THE USV ANNALS OF ECONOMICS AND PUBLIC ADMINISTRATION | VOLUME 22, ISSUE 2(36), 2022

# HYBRID WORKPLACES - AN ANALYSIS FROM ERGONOMIC PERSPECTIVE

**Angela ALBU**
"Ştefan cel Mare" University of Suceava, Romania
angela.albu@usm.ro

Received 28 September 2022; Accepted 14 December 2022

**Abstract:**
*The science of Ergonomics is part of our usual activities, not only at our working places but also in our homes or during our holidays. Of course, the focus is on workplace design, but the information from Ergonomics can be used to improve our internal house design (kitchen, working space, or bedroom), the tourism accommodations (for normal people and those with special needs), and for the design of the facilities from the amusement parks.*
*The changes in the specifics of the work over time due to the development and modernization of the work conditions requested adaptation, changes, improvement, and new solutions from Ergonomics. Nowadays we are facing a new dramatical change – the Fourth Industrial Revolution which will lead to significant changes in work organization and workplace design. The rising share of computer workplaces, automation and computer use in more and more industries, and teleworking will challenge the Ergonomics preoccupations for finding optimal solutions to reduce workplace injuries and illnesses, to settle the correct position at work, to design the work environment, and to manage the work and the workers.*
*It is a certainty that new jobs will appear in the future for whom it will be necessary to settle ergonomic rules and requirements according to the specifics of the workplace. The Covid-19 pandemic shows the need to be flexible and capable of adaptation both from the part of employer and employee.*
*This paper contains a study of the effect of the Covid-19 pandemic on job organizations, which will have a big influence on future jobs. The ergonomic perspective takes into consideration the 4B conceptual model and proposes an improvement of this model. Also, a set of ergonomic basic rules is proposed in the case of teleworking jobs.*

**Key words**: teleworking, ergonomic principles and rules, hybrid work, conceptual model 4B

**JEL classification:** M 540, M 590

## 1. INTRODUCTION

The ergonomic analysis aims to optimize the design of workplaces by improving work safety and physical environment factors, reducing the negative effects due to the monotony of work, and reducing physical and nervous demands. The main purpose is to ensure the safety and well-being of employees to increase their productivity. Ergonomics as a science has an interdisciplinary character, which not only takes scientific information from various fields but also interconnects them to obtain real, practical data. The general approach of Ergonomics is a holistic one, in which much of ergonomic knowledge derives from the human sciences: anatomy, physiology, and psychology. The physical sciences also make a contribution, for example, to solving problems of lighting, heating, noise, and vibration. Unfortunately, Ergonomics is related very often only to problems of injuries and illnesses due to the workplace and less to companies' economic issues like productivity, employee satisfaction, workplace management, workplace improvements, and innovations (ILO, 1998).

Ergonomics is an integrated component of human resource management, which has become an independent science through its complexity. Through ergonomic analysis, human resources management obtains key information about the internal organization, the physical and mental conditions of the employees, and the organizational climate, safety, and security at work. Additionally, any issues that interfere with the employee's work process can be identified and remedied to benefit both human resources and the organization as a whole. From the perspective of the relationship between ergonomics and human resources management, it is noticed that many of

the concerns and practices used in the field of HRM (Human Resources Management) over time have led to the formulation of requirements and principles for the design and analysis of positions and work tasks, to help the employees and with the aim of increasing productivity (Manolescu et al, 2013).

The relationship of ergonomics with economic sciences refers to the influence of ergonomics in obtaining profit and the economic development of any economic entity. Of course, this relationship is also influenced by HRM because the relationship is established through human resources. Employee productivity is one of the main determinants of progress and profitability. Thus, through ergonomics and ergonomic analysis, organizations can avoid or find the right (and sometimes cheaper) solutions for losses caused by employee activity.

From the perspective of new job appearance, the ergonomic analysis aims to forecast the specific conditions, organize the workplace design process, and prepare the actual and potential workers to adapt to this new job.

The relationship between ergonomics and technical sciences is manifested, on the one hand, through the use of ergonomic data and knowledge in the design of technical and technological equipment, and on the other hand, through the establishment or orientation of research in the field of ergonomics, depending on the technical problems that must be resolved. In the case of technical sciences, it is checked if the existing machines and equipment are efficient and if they do not constitute any kind of impediment in the work process for the employees who use them, also aiming at the adaptation of technologies to constant technical progress (Kroemer et al, 2018).

Actual dramatical changes in workplace design and organization due to the Forth Industrial Revolution and the rise of the share of computer workplaces request new studies and ergonomic analysis to understand what are the trends and changes and how can Ergonomics provide useful tools to an organization's management.

