

**THE IMPACT OF FLEXIBLE WORKING ON
PRODUCTIVITY AND JOB SATISFACTION - CASE
FUTURE OF WORK IN AGILE R&D**

**Jyväskylä University
School of Business and Economics**

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Subject: Management and leadership
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ABSTRACT

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Abstract <p>The purpose of this study is to review and examine how Ericsson Finland could improve flexible ways of working but still maintain efficient teamwork and additionally consider business - and people's personal needs in the agile software development unit. Therefore, four research questions were formed to address topics regarding virtual communication and cooperation, productivity in remote work, the effect of remote work on job satisfaction, and work-life balance. Additionally, agile ways of working in a virtual context is reviewed, as the teams in scope are local agile teams.</p> <p>Working life has changed during the years, mainly due to digitalization but especially during the Covid-19 pandemic, many organizations have noticed that work can be done successfully by using more flexible ways of working. Competition around competent software developers is high, therefore it is vital to answer the demands of job markets, and flexibility is seen as one aspect that can attract new and current talents.</p> <p>The empirical study of this paper is conducted as a mixed methods research. Data was collected with an online survey (N=67). Results indicate that virtual communication and collaboration have mainly been successful, yet there are some minor challenges mostly due to the Covid-19 situation that has eliminated almost all face-to-face encounters. Teams consider that their work productivity has not suffered due to remote work, and results also highlighted that focus can be better when working from home since there are fewer disturbances than in the open office. Feeling of isolation and lack of communication can harm work productivity (Rose, 2016; Sobel Lojeski & Reilly 2020), which was slightly visible also in this study. Results related to job satisfaction and work-life balance indicate that on one hand increased autonomy has improved job satisfaction and for instance, employees are highly satisfied that they have more time for themselves and their families. Also, flexible working possibilities ease arranging private appointments and managing kinds, yet for some individuals, flexible working blurs work-life balance and causes challenges in private life. Also, agile methods were seen to work well remotely and the overall feedback was very good regarding agile ways of working. Based on these results, it is suggested that teams would benefit from increased flexibility but still have a decent amount of face-to-face working to improve communication, collaboration, and trust-building.</p>	
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<p>Tämän pro gradu -tutkielman tarkoitus on selvittää, miten Suomen Ericsson voisi kehittää joustavia työntekotapoja, samalla taaten tehokkaan tiimityöskentelyn ja erilaiset tarpeet, liittyen yritystoimintaan ja yksilöiden henkilökohtaisiin toiveisiin. Tämän perusteella muodostettiin neljä tutkimuskysymystä, jotka keskittyvät etätyökontekstissa tapahtuvaan kommunikointiin, yhteistyöhön, työn tuottavuuteen, etätyön vaikutukseen työtyytyväisyyden ja työn ja muun elämän tasapainon suhteen. Lisäksi keskitytään ketterien menetelmien sujuvuuteen etätyössä, sillä tutkimuksen kohteena ovat ketteriä menetelmiä hyödyntävät paikalliset tuotekehitystiimit.</p> <p>Työelämä ja työntekotavat ovat muuttuneet vuosien saatossa erityisesti digitalisaation takia. Tämän lisäksi koronapandemia on saanut yritykset huomaamaan, että monia työtehtäviä voidaan tehdä joustavammin, kuin ehkä aikaisemmin on ajateltu. Tuotekehittäjät ovat erittäin kilpailtuja työmarkkinoilla, jonka takia yritysten on tärkeää pystyä sopeutumaan kilpailuun tarjoamalla esimerkiksi joustavampia työtapoja säilyttääkseen kilpailukykyä ja houkuttelevuutensa työntekijöiden silmissä.</p> <p>Empiirinen tutkimus on toteutettu monimenetelmäisesti. Tutkimusdata on kerätty verkkopohjaisella kyselylomakkeella (N=67). Tulosten perusteella voidaan todeta, että kommunikointi ja yhteistyö virtuaalisessa kontekstissa on pääsääntöisesti onnistunutta, haasteet liittyvät erityisesti koronapandemian takia lähes kokonaan puuttuvat toimistolla tapahtuvat kohtaamiset. Tiimit näkevät, että työn tuottavuus ei ole kärsinyt etätyön takia, ja tulokset osoittavat, että keskittyminen voi olla jopa helpompaa kotona, koska häiriöitä voi olla vähemmän verrattuna toimistotilaan. Eristyneisyys ja viestinnän puute voivat heikentää tuottavuutta (Rose, 2016) ja ilmiö oli osittain nähtävissä tutkimustuloksissa. Työtyytyväisyyteen ja työn ja muun elämän tasapainoon liittyvät tulokset viittaavat siihen, että lisääntynyt vapaus on parantanut tyytyväisyyttä ja henkilökohtaisen elämän järjestelyä, toisaalta joustavampi työskentely voi johtaa hämärtyneeseen rajaan työn ja muun elämän välillä. Ketterät menetelmät havaittiin toimivan hyvin etätyökontekstissa, kun kaikki tiimijäsenet työskentelevät etätyössä. Näiden tulosten perusteella suositellaan, että tiimit hyödyntävät etätyötä myös jatkossa, kuitenkin unohtamatta kasvokkain tapahtuvia kohtaamisia, sillä sen avulla voidaan kehittää kommunikointia, yhteistyötä ja luottamusta.</p>	
Asiasanat Etätyö, työelämän muutos, virtuaalinen kommunikaatio, digitalisaatio, ketterät menetelmät	
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1 INTRODUCTION

Discussion on transformation in working life and how digitalization has shaped people's everyday life is a much-talked topic. People are uncertain what will happen in the future, especially when talking about jobs and occupations. The negative tone in talking and different nightmare scenarios are relatively usual (Koivumäki, 2008). Yet this transformation is nothing new, as working life has changed during history but it is argued that the transformation in working life is happening now faster than ever, which in itself can increase the amount of discussion on the topic. Individuals and organizations are expected to be adaptable and willing to change constantly when taking steps towards a more modern working life. (Bikos, Dykhouse, Boutin, Gowen & Rodney, 2013; Kauhanen, 2014.) A suitable quote for today's working life could be from Heraclitus "The only thing that is constant, is change".

Rapidly evolving technology opens new business opportunities for organizations and customers are demanding services and products faster and faster. This adds pressure to companies, as people who are working in the organization need to develop innovations and cope with pressures to be creative. Simultaneously organizations are trying to find ways how to support employee's innovativeness and creativity and how to retain and attract talent in the company. It is a complex and challenging situation and requires changes and work from all parties. (Korver, 2006; Ware & Grantham, 2003.)

However, digitalization is not the only driving force that is changing working life, other forces that are strongly shaping current and futures working life is demographical change, new generations in working life acts needed towards nature, and globalization (Dufva, Halonen, Kari, Koivisto, Koivisto, & Myllyoja, 2017; Valtioneuvoston kanslia 2018, 10; Smidt, Becker & Bradley, 2015). All these major changes and what effect they have on the field of human resource management and further what impact the changing working life has and will have on employees. It is important to review the topic, as the situation can be even more uncontrollable and uncertain if we just drift along with the change. (Auvinen & Lämsä, 2020.)

The topic is relevant as working life is changing faster than ever and competition between organizations is growing. Talented and innovative people are huge assets for companies and retaining and attracting talented people is essential for the success of organizations. Old, traditional organizing models and ways of working are not likely to be beneficial for companies and therefore, companies and people in them need to develop new approaches to work in order to stay as

a competitive and attractive organization. Moreover, research that presents future trends in human resource management indicates strongly that aspects that will be highlighted in the future are strongly related to humanness in leadership, how the work is done, how to motivate and keep employees satisfied, how to offer more flexibility and for instance combine family and working life better. (Auvinen & Lämsä, 2020). In addition, the empirical research of this paper focuses on agile teams and interestingly, agile methods and agility are seen as one good method to respond to global business needs of today's business world as agile methods and agility in general aims to respond to changing situations (Holbeche, 2015; Lee, Sambamurthy, Lim & Wei, 2015; Kettunen & Laanti, 2017).

This study is focusing on new ways of working as different forms of work are becoming more common and demand for flexible working conditions are highly appreciated among employees. These changes are challenging traditional working models, especially in knowledge work. Physical presence is no longer always needed and different types of virtual and distributed ways of working are very common and taking place from typical face-to-face work. In addition, remote work and other flexible working ways are a very important advantage for many employees. (Griffith, Sawyer & Neale, 2003; Lönnblad & Vartiainen 2012, 3.) Also, the Covid-19 pandemic has speeded up the change and added pressures to organizations, as the inability to offer remote work in the future might be causing push-effect from the organization and therefore diminish the attractiveness of a company among job seekers and current talents that are working in the company (McKinsey, 2020).

However, it is important to review what are the challenges arising from changing ways of working so that the work productivity and satisfaction of employees is not suffering. Previous research (e.g. Gajendran & Harrison, 2007) has studied New Ways of Working (NWW) and its connection for instance to work engagement, exhaustion, work-life balance, productivity, motivation, and job satisfaction, and these studies have found positive connections, yet there are still some contradictions as it seems that NWW can simultaneously effect for instance on employees work-life balance and exhaustion in a negative way. Therefore, the research task of this study is to review and examine how Ericsson Finland could improve their flexible ways of working but still maintain efficient teamwork and additionally consider business - and people's personal needs in the agile software development unit. To be able to answer the research task, four research questions are formed:

- Q1. Do most employees experience that virtual communication and collaboration are successful in remote work?
- Q2. Does work productivity suffer from remote work and are there any challenges why the teams should not work remotely from an employee perspective?

- Q3. Do flexible working possibilities increase employee's job satisfaction and work-life balance?
- Q4. How are agile methods seen to work remotely?

This Survey research was conducted during the Covid-19 pandemic and the teams that were involved in this research were working mainly remotely during the survey time, however, the respondents used to work mainly co-located in the office. This research provides insights how specific change situation adds pressure to change usual ways of working and whether the employees wish for more flexibility in the future due to the forced shift to remote work. Many organizations are struggling with the same situation and how to organize the work after the Covid-19 pandemic, as it seems that regarding some recent research (McKinsey, 2020; Dahik et al., 2020; PwC, 2020), many employees are wishing more flexibility and for instance, many would like to continue or at least increase the amount of remote work after the pandemic.

The empirical study was conducted as a mixed methods research. The survey was analyzed by utilizing basic statistics with numerical data and written data was analyzed with content analysis. The information this paper produces is important and provides practical data for the company assisting them to respond to changing working life and keep their employees satisfied, stay competitive, productive, and attractive for new and current talents, as knowledge workers especially in the IT field are highly competed among employers. Additionally, this study was conducted during the worldwide Covid-19 pandemic and therefore empirical research can contribute to other similar studies done and additionally bring information on how the Covid-19 situation has affected ways of working.

The structure of this paper is following. After the introduction, chapter 2. Transforming working life will focus on the transformation in working life and changes in ways of working, additionally, organizing in the future and future of the offices will be reviewed. The third chapter, Virtual organizing teams will cover topics regarding virtual teams and virtual work, also the main advantages and challenges in the virtual environment are reviewed. Additionally, the third chapter focuses strongly on virtual communication and building trust. After that, the fourth chapter focuses on agile methodology and practices, Scrum and Kanban are reviewed, remote work and agile methods are covered and lastly, general criticism that has been appointed towards agile methodology is discussed. After the theoretical background the research methodology is reviewed and justified, data collection and analyzing methods are introduced and lastly, the reliability and validity of this study are discussed. In chapter 6, the results of this study are introduced. The last section includes a discussion related to the results and how the company could improve their ways of working in the future. Also, how the results contribute to the previous research done by other researchers is reviewed.

Additionally, research questions are answered and few further research topics are introduced.

2 TRANSFORMING WORKING LIFE

Technological transformation and development during the last five centuries have shaped how the whole world and society is today. Simultaneously, working life has also had its share of technological development and it has undergone tremendous change and the pace of change seems to be accelerating in the future. Technology has already replaced some routine work and some of our current jobs will no longer exist in the future. In addition to the fact that some jobs will be lost, there will be new types of jobs, new ways of working, and requirements for new competencies. According to a report published by World Economic Forum (WEF 2016, 32), even 65 % of kids born in 2010 are going to work in an occupation that does not exist today.

Work itself and ways of working have changed radically during the last century and discussion about transformation in working life is strongly ongoing. It is a relevant topic for individuals and companies as it is closely affecting everyone in working life. Digitalization and technological development are the most relevant change forces that are transforming working life, yet not the only themes. In addition to digitalization & automation, other relevant topics that are shaping our future working life are 1) globalization 2) aging population and demographic change, and 3) Topics covering environment and climate (Valtioneuvoston kanslia 2018, 10; Smidt, Becker & Bradley, 2015). The following topics are driving and challenging working life into a new direction where individuals and organizations need to adapt and possibly change their usual practices (Dufva 2020, 5; Gimpel et al., 2018).

The term *Future of work* is generally used when describing current trends and changes in the workplace (Stoepfgeshoff, 2018). Researchers that are focusing on future directions of work have multiple views of the topic and that is not surprising, as the future views are estimations and no one can be exactly sure what will happen in the future and how current trends are shaping working life but it is possible to analyze certain signals and make predictions based on them. There are both optimistic and more pessimistic views of what work will be like in the future. Optimists see that the future will offer great opportunities and positive changes for the economy and the individual as the other researchers with more pessimistic views argues that we are living the era of "The End of Work". (Khallash & Kruse, 2012).

Transforming working life is also changing the way how people and organizations work. One key topic of this paper is remote work, often referred to in research also as "flexible work arrangements", "telecommuting" and "Telework" (Allen, Golden & Shockley, 2015). Research has provided many definitions for remote work, most commonly it is seen as work that is conducted from home

or other locations than the usual office by utilizing technological solutions for instance in communication and cooperation. The frequency of remote work can vary from full-time to occasionally working from home (e.g. Pinsonneault & Boisvert, 2001; Kossek, Lautsch, & Eaton, 2006; Konradt, Schmook, & Malecke, 2000; Pearce, 2009). Allen, Golden, and Shockley (2015) summarized their definition for remote work after combining several previous studies in their comprehensive study:

Telecommuting is a work practice that involves members of an organization substituting a portion of their typical work hours (ranging from a few hours per week to nearly full-time) to work away from a central workplace – typically principally from home – using technology to interact with others as needed to conduct work tasks.

In this chapter, digitalization and its effects will be reviewed and future directions from an organizing perspective will be introduced, the concept New Ways of Working (NWW) will be introduced in more detail and lastly, the future of the traditional office is reviewed.

2.1 Digital transformation driving the change

Digitalization is said to be the biggest change force shaping the industries in the current contemporary era. It is visible already now that the way people acquire information, buy products and interact with other humans has changed. Digitalization is pushing companies to reform their practices and skills; some companies have adapted better to the changing business environment and on the other hand, some companies have lost the competition against digitalization due to the inability to respond to change fast enough. Good examples of companies that have tackled digitalization are for instance Netflix, Spotify, Uber, and Zalando. Their traditional forms like video rental shops, CD/music stores, traditional Taxi's and clothing stores are in a challenging situation as people are demanding digital products and services. (Ilmarinen & Koskela, 2015; Legner et al., 2017.)

Digitalization is not a new concept, in Finland digital technology like computers, mobile phones, and Internet became more common in people's everyday life in the 1980s. However, digitalization became a more talked topic in the 1990s, yet Finnish media started to spread more news related to digitalization as late as 2012-2014. (Ilmarinen & Koskela, 2015.) Today, digital technology has spread in almost all aspects of people's life and digitalization is a much talked and relevant topic (Legner et al., 2017; Gimpel et al., 2018). Digitalization has had its effect everywhere, yet this paper focuses on digitalization especially in organizational concept in knowledge work. Digitalization is adding pressure to all organizations as they need to adapt fast to changing environments as digital technology is developing fast and customers are demanding new products and services more and

faster. Organizations can utilize possibilities of digitalization as a competitive advantage and many companies are renewing their strategy and ways of working due to digital transformation. (Urbach, & Röglinger, 2019; Hess, Matt, Benlian & Wiesböck, 2016.)

There are three terms that are important to separate from each other: Digitalization, digitization, and thirdly Digital transformation. Digitalization means automating or improving processes or data handling by utilizing digital technology and digitized data. Whereas digitization means converting traditional data into digital form, for instance scanning a traditional paper with text into a digital form is an example of digitization. Digital transformation has been defined by many researchers, many of them are focusing on what kind of changes digital technology can bring to companies' processes, products, organizational structures, and business models. Digital technologies improve an organization's performance by for instance enhancing customer experience, streamlining operations, or creating new business models. The impacts of digital transformation are visible in both individual and organizational contexts. (Hess et. Al, 2016; Hausberg, Liere-Netheler, Packmohr, Pakura & Vogelsang, 2019.) Even though digitalization is a much-talked topic, there is still no generally accepted term for digital transformation.

Digitalization can be viewed from several levels: company, market, industry, and finally, from society level. This Master's thesis is focusing on the company level or so-called micro level. It focuses on how digitalization effect on single organization's strategies, products, and operating model (Ilmarinen & Koskela, 2015.) As seen, digitalization has several effects and levels and the next chapter will review the effect digitalization has had and will have on ways of working in a more detailed manner.

2.2 New Ways of Working

Digitalization in knowledge work has transformed how the work can be done and already diminished some repetitive routine tasks that computers can do as a result, more time is saved for tasks that are more cognitively complex, team-based, and demand social skills (Vuori, Helander & Okkonen, 2019; Heerwagen, Kelly, & Kampschroer, 2010). New information and communication technologies (ICT) enables people to interact with each other where and whenever and certain jobs can be performed outside the traditional working location, like the office (Lawler 2017, 6). Also, globalization has made work more geographically decentralized, as many functions may be abroad or outsourced elsewhere. Additionally, modern telecommunication tools open new possibilities and enable digital communication and cooperation all around the globe regardless of time and

place. (Lönnblad & Vartiainen, 2012.) Labor market analysis has also suggested that detachment of work from a place is a growing trend and organizations are feeling the societal pressure and therefore adapting their organizational practices accordingly, for instance providing more flexible working possibilities like remote working (Felstead & Henseke, 2017). During the Covid-19 pandemic, the speed towards more flexible ways of working has even increased, as people and business executives have noticed that many occupations and tasks can actually be done effectively also outside the office.

In history, flexibility combined with the workplace was traditionally often a sign of poor-quality job, as it was considered as non-standard work (Kelliher & Anderson, 2008). Today, the situation is different and work flexibility is seen as a positive feature at the workplace. This paper considers workplace flexibility mainly from employees perspective as "the degree to which workers are able to make choices to arrange core aspects of their professional lives, particularly regarding where, when, and for how long work is performed" (Jeffrey Hill, Grzywacz, Allen, Blanchard, Matz-Costa, Shulkin & Pitt-Catsoupes, 2008). Many organizations have launched more flexible working arrangements due to changing labor market and these policies or arrangements are often referred to as *New Ways of Working* (NWW). NWW is a concept that has no clear or exact definition but it is very often used when speaking of challenging traditional ways of working and utilizing especially technological development in creating new ways how to work. In addition, NWW is often accompanied by the following elements: utilizing diverse technology in work, varying working places and times, organizing work more individually, and often in cooperation with different communities and networks. Simply said, employees have the power to decide *when* and *where* they work with the assistance of technological solutions and communication tools. All these aspects are forming new cultures and policies in workplaces. (Alasoini 2015, 29-30; Ten Brummelhuis et al., 2012.)

New Ways of Working is not a new concept even though the name might indicate that. Researchers have suggested that there have been pioneers with different ideas on how the work can be done and for instance, ideas regarding flexible working, open office, and paperless office have appeared already in the 1970s (Van Meel, 2011). Clearly, not all the ideas were implemented or adapted largely at that time but today's technological development creates a great environment for implementing new ways of working and as noted, many companies are adopting new ways of working (Ruostela & Lönnqvist, 2013).

