

Remote work: Effects on Nordic people, places and planning 2021-2024

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Summary

This report is the first outcome of the project *Remote work: Effects on Nordic people, places and planning 2021-2024*. Its primary aim is to provide a broad understanding of the current situation (May, 2022) regarding remote work in the Nordic countries, particularly with relation to potential urban and regional development effects. It provides insight into emerging trends in the countries based on Nordic research, statistical data, and stakeholder interviews. Further, it considers the national level policy frameworks that "set the stage" for the development of remote work practices in the Nordic countries.

Our findings suggest that higher levels of remote work are likely to be maintained in the long-term in all Nordic countries, at least to some degree. Importantly however, there is little evidence to support a large-scale shift towards a "remote first" mindset among Nordic workers or workplaces. This means that, for the majority of workers and workplaces, the most likely scenario will be some form of hybrid arrangement. The effectiveness of these arrangements in promoting wellbeing and quality of life for workers, as well as the extent to which collaboration and innovation thrive under hybrid conditions, will both be key factors in determining whether remote work remains more common in the long term.

From a spatial perspective, the patterns of migration, mobility and multilocality observed in the Nordic countries during the pandemic support the idea that increased remote work will have implications for planners in Nordic cities, regions, and rural areas. Daily commuting became less common and internal migration patterns suggest that this has been accompanied by a willingness to travel further. Some rural municipalities also appear to have become more desirable. This is evidenced by the slowing, or even reversal, of trends towards population decline and also by increased demand for and use of second homes. If these trends continue, they could present substantial opportunities for positive development in some rural areas as well as for smaller cities in proximity to larger urban centres.

Although the experience of remote work during the pandemic has been relatively similar in all Nordic countries, the future direction varies somewhat in light of the pre-existing policy context in each country. In Iceland, the pandemic has given momentum to the existing regional policy priority of encouraging state jobs without specified placement. Similarly, in Finland, increased remote work fits well with the pre-pandemic focus on combating depopulation and ageing in rural municipalities through increased multilocality. In Sweden, Norway, and Denmark, the links between regional policy and remote work are less clear. At the same time, the preconditions for increased remote work are evident in all countries and the potential regional development benefits align well with broader regional policy goals.

Increased remote work in the Nordic Region should be considered in the context of the Nordic Prime Ministers vision to make the Nordic Region the most sustainable and integrated in the world by 2030 (Norden, n.d.). From a social sustainability perspective, it is important to acknowledge that most workers do not have the possibility to work remotely and, even for those who do, the advantages and disadvantages will differ between groups. From a spatial perspective, getting the most out of the opportunities increased remote work offers for smaller cities and rural areas will require careful planning that balances the needs of newcomers, temporary residents, and the existing population. Economic sustainability is an important consideration here, particularly in the case where a person's life and work are split between two or more municipalities. From an environmental sustainability perspective, it is important not to assume that remote work is inherently coupled with favourable environmental outcomes. While it may reduce the need for travel, the lifestyle choices remote work enables may be accompanied by negative environmental impacts such as increased resource use and travelling longer distances through less environmentally friendly means.

Overall, it appears that the experiences of remote work during the pandemic have been fairly similar in the five Nordic countries. Similar trends are also evident, though to differing degrees, with respect to the effects on different places throughout the region. The most notable differences between the countries relate to the regional policy responses, and it is perhaps here that the greatest potential for Nordic added value emerges. The next stages of the project will dig deeper into the ways in which these similarities and differences play out at the local and regional levels as we continue to explore the effect of remote work on Nordic people, places, and planning.

Sammenfatning

Denne rapport er det første resultat af projektet Remote work: Effects on Nordic people, places and planning 2021-2024. Rapportens primære formål er at give en bred forståelse af den aktuelle situation (maj 2022) vedrørende distancearbejde i de nordiske lande, især i forhold til potentielle by- og regionale udviklingseffekter. Den giver indsigt i nye tendenser i landene baseret på nordisk forskning, statistiske data og interviews. Endvidere bliver de politiske rammer på nationalt niveau, der "sætter scenen" for udviklingen af distancearbejde i de nordiske lande, taget i betragtning.

Vores resultater peger på, at højere niveauer af distancearbejde sandsynligvis vil fortsætte på lang sigt i alle de nordiske lande, i det mindste til en vis grad. Dog er det vigtigt at understrege, at der er begrænset bevis som understøtter et storstilet skifte i retning af en "remote first"-tankegang blandt nordiske arbejdere eller arbejdspladser. Det betyder, at det mest sandsynlige scenarie for de fleste arbejdere og arbejdspladser vil være en form for hybrid ordning. Effektiviteten af disse ordninger i forhold til at fremme velvære og livskvalitet hos arbejdstagerne, såvel som i hvilket omfang samarbejde og innovation trives under hybride forhold, vil begge være nøglefaktorer i at afgøre, om distancearbejde forbliver mere almindeligt på lang sigt.

Fra et planlægningsperspektiv understøtter de migrations-, mobilitets- og multilokalitetsmønstre, der blev observeret i de nordiske lande under pandemien, ideen om, at øget distancearbejde vil påvirke planlægning i nordiske byer, regioner og landdistrikter. Daglig pendling blev mindre almindeligt under pandemien, og interne migrationsmønstre tyder på, at dette er blevet ledsaget af en vilje til at rejse længere. Nogle landdistriktskommuner ser også ud til at være blevet mere attraktive. Dette fremgår af en opbremsning eller endda vending af tendensen til befolkningsnedgang og også af en øget efterspørgsel efter og brug af sommerhuse. Hvis disse tendenser fortsætter, kan de give betydelige muligheder for positiv udvikling for nogle landdistrikter såvel som for mindre byer i nærheden af større byområder.

Selvom oplevelsen af distancearbejde under pandemien har været relativt ens i alle nordiske lande, varierer den fremtidige retning hvilket skal ses i lyset af den allerede eksisterende politiske kontekst i hvert land. I Island har pandemien givet momentum til den eksisterende regionalpolitiske prioritet om at skabe flere statslige arbejdspladser uden specificeret placering. Tilsvarende i Finland er øget distancearbejde i linje med det præ-pandemiske fokus på at modvirke affolkning og aldring i landdistriktskommuner gennem øget multilokalitet. I Sverige, Norge og Danmark er sammenhængen mellem regionalpolitik og distancearbejde mindre tydelig. Samtidig er gode forudsætninger for øget distancearbejde til stede i alle landene, og de potentielle regionale udviklingsgevinster stemmer godt overens med bredere regionalpolitiske mål.

Øget distancearbejde i den nordiske region bør blive betragtet i sammenhæng med de nordiske statsministres vision om, at den nordiske region skal være den mest bæredygtige og integrerede region i verden i 2030 (Norden, n.d.). Fra et socialt bæredygtighedsperspektiv er det vigtigt at anerkende, at de fleste arbejdstagere ikke har mulighed for at arbejde på distance, og selv for dem, der har, vil fordelene og ulemperne være forskellige imellem grupper. Fra et planlægningsperspektiv er der behov for at balancere behovene hos tilflyttere, midlertidige beboere og den eksisterende befolkning for at få mest muligt ud af mulighederne fra øget distancearbejde for mindre byer og landdistrikter. Økonomisk bæredygtighed er en vigtig overvejelse, især i det tilfælde hvor en persons privat liv og arbejde er delt mellem to eller flere kommuner. Fra et miljømæssigt bæredygtighedsperspektiv er det vigtigt ikke at antage, at distancearbejde i sig selv er forbundet med positive miljømæssige effekter. Selvom det kan nedsætte rejsebehovet, kan de livsstilsvalg, distancearbejde muliggør, være ledsaget af negative miljøpåvirkninger såsom øget ressourceforbrug og længere rejser med mindre miljøvenlige transportmidler.

Overordnet set fremstår det som, at erfaringerne med distancearbejde under pandemien har været nogenlunde ens i de fem nordiske lande. Lignende tendenser fremstår også, dog i forskellig grad, med hensyn til effekterne på forskellige steder i regionen. De mest markante forskelle mellem landene vedrører de regionalpolitiske reaktioner, og det er måske her, at det største potentiale for nordisk merværdi opstår. I de næste faser af projektet vil vi undersøge, hvordan

disse ligheder og forskelle udspiller sig på lokalt og regionalt niveau, mens vi fortsætter med at udforske effekten af distancearbejde for mennesker, steder og planlægning i den nordiske region.

Introduction

Remote work, distansarbete, hjemmearbejde, etätyö, fjarvinna – no matter what you call it, it is difficult to ignore the significance of this topic in discussions about the future of work since the onset of the COVID-19 pandemic. Although the long-term effects are far from clear, evidence suggests that increased levels of remote work are here to stay, at least in some form or another. This report considers the potential impacts of this for people, places and planning in the Nordic Region, with a focus on macro-level trends and national-level policy developments.

The connection between remote work and rural and regional development has a long history, with discussions of a digitally fuelled 'regional renaissance' dating back to at least the 1980s (Läpple, 2001; Milder, 2020). These prophecies have, for the most part, gone unrealised. Digitalisation has generally gone hand-in-hand with urbanisation (Graham, 2004; Kourtit, 2016; Scott, 2011), and digital innovation has been strongly linked to the geographical clustering of companies (Morgan, 2004). One of the key arguments explaining this has been that, although information and communication technologies are highly effective in *transmitting information* across large physical distances, the *production of knowledge* remains a highly social process which still requires physical proximity (Morgan, 2004). Simply put, the outcomes generated through online interactions were not comparable to those which could be achieved face-to-face.

The COVID-19 pandemic has challenged this idea. With so many workers forced to shift their activities online, tools and processes were quickly developed, adopted, and refined to support online collaboration. These were surprisingly effective, triggering a wide range of commentary about the potential for a longer-term shift to remote work post-pandemic (see: Dahik et al., 2020; OECD, 2021; Remote Lab & Future Place Leadership, 2021; Sostero et al., 2020) and renewed interest in the potentials of remote work to shape urban and regional development (Milder, 2020; OECD, 2021; Tomaz et al., 2021). It is in this context that this research project seeking to understand the implications of increased remote work for Nordic people, places and planning was commissioned by stakeholders from the Nordic Co-operation Programme for Regional Development and Planning 2021-2024.¹

Research framework and method

This report is the first outcome of the project *Remote work: Effects on Nordic people, places and planning 2021-2024*. The project's basic hypothesis is that the remote working practices normalised during the pandemic will remain in some form even after the pandemic subsides, and that this will have knock-on effects for commuting practices and living preferences, as well as further implications for regional development and planning (see Figure 1). Within the project title, the **people** aspect primarily refers to concrete changes in daily life experienced by some workers due to changed work practices. These relate directly to the practice of working remotely but also includes changes in lifestyles and routines. The **places** aspect deals with the territorial effects of these changing work practices, lifestyles, and routines. Importantly, these effects are likely to differ greatly between different types of regions and municipalities, and understanding these different effects is a key goal of the project. Finally, the **planning** aspect addresses the implications of these changes for Nordic policymakers and planners. It considers the implications for cities, for rural areas, and for regional development in general.

1. For more information see: <https://nordregio.org/about/nordic-thematic-groups-2021-2024/> Note: The project has also received funding from the Finnish Chairmanship of the Nordic Council of Ministers under the direction of the Nordic Ministers for Regional Development.

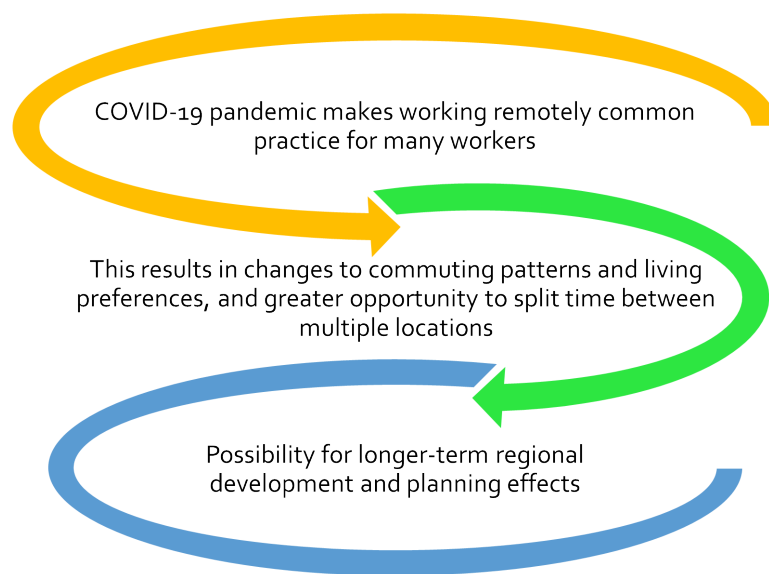


Figure 1. Project hypothesis

As the first outcome of the project, this report aims to provide a broad understanding of the current situation regarding remote work in the Nordic Region, particularly with relation to potential urban and regional development effects. The overview is primarily focused on understanding the current situation regarding remote work and its spatial implications in the Nordic countries. It provides insight into emerging trends in the countries based on Nordic research, statistical data, and stakeholder interviews. Further, it considers the national level policy frameworks that "set the stage" for the development of remote work practices in the Nordic countries. It addresses the following questions:

- What will the future of remote work look like in the Nordic countries?
- What spatial trends can be identified at this point, and what do they suggest about the implications of increased remote work for Nordic cities, regions and rural areas?
- What policy responses are evident in the Nordic countries, and how do these relate to the pre-pandemic regional policy context?

The findings will form the basis for a series of further activities that will explore in greater depth the specific implications of this trend for Nordic regions and municipalities. These activities include further statistical analysis, a series of case studies in Nordic cities, regions and rural areas, and the development and analysis of a grid-level urban-rural typology.

The research was primarily performed through desk study and a small number of expert interviews in each country, conducted between July and October 2021. Initial interviews were conducted with national and regional representatives of the Nordic Thematic Groups for Regional Development and Planning 2021-2024. With assistance from these groups, three key experts per country were identified:

- 1 national government representative
- 1 representative of a trade union most likely to have many members who have the possibility to work from home
- 1 representative of a business association or similar institution (e.g., Confederation of Danish Employers)

The interview guides for the different groups can be found in Annex 1.

Report overview

The findings of the report are presented in three chapters, each of which deals primarily with one of the research questions above.

Chapter 1. Remote work in the Nordic countries, considers what we can expect from the future of remote work in the Nordic countries based on research conducted in the countries and by international institutions. It addresses Nordic preconditions for increased remote work, the impact of the COVID-19 pandemic, opportunities and challenges for workers and workplaces, and the legislative frameworks for remote work.

Chapter 2. Changing patterns of migration, mobility, and multilocality, identifies emerging spatial trends and considers the potential for longer-term impacts to Nordic cities, regions and rural areas. It addresses pre-pandemic population trends, who can work from home, and changing patterns of migration, mobility, and multilocality.

Chapter 3. Links between regional policy and remote work in the Nordic countries examines the links between remote work and the regional policy context in each of the Nordic countries, from the national perspective, taking into account both the pre-pandemic policy context and responses that have emerged since the pandemic.

The report concludes with a short section reflecting upon the overall findings and considers the key questions for sustainable urban, regional and rural development that will guide the project going forward.

1. Remote work in the Nordic countries

Higher levels of remote work are likely to be maintained in the long-term in all Nordic countries, at least to some degree (see Box 1 for a summary of the key terms). Importantly however, there is little evidence to support a large-scale shift towards a 'remote first' mindset among Nordic workers or companies. This means that some form of hybrid arrangement is the most likely outcome for the majority of workers and workplaces. The effectiveness of these arrangements in promoting wellbeing and quality of life for workers, as well as the extent to which collaboration and innovation thrive under hybrid conditions, will both be key factors in determining whether remote work remains more common in the long term.

Remote work, distansarbete, hjemmearbejde, etätyö, fjarvinna...

A variety of terms can be found in the Nordic countries to describe the practice of working from a location other than the regular workplace. In the Danish context, **distancearbejde** (distance work) was used as early as 1998 in the experimental scheme for state-employed workers conducting work from an alternate location using telecommunication (Personalestyrelsen, 2002), while **hjemmearbejde** (working from home) has been commonly used to address the situation under the pandemic (Medarbejder- og Kompetencestyrelsen, 2022). Similarly, in Sweden, **distansarbete** (distance working) and **hemarbete** (working from home) are the most frequently used terms. **Flexibelt arbete** (flexible work) is also a common term within Swedish labour-market policy and is used to describe a situation where employees have the freedom to decide where and when to work. Prior to the pandemic, this term was generally connected to opportunities for employees to balance work and other day-to-day aspects of life more successfully (e.g., leaving early to pick up children from school and making up the hours at another time).

