



A new way of working post Covid-19: Expectations of young engineers in Europe

Executive Summary

The COVID-19 pandemic has led to a transformation of the workplace. As part of this transformation, companies should specifically adapt the workplace to the requirements of their target group in order to attract and retain these talents. Engineers in particular represent the target group of many companies in order to be able to manage challenges such as the energy transition. But under what conditions would the next generation of young European engineers like to work? When is a company attractive for this target group? These questions are answered within this policy paper.

The basis of this policy paper is a survey on the topic of Future of Work, whose participants are over 300 young engineers from over 20 countries in Europe. The survey was conducted from September 2020 to June 2021 to take into account the impact of the Corona pandemic.

The key findings can be summarised as follows:

- 46% of engineers work most productively in a hybrid work model of office and remote working. Only 13% of respondents are most productive working exclusively in remote working settings.
- Working environment and flexible working time models are besides salary the most important working conditions for young engineers
- The biggest advantages of remote working for young European engineers are flexible working hours (32%), less money and time wasted on traveling (28%) and a good work-life balance (16%).
- The biggest disadvantages of remote working are lack of human interaction (53%), no separation between work and home life (31%) and bad technical conditions (6%).

These results may help companies create working conditions to be attractive to the next generation of young European engineers.

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European Young Engineers... Who are we?

European Young Engineers (EYE) is a pan-European non-profit organisation which represents more than 500,000 young engineers from more than 30 professional engineering associations in 25 European countries.

EYE has the vision to be the voice of young engineers in Europe and acts as a channel to their opinion towards multiple topics that affect these engineering students and young professionals in their life.

The Public Policy department aims to facilitate this representation process and focuses on some of the overarching themes of the current generation, such as the interface between nature and technology or the future of engineering work.

Background

The topic “Future of Work” has been accelerated by the COVID-19 pandemic in 2020-2021 and has gained new momentum for all stakeholders, especially for the youngest generations.

With the declaration of the disease COVID-19 as a “global pandemic” on 11 March 2020 by the Director General of the World Health Organization, many European countries installed strict public health measures [1,2]. Social distancing and the closure of schools and universities were only some of them. Universities and many companies had to send their students and employees home and at the same time needed to react within days to handle daily business from remote. Although this was seen as a huge challenge, the pandemic demonstrated that remote working at large scale is not impossible.

Reports from the European Commission’s science and knowledge service estimate that before COVID-19 pandemic, **only 15% of the employed citizens of the EU had ever worked remotely** [3], while Eurofond statistics show that almost 40% of the currently employed EU citizens have shifted to full-time remote working as a result of the outbreak [4]. After some months of remote working it has become “the new normal” and lots of people get used to it as there are often no alternatives.

There are lots of public discussions on the topic “Future of Work” and the implications of remote working. Gartner predicts in its research “Future of Work Trends Post-COVID-19” from 2020 that 48% of employees will work remotely at least some part of their working time in the future [5].

But **what do young engineers think about this topic?** What are their wishes for their future working environment regarding remote working?

As the voice of young engineers, European Young Engineers (EYE) are the first to ask for the opinion of young engineers on their impressions and needs in terms of remote working and future of work.

This policy paper differentiates itself from other policy papers and reports on the topic of the future of work as its focus relies on the viewpoint of young engineers and is not conducted within specific companies. EYE uses its vast network of engineering students and young professionals across Europe to gather their opinion on this topic and to shape the future working environment of young engineers in Europe.

Methodology

Between September 2020 and June 2021, EYE launched a survey regarding the working environment of young engineers taking into account the corona pandemic.

Opinions were collected using an online survey, distributed through social media channels and by the EYE volunteers.

The Questionnaire

The questionnaire has 12 questions and was designed to capture the working environment of young engineers from Europe during the corona crisis.

The questions are organised as follows: the first 5 questions aim to get information about the participants taking part in the survey and the following ones are related to their working environment.

The questionnaire combined open-ended questions and multiple-choice questions with predefined answers offering respondents the possibility to choose and rank among several options.

Survey Sample

In total, EYE received 316 responses from young engineers all around Europe.

1. **Breakdown of responses by geographical origin**

The most significant number of answers were gathered from Germany (83 resp.), Spain (77 resp.), and Romania (32 resp.)

2. **Profile of Respondents**

In addition to providing their country of origin, respondents were asked to indicate their gender, out of which 31.64% are females (100 resp.) while 68.36% respondents are males (216 resp.).