## 2. COVID-19 PANDEMIC – MANAGERIAL AND ERGONOMIC ASPECTS

Until the beginning of 2020, no one thought that a virus can turn upside down the whole world and transform good and proven managerial methods, models, and techniques into useless ones. The situation represented a big challenge for the managers who faced an unknown problem; on one hand, there were restrictions imposed by the authorities, and on the other hand, there was the need to continue working at acceptable standards of quality and efficiency. Of course, there are workplaces where the changes are not possible or are very limited (different industries, agriculture, defense, and others) but for a wide range of workplaces and jobs, the managers proceeded with different changes and adaptations during the pandemic period to balance all types or requirements (health, political, economic, ergonomic, …).

The concept of *teleworkability* was reinvented and introduced into the common vocabulary.

Teleworkability refers to the theoretical and technical possibility of carrying out specific workplace activities from a distance, without negatively affecting the quality of the work. In this context, occupations can be classified according to the possibility of being carried out remotely, in a framework that understands the dual nature of work both as a transformative process of different objects and as a collaborative process that requires coordination. Marcias and Bisello (2021) proposed an improved taxonomy of work tasks according to the content of work, methods, and tools used during the work. The criterion content of work is directly connected with the teleworkability of a job or a workplace because it describes the concrete actions and activities carried out during the work process. Considering this criterion, the authors propose three types of jobs/tasks:

- physical tasks, which generally cannot be delivered remotely with existing technologies and therefore represent a bottleneck for the teleworking of occupations;
- social interaction tasks, which, if they do not require physical contact, can also be provided remotely, but with a loss of quality;

- information processing and problem-solving tasks, which can generally be provided remotely, with almost no loss, through the use of computers.

Considering the second criterion with two sub-criterion, the authors identified the following types of jobs for the methods used during the work:

- jobs with autonomy in which the employee can decide the working time, task order, methods, and speed;
- teamworking jobs in which each worker has to collaborate with other workers and the whole team is coordinated by a coordinator;
- routine jobs, characterized by repetitiveness and standardization. The worker has to repeat the same procedures or the procedures and outputs are predefined and encoded in a formalized system.

Regarding the specific tools used during the working period, there are jobs based on non-digital (analog) machinery and jobs based on digitally-enabled machinery.

Combining the two sub-classifications included in the second criterion, we can notice that the jobs with autonomy that use digitally-enabled machinery are fitting very well with the specific of remote work and also the teamworking jobs based on the same type of tools. Routine jobs are found usually in the industry and are not suitable for teleworkability. Figure no. 1 represents the adaptation capacity at teleworkability depending on the activity sector.