Blok, Liesbeth, Roos & Vink (2012) created a New Ways of Working framework where they introduced four main aspects, which are: 1) the physical workspace, 2) (ICT) technology, 3) organization & management, and 4) work culture. The first aspect, the physical workplace refers to that the work is not tied in a certain time or place, also flexible working hours and places are included. The second aspect, technology refers to how new technological solutions enable virtual communication and collaboration almost everywhere and anytime. The third aspect which is organization & management indicates that trust is a key

component when it comes to leadership. NWW creates an environment, where employees can work in different places and if the organizational structures and leadership styles are outdated, it can create challenges, as when people are working outside the normal workplace it is not possible to control in a traditional way or see what the employees are doing. This may affect also how the actual work is reviewed, it is not vital how long the person is present at the workplace, rather it is about what has been accomplished and achieved, no matter when or where the work is done. The last aspect, work culture provides guidelines on how an open and communicative culture supports decentralized work and creates a good environment for NWW. (Blok et al., 2012.)

During the Covid-19 pandemic, the forced shift towards remote work in many occupations has been even greater. Some work that was considered impossible to do remotely for some reason suddenly became work that was possible to do remotely. It is evident that these kinds of major changes affect people and it is very natural to start questioning how people should work in the future and what kind of new ways could be adapted to make the work more flexible. This has led also to several surveys that have sought to find more information on how people would like to work after the pandemic (e.g. Dahik et al., 2020; McKinsey, 2020; PwC, 2020; Blomqvist et. Al., 2020). Surveys suggest based on their results that people are very interested to continue working from other locations than the office but many are missing the office environment and communicating with colleagues face-to-face. However, right now it is impossible to see what will actually happen in the future and will this be an overgoing trend. Thus, right now it looks like companies are building their hybrid strategies as it looks like the Covid-19 situation has pushed companies to consider how to provide more flexible working possibilities like remote work to their employees.

Even though news articles are often highlighting how remote working and flexible working possibilities will have a major effect on employee productivity and often the focus is only on positive aspects, however, it is vital to keep in mind that there are positive and negative impacts when restructuring work. Changing the environment is adding pressure to people, as they need to be willing to change their usual practices and it might be challenging for some people. It is not just the organization that needs to change, also people working in the companies need to be involved and stay capable to learn new skills, keep their knowledge updated, and be more adaptable in constant change (Shanthi, 2018; Lawler 2017, 5). However, NWW is allowing people to try and find new ways how to work and that does not mean that everybody must work in the same way.

Additionally, there is relatively little research on how new ways of working affect employees (Gajendran & Harrison, 2007). Research that is done regarding NWW is mostly accepting that there are mainly positive effects on perfor-

mance, efficiency, and job satisfaction when employees are provided more flexibility. Also, people are feeling more connected with their colleagues as they tend to communicate more when they are working for instance from home and that seems to increase work engagement and diminish exhaustion. However, sometimes constant communication can become disturbing and the feeling of being interrupted during the workday might become a negative aspect. There are also some contradictory results, as flexible working seems to blur work-family/free time boundary and that can lead to stress and exhaustion. That is mainly due to a feeling of being constantly connected to work and sometimes specific routines develop, like checking emails after the workday. Research (Van Echteld, Glebbeek, & Lindenberg, 2006) also suggests that people with flexible working possibilities actually work longer workweek than traditional office workers. (Ten Brummelhuis et al., 2012; Kelliher & Anderson, 2008.)

In a conclusion, several studies have tried to find how NWW is affecting personal outcomes and what are the psychological impacts but there are still controversial topics that are not clear in the research field. However, it seems that NWW has a positive impact on work engagement and connectivity with co-workers and some negative impacts with blurred work-home boundary and mental exhaustion. (Kotera, 2020.) The next chapter will review in a more detailed manner how virtuality affects team communication and what kind of advantages and challenges remote working can have. Also, employee productivity in a virtual environment is reviewed.

2.3 Changing organizational structures

As before discussed, digitalization is connected everywhere, and it is having its effect also in the organizational context. Organizational structure can be defined as how the company operates, how information flows, and what kind of roles, relationships, and rules the company has (Mintzberg, 1979). Organizational structure can be divided into two parts: physical and social structure. Physical structure determines where the work is done, such as buildings and geographical places. Social structures in organizational theory indicate what are the social relationships between different functions, groups, and people in the organization. (Ahmady, Mehrpour & Nikooravesh, 2016.)

Changing working life is challenging organizations and their structures, what worked before might not work today or especially in the future. Traditional organizational structures and leadership styles are gradually beginning to give way to more modern structures and leadership styles (Stoepfgeshoff, 2018; Holbeche 2018, 122). Traditional hierarchical organizational models are optimized to work in a factory-type environment, as they tend to minimize variation but when decisions are needed fast, hierarchical structures are very likely to create bottlenecks and overall not the most functioning way to organize especially in knowledge work (Holbeche 2018, 31).

Before the Industrial revolution companies were relatively small and simple structured and after that era, a need for managing a complicated and larger business was highly required. For instance, Max Weber introduced the bureaucracy theory for managing a business effectively and it mainly focused on hierarchy and strict and formal rules and during that time, Weber considered that it is the most effective way to manage an organization, which might be true during that time. Also, hierarchy was the most used organizational structure when the markets were relatively steady from 1965 until the 1990s until technological development begin to change the market and the need for new types of structure became necessary as competition between companies became stronger (Mcafee & Brynjolfsson, 2008). Today, it is considered that bureaucracy can work with organizations that do not have to adapt fast to changing environments, yet there are not many organizations or industries that have this privilege anymore. In addition, it is considered if a company wishes to be innovative and dynamic, hierarchical structures should be avoided. (Holbeche 2018, 31-33.)

As stated earlier, working life is rapidly changing and mainly these changes are rising from the technical development. Companies are required to be alert and ready to respond quickly to changing business environment and uncertainty and the speed of change might even accelerate with technological development. (Kohnke, 2017; Holbeche 2015, 17; Kettunen & Laanti, 2017.) It is quite clear that bureaucracy and high hierarchy make it difficult to respond to change quickly enough when compared to companies with more flexible structures and possibilities to change their ways of working in a rapid manner. It might be inevitable for companies to review their structures and possibly change if they want to stay competitive since it is more difficult to gain profit in the future as companies are starting to be more similar, as the majority of companies have the access to digital solutions due to digital transformation. (Kettunen & Laanti, 2017; Lawrer 2017, 4.)

The future of organizations is unknown but it looks like there is a serious need to progress towards more flexible, innovative, and agile ways of working (Stoepfgeshoff, 2018). In addition, individuals desire more shared leadership and that seems to be the future direction to a flourishing organization (Koonce, Robinson & Vogel, 2017). Companies should review whether their leadership practices, work culture, organizational structures, and ways of working are responding to the needs of the current development to stay competitive and attractive (Vuorinen, 2014). Also, it has been studied (Eskola, Hakala, Koivisto & Saarisilta, 2015) that companies with low hierarchy and free organizational culture have employees, with higher productivity and satisfaction with their job.

There are many implications for how future organizations function and appear but most of them are focusing on organizational structure and how the structure is flatter than traditional hierarchical models. This means that teams

and individuals are given more power to decide how work is delivered and leaders are focusing more on supporting and coaching their employees. Furthermore, there might be new kind of organizations which are more self-managed and people-centric and there will be less or no managers or top management making the decisions as most of the decisions are made where the actual work is done. This viewpoint does not mean loosening organizational structures and giving decision-making power to people under the management team, rather it means creating self-organized little democracies from teams that are doing the work. (Khallash & Kruse, 2012.)

Possible future directions might seem frightening as today formal structures are seen as key components of organizations to determine how the organization operates and additionally, the structure allows effectively utilizing the company's resources, monitor performance, enhance communication in the organization, and also offers opportunities for individuals to progress in their career. (Worthington, Britton & Rees 2005, 34.)

2.4 The future of traditional office

The office is no longer only a place where one goes, does the work, and leaves. Changing working life is also affecting to offices, it is not so important anymore where the work is done, especially in knowledge work and additionally the nature of work has changed as many occupations are more collaborative and creative. The covid-19 pandemic has brought up a new discussion about what will happen to traditional offices where many knowledge workers used to work most of their working time (Vuori, Helander & Okkonen, 2019; Heerwagen, Kelly, & Kampschroer, 2010; Luoma-Aho, 2021). Helsingin Sanomat (Luoma-Aho, 2021) published an article where they questioned whether the Covid-19 pandemic even destroyed open offices and what happens to big corporate buildings. Due to new trends and changing ways of working, organizations consider how they should utilize their office space, and some are even questioning whether the traditional office is even needed (Katsikakis 2006, 97).

Covid-19 related surveys (e.g. Blomqvist et. Al., 2020) have revealed that most people who are now working remotely are missing socializing and collaborating with colleagues face-to-face, meaning that the majority still want to visit the office occasionally but still have the flexibility to work from home now and then. Today, as many jobs can be done remotely, it indicates that the office in the future is more for collaboration and attraction, a pleasant place where employees can socialize and collaborate face-to-face and build trust and corporate culture (ARUP 2020, 67; Colliers 2020, 16). Also, satellite offices and other collaboration spaces where employees can collaborate are becoming more common in the future (Harris, 2015).

Companies are also investing in the office's overall comfort and functionality. Open office layout has been widely used but also debated a lot all the way

from its appearance in the 1960s. The open office layout was considered to reduce needed office space and simultaneously costs and foster collaboration and interaction among employees (Hedge, 1982; Kim and de Dear, 2013). However, it looks that there are several negative aspects regarding the office layout, for instance, decreased satisfaction, loss of privacy, and decreased productivity due to interruptions and cognitive overload (De Croon, Sluiter, Kuijer & Frings-Dresen, 2005; Haynes, Suckley & Nunnington, 2017). It has been argued that some companies have been fairly too enthusiastic regarding efficiency and meanwhile productivity was forgotten in office planning, especially in agile organizations. Now it is suggested that traditional desk space is decreasing and different areas and open office layout it is giving way to different spaces, like cooperation & collaboration, silent areas, and creative work. (Harris, 2016) Also, the Covid-19 pandemic remarkably changed the work culture fast and many people got used to peace and quietness in the home office due to which it might feel even challenging to come back to the open office and face the noise and interruptions in the open office.

Some companies have abandoned their traditional offices, yet many companies are still valuing offices where employees can collaborate and communicate face-to-face. Others believe that offices will exist also in the future but their purpose is going to change (e.g. Colliser 2020, 20; McKinsey, 2020). Also, the office can be seen as valuable for other purposes like a place, where they can bring customers and stakeholders and use the space as a showroom or other similar purposes. The size of an office can be much smaller as not so much space is required for all employees (Luoma-Aho, 2021). It is interesting how durable a specific trend is and what the future holds for offices.

3 VIRTUAL ORGANIZING TEAMS

Virtual organizing organizations and virtual teams are a common part of today's business environment. It is relatively easy to organize teams in virtual settings by utilizing technological solutions since now almost everyone can benefit from technological development. (DuFrene & Lehman, 2016; Kirkman, Rosen, Gibson, Tesluk & Mcpherson, 2002.) There are even some companies that do not have a physical office anymore and the whole organization is therefore organized completely virtually.

This shift towards virtual work has mainly happened due to new types of occupations and tasks. There are robots and automation in the field of manufacturing and production and so-called "knowledge" and information-based, collaborative jobs are more common, and many knowledge-based occupations are not strictly tied to a certain place or time. (DeRosa & Lepsinger, 2010; Vuori, Helander & Okkonen, 2019; Heerwagen, Kelly, & Kampschroer, 2010.) Despite virtual teams are more and more common in many fields of work, teams are not always managed and created successfully. Therefore, leaders and team members need to understand the unique challenges and features that can arise from a virtual working environment (DuFrene & Lehman 2016, 25). In the next coming chapters, aspects of managing and creating a successful virtual team and the main stumbling blocks for virtual teams are introduced.

3.1 Virtual team

Researchers have studied virtual teams since the 1980s and the definition of a virtual team has evolved over the years due to technological development (Chhay & Kleiner, 2013). Definition of a virtual team is described to be a group of people that are mainly or entirely using technological solutions to work together towards the same goals and visions, in addition, virtual teams usually are not co-located or working at the same physical place (Chhay & Kleiner, 2013; DuFrene & Lehman, 2016). There are other terms that are often used when referred to virtual teams such as, online teams, cyberteams, distributed teams, dispersed teams, non-co-located teams, and remote teams (DuFrene & Lehman, 2016). Furthermore, a virtual team can be seen as the opposite of a traditional co-located team, where team members mainly work in the same physical location for instance in the same office building, communicating mainly face-to-face (Ale Ebrahim, Ahmed & Taha, 2009). Thus, it is not so black and white, a team can be virtual even though they are in the same building but if they utilize more virtual tools in communication and collaboration than face-to-face collaboration, a team can be said to be a virtual one regardless they work in the same location. (West 2012, 226.)

The degree of how dispersed a virtual team is can vary from one team member working from a different location than the rest of the team, all the way to the whole team being geographically dispersed in the globe. Regardless the team is virtual, some teams meet each other face-to-face, for instance at the beginning of starting a new project. (DuFrene & Lehman, 2016.)

3.2 Communication and collaboration in a virtual context

Local and global virtual teams are a common part of today's working life. Ever since the 1990s research has shown interest in how virtual teams differ from co-located teams. Virtual teams and especially the effectiveness of communication have interested researchers, as it is one key component of successful teamwork. (Marlow, Lacerenza & Salas, 2017.) Research has identified key challenges virtual teams often meet, these are communication, team participation, and work coordination, and building trust and when the team is global, cultural differences and challenges with language can cause additional barriers (Lu, Watson-Manheim, Chudoba, & Wynn, 2006).

The meaning of communication is to transfer information between individuals and the importance of it especially in teamwork is impossible to deny (Ambler 2002, 83). The same need for communication remains also in a virtual context and face-to-face communication needs to be covered with other solutions to keep information flowing and cooperation sufficient. Efficient communication is seen as one of the most essential parts of a successful development project, therefore it is important to pay attention to it (Šmite, 2006). Communication can be challenging in a traditional face-to-face working environment, yet virtual context can make it even more complex and time-consuming (Paasivaara & Lasseinius, 2003). It is suggested that functioning communication can increase commitment, work effectiveness, satisfaction, and trust, and on the contrary poor communication can easily lead to weakened collaboration, increased distrust, conflicts, and declining performance (Vilkman, 2016; Ale Ebrahim et al., 2009). Communication in an organizational context can be seen as a glue that brings all members and functions together. Communication is also an integral component in creating and maintaining an organizational culture, clarifying roles, responsibilities, and goals in the organization. (Kortetjärvi-Nurmi, Kuronen & Ollikainen 2008, 8.)

The virtual team relies on various digital communicational tools, currently often used tools are e-mail, different instant chat programs, phone calls, and videoconferences, many tools have also integrated programs like Kanban board or whiteboard to enhance team collaboration. As remote working and virtual teams are becoming more common, tools that are used in virtual team communication

are developing and the intention is to fill in the gap between virtual and face-to-face communication, however, there is still work to be done. Research has indicated that differences in low-performance teams and the high-performance team are mostly related to quality and amount of communication. High-performing virtual teams communicate more and they have highly invested in paying attention to communication quality and frequency. (Fjermestad & Ocker, 2007.)

Communication virtually is seen as more effective when it is done in real-time and additionally, virtual communication becomes more effective, when it is tackling issues that can come from non-verbal communication. Therefore, it is suggested that virtual teams benefit from communicating through different video-conferencing tools, rather than for instance relying on emails and other passive forms of communication, as it can increase misunderstandings and reduce team cohesion. Also, it is vital to pay attention to clear, consistent, and effective ways of communication to avoid frustration. (Chhay & Kleiner, 2013.)

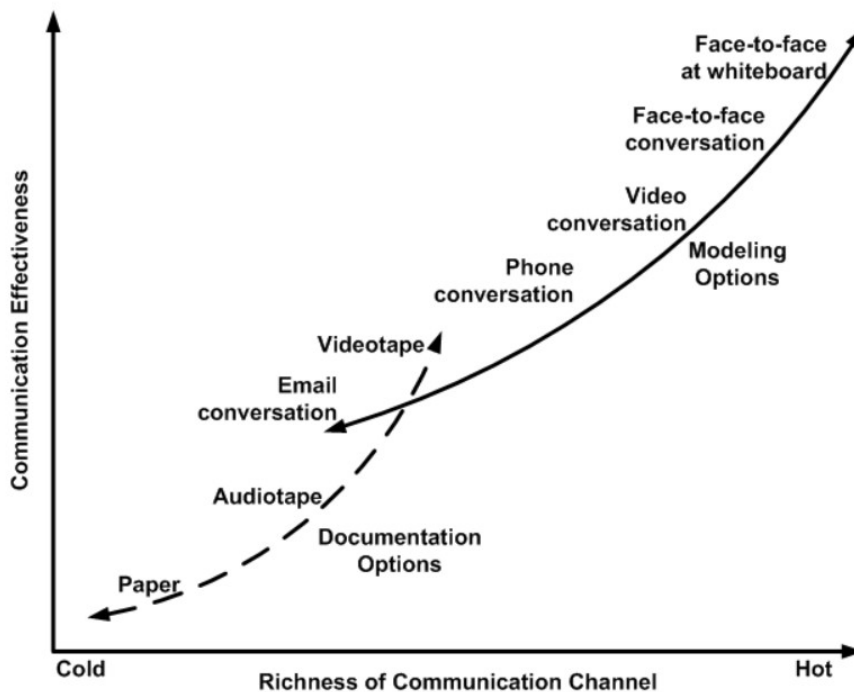


FIGURE 1 Richness of Communication Channels (Ambler, 2002)

Media richness theory is often used when discussing on virtual communication. The meaning of Media Richness theory is to implicate which tools are the most suitable to transfer information (Cordova, Keller, Menthe, & Rhodes 2013, 3). Ambler's (2002) figure indicates the richness of different communication models and it seems to follow the view that in virtual context most effective method is to use video conversation, as it seeks to consider the non-verbal aspect and is the closest to imitate face-to-face communication. The least effective method in virtual context is email conversation since it allows a great possibility for misunderstanding and misinterpretation, naturally different forms of communication have

their place and time. Also, it is argued that virtual teams that rely on weaker communication channels, like email or chat have more challenges in building trust and are less cohesive, compared to co-located teams or virtual teams that use audio or video conferencing (Cordova et al., 2013, 7).

Research shows that teamwork can be successful regardless of whether the work is done in a virtual setting or face-to-face, yet it looks like there are some common challenges that companies and teams easily fall into (Ramesh, Cao, Mohan, & Xu, 2006; Shrivastava & Rathod, 2014; Rizvi, Bagheri & Gasevic, 2015). When working remotely, communication- and collaborative tools become more and more important to deliver the team work effectively. It is vital to pay attention to non-verbal communication, like facial expressions and gestures, since many studies (Burgoon, Guerrero & Floyd, 2010; Wachsmuth, Lenzen & Knoblich, 2008; Chhay & Kleiner, 2013) have argued that 65 - 80 percent of information exchange happens through non-verbal communication.

It is also suggested (DuFrene & Lehman, 2016) that remote teams would benefit from a communication plan, where team members would agree for instance how they contact each other with formal or informal questions, how often they meet in video conferences, how they communicate their availability, what tools they are using for communication and how they ensure that everyone's voice is heard. In addition, in cases where one or few team members are working in a remote setting and the core team is co-located, it could be useful to have a selected person who informs and updates the remote workers in case they have missed for instance a daily meeting.

Also, interestingly virtual environment can affect normal team communication behavior. Based on research, it seems that people might get more indifferent or their behavior can be affected due to virtual distance, especially when team members have not seen each other physically. Mainly this is due to when people cooperate closely, they are more likely to build stronger emotional ties, trust each other's and feel more connected to their shared mission. (Sobel Lojeski & Reilly 2020, 54.) In addition, research suggests that virtual communication and lack of social context can lead to more negative communication and the use of hostile language (Andres, 2002).

