Code of Civil Procedures

of official matters, and the electronic form service was created in 2016⁴³, and the e-Paper service⁴⁴ was introduced in 2018, enabling electronically authenticated correspondence and the launching of cases. In 2018, also the Personalized Administration Interface was established (SZÜF),⁴⁵ a customizable application that allows customers to fulfil declarations, procedural acts and other obligations required for electronic administration.

The Electronic Health Cooperation Service Space (EESZT), an important element of Hungary's e-health system⁴⁶, and on 1 November 2017 EESZT was joined by GP services, outpatient and inpatient care facilities and all pharmacies. The aim of the EESZT is to provide the population with faster, more efficient, and service-oriented care through continuous contact between care institutions, doctors, and pharmacies. Healthcare professionals have access to data required for providing treatment to patients, and users are allowed by digital self-determination⁴⁷ to keep track of their data recorded in the EESZT. In the framework of the EESZT, the use of e-prescriptions has been fully introduced from 2017, which allows all prescription and redemption functions to be carried out electronically⁴⁸.

Between 2015 and 2019, the municipal ASP system was introduced on a scheduled basis, which is a cloud-based service that allows local governments to access the applications required for their tasks; as part of the ASP system, the application E-Local Government was created to serve as a venue for electronic municipal administration⁴⁹.

6.1.3 Development of e-government in Hungary

Electronic forms. An important area of e-government is the contact of citizens with public authorities, which shows the development of e-government and the level of customer friendliness. Within this, an important e-government tool is the use of electronic forms, which is shown in the figure below in relation to the total population, for the EU average and Hungary.

⁴³ Government Decree 451/2016. (XII. 19.)

⁴⁴ Article 68 Government Decree 451/2016. (XII. 19.)

⁴⁵ Article 1 (40) of Act CCXXII of 2015 on the General Rules of Electronic Administration and Trust Services introduced the concept of the Personalized Administration Interface. Article 38 (1) (K) of Act CCXXII of 2015 states that the SZÜF is an electronic administration service provided by the Government through a designated service provider.

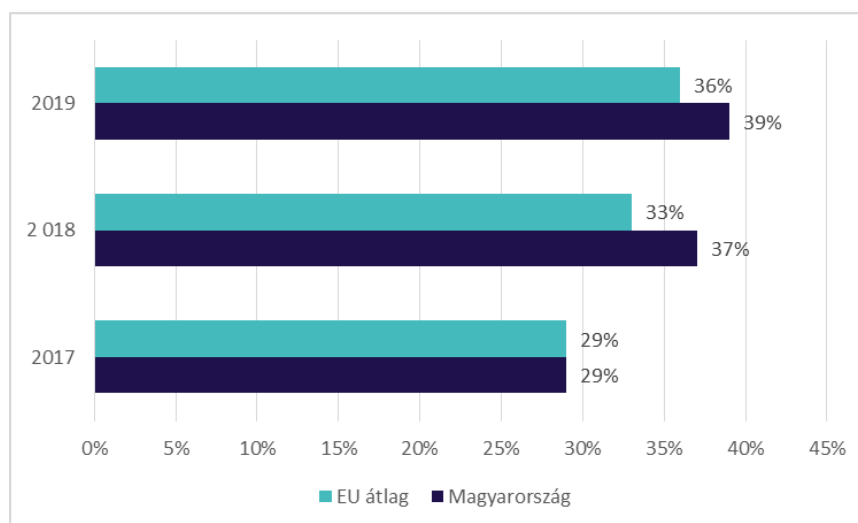
⁴⁶ The detailed rules to that are stipulated in Decree 39/2016. (XII. 21.) of the Ministry of Human Capacities.

⁴⁷ It is made possible under the provisions of Act XLVII of 1997 on the Processing and Protection of Health and Related Personal Data as amended by Act CCXXIV of 2015.