In Norway, both **fjernarbeid** (remote work) and **hjemmearbeid** (working from home) are terms used in policy documents and in general settings. In addition, the concept of **stedsuavhengig arbeid** (place-independent work) is also used in the public sector (Arbeids-og inkluderingsdepartementet, 2022; Kommunal-og moderniseringsdepartementet, 2022). In Iceland, **fjarvinna** (remote work) describes work that can be done fully or partly away from the workplace, most often from the employee's home. **Störf án staðsetningar** (jobs without placement) describes entire jobs that can be done without specified location and is specifically linked to a policy designed to make state jobs more accessible throughout the country. In Finland, **etätyö** (remote work), **monipaikkaisuus** (multilocality), and **paikkariippumaton työ** (location-independent jobs) are all key terms.

In English, there are a range of terms, many of which are used interchangeably despite subtle differences in their meaning. Early in the pandemic, the International Labour Organisation (ILO) developed guidance for the collection of labour market statistics which includes several key terms and distinctions that are useful in reading this report. According to the ILO, the **default place of work** refers to "the location where the work

would typically be expected to be carried out" (ILO, 2020, p. 3). In contrast, "**remote work** can be described as situations where the work is fully or partly carried out on an alternative worksite other than the default place of work" (ILO, 2020, p. 5). **Telework** is defined in a similar way but includes the additional criterion that personal electronic devices are used to carry out the work (Eurofound and the International Labour Office, 2017). **In this report, we primarily use the term remote work**, as our main interest is in the geographical independence of work activities rather than in the method through which work is performed. Remote work is also the most commonly used term in contemporary literature focusing on this topic in the Global North (Görmar, 2021; OECD, 2021; Tomaz et al., 2021). That said, it is worth bearing in mind that, in the vast majority of cases, remote work conducted in the Nordic Region will rely on the use of ICT. Other work-related terms used in the report include **working from home** (remote work which is conducted from the worker's home; ILO, 2021, p. 7) and **distance work** (used interchangeably with remote work on occasion).

Nordic preconditions for increased remote work

Working from home from time to time was fairly common practice in most Nordic countries even before the pandemic. The proportion of Nordic workers who reported "sometimes" or "usually" working from home has been increasing steadily since 2002 and was considerably higher than the European average in 2019 before the onset of the pandemic (see Figure 2). These higher shares can be explained in part by labour market structure – the Nordic countries have quite high shares of workers in sectors where distance work is more common (e.g., knowledge and IT-intensive sectors; Sostero et al., 2020). Even within these sectors, higher proportions of workers report working from home in the Nordic countries than in other parts of Europe (Sostero et al., 2020). Norway is a clear exception. According to Statistics Norway, this may reflect the fact that only those who had an employment contract indicating a home office responded positively to the question (Randall & Norlén, 2022). This suggests that there are other factors that made distance work more common in the Nordic countries prior to the pandemic.

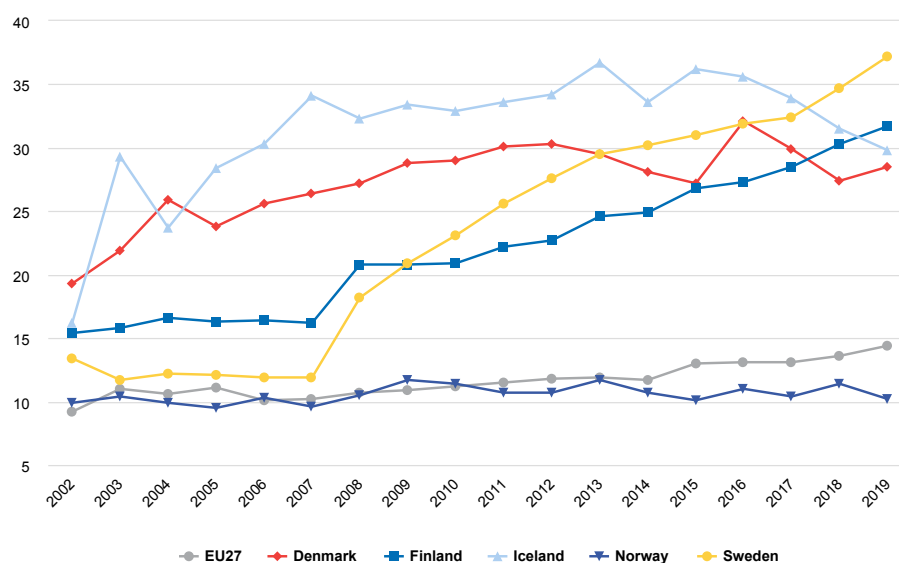


Figure 2. Proportion of the working-age population who report working from home "sometimes" or "usually".

Data source: European Labour Force Survey

The higher incidence of working from home in the Nordic countries is perhaps connected to the high value attributed to work-life balance in general. A 2016 European quality of life survey found that the Nordic countries have favourable work-life balances in comparison with other European countries, particularly regarding flexible work opportunities (European Foundation for the Improvement of Living and Working Conditions, 2017). As a report about work-life balance in the Nordic Region describes it:

In a perfect world, the perfect job—with the perfect boss—would offer us some flexibility as to when we come, and when we go, whether we can work from home or whether we can take a few hours off should something unforeseen happen. Flexible work arrangements can take many forms: it could include revisiting working hours and part-time work—for both women and men—or flexi-time, it could also include telecommuting or working from home. (Løvslett Danbolt, 2016, p. 21)

The ability to set your own working hours or to take time off periodically appears to be more common in the Nordic countries than in other parts of Europe. For example, in a 2019 study, only 30% of Finnish employees reported that their working time was defined by their employer (compared to the EU-27 average of 62%; European Commission, 2020b). Further, Nordic respondents were among the most likely in the EU to report that it was very easy or quite easy to take an hour or two off from work for personal matters during the working day (European Commission, 2020b).

High levels of trust, commonly referred to as “the Nordic gold” (Andreasson, 2017), partially explain this flexibility; however, legislation also plays a role. In Denmark, a collective agreement was reached in 1998 which extended the flexibility of working hours, allowing a typical working week to account to an average of 37 hours per week over a 12-month period provided there is a local agreement in place (Eurofound, 1998). In Finland, the Working Hours Act (1996) provides employees the freedom to adjust their work hours to suit their home-life schedules. Similarly, Iceland’s Act of Equal Status and Equal Rights of Women and Men (2008) lays the foundation for gender equality in the workplace by enabling flexible work arrangements. Norway enacted formal working from home regulations in 2002 (*Forskrift om arbeid som utføres i arbeidstakers hjem*; updated in 2022) as an amendment to the Working Environment Act (2006). Sweden’s Working Hours Act regulates maximum working hours, while flexible work arrangements are established through collective agreements or via agreements within the workplace (Arbetsförmedlingen, n.d.).

The Nordic countries also have high levels of digitalisation in a European context. Denmark, Finland, and Sweden consistently come out on or near the top in the Digital Economy and Society Index, the European Union’s annual benchmark of digital progress in the EU (European Commission, 2021a). Digital competence is high in both the labour market and among the general population, and digital infrastructure is well developed in most, though notably not all, of the Nordic Region (Randall et al., 2020). The largest digital divide within the Nordic Region relates to fixed very high capacity network (VHCN) coverage, defined as infrastructure “with the potential of offering gigabit connectivity” (European Commission, 2021a, p. 16). Denmark is a European leader in this regard while, in Sweden and Finland, large gaps still remain between urban and rural households (European Commission, 2021a). It should be noted however that mobile connectivity is high in Finland, and Finnish households are more likely to use mobile broadband as their primary source of connectivity than people in other parts of Europe (European Commission, 2020a; Traficom, 2021).

The impact of the COVID-19 pandemic on remote working practices

Though working from home was not uncommon in the Nordic countries pre-pandemic, doing so on a regular basis was limited to a small proportion of workers. Only 8.1% of the Nordic workforce reported working from home as usual practice. Therefore, the shift to working from home brought about by the COVID-19 pandemic represented a substantial disruption to the "normal" organisation of work. The proportion of the workforce who reported "usually" working from home almost doubled (from 8.1% to 16.5%) between 2019 and 2020 (Eurostat, 2021). The most detailed data on working from home during the pandemic is available from Sweden and is shown in Figure 3. Despite the recommendation from the Swedish government to "work from home if you can" between March 2020 and September 2021, the proportion of workers who reported working from home fluctuates in line with the severity of the pandemic in Sweden. The largest proportion of workers (42.7%) reported working from home in January 2021.

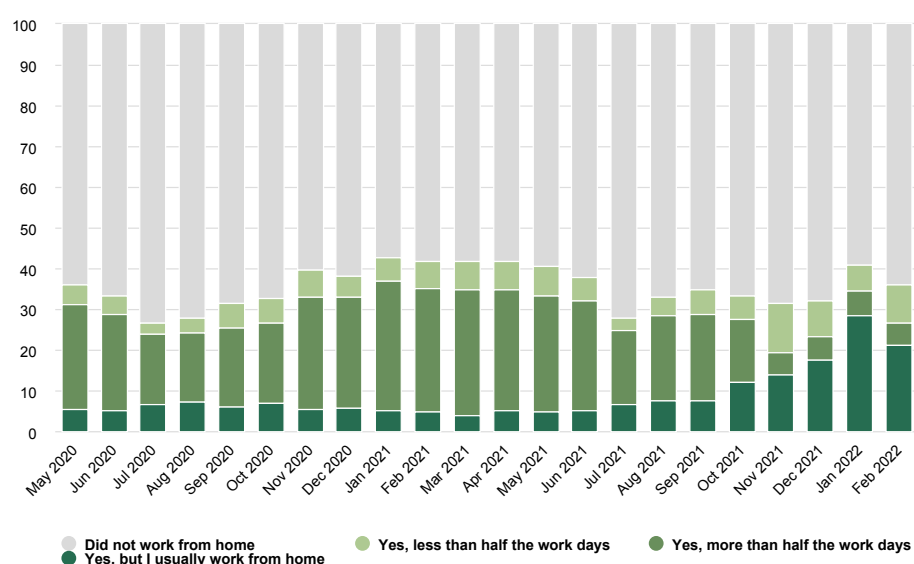


Figure 3. Proportion of the Swedish labour force who report working from home.

Data source: Statistics Sweden

Perhaps one of the most interesting aspects of Figure 3 is what happened in October 2021, after the work-from-home recommendation was lifted. Interestingly, the overall proportion of those working from home did not decline substantially, but there was a significant increase in the proportion of workers who responded "yes, but I usually work from home". This option was presumably designed to differentiate between those who regularly worked from home prior to the pandemic and those for whom working from home represents a behavioural shift (Randall & Norlén, 2022). The increase may indicate that the proportion of workers who consider working from home to be usual practice is higher now than earlier in the pandemic. A further aspect that should be taken into account is that, even at the height of the pandemic, the majority of workers did not work from home.

Both employees and employers in all five Nordic countries expect remote work to continue to a greater extent than pre-pandemic. In various surveys carried out in the countries, between half and three quarters of those working from home during the pandemic reported a desire to continue to do so longer term (Fackförbundet ST, 2021; Holm Ingelsrud & Hoff Bernström, 2021; Icelandic Confederation of University Graduates (BHM), 2021; Kraka-Deloitte, 2020; YLE, 2020).

Evidence from companies also suggests that a return to pre-pandemic conditions is unlikely. For example, in surveys conducted in Finland, Denmark and Norway, approximately half of companies reported plans to continue offering remote work opportunities post-pandemic (Hansen, 2021; Mathiesen Dam, 2020; Suomen Yrittäjät, 2021). These findings were supported by our own interviews with representatives of unions and business associations in the Nordic countries.

Companies are very positive about working from home. And there is also a huge demand from employees. - Interviewee, Confederation of Danish Employers (Dansk Arbejdsgiverforening) Denmark (own translation).

Studies conducted in all of the countries suggest that some form of hybrid working arrangement is the most desirable scenario for most workers. In a Norwegian study, 70% of workers reported wanting to work from home post-pandemic but only 19% for more than 2 days per week (Holm Ingelsrud & Hoff Bernstrøm, 2021). Similarly, 73% of respondents to a survey conducted in Sweden wished to work from home more than they did prior to the pandemic, but only one-third of these respondents reported wanting to work from home as much as possible in the future (Fackförbundet ST, 2021). Fifty-two percent of Danish Workers Union (DJØF) members surveyed report wanting to work from home 1-2 days per week in the future, but only 1 % responded that they want to work from home full-time. Several studies from Finland also indicate that workers want flexible hybrid working solutions beyond the pandemic (Rannanpää et al., 2021). In Iceland, 81% of 4000 participants expressed an interest in remote work to some degree in a survey by the Icelandic Confederation of University Graduates, but only 3% reported wanting to work from home all the time (Icelandic Confederation of University Graduates (BHM), 2021).

Opportunities and challenges for workers and workplaces

Whether increased remote work is here to stay rests in large part on how the costs and benefits are experienced by both workers and workplaces. It is important to note that the issues relevant here span a broad range of disciplines and research areas, and fully addressing this wide body of work is well beyond the scope of this report. Instead, this section uses several studies conducted in the countries to provide a brief overview of some key issues to consider.

From a worker's perspective, the potential for increased quality of life and well-being has been one of the primary arguments in support of maintaining increased remote work into the future. Working remotely can free up time that would usually be spent commuting (Djupvik n.d.; Kraka-Deloitte, 2020) and make it possible to work from alternative locations (OECD, 2021; Rannanpää et al., 2021). Interestingly, simply having the option to work remotely is viewed positively, even if one rarely takes advantage of it. As one union representative put it:

The opportunity for teleworking is valued so much more than actually sitting and working remotely. It is a degree of freedom that you feel you can use even if you do not actually do it. - Union representative, Sweden (own translation).

Improved efficiency, concentration and productivity have also been cited as benefits (Icelandic Confederation of University Graduates (BHM), 2021; Navrbjerg & Minbeava, 2021), though it is unclear exactly who is to be the main beneficiary of these productivity gains. Currently, the working week of most employees is defined based on the number of hours worked and not the volume of tasks performed.

The experience during the pandemic also highlights aspects of remote work that may create challenges for workers including blurred boundaries between work and private life, social isolation, and increased time spent working. In a survey conducted by the University of Southern Denmark, approximately half of the 966 respondents reported that working from home during the pandemic has made it more difficult to keep private and professional life separate (Mortensen, 2021). Early evidence suggests that this may be a more pressing concern for women, even in the context of the relative gender equity found in the Nordic Region (Sanchez Gassen,

2022). For example, during the pandemic, Norwegian research found that women were more likely to take on additional household and childcare responsibilities alongside their work (Agenda, 2021). Social isolation and loneliness may also be a problem, particularly for young workers or those who live alone (Løvgren, 2021; YLE, 2020). Finally, there is some concern that the lack of built-in routines provided by the physical workplace may actually result in longer work days overall as well as making it more likely that people will work when ill (Icelandic Confederation of University Graduates (BHM), 2021).

For workplaces, perhaps the most pressing question is how to create and maintain a positive company/organisational culture when not all employees are physically present in the workplace all the time. This has a wellbeing dimension. For example, Danish research found the loss of the 'work community' to be a pressing concern for both workers and workplaces during the pandemic (Andersen, 2020; Navrbjerg & Minbeava, 2021). Workplace culture is also relevant to innovation and collaboration. Pre-pandemic, the importance of physical proximity for some forms of knowledge exchange was cited as one of the key inhibitors of widespread remote work adoption (Morgan, 2004). The bi-annual survey on working life in Norway suggests that this may have been a problem also during the pandemic. The survey found that COVID-19 has sent us back to the silos, arguing that a return to the workplace, at least some of the time, is essential to maintain creativity, share knowledge and build organisational culture (Kantar, n.d.).

Realising the wellbeing benefits of remote work will be a delicate balancing act that involves negotiation between employees and employers at both the individual and collective level. The quality of life and well-being aspects of remote work are likely to be highly individual (Mortensen, 2021). These may need to be managed through specific agreements put in place with each worker. At the same time, managers will need to consider how to create a dynamic and supportive workplace overall. This will require renewed ways of structuring workplace culture and thinking about leadership (STAMI, 2021). The maintenance of workers' rights will also be a vital aspect if remote work is to be maintained at higher levels in the Nordic context.