Even though virtual teams, communication, and its specific features it brings to work have been studied much, today virtual communication is a common part of everyday work today, as digital transformation has affected communication and tools used, and actually, virtual work has become more closer to many, as it is not only virtual teams that utilize virtual communication tools (Webster & Wong, 2008). Even though the gap between virtual- and co-located teams might be narrower what comes to working styles, it is still highly accepted that co-located teams have the possibility to observe team members' behaviors,

have informal discussion easily and note non-verbal clues. In the next chapter trust-building in a virtual context is further reviewed.

3.3 Building trust

Trust is seen as a base for almost all aspects of life such as relationships, likewise, it is also a base of successful teamwork. For instance, Kanawattanachai and Yoo (2002) highlighted that trust is largely tied to how successfully the team communicates and cooperates, and high trust between team members is seen to lead also to a better decision making. It is said that communication and trust go hand in hand at least in a distributed working environment, which is highly visible in virtual communication research (Sarker, Ahuja, Sarker & Kirkeby, 2011). High trust in a virtual team is also associated with increased innovation, competitiveness, and effectiveness (Zhu, Newmanb, Miaoc, & Hooke, 2013). Additionally, team members trusting each other, are more likely to count on that the team members are committed to shared goals and they can be trusted to do the agreed tasks. Trust also decreases the need to monitor and tract tasks and therefore lower the complexity of teamwork. (Chudoba, Wynn, Lu & Watson-Manheim, 2005.) Therefore, it seems to be vital to pay attention to trust-building when the goal is to create a successful virtual team. Creating or maintaining a successful virtual team can be a new challenge also to the leader, as it might require new information and skills how to enable trust-building and effective communication within the team (Dangmei, 2016).

Team members that can communicate face-to-face, build trust throughout their everyday communication, social norms, and interaction. (Chhay & Kleiner, 2013.) Research has suggested that informal virtual discussion on non-work-related topics can help building common grounds for communication and improve the effectiveness of communication and team cohesion (Chudoba, Wynn, Lu & Watson-Manheim, 2005). Rusman, Van Bruggen, Sloep, and Koper (2010) demonstrated in their study how sharing personal information and visual image leads to better trust, understanding, and bonding between virtual team members. It is also suggested that team bonding should be continuous rather than a one-time thing for instance at the beginning of a project. With continuous informal discussion, virtual teams can build trust like co-located teams during their normal working day, when they often share information about their personal lives.

Trust appears also in innovation discussion. One key component when building an innovation culture and atmosphere is trust. Colleagues and team members are more likely to build trust when they are working co-located (Chhay & Kleiner, 2013). Generally, research has considered that creative performance is lower when team members are not communicating face-to-face, however technology is developing and the gap between virtual collaboration and face-to-face communication becomes narrower and for instance research (Grözinger, Irlenbusch, Laske, & Schröder, 2020) has indicated that teams that are communicating

by using video-conferencing can actually be as innovative as teams communicating face-to-face. However, virtual collaboration does not overtake the benefits face-to-face communication has for instance considering all non-verbal aspects it has.

3.4 Remote work and its effect on productivity

One main reason organizations have been hesitant regarding flexible working possibilities, is productivity. Organizations are sometimes worried that work productivity will suffer if employees have more flexible working possibilities and the quality of work or productivity is affected due for instance working from home. These thoughts are often connected to organizational culture and workplace structures and even some companies have tried to ban remote work as they believed geographical distance is greatly harming productivity (Sobel Lojeski & Reilly 2020, 72). Several studies (e.g. Beaumont, Pate, Paton & Stewart, 2009; Nieminen, Nicklin & McClure, 2011; Pyöriä, 2011; Reitman & Schneer, 2008) implies that flexible working has a positive effect on productivity but there are also negative effects and conflicting issues with other topics that can effect to productivity and therefore need further investigation.

Previous research has offered theories on how performance is affected by flexible working and for instance, a study conducted by Konrad and Mangel (2000) has explained remote work and its effect on performance with "gift exchange theory", meaning that employer gives a gift, in this case, the gift is flexibility and employee would respond to the gift by performing well or above the norm. However, today possibility to work flexibly is very common and many employees are expecting that possibility from employers, yet the gift exchange theory might be outdated. Dodd and Ganster (1996) have defined work productivity throughout job satisfaction. They see, when an individual is given more autonomy to decide where and when to work, it can lead to increased satisfaction and that in hand can provide better individual performance at work.

Lack of interaction and isolation can harm productivity and cause difficulties with project management. This in turn can slow down the team for instance in decision making and therefore decrease productivity. Also, communication channels in a virtual team can affect performance especially creative performance and innovation capability. Grözinger, Irlenbusch, Laske & Schröder (2020) found in their study that teams who communicate by using video conferencing tools were performing as well as the co-located comparison group. Performance was significantly lower if the team used for instance instant chat tools. In addition, not all individuals feel comfortable working remotely, for instance newly graduated - or employed individuals might need more support and mentoring and that

can be sometimes more challenging in a virtual environment and some individuals can be naturally more productive in an office environment (Hunter, 2019).

Sobel Lojeski and Reilly (2020, 67,97) reviewed several studies and summarized a framework based on earlier research regarding which aspects affect organizational performance. They define virtual distance as a "Felt sense of distance that grows unconsciously when we rely heavily on mediated communication through smart digital devices" (p. 67). Their model divides virtual distance into three main areas: Physical distance (geographical, temporal e.g. time zone and organizational), operational distance (processes and ways of working, e.g. using email versus video conferencing), and affinity distance (emotional and mental connection to team members, like trust and common goals) (p.69). When the virtual distance is lower, they suggest that it will affect several aspects, like trust, learning, and satisfaction among many others, and when those important aspects are in control, virtual teams perform better, and project failure risk is lower compared to teams whose virtual distance is higher (Figure 2).

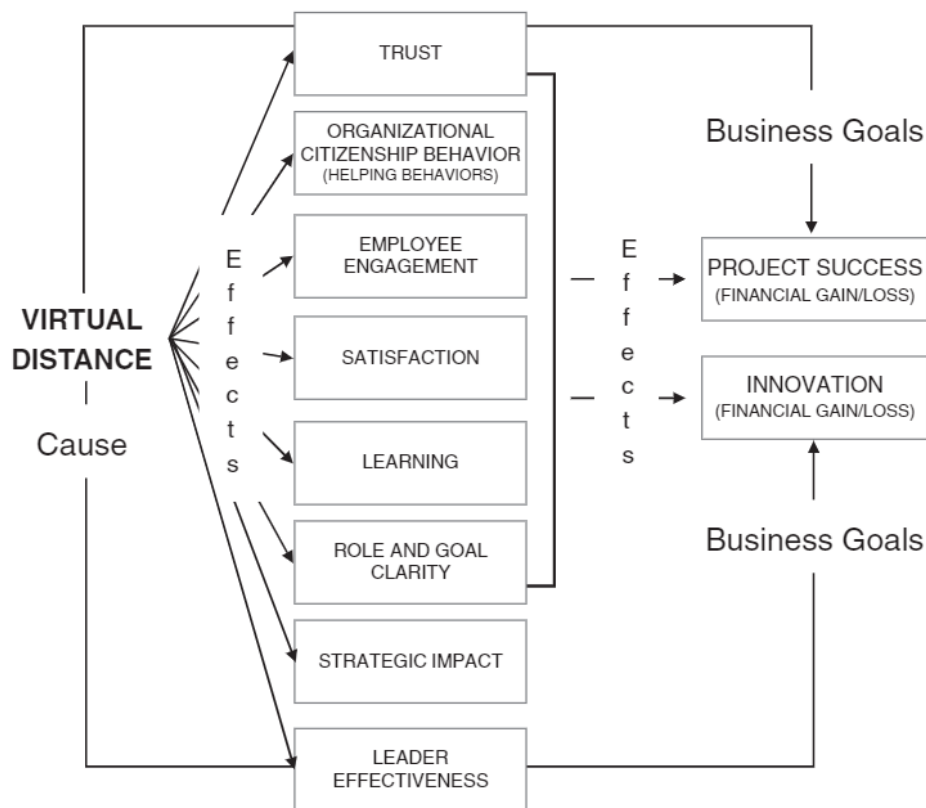


FIGURE 2 Virtual distance path (Sobel Lojeski & Reilly 2020, 46)

Physical distance is often the most discussed topic, however, problems arising from a physical distance are relatively easy to overcome and even one meeting in person can decrease issues that are arising from a virtual distance (p.75). Additionally, as organizations are worried about physical distance, at the same time, many people who work co-located, still communicate via virtual communication

methods, regardless of the person who might be close to us, therefore different feelings of separation can arise also in a co-located environment. The model (figure 2) suggests that affinity distance is the most critical indicator for organizational performance and therefore most attention should be paid to decreasing affinity distance. Operational distance has the second most impact on organizational performance and the most discussed physical distance has the least impact on performance (p.95). Below is introduces different forms of virtual distances (Table 1).

Table 1 Forms of virtual distances (Adapted from Sobel Lojeski & Reilly, 2020)

Physical distance	Operational distance	Affinity distance
Geographical distance	Communications distance	Cultural distance
◦ Geographical separation	◦ Lack of context	◦ Differences in values and communication styles
Temporal distance	◦ Over-reliance in one communication mode versus another	Relationship distance
◦ Time zone separation and schedule differences	Multi-load	◦ Lack of previous work relationship history
Organizational distance	◦ Too many or too few project assignments	Social distance
◦ Affiliation differences → working in silos	Readiness distance	◦ Recognition based on positional status versus contribution
	◦ Lack of technical support	Interdependence distance
		◦ Minimal sense of shared future or equal stake in the outcome of the work

However, the first step to a better direction is acknowledging that there is a virtual distance, after that it can be addressed in several different manners. Physical distance is divided into three sections: geographical, temporal, and organizational. Geographical physical distance can be reduced by considering for instance when it is most critical to be in person, Sobel Lojeski and Reilly (2020, 155) suggest that organizations should recognize what are their own trigger points. For instance, when a new project begins or major issues occur, teams build shared trust faster in co-located environment. Also, within a global team where is different time zones, it would be advisable to rotate the meeting times, to minimize meetings outside the normal business hours, which harms an individual's work-life balance less, when meeting times are rotated. Also, when working in a virtual environment, people often network and cooperate less with other people than their closest colleagues. Especially, new people joining the virtual team might find it challenging to network. Organizations can agree that they arrange meetings with different departments or units during the onboarding process to get to know other people, yet the challenge is that these sessions often “dull” formal

introduction sessions when the main point is fostering collaboration. (Sobel Lojeski & Reilly 2020, 158.)

Operational distance is divided into three categories: communication, readiness, and multiloading (Sobel Lojeski & Reilly 2020, 164). The key is to reduce communication distance within the team, selecting the correct tools for the correct occasion. Lack of context might increase the possibility for misunderstandings, as people interpret matters within their own reality and context. For instance, a meeting where people feel that everyone is speaking on different things and the overall feeling is just confusing. Also, emails, where the respondent does not totally understand what the sender is talking about, might increase the possibility of misunderstanding. It is important to consider the respondent, who we are communicating to, this can avoid frustration and eventually social isolation to increase. (Sobel Lojeski & Reilly 2020, 79-82.)

Affinity distance is however the most important aspect of virtual distance. Table 2 below introduces key elements of how to reduce affinity distance within an organization.

TABLE 2 Reducing affinity distance (Sobel Lojeski & Reilly 2020, 174)

Cultural	Relationship/Social	Interdependence
<ul style="list-style-type: none"> ◦ Create cross-functional teams to tackle difficult challenges ◦ Set up scenarios for people to "experience" others' values ◦ Increase understanding and awareness of others' work values ◦ Turn "culture change" into "multicultural community" ◦ Demonstrate by example (storytelling) how people are similar ◦ Explicitly discuss "how" team members like to work and what is important to them 	<ul style="list-style-type: none"> ◦ Discuss other places team members have worked or lived ◦ Encourage discussion about other possible ties – for example where people went to school, where they grew up, what outside activities they are involved in ◦ Capture these social circles either formally or informally so that they can be leveraged for other projects or initiatives ◦ Showcase how people contribute to the work, in explicit and discrete ways ◦ Give specific examples of how a team member's activities added to the success of a project ◦ Share "leadership status" by association to help others be seen as having a higher value 	<ul style="list-style-type: none"> ◦ Explicitly discuss ways in which working together led to success ◦ Tell stories about shared interdependencies ◦ Make it a "ritual" to tell these stories during regularly scheduled meetings ◦ Write up "case studies" about how people worked together to realize success

McKinsey Global Institute (2021) analyzed more than 2000 tasks and 800 occupations and how likely these work tasks and occupations are suitable for remote working without the loss of work productivity. They highlight that many tasks can be done remotely but it might not be the best solution and face-to-face working could be more effective. They suggest that for instance activities that require negotiations, critical business decisions, brainstorming sessions, providing sensitive feedback, and onboarding new employees might become less productive

when done remotely. For instance, the IT and telecommunication sector could work remotely 58 - 69 percentages of working time without loss of productivity.

In a conclusion, it is evident that teams can have challenges with topics related to operational distance and affinity distance, regardless of where they work. However, when virtual teams pay attention and acknowledge these possible challenges, it affects many outcomes, as introduced in figure 2, and ultimately can improve the team's productivity. (Sobel Lojeski & Reilly 2020, 100.)

3.5 Advantages of flexible work

Flexible working possibilities are relatively common, especially in knowledge work. In today's business world it can be inevitable to avoid working across countries and different cultures since many organizations are multinational and work itself requires often cross-border cooperation. In addition, less work is done in small silos with only local people and furthermore, it seems that organizations will operate in large network-like structures also in the future (West 2012, 227).

Implementing remote work or a virtual team can be challenging, however, there can be several benefits for the company and individuals working in the organization when all the key aspects are considered carefully. Flexible working has attracted many researchers to analyze what kind of effects flexible working or remote work has for instance on performance, motivation, job satisfaction, innovation, and wellbeing.

Gajendran & Harrison (2007) introduced a framework on the consequences of telecommuting, meaning what effects remote work or flexible working will have on individual outcomes. They suggest that the intensity of telecommuting will influence how strong the psychological mediators will be. Therefore, they propose that employees who work mostly from home or other flexible locations will benefit more from the assumed benefits, than employees who work mainly in the office.

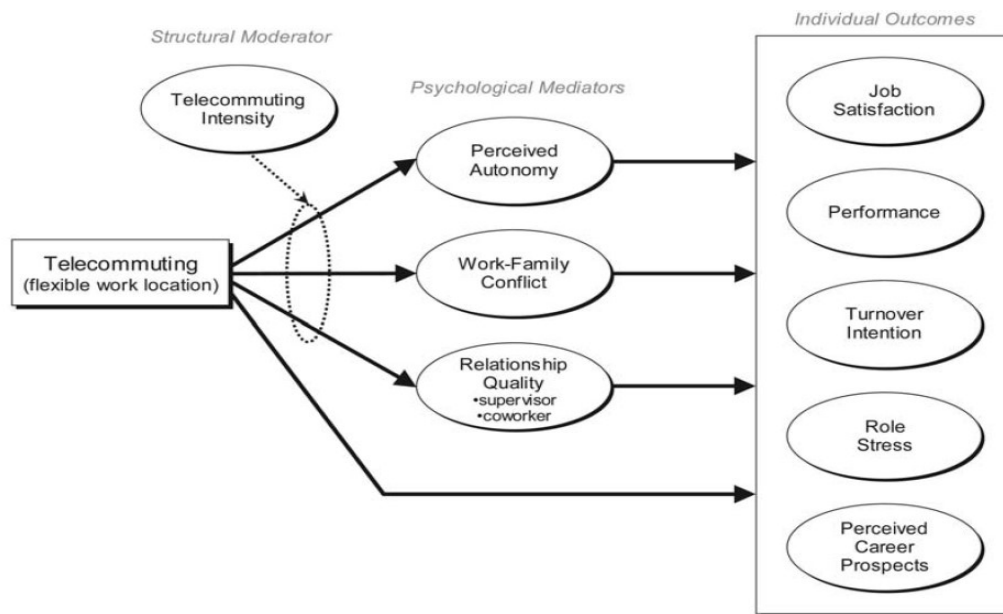


FIGURE 3 Theoretical framework for the consequences of telecommuting (Gajendran & Harrison, 2007)

Theoretical framework (figure 3) introduces three psychological mediators which are 1) perceived autonomy, 2) work-family conflict, and 3) relationship quality. Perceived autonomy indicates that employees who have a possibility to flexible working feel more in control of their work. It reflects how many employees can structure their own work and decide when and where to work. Employee autonomy is seen as a positive aspect according to research. Remote work and work-family or personal life is a debated topic, on the one hand flexible working possibilities enable people to better combine family if they can decide when and where to work and that can decrease the risk of work-family conflict but it is well known that flexible working can increase working after normal working hours and therefore create conflicts at home. However, they state in their model that flexible working reduces work-family conflicts, as people have possibilities to structure their work in a way that diminishes the possibilities for conflicts. (Gajendran & Harrison, 2007.)

However, there are also some results (Sobel Lojeski & Reilly 2020, 12-13) that indicate that there is actually no statistically remarkable correlation between the amount of trust, job satisfaction, role & goal clarity and on project delivery and satisfaction of customers when comparing employees who work mainly on-site versus remote workers. Yet the study (Sobel Lojeski & Reilly 2020, 13-14) implies that there is a positive connection between remote work and helping behavior, learning, innovation, and additionally relatively high result on employee engagement. However, the study is interesting as it divides employees how much they work remotely in percentages. The results are only applicable for employees who work more than 75 % remotely. It seems that the results are not that positive when the time worked remotely is between 21 - 75 % of the whole working time.

Table 3 summarizes some advantages of virtual teams. It is clear that there are several positive results for individuals and also, all the way to society level. Flexibility and the perceived autonomy from location free working are considered to be an advantage that can bring several positive outcomes. Remote workers have a bigger possibility to affect where and when they work and research indicates that the received autonomy will result in higher job satisfaction and decreased role stress (Gajendran & Harrison, 2007), as autonomy is seen as one basic human need, being in control of own life (DeCharms, 1968). Additionally, having decision power over own work can increase motivation and work engagement. Satisfied employees in a virtual team can have also better team outcomes, such as quality of work and higher productivity. Global teams which are distributed to different time zones have a better possibility to answer today's market demands, as they can work "around the clock", therefore they can execute more speedily and they might have more competent colleagues within the team as location does not matter. (Hertel, Geister & Konradt, 2005.)

Organizations have their own benefits from virtuality, for instance, a bigger talent pool is open, as the location is not restricting hiring the best talent regardless of the employee's location. Also, there are no relocation costs when employees can stay where they lived before and less physical office space is needed for the team, as they are working virtually which on contrary reduces office-related costs. Companies have better possibilities to employ people with disabilities, for instance, people with challenges to move can benefit from the virtual working environment. Additionally, there are positive outcomes to the environment, as less time is used for commuting or business traveling, which decreases the organization's carbon footprint and reduces air pollution. (Hertel, Geister & Konradt, 2005.)

TABLE 3 Benefits of virtuality (Adapted from West 2012, 227-235; Ale Ebrahim et al., 2009)

Benefits of virtuality
Flexibility
More control on own work, autonomy → motivation
Work-life balance
Less office interruptions
Empowerment
Competent colleagues and bigger skill pool (location does not matter)
Better team outcomes (quality, productivity, and satisfaction)
Possibility to have global teams = working around the clock
Reduced relocation time and costs
Reduced travel costs
Less office space needed=cost savings
Easier to employ individuals with e.g. disabilities
Lower carbon footprint and decreased commuting = less air pollution

Finally, flexible working possibilities are considered as a great advantage for many employees, and providing the possibility to location-free working can attract talent and also keep the current talents in the company.