⁴⁸ Decree 44/2004. (IV. 28.) of the Ministry of Health, Social and Family Affairs

⁴⁹ https://alkalmazaskozpont.asp.lgov.hu/sites/asp/files/2020-05/elektronikus-ugyintezes-az-onkormanyzati-hivatali-portalon_20200522.pdf

18. Figure: Proportion (%) of those submitting online forms in relation to the population in Hungary and the EU (2017-2019)



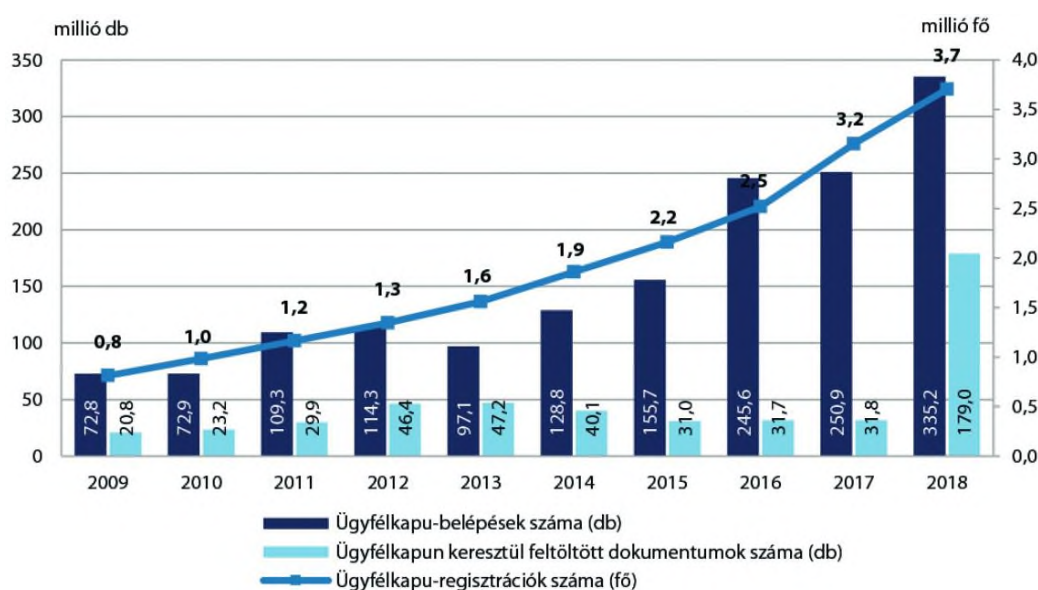
Source: EUROSTAT, edited by SAO

Magyar	Angol
EU átlag	EU average
Magyarország	Hungary

Electronic forms have in recent years been used by similar shares of the population in Hungary and in EU Member States. Hungary exceeded the EU average starting from 2018, the year when the network development project was completed under the Superfast Internet Programme⁵⁰.

Use of the Customer Portal - Good State and Governance Report. The 2019 Good State and Governance Report of the National University of Public Service (Kaiser, 2019) examined the state of Hungarian e-government along several dimensions. The report outlined a continuously developing trend in the number of support services implemented at personal customer service agencies with a nationwide coverage and also in the extent of the use of the Customer Portal.

19. Figure: Customer Portal registrations, log-ons and uploaded documents (2009-2018)



Source: 2019 Good State and Governance Report of National University of Public Service

Magyar	Angol
millió db	million pieces
millió fő	million people
Ügyfélkapu-belépések száma (db)	Number of Customer Portal log-ons (pcs)
Ügyfélkapun-keresztül feltöltött dokumentumok száma (db)	Number of documents uploaded through the Customer Portal (pcs)
Ügyfélkapu - regisztrációk száma (fő)	Customer Portal - number of registrations (persons)

The results of the Good State and Governance Report also confirm that Hungary's e-government has been developing steadily since the 2000s, with an increasing proportion of citizens using basic e-government services.