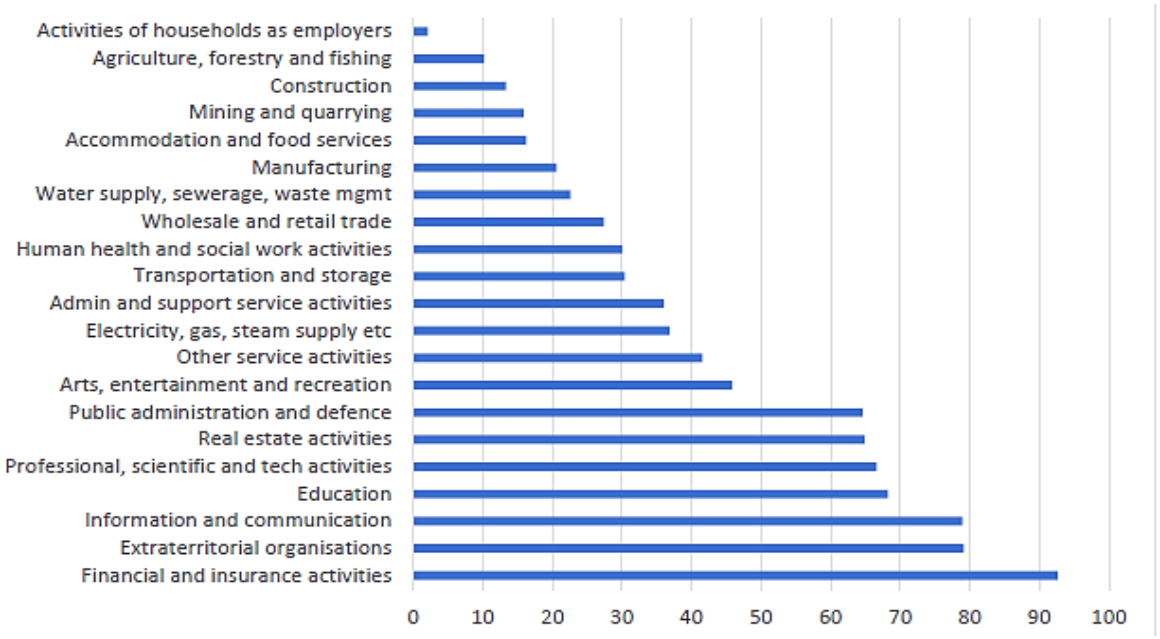


**Figure no. 1. Teleworkability in the EU depending on the sector of activity**

Source: Sostero et al., *Teleworkability and the COVID-19 crisis: a new digital divide?* Seville: European Commission. 2020 JRC121193. Retrieved from https://joint-research-centre.ec.europa.eu/document/download/2308ff34-3d51-4459-944b-58882f680383_en?filename=jrc121193.pdf. [Accessed on 9.11.2022]

The figure confirms the observation above, showing that the jobs in the Financial and insurances area, Information and communication, or Professional, scientific, and tech activities, with a high level of autonomy and based on the use of computers are more adaptable at remote working compared with agriculture, forestry, mining, or accommodation and food services. In detail, according to the study cited above, financial and insurance services are 93% teleworkable, information and communication activities – are 79%, respectively accommodation and food services – 16%, and agriculture, forestry, and fishing – are 10% (Sostero et al, 2020).

From an ergonomic point of view, the approach is fundamentally different when we analyse the classic organization of workplaces (face-to-face activity) and remote work. In the first situation, all organizations have internal structures in charge of ergonomic requirements specific to workplaces which monitor continuously the work conditions and the workers' activity. When it is necessary, measures are proposed and carried out to improve the workplace organization, avoid

injuries or illnesses, and assure high productivity. The information is saved and archived for future analysis and strategies. In the second case, remote work is not monitored by any specialized employee or team. There are tasks and deadlines to be achieved but no one is checking the conditions in which the employee is working at home. Even before the pandemic period, it was noticed an alarming increase in musculoskeletal disorders due to the work at computer stations in normal conditions of organization of workplaces. The extension of teleworking during the Covid-19 pandemic made the situation worse especially due to the lack of control and monitoring of work conditions.

During the pandemic period but especially after the restrictions were lifted, there were developed many studies regarding the influence of this period on the work organization, what solutions were introduced and what are the effects (positive or negative) on productivity, efficiency, and workforce behaviour. To have a clear `picture` of the evolution of teleworking it is necessary to compare the situation of this type of work organization before, during, and after the pandemic. Teleworking is not a new concept; referents on the possibility to work outside of a classic workplace inside a company are made in the European framework agreement on telework from 2002, but its evolution was very slow due to several reasons:

- a lot of professions, activities, and workplaces are not teleworkable;
- the resistance to the change of the workforce;
- the lack of interest from the managers to hide and monitor employees with work tasks that can be carried out remotely;
- the lack of professional preparation and background of employees which will allow them to work from distance;
- limited access to the internet in certain areas;
- the lack of tools like platforms, communication tools, data transmission systems, and others that facilitate remote working;
- the lack or limited security of information and data transmission systems.

The huge progress in the ITC area including the security of data solved a part of the barriers to teleworking development and the pandemic period pushed it in front and transformed it into a panacea for almost all the problems created by the pandemic restrictions. Figure no. 2 shows the evolution of remote working before the COVID-19 pandemic in EU28 countries.