3.6 Challenges in virtual work

Even though there are clear advantages for individuals and organizations with remote or virtual work, yet it is vital to recognize common challenges and stumbling blocks in virtual work and how to overcome these challenges. Unfortunately, virtual work- and teams might not function by just shifting all usual co-located practices from typical face-to-face work into a virtual environment, as there are some unique features that might challenge virtual teams. (DuFrene & Lehman, 2016; DeRosa & Lepsinger, 2010.) Especially during the Covid-19 pandemic, many people who use to work in the office and during pandemic were forced to work from home, have seen the positive effects of remote work and simultaneously, the situation has revealed challenges and disadvantages of remote working for many. During the pandemic, several consultant houses and researchers (Blomqvist et. Al., 2020; Eurofound, 2021; Kantar, 2021; Buffer 2021) have done their surveys aiming to find out what has been the positive effect and what has been challenging in virtual work.

In the table below (Table 4) common challenges in virtual work are collected as a summary (West, 2012; Ale Ebrahim et al., 2009). Many of these challenges are related to communication and as previously stated, communication plays a major role in teams' success. Previous research has provided information regarding virtual communication and increased amount of for instance conflicts in virtual teams and how issues within the team can escalate quickly and solving them is often more difficult and slower compared to co-located teams. (Hinds, & Mortensen, 2005.) West (2012, 233) has also addressed conflicts in virtual teams, and the reason behind the conflicts might rise from misunderstandings, communication issues, or then due to different views or personal work practices of individuals. Communication especially in agile teams is focusing more on informal communication rather than formal documentation. However, ensuring enough informal communication can become a major challenge in remote settings (Ramesh et al., 2006). In agile software development, it is vital to communicate regularly with the team and additionally with the customer and receive feedback to reach the quality requirements during the development process (Ramesh et al., 2006).

TABLE 4 Disadvantages of virtuality (Adapted from West 2012, 227-235; Ale Ebrahim et al., 2009)

Disadvantages of virtuality

Isolation
Decreased interpersonal contact with team members
Misunderstandings
Challenges to build trust
Conflicts
Poor decision making
Loss of non-verbal cues
Reduced opportunities to build friendships
Communication issues
Less productive and effective than co-located teams for some tasks
Everything to be reinforced in a much more structured, formal process
Team members need special training and encouragement
More difficult to supervise and evaluate work
Costs of technologies
Data security
Loss of organizational citizenship
Sometimes requires complex technological applications
Invasion of work into home and family time

Co-located teams feel often more team connectivity and cohesion than virtual teams. It might be difficult to feel a sense of belongingness in virtual settings and in addition, virtual teams are more likely to feel that they are not part of a team working together towards the same goals. In agile environment, team cohesions has even bigger role, as it emphasizes constant cooperation as a vital part of everyday work (West, 2012). Overall, it is easier to build a team that feels connected to each other in a co-located environment. As previously discussed in chapter "building trust", trust is one key component for a successful virtual team and trust has its effects in many other aspects and outcomes (Kanawattanachai & Yoo, 2002). A team without trust is very likely to be less productive, they have misunderstandings, and other communicational problems compared to a team with high trust. It is well known that virtual teams have less informal occasions or discussions than teams working co-located. Those informal sessions are usually the occasions, where team members transfer information, such as topics related to their personal life or any kind of daily informal conversation, as those moments build trust within the team members. (Chudoba, Wynn, Lu & Watson-Manheim, 2005.)

Virtual teams might require more formal documentation than co-located colleagues, as it is suggested that virtual teams have a higher possibility to miss some relevant information which can, in turn, affect performance or decision making in the team (Suprika & Hema, 2010). Also, some additional training

might be required, if team members are not so familiar with virtual tools or working practices. Additionally, it is important to highlight data security, as virtual team members can work in different locations and they might have to pay some extra attention to data security, as personal and corporate data security attacks are becoming more common and the amount is just rising and the attacks are getting more sophisticated and therefore more challenging to observe (Chigada & Madzinga, 2021).

Virtual teams often face technical challenges related to poor internet connection or poor virtual tools. It is quite usual to harness low-budget solutions in a virtual working environment, however, it is not the most far-reaching solution. As virtual work relies on communicating through technical solutions, it is recommendable at least to have a professional video-conferencing tool, with the possibility to use shared virtual table and other cooperation tools, as communication is the key to successful teamwork. (Majchrzak, Stilger & Matczak, 2014.)

Virtual team members have the flexibility to decide where they work and sometimes when they work, which can increase work-life balance, however, the topic is very controversial as previously discussed. When there is no specific location where to work, sometimes work invades private life outside normal working hours. It seems that it is very individual how people consider flexible working, and some consider it more negatively and feel that the boundary between work and private life is too blurry while some individuals consider that they manage to handle their personal life better in remote work. (Reilly, Sirgy, & Gorman 2012, 279).

Sometimes when a virtual team is distributed globally, teams might face challenges related to cultural differences. Technological development and changing business world make it possible to have global multicultural and diverse teams. Global multicultural teams can benefit from increased creativity and innovation but there are also some challenges that might arise from cultural differences. The usual challenges multicultural teams face are communication difficulties, misunderstandings, decreased cohesion, and increased amount of conflicts. (Chhay & Kleiner, 2013.) Cultural sensitivity training is seen as a good solution to understand team members and their cultural habits better and communicate more effectively with each other.

One advantage of global remote teams is the possibility to work "around the clock" when team members are distributed in different time zones, however, Ramesh et. Al (2006) stated in their study that "around the clock" - working teams can grow massive bottlenecks in their communication and hence be more unproductive compared to their co-located counterparts.

4 AGILE IN SOFTWARE DEVELOPMENT

In the 1990s many organizations were struggling with their software development projects, either they were failing or taking too much time. Agile methodology was introduced as an innovative solution to improve software development projects. (Cooke 2012, 32.) Agile software development intends to bring business value and decrease costs with early assessment of a product. If the project is seen as invaluable it will be abandoned and resources will be redirected to a new project development project. Also, agile teams are more likely to adapt to a fast-changing environment and business requirements as they are more adjusted to feedback and making changes accordingly. (Rizvi, Bagheri & Gasevic, 2015.)

In this chapter definition of agile is introduced and some methodologies related to agile and agility. These aspects are important to understand the further research of this paper, as the focus is on agile software development teams.

4.1 Definition

Today, many organizations are talking about how they are working in an agile way, for instance, some organizations are speaking their agile HR department or other functions. Generally speaking, it looks like the word "agile" is a trendy word. Agile is an approach to project coordination and it is often used in software development. Agile methods assist teams to cope with unpredictability with different tools and the focus is strongly on customer satisfaction and the main goal is delivering functional software for the customer. There is no clear and commonly used way to define what agile is and there are several definitions. In general, agile could be defined as the ability to be alert, flexible, and nimble (Lee & Xia, 2010). Some researchers start defining agile with tools and procedures commonly used with the method but some researchers see it more as a philosophy (Abbas, Gravell & Wills, 2008). Even though the agile method as it is today used is relatively new, research shows (Abbas et al., 2008) that there have been agile ideas and ways of working but they were not considered that seriously among other more traditional methods. Researchers (i.e. Lee & Xia, 2010; Conboy, 2009) have agreed that scientific research on agile software development is somewhat unclear and there is no common definition. The reason behind this might be that the early users of agile methods were mainly consultants and experts who used similar methodology in their daily work (Conboy, 2009). In the next section, some alternatives for defining agile are introduced.

Highsmith and Cockburn (2001, 122) indicate that ultimately, agility is creativity and responding to change, change is inevitable, and the key is how the team is coping with the change during the development process. Strong focus on effective teamwork and adjustability are key factors and with an agile approach, teams can address the pressures of today's business world. Erickson, Lyytinen, and Siau (2005) approach agility as the opposite of traditional heavy methodologies. Essentially, they see that agility aims to remove process heaviness and incapability to be able to respond quickly to changing environment and customer needs. Important agile features that they see are nimbleness, suppleness, quickness, liveliness, and alertness. Abrahamsson, Salo, Ronkainen, and Warsta (2002), on the other hand, emphasize that simplicity and speed are the most important features of agile development. They emphasize the importance of agile software development to rapidly implement the most important characteristics and after that feedback and possible improvements. Their definition also includes the characteristics of agile, to which they cite incrementality, cooperation, and adaptability.

In conclusion, as seen definition for agile is not exactly clear and that is noted also among researchers. There are still similar features in almost all definitions even though they differ from each other in small parts. Abbas et al (2008) reviewed several studies where agile was defined and conducted a summary and ended up with a definition that agile development must include the following features: adaptability, iterativeness, incrementality, and human focus. They also indicate that software development is rarely stable and for that reason adaptive process is needed for reacting quickly to changes in the process. It is clear that agility and agile methods are not a super trick to fix bad performance or unsuccessful development projects, yet it can be seen as a set of shared values, principles, and practices, and combining these aspects successfully, teams' performance can improve.

4.2 Agile manifesto and principles

There have been agile ideas and arguments (Abbas et. Al, 2008) and many people believed in agile methods in the field of software development but the ideas were not taken particularly seriously since more traditional and heavier models were considered to be more functional and effective. The agile approach was mainly seen as a counterattack to the old "heavy" project models that were mainly focusing on documentation (Cohen, Lindvall & Costa, 2004). Agile in the concept of software development is despite relatively new and just recently received more attention (Abbas et. Al, 2008). However Agile Manifesto at the beginning of the 21st century (The Agile Alliance, 2001) made agile software development more visible and offered an alternative approach to people who did not enjoy or believe traditional approaches to software development (Abbas et. Al, 2008). Even though there has been criticism towards the Manifesto (Laanti, Similä &

Abrahamsson, 2013) and the fact that it is not based on scientific research, it is still considered important in the development of Agile methods and in software development that is the reason for introducing the topic next.

The Agile Alliance (Agile manifesto, 2001) introduced four core values and twelve principles. Four core values for Agile are the following:

- paying attention in individuals and communications over to processes and tools
- working and functional software is more important than focusing on the documentation of the project
- communication and cooperation with the customer over contract negotiation
- responding to changes over sticking in a certain plan

The Agile Alliance emphasizes that even though core values are the most important, it does not mean that the other features like tools, contract negotiation, and sticking in a plan are totally worthless, the focus is just more on the other aspects. The agile method is not a collection of different rules, it is more a commonly shared mindset to work in a project as a team. Agile principles illustrate agility in a more depth manner and the intention is to give a more detailed view to companies who are interested to work in an agile way.

- Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
- Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
- Deliver working software frequently, from a couple of weeks to a couple of months, with a preference for the shorter timescale.
- Business people and developers must work together daily throughout the project.
- Build projects around motivated individuals. Give them the environment and support they need and trust them to get the job done.
- The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
- Working software is the primary measure of progress.
- Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
- Continuous attention to technical excellence and good design enhances agility.
- Simplicity – the art of maximizing the amount of work not done – is essential.
- The best architectures, requirements, and designs emerge from self-organizing teams.
- At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly (Agile Manifesto 2001)

4.3 Agile tools and methods

In previous chapters, agile definitions were introduced and many of them highlight the usage of agile tools and methods. The Annual State of Agile report (VersionOne, 2020) indicates that at least 75 % of respondents use Scrum or some other hybrid model that includes Scrum. Other common tools are Kanban (7 %), iterative development (4 %), Lean approach (1 %), and Extreme Programming (1 %). It is good to acknowledge that being agile does not require pure "textbook-like" implementation of a certain method, it can be adapted to organizations or team's personal needs (Cobb 2011, 15). Next basics regarding Scrum and Kanban are introduced briefly.

Scrum is the most used tool and also an important concept for this research, as it is the most used methodology among employees participating in this master's thesis study. Ken Schwaber and Jeff Sutherland developed Scrum in the early 1990s and the purpose of it is to offer a framework that teams can utilize to "address complex adaptive problems, while productively and creatively delivering products of the highest possible value". Scrum is also based on lean thinking, which purpose is to reduce waste and steer focus on essential things. Scrum can be utilized mainly in product and software development in a complex environment, however, it can be used by anyone who considers it brings some value to the work. (Schwaber & Sutherland, 2020.) Even though Scrum is said to be lightweight and simple to understand it is not the easiest to master. (Gonçalves, 2018). Scrum consists of teams and their different roles, events, rules, and artifacts. All parts of the Scrum framework are suggested to be essential to successfully utilize its full potential, yet it is relatively common to combine scrum with other agile methods or take utilize Scrum partially, not "by the book" (Schwaber & Sutherland, 2020).

Scrum has similarly to Agile few common values, which are Commitment, Focus, Openness, Respect, and Courage. Scrum team consists of three different roles and additionally sometimes the end-user or other stakeholders are counted as fourth role: Product owner, development team, and Scrum-master. As previously noted, agile teams are often very self-organized which is also the case in the Scrum framework; decisions are made within the team, commands and instructions do not come from top to down. The idea of Scrum is to develop for instance a software during a sprint, which is a time period of one to four weeks. Before a sprint can start, there is a planning meeting regarding the sprint and what needs to be accomplished. During the sprint, the team is developing the product slowly towards a publishable product version. After the sprint is over, there will be a sprint review where the Scrum team introduces what has been accomplished during the sprint for the customer or stakeholders for feedback and possible improvement ideas. A retrospective is the last event before starting a new sprint, where the team reviews how successful the previous sprint was and if there is something to improve for next time. (Schwaber & Sutherland, 2020.)

The table below (Table 5) provides a quick summary of the most relevant Scrum roles, events, and artifacts.

TABLE 5 Summary of Scrum roles, events & artifacts (Adapted from Sutherland, 2010)

Type	Term	Definition/explanation
Role	The product owner	A product owner is a dedicated person, whose responsibility is to maximize the value of the scrum team's work for the end-user. Managing the product backlog.
Role	The Scrum team/The development team	Group of professionals who are developing the actual product.
Role	The Scrum Master	A person who supports the product owner and the scrum team optimizes the process and removes possible obstacles.
Event	The Sprint	"The heart of Scrum", a time span of one to four weeks, when the product that could potentially be releasable is developed. New sprint start immediately after the previous sprint is completed.
Event	Daily Scrum meeting	Scrum team gathers daily (15 minutes) to discuss: what has been accomplished since yesterday, what should be completed before the next daily meeting, and thirdly, are there any obstacles.
Artifact	The Product Backlog	An ordered list of everything that is needed for the product. The product owner is responsible for the list. The list is never completed, it is evolving as the product evolves.
Event	Sprint Planning	Planning meeting where the scrum team agrees on what should be completed during the sprint.
Event	Sprint review	A sprint review is held after every sprint with stakeholders to review what was done during the sprint and in addition to foster collaboration and early feedback.
Event	Retrospective	Opportunity for the scrum team to review how the team succeeded and how and what they could improve for the next sprint.
Artifact	Increment	Is a summary of all items in the product backlog which have been completed during the current or previous sprints.

Scrum was originally considered to function best with co-located teams, yet it is successfully used also in distributed and in virtual teams (Schwaber & Beedle, 2002). Table 6 summarizes the main challenges with remote scrum teams while

working remotely and possible solutions for them (Comella-Dorda, Garg, Thareja & Vasquez-Mccall, 2020). Most of the challenges are related to communication and they are very similar as discussed in chapter 3.2 Virtual communication and cooperation and 3.6 challenges in virtual work.

TABLE 6 Challenges with remote scrum teams (Comella-Dorda et al., 2020)

Event	Challenge for remote teams	Solution
Daily scrum	Team members switch to problem-solving and stand-ups become unstructured conversations	Use video to encourage teams engaged and focused
		Extend meetings from 15 to 30 minutes, with the second half blocked for problem-solving
Sprint planning	Decentralization is a barrier to dynamic communication	Break longer meetings into two – one to discuss stories and the other agree on refined stories
		Encourage prep work ahead of time, and agree on what can be done offline
Backlog refinement	Difficult to drive complex problem-solving with content-heavy whiteboarding	Ensure access and familiarity with whiteboarding or collaboration and document information in real-time so team members can follow along
	Difficult to align a large group	Host smaller sessions with functionally aligned groups and then share progress with the larger group
Sprint review	Demonstrations without face-to-face conversation might devolve into status updates	Make it as vibrant and engaging as possible for stakeholders, without generating additional work (eg. share videos of customer content interviews, etc.)
	Presentation issues while sharing content	Keep presentation content crisp and concise; integrate content to one place, with one person
Retrospective	Video might affect the perception of a safe environment for retrospective conversation	Use anonymous digital tools and make sure team members know about it
		Let team members pick video or audio interaction mode

Next another agile framework, Kanban is introduced. Kanban is a widely used approach in software development today and its roots are in lean thinking. The meaning of Kanban is to help understand what to produce, when, and how much. Originally Kanban became known as a controlling tool for the whole production system created for the car manufacturer Toyota in the 1940's. From

manufacturing times, Kanban has matured over the years to a popular visual project management tool. Kanban board is used to visualize the project and with the help of the board, it is easy for the project team to see the status of every working segment when needed. Kanban intends to foster team members to communicate more openly, increase transparency & collaboration, and continuously improving and maximizing the team's productivity. (Frankl & Paquette 2016, 60; Harris 2018, 77.)

Traditionally, the Kanban board has been a physical board where team members insert for example post-it notes regarding different tasks to different sections of the board, for instance, things that are "to do", "in progress" or "done". Nowadays there are virtual Kanban boards, which is a requirement for successful Kanban usage when a team is working remotely. There are many virtual Kanban board applications with different functionalities, some are simple and other boards offer more sophisticated functionalities. Kanban board can help the team to overcome challenges with communication, when all work items are visualized on the board, it is easy to follow the status and who is working on what and for instance, all important updates are not hidden in someone's email or in chat conversations, when they are marked on the board. (Harris 2018, 78 – 80.)

Remote working can also blur the boundary between work and personal life and some individuals might have too many items to work on. Kanban board can also increase the visibility on team members workload and even the number of tasks and consequently improve the balance between work and private life. However, it is good to remember that Kanban is not a magic trick to improve a team's productivity, it is a tool for managing a project in a more visualized and structured way.

4.4 Agile team and remote work

Agile software development was originally considered suitable for co-located teams and as Agile manifesto announced, "the most efficient and effective method of conveying information to and within a development team is face-to-face conversation". However, the world is changing, and ways of working have developed, and it is believed that remote working can be a part of succeeding agile culture (Radigan, 2020). Traditional work in agile teams has been face-to-face communication and that has been the viewpoint when teams are usually thriving and most effective (Comella-Dorda et al., 2020). As previous chapters have introduced, there are some commonly known challenges that are rising sometimes when working remotely.

Trust is seen as one of the key components of successful teamwork. A study conducted by Comella-Dorda et al., (2020) indicated that co-located agile

teams are more likely to build trust, solve problems faster and make faster decisions. There are several studies on remote agile teams but the context is often in non-co-located teams, where all team members are working remotely and often in different countries, geographically distributed (Deshpande, Sharp, Barroca & Gregory, 2016). Therrien (2008) has studied distributed agile teams and has suggested that distributed agile software development teams have a greater failure risk than co-located teams and the challenges might increase when a team is using scrum or XP (Extreme programming), as the communication and coordination get more complex. In addition, a study (Herbsleb & Mockus, 2003) highlighted that virtual software development can take even 2.5 times more resources than from agile teams working on-site face-to-face. Alzoubi, Gill & Al-Ani (2016) reviewed 21 empirical studies of geographically distributed agile teams and they emphasized that communication between the team and towards the customer is the most challenging aspect in distributed environment and communication is something that the team should focus on. It is also argued that communicational challenges would be the root cause of all the other problems in agile software development teams (Korkala & Maurer, 2014). Poor communication between teams can lead to a lack of collaboration, coordination challenges between different teams, and challenges to understand customer requirements (Kuusinen, Mikkonen & Pakarinen, 2012).

Even though Agile ways of working intend not to focus so heavily on documentation, it is suggested that teams working virtually would benefit from more comprehensive documentation as a virtual environment might increase the possibility of not seeing something important or increase misunderstandings (Suprika & Hema, 2010). There is research (e.g., Komi-Sirviö & Tihinen, 2005; Noll, Beecham & Richardson, 2010) about the challenges and how communication looks to be the most challenging aspect of successful distributed agile software development as Komi-Sirviö & Tihinen (2005) suggested that 74 percent of problems would arise from communicational issues. Yet this does not mean that all agile projects should always be co-located as these challenges can be overcome and building a successful remote agile team is possible (Suprika & Hema, 2010).