3. **Breakdown by Age**

The participants were also asked to indicate their age. In the following analysis all engineers under 30 will be referred to as young engineers (224/316 respondents or 71% of survey participants).

Analysis

Ensuring a successful transition to a new way of working

In the aftermath of the COVID-19 outbreak, many workers had to shift for the first time to a new work-from-home environment. While places that were traditionally used solely for one's personal life suddenly turned into offices, people had to prepare themselves both infrastructure-wise and mentally to meet all the challenges imposed by this new situation. In fact, only 28% of our survey participants had ever worked remotely before the pandemic, many of the respondents having no prior first experience of teleworking.

Companies might need to consider designing more flexibility into future jobs and not only constrain their workers to standard office hours, as 32% of the survey respondents regarded flexible time models as being the biggest advantage of remote working for them as seen in **Figure 1**.

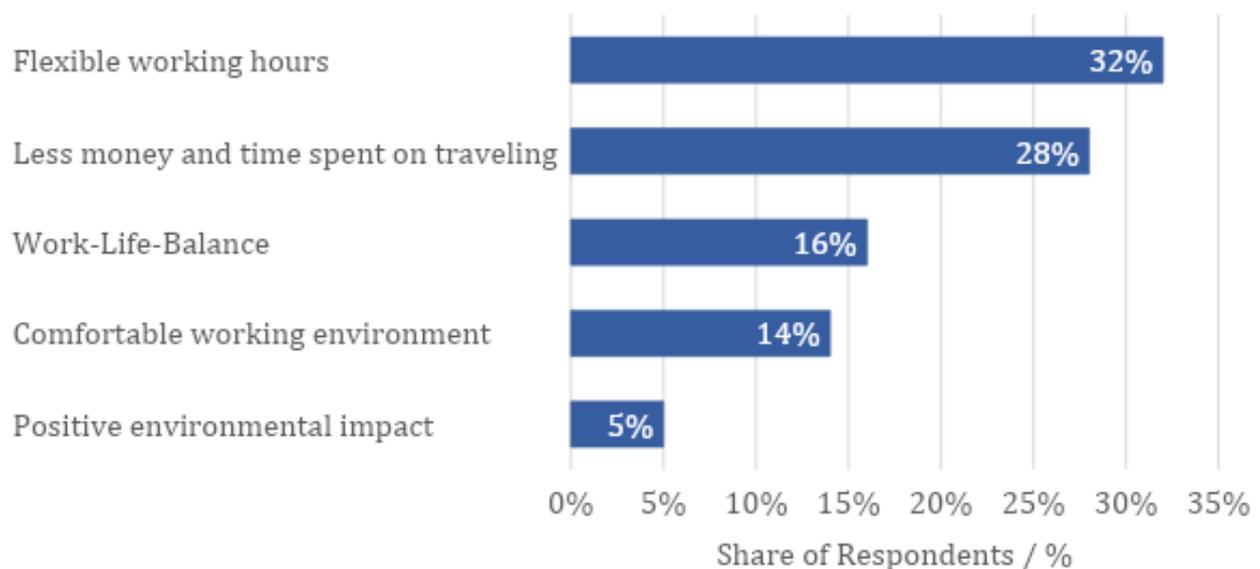


Figure 1. Advantages of remote working for engineers (percentage).

The International Trade Union Confederation (ITUC) and The International Organisation of Employers (IOE) [6] draw attention to the importance of working-time regulations in order to protect workers from occupational stress and enhance efficiency and productivity. While employees have more autonomy in the organization of their work, stressors such as interruptions at home, the feeling of “work without end” [6], or the blurred boundaries between work and home life can be detrimental to their productivity and mental health in the long run.

The well-being of young people during the crisis was reported as being the lowest among any other age groups

Reports from Eurofound [9] on the impact of the COVID-19 outbreak on people’s lives show that more than in the case of any other age group, young people under the age of 35 were most affected by the lockdown in terms of social exclusion and well-being. Although young people were more positive about the future of the pandemic than older respondents, 58% were likely to feel less hopeful and positive about themselves in the current situation.

Figure 2. depicts the main disadvantages of working remotely, revealing that **53% of the young engineers** consider **the lack of human interaction as being the biggest disadvantage of working remotely.**

Consequently, initiatives and practical tools that encourage and create opportunities for social communication are crucial in order to overcome possible feelings of loneliness or depression among young people and deserve special consideration, especially in the context of further potential lockdowns [7,9].