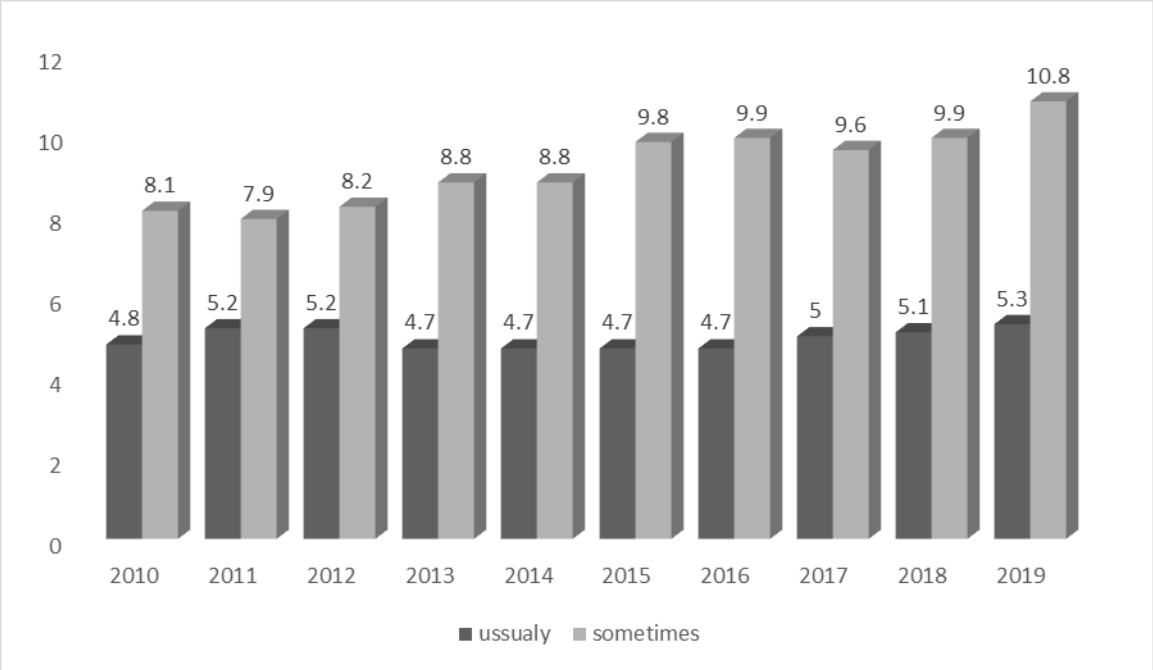


**Figure no. 2. The evolution of remote work before the pandemic in EU28 countries**

Source: elaborated by the author with information from Eurostat, https://ec.europa.eu/eurostat/web/products-datasets/-/lfsa_ehomp [Accessed on 29.11.2022]

Before the pandemic, remote work carried out as normal work represented approximately 5% of the total workforce at the EU level to which was added another approximately 9% of employees who did this type of work occasionally, values considered insignificant, even though the trend of teleworking was ascendant.

As the COVID-19 pandemic has spread across the globe and social distancing has been necessary to reduce the risk of illness and the spread of the virus, many governments have encouraged or mandated the minimization of physical presence in the workplace. In response, a large number of companies have turned to digital technology to continue operating, with staff working from home and using tools such as video conferencing, cloud services, and virtual private networks. Organizations that could leverage pre-existing teleworking capabilities or adapt quickly were able to make a relatively simple transition to remote work and maintain production levels. However, not all jobs and tasks can be teleworked. The nature of the activity is an impediment, but there is also the possibility that the employer does not offer the option to work from home, that the employees' home environment is not suitable for work, or that the residence does not have access to the Internet or other equipment necessary to carry out the activity. The pandemic, through its impact on the existence and all human activities, has also been a stress test for employers and employees. However, this phenomenon has helped to identify areas that require investment to improve employee connectivity or upskilling and has helped to increase trust between management and subordinates and between colleagues. The COVID-19 pandemic has removed some psychological and cultural barriers to remote work, forcing both employers and employees to overcome their previous reluctance to telework (OECD, 2021).

However, on-site work cannot completely disappear, primarily due to current technological limitations, which cannot replace specific tasks that require the physical presence of employees. Employers may still see a benefit in regularly bringing their employees together in a common space or base to ensure that team building, knowledge sharing, and corporate cultures do not suffer. Table no. 1 presents the share of telework during the pandemic for EU countries.

**Table no. 1. The share of remote working during the COVID-19 pandemic in EU27 countries**

| Location of work during the pandemic time | % of employees | The weekly average number of working hours | Notes |
|---|---|---|---|
| Home only | 33.7 % | 38.9 h | |
| Various: home, employer's premises, and elsewhere | 14.2 % | 41.2 h | of which 19.3 hours at home |
| Employer's premises or other locations outside the home | 52.1 % | 40.4 h | |
| **Total** | 100.0 % | 40.0 h | |

Source: Eurofound, (2020a) *Living, working and COVID-19*, COVID-19 series, Publications Office of the European Union, Luxembourg, Retrieved from https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef20059en.pdf [Accessed on 2.12.2022]

The total share of teleworking during the pandemic is more than 40% which represents a very big rise compared with the value for 2019 – 16.1% (5.3% + 10.8%). The value was calculated as:

- 19.3 hours worked at home represents 46.84% of the weekly average number of working hours (41.2 hours) for those who used various places to work;
- 46.84% of the total number of employees that worked in hybrid form (home, employer's premises, and elsewhere), respectively of 14.2% is 6.65%

The total share of personnel who worked at home during the pandemic is 33.7+6.65 = 40.35%. The value is 4 times bigger compared with the situation in 2019 and shows the real impact of the COVID-19 pandemic on work management. At first analysis, it seems that things are simpler for the managers; they establish tasks and deadlines and assures the equipment for employees' connection. But at a deeper analysis, the situation is more complicated due to a wide range of factors that can't be controlled and have a big influence on work and its outcomes. For example, the

managers can't know if the work is done during the day or the night, how many hours exactly were worked, if the employee took breaks if he/she has a good position, good light, or silence during the working hours if the connection was good or were problems and the list goes on. At these aspects, we can add the lack of direct communication between employees, members of the teams, and the board and subordinates which gradually erodes the organizational culture, affect the work environment, and reduce the work quality and productivity. Especially the effects of poor ergonomic work conditions are not seen immediately but in the medium and long term and sometimes, unfortunately, are permanent.