4.5 Criticism towards agile methods

Agile method and agility have received criticism and many researchers question whether it is agile methods or something else that might affect an organization to perform better. There are quite a few scientific researches about the topic and most of the "success stories" are actually only stories told to the audience without any actual scientific background (Misra, Kumar, Kumar, Fantazy & Akhter, 2012). Also, studies are mainly focusing on practical usage of agile methodologies, costs, and benefits, with little empirical research on the topic (Chan, & Thong, 2009). The number of critical articles related to agile methodologies is unfortunately low, however, most criticism is appointed to the functionality of agile methods in

large-scale projects or within a large team. Also, agile methodology is known to involve customers strongly in the project which can lead to satisfied customers and a successful project, however, in reality, it can be a challenge, as it requires time and commitments from the customer. (Flora & Chande, 2014.)

Even though agile principles highlight flexibility and development lifecycle is open for feedback and change, it can create "never-ending" projects, when project vision is unclear or customers' demands are changing, at worst it can lead to wasted time and resources if the customer is not satisfied with a certain developed increment (part of developed product). Also, agile methodologies do not rely so heavily on documentation, which can be a challenge when product requirements are changing, it might lead to misunderstanding and unclarity of what developers are doing. (Flora & Chande, 2014.)

A large study (Lindsjörn, Sjøberg, Dingsøyr, Bergersen & Dybå, 2016) researched teamwork quality and its effect to project success in agile and in traditional teams. Agile teams are believed to emphasize more collaboration and teamwork but the study indicated that actually, teamwork quality and its effects on project success are not any greater in agile teams when compared to traditional teams. Misra et.al (2012) collected a summary regarding criticism appointed towards agile methods. Yet the report highlights that all the pointed critical arguments are debatable. Table 7 below summarizes the main criticism appointed towards the agile philosophy.

TABLE 7 Summary of criticisms towards agile philosophy (Misra et.al., 2012)

Agile is over-hyped and misunderstood
Difficult to get the right people involved
There is limited support for building reusable artifacts
There is limited support for development involving large teams
There is limited support for developing large, complex software
Requires significant cultural change for adoption in projects
Will work only when senior development team members are involved
Will work the best only for applications that can be built quickly without involving much complexity

5 RESEARCH METHODOLOGY

In this chapter research methodology for this study will be reviewed and justified. In addition, the purpose of this study is examined, and furthermore, the choice of research type, data collection, analysis process, and reliability of this study is discussed.

5.1 Mixed method research

This research is conducted as mixed method research. Research methodology is traditionally divided into two major groups, qualitative and quantitative research, in addition when the researcher is combining aspects or elements from both qualitative and quantitative research methodology, mixed method research can be reviewed as the third methodology. Mixed method research is often referred also as multiple research approach, mixed methodology, multimethod & multiplism. (Briggs, Coleman & Morrison, 2015.)

Mixed method research utilizes qualities from both qualitative and quantitative paradigms, yet there needs to be a specific and justified purpose to combine these two methodologies. Mixed research is not referring only to how the data is collected it refers also to different data analyzing methods and ways to interpret collected data. Mixed method research is often used, when it is considered to provide more depth to the research than only one methodology. The mixed methodology is especially useful when the research task or phenomena is complex and by combining qualitative and quantitative methods the research phenomena can be explained more in-depth and the overall purpose is to improve the quality of research. (Briggs, Coleman, & Morrison, 2015.)

Qualitative and quantitative research has their strength and weaknesses. With quantitative research, it is possible to test and validate theories and make generalizations from the studied group to a larger population. In addition, the sample size can be large. Numerical results are often analyzed by using different statistical methods. The weakness of quantitative research is making distorted assumptions from the data due to the researcher's own unconscious bias or tunnel vision regarding the topic. Also, research findings might apply only in the local context where the study was conducted and therefore the results might be applicable only in a certain research context. The advantage of qualitative research is the possibility to provide more in-depth results than quantitative research, with qualitative research it is possible to provide detailed information on the research subject's lives, perspectives, and beliefs. However qualitative study cannot generalize findings to different people, contexts, and situations as the sample size is usually small. In this research, mixed methods were used concurrently, meaning that qualities from quantitative and qualitative research were

used at the same time, and in this context, it means that the survey was analyzed by using different methods. Mixed methods can be used for five determined purposes which are: triangulation, complementarity, expansion, development and initiation. In this study, triangulation is used. Triangulation means utilizing multiple methods, theories, or data sources. The survey conducted in this master's thesis produced both quantitative, and qualitative data, therefore analytical triangulation was used (Saaranen-Kauppinen & Puusniekka, 2006).

For this study mixed method was selected to provide more in-depth insights regarding the research phenomena. One strength in mixed method research is the possibility to explain numbers or add meaning to numbers, which is the purpose of this research (Briggs, Coleman, & Morrison, 2015). The survey research conducted provided important numerical data to obtain the opinion of the majority but the research phenomena would remain shallow without qualitative content analysis done for the open comment sections. The research phenomena in this study was to find out how the teams should utilize flexible ways of working and in this case, it is possible to get statistical results regarding the research questions but it would not be possible to draw conclusions only based on quantitative data, as the phenomenon is more complex and the overall result is to analyze the topic deeper.

In this study, the aim is to review and understand as comprehensively as possible what are the wishes, doubts, and future directions where the teams are going and how the company can provide flexibility for the employees but keep the work productive and employees satisfied. The study was conducted as a census study, meaning that the whole population was studied and in this case, the population consisted of individuals from IMS gateways and security solutions units. All members of those teams had the possibility to answer the online survey. A Census study is often used when the population under study is relatively small and, in this study, the overall sample size was 105 employees, which made it functional to select the whole population under research. (Heikkilä 2004, 43.)

5.2 The aim and background of the research

This research is conducted as an assignment for Ericsson and the research topic came up during the Covid-19 pandemic, as it was clear that it would be important to investigate how these teams could work in the future more flexibly, as it was proven that teams can manage to work remotely but it was still important to find out answers for the research questions of this paper to gain information how these teams would prefer to work in the future and still maintain satisfying and productive teamwork. The meaning of this research is to find out how the teams under research would consider the best ways of working, is there something that

needs to be changed? This study provides insight and practical information for the company on how they could change their ways of working to respond to changing working life, keep their employees satisfied, stay competitive, productive, and attractive for new and current talents.

For this survey research, two R&D units were selected, IMS gateways and Security solutions. This selection was done together with Ericsson due to a couple of reasons. Firstly, these teams worked before Covid-19 mostly in the office and Covid-19 drastically changed their ways of working. Secondly, these teams are agile teams with a local manager. Ericsson has also distributed global teams and therefore we wanted to select teams that are co-located, as it is possible to affect how these teams are working in the future.

Lastly, I want to open my connection to the organization, as I am working in the company but not in the same unit as the selected respondents, meaning that these survey results are not affecting my personal work situation in any way.

5.3 Online survey as a data collection method

The selected data collection method for this empirical study is online survey research, where selected participants fill the online survey themselves anonymously. The survey was standardized, meaning that all participants were asked the same questions in the same order. A survey method is especially suitable when examining a group of people and their characteristics, behaviors, or opinions and additionally, the examined population can be large. An online survey can be useful when the researcher needs to collect personal opinions from respondents, it might be easier for respondents to express their opinion when they know that their responses will be anonymous. An online survey is effective and can save researchers time, as many topics can be asked with a single survey. Online surveys numerical data is quick and easy to save in analyzable format and transfer to different statistical analyzing tools. (Hiltunen, n.d.)

The survey was created based on the organization's needs and asked questions were formed based on previous research regarding cooperation communication, job satisfaction, motivation, work-life balance, and agile methodology in virtual context (Table 8).

TABLE 8 Connection of research question and theory

Research question	Survey question	Source/theory
Do most employees experience that virtual communication and collaboration are successful in remote work?	6, 9, 10,	Vilkman, 2016; Kortetjärvi-Nurmi, Kuronen & Ollikainen, 2008; DuFrene & Lehman, 2016
Does work productivity suffer from remote work and are there any challenges why the teams should not work remotely from an employee perspective?	11, 12, 22,	Grözinger, Irlenbusch, Laske & Schröder, 2020; Konrad and Mangel, 2000; Sobel Lojeski & Reilly, 2020; West, 2012; Ramesh et al., 2006
Do flexible working possibilities increase employee's job satisfaction and work-life balance?	7, 9,	Gajendran & Harrison, 2007; Sobel Lojeski & Reilly, 2020
How are agile methods seen to work remotely?	15, 16, 17, 19, 19, 21,	Fruhling & de Vreede 2006; Mishra et al. 2012; Supriya & Hema, 2010; Komi-Sirviö & Tihinen, 2005

Also, some previous surveys regarding job satisfaction, work motivation and agile ways of working were reviewed, and some suitable questions were formed or inspired by them. In addition, a few representatives of the organization were involved in the design of the survey. The completed survey was tested with pilot respondents, as this way at least the clearest issues and unclarities can be eliminated, often testing the survey with few users is sufficient (Vehkalahti 2014, 48). Pilot users were requested to take time how long it takes to respond to all questions including the open sections. Based on the feedback survey was slightly modified, for instance, some explanations were added to make it as clear as possible.

The survey sent to respondents was a half-structured online survey with open and closed questions (Appendix 2). A link to the online Webropol-survey was sent to 105 employees via email with a cover letter included (Appendix 1). Employees were also pre-informed about the coming survey and respondents' managers brought up the coming survey in their daily meetings, where they tried to highlight why it is important to respond. Respondents were also sent a reminder before the survey was closed and additionally, managers reminded their employees about the survey and encouraged them to respond. Overall, 67 employees responded in the survey which made the response rate 64 %. Response rate is often very low in online surveys, typically under 50 % (Vehkalahti 2014, 44), main reason for getting a higher response rate was due to reminders by managers and e-mail messages, as they seemingly increased the response rate, as it was higher after reminding the respondents. The survey was relatively long and that might be the reason some respondents did not answer the survey. Pilot respondents who completed the survey took time

approximately 20 minutes but the time estimation can vary much due to open questions and how much the respondent writes.

The survey consists of five sections. The first section includes background data. Respondents were asked age group, how long they have worked in the organization, employment type, how often the respondent worked remotely before Covid-19, and how often respondent would like to work remotely after the Covid-19 situation. Respondents were not asked their gender, as it was not relevant for this study. It was considered to be more relevant whether the respondent's age or length of career has any effect on preferences. The second section included questions regarding remote working, the respondents were asked to reply to statements concerning remote work communication, cooperation, work-life balance, and team psychological environment on a five-point Likert scale (totally disagree, disagree, neutral, agree, totally agree). Next respondents were asked their own opinion regarding remote work and its effect on achieved goals, results, and quality of work, also respondents had the possibility to write explanations and comments in the open section since yes/no answer is not explaining much and with an open answer, it was possible to analyze if the situation could be improved in some way.

The third section included questions regarding office space, the meaning of these questions was to find out how the respondents would like to work after the covid-19 pandemic and how the office could be improved to make it more attractive and suitable for new ways of working and also to respond needs of future work. The fourth section consists of questions related to agile ways of working. Questions regarding familiarity with agile ways of working and what agile methods they are mainly using, additionally their opinion was asked whether they consider how well agile ways of working function in different working environments. The meaning of these questions was to find out how well team members see that the hybrid model would work in their opinion (combining remote work and face-to-face working). Respondents were additionally asked on five-point Likert scale statements regarding agile and how it effect on team's communication, effectiveness, and productivity of work.

Finally, respondents were asked multiple-choice questions whether they consider that there are any obstacles why the team should not work remotely, in this section it was possible to answer "No, there is no obstacles" or open answer if respondent considers there is some other issues or obstacles than was listed in the survey. The fifth section included questions regarding the future. Respondents were asked how they would like to agree on remote working and how often they see that teams should work face-to-face to stay productive and maintain teamwork effectiveness. The survey ended with statements on a five-point Likert scale regarding workplace flexibility and open question regarding dream workplace, before closing the survey, respondents could leave feedback or comments, if they wanted.

5.4 Data Analysis

5.4.1 Qualitative data analysis

Content analysis is used in this mixed method research for the written survey data analysis part. Content analysis is seen as very suitable for analyzing unstructured written material, as the method aims to present the phenomenon under study in a concise and general form (Tuomi & Sarajärvi, 2013). Inductive content analysis is driving the analysis process, which means that the topics that arise from written material are collected regardless of what the previous study has to say about the topic, as the intention is to interpret what are the thoughts of respondents.

First all open data was transferred to Microsoft Word and the data was first classified based on in which order the question was asked in the survey. Overall, 250 individual comments and eight pages of written data were received from the survey. All written data was read multiple times and after reading, the next step was to reduce the data and eliminate irrelevant material (Tuomi & Sarajärvi, 2013). Reduced data was categorized based on research questions. It was possible to find open comments regarding remote work and work-life balance, what are the challenging issues in remote work and how remote work affects productivity and what aspects they do not miss from the office and how could the office be more attractive. At this point, data was very disordered, and based on research questions it was time to pursue find themes that are explaining different research topics. It was possible to find explaining themes and reasons from several different open questions, which helped clearly understanding respondents' thoughts. Citations from open comments will be provided to justify outcomes and decisions in the coming section.

5.4.2 Quantitative data analysis

Quantitative survey data can be analyzed with different statistical methods. In this study, a web-based online survey was firstly saved, and the data matrix was reviewed. The material was re-coded after a data quality check to enable statistical observation for all variables that are processable statistically, excluding open answers, which are analyzed with qualitative methods. All other questions in the survey were mandatory, except open answers and therefore there were no missing observations or errors and therefore no data was removed or corrected. Also, no respondent had used the alternative "I prefer not to answer".

In this study, background data is introduced as frequencies, and data that is on an ordinal scale are introduced as basic descriptive statistics. Average, median, and standard deviation are very commonly used to describe the data and are used also in this study. Median is the value in the middle of a structured data set, sometimes when the data set is dispersed median can be a better indicator than average, as the median is the middle value and half of the data set is smaller and half is larger. Whereas standard deviation indicates how dispersed set of measured values are from the mean, when the standard deviation is high, it indicated that measured values are spread out over a wider range and oppositely when the standard deviation is low, data is more cantered to the mean of measured data set. For instance, when respondents are asked their opinion on the topic, if the standard deviation is high, the researcher can suppose that respondents' opinions are differing from each other largely. (Karjaluoto 2007, 11 - 13.)

Different groups were also compared by creating groups based on age, preferences to work remotely and time worked in the organization, it was not possible to use crosstabulation, as some groups were too small for that, therefore answers and differences in them were compared by using Webropol's own compare tool, yet it is good to remember that the compared groups are relatively small. Additionally, correlation measurements are also used in this study to see whether there is differences or connection between different variables. The connection between two variables can be explored with correlation analysis. Correlation expresses the linear connection between variables and the connection can be positive, negative, or no correlation at all. The values are between -1 and +1, meaning when the correlation coefficient is closed to + or - 1, the stronger the correlation between two variables is. In this study, Spearman's correlation analysis is used, as it is suitable for most scales (ordinal-, interval- and ratio scale). It is good to remember that correlation is not equal to causality and it is only measuring the linear connection, therefore based on correlation it is not possible to point out causation, as it needs to be tested with for instance cross-tabulation, which was not possible to use in this study, due to small amount of respondents (N=67), and cross-tabulation requires different groups that are large enough for comparison. (Mellin 2005, 109; Heikkilä 2014, 11.)

5.5 Reliability and validity of the study

Reliability and validity are indicators evaluating the quality of research. Validity of research indicates how well selected methods are measuring or describing what the researcher wishes to measure or describe. Whereas reliability measures how well results can be reproduced when research is repeated under the same conditions. (Briggs, Coleman & Morrison 2015, 76-82.)

The basic assumption of a study is often validity, the readers of a research paper consider that the research is measuring what it says it is measuring. In this study, selected methodological decisions have been justified, also the creation of

the survey has been introduced. The survey in this research is a structured questionnaire, where respondents were asked the same questions in the same order. Also, during the development process of the questionnaire, it was considered very carefully not to ask leading questions and additionally, word choices were as neutral as possible and as explained in the previous chapter, the questionnaire was developed together with the organization and multiple people reviewed and tested the survey to modify it in objective direction. Furthermore, explanations were added in the questionnaire, if it was considered to require it.

It is suggested that the "test-retest"-setting would increase the reliability of a survey study, yet this survey was done only once. However, the results of this study were compared with previous similar studies which increases the reliability of this study, as results were very much aligned with previous research, which is introduced in more detailed in the results section. Also, analytical triangulation which is associated with mixed method research was used to improve especially internal validity and reliability of this study to showcase how qualitative and quantitative data support each other. This research provides statistical data and with citations from open comments of this survey, validity can be increased as conclusions in this study can be better justified with triangulation. (Briggs, Coleman & Morrison 2015, 77;85.)

However, for instance, if this study would be repeated after some time, results might vary especially in sections, where respondents are asked about their opinion since people's thoughts and personal situations might change and develop over time. Therefore, these results are tied to the specific time and context when the research was conducted. However, the organization has made its own measurements and those results were compared with the results of this study. Indicators that measured the same themes were pretty much aligned, yet not all the topics have been covered in the organization's previous own surveys. Additionally, if the same research would be conducted within a close time period from this study by another researcher, results would most likely be the same.

Finally, results and how I have ended up in the conclusions of this research have been openly communicated, as Hirsjärvi and Hurme (2001, 189) highlight researcher needs to be able to document how it ended up in certain conclusions, regardless of other researches might interpret the material differently. As long as the conclusions are justified, it does not weaken the reliability of a study.

6 EMPIRICAL FINDINGS

This section introduces the result of the survey. Due to the mixed method approach, results will be introduced in a way that combines qualitative data analysis and additionally, quantitative statistical data.

6.1 Background data

The online survey was sent overall to 105 employees and 67 employees responded to the survey, which makes the response rate 64 %. Background data is introduced in Table 9, where age group, employment type, and duration of employment are asked. The largest age groups that responded to the online survey are employees in the age group 26 - 35 (33 %) and 46 - 55 (33 %). Most (97 %) of the respondents are permanent employees, only two of the respondents work as trainees or have a fixed-term employment.

TABLE 9 background data

Age group	N	%
18 - 25 years	2	3,0 %
26 - 35 years	22	32,8 %
36 - 45 years	13	19,4 %
46 - 55 years	22	32,8 %
56 - 65 + years	8	11,9 %
I prefer not to answer	0	0,0 %
Total	67	100 %
Employment type	N	%
Permanent employment	65	97,0 %
Fixed term/Trainee	2	3,0 %
Total	67	100 %
How long have you worked at Ericsson:	N	%
Less than 1 year	9	13,4 %
1-2 years	1	1,5 %
3-5 years	18	26,9 %
6-10 years	10	14,9 %
11-15 years	2	3,0 %
16-20 years	6	8,9 %
21-25 years	10	14,9 %
26-30 years	4	6,0 %
More than 30 years	7	10,4 %
Total	67	100 %

Over 85 % of respondents have worked in the company for more than three years and 15 % of employees have worked less than 2 years, additionally, 25 % of respondents have worked more than 15 years in the company. It makes it interesting to analyze whether there are differences in preferences between employees who have worked longer and employees who have been employed less time in the company.

Figure 4 demonstrates that 55 % of employees worked remotely before the Covid-19 pandemic less than one day per week or only occasionally, furthermore 16,4 % of respondent's worked never remotely. Two employees have most likely a remote work agreement, so they have replied that they work always remotely. Respondents were asked how often they would prefer to work remotely after the Covid-19 pandemic, and the change is remarkable compared to before the situation. Most employees (66 %) prefers to work remotely two to three days per week and which is worth noticing, there are also employees, who would prefer to work almost always (13%) or always (6 %) remotely, a minority of respondents wishes to work less than one day per week (6 %) or one day per week (9 %) remotely in the future.