How does legislation frame the work-from-home environment?

Nordic countries have strong histories of trade unionism, and the work environment is strictly regulated in all countries. As such, the ability to adhere to these regulations when working from home has been a key aspect for debate – both during the pandemic and in looking to the future of remote work. Importantly, trade union participation is high, with 80-90% of Nordic employees protected by collective bargaining agreements (Logue, 2019). Historically, remote work in the Nordic countries has tended to be governed by these agreements, rather than through any specific legislation (Eurofound, 2020). There are however some examples of relevant agreements and legislation that were in place to govern remote work pre-pandemic. In Sweden, the Agreement on remote work (*Avtal om distansarbete*) was established by the Swedish Agency for Government Employers (*Arbetsgivarverket*) in 2005 and stipulates that telework arrangements in Sweden should be determined between the employer and the worker (see *Arbetsgivarverket*, 2005). Prior to the pandemic, Denmark's Work Environment Act (2003) required the employer to secure safe and healthy home working conditions for any employees working from home more than one day per week (*Arbejdstilsynet*, 2014). Norway's *Hjemmekontorforskrift* (see Ministry of Labour and Social Affairs, 2006) specifies regulations for employers to ensure justifiable working conditions for employees working from home and clarifies concepts of overtime work and health and safety conditions for non-office-based employees.

At the EU level, a debut framework agreement on telework was compiled by the EU social partners in 2002 with the aim of encouraging this form of work while at the same time ensuring that teleworkers were guaranteed the same legal protections as in-office employees (European Commission, 2008). In addition to defining telework and addressing employment conditions, the agreement outlines some basic principles for monitoring, data protection, equipment, liability, health and safety, organisation of work, training, and collective rights (Broughton, 2002). For example, as a general rule, the employer is responsible for providing necessary work equipment and must have access to the place where the telework is practiced in order to assess that the environment is healthy and safe for working. Importantly, the 2002 agreement does not take

into account informal or partial teleworking employment arrangements, such as the hybrid formats now emerging during the later stages of the COVID-19 pandemic. Although the framework has no legal force, its principles have been used to frame collective agreements and other legislation throughout Europe, including the Nordic examples cited in the previous paragraph.

In response to the dramatic increase in remote work experienced during the pandemic, changes were made to many work environment laws. In the Danish Work Environment Act, the clause rendering the employer responsible for the working conditions of employees working from a home office more than one day per week has been revised to apply to employees working from home more than two days per week (Beskæftigelsesministeriet, 2022). In Norway, a separate 'working from home' regulation (*Forskrift om arbeid som utføres i arbeidstakers hjem*) supplements the Working Environment Act to express nuances of the act's application for home-based work. For example, a separate written agreement is required that clarifies the scope, hours, and various provisions of home-based work, and the employer needs a separate agreement to have access to the remote worker's home office (Ministry of Labour and Social Inclusion, 2002). As in Denmark, the Norwegian regulation was recently revised (see Ministry of Labour and Social Inclusion, 2022) and responds to some rising concerns around working from home, such as the employer ensuring adequate working conditions (equipment, indoor environment, and psychosocial environment) for employees working from home.

Sweden's former 2015-2020 work environment strategy (SKR 2015/16:80) does not refer to remote work (*distansarbete* or *hemarbete*). However, the new Working Environment Strategy (Skr 2020/21:92; valid 2021-2025) acknowledges the role of the pandemic, stating that "the pandemic caused by the coronavirus has had a major impact on the world of work and the work environment has changed for everyone, in one way or another" (p. 5). The strategy describes opportunities as well as challenges (including the blurring of private and working life, complications around remote management, new stressors from technology usage—*teknikstress*—and the question of home design growing in significance to accommodate office-oriented activities). The 2021 strategy explicitly mentions that the government has commissioned the Agency for Work Environment Expertise (*Myndigheten för Arbetsmiljökunskap*) to conduct an analysis of remote work conditions due to COVID-19, with the aim of providing guidance for the future of the home-based work environment (Myndigheten för Arbetsmiljökunskap, 2021). The report, published in Spring 2021, identifies several preconditions affecting home-based work environments: the living conditions (the dwelling including light and sound/noise), physical and technical equipment, family situation, and the individual skills (when it comes to handling the working environment such as hard and software). In addition, the report identifies some work environment advantages, including opportunities for focus and concentration and space and time without distractions.

Overall, the Nordic Region had some basic frameworks in place prior to the pandemic, and governments were swift to work around existing work environment frameworks to enable the reorganisation of work around the home during the crisis period. However, the main topic of discussion now is the amendments to the existing work environment laws, which will directly and indirectly influence whether and to what degree remote working practices are here to stay.

2. Changing patterns of migration, mobility, and multilocality

The patterns of migration, mobility, and multilocality observed in the Nordic countries during the pandemic support the idea that increased remote work will have spatial planning implications (see Box 2 for definitions of key concepts). Daily commuting became less common during the pandemic and internal migration patterns suggest that this has been accompanied by a willingness to travel further. Some rural municipalities also appear to have become more desirable. This is evidenced by the slowing, or even reversal, of trends towards population decline and also by increased demand for and use of second homes. If these trends continue, they could present substantial opportunities for positive development in some rural areas as well as for smaller cities in proximity to larger urban centres.

Migration, mobility, and multilocality

In considering the spatial consequences of increased remote work, we have worked with three central concepts: migration, mobility, and multilocality. These are complex, interrelated, and overlapping terms, and there are vast bodies of scholarship associated with understanding each of them. Our goal here is not to give a detailed or conclusive account of this scholarship, but rather provide a simple, relatable, working definition for each term that can be used to guide our readers through the remainder of this report. The use of the different terms is intended as a preliminary strategy to distinguish between three different types of spatial changes that may occur as a result of increased remote work:

- changing regarding where to live (migration);
- changes to daily movements (mobility);
- changes in the way people split their time between multiple locations (multilocality).

Migration: long-term, stable movements involving residential relocation

Migration can be understood as a movement between two or more physical places but is distinct from mobility due to its more permanent state. Migration generally involves an official change in one's registered status from one address to another. This may or may not include movement across administrative boundaries.

Mobility: physical movement, generally to pursue short-term goals, most often on a daily basis

In the social sciences, the term **mobility** refers to a change in position within a system (Weichhart, 2009 in Nadler, 2009). It can be applied to movement through a social system or hierarchy (social mobility) or movement between two or more physical places (spatial mobility; Nadler, 2009). Here, we focus on spatial mobility and use the term to refer to regular, short-term, spatial movements (e.g., daily commuting).

Multilocality: the practice of carrying out active everyday life in

multiple places. This generally implies access to, but not necessarily ownership of, more than one residence.

Of the three concepts, **multilocality** is perhaps the most difficult to define. It has been described as “an emerging concept between the terms of mobility and migration” (Nadler, 2009, p. 1). Unlike mobility, its rhythms are unlikely to be confined to a daily cycle and, in contrast to migration, it does not involve a permanent move but rather an ongoing connection with two or more places (Nadler, 2009; Rannanpää et al., 2022, see also Weichhart, 2009)). The term is commonly used in Finland (*monipaikkaisuutta*) but is not familiar in the other Nordic countries. In Finland, multilocality is understood as a situation in which “instead of one fixed dwelling, people spend their everyday life or leisure time in several places, transiting between them” (Rannanpää et al., 2022, p. 2). Multilocality may have different drivers, including (though not limited to) work or study, leisure, or family situation (Rannanpää et al., 2022). It should be noted that the definition we have chosen to use here is most closely aligned to the concepts of residential multilocality (as understood in literature from Germany, Schmidt-Kallert, 2016; Weichhart, 2015) and multilocal living (used in Finland).

Nordic population trends pre-pandemic

Prior to the pandemic, urbanisation was the dominant population development trend in the Nordic Region. Twenty-five percent of the total population growth between 2010 and 2019 happened in just six of the region’s 1135 municipalities (Stockholm, Oslo, Copenhagen, Gothenburg, Helsinki and Malmö). Further, 50% of the total population growth has happened in just 32 municipalities. This means that over half the population growth was absorbed by just 3% of Nordic municipalities. This trend is demonstrated in Figure 4. The vertical axis shows the percentage change in the population from 2010-2019 and the horizontal axis shows the size of the population in 2010. The size of the dots represents the absolute change in the size of the population (2010-2019). As demonstrated by the slope, the general trend is that municipalities with the largest populations were also the ones which experienced the most growth during the period.

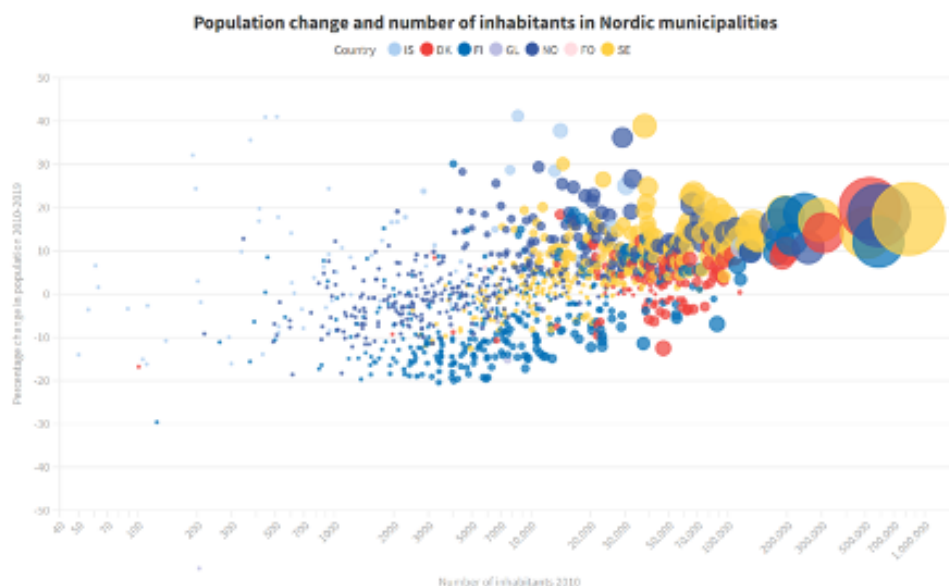
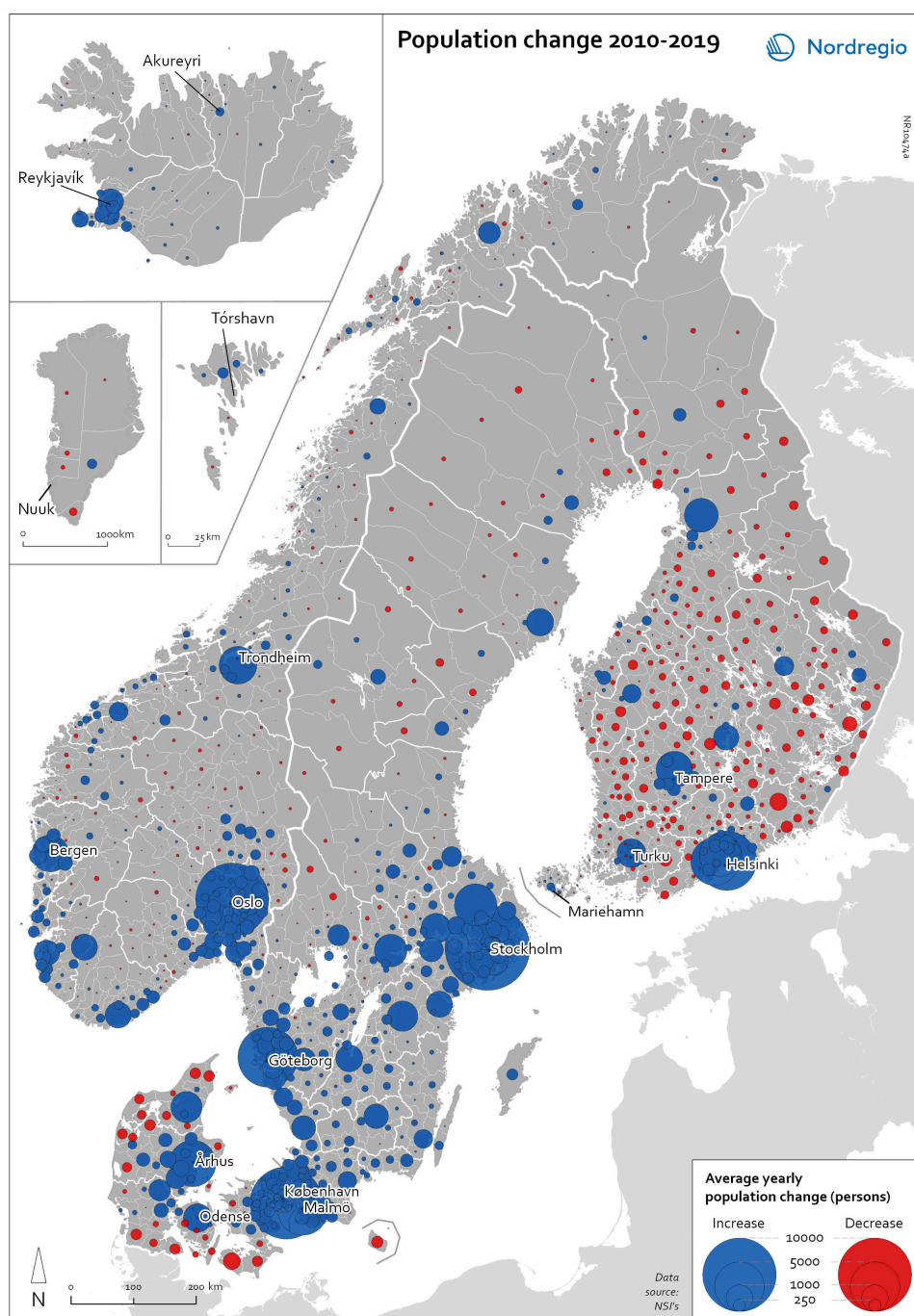


Figure 4. Population change (2010-2019) and number of inhabitants (2010) in Nordic municipalities.

Data source: NISs.

Note: Data referred to here as 2019 is published on January 1, 2020.

Although the growth of the larger cities was a consistent trend in all five countries, the pattern in rural areas differed somewhat between countries and regions (see Map 1). In Finland, Denmark, and Greenland there is a clear pattern of population growth in and around the larger cities and population decline in rural areas. Geographical and administrative differences mean that a much larger number of rural municipalities in Finland are dealing with population decline. Sweden experienced substantial population growth between 2010 and 2019, primarily due to high levels of international immigration (Rispling & Norlen, 2018). As a result, many rural areas also experienced population growth, particularly in the south of Sweden. However, in the more sparsely populated municipalities in the north of Sweden, the pattern is somewhat similar to that observed in Denmark and Finland, albeit with population decline in lower absolute numbers. Both Iceland and the Faroe Islands experienced substantial growth of their tourism industries within the period (Bogason et al., 2021). This enabled some rural areas to maintain or even grow their populations. Norway exhibits more balanced population development in general, with a mix of population growth and decline in rural areas throughout the country.