Teleworking for the entire work time was a solution for the pick of the pandemic period but doesn't represent a sure future for work organization. The experience gained during this time shows that remote work improves the quality of work especially when it is carried out as a part-time work arrangement (Grzegorczyk M et al, 2021). It is obvious that better technological conditions, a new mentality, and environmental restrictions will lead to the rise of teleworking in the future, but not for all the situations in which was used during the pandemic.

Already in 2021, it is noticed a decrease in the share of employees working only from home which confirms the forecasts of the specialists. According to Eurostat data, in 2021 it was a percentage of 10.6% of total remote work from home and a value of 13.4% of telework done partially (sometimes) with a total of 24% representing 59.5% from the value of the previous year (https://ec.europa.eu/eurostat/web/products-datasets/-/lfsa_ehomp). If we consider 2020 out of normal and analyse the trend of teleworking entirely from home during the period 2017 – 2021 we can notice an increasing trend (Figure no. 3) and a slightly increasing trend for the hybrid model of work organization (Figure no. 4).

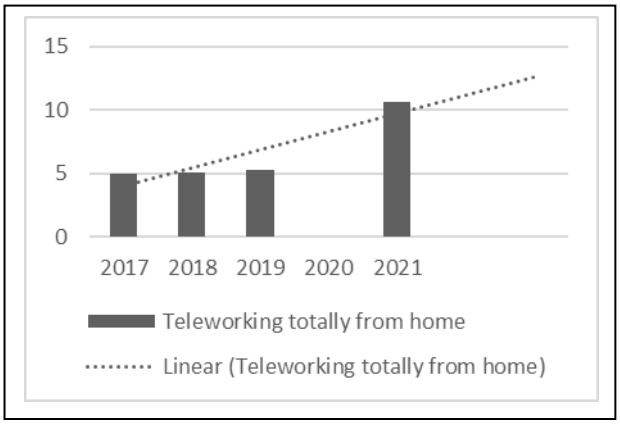


Fig. 3 Forecast for teleworking totally from home
Source: own elaboration with data from Eurostat https://ec.europa.eu/eurostat/web/products-datasets/-/lfsa_ehomp [Accessed on 29.11.2022]

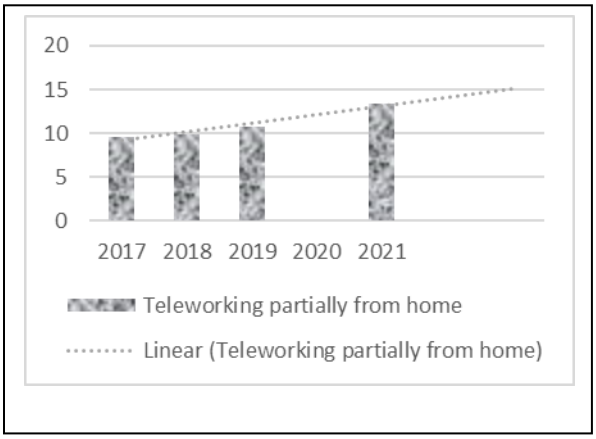


**Figure no. 4. Forecast for teleworking partially from home**
Source: own elaboration with data from Eurostat https://ec.europa.eu/eurostat/web/products-datasets/-/lfsa_ehomp [Accessed on 29.11.2022]

Both graphs show an increasing trend in the adoption of telework at the European level. However, it is not known how many employees have adapted to this system and will continue to prefer it, and how many will prefer to return to the classic and less flexible schedule and workplace.

## 3. 4B CONCEPTUAL MODEL

As the specialists forecast and the figures confirm remote work will have a positive evolution in the future, especially integrated into a hybrid model of work organization. With the information and data collected during the pandemic and the early post-pandemic period, the authors Grzegorczyk, Mariniello, Nurski, and Schraepen (2021) proposed a hybrid model for the work in the future, named the 4B model. From the beginning, the authors stated that it is about a hybrid

model of teleworking in which the workers can work remotely for a certain proportion of their time from home or another location different from the employer's premises. The 4B model accepts also that the activity can be organized 100% remotely if both parties (employer and employee) agree with this. Considering that the major parts of teleworkable jobs are carried out in offices, the 4B model is focused exactly on this type of job.