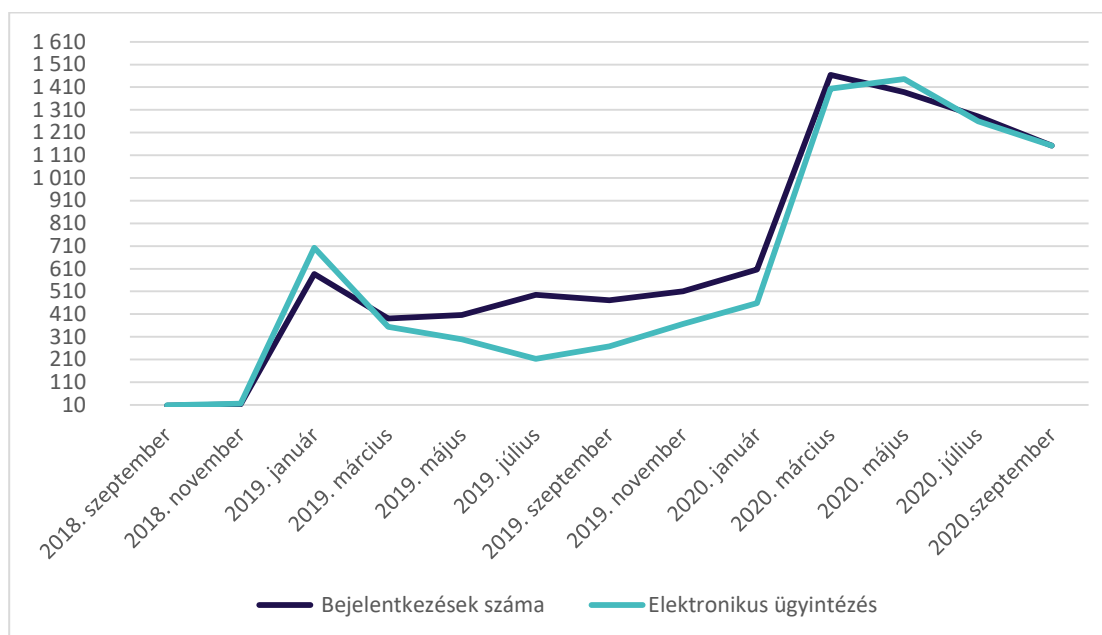
E-Government Development Index and Digital Economy and Society Index. The UN E-Government Survey uses the E-Government Development Index (EDGI) to classify the level of e-government development in each country into 4 groups (low, middle, high, very high). Hungary has moved from a high level of development in 2018 to a very high level of development in 2020. The DESI index, which concerns European countries,⁵¹ examines the digital development of countries in a complex way. According to the DESI index, Hungary has a high value in terms of network interconnection, while standing only slightly below the EU average in terms of the dimensions of digital technology integration and human capital.

6.2 Digital state during the epidemic situation

We examined how the use of some e-government platforms changed during the epidemic. The evolution of the number of registrations and electronic administrations of the Personalized Administration Interface can be used to illustrate how the use of electronic administration has evolved in connection with the epidemic situation.

⁵¹ <https://ec.europa.eu/digital-single-market/en/digital-economy-and-society-index-desi>

20. Figure: Evolution of SZÜF log-ons and electronic administration (thousand people)
(September 2018 – September 2020)



Source: Magyarország.hu, edited by SAO

Magyar	Angol
2018. szeptember	September 2018
2018. november	November 2018
2019. január	January 2019
2019. március	March 2019
2019. május	May 2019
2019. július	July 2019
2019. szeptember	September 2019
2019. november	November 2019
2020. január	January 2020
2020. március	March 2020
2020. május	May 2020
2020. július	July 2020
2020. szeptember	September 2020
Bejelentkezések száma	Number of log-ons
Elektronikus ügyintézés	Electronic administration

In parallel to restrictive measures, the number of log-ons and those of matters administered by citizens sharply increased since February 2020. The number of registrations increased by 858,000 and the number of administrations by 944,000 - almost twice as many as in the previous period.