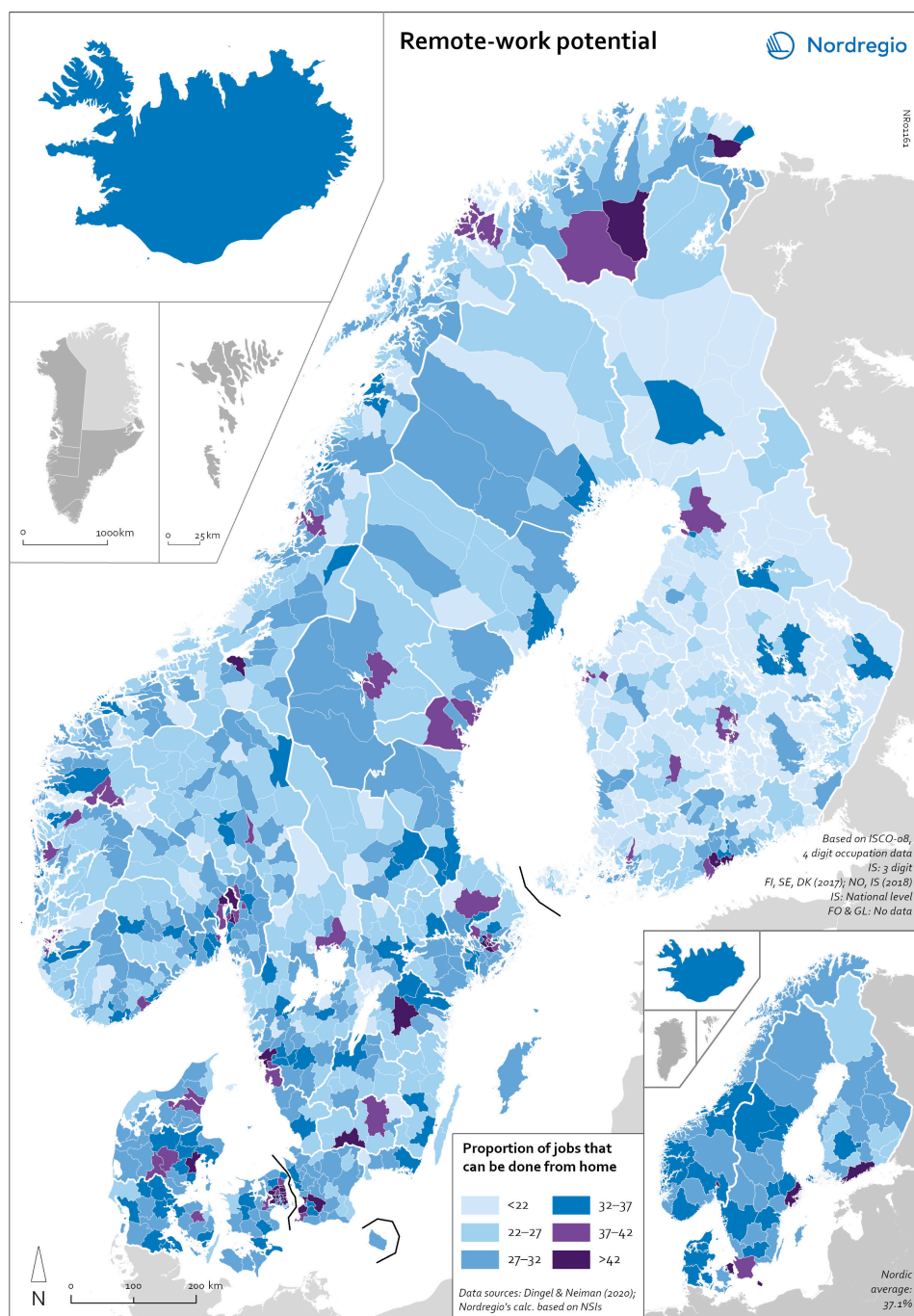


Map 1. Population development in the Nordic Region, 2010-2019

Alongside the challenge of population decline, many rural municipalities are also experiencing population ageing and outmigration of young people. This situation is particularly pronounced in Finland and Sweden where many rural municipalities have over 25% of their inhabitants in their final 15 years of life (Stjernberg, 2020). At the same time, young people aged 20-29 often leave rural municipalities in favour of a small number of large cities or university towns (Jokinen & Cuadrado, 2020). Although there is evidence to suggest that at least some of these young people return (Jokinen & Cuadrado, 2020), the ability to do so often depends on access to work opportunities that align with the course of study. Returning to a rural area after one's studies is often linked to particular higher education trajectories, for example, training as a teacher, medical practitioner or other public sector professional (Forsberg, 2018; Haley, 2018; Sandow & Lundholm, 2020).

Who can work remotely?

It is important to be clear from the outset that there are many workers for whom working remotely is not an option. Earlier work from Nordregio has found that approximately 37% of all Nordic jobs, can theoretically be performed remotely (Randall & Norlén, 2022). This estimation is based on a remote-work potential score which is calculated using a simple YES/NO classification for each occupation which is then matched with labour market statistics for the geographical area under inquiry (for further details on the methodology, see Dingel & Neiman, 2020; Randall & Norlén, 2022). Map 2 shows the geographical distribution of remote-workable jobs for all Nordic countries at the municipal level (national level for Iceland) based on the location of the job. All municipalities coloured in purple shades have remote-work potential scores above the Nordic average while all municipalities coloured in blue shades have remote-work potential scores below the Nordic average.



Map 2. Remote-work potential.

Source: Nordregio, 2022

Map 2 reveals a relatively small number of municipalities that fall above the Nordic average. At the municipal level, these are primarily urban municipalities. At the regional level, with the notable exception of Region Skåne, only the capital regions have remote-work potential scores above the Nordic average. Other Nordic research has also found higher potential for remote work in urban areas than in rural areas (Akava Works, 2020; Kantar Gallup, 2021; NHO; WSP, 2021).

Alongside the geographical component, there are individual characteristics that predict high levels of remote workability. In an analysis focused on the Danish workforce, the potential for remote work was found to be five times greater among those with high levels of education (Kraka-Deloitte, 2020). Similarly, in Finland, a study carried out by the trade union confederation Akava (which represents employees with university-level, professional or other high-level education) found that only 26% of respondents had not worked remotely at all (Akava Works,

2020). Remote work has also been found to be more common among those with higher incomes (Dingel & Neiman, 2020; Kovalainen et al., 2021; Kraka-Deloitte, 2020; Sostero et al., 2020). For example, Nordregio's calculations based on the data from Map 2 show that the average monthly salary in Norway is 22% higher for jobs in which remote work is possible (54 000 NOK) than for jobs where remote work is not possible (44 000 NOK). This gap is even wider in Sweden where the average monthly salary is 34% higher for jobs in which remote work is possible (42 725 SEK) than for jobs where remote work is not possible (31 989 SEK). Interestingly, this salary gap is much wider for men (42%) than for women (29%) in Sweden. The gaps in education and income suggest that a longer-term shift towards remote work could exacerbate existing socioeconomic divides. As highlighted during the pandemic, these divides can also take on a spatial element when segregation within cities leads to high concentrations of people in similar socioeconomic situations in particular neighbourhoods (Rut Sigurjónsdóttir et. al., 2021).

Finally, remote work potential varies by sector, with knowledge economy industries such as ICT, finance, business, and education more seamlessly adapted to remote work conditions compared to sectors like healthcare, food services, transportation, agriculture, or forestry (Danmarks statistik, 2021; SCB, 2020). Figures from the Confederation for Norwegian Enterprise (NHO) also suggest that the possibility to work remotely may vary based on company size. During the pandemic, Norwegian companies with over 100 employees have had the highest percentage (over 90%) of employees working from home, while smaller companies were more likely to have a smaller share (around 50%). In Finland, the proportion working remotely increased most sharply among state employed (from 21% to 52%), followed by the private sector (from 15% to 26%) (Leskinen, 2021). Municipal employees were the least likely to work remotely, both before and during the pandemic (from 10% to 16%) (Leskinen, 2021).

Migration: New opportunities for rural areas and small and medium sized cities?

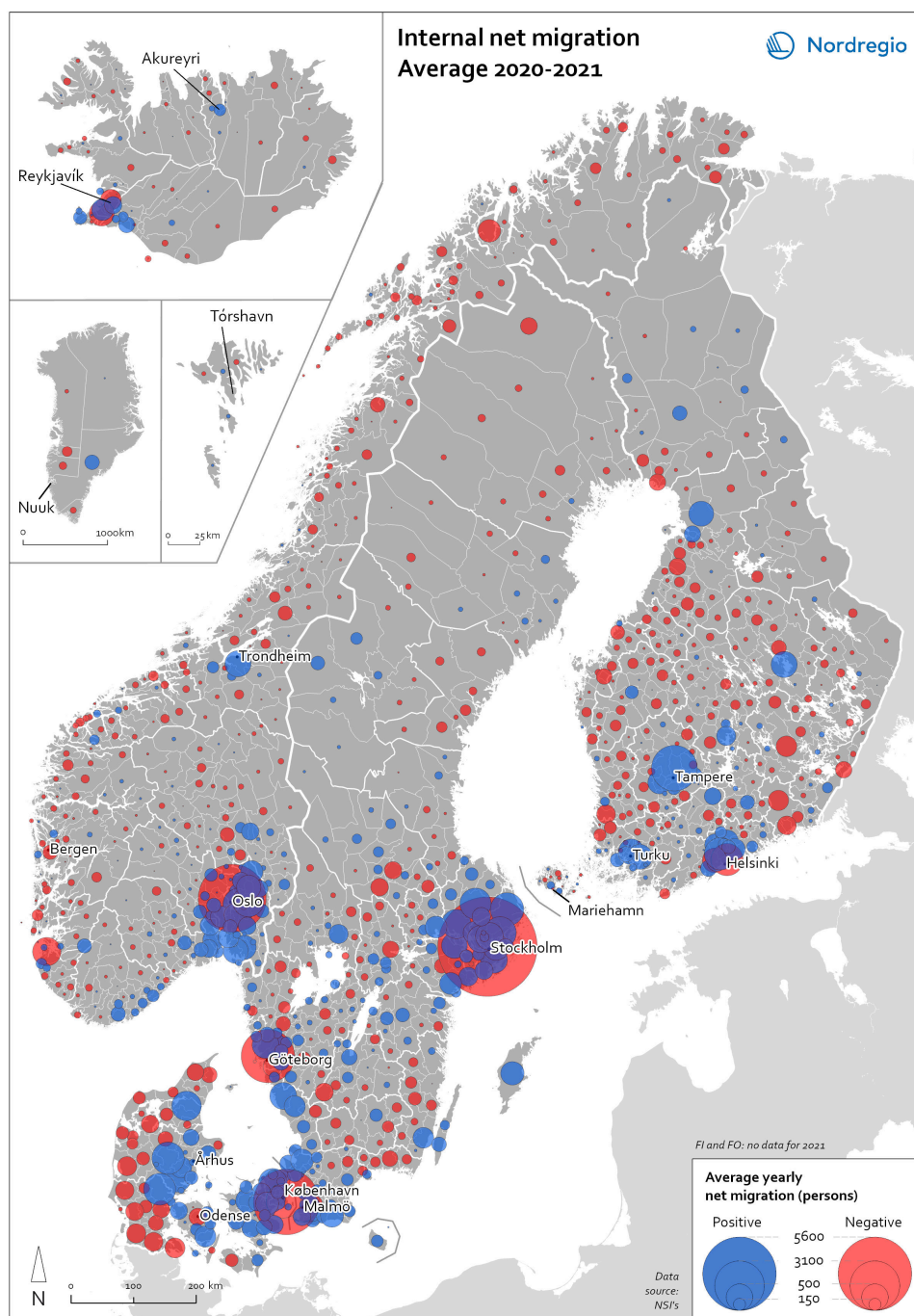
The potential for changed living preferences has been a central aspect of the discussion around increased remote work. Put simply, if people can work from anywhere, where will they go? Although the pandemic has seen populations decline in some larger cities, early evidence suggests that we are unlikely to see a post-covid mass exodus from cities (Correa, 2022; Vogiazides & Kawalerowicz, 2022). The benefits of agglomeration economies for companies (e.g., knowledge exchange, innovation, and productivity) and workers (e.g., greater access to education, culture, and social life) are likely to remain attractive to many in the long term (OECD, 2021). At the same time, with less pressure to be physically present in the workplace, some workers may be attracted to the lower land prices and other quality of life aspects which can be found in lower density areas (Milder, 2020; OECD, 2021). Based on these ideas, the OECD's rural unit has developed four preliminary scenarios of post-pandemic settlement patterns (see Table 1).

	Description	Degree of workers' relocation and changes in firm's real estate strategies	Effect on mobility and regional development
Business as usual with greater use of hybrid working model	Dense cities continue to agglomerate workers and firms. Remote working is increasingly adopted within the city, with little impact on the workers' relocation.	<p>Low: Most workers remain in large cities by favouring proximity to workplaces.</p> <ul style="list-style-type: none"> - Some firms with teleworkable activities still limit possibilities of remote working. 	<ul style="list-style-type: none"> - Reduce pressure on public transport at peak times in large cities and increased use during off-peak times. - Increased one-off commuting to telework outside cities, either in secondary houses or rented spaces. - Non-metropolitan regions with tourist attractions have greater inflows throughout the year.
Doughnut effect	The city centre becomes more hollow or empty, as businesses and people move to the outskirts of the city to find affordable and larger housing.	<p>Medium-Low: High-skilled workers move from large cities to their outskirts or areas with bigger and cheaper spaces.</p> <ul style="list-style-type: none"> - Workplaces in the CBD become friendly/attractive spaces that promote social interactions. 	<ul style="list-style-type: none"> - Increase distance of commuting, but per person commuting time reduces. - Outskirts and rural regions face new demand for services and land. - Improve housing affordability within large cities. - Greater demand for expansion of public transport services in some large cities.
The rise of intermediate cities	Cities offering agglomerations and medium services benefit from the drain of densely populated cities. Workers and firms seek the advantages of these cities' balanced quality of life.	<p>Medium-High: Workers with highly teleworkable activities move to intermediate cities.</p> <ul style="list-style-type: none"> - Firms reduce headquarters and open satellite offices. - Increase co-working spaces in intermediate cities 	<ul style="list-style-type: none"> - Greater demand for services and land in intermediate cities. - House and office prices stagnate or reduce in large cities, relative to other cities. - Increase use of car in intermediate cities with poorly developed public transport.
City paradox	Highly skilled workers move outside central business districts. It reduces income for workers (mostly low-skilled) in local consumer service industries in cities, which might trigger movement of these workers outside the city.	<p>High: An important share of high-skilled and low-skilled workers leave large cities and spread out across the territory.</p> <ul style="list-style-type: none"> - Increase in nomad workers (mainly young) with a greater use of hotels and touristic areas as workplaces. - Increase in co-working spaces across the territory 	<ul style="list-style-type: none"> - Long but less frequent commutes by nomad workers (car, train and plane). - Decreased general commuting time, but more short commutes by car. - Rise of co-working centres in non-metropolitan regions/ outskirts of the city. - Small cities and rural regions face greater demand for services and land. -CBD struggler and are reconverted into housing districts or green areas.

Table 1. Scenarios of settlement patterns distribution on the post-COVID-19 world.

Source: OECD, 2021

As we saw in Chapter 1, the majority of Nordic workers surveyed during the pandemic favoured a hybrid scenario involving physical attendance at the workplace several days per week. In light of this, it is reasonable to expect that these workers would be keen to retain a degree of physical proximity to their workplace. At the same time, it has been suggested that when people don't need to travel as often they may be prepared to travel further in exchange for larger or more affordable housing (Eliasson, 2021; OECD, 2022; Refsgaard, Cuadrado, & Tragotsis, 2022). Migration patterns observed during the pandemic support this contention. Map 3 shows the average internal net migration in 2020 and 2021 for Nordic municipalities (2020 for Finland and Faroe Islands). Blue dots indicate positive internal net migration (more people moving in than out) and red dots indicate negative internal net migration (more people moving out than in), while the size of the dots represents the extent of the positive or negative trend. Internal migration refers to a change of address within the same country.



Map 3. Internal net migration average 2020-2021.