The 4B conceptual model considers four blocks to describe the organization of the workplace.

The first block is named **bricks** and deals with the space for the work. The first result of the implementation of a hybrid model of workplace organization will be fewer persons in the offices during the normal working period of time. It can represent an advantage for the management which care reduce some costs and simplify the organization of employees and workplaces. The offices remain mandatory spaces for companies, but the concept is different the accent being put on the office's quality, design, and facilities and less on the surface size. Very often, the term flexible office space can be adapted to different numbers of persons and different activities carried out daily. According to Molla (2020), the office became a workspace ecosystem in which the employees come for *"learning development, collaborating, mentoring, socializing"*, i.e., offices should support interactions that cannot be as easily done remotely. The workspace ecosystem is a multifunctional one in which the places are not assigned to a certain person, the walls can be moved, and the furniture is also multifunctional and intelligently placed in the space. With a minimum of effort, the space can be transformed from separated small offices for one person into a large meeting room.

The second block is named **bytes** and refers to the tools used during the hybrid work. The 4B model proposed by Grzegorczyk and collaborators (2021) is based on the use of digital tools for work, communication, learning, training, and production (if it is the case). Similar to the spaces, the tools are not assigned to a certain employee but are in common use, a fact which can create different problems of correct use, overload, or underload of the digital tools. To facilitate collaboration between employees, the common use of tools and high quality of the work results in the situation in which the physical presence and interaction are reduced, it is mandatory to implement modern techniques such as cloud software, cloud storage for data and documents, video conferencing, and other digital collaboration tools. A special situation may appear when the persons work in different time zones; in this case, synchronous activities are not always possible and the communication will use usual channels like emails. The management should take care that reading and answering emails is time-consuming and can overload the employees.

The third B comes from the **behaviour** block. In the 4B conceptual model, this block deals with the organizational culture of hybrid work. The lack of physical presence and direct communication can lead to a slow dilution of organizational values. It is the duty of top management to find and implement the appropriate measures to keep alive these values in employees' memory using digital tools like intranet messages, or internal newsletters. The protection of the organizational culture represents a real challenge for the top management in a hybrid work model. The authors of the 4B model suggested different adaptations or transformations of known managerial methods and techniques to the new context of digital work, communication, and socialization. Some interesting examples are:

- management should shift from a control and monitoring process to a trust-based leadership in which the focus is on the performance/results of the employees;
- remote work has a negative impact on informal communication and interaction between workers. A lot of small and apparently insignificant discussions during breaks or waiting their turn at the coffee machine are lost. To avoid this, now when the restrictions are lifted, the management can organize different events to where are invited all employees in an informal atmosphere, or can organize a 15-minute daily digital informal meeting with the participation of on-site and remote workers.

The fourth block of the model is the **blueprint** which describes the allocation and coordination of people and tasks. In my opinion, this block is the most important of all four.

Depending on how is organized the work, what tasks are assigned to each employee, and what outcomes are expected from them the organization will reach its goals or not. The situation is more complex compared with a classical workplace organization and tasks assignment because, in a hybrid model, it is necessary to harmonize several individuals working separately, at their homes with teams and/or groups working on-site, with different working programmes, and different responsibilities. To avoid the lack of coordination and finally, chaos, the management should adopt clear rules and criteria in the organization of remote work versus on-site work. Strict shares between telework and on-site work should be adopted, also a concrete list of the jobs/workplaces that can be performed remotely. More than in a classical work model, management should continuously monitor the behaviour of the employees, the relations between remote and on-site workers, and the results/performances of each individual and team, aiming for better coordination of people and task allocation.

## 4. PROPOSALS FOR THE IMPROVEMENT OF THE 4B CONCEPTUAL MODEL

The 4B model proposed for hybrid work, predicted to be the work organization model in the future for workplaces in offices, gives some practical suggestions to managers to help them to pass smoothly from the actual on-site organization to a hybrid one. One of the aims of the 4B conceptual model is the assurance of well-being for the workers, whether they are present in the office or working from another location. In this direction, the model makes some recommendations regarding basic ergonomic rules for space design (bricks) and tools used (bytes) but doesn't include a dimension for ergonomic and occupational health aspects. The authors did not intend to develop this part of work organization as well which gives the possibility to improve the model and add the missing part. We called the improved model the 4B-E conceptual model of hybrid work.

Analysing the description of each block and the connections between blocks, in the first step of the model improvement we propose a graphical representation of the 4B-E conceptual model (Figure no. 5).