While 31% of the participants consider the lack of separation between work and personal life as being the main disadvantage of remote working for them, 6% of the respondents are facing the greatest difficulties in dealing with interruptions at home during the lockdown.

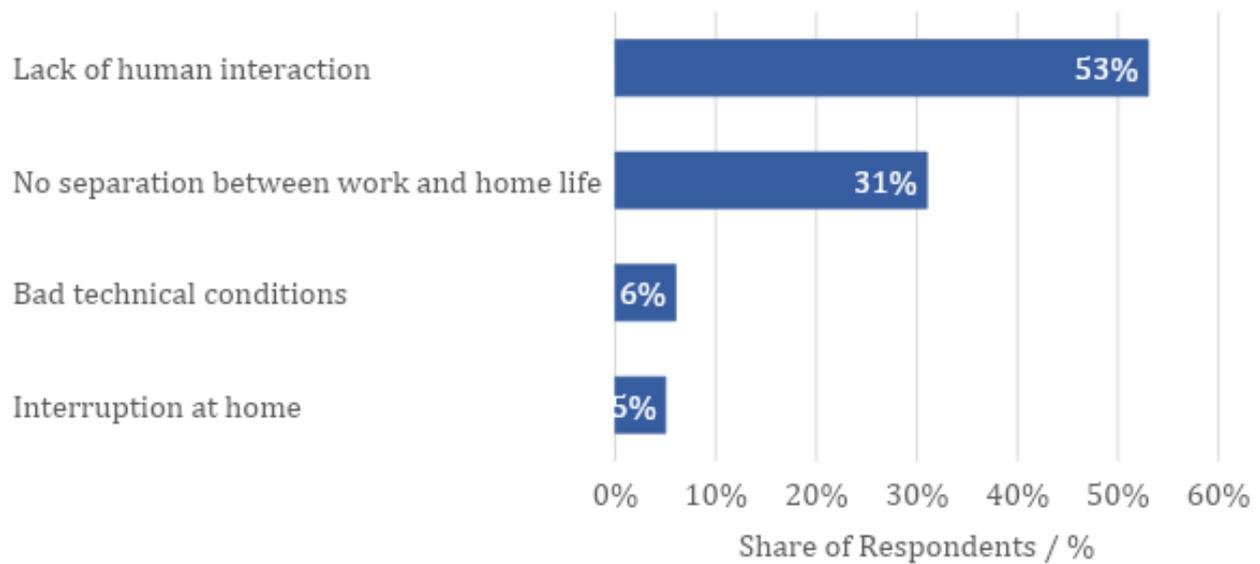


Figure 2. Disadvantages of remote working for engineers (percentage).

Anticipating such disadvantages, the revision of the French Labour Code has included in 2017 the “right to be disconnected” in order to protect the rest period of workers [6,7]. In addition, to create a “better normal” for employees and ensure a smoother transition to remote working, the International Labour Organization (ILC) published a working from home (WFH) policy template in response to the covid-19 outbreak, providing an assistance scheme for employers on how to implement WFH arrangements at the workplace [7].

Amount of salary, working environment and flexible time models are the most important working conditions for young engineers

Working conditions can have a significant impact on the productivity and well-being of employees. **Figure 3.** illustrates the importance of different working conditions for young engineers, showing that 96 respondents have ranked the working environment as their first

choice, 70 selected the flexibility of time models as their number one option, and 67 stated that the amount of salary is the most important working condition for them.