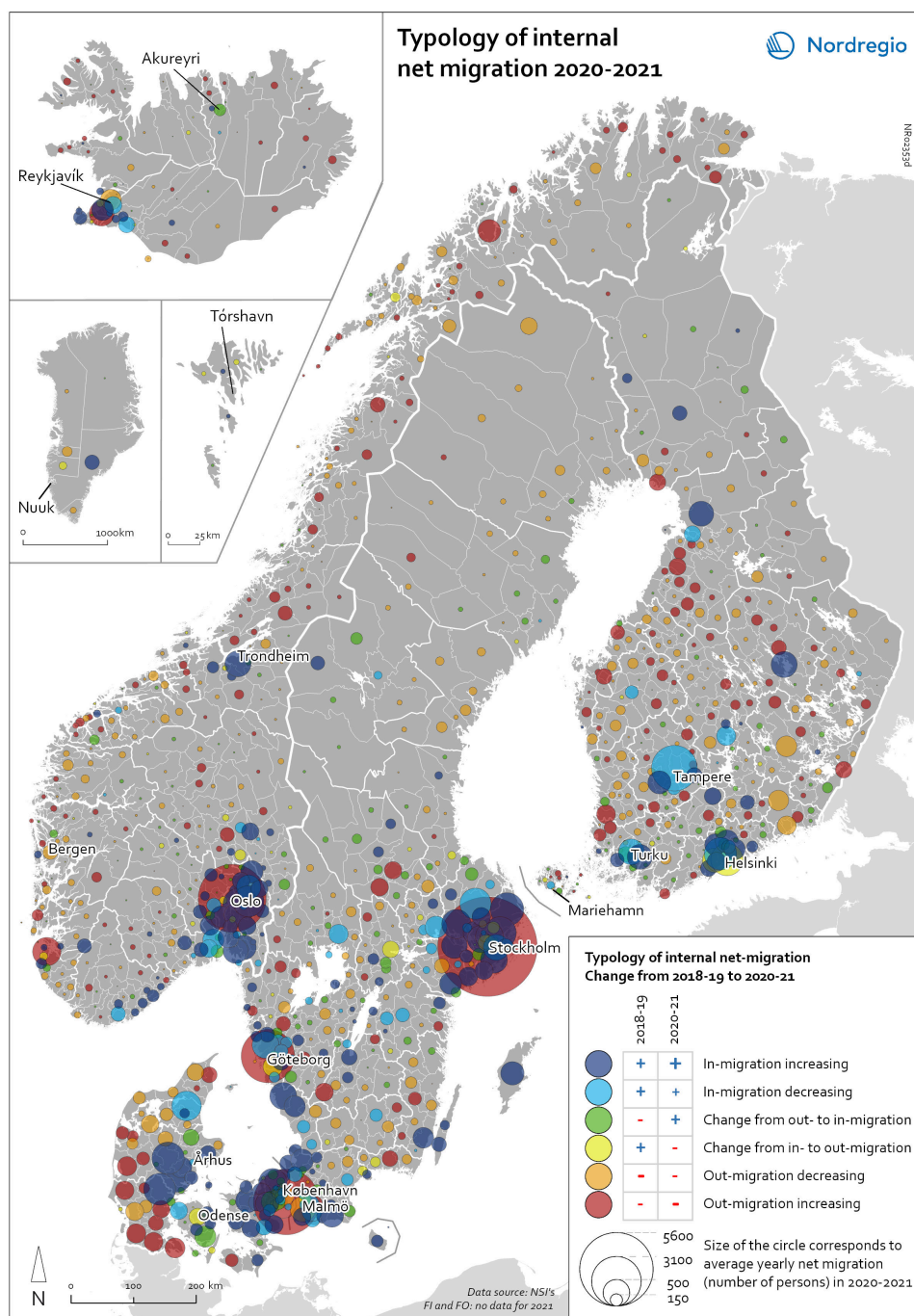
Note: Due to data availability, Finland and Faroe Islands show only values for 2020.

The map shows substantial outmigration from the Nordic capitals, as well as from Gothenburg and Malmö in Sweden. While these migration patterns may suggest evidence of the so called "doughnut effect", it is worth noting that this concept emerged in a U.S. context (see Ramani & Bloom, 2021) and that there are vast differences between Nordic and U.S. cities. Nordic cities are relatively compact when considered in a global context and are characterised by high levels of accessibility, with good access to public transport, green spaces and other services in both inner and outer areas (Borges et al, 2017). It is also important to recognise that the pandemic drastically reduced international immigration which has been an important driver of population growth in large Nordic cities in recent years (Heleniak & Jokinen, 2022). As such, in the longer-term it is perhaps more relevant to see this population development as an extension of the OECD's 'business as usual' scenario in which increased suburbanisation is accompanied by ongoing importance of the city centre in some form or another.

Alongside increased outmigration from larger cities, Map 3 also provides some evidence of growth in medium-sized cities and smaller cities within commuting distance of larger cities. This is somewhat in line with the OECD's notion of "the triumph of intermediate cities". It is perhaps relevant however to consider how the implications of this growth may be different for medium-sized cities and for smaller cities in proximity to larger cities. As the OECD notes, intermediate cities may become attractive due to their ability to offer agglomeration effects while at the same time providing greater affordability and quality of life to residents (see Table 1). As a result, growth in these cities may increase their attractiveness as places to both live and work. Alternatively, smaller cities in proximity to large urban centres are likely to be attractive due to their ability to provide lifestyle benefits alongside *accessibility* to labour market opportunities. This distinction is important for planners as it may influence the type of urban development that is required.

The final scenario, titled 'city paradox' by the OECD, could perhaps be reframed as an opportunity for positive development in rural areas. Since the onset of the pandemic, some studies have found people to be more likely to consider moving to a rural area (from an urban area; European Commission, 2021b; Kantar Gallup, 2021). Map 4 demonstrates that at least some Nordic residents have made this a reality. The map presents a typology of internal net migration by considering average annual internal net migration in 2020-2021 alongside the same figure for 2018-2019. The colours on the map correspond to six possible migration trajectories:

- **Dark blue:** Internal net in migration as an acceleration of an existing trend (net in-migration in 2020-2021 + increase compared to 2018-2019)
- **Light blue:** Internal net in migration but at a slower rate than previously (net in-migration in 2020-2021 + decrease compared to 2018-2019)
- **Green:** Internal net in migration as a new trend (net in-migration in 2020-2021 + change from net out-migration in 2018-2019)
- **Yellow:** Internal net out migration as a new trend (net out-migration in 2020-2021 + change from net in-migration in 2018-2019)
- **Orange:** Internal net out migration but at a slower rate than previously (net out-migration in 2020-2021 + decrease compared to 2018-2019)
- **Red:** Internal net out migration as an acceleration of an existing trend (net out-migration in 2020-2021 + increase compared to 2018-2019)



Map 4. Typology of internal net migration 2020-2021.

Note: Due to data availability, Finland and Faroe Islands show only values for 2020.

The patterns shown around the larger cities reinforce the message in Map 3 of increased suburbanisation as well as increased in migration in smaller cities in proximity to large ones. In addition, Map 4 shows that this is in many cases an accelerated (dark blue circles), or even new development (green circles). Interestingly, although accelerated by the pandemic, internal out migration from the capitals and other large cities was an existing trend. Helsinki stands out as an exception in this regard, having gone from positive to negative internal net migration (yellow circles). Similarly, slower rates of in migration are evident in the two next largest Finnish cities, Tampere and Turku (light blue circles). Akureyri (Iceland) provides an interesting example of an intermediate city which began to attract residents during the pandemic despite experiencing internal net outmigration prior.

From a rural perspective there are many examples of rural municipalities which have turned their development trajectory from negative to positive in 2020-2021 (green circles). Although many of

these municipalities are in proximity to larger urban areas there are also examples of this trend in more sparsely populated regions. Notably, Region Jämtland- Härjedalen and Finnish Lapland, both popular tourist destinations. There are also many rural and remote municipalities which have continued to experience outmigration but at slower rates than prior to the pandemic (orange circles). This is particularly evident in the north of Sweden but also throughout Norway and Finland and in Region Nordjylland and Region Midtjylland (Denmark). While this is encouraging, it is important to note that in smaller municipalities differences in these trends can be influenced by a very small number of migrants. Still, for small communities struggling with outmigration and ageing, these small numbers can have substantial local development impacts. It is encouraging to note that municipalities where internal outmigration has slowed (32% of municipalities) or turned around (19% of municipalities) account for over half of all Nordic municipalities.

At the same time, it is important to note that a significant proportion of Nordic municipalities (20%) experienced an increase in internal outmigration during the pandemic (red circles). Aside from the example of the capital municipalities and other large cities cited above, these were mostly rural municipalities. This suggests that, even if increased remote work does result in a counter-urbanisation trend, it is unlikely to benefit all rural areas equally. As evidenced in the case of Region Jämtland- Härjedalen and Finnish Lapland above, rural municipalities with a significant tourism industry have been highlighted as some of the most likely to benefit (Rannanpää et al., 2021; Remote Lab & Future Place Leadership, 2021). For these municipalities, attracting remote workers may be an important pathway to greater economic diversity in the long-term (Tomaz et al., 2021). Görmar (2021) has pointed to how new models of work can lead to the breakdown of segregated areas for work, living and leisure activities and instead create more multifunctional areas. The positive population development in Swedish rural municipalities with tourism industry could support this idea (SWECO, 2021), where people combine activities often related to tourism, as hiking and skiing, with their work life through remote work.

Importantly, the migration trends observed in this section may not necessarily be a result of increased remote work. Using Oslo as a case study, Tønnessen (2021) found that, during 2020, out-migrants from the city to elsewhere in Norway typically had remote workable jobs, were single without children, and were not born in Oslo. A similar study focused on Stockholm showed different results. Vogiazides & Kawalerowicz (2022) found that, despite an increase in outmigration from Stockholm inner city to other metropolitan areas, suburbs, medium-sized cities, or small cities/rural areas during 2020, the highest percent of such outmigrants were those working in healthcare or public services (sectors not typically associated with teleworking). Those with the highest opportunity for remote work were least likely to move to a smaller locality and most likely to move to another metropolitan area (if they migrated at all; Vogiazides & Kawalerowicz, 2022). While the pandemic revealed some emerging suburbanisation patterns, the study's results challenge the notion that counter-urbanisation movements during the pandemic were due to remote working opportunities and suggest that remote work may be an urban phenomenon (Vogiazides & Kawalerowicz, 2022). Further studies of this nature will be valuable in understanding if the migration trends described here are in fact linked to increased opportunities for remote work.

Changing mobility patterns: Will travelling less frequently mean travelling greater distances?

Unsurprisingly, commuting declined substantially throughout the pandemic (Lundgren & Wøien Meijer, 2022). Perhaps more interestingly, even in the absence of COVID-19 restrictions, it has yet to return to pre-pandemic levels. Figure 5 shows the fluctuations in work-related mobility in the Nordic countries throughout the pandemic, while Figure 6 zooms in on the situation in 2022. In early April 2022, work-related mobility remained 18% lower on average in the four Nordic countries for which data is available. While this is a substantial increase from the biggest dips during the pandemic, it still represents a shift when compared with pre-pandemic behaviour. The greatest change in work-related mobility can be observed in Finland (26% decrease), while Norway is the country closest to returning to pre-pandemic mobility levels (13% decrease).

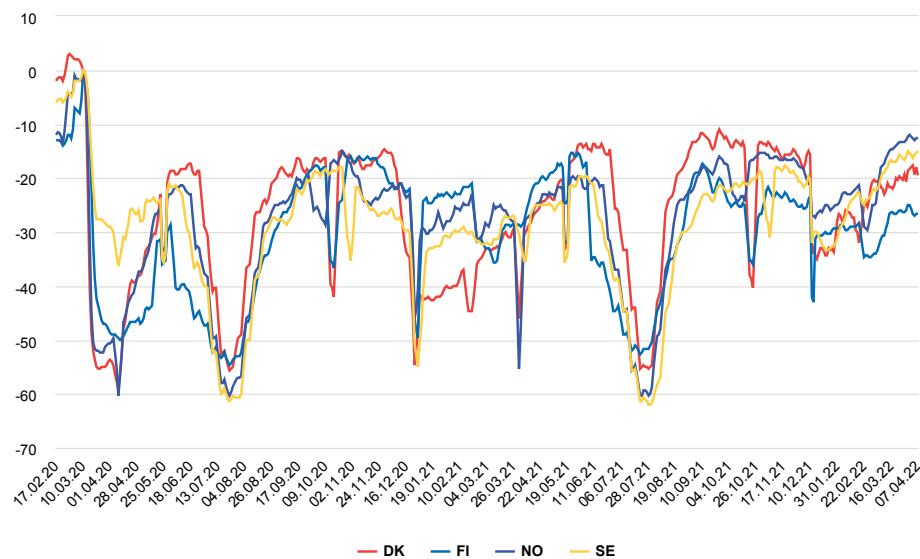


Figure 5. Work-related mobility in selected Nordic countries during the COVID-19 pandemic.

Data source: Google Mobility.

Note: 0 = the median value from the 5-week period Jan 3 – Feb 6 2020. 3-day average
Weekends and public holidays have been omitted.

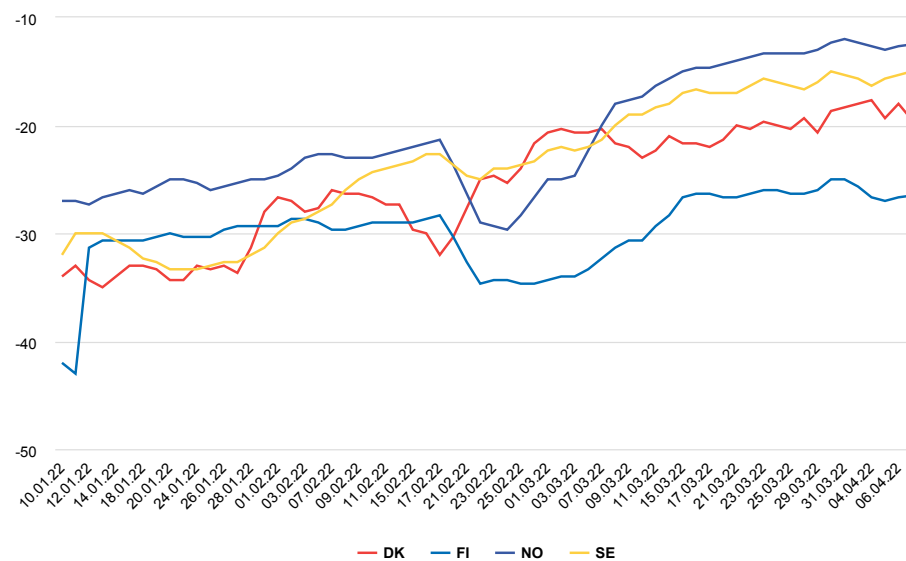


Figure 6. Work-related mobility in selected Nordic countries in early 2022 compared to a pre-pandemic baseline.

Data source: Google Mobility.

Note: 0 = the median value from the 5-week period Jan 3 – Feb 6 2020.

Note: 3-day average. Weekends and public holidays have been omitted.

The decrease in work-related travel has particular implications for urban areas. The Danish Infrastructure Plan highlights the potential for increased remote work to reduce traffic congestion and relieve pressure on infrastructure (Transportministeriet, 2021). One analysis suggested that, if 49% of Danish workers worked from home one day per fortnight, the savings

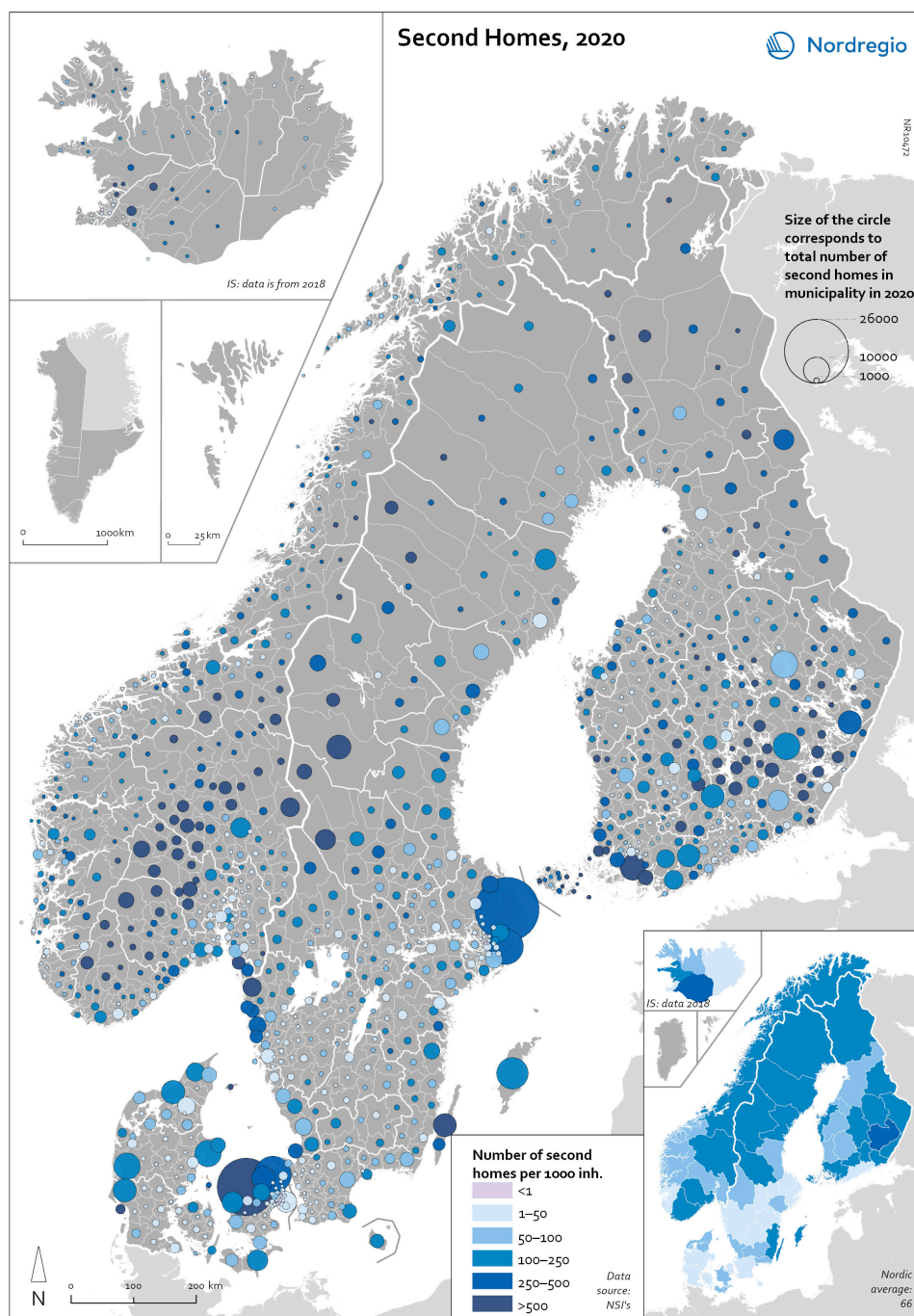
at societal level amount to DKK 4.2 billion (Kraka-Deloitte, 2020). A similar study in Norway found that time gained from home office work amounts to almost NOK 47 billion per year (Djupvik, n.d.). The assumption here appears to be that the savings in commuting time will be invested in additional working hours. It could be argued, however, that this notion is out of step with the discourse connecting remote work and increased quality of life discussed earlier in the report.