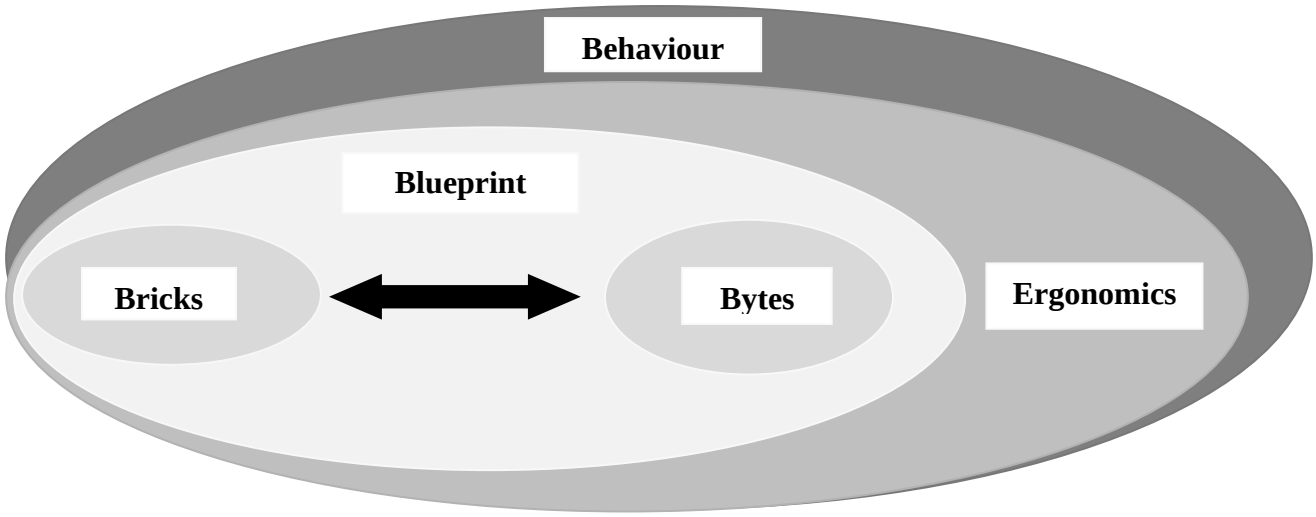


**Figure no. 5. The representation of the conceptual model 4B-E**
Source: own elaboration

As can be seen in the figure above, the supplementary block introduced by us in the hybrid work conceptual model is Ergonomics and occupational health (the E from the model title).

Ergonomics is part of the organizational culture and aims to create a workplace with all the facilities needed for high work performance, safe, in which the employee feels good and can provide the maximum of her/his work capacity. The ergonomic principles, rules, methods, and techniques will determine the allocation of tasks searching for the best worker for each workplace, and also the coordination of employees; in the figure, this fact is represented by the ergonomics area

which includes the blueprint one. In the inner part of the graphical representation of the 4B-E model, we can find the basic elements of a hybrid workplace – the space (bricks) and the tools (bytes) connected bidirectionally, included in the blueprint area.

The representation helps managers to establish the correct hierarchical level for each decision, and to include the ergonomic issues in the design of future hybrid workplaces. In this direction, a set of recommendations are proposed with the goals of improving the 4B model and providing managers milestones for designing the workplace for future jobs, correct task assignment, and efficient coordination of the employees.

- The management of the organization is responsible not only for the work conditions in face-to-face activity but also for the conditions of the location selected by the worker for remote activities. To avoid ergonomic risks due to the lack of proper equipment like chairs, desks, light sources, or other devices used in the work process, the organization should invest and buy or rent proper equipment which will be installed out of the company headquarters, at the remote workplaces chosen by the employee. This is not enough; the worker should be trained and informed that there are the same ergonomic rules to respect regardless of where he/she works.
- For the workplaces organized on-site, are valid the normal ergonomic rules and principles also, but the flexibility of space should be considered as well. Both the individual spaces and the common spaces will be ergonomically organized, paying attention to assure the minimum space necessary for optimum work activity, privacy, silence, proper temperature, and humidity.
- Another important ergonomic aspect in designing the hybrid workplace for future jobs refers to the working periods and breaks. Some studies carried out at the EU level during the pandemic and after (Eurofound, 2020b) show that remote workers do not respect a healthy and correct alternation of work periods and rest periods (breaks). Some of them are working during the night to accomplish their tasks or are working more hours than usual because they have difficulties focusing on what they have to do in the familiar atmosphere. To avoid extra work or overloading the employees, I suggest that the management should limit the teleworking share of each employee, and assign tasks for remote working according to previous results and the performance of each person working in this type of work model.
- A new element that should be included in the ergonomic analysis is the stress caused by long online meetings. It was noticed that the attention and concentration of employees involved frequently in long online meetings decreases sharply which leads to more effort to understand the subject of conversations and to actively participate in these meetings. The risk of intellectual fatigue is high. It is the management's responsibility to organize the online meetings, limit the period for them, and follow a clear structure for an efficient final result in a limited period. Regulations in this direction should be added to the existing ones for computerized workplaces.