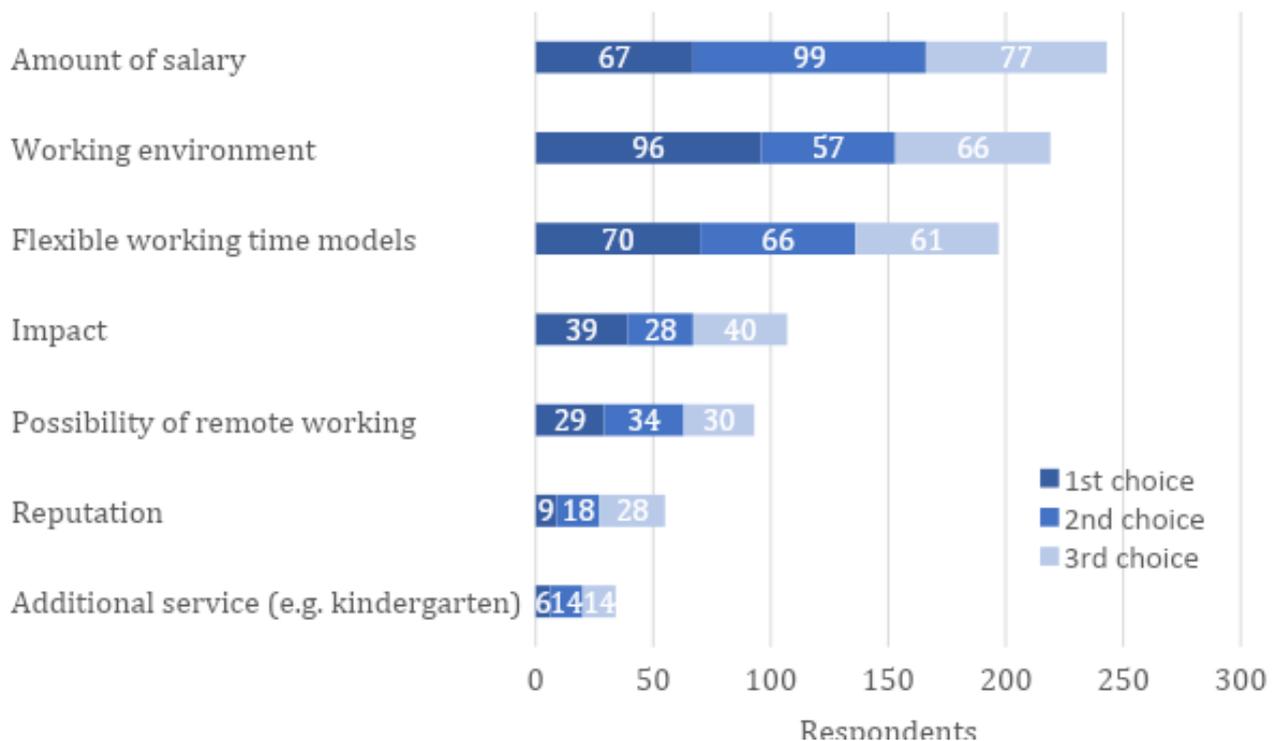


Figure 3. Ranking of the top three most important working conditions for young engineers.

When also taking into consideration what the participants picked for their second and third choices, we discovered that the amount of salary was actually the most popular working condition among young engineers, working environment the second, and the flexibility of time models the third.

These results highlight the fact that these top 3 choices are indeed the working conditions that have the most direct impact on people’s daily lives, in contrast to the other options listed. Furthermore, the survey shows that job satisfaction still depends the most on the amount of salary. This fact is also intensified by the impact of the pandemic on the economy.

A report from the International Labour Organization states that in the last quarter of 2020 “global working hours declined by 4.6 per cent, equivalent to 130 million full-time jobs” [10].

Young people will need to be particularly targeted by future policies to facilitate their recovery, as 8.7% of young workers lost their jobs during the pandemic, compared to 3.7% for adults [10].

Our survey shows that for young people living in Germany, factors such as the impact of their work crowds out salary in importance. However, for survey participants from Spain, the salary level remains the main source of work motivation, the impact being listed among the least important ones.

Can remote working be seen as a sustainable way of working in the long term?

Initiatives that promote the positive aspects of working remotely should not be foregone, but implemented in the post COVID-19 world as well. **Figure 1.** confirms this, as 16% of young engineers observed having a better work-life balance when working remotely and another 14% of respondents claim that a comfortable working environment is the most important advantage of shifting to this new way of working. The reduction of commuting times and the positive contribution to the environment are for 28%, respectively 5% of young engineers the most important reasons to work remotely (**Figure 1**).

Companies need to take advantage of these benefits if they are to successfully align their work culture with remote working, after COVID-19. **Figure 4.** depicts the most preferred working environments of engineers, revealing that **their productivity is maximized either in a hybrid version of remote working or in the office setting (46%, respectively 39%).**