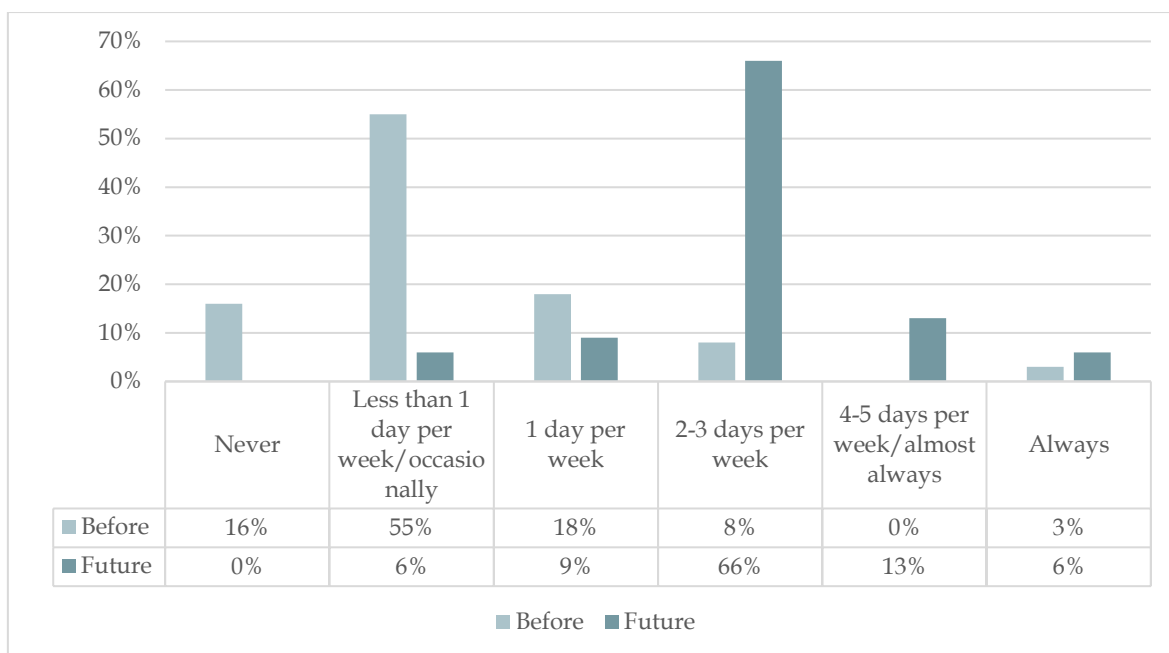


FIGURE 4 Remote work before Covid-19 and preferences to work remotely in the future

Also, a comparison between different age groups was performed (Table 9). In this study, there are no respondents who consider that they do not want to work remotely ever after the Covid-19 pandemic. Usually, it is considered that younger generations prefer to work remotely more than older generations and that can be

also considered as a cliché (Stähle-Thamm, 2020), however different consultant houses have conducted surveys with varying results and for instance Hubble HQ (2021) highlight that it seems that for instance generation Z's (born after 1996) would like to work more in the office than other generations after Covid-19. However, in this study, it seems that there are no massive differences between generations and preferences to work remotely. However, results are distributed from occasional remote work to always, which can cause difficulties between team members and how often working in the office is enough, yet the majority of respondents agree that 2-3 days per week would be a good amount of remote work on a weekly basis.

TABLE 9 Age group comparison preferences to work remotely after Covid-19

	Age 18-35	Age 36-55	Age 56-65+
Never	0 %	0 %	0 %
Less than 1 day per week/occasionally	0 %	8 %	12 %
1 day per week	8 %	9 %	12 %
2-3 days per week	67 %	66 %	63 %
4-5 days per week/almost always	17 %	11 %	13 %
always	8 %	6 %	0 %
Total	N=24	N=35	N=8

At this point, it is clear that there is a preference to work more remotely than before. Next questions related to virtual communication & collaboration, productivity and challenges in remote work, work-life balance, and job satisfaction in remote work and agile ways of working in remote settings will be introduced and elaborated.

6.2 Virtual communication and collaboration

This chapter includes statements and questions regarding virtual communication and collaboration. Respondents were asked statements and their opinion regarding remote work communication and collaboration on a five-point Likert scale, with respond alternatives, totally disagree (1), disagree (2), neutral (3), agree (4), and totally agree (5). Standard deviation is used to describe how the values are distributed. Standard deviation describes the distance of the observation from the mean and how the observations are scattered around the center of the variable (Karjaluo 2007, 11 - 13). When agree or disagree is used in this paper, results agree and totally agree or disagree and totally disagree are counted as one measurement, for instance as percentages.

It was visible (Table 10) that respondents consider that virtual communication is one of the challenges in remote working. Almost 60 % of respondents consider that communication is better and effective in the office environment

when team members are working together face-to-face. However, majority of respondents with an average score of 3,9 feel that it is easy to contact their colleagues with virtual communication tools. Easiness to contact colleagues in remote work was compared with the length of career and it revealed that the average score was lower with groups who have worked less than one year (average 3,67) and with employees who have worked more than 30 years (average 3,71). Employees who have worked less than a year, have most likely never met their colleagues face-to-face due to Covid-19 and that might be related to the fact that they might consider it more difficult to contact their colleagues when they do not personally know their colleagues so well. The other group, employees with over 30 years experience are very likely to be more familiar with a more traditional style of working and they might not be so familiar for instance with virtual communication. This was also the group that had the least experience on remote working before and Covid-19 changed the situation, none of the respondents worked remotely more than occasionally and some never.

Regardless face to face communication is considered to be more effective, it seems that virtual communication has still been successful, yet still it does not overcome the advantages of meeting face to face:

(...) how easy it is to communicate, how everyone can be heard in meetings and in chat, how discussions are visible and accessible in Teams

Communication in meetings is even better remotely than face to face

I feel some F2F communication in the office would be good, especially when one has changes in the team. Or starts something totally new.

TABLE 10 Statements regarding virtual communication

Variable	N	Average	Median	Standard deviation
I think my team's communication is better and effective when we work in the office	67	3,58	4	1,047
It is easy to contact my colleagues when I'm working remotely	67	3,96	4	0,976
I think regular face-to-face communication is important for teamwork	67	3,70	4	1,101
I'm satisfied how often I communicate with my manager when working remotely	67	4,18	4	0,796
I communicate with my team/colleagues more often when we work remotely	67	2,61	3	1,044
Using agile improves my team's communication	67	3,90	4	0,819

The frequency of communication seems to be affected due to remote working, as the average score is quite low (2,61), meaning that respondents are communicating less with each other when they are working remotely. Interestingly statement regarding communication frequency in remote work was lower with employees, who have worked more than 30 years. The survey does not reveal why it is that but it is possible to guess that it might be connected to how well people are used to using different communicational tools, and for instance, digital natives adapt faster using different digital tools. As in many cases, the length of a career is also connected to age, especially when talking about a career that is more than thirty years long.

Respondents highly agree that agile ways of working are improving their communication and research also agrees with the fact that agile teams communicate more, as agile methods are pushing teams to communicate more frequently (e.g. daily meetings). Respondents are also very satisfied with the amount of communication with their manager, with a very high score of 4,18 with low deviation, meaning that most employees agree with the statement.

There is a deviation with the statement of how respondents consider the importance of face-to-face communication. Respondents who consider face-to-face communication very important are more likely to prefer working in the office. Spearman's correlation was used to test, whether there is a linear connection between preferred remote work amount and importance of face-to-face communication and the results (Table 11) indicate that there is a relatively strong negative correlation -0,67 and p-value is less than 0,0005. Some statistical tools give a p-value of 0,000 and that was the case in this correlation counting, it means that the value is smaller than 0,0005 and therefore the tool is reporting it as 0,000. Meaning that when the amount of preferred remote work is high the importance of face-to-face communication is low. A similar phenomenon is visible with the statement concerning communication effectiveness when working in the office, people who wish to work more remotely, feel that communication is not better and effective in the office.

TABLE 11 Spearman's correlation between the preferred amount of remote work and variables

Variables	Amount of preferred remote work in the future
I think my team's communication is better and effective when we work in the office	-0.36 (p=0.002)
It is easy to contact my colleagues when I'm working remotely	0.17 (p=0.156)
I think regular face-to-face communication is important for teamwork	-0.67 (p=0.000)
I communicate with my team/colleagues more often when we work remotely	0.43 (p=0.000)

Also, when respondents were asked to choose the top three alternatives or then write their own answer to what they miss from working in the office (table 12), topics related to communication and cooperation received the highest score. Individuals are missing informal socializing with colleagues (64,2 %), effective communication (44,8 %), face-to-face brainstorming (35,8 %), and fourth most missed aspect from the office in easiness to separate work and private life (23,9 %). Due to Covid-19, most employees are working remotely and therefore the situation is greatly different. However, when it is possible to work also in the office, individuals are most likely to socialize, cooperate on communicate face-to-face especially in situations that are considered difficult in a virtual environment. These results are relatively similar compared for instance to Twingate's survey (2020) where individuals were asked what things they miss about the office and the four highest responses were social connections (45 %), human contact in general (44 %), Clear work/home separation (42 %) and fourthly face-to-face meetings (41 %).

TABLE 12 What respondents miss the most from working in the office

I miss (select maximum of three alternatives)	N	%
Social breaks with colleagues (gym, lunch, walks)	43	64,2 %
Communication effectiveness (talking face-to-face versus organizing a meeting or using email/chat)	30	44,8 %
Face-to-face brainstorming	24	35,8 %
Easier to separate work and private life (When leaving the office, the work stays there and continue to work when back)	16	23,9 %
Lunch canteen food/Cafeteria	15	22,4 %
Sport/hobby clubs, Gym	11	16,4 %
being around people (e.g. not feeling lonely)	9	13,4 %
Learning from others	6	9,0 %
Proper/ergonomic working space	6	9,0 %
Face-to-face meetings	5	7,5 %
Better IT equipment (internet connection, printer)	5	7,5 %
Other, what?	5	7,5 %
I don't miss anything	4	6,0 %
Better work motivation (e.g. feeling more connected with the team)	2	3,0 %
Working without interruptions	2	3,0 %
Routines	1	1,5 %

Also, one important topic that was raised in few comments in the "Other, what?" section was communication or more likely networking with other people than just with own team. People are already now working more in network-structured organizational models and working in total remote work might hinder building relationships with other people, as for instance, two respondents highlighted:

It's easier to meet people outside your immediate vicinity and network. (when working in the office)

Good communication while remote working is extremely difficult. On one hand, important things easily go unsaid because of the higher barrier to initiate a conversation. On the other hand, excessive sharing either leads to constant interruptions or people ignoring the overused communication channel.

These comments emphasize well issues related to virtual distance (Sobel Lojeski & Reilly, 2020), people become more separated and start working more in silo-type functions. Also, actions related to distance, for instance in this case it is considered that there are already barriers between people, which can be a warning sign of growing affinity distance, additionally, irritation towards excessive communication is becoming a challenge.

Overall, results regarding virtual cooperation seem to be on a good level (Table 13). Most employees (79 %) are satisfied with their teams' remote work cooperation, there are only a few individuals who do not consider cooperation that successful. Virtual meetings can be challenging, and sometimes certain individuals are the only ones that get their voice heard, and individuals who take more time for instance to think what they have to say might not get their voice heard. Results indicate that at least most respondents feel that they get their voice heard and their ideas are respected, the average is 4,34 and the standard deviation is very low, meaning that almost all employees agree with the statement. However, when looking at the statement "I think everybody gets heard and their opinions are taken into account in our virtual meetings" the average is slightly lower (3,94), yet still very good but seems that other people might have a feeling that not everybody is listened.

TABLE 13 Statements regarding cooperation

Variable	N	average	Median	Standard deviation
I think my team cooperates well when we work fully remotely	67	3,97	4	0,921
I think I get heard and taken into account in our virtual meetings	67	4,34	4	0,617
I think everybody gets heard and their opinions are taken into account in our virtual meetings	67	3,94	4	0,886
I think we have a positive and supportive working environment	67	4,31	4	0,583
I think my ideas are respected and taken into account	67	4,28	4	0,623
I'm not afraid of telling my ideas and thoughts	67	4,28	4	0,692

Respondents are also satisfied with how their ideas are respected (4,28) and how they are not afraid to tell their ideas and thought (4,28). Based on these results, it

can be possible to say that the working environment seems to be open and fostering innovative behavior and it seems that colleagues trust each other's, when they are willing to share their ideas and thoughts. All in all, 97 % of respondents agree that their team has a positive and supportive working environment.

TABLE 14 Connection with the team

Variable	N	average	Median	Standard deviation
I would feel disconnected from my colleagues if we continued to work completely remotely also in the future	67	3,21	3	1,354
I feel connected with my team/colleagues even though we work remotely	67	3,57	4	0,988

Previous research has presented how remote workers or virtual teams can feel disconnected from their own team. Respondents were asked whether they feel connected to their colleagues regardless of remote working (Table 14) and 60 % of respondents agree with the statement. However, 15 % of respondents do not feel connected with their team, which can indicate challenges within the team. Question regarding connection to the team and continuing full remote working in the future as during Covid-19 shared opinions more than other questions. Almost 50 % of employees consider that they would feel disconnected from their team if they continued full remote work, and oppositely approximately 33 % of respondents consider that remote working would not affect how connected they would feel with their team. There are clearly different views on this topic and this can possibly indicate some challenges if teams agree together how often they should work face-to-face in the office environment when some individuals wish to work more in the office and other individuals prefer to work in the office only occasionally. Interestingly, one respondent had observed that their team is closed due to remote working:

The team has become more closer. Thus, better trust and teamwork.

Overall, it seems that communication and collaboration have not weakened dramatically due to virtual work however, there are typical issues with communication and collaboration as previous research has presented. Especially poor whiteboard solution was considered very bad and not functioning for the agile software development team and for instance when a new person joins the team it would be easier to manage the onboarding process in person and simultaneously build stronger bonds and increase trust within the team. Based on these results, it would be advisable to present a model where teams could agree on a team level

when they cooperate face-to-face in the office to maintain good connection and especially effective communication ongoing. For instance, when they have a new project or any changes in the team or decisions are needed fast, face-to-face communication would be most effective. Work that does not require that intensive or challenging discussions can be done remotely and especially work that requires concentration might be more productive to be done from the home office, of course, personal situations vary and therefore office should have also proper spaces for work that requires silence and focus.

6.3 Productivity and challenges in remote work

The next research question focused on productivity and challenges in remote work (Table 15). Most respondents (77,6 %) consider that team's performance has not changed due to remote work and almost 12 % feel that performance is actually better now. Only 10,4 % of respondents have a feeling that the team's performance is lower in remote work. Overall, respondents have been surprised how little productivity has been affected due to remote work during the Covid-19 pandemic.

You can still be pretty productive remotely, as long as people know how to use the remote working tools we have (like Teams). Being remote has forced people to make better use of all Teams' features and this probably wouldn't have happened without the pandemic. (...)

I used to think it was only effective as a one day a week thing but now I think work can be done mostly remotely

TABLE 15 Respondents experience on remote work and its effect on performance

Variable	N	%
Team's performance is lower in remote work	7	10,4 %
Team's performance has not changed due to remote work	52	77,6 %
Team's performance is better in remote work	8	11,9 %

However, there are some indications that remote work has affected negatively some individual's performance and certain topics like learning or teaching can be more effective in the office environment, as described in the open comment section:

Motivation dropped during being remote all the time

Learning/teaching happens a lot more smoothly when we work at the office and

that has a big impact on how easy it is for us to achieve goals. On the other hand, working fully remotely forces us by necessity to be much more organized and structured, so information seems to be more readily available

Table 16 represents how respondents consider has their quality of work changed and have their stakeholders or internal- or external customers seen the difference in work quality. 94 % of respondents have a feeling that their quality of work has not changed due to remote work, yet 6 % feel that remote work has affected the quality of work so that stakeholders/internal- or external customers have seen the effect.

TABLE 16 Respondents experience on the effect of remote work to work quality

Variable	N	%
Quality of work remains the same	63	94,0 %
Quality of work has been affected due to remote work	4	6,0 %

Respondents were asked to review how agile ways of working improves their quality of work, effectiveness, and productivity (Table 17). Overall, respondents have a positive view of agile ways of working and its effect on team's performance. 58 % of respondents review that it is improving their quality of work. 61 % review that they are more effective due to agile ways of working and 70 % agree that team is more productive due to agile methods. There are some differences in the responses when comparing age groups, individuals under age 35 see agile ways of working more positively (effect on quality, effectiveness, and using the method in the future) when comparing to the group of individuals over age 45.

TABLE 17 Effects of agile ways of working

Variable	N	Average	Median	Standard deviation
Using agile improves the quality of work I do	67	3,61	4	0,887
Using agile improves my effectiveness on the job	67	3,64	4	0,900
I think agile way of working keeps us competitive	67	3,94	4	0,919
I think agile way of working makes me/my team more productive	67	3,84	4	0,846

It seems that most employees feel that remote working is not affecting their productivity and quality of work, yet some individuals are feeling the effect. It was interesting to ask how often respondents see that how often their team should meet face-to-face to stay productive and innovative and also keep teamwork efficient in the long run (Table 18). The majority (44,8 %) of responses are located in group 2-3 days per week and interestingly only 6 % of employees consider that team should meet more often (4-5 days/week or always). This is yet a

new indicator that it might be challenging to find a pleasant way how to work when almost 30 % of respondents feel that the team should meet face-to-face never or only occasionally.

TABLE 18 Frequency of face-to-face meetings to stay productive and innovative

	n	Percent
Never (we can work fully remotely)	10	14,9 %
Less than 1 day per week/occasionally	10	14,9 %
1 day per week	13	19,4 %
2-3 days per week	30	44,8 %
4-5 days per week/almost always	3	4,5 %
Always (we need to work mainly in the office)	1	1,5 %

One obvious topic that was visible in respondents' answers related to productivity was the open office and the negative effects it has on productivity. Employees feel that they get interrupted much more in the office environment and the noises in the open office are disturbing. Regardless there has been discussion (De Croon et al., 2005; Haynes, Suckley & Nunnington, 2017) or even debates whether the open office is a good solution, yet it was still surprising how much feedback was received regarding open office layout and the consequences it has. Few comments from respondents are next introduced:

I can better focus on my work if I want to, as there is less noise and less interruptions that I can't affect. Also, my workspace is better, as I have myself invested into it and can customize it to my needs.

Office environment is much noisier, and it is difficult to concentrate or read/inspect something. Also, you get interrupted too often at the Office.

Based on this information, at the end of the result section additional chapter (6.6 Changes in the office) regarding possibly needed changes in the office is addressed, as this topic received so much attention in the survey that it would feel careless not to consider the topic.

6.4 Remote work and effects on job satisfaction and work-life balance

The third research phenomenon under study was remote work and its effect on employee's job satisfaction and work-life balance. As before discussed in the theoretical part, previous research has got mixed results and it seems that remote work can have an effect on an employee's personal life in many ways and for instance, previous research has proven that remote work can affect work-life balance both in a negative and positive way.

Almost 20 % of respondent feel themselves more motivated when they are working in the office (Table 18), whereas 36 % considers feeling more motivated when working remotely, however it seems that almost 45 % are neutral with the subject, which would indicate that employees are not absolutely sure how they feel about the topic, as most replied with "neutral" response. Also, a similar phenomenon is visible in responses regarding increased satisfaction towards job due to remote work, almost 48 % answered "neutral" and 39 % agreed that remote working is increasing their satisfaction for the job. Over 65 % feel that they can better concentrate at their home office and they face less interruptions in their home offices. Slightly over 20 % of respondents feel that they get interrupted more when they are working from home. This can be due to the individual situation everyone is facing and due to Covid-19, some individuals might have kids at home. Most respondents (40,4 %) feel that they have more energy now when they are working from home, yet the standard deviation from average is somewhat high, meaning that there are few individuals who feel themselves more tired or exhausted when they are working remotely (12 %). Yet still as previously discussed these results are very aligned with previous contradictory research on remote work or flexible working possibilities and its effect on work-life balance (e.g. Van Echteld, Glebbeek, & Lindenberg, 2006; Ten Brummelhuis et al., 2012; Kelliher & Anderson, 2008).