6.2.1 Some domestic solutions introduced in view of the epidemic situation

In view of the epidemic situation, the government introduced or expanded a number of digitization solutions that helped reduce the number of personal contacts and accelerate the spread of online solutions.

Simplifying payments involving contact. Government Decree 60/2020. (III. 23.) provided that, in order to increase the health security of payments with contact, financial service providers did not have to apply a strong customer authentication for any transaction involving contact equal to or less than HUF 15,000.

Reducing the use of cash. In November 2020, the economic operative also decided to reduce the use of cash. Already in 2019, the State Audit Office proposed the complete elimination of the use of cash in the public sector in order to increase integrity and reduce bureaucracy and administration; reducing the use of cash is a solution that can further strengthen the sustainable whitening of the Hungarian economy even after the epidemic situation has passed.

Digital language exam. Under Government Decree on Epidemic Measures,⁵² students who successfully passed their final exam in tertiary educational institutions before 31 August 2020 were exempted from the obligation to pass a language exam required as a precondition to the issuance of their degrees; and, in parallel, the Government Decree allowed language exams to be conducted digitally.

Electronic recipes - telemedicine. Through the EESZT, it is possible to redeem electronic prescriptions instead of paper-based prescriptions. During the epidemic, the conditions for redeeming electronic prescriptions were made easier, as any citizen could act as a proxy for someone else and redeem his e-prescription by presenting the patient's social security (TAJ) number and proving the proxy's identity. During the first wave of the epidemic, the proportion of electronic prescriptions to all prescriptions was 90 percent. Under the Epidemiological Preparedness Act,⁵³ the personal presence of a patient does not represent a precondition to the provision of health care services; and in the framework of *telemedicine*, the assessment of the patient's condition and the establishment of the diagnosis may also take place by means of telecommunication.

Since the declaration of the state of emergency, the Hungarian Post has continuously informed citizens about measures taken to slow down the epidemic and the services that are still available electronically, including the following solutions:

iCheque. With the application available since 2014, the payment of checks can be made electronically using a mobile phone (android, IOS type devices), after scanning the QR code.

E-post-book. The e-post-book simplifies the administration of mailing and eliminates the use of paper-based mailing lists. Fees for letters can be paid online through an application.

In response to the state of emergency, the Hungarian State Treasury contributed to the reduction of the number of physical contacts from March 2020 with the following solutions:

Online purchase of Treasury Bonds and Baby Bonds. During the coronavirus epidemic, the free purchase of government securities was a free service of the Hungarian State Treasury. In addition to Hungarian Treasury Bond Plus (MÁP +), Baby Bonds can also be subscribed for online, and no personal administration is required to open a START Account. The use of online services was encouraged by the fact that those who opened a securities registration, or a START Account through the Customer Portal could win HUF 100,000, and treasury customers who bought government securities online could win HUF 50,000.

Submission of documents electronically. In certain procedures related to agricultural subsidies,⁵⁴ all original documents for which the relevant legislation required submission by post could, at the customer's choice, be

⁵² Government Decree 101/2020 (IV.10) on Certain Measures to be Taken in a State of Emergency that Affect Higher Education Institutions and Students

⁵³ Act XVII of 2007

⁵⁴ In proceedings falling within the scope of Act XVII of 2007 on Certain Issues of Procedures in Relation to Agricultural, Agri-Rural Development and Fisheries support and to Other Measures

submitted in electronic copy after customer identification through the Customer Portal, during the state of emergency.

Authorization through Customer Portal. Also, in procedures falling within the scope of the Government Aid Act,⁵⁵ the power of attorney and all related procedural acts could also be submitted electronically via an electronic interface accessible through the Customer Portal identification procedure⁵⁶, by using an electronic form provided by the supporting body⁵⁷. In the case of submission by a proxy, the regularity of the power of attorney had to be presumed until proven otherwise.

Electronic certificates. The incapacity certificate could be sent electronically by the doctors to the insured and passed on electronically to their employers. Sickness benefits were also assessed and paid on the basis of electronically issued medical certificates.