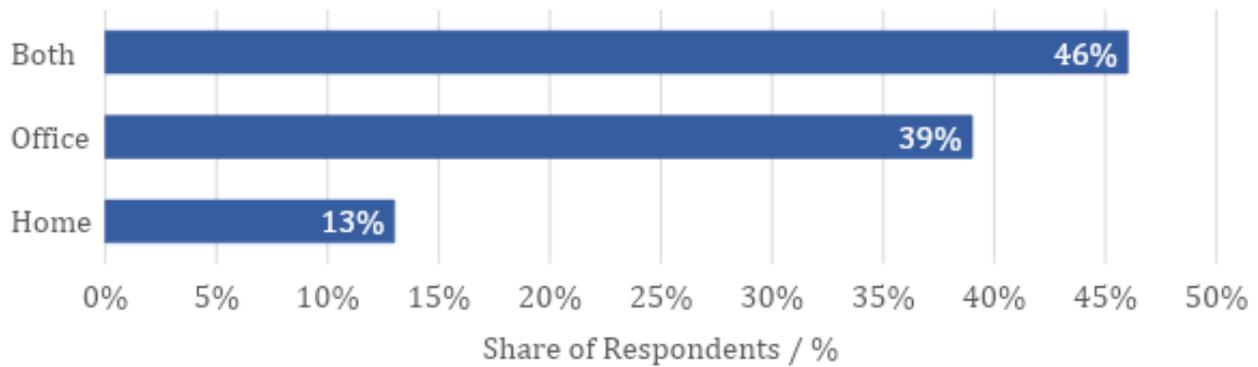


Figure 4. Percentage of young engineers reporting an increased productivity when working only from the office, only from home, or in a hybrid version.

Figure 5. puts in contrast the opinion of different age groups, showing that only 9% of the young respondents under the age of 30 are feeling enhanced productivity at home rather than in the office, while 91% of them are prone to either work entirely from the office in the future, or choose a hybrid version.

Among the age group of engineers over 30 years old, 22% of the respondents feel more productive at home and 52% of them in a hybrid-remote scenario, emphasizing the fact that they are slightly more receptive than the younger engineers to working entirely from home in the future.

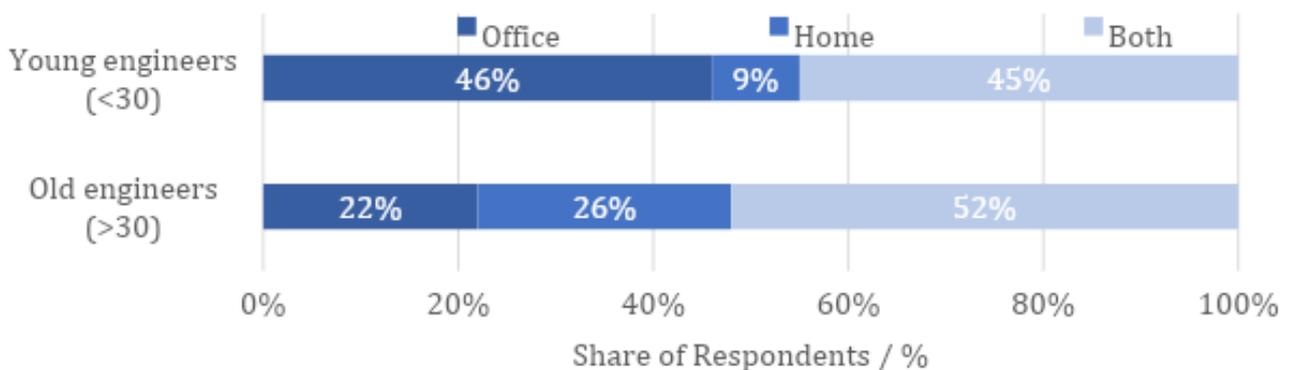


Figure 5. Percentage of engineers reporting an increased productivity when working only from the office, only from home, or in a hybrid version, by age group.

Conclusion

This paper investigates the working conditions under which young European engineers realise their full potential. Not only has the corona pandemic shown that remote working is possible, it has also enabled the way for future hybrid working concepts. While many companies are currently struggling to define their future way of working, it is beneficial to take the expectations of young engineers into account to become an attractive employer. For the purpose of analysing the expectations of young engineers, more than 300 young engineers from over 20 European countries were asked.

The results show that 46% of engineers are most productive working in a hybrid office/home office model and only 13% are most productive working exclusively in a home office. Besides increasing productivity, the hybrid model enables the advantages of remote working (e.g. less money and time wasted on travelling) and counteracts the disadvantages of remote working (e.g. lack of human interaction).

In further work, the influence of the engineers' country of origin on their response can be investigated. This analysis will show the shortcomings as well as the successes of the individual countries in terms of the Future of Work. However, the number of participants in the individual countries must be increased in order to be able to make a valid statement.

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European Young Engineers

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