TABLE 19 Job satisfaction and work-life balance in remote work

Variable	N	Average	Median	Standard deviation
I feel more motivated when I work in the office	67	2,72	3	1,056
I feel more satisfied with my job when I'm working remotely	67	3,36	3	0,949
I think I face more interruptions when I work remotely	67	2,19	2	1,294
I feel more tired/exhausted when I work remotely	67	2,27	2	1,149
My manager supports my motivation with his/her leadership/actions	67	4,19	4	0,743

Respondents consider flexible working possibilities very important to them (table 20), the average score (4,3) is very high and the standard deviation is very low (0,675). When comparing different age groups, it seems that flexible working possibilities are slightly more important to individuals aged 18 to 35 (average 4,5 & n=24) when compared for instance individuals aged 36-55 (average 4,2 & n=35). However, it seems that approximately 31 % of respondents would consider leaving to another company if it offers more flexibility than Ericsson in the future. Most respondents are neutral with the topic (median 3) and almost 30 % disagree

and they would not consider leaving. Individuals aged 18-35 are most likely to leave, almost 38 % would consider leaving if enough flexibility is not offered, and less likely to leave the company based on offered flexibility are employees aged 56-65+, where almost 13 % would consider leaving. Results are interesting, as it seems that respondents highly value flexible working possibilities and remote working in the future, yet almost 70 % are neutral or would not consider leaving the company, so it can indicate that Ericsson has a lot to offer for employees and maybe flexibility is not the only thing they are focused on. Discussion in media has highlighted a lot during the Covid-19 pandemic that companies that are not able to provide flexibility for their employees are not going to be successful in the future and from these results, it is visible that people want more flexibility in the future when the situation gets more normal after the pandemic.

TABLE 20 Importance of flexible working possibilities

Variable	N	Average	Median	Standard deviation
Flexible working possibilities are very important to me	67	4,30	4	0,675
I would consider leaving to another company if it offers more flexibility than Ericsson in the future	67	3,00	3	1,059
I think flexible working possibilities increase my motivation and job satisfaction	67	4,36	4	0,595

Respondents were previously asked whether they feel more motivated and satisfied with their job when they are working in the office or remotely and those responses were located mostly in the "neutral" section. However, when respondents were asked (Table 18) if flexible working possibilities increasing their motivation and job satisfaction, results differ from the previous results. Most respondents (average 4,36) feel that flexible working possibilities increase their job satisfaction, with a very low standard deviation (0,595), there were only four neutral answers meaning that none of the respondents feel that flexible working possibilities are decreasing motivation and satisfaction. Either respondent considers that flexibility is more than just working from home and sometimes in the office or then their thoughts have changed during the survey as this question was at the end of the survey.

However, it is relatively easy to say that respondents are expecting flexibility from the company and most individuals consider that remote work is increasing their job satisfaction. As previous research has indicated that remote working and work-life balance is a complex topic and the same phenomenon is visible also in this study. This phenomenon was clearly visible during content analysis from open comments:

In a way it's easier to align household chores with work but in fact, work often penetrates private life and evening

Combining private and work life is easier, e.g. going to shop during the day, fetching or bringing kids to doctor or school is easier when working from home.

On the one hand, employees feel that now they have a better possibility to manage their kids, arrange private appointments and generally they have more time for instance for working out, sleeping, and spending time with their families and friends. the downside, however, is that some individuals feel that work is invading their personal time and for instance, they are replying to emails in the evening causing the boundary between work and private life to become blurry. Also, when respondents were asked what they are missing from working in the office almost 24% had selected that they miss the easiness to separate work and private life. Based on these results, it is easy to say that flexibility is highly appreciated, and especially during the Covid-19 pandemic, individuals have very different situations at their homes and that can be visible also in these results. Some have their families and small kids at home and that will very likely affect satisfaction and work-life balance in either way, positively or negatively.

6.5 Agile ways of working and remote work

This study is focusing on agile teams and as said, commonly agile teams work very closely together, and one agile principle is stating that " The most efficient and effective method of conveying information to and within a development team is face-to-face conversation." However, there are today successful distributed and virtual agile teams as well.

Most employees (87 %) are familiar or very familiar with agile methods and only 22% of respondents consider that agile methods are just speaking rather than actual action in the workplace. Overall, agile ways of working seem to be well implemented in the organization and many employees see agile ways of working very positively and in the previous section (6.2 Virtual communication and collaboration) it was discussed how respondents see the positive effect of agile methods in their communication, productivity, and cooperation. Respondents were asked (Figure 5) whether they see differences in how well agile ways of working function in different settings and it is visible that most respondents agree that agile ways of working functions well (86,6 %) when team members are working face-to-face in the office and the second best alternative from respondents perspective is when all team members are working remotely, 73 % of respondents see agile ways of working functioning well. However, when respondents consider working in a hybrid model, almost 20 % feel that agile ways of working would not be successful. That is a relevant thing to consider that should teams then decide together when they work from the office and when they are

remotely, as less than 50 % feel that working in an agile way would function well in a hybrid setting.

We should agree on remote and office days within the team. That way people are available at the office at the same time and the important group interactions can happen.

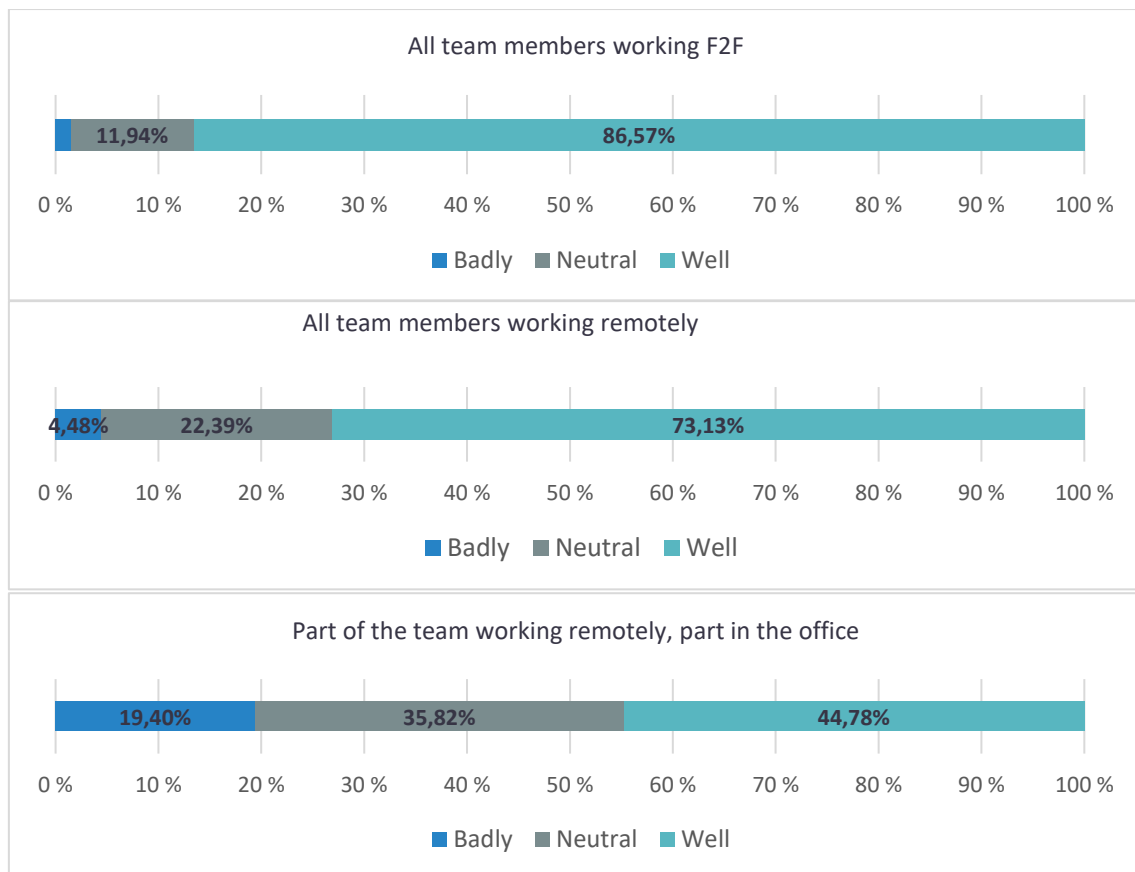


FIGURE 5 How well agile ways of working function in different settings

Also, a relevant point here is that teams should change how they document relevant information and organize their meetings when part of the team is working remotely, and part is in the office. Everybody should have visibility and access to meetings and topics that has been agreed upon. It was visible that there are doubts regarding will remote workers be "outsiders" but that would require that needed documentation and meetings are all virtual so that everybody can join regardless of where they work, whether it is the office or other location. One respondent opened the topic followingly:

Provided that people in the office communicate everything important digital-first (chats, meetings) so that the remote members are not excluded of information. People in the office should use headsets and webcams in meetings as if they were remote, so that remote workers are equal to the people in the office

Table 21 indicates that the majority of employees wish to continue to work with agile methods. There is no clear answer how teams should work and what is the best way to arrange work, however, it seems that teams are considering that their team is willing to adapt and find better ways how to work and they seem to respond well to changes, which indicate that these teams have a good foundation to change their usual ways of working to better respond to their personal needs. One respondent highlighted the topic suitably:

(...) It will be challenging but we have to adapt and figure out how to make it work.

TABLE 21 Agile ways of working and willingness to change

Variable	N	Average	Median	Standard deviation
I think we should use agile methods also in the future	67	4,13	4	0,796
I think agile way of working is more speaking than actual action in my team	67	2,67	2	0,960
My team is willing to find new better ways of working	67	4,22	4	0,735
My team respond well to change	67	4,09	4	0,668

Agile working methods are used by these teams and as it was not totally self-evident, respondents were asked what methods they are mainly using (Figure 6). 73 % of respondents are using Scrum and 48 % are using Kanban. Respondents had also the possibility to leave an open comment if they don't fully agree that their method is straight Scrum or Kanban. Other responses focused mainly on mixing Scrum and Kanban, a simpler version of Scrum or then the method was considered as "The Ericsson way".

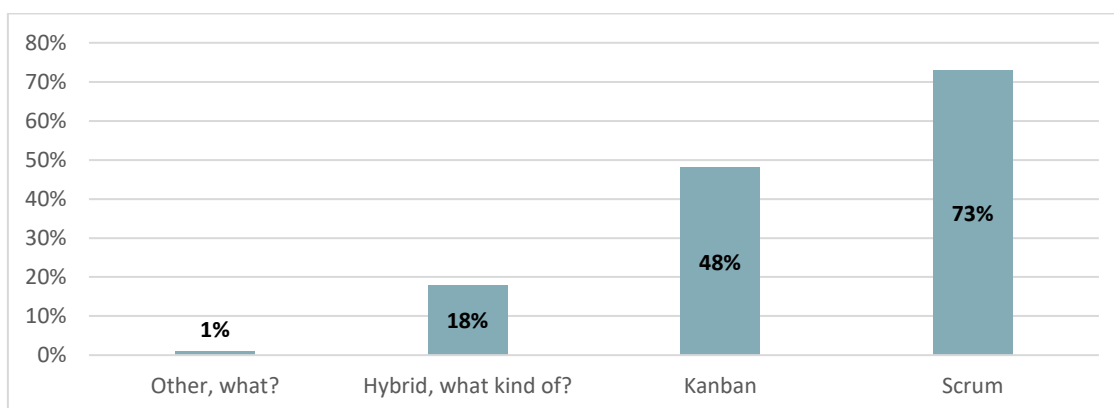


FIGURE 6 Agile method used by the team

Both Scrum and Kanban can ease teams to work more effectively, as they aim to provide visibility on tasks and also push teams to communicate with each other more. Overall, results support that agile ways of working is functioning well in virtual environment, however the hybrid model is considered challenging, as then some individuals might be working in the office and some are remotely, which can cause challenges for communication when the situation gets more complicated. That can require some changes in the ways of working, for instance, everybody needs to have a possibility to participate in meetings regardless of the place the individual is located. As previous research has suggested (Alzoubi, et.al., 2016), communication is the most challenging aspect and when overcoming challenges related to communication, virtual teams can be successful and productive. Yet as introduced before (Sobel Lojeski & Reilly, 2020) there are also other aspects that effect on productivity and those indicators applies also to agile teams.

6.6 Changes in the office

Raised topics related to open office clearly inspired people to consider what would be an ideal office and especially open office and its effects on concentration and consequent effects on productivity seem to be very problematic. Therefore, it would be beneficial to consider whether work that requires silence and focus would be done either remotely or then the office would have a silent space for focused work along with the open office. Also, when people are most likely working more remotely and the office is especially for cooperation, socializing, and networking with colleagues and other people, investing in a team- or collaboration areas could be a relevant thing to consider.

There are also some challenges that needs to be covered, for instance, if new areas are built there will be less space for individual tables, and additionally, there is no reason to have individual tables if many of them would not be used that often. However, own desk can be a “comfort zone” and bring structure and order to the workplace. When people are working more remotely, topic related to dedicated worktables arises and whether all employees need their own named workspace, however, the problem seems to be that people have for instance a different computer set up in the office and if everyone has to book a table when they visit the office, how to ensure that the setup and needs of that person are correct in that worktable. Based on this survey, respondent still wants (Table 22) their own place where they can sit when they are in the office, yet those who have a higher preference to work more remotely are more willing to the idea of booking a working station/team area and giving their dedicated table away. All (100 %) respondents wanting to work mainly in the office, agree that they need their own dedicated workspace, while 30 % of employees who would like to work mainly from home feel that they need their own workspace.

TABLE 22 Future of the office

Variable	N	Average	Median	Standard deviation
We have good collaboration areas/rooms	67	3,58	4	1,061
Office spaces takes into account possible remote workers	67	2,90	3	1,017
I think we need a physical office also in the future	67	4,03	4	1,029
I need my own dedicated workspace (own table+chair)	67	3,88	4	1,187
It is important for me to sit near my team members when I work at the office	67	4,19	4	0,875
My team needs its own team table to work efficiently	67	3,21	3	1,108
Office environment supports my innovativeness and creativity	67	3,27	3	0,978
We have enough different kind of working spaces for different kind of work (e.g. teamwork, silent areas)	67	3,12	3	1,108
Our office is in a good location	67	3,06	3	1,336
I think free seating is a good idea (e.g. book a table for you/your team)	67	2,34	2	1,213
I think our office is pleasant/appealing and I enjoy being there	67	3,25	3	0,959

Overall, respondents who preferred to work more from home are considering office more negatively, compared to respondents wanting to work more in the office. Respondents wanting to work in the office, agree that office is appealing (70 %, compared to group preferring remote working 31 %), it serves their and their team's needs (90 % versus 54 %), collaboration areas are good (100 % versus 69 %) and office supports their innovativeness and creativity (70 % versus 39 %).

Respondents are highly agreeing that physical office is needed also in the future, yet there is a large difference between employees on their preferences. 39 % of those employees preferring to work remotely, consider that physical office is needed also in the future compared to the group who prefer to work mainly in the office, 90 % agree that physical office is needed. Based on these results, it is evident that office is needed also in the future but as other previous surveys related to future of office indicates, the purpose of the office is changing and different forms of work should be considered better.

7 DISCUSSION

The purpose of this master's thesis was to find out how agile R&D units at Ericsson Finland should work in the future with higher flexibility but still maintain efficiency in teamwork and based on that, four research questions were formed:

- Q1. Do most employees experience that virtual communication and collaboration are successful in remote work?
- Q2. Does work productivity suffer from remote work and are there any challenges why the teams should not work remotely from an employee perspective?
- Q3. Do flexible working possibilities increase employee's job satisfaction and work-life balance?
- Q4. How are agile methods seen to work remotely?

Based on the results of this master's thesis the aim is to provide practical data for the company on how to proceed with the change. This discussion part is divided into four sections based on the research questions, where each topic is individually discussed and answered. After research questions discussion, a discussion how the future of work in agile R&D could look like. In the end topics regarding further research are introduced.

7.1 Conclusions on virtual communication and cooperation

The majority of respondents consider that virtual communication and collaboration have mainly been successful, yet there are some challenges with virtual tools like functioning whiteboard solution, which is highly needed especially in agile teams' daily work. Also, the situation with the Covid-19 is very unique and challenges regarding not being able to see face-to-face at all are clearly the largest issue. However, the majority of employees (60 %) feel that the most successful way to communicate with the team is face-to-face work, yet there are many employees, who would prefer virtual communication and cooperation over face-to-face working.

There are some indications that affinity distance (emotional tie, mental connection) might be growing within the surveyed respondents (e.g. barriers in communication, silos), it would be interesting to know whether the situation would evolve over time and into what direction if the company would continue working completely remotely. Results indicate that respondents would feel disconnected from their team if complete remote work would be continued, as 50 % of employees believe that they would feel disconnected from their colleagues. If

the connection with the team is weak, disadvantages of remote work can be highlighted over the advantages.

Yet during the questionnaire (February 2021) affinity distance and connection with the team has been on a relatively good level and that can be one reason behind the good productivity and successful teamwork. Previous research (Korkala & Maurer, 2014) strongly highlights that the main reason for project failure in agile teams is poor communication which can be also the root cause for other problems within the team. It is vital to regularly communicate with the team and pay attention also to the quality of the communication, as that is seen as one key factor that separates successful virtual teams from low-performing teams (Fjermestad & Ocker, 2007). In this research, teams were communicating less than they did in the office environment, which can be natural, as all basic communication situations like seeing in the hallway or at lunch canteen disappear.

7.2 Conclusions on remote work and productivity

Overall, teams consider that their work productivity has not suffered due to remote work and the same has been visible from an organizational perspective based on given feedback from the organization. It was interesting to notice that these very practical results regarding open office and disturbances and how it effects on employees productivity was highly mentioned in this survey, it was very much aligned with previous research (e.g. De Croon et al., 2005). Generally, remote working and productivity is seen positively connected, and that is also visible in this study. However, as previous research (Rose, 2016; Sobel Lojeski & Reilly 2020) indicated, feeling of isolation and lack of communication can harm work productivity, which was slightly visible also in this study, yet it seems to be a minor issue, as only few individuals have felt a loss of motivation and challenges with communication. Research (Fjermestad & Ocker, 2007) highly encourage using video conferencing tools when working virtually, as it provides more non-verbal cues than for instance email or chat.

As previously discussed in the communication and cooperation section, the covid-19 pandemic has offered the main challenges, as the lack of face-to-face communication brings challenges and sometimes some topics would be more easily and rapidly covered in the office, like difficult learning or teaching sessions or induction for new employees. Therefore after the pandemic is over, it is highly suggested to meet regularly in the office, when it is considered the most effective way to transfer information and avoid misunderstandings, for instance at the beginning of a new project, as DuFrene and Lehman (2016) have suggested similarly to respondents of this survey.

7.3 Conclusions on job satisfaction and work-life balance

Job satisfaction of employees seems to be higher due to flexible working possibilities. Much time is saved from commuting and that has been considered as one main advantage. Now respondents can have more time for other activities, like exercising and arranging private appointments, and that on hand improves work-life balance. However, work-life balance is a more controversial topic, even though flexibility brings a lot of positive aspects in employee's lives, the phenomenon is not so black and white. Some individuals are working more, and the work-life boundary is blurrier, meaning that some individuals are replying for instance in emails after normal working hours. For instance, research conducted by Van Echteld, Glebbeek, and Lindenberg (2006) noticed in their study that employees with flexible working possibilities work longer workweek compared to their office colleagues. Therefore, it is suggested to emphasize a culture, where free time is also appreciated to avoid burning out.

However, the possibility to have flexible working possibilities are very important for the respondents and therefore it is advisable to respect that. Otherwise, there is the possibility that some employees make the decision to leave the company and that is not the desired result. In a conclusion, it looks there is still more positive effect than negative effects regarding controversial work-life balance and remote work, yet blurred boundary of work and private life is not totally excluded from typical office work, as it is possible to carry the laptop from the office to home, therefore the issues are not limited only to remote working.