## CONCLUSIONS

The pandemic came over us suddenly and changed a lot of our customs, including work organization. Forced to shift rapidly from on-site work to online activities, the organizations faced a lot of problems that needed solutions in an uncertain context. One of them refers to the organization of workplaces for online or hybrid work considered to become more present in the future, especially for office jobs.

This research started from several reports and data published at the EU level but not only, from my scientific interest in ergonomics for computerized jobs, and also from personal experience. Trying to assure the continuity of work in the stressful conditions of the pandemic period, the managers often forgot about the ergonomic principles and the long time negative effects of inappropriate work conditions. The 4B conceptual model aims to fill the gap and provide the basic

information for a correct design of a hybrid workplace. Analysing the model, I realized that ergonomic occupational health is less developed and I propose an improved model with this dimension included. The 4B-E model can be further developed with more detailed recommendations regarding walls color, furniture color, ambient music, rest areas with green plants, recreation, and socializing areas, alternation of on-site and remote work, methods for checking how it is carried out teleworking at home without interfering with employee's personal life and many other ergonomic factors considered for an ergonomic design of the workplace. Also, I consider it is necessary to introduce stipulations and rules in the collective labor contracts regarding the new condition of hybrid work.

## BIBLIOGRAPHY


1. Eurofound (2020b) *Telework and ICT-based mobile work: Flexible working in the digital age*, New Forms of Employment Series, European Foundation for the Improvement of Living and Working Conditions, Luxembourg: Publications Office of the European Union. Retrieved from https://www.eurofound.europa.eu/publications/report/2020/telework-and-ict-based-mobile-work-flexible-working-in-the-digital-age
2. Eurofound, (2020a) *Living, working and COVID-19*, COVID-19 series, Publications Office of the European Union, Luxembourg, Retrieved from https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef20059en.pdf
3. Fernandez-Macias E., Bisello M., (2022) *A Taxonomy of Tasks for Assessing the Impact of New Technologies on Work*, Social Indicators Research, Retrieved from https://www.researchgate.net/publication/342601122_A_Taxonomy_of_Tasks_for_Assessing_the_Impact_of_New_Technologies_on_Work
4. Grzegorczyk M., Mariniello M., Nurski L. și Schraepen T., (2021) *Blending the physical and virtual: a hybrid model for the future of work*, Policy Contribution, nr. 14, Bruegel. Retrieved from https://www.bruegel.org/wp-content/uploads/2021/06/PC-Hybrid-work.pdf
5. ILO (1998), *Encyclopaedia of Occupational Health & Safety*, part. IV Tools and approaches, Chapter 29 Ergonomics. Retrieved from http://www.ilocis.org/documents/chpt29e.htm
6. Kroemer E. K. E., Kroemer H. B. și Kroemer H. A.D., (2018), *Ergonomics: How to Design for Ease and Efficiency*, Ed. Academic Press, Elsevier Inc., third edition. Retrieved from https://books.google.ro/books?id=NXdxDwAAQBAJ&printsec=frontcover&hl=ro
7. Manolescu A., Lefter V., Deaconu A. (2013), *Ergonomie*, Editura Economică, București, editia II
8. Molla R. (2020) *The pandemic could have crushed WeWork. It may have saved it instead*, Vox recode, 22 December. Retrieved from https://www.vox.com/recode/22193428/wework-flexible-coworking-officespace-pandemic
9. OECD, (2021) *Teleworking in the COVID-19 pandemic: Trends and prospects*, OECD Policy Responses to Coronavirus (COVID-19), OECD Publishing, Paris, 2021, Retrieved from https://doi.org/10.1787/72a416b6-en
10. Sostero M., Milasi S., Hurley J., Fernandez-Marcias E., Busello M., (2020) *Teleworkability and the COVID-19 crisis: a new digital divide?* Seville: European Commission. JRC121193. Retrieved from https://joint-research-centre.ec.europa.eu/document/download/2308ff34-3d51-4459-944b-58882f680383_en?filename=jrc121193.pdf
11. https://ec.europa.eu/eurostat/web/products-datasets/-/lfsa_ehomp