Despite a decrease in the frequency of work-related mobility, fewer trips does not necessarily equate to less total travel. Historically, potential time savings offered by higher speed travel and improved communications have been traded in favour of greater access to improved employment opportunities or based on lifestyle preferences (Eliasson, 2021). House price data from during the pandemic supports the notion that this may also be the case in the present moment. In Sweden, for example, the average price increase was greater for single-family houses (often further from the city centre) than for apartments (Mäklarstatistik, 2021; OECD, 2022). Similarly, in Oslo both the average price increase and the increase in turnover was greater in the surrounding suburbs than in the city centre (Lindquist et al., 2021). A review of local data from Denmark and remarks from the Danish Economic Council indicate that housing demand has responded to needs or interests to work from home and gain better access to nature, among other factors (Refsgaard, Cuadrado, & Tragotsis, 2022). In Reykjavik, a trend towards seeking affordable housing within commuting distance of the city centre (circa 50 km) was evident already before the pandemic, and remote working opportunities are expected to enhance this trend. In Finland, the proportion of employed persons who work outside their municipality of residence has been increasing since 2000 (Statistics Finland, cited in Rannanpää et al., 2022).

The potential to live further from one's workplace may provide an opportunity to think about regional labour markets in innovative ways. This has the potential to be incredibly valuable to remote or sparsely populated regions which struggle to attract workers with the right skills as it could provide access to a larger and more diverse talent pool (Davies, 2021; Giacometti & Teräs, 2019; Lundgren et al., 2020; Kommunal- og moderniseringsdepartementet 2021a; Soroui 2021). It may also provide more diverse employment opportunities for those who already live in these areas but at some distance from the regional centres (Davies 2021). The Norwegian strategy for business development along coastal areas, for instance, sees location-independent work as an important way of facilitating skills matching (Kommunal-og moderniseringsdepartementet, 2021b).

Increased multilocality: A pandemic effect or a new opportunity for counter-urbanisation?

Multilocality is understood here as the practice of carrying out active everyday life in multiple places. This generally implies either access to or ownership of a second home. Estimates suggest that approximately half of all Nordic residents have access to a second home either through owning one themselves or through family and friends. Map 5 shows the locations of second homes in the Nordic countries. The size of the circle represents the number of second homes in each municipality, while the colour highlights this number in the context of the permanent population, with darker colours representing a larger number of second homes per 1 000 inhabitants. The main areas for second homes – both in numbers and in relation to permanent inhabitants – are Northern Sjælland and along the west coast of Jylland (Denmark); mid-eastern lake areas (Etelä-Savo/Södra Savolax) and southwest archipelago including Åland (Finland); municipalities in proximity to Reykjavík in south of Iceland; the southern mountain areas Innlandet and Buskerud fylke (Norway); and the southern mountains area Dalarna and Jämtland Härjedalen, Stockholm archipelago, and Öland (Sweden).



Map 5. Second homes, 2020

Data source: NSIs

Note: Iceland 2018 data

The mobility flow from urban to rural areas as a result of second home use have been termed an invisible seasonal counter-urbanisation (Ellingsen, 2016). Counter-urbanisation because the majority of the Nordic population has their primary residence in or close to an urban area, while the majority of second homes are located in rural areas (Slätmo et al. 2019). Invisible because it is very difficult to monitor, as registration is limited to a single primary address in all Nordic countries. This creates planning challenges, as it means that multilocal lifestyles are not captured in official population statistics (Lehtonen et al. 2019; Slätmo et al. 2019).

This counter-urbanisation process has typically been seasonal; however, there has been considerable discussion around the idea that increased possibilities for remote work may make year-round second home use more common. During the pandemic, those with access to a second home reported spending more time there. In Denmark, many people used their second homes

during the pandemic to work remotely (Indenrigs- og boligministeriet, 2021). In Finland, areas with a high number of second homes experienced population increases of up to 70% (Willberg et al., 2020). Further, in the 2021 edition of the Finnish free-time residence barometer, 43% of respondents reported working from their second home, compared with 7% in 2016 (Voutilainen et al., 2021). Of those who reported working from their second home, two thirds reported a willingness to increase the amount of time they spent working from their second home (Voutilainen et al., 2021).

Alongside increased second-home use, owning a second home also became more desirable during the pandemic (Hohnen, 2020; Lucas, 2021). As can be seen in Figure 7, there was a marked increase in the number of second homes sold in 2020 in Denmark, Norway, and Sweden. The number of sales continued to increase in Norway in 2021 and, although decreasing slightly in Denmark and Sweden, the number of sales remained above pre-pandemic levels. Second home sales have also increased by 40 % in Finland from 2019 to summer 2020 (Pitkänen et al., p. 12). It is worth noting that there were other factors that may have motivated second home ownership during the pandemic, such as reduced opportunities for international travel (Karlsdottir & Bogason, 2022). At the same time, social distancing measures made the conditions provided by inner-urban living less appealing. Many schools also closed or switched to distance learning during the pandemic, allowing families a higher degree of mobility than may usually be the case. At least one report from Denmark has identified evidence of regret about second home purchases once pandemic conditions eased (Dahl Kristensen, 2021).

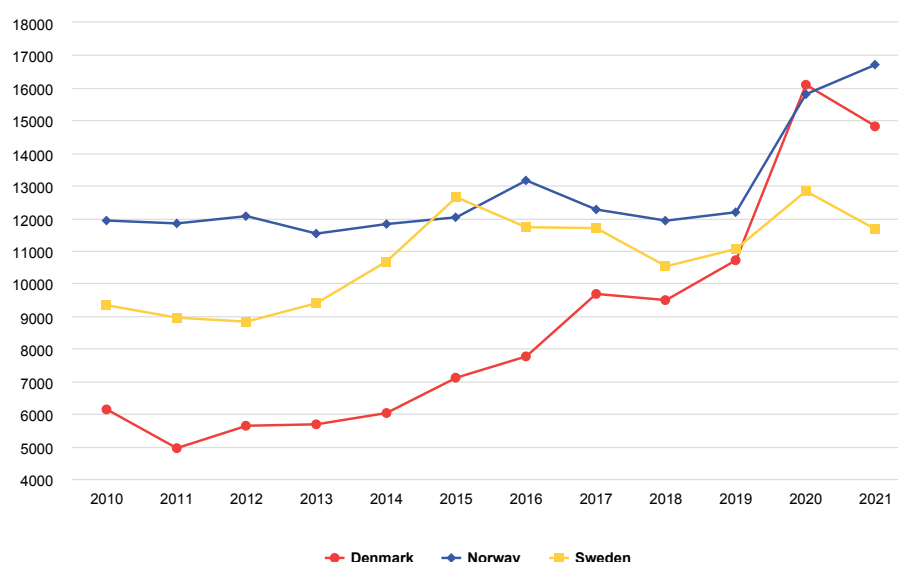
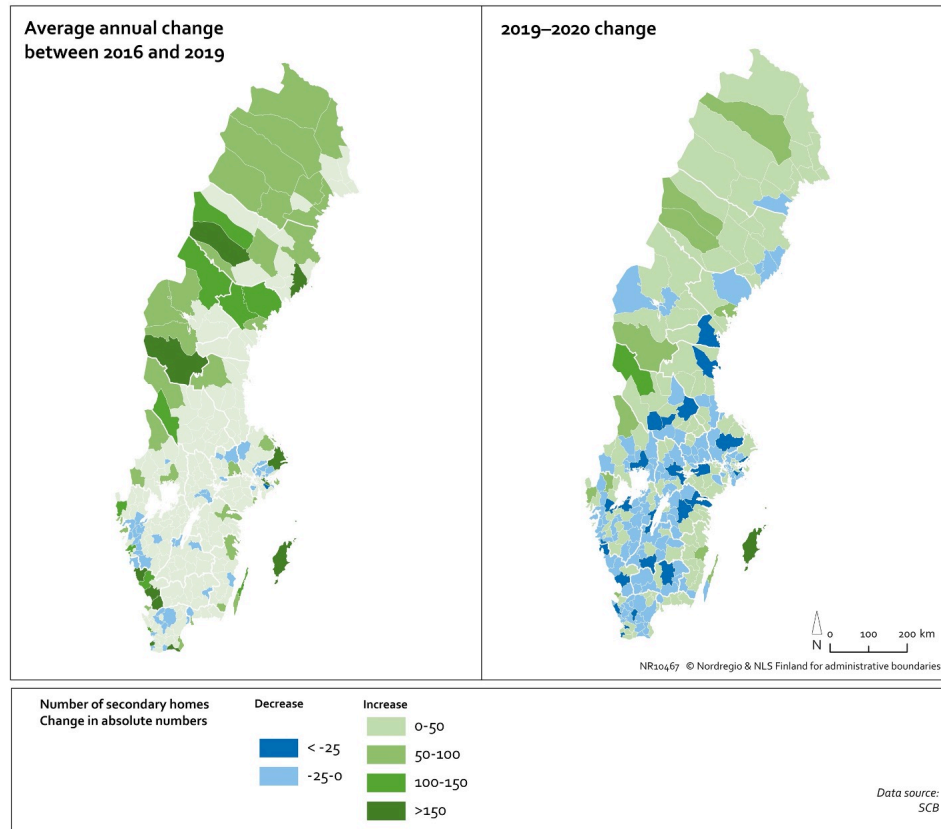


Figure 7. Number of second homes sold

Data source: NSIs

A final consideration relevant to second homes is the potential for second home ownership as precondition for permanent migration to a rural or remote area. In both Sweden and Finland, population increase in some rural municipalities during the pandemic was attributed to people who registered a pre-existing second home as their permanent address (Vass, 2021; SKR, 2021). Map 6 demonstrates this phenomenon in the Swedish context by showing the average annual change in the number of second homes per municipality between 2016 and 2019 alongside the change in the number of second homes per municipality between 2019 and 2020. As can be seen in the map, the decrease in the number of second homes is much more pronounced in 2020 than in the three years preceding. Again, whether the transformation of second homes to primary residences was specifically related to the health situation, or will continue in the future, remains to be seen.

Change in number of secondary Homes



Map 6. Change in the number of second homes, 2016-2019 compared with 2019-2020.

Data source: Statistics Sweden

3. Links between regional policy and remote work in the Nordic countries

Although the experience of remote work during the pandemic has been relatively similar in all countries, the future direction varies somewhat in light of the pre-existing policy context in each country. In Finland and Iceland, the accelerated trend towards remote work brought about by the pandemic has given momentum to existing regional policy priorities related to multilocality (Finland) and jobs without specified placement (Iceland). In Sweden, Norway, and Denmark, the links between regional policy and remote work are less clear; however, the preconditions for increased remote work are evident in all countries and the potential regional development benefits align well with broader regional policy goals.

'Jobs without specified placement' a regional policy priority in Iceland

One of the key objectives of Iceland's regional development policy is to increase employment opportunities outside of the capital region. Greater Reykjavík area is currently home to 64% of the Icelandic population and 71% of all governmental jobs. Jobs without specified location (*Störf án staðsetningar*), an initiative promoting remote work from rural working centres, was introduced in 2018 as a strategy to address this imbalance. The initiative is part of the *Strategic Regional Plan 2018-2024*, and its main objective is to ensure that the place of residence does not influence staff selection in government ministries. According to the plan, at least 5% of all advertised positions at ministries and their institutions should operate without a set location by the end of 2021, and 10% by the end of 2024.

As part of the policy implementation, each ministry was mandated to designate jobs that could reasonably be conducted off site. Once a candidate is appointed under these conditions, the employer is also responsible for finding them an appropriate working facility using a detailed map of 100 work facilities around the country.² In August 2021, the Ministry of Finance reported that 10% of governmental jobs had already been designated without specified location (Ministry of Finance, 2021). However, results from a March 2020 survey on attitudes towards the initiative showed that 63% of institutional directors in the Reykjavík area found it unlikely that they would advertise a job without a set location in the next 24 months (Ministry of Finance, 2021), suggesting that momentum around the initiative had been slowing down.

Since then, the COVID-19 pandemic greatly accelerated the adaption of the remote work initiative. So much so that the current coalition government has proposed that, in support of rural development and freedom of choice in residence, no government jobs will have fixed locations unless specifically required by their nature (Government of Iceland, 2021). The Government's commitment to this position is demonstrated in the parliamentary resolution proposal for Regional Development Policy 2022-2036, published 31 March 2022. Here, the 10% target has been removed in favour of the stance that all governmental jobs are to be considered location independent unless physical presence is necessary to perform the role (Althingi, 2021-2022). In February 2022, the Minister of Higher Education, Industry and Innovation announced that almost all positions under the ministry will be without a set location, citing that the quality of ministries is not measured in the square meters they occupy in an office building in Reykjavík, but their efficiency and its impact on our daily lives (Sigurbjörnsdóttir, cited in Morgunblaðið, 2022). As noted earlier in this report, employers and employees in other sectors are also positive towards increased remote work post-pandemic, and remote work policies are expected to emerge in Iceland (Icelandic Confederation of University Graduates (BHM), 2021).

2. See the virtual map here: <https://www.byggdastofnun.is/is/utgefif-efni/maelabord/storf-an-stadsetningar>

Multilocality high on the agenda in Finland

In Finland, remote work and multilocality were topics on the regional policy agenda prior to the pandemic. Initiatives to support and promote multilocality, including increased remote work, are regarded as something that could improve the territorial presence of the government across Finland. Remote work has long been viewed as something that could provide opportunities for achieving more balanced regional development. In this context, several initiatives to support and promote remote work and multilocality have been launched at the national level. *Inclusive and Competent Finland* has been an important program since 2019 and states that government jobs shall be supported by multilocality, which is based on technology and location-independent norms. The programme calls for organising government tasks in a way that enables multilocal living and taps into the opportunities that digital technology provides to work from any location (Finnish Government, 2019). This was based on the notion that around half of all government jobs are well-suited for multilocal working conditions and that multilocality can provide new possibilities for improving services, increasing productivity, positively influencing regional development, and enabling work-life flexibility for employees (Rissanen, 2021).

While remote work and multilocality have long been discussed in connection to regional policy, interviews with national and regional government representatives suggest that the pandemic has brought new momentum, presenting opportunities which could have positive effects on territorial cohesion. In general, the assumption is that if remote working becomes and remains increasingly widespread, multilocal living may become more common among those for whom it is possible (Rannanpää et al., 2021). From the perspective of rural policy, this could allow people whose work role is situated in an urban area to work from, or even live in, rural areas. This is particularly relevant in the Finnish context, where negative population development trends in rural areas have been a cause of significant concern in recent years (Statistics Finland, 2019). An example of concrete action to support cross-regional and inter-municipal collaboration, is the idea of establishing remote working hubs in cities across Finland that could be used not only by government/ministry officials but also by employees employed in various municipal jobs.