In addition to the introduction of specific tools, government agencies and public institutions have provided information on their websites and by telephone about electronically accessible services used to avoid personal contact.

⁵⁵ Act XVII of 2007

⁵⁶ Government Decree 122/2020 is not in force effective from 18 June 2020.

⁵⁷ Article 2 (3) Government 122/2020

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7.2.1.2. Number of persons employed by industry, by sector, by sex

9.17.5. Teleworking of workers aged 15-74 according to their labour market characteristics

9.10.1. Demographic characteristics of teleworkers and non-teleworkers aged 15–74 by sex, Q1 2018

6.2.3.14. Average price per square meter of an apartment by quarter by region and type of settlement

6.2.1.6. Number of unemployed

6.2.1.1. Economic activity of the population aged 15-74

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3.1.3. Workers who commute daily by gender and direction of commuting

1.2.3. Workers by mode of transport to work and industry

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LIST OF LEGISLATION

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Act XXXIII of 1992	on the Legal Status of Public Workers (Kjt.)
Act XCIII of 1993	on Occupational Safety (Mvt.)
Act XVII of 2007	on Certain Issues of Procedures in Relation to Support for Agricultural, Agri-Rural Development and Fisheries and to Other Measures (Subsidies Act)
Act CXCIX of 2011	on Civil Service Officials (Kttv.)
Act I of 2012	on the Labour Code (Mt.)
Act CCXXII of 2015	on the General Rules of Electronic Administration and Trust Services
Act XLII of 2015	on the Service Status of Professional Staff of Law Enforcement Agencies (Hszt.)
Act CXXX of 2016	on the Civil Procedure
Act LIII of 2017	on the Prevention and Combating of Money Laundering and Terrorist Financing (Pmt.)
Act CXXV of 2018	on Governmental Administration (Kit.)
Act CVII of 2019	on Bodies with Special Legal Status and the Status of their Workers (Küt.)
Act LVIII of 2020	on Transitional Rules Associated with the End of the State Emergency and on Epidemiological Preparedness

Decrees and resolutions

Gov. Decree 47/2020. (III. 18.)	Government Decree on Immediate Measures Necessary to Mitigate the Impact of the Coronavirus Pandemic on the National Economy
Gov. Decree 30/2012. (III. 7.)	on working time and rest periods for civil servants, administrative breaks, certain obligations incumbent on civil servants and employers, and teleworking
Gov. Decree 41/2020. (III. 11.)	on immediate measures to mitigate the effects of the coronavirus pandemic on the national economy
Gov. Decree 60/2020. (III. 23.)	on measures to increase the health security of payments involving contact in view of the state of emergency
Gov. Decree 71/2020. (III. 27.)	on the Lockdown
Gov. Decree 101/2020. (III. 27.)	on Certain Measures to be Taken in a State of Emergency that Affect Higher Education Institutions and Students
Gov. Decree 122/2020. (IV. 16.)	on the Different Application of Certain Provisions on Agricultural Regulation during the State of Emergency in the framework of the Economic Protection Action Plan
Gov. Decree 451/2016. (XII. 19.)	on the detailed rules of electronic administration
Gov. Decree 487/2020. (XI. 11.)	on the Application of Rules Concerning Teleworking in the Event of a State of Emergency
Gov. Resolution 1456/2017. (VII. 19.)	on the 2016 Monitoring Report of the National Infocommunications Strategy (NIS), on the Digital Welfare Programme 2.0, i.e. on the Expansion of the Digital Welfare Programme, the Adoption of its Work Plan for 2017-2018, on the Further Development of Digital Infrastructure, Competencies, Economy and Public Administration
Gov. Resolution 1486/2015. (VII. 21.)	on Current Tasks Related to the Implementation of the Digital Nation Development Programme and Amendments to Certain Related Government Decisions
Decree 21/2020. (VI. 17.) of the Ministry of Human Capacities	on Amending Certain Ministerial Decrees Falling within the Remit of the Minister for Human Capacities in Connection with the End of the State of Emergency