7.4 Conclusions on Agile methods in remote work

Also, agile methods were seen to work well in a virtual environment and the overall feedback was very good regarding agile ways of working. As introduced previously, originally agile methods were meant for co-located teams, however working life is changing, and therefore it is also considered that agile methods are suitable for remote teams. Surveyed teams are mainly using scrum, which can possibly be more challenging and complex in remote settings (Herbsleb & Mockus, 2003), yet these respondents considered that agile ways of working functions pretty well especially when all team members are working remotely and agile ways of working improve the quality of work, effectiveness, and productivity.

Ericsson has clearly implemented agile ways of working well and agile methods in remote work seem to be highly appreciated and most employees want to continue working with agile methods. However, as Herbsleb and Mockus (2003) suggested, distributed agile teams can have challenges and the working can be slower than face-to-face working teams. Some respondents em-

phasized that distributed model, where some individuals are working in the office and some working remotely can be a challenge, and as almost 20 % of respondents considered that distributed model with agile ways of working is functioning badly. Therefore, it is vital for the team to review what style of working suits them best, and is the most functioning way of working then agreeing together when the agile team is working in the office and when being remote. Yet this can diminish the feeling of flexibility and autonomy when ways of working need to be agreed upon beforehand, and flexibility and autonomy are connected to for instance to the feeling of satisfaction.

7.5 How to work in the future summary

The future of work is a complex question. However, based on the results regarding personal and business needs, it is advisable to combine remote working with face-to-face working. The majority of employees felt that a sufficient amount of remote work is 2-3 days per week. Respondents can manage remote working and as previously discussed, there are no massive problems with remote work. As Sobel Lojeski and Reilly (2020) emphasized, physical distance is not the biggest challenge to overcome in virtual work, it is the connection, trust, and mental tie with the team and overall, my personal view is that these problems, like lack of communication and overall lacking the social contact, will mostly disappear after the Covid-19 pandemic is over and teams can see each other also in person.

Decisions regarding remote work should be made in the team and leaders can observe the decision-making process and guide the decision-making if that is considered necessary. It is important that everybody gets their opinion heard so that the final results would not be only based on the person, who has the loudest voice. This research indicated that the majority of employees would prefer remote working 2-3 days per week and that can be used as a basic starting point, yet it would be advisable to discuss with the team how much face-to-face cooperation is needed and should team meet more often or is less enough, as situations are different and teams are different.

Previous research (Sobel Lojeski & Reilly, 2020) has emphasized that there are successful virtual teams when different usual challenges with virtual work are considered carefully, and overall, it looks that respondents can work effectively when they are working remotely, therefore based on productivity reasons it is not mandatory to see in the office extremely often, yet discussion within the team will reveal how much is enough and when something is decided, it is good to keep in mind that agreed can be changed if there are challenges or something is not working. Teams will find their own good rhythm and not all teams have to have the same. Yet there are still some challenges, regarding combining remote

work and office work, as there are differences in preferences in how often individuals prefer to work remotely. One question which will be visible in the future is, will there be challenges regarding employees' personal views on the amount of remote work, and will that cause irritation within the team, as there are clearly varying preferences (working virtually versus working mainly in the office).

Also, one challenge is office space, as there seems to be a need for different kinds of working spaces, there will be no room for everyone to have their own dedicated working table. Furthermore, it is not that durable to have many tables that are not used so often, as people want to work more remotely and when they are working in the office, time is spent more collaborating and socializing with colleagues. However, based on results from this survey, respondents are not considering the idea of free seating in a very positive manner. It needs to be considered very carefully, as people are very used to having assigned seating, for instance when you buy a ticket to the cinema or sports event. Assigned seating creates structure and order and it might feel even scary to come to the office if there is no structure at all. It can lead to confusion if everyone is sitting where they happen to book their table and especially in teamwork that does not sound very good. Therefore, it could be ideal especially for teams to have a certain area where they can book a table, so when they are working in the office, they know that if there are other employees working in the office, they will sit with them. Based on the mixed result regarding free seating, this might be a topic that causes irritation, yet there is restricted space in the office, so it is not possible to "have it all" (assigned table, different areas for a different kind of work).

Also, new technology is needed to overcome challenges with virtual communication and enabling an effective hybrid model cooperation, if that is the solution to be used. Additionally, some improvements, like easy-to-use videoconferencing tools and virtual whiteboards, could be worth investing in, to make work more productive and fluent.

One solution for employees who are interested in working in a virtual team could be a virtual team experiment, as it can open talent pools and attract employees, who consider that a flexible and virtual working environment is what they require. At first, the virtual team could contain employees from a certain unit who are willing to experiment and that group could then be recruited new talents outside the organization if the idea is considered to be good. These experiments could show whether it works or not, yet there needs to be a plan what happens if it is considered as a bad experiment and of course forming the group can be challenging (e.g. finding enough individuals at first that has the needed competence) but if there would be a chance to experiment a virtual team, it could open new possibilities and attract new software developers into the organization.

Based on this, I do not see that it is mandatory to meet with the team on a weekly basis, however organizational culture is very important for the company and it might be easier to maintain the culture when people are seeing each other in the office. Also, people are more likely to build relationships and trust when they are co-located, and strong relationships are seen to relate to job engagement,

and that in turn is connected to productivity (Soni, 2013; Sobel Lojeski & Reilly, 2020). Therefore, it is advisable to meet people also face-to-face and arrange for instance events where people can network with other people outside their near vicinity and build strong bonds and feel a sense of belongingness with each other and sense also the strong company culture.

Is not an easy task to decide how to work in the future, as competition is extremely high especially with software developers and there might not be room for bad decisions as it can at worst lead to losing competent talent. Therefore, as employees have more decision power in the markets, it is vital to include them in decision making and not just tell them what is happening and how to work in the future. Based on this survey's results there are no restrictions to work remotely also in the future but it is advisable to see also in person when the Covid-19 situation allows it. It seems that employees are more satisfied with their job when they have flexible working possibilities, and when employees can meet each other also in the office, challenges that some individuals have felt (lack of motivation, isolation) caused from working totally virtually will mostly disappear, yet as previously discussed, there might be some totally new challenges with changing ways of working, regardless the intention from an organizational perspective is only good and the purpose is to provide more flexibility and respond to changing working life. As previously discussed, preparing the office for future, it would be advisable to do some changes, like different areas for different work purposes and some technological improvements. The office can have a free seating policy but there could be certain areas where team members can book their table so that there is still some structure, order, and sense of familiarity. Additionally, if there are bookable team tables or other working areas teams can book those for collaboration purposes instead of booking their own table.

The results of this survey are strongly tied in the context this survey was conducted (During a specific time during Covid-19). One question that remains, is that would these results change because Covid-19 has made the situation very different, and the personal situation of many respondents can change very fast (for instance kids are taught at home) and would that make the results different for instance regarding job satisfaction and considered performance in remote work. However, results are very much aligned with previous research and therefore that would indicate that these results can contribute to the scientific discussion and confirm previous research results regarding remote work and its effect on communication, cooperation, productivity, job satisfaction, work-life balance, and agile ways of working in a virtual environment.

Overall, coming back to the office after the Covid-19 pandemic is a huge change for many and if employees are not returning back to the office as they remember it and ways of working have changed too, for some it can be a positive

thing but in the end, it is a change, and for some individuals, it requires adaptation and can cause negative feelings and resistance, therefore it is good to pay attention in planning and communicating regarding the coming changes (Shanthi, 2018).

7.6 Further research topics

There were several further research topics that raised during the writing process of this master's thesis. One is related to Hunter's (2019) article, where was stated that not all are suitable for remote working and from that topic, I started to consider that one research topic could be how new hires consider flexible working possibilities, is there challenges for instance during the onboarding process, do they get enough support and do they feel a sense on belongingness with the team. Also, it would be interesting to study further what happens when a company takes a hybrid model into use. Is that creating different "groups" that are more connected with each other, like remote workers and office workers? That was one concern that was raised during this study, and surely it is a possible risk that there are different groups within the team, which is not the desired result. Even though more flexibility will be provided in the future, the aim is that nobody becomes an "outsider" because of the selection one individual has done.

Additionally, it would be interesting to further study, why there are individual differences in virtual communication and its success and what are the reasons behind it, and how it could be more equal for everyone. Also, one very important aspect especially for Ericsson is their strong corporate culture and during discussions with my contacts, we discussed how flexible working and remote work effects to corporate culture, it would be interesting to study how increased remote working is affecting on felt corporate culture and is it possible to keep a strong corporate culture regardless on increased remote working.

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APPENDIX 1 COVER LETTER

Hi!

I'm Marjut and I work in xxx here at Ericsson and I'm doing my master's thesis work in cooperation with Ericsson and my topic is "The future of work in agile R&D". As a part of my thesis I'm conducting a survey which is sent to all development teams within IMS Gateways LMF and Security Solutions LMF local teams. This survey is meant for developers and it is done to gain information how you would like to work in the future in the post covid-19 era and what is important for you and your team.

Here are some facts about this survey:

- It takes about 15-20 minutes to reply
- There are five sections in the survey, you can save the survey after every section, if you get busy etc. and continue later
- It is completely anonymous (even I can't see your name or other details)
- It is not possible to recognize a single respondent when I introduce the results
- Results will be used to gain information what are your thoughts about ways of working in the future
- I really appreciate if you answer also to the open questions as it makes it easier to understand the theme
- The survey is open during 10.02.2021 - 19.02.2021

Here is the link to the survey:

I would really appreciate your input, as by replying to this survey we can affect how the future ways of working looks at Ericsson Finland.

Best regards and thanks,
Marjut

APPENDIX 2 SURVEY QUESTIONNAIRE

This survey is done in cooperation with Ericsson Finland and University of Jyväskylä as a part of Marjut Saarenoksa's Master's thesis work. This survey is done to gain information how you would like to work in the future in the post covid-19 era and what is important for you and your team.

Covid-19 has changed our ways of working remarkably and many organizations are now considering how to work after the pandemic.

Remote work has been successful in many ways, but there might be some challenges for instance with virtual communication and cooperation, and individual situations vary. In the planning of the return to the office, LMF wants to gather feedback from employees and my Masters' Thesis is helping in gathering insights about your views on coming back to the office, what is your opinion regarding remote work and how we can ensure that the teamwork is efficient but also allowing flexibility, takes account business- and employees' personal needs and how our office could be improved to support innovation, focused work as well as successful teamwork better in the future.

Basic information about the survey:

- It takes about 15-20 minutes to reply
- There are five sections in the survey, you can save the survey after every section, if you get busy etc. and continue later
- Results will be used to gain information what are your thoughts about ways of working in the future
- I really appreciate if you answer also to the open questions as it makes it easier to understand the theme
- The survey is open during 10.02.2021 – 19.02.2021

Research ethics:

- The survey is completely anonymous, I will not see your name at any point
- It is not possible to recognize a single respondent in the conclusion section of this master's thesis

Don't hesitate to contact me if any questions or comments.

Contact details:
Marjut Saarenoksa
marjut.saarenoksa@ericsson.com /
kaimar@student.jyu.fi

Section 1. In this first section you will reply to some basic background details and some questions about remote work

1. Age *

This data is collected to see possible differences in preferences between generations

- 18-25
- 26-35
- 36-45
- 46-55
- 56-65+
- I prefer not to answer

2. How long have you worked at Ericsson Finland? *

- Less than 1 year
- 1-2 years
- 3-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21-25 years
- 26-30 years
- More than 30 years
- I prefer not to answer

3. What is your employment type? *

- Permanent employment
- Fixed-term employment/Trainee

4. How often did you work remotely before covid-19? *

Select the best describing alternative on a weekly basis

- Never
- Less than 1 day per week/occasionally
- 1 day per week
- 2-3 days per week
- 4-5 days per week/almost always
- Always

5. How often would you prefer to work remotely after covid-19? *

Select the best describing alternative on a weekly basis

- Never
- Less than 1 day per week/occasionally
- 1 day per week
- 2-3 days per week
- 4-5 days per week/almost always
- Always

6. What do you miss most about working in the office? *

Select maximum three (3) alternatives

- Communication effectiveness (talking face-to-face versus organizing a meeting or using email/chat)
- Social breaks with colleagues (gym, lunch, walks)
- Easier to separate work and private life (When I leave the office, the work stays there and I continue the work when I'm back)
- Routines
- Learning from others
- Face-to-face meetings
- Face-to-face brainstorming
- being around people (e.g. not feeling lonely)
- Proper/ergonomic working space
- Better work motivation (e.g. feeling more connected with the team)
- Lunch canteen food/Cafeteria
- Working without interruptions
- Better IT equipment (internet connection, printer)
- Sport/hobby clubs, Gym
- Other, what?
- I don't miss anything

7. Are there any things you don't miss about working in the office and you feel that are working better when you are working remotely?

8. Has your mindset towards remote work changed during covid-19? *

If your mindset has changed, you can tell for example what has been the biggest influencer or "eye opener" for you.

- No
- Yes, how?

Section 2. Questions about remote work

9. Please rate how you agree on below statements *

These statements are regarding current remote working time during covid-19

	1.Totally disagree	2.Disagree	3.Neutral	4.Agree	5.Totally agree
1.I feel more motivated when I work at the office versus remotely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.I think my team's communication is better when we work in the office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.It is easy to contact my colleagues when I'm working remotely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I'm satisfied how often I communicate with my manager when we are working fully remotely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I think regular face-to-face communication is important for team work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I think I get heard and taken into account in our virtual meetings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I think everybody gets heard and their opinions are taken into account in our virtual meetings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I think my team cooperates well when we work fully remotely	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. I would feel disconnected from my colleagues if we continued to work completely remotely also in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. Please, rate how you agree on below topics regarding your team and working environment *

Think about the current situation and what are your thoughts right now on the following statements

	1.Totally disagree	2.Disagree	3.Neutral	4.Agree	5.Totally agree
1. I'm not afraid of making mistakes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. My manager supports my motivation with his/her leadership/actions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. My team is willing to find new better ways of working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. My team respond well to change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I think we have a positive and supportive working environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I feel that I can make work-related decisions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I think my ideas are respected and taken into account	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. I'm not afraid of telling my ideas and thoughts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

11. Do you think that your team is able to achieve the defined goals and results even if you work fully remotely? *

If you wish to add comments, you are welcome to do so.

- No, we manage to achieve our goals better when we work together face-to-face at the office
- Yes, we achieve our goals in a same way regardless where we work (office/remotely)
- Yes and actually we manage to perform better when we work remotely

12. Do you think that your external/internal customers/stakeholders have noticed a difference in the quality of work you do when you are working fully remotely? *

- No, the quality of work remains the same or better regardless of whether we are in the office or remotely
- Yes, how and why?

Section 3. Questions regarding our premises

13. Answer below statements regarding our office in Jorvas, Kirkkonummi: *

	1.Totally disagree	2.Disagree	3.Neutral	4.Agree	5.Totally agree
1.Office serves my and my team's needs well	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.We have good collaboration areas/rooms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.Office spaces takes into account possible remote workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.I think we need a physical office also in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.I need my own dedicated workspace (own table+chair)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.It is important for me to sit near my team members when I work at the office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.My team needs its own team table to work efficiently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.Office environment supports my innovativeness and creativity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.We have enough different kind of working spaces for different kind of work(e.g. team work, silent areas)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.Our office is in a good location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.I don't care how our office looks like	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.I think free seating is a good idea (e.g. book a table for you/your team)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.I think our office is pleasant/appealing and I enjoy being there	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. What workplace flexibility means to you and what kind of flexibility would you wish from Ericsson?

Section 4. Questions regarding agile

15. How familiar are you with agile ways of working? *

Not at all familiar Extremely familiar
Scale 1-5

16. What agile methods are you mainly using? *

Scrum
 Kanban
 Hybrid, what kind of?
 Other, what?

17. How well do you think that agile ways of working would function, when ALL the team members are working face to face at the office? *

e.g. You can think about how the following things work when you are working face-to-face: Daily meetings, retrospectives, planning, brainstorming etc.

Very badly Very well
Scale 1-5

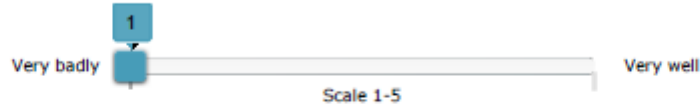
18. How well do you see that agile ways of working function in remote work, when ALL the team members are working fully remotely? *

e.g. You can think about how the following things work remotely in your opinion: Daily meetings, retrospectives, planning, brainstorming etc.

Very badly Very well
Scale 1-5

19. How well do you think that agile ways of working would function, when PART of the team is working remotely and part of the team is in the office? *

e.g. You can think about how the following things would work in your opinion: Daily meetings, retrospectives, planning, brainstorming etc.



20. During covid-19 and shifting to remote work, did you change your ways of working or methods you used? *

- No, we continued as before covid-19, only thing that changed was that we are not at the office
- Yes, we stopped using certain methods but transferred some parts of our typical face-to-face ways of working to virtual methods
- Yes, we are working in a total new way, how?
- Other, what?

21. Please, answer below statements about agile *

	1.Totally disagree	2.Disagree	3.Neutral	4.Agree	5.Totally agree
1. Using agile improves the quality of work I do	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Using agile improves my team's communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Using agile improves my effectiveness on the job	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I think we should use agile methods also in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I think agile way of working keep us competitive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I think agile way of working makes me/my team more productive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. I think agile way of working is more speaking than actual action in my team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

22. Do you think there are any obstacles why your agile team should not work fully or partly remotely in the future? *

Select below (max. three/3 most relevant) topics/challenges

- Communication issues
- Misunderstandings
- Technology issues
- Lack of social interaction
- Difficulties with collaboration
- Loneliness
- Unproductive meetings
- Unproductive individuals
- Unclear goal setting
- Distractions from home
- Lack of information
- Challenges to be creative
- Lack of right tools
- Other, what?
- No, we have no issues/obstacles

Section 5. Questions regarding the future

23. Considering personal and business needs, how would you like to agree on remote work in your team in the future? *

Select the best describing alternative:

- The team agrees together when we can work remotely and when we work together in the office
- Manager decides when individuals/team can work remotely
- I can decide when to work remotely and when coming at the office, without asking from team/manager
- I wish that the whole team works mainly at the office
- I hope I don't have to come to the office, everything can be done remotely
- None of these, how would you like to agree?

24. Do you think your team has all the capabilities to work remotely or are you missing something relevant? *

e.g. sufficient tools, functioning internet connection, know-how/knowledge, good communication, successful delivery of work, good results etc. **If you reply no, what are you or your team missing?**

- Yes, we have all the capabilities
- No, I'm missing/my team is missing:
- No opinion

25. In your opinion, how often your team should meet face-to-face to stay productive and innovative and also keep your teamwork efficient in the long run? *

- Never (we can work fully remotely)
- Less than 1 day per week/occasionally
- 1 day per week
- 2-3 days per week
- 4-5 days per week/almost always
- Always (we need to work mainly in the office)

26. Do you believe that your team can work effectively if some employees are remotely and some are working in the office? *

You can add explanation if you wish

- Yes, we can work effectively
- No, we should mainly work in the office
- No opinion

27. Please, answer below statements regarding post-covid future: *

	1.Totally disagree	2.Disagree	3.Neutral	4.Agree	5.Totally agree
1. I could see myself working in a virtual team	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Flexible working possibilities are very important to me	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. I would consider leaving to another company if it offers more flexibility than Ericsson in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. I think Ericsson offers good amount of flexibility already now	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. I'm ready to adapt my own needs to work remotely if majority of my team wishes to work in the office	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. I think flexible working possibilities increase my motivation and job satisfaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

28. What would be your dream/ideal work place if everything would be possible?

E.g. how you work, where you work, who decides, who makes decisions, what kind of "rules" would you make your self regarding remote work, how would you suggest to increase flexibility at Ericsson, what kind of office we have: a traditional office, cooperation space, totally virtual? What kind of spaces/rooms/areas do you need? What is the location? How the office/space looks like? What is in there? etc. All ideas are welcome!

29. If you want to comment on something, you can do it here, e.g. you feel you like to explain something you didn't have a possibility earlier etc.