It is perhaps also relevant to consider that multilocality is a phenomenon that is much better understood in Finland compared to the other Nordic countries. Prior to the pandemic, the Finnish Government commissioned a comprehensive study into the phenomenon: Multilocality – current state, future, and sustainability (*Monipaikkaisuus – nykytila, tulevaisuus ja kestävyys*; Rannanpää et al., 2021). The report addresses aspects of multilocality related to remote work, study, and leisure. It draws on official population statistics and mobile phone data to consider the current status of multilocality as well as to make projections regarding potential implications of multilocality for Finnish population development. The report concludes that multilocality is something that may help alleviate spatial disparities; however, it is also recognised that not all places nor people will benefit equally (Rannanpää et al., 2021). Despite this acknowledgement, it is fair to say that, overall, the opportunities of remote work and multilocality are emphasised more strongly in the policy debate in Finland than any potential negative consequences. Social, economic, and environmental sustainability considerations are also high on the agenda, and it is widely acknowledged that any efforts to promote increased multilocality must take these into account.

Strong foundations but no clear direction evident in Sweden

The overarching regional development policy goal in Sweden is to strengthen local and regional competitiveness for sustainable development in *all parts of the country* (Regeringskansliet, 2021). Though not explicitly addressed in the national level regional strategy (see Regeringskansliet 2015), remote work *may* be considered a mechanism through which this can be achieved. For example, in the new national strategy on regional policy (2021-2030), remote work is mentioned briefly under the strategic priority 'Equal possibilities for dwelling, jobs, and welfare in all of Sweden', particularly in relation to the potential for increased functional regions and labour market regions. The strategy suggests that digital development can potentially enable more people to live in rural areas which may attract new labour and companies to those parts of Sweden (Regeringskansliet, 2021). The strategy does not address the consequences of remote work for urban areas.

There is also evidence of policies that would create an enabling environment for increased remote work in Sweden, as well as approaches that seek to distribute state functions more equally throughout the country. For example, the previous national-level regional strategy (Regeringskansliet, 2015) sought to increase accessibility through information technology by developing strategic work on IT at the regional level, as well as providing access to broadband throughout the country. Another relevant strategy is the relocation of state-led jobs and agencies outside of the capital region (Regeringskansliet, 2021). This strategy should not be confused with the concept of location-independent jobs as it does not refer to state employees working remotely from a range of locations but rather to the relocation of entire agencies or certain departments to a specific location.

At a smaller scale, the REMM project³ provides an interesting pre-pandemic example of an initiative seeking to increase the uptake of virtual meetings as an alternative to travel in national agencies. Administrated by the Swedish Transport Administration, the initiative includes representatives from a range of agencies. Since its commencement in 2011, it has produced a glossary, general advice and a guide concerning virtual meetings. Notably, the project has also come out with many new resources since the onset of the pandemic (see: Trafikverket, 2022).

Though there are no strong links between remote work and regional policy in Sweden, the potentials of increased remote work as currently understood could support existing policy goals to balance regional development throughout the country. Representatives from the Swedish Government Offices and the Swedish National Board of Housing, Building and Planning (*Boverket*) interviewed for this study also noted that the bottom-up nature of regional policy in Sweden means that sector-related policies (e.g., policies on the labour market) do not always immediately exhibit a direct territorial dimension. Changes are often observed at the local level initially, with national policy stepping in once there is clear evidence of a broader spatial trend underway.

Regional policy links less clear in Denmark

In the lead up to the pandemic, the political focus was on decentralisation and encouraging more balanced regional development in Denmark, both from the current and former government. A central strategy in this regard has been the relocation of state agencies and institutions from Copenhagen to other parts of the country (Regeringen, 2015). The relocations were expected to bring services closer to citizens and companies as well as to support and stimulate local development activities in the entire country. In January 2021, a political agreement was reached to relocate and establish new higher education institutes outside the four largest cities. The purpose was to ensure better access to education outside the larger cities, but also to increase access to competencies and skills for both the public and private sector (Regeringen et al., 2021).

Policy discussions linking regional development and remote work were not evident in Denmark during the pandemic, nor have such discussions arisen to any significant degree since restrictions were lifted. Remote work is mainly discussed at an organisational level, where single departments and institutions should decide internally whether and how to continue remote work practices based on the experiences from the pandemic. For support, the Danish Employee and Competence Agency (*Medarbejder- og Kompetencestyrelsen*) has published thematic websites on remote work and hybrid workplaces as guides and tools for government workplaces (*Medarbejder- og Kompetencestyrelsen*, 2022).

Despite this, there is evidence of policies that may be relevant as enabling development opportunities related to remote work. For example, continued support for the establishment of fast and stable broadband in rural areas has been linked to the possibilities to remote work and remote study (Regeringen, 2021). Further, policies related to the attractiveness of smaller cities, towns, and rural areas may prove to be relevant in the long-term in light of the changes in living preferences highlighted in the previous chapter (Regeringen, 2021). The potential for increased remote work to reduce congestion on the roads has also been raised (Transportministeriet, 2021). Overall, however, remote work has been coupled primarily with questions about quality of life and increased flexibility, and, with a couple of exceptions (*Indenrigs- og Boligministeriet*, 2021; *Landdistrikternes Fællesråd*, 2021), has scarcely been touched upon as a strategy for regional development.

3. For more information on the REMM-initiative, see: <https://www.remm.se/>

Opportunities for remote work in line with ongoing regional policy developments in Norway

Since 2001, the Norwegian Government has been developing national guidelines and identifying regional priorities for the relocation of government workplaces and services. The purpose of these localisation policies (*statlig lokaliseringsspolitikk*) has been to ensure a balanced distribution of government workplaces and services across the country. Public sector jobs are an important component of local labour markets and locating these jobs around the country helps to ensure access to public services for the entire population. To further support this development, a pilot project called "Statens Hus" was launched in 2020 and 2021 in four selected municipalities that include Narvik, Orkland, Stad and Lyngdal. The Statens Hus initiative was planned before the pandemic and consists of administrative buildings which merge the physical location and operations of public services and smaller departments of government agencies to strengthen public sector cooperation efforts. The vision is to strengthen the regional labour markets and competencies of the public sector which, over time, can expand the recruitment opportunities for public and private enterprises as well as career opportunities for state employees (Kommunal-og moderniseringsdepartementet, 2022).

In 2020, a cross-sectoral working group was established to address remote work development in the public sector, referred to as "place-independent work locations" (*stedsuavhengig arbeid*). Although the working group was not necessarily a direct response to the pandemic, the timing of its mobilisation may be linked to the opportunity brought about by increased remote work necessitated by the pandemic. According to national government representatives interviewed for this report, the working group aims to support planning for new offices by and for government employees and to develop the most suitable function for place-independent work locations in the public sector across the country (for example, encouragement to establish new state-owned enterprises outside the capital region; see also Strategy for small- and medium-sized cities; Kommunal-og moderniseringsdepartementet, 2021, pp. 48-52.).

While several reports, national strategies and policy measures have recognised the need to adapt to new modes and norms of working after the pandemic, remote working is just one of many aspects under consideration as the country emerges from two years managing the COVID-19 pandemic. Broadly speaking, it is recognised that long-term changes following the pandemic will materialise in modern Norwegian working life. At the same time, the government's approach is incremental, recognising that non-public actors and regional and local stakeholders are also key to driving implementation.

Remote work in the independent territories: Faroe Islands, Greenland and Åland

Overall, our investigation did not find significant evidence of discussion or debate regarding remote work in the independent territories in the context of the pandemic. There was however some evidence of relevant discussions pre-pandemic. As in the other Nordic countries, urbanisation and the depopulation of remote rural areas has been the dominant population trend in the Faroe Islands, Greenland and Åland. Depopulation has been particularly pronounced in the settlements in Greenland (Statistics Greenland, 2021), the archipelago municipalities in Åland (ÅSUB, 2021) and the southern islands of the Faroe Islands (Statistics Faroe Islands, 2022).

Given this, it is perhaps not surprising that remote work and remote studying are primarily perceived as an opportunity for remote rural areas. As noted above, this is not a new discussion. In Åland, for example, the six outer archipelago municipalities – Brändö, Föglö, Kumlinge, Kökar, Sottunga and Vårdö – conducted a project in 2006 exploring how remote work could be used to attract more people to live or spend time there (Skärgårdskommunerna, n.d.). Kökar Municipality even includes remote work in its vision for 2030:

The jobs have been created through the development in tourism (...), through more government employees having their workplace in Kökar and being registered here. Increased distance work after the pandemic has taught us that you do not have to live in a city to work in a city – if good distance working places are available (Kökar Municipality, 2020, p. 19, own translation).

In Greenland, possibilities for taking secondary education (15–18 years) remotely have been explored as an option for raising educational attainment levels without requiring people to move (Departementet for uddannelse, kultur og kirke, 2019).

Faroe Islands, Greenland, and Åland represent three different contexts; however, they have in common a significant tourism industry. As such, possibilities to combine work and tourism through remote work are potentially relevant in all three places. In Greenland and the Faroe Islands, for example, Arctic Digital Nomads is a network of coworking spaces which “invite[s] workers to] participate in small and resilient communities at the edge of the world, live in harmony with nature and make the spirit of exploration an adventure in your everyday life” (Arctic Digital Nomads, n.d.). The network offers people with location-independent jobs a chance to spend some time working in small Arctic communities in Iceland, Norway, Greenland, and Faroe Islands. Similarly, Visit Åland, presents distance work in the archipelago as a good way to experience and prolong ones stay in Åland. A list of accommodations suited for distance work is available on their website (Visit Åland, n.d.). Though both are pre-pandemic initiatives, opportunities to attract so-called digital nomads and promote “workcations” are more relevant than ever as a regional development strategy. When it comes to the digital preconditions for such work, both Åland and the Faroe Islands are well placed, with excellent digital infrastructure coverage (Randall & Norlén, 2022). Greenland’s vast geography makes the situation somewhat more challenging; however, the access to internet connection is considered good (Digitaliseringsstyrelsen, 2018).

Åland, appears to be the territory where the possibilities of remote work and remote study post-pandemic have been most discussed. Here, they are considered as means to attract new residents and hinder outmigration, especially in the archipelago, and to create better access to competences (Bärkraft, n.d.). At a government level, the HR-manager of the Ålandic government has informed that approximately one-third of employees within the general administration have conducted an agreement to continue some form of remote work post-pandemic (Ålands Radio, 2021).

Conclusions

This report aimed to provide a broad understanding of the current situation regarding remote work in the Nordic Region, particularly with relation to potential urban and regional development effects. It addressed the following questions:

- What will the future of remote work look like in the Nordic countries?
- What spatial trends can be identified at this point, and what do they suggest about the implications for Nordic cities, regions and rural areas?
- What policy responses are evident in the Nordic countries, and how do these relate to the pre-pandemic regional policy context?

Our findings suggest that remote work will be maintained in the long-term in the Nordic countries, at least to some degree. Importantly, however, there is little evidence to support a large-scale shift towards a 'remote first' mindset among Nordic workers or companies suggesting that, for the majority of workers and workplaces, the most likely scenario will be some form of hybrid arrangement. This is likely to be an important caveat in considering the effects of remote work for different places; as it will influence the extent to which workers can live further from their workplaces. Migration data from during the pandemic supports this contention, with the most significant trend being increased migration in the municipalities surrounding the capital areas and in smaller cities or rural areas within reasonable commuting distance of the larger cities. That being said, there is also evidence of a slowing, or even reversal, of trends towards population decline in some rural municipalities, as well as increased demand for and use of second homes.

Regarding policy responses, the future direction varies somewhat depending on the pre-existing policy context in each country. In Iceland, the jobs without specified placement initiative was a regional policy priority already before the pandemic. This policy has gained momentum and there are clear opportunities to link this work with developments that occurred during the pandemic. Similarly, in Finland, increased multilocality has for some time been viewed as an important strategy through which to combat the negative effects of depopulation and ageing in rural municipalities. While this is a broader policy goal, remote workers have been seen as an important group that may be encouraged to spend more time in rural areas given the right conditions. In Sweden, Norway, and Denmark, the links between regional policy and remote work are less clear. At the same time, the preconditions for increased remote work, are evident in all countries. Labour markets are characterised by high levels of flexibility and trust, the societies are at a relatively mature level of digitalisation, and working remotely, at least some of the time, was common practice even before the pandemic. The potential regional development benefits of increased remote work also align well with broader regional policy goals.

Considerations for sustainability and Nordic integration

In light of the Nordic Prime Ministers vision to make the Nordic Region the most sustainable and integrated in the world by 2030 (Norden, n.d.), this report closes with some reflections on the relevance of our findings from the perspective of sustainability and Nordic integration. From a social sustainability perspective, it is first and foremost important to acknowledge that not everyone can work from home. As such, the opportunities associated with increased remote work are available to only a sub-set of the population and, in most cases, a sub-set of the population that is already relatively advantaged. Even among those who can work remotely, inequalities may emerge. For example, experiences during the pandemic suggest that the blurring of boundaries between work and home life may exacerbate gender inequalities. Similarly, younger workers may find it more difficult than more experienced workers to navigate the world of work in a remote or hybrid setting. Accounting for these differences though both individual and collective agreements will play an important role in ensuring a future for remote

work that is compatible with the high standard of working conditions that are a core feature of the Nordic model.

Issues related to social sustainability are also relevant when considering the spatial implications of remote work. For example, while remote work may create opportunities for smaller cities and rural municipalities to attract population, we should not automatically assume that these newcomers will be seamlessly integrated into the community. Careful planning will be required to ensure that services are available to meet the needs of new residents and conflicts may also arise between the priorities of newcomers, temporary residents, and the existing population. Second home owners, for example, bring valuable economic and social resources to rural areas (Larsen et al., 2019). At the same time, increased second home use raises questions about the capacity of services and resources in rural areas (Arnesen & Kvamme 2021; Slåtmo et al., 2019; Willberg et al., 2020). Our findings also suggest that not all municipalities stand to gain equally from increased remote work. The spatial patterns observed during the pandemic support the ongoing importance of proximity to urban areas, and many more remote municipalities continued to experience outmigration during the pandemic. Supporting these municipalities to find other strategies to address their demographic challenges will be important in avoiding further marginalisation of these municipalities.

Economic sustainability becomes particularly relevant when a person's life is split between two or more municipalities. This question has been long discussed in the case of second homeowners who pay taxes in the municipality of their primary residence (typically an urban municipality) but rely on services in the municipality of their second home (typically in a rural municipality). It may also be relevant when considering who covers the cost of alternate workspaces. Coworking spaces, for example, provide a physical place where people from different organisations and companies can come together to work, but not necessarily with each other (Bähr et al. 2021; Schmeid 2021). They support the separation of private and professional life and are thought to offer regional economic development opportunities and contribute to more attractive and lively rural areas (Görmar, 2021; Kommunal-og moderniseringsdepartementet, 2021; Tomaz et al., 2021). The question arises however, should a coworking space in a small city or rural area be considered a local development tool, funded and maintained by the municipality in the interests of attracting remote workers? Or should these costs be directed back to the companies who employ these workers? It may also be relevant to consider who "wins" when remote work results in productivity gains, reduced costs, and time-saved commuting.

From an environmental sustainability perspective, a whole host of complex questions arise. Remote work itself offers opportunities for environmental benefits by reducing travel. At the same time, there may be negative environmental impacts associated with the lifestyle choices remote work enables. For example, although increased remote work may result in fewer trips, these trips may be longer and more carbon intensive (e.g., public transport replacing cycling or walking, car trips replacing public transport; Eliasson, 2021; Sinko et al., 2021). Back in 2005 a Finnish study warned about the need to distinguish "eco-managed telework" from "eco-disastrous telework" (Heinonen & Kuosa, 2005). Eco-disastrous telework was described as a situation in which teleworkers require multiple workspaces, ICT equipment in more than one location, and decide to move further away from daily amenities, thus increasing energy use and pollution when they do drive (Heinonen & Kuosa, 2005). Similarly, a pre-pandemic study using Swedish National Travel Survey data, found that telework loosens the spatial fix between home and work, which may lead teleworkers to relocate to less accessible places and contribute to "spatially heterogeneous travelling" with negative impacts to overall sustainability (Eldér, 2017). Our findings point to the ongoing relevance of these discussions. The increased demand for second homes observed during the pandemic also raises some environmental concerns, both with regards to the resources required for the homes themselves and with respect to increased travel between homes.

Evidence from Denmark during the pandemic suggests that remote work did in fact result in decreased travel during the pandemic, with household CO₂ emissions falling by 12% from 2019 to 2020 (DST, 2021). According to Statistics Denmark, the significant decrease in GHG emissions in 2020 is a direct consequence of reduced consumption of gasoline and diesel for transportation due to increased remote work (DST 2021). In addition, some studies have found rural lifestyles to be connected to reduced consumption compared to urban lifestyles, suggesting a potential environmental up-side to new settlement patterns that favour rural areas. Nonetheless, it is important not to assume that remote work or hybrid work is inherently coupled with favourable

environmental outcomes. Existing policies for sustainable development may need to be restructured to consider additional sustainability factors, such as energy usage, especially in hybrid modes of working in which multilocality can result in multilocal energy consumption as well.

Increased remote work also offers potential for further integration between the Nordic countries. Working in one Nordic country and living in another is common practice within the physical cross-border regions of the Nordic countries (Lundgren & Wøien Meijer, 2022). In the context of remote work however, any region has the potential to be a cross-border region. This presents great opportunities for Nordic labour markets but, as the experiences in the physical cross-border regions have taught us, it will not be without challenges. It was beyond the scope of this report to address issues related to sustainability and cross-border perspectives in any depth. These will be important aspects to consider as we embark on the case studies and further statistical analysis in the next stages of the project.

Overall, it appears that the experiences of remote work during the pandemic have been fairly similar in the five Nordic countries. Similar trends are also evident, though to differing degrees, with respect to the effects on different places throughout the region. The most notable differences between the countries relate to the regional policy responses, and it is perhaps here that the greatest potential for Nordic added value emerges. The next stages of the project will dig deeper into the ways in which these similarities and differences play out at the local and regional levels as we continue to explore the effect of remote work on Nordic people, places, and planning.

References

- Agenda. (2021). *Prisen for koronakrisen og hva vi bør gjøre*. <https://www.tankesmienagenda.no/post/prisen-for-koronakrisen-og-hva-vi-bor-gjore/details>
- Akava Works. (2020). Akava Works -selvitys: Koronapandemia muutti työn teon tapoja ja työn kuormitusta. <https://akavaworks.fi/julkaisut/muut-julkaisut/koronaselvitys/>
- Althingi (2017-2018). Þingsályktun um stefnumótandi byggðaaætlun fyrir árin 2018-2024 [Parliamentary resolution for a rural development policy 2018-2024]. 148. Löggjafarþing, þingskjal 1242 – 480. mál.
- Althingi (2021-2022). Tillaga til þingsályktunar um stefnumótandi byggðaaætlun fyrir árin 2022-2036 [Proposal for a Parliamentary resolution for a rural development policy 2022-36]. 152. Löggjafarþing, þingskjal 799 – 563. mál.
- Andreasson, U. (2017). *Trust—The Nordic gold*. Nordic Council of Ministers. <https://doi.org/10.6027/ANP2017-737>
- Andersen, M. F. (2020). Genopdagelse af kollegafællesskabet. Det Nationale Forskningscenter for Arbejdsmiljø. https://nfa.dk/sites/coronatrivsel/laeringMedarbejderDistancen_genopdagelse_af_kollegaFællesskabet.html
- Andreasson, U. (2017). *Trust—The Nordic Gold*. Nordic Council of Ministers, Nordic Council of Ministers Secretariat. Copenhagen. 13
- Arbeids-og inkluderingsdepartementet. (2022, March 18). *Nye regler for hjemmekontor* [Pressemelding]. Regjeringen.no; regjeringen.no. <https://www.regjeringen.no/no/aktuelt/nye-regler-for-hjemmekontor/id2904727/>
- Arbejdstilsynet. (den 16 November 2021). Working Environment Act: Ministry of Employment Consolidated Act no. 2062 of 16 November 2021 - unofficial version. <https://at.dk/en/regulations/working-environment-act/>
- Arbejdstilsynet. (2014, 2003). *Hjemmearbejde*. <http://at.dk/regler/at-vejledninger/hjemmearbejde-d-2-9/>
- Arbetsförmedlingen. (n.d.). *Rättigheter och skyldigheter i arbetslivet* [Text]. Arbetsförmedlingen. <https://arbetsformedlingen.se/for-arbetssookande/arbete-i-sverige/rattigheter-och-skyldigheter>
- Arbetsgivarverket. (den 15 December 2005). Avtal om distansarbete [Remote work agreement]. <https://www.arbetsgivarverket.se/globalassets/avtal-skrifter/centralaavtal/distansavtal.pdf>
- Arctic Digital Nomads. (n.d.). *Connecting Digital Nomads with coworking communities in the Arctic regions*. Arctic Digital Nomads. Retrieved April 20, 2022. <https://www.arcticdigitalnomads.com/>
- Arnesen, T. & Kvamme, S. (2021). Fritidsbygg i fjellområdet – en egen boligstruktur? F. Flemsæter & B. E. Flø (Red.), *Utmark i endring* (Kap. 5, s. 123–150). Cappelen Damm Akademisk. <https://doi.org/10.23865/noasp.151.ch5>
- Beskæftigelsesministeriet. (2022, July 2). *Nye regler for hjemmearbejde på plads*. Beskæftigelsesministeriet. <https://bm.dk/nyheder-presse/pressemeddelelser/2022/02/nye-regler-for-hjemmearbejde-paa-plads/>
- Bogason, A., Karlsdóttir, A., Brand Broegaard, R., & Jokinen, J. C. (2021, January 13). *Planning for sustainable tourism in the Nordic rural regions—Cruise tourism, the right to roam and other examples of identified challenges in a place-specific context*. Nordregio. <https://nordregio.org/publications/planning-for-sustainable-tourism/>
- Borges, L. (2020). Geographies of labour. In Nordregio, *State of the Nordic Region* (pp. 66-75). Copenhagen: Nordic Council of Ministers. Retrieved from Geographies of labour. <https://pub.norden.org/nord2020-001/#78705>

- Borges, L. A.; Nilsson, K.; Tunström, M.; Dis, A. T.; Perjo, L.; Berlina, A.; Costa, S. O.; Fredricsson, C.; Grunfelder, J.; Johnsen, I.; Kristensen, I.; Randall, L.; Smas, L.; Weber, R. (2017). *White paper on Nordic Sustainable Cities*. Nordregio. <https://nordregio.org/publications/white-paper-on-nordic-sustainable-cities/>
- Broughton, A. (2002, July 22). Social partners sign teleworking accord. Retrieved from Eurofound: <https://www.eurofound.europa.eu/publications/article/2002/social-partners-sign-teleworking-accord#:~:text=In%20July%202002%2C%20the%20central%20EU-level%20social%20partners,rights.%20It%20also%20provides%20a%20definition%20of%20telework.>
- Bähr, U., Biemann, J., Lietzau, J. & Hentschel, P. (2021). *Rural Coworking: People, Models, Trends*. CoWorkLand, BertelsmannStiftung
- Bärkraft. (n.d.). *Ålands väg under och ur coronakrisen—Statusrapport 4 Bärkraft.ax*. Retrieved April 26, 2022, from <https://www.barkraft.ax/statusrapport-4>
- Correa, M. (2022) Working From a New Home? Exposure to Remote Work and Out-Migration from Large Cities. <https://ssrn.com/abstract=4009196> or <http://dx.doi.org/10.2139/ssrn.4009196>
- Dahik, A., Lovich, D., Kreaflé, C., Bailey, A., Kilmann, J., Kennedy, D., Roongta, P., Schuler, F., Tomlin, L., & Wenstrup, J. (2020). *What 12000 Employees Have to Say About the Future of Remote Work*. 12.
- Dahl Kristensen, A. (2021, November 24). *Corona skabte sommerhusboom – nu har flere af køberne fortrudt*. Boligsiden Nyheder. <https://www.boligsiden.dk/nyheder/bolighandel/corona-skabte-sommerhusboom-nu-har-flere-af-koeberne-fortrudt/>
- Danmarks statistik. (2021). *Arbejdskraftundersøgelsen (år) 2020* (No. 53; NYT fra Danmarks statistik). Danmarks statistik. www.dst.dk/nyt/32435
- Davies, A. (2021). "COVID-19 and ICT-Supported Remote Working: Opportunities for Rural Economies". *World*, 2, 139–152. <https://doi.org/10.3390/world2010010>
- Departementet for uddannelse, kultur og kirke. (2019). *Naalakkersuisut's Uddannelsesplan II 2019*. Naalakkersuisut.
- Dingel, J., & Neiman, B. (2020). *How Many Jobs Can be Done at Home?* (No. w26948; p. w26948). National Bureau of Economic Research. <https://doi.org/10.3386/w26948>
- Djupvik, H. (n.d.). Hjemmekontor gir milliardgevinst. <https://kantar.no/kantar-tns-innsikt/hjemmekontor-gir-milliardgevinst/>
- DST (2021) *Nedlukning betød stort fald i CO₂ fra husholdninger*. Emissionsregnskab 2020, Miljø og energi, Nyt fra Danmarks statistik, 10. december 2021 [17. september 2021]. <https://www.dst.dk/Site/Dst/Udgivelser/nyt/GetPdf.aspx?cid=34755>
- Eliasson, J. (2021). 2021:1 I en tid av pandemi – en ESO-antologi med samhällsvetenskapliga reflektioner. *ESO - Expertgruppen för studier i offentlig ekonomi*. https://eso.expertgrupp.se/rapporter/2021_1-i-en-tid-av-pandemi/
- Ellingsen, W. (2016). Rural Second Homes: A Narrative of De-Centralisation. *Sociologia Ruralis*, 57(2), 229–244. <https://doi.org/10.1111/soru.12130>
- Eurofound. (2020). *Telework and ICT-based mobile work: Flexible working in the digital age*, New forms of employment series. Luxembourg: Publications Office of the European Union.
- Eurofound. (1998). *1998 Annual Review for Denmark*. Eurofound. <https://www.eurofound.europa.eu/publications/article/1998/1998-annual-review-for-denmark>
- Eurofound and the International Labour Office. (2017). *Working anytime, anywhere: The effects on the world of work* (p. 80). Publications Office of the European Union, Luxembourg, and the International Labour Office.
- European Commission. (2020a). *DESI - Connectivity Shaping Europe's digital future*. <https://digital-strategy.ec.europa.eu/en/policies/desi-connectivity>
- European Commission. (2020b). *EU Labour Force Survey ad hoc module 2019 on work organisation and working time arrangements—Quality assessment report*. <https://ec.europa.eu/>

[eurostat/web/products-statistical-reports/-/ks-ft-20-006](https://ec.europa.eu/eurostat/web/products-statistical-reports/-/ks-ft-20-006)

European Commission. (2021a). *DESI Shaping Europe's digital future*. <https://digital-strategy.ec.europa.eu/en/policies/desi>

European Commission. (2021b). *Flash Eurobarometer 491—A long term Vision for EU Rural Areas*. <https://europa.eu/eurobarometer/surveys/detail/2278>

European Commission. (2008). Report on the implementation of the European social partners' Framework Agreement on Telework, Commission staff working paper, SEC(2008) 2178. Brussels.

European Foundation for the Improvement of Living and Working Conditions (Ed.). (2017). *European quality of life survey 2016: Quality of life, quality of public services, and quality of society*. Publications office of the European Union.

Eurostat (2021). How usual is it to work from home? Available at: <https://ec.europa.eu/eurostat/web/products-eurostat-news/-/edn-20210517-2#:~:text=Compared%20with%20other%20age%20groups,of%20those%20aged%2050%2D64>

Eurostat. (den 11 December 2018). Territorial typologies manual - cities, commuting zones and functional urban areas. Hämtat från Eurostat: Statistics explained. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Territorial_typologies_manual_-_cities,_commuting_zones_and_functional_urban_areas

Fackförbundet ST. (2021). *Jobba hemifrån – är distansarbete här för att stanna?* <https://st.org/jobba-hemifran-ar-distansarbete-har-att-stanna>

Finnish Government (2019) Government Action Plan : Inclusive and competent Finland – a socially, economically and ecologically sustainable society. <https://julkaisut.valtioneuvosto.fi/handle/10024/161845>.

Forsberg, S. (2018). *Going places: Local settings and global horizons in young people's education and work trajectories*. <http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-347063>

Giacometti, A., & Teräs, J. (2019). *Regional Economic and Social Resilience: An Exploratory In-Depth Study in the Nordic Countries*. <https://doi.org/10.6027/R2019:2.1403-2503>

Government of Iceland (2021). Agreement on the Platform for the Coalition Government of the Independence Party, the Left Green Movement and the Progressive Party. <https://www.stjornarradid.is/library/05-Rikisstjorn/Agreement2021.pdf>.

Görmär, F. (2021). *Collaborative workspaces in small towns and rural areas. The COVID-19 crisis as driver of new work models and an opportunity for sustainable regional development?*

Graham, S. (2004). Beyond the 'Dazzling Light': From Dreams of Transcendence to the 'Remediation' of Urban Life: A Research Manifesto. *New Media & Society*, 6(1), 16–25. <https://doi.org/10.1177/1461444804039905>

Haley, A. (2018). Returning to rural origins after higher education: Gendered social space. *Journal of Education and Work*, 31(4), 418–432. <https://doi.org/10.1080/13639080.2018.1479839>

Hansen, J.-A. (2021, April 22). *Hjemmekontoret har kommet for å bli*. <https://forskning.no/arbeid-kommunikasjon-kontor/hjemmekontoret-har-kommet-for-a-bli/1844283>

Heinonen, S., & Kuosa, T. (2005). Ecological realities of telework in four different futures: living, working and travelling in new knowledge-intensive communities. *Progress in Industrial Ecology – An International Journal*, Vol. 2, 329-357.

Heleniak, T. & Jokinen, J. C. (2022). "Migration" in Norlén, G., Randall, L., Sánchez Gassen, N. & Tapia, C. (Ed.) *State of the Nordic Region 2022*, Nordic Council of Ministers. <https://pub.nordregio.org/snr22/>

Hohnen, A. M. (2020). *COVID-19 fik sommerhussalget til at stige med 90 procent*. <https://www.dst.dk/da/Statistik/bagtal/2020/2020-10-26-COVID-19-fik-sommerhussalget-til-at-stige-med-90-pct>

Holm Ingelsrud, M., & Hoff Bernstrøm, V. (2021). Hjemmekontor: Utbredelse og sentrale kjennetegn våren 2021. In 49 [Working paper]. Arbeidsforskningsinstituttet, OsloMet –

storbyuniversitetet. <https://oda.oslomet.no/oda-xmlui/handle/11250/2756692>

HR Norge. (den 22 October 2020). Hjemmekontor gir milliardgevinst. <https://www.hrnorge.no/pressemeldinger/hjemmekontor-gir-milliardgevinst>

Icelandic Confederation of University Graduates (BHM). (2021). Vilja að réttur til fjarvinnu verði tryggður í kjarasamningum. BHM. <https://www.bhm.is/frettir/vilja-ad-rettur-til-fjarvinnu-verdi-tryggdur-i-kjarasamningum>

ILO. (2020). *Defining and measuring remote work, telework, work at home and home-based work* [Publication]. http://www.ilo.org/global/statistics-and-databases/publications/WCMS_747075/lang--en/index.htm

Indenrigs- og Boligministeriet. (2021). *Regional- og landdistriktspolitisk redegørelse 2021—Regeringens redegørelse til Folketinget*. Indenrigs- og Boligministeriet.

Jokinen, J. & Cuadrado, A. (2020). Demographic trends, in *State of the Nordic Region 2020 Wellbeing, health and digitalisation edition* (Eds. A. Lundgren, L. Randall, & G. Norlén). Nordic Council of Ministers. doi:[10.6027/nord2020-052](https://doi.org/10.6027/nord2020-052).

Kantar. (n.d.). *Koronaen har sendt oss tilbake til siloene*. <https://kantar.no/kantar-tns-innsikt/koronaen-har-sendt-oss-tilbake-til-siloene/>

Kantar Gallup. (2021). *Corona og det byggede miljø: Spørgekemaundersøgelse foretaget af Kantar Gallup i april 2021 for Videnscenter Bolius og Realdania* (p. 32). Videnscenter Bolius & Realdania.

Kökar Municipality. (2020). *Vår Bobarhet: Hållbar utveckling i Kökar 2020-2030 (2050)*. <https://skargardssamarbetet.org/wp-content/uploads/2021/03/varbobarhet.pdf>

Kommunal-og moderniseringsdepartementet. (2021a). *Strategi for småbyer og større tettsteder som regionale kraftsentre* [Plan]. Regjeringen.no; regjeringen.no. <https://www.regjeringen.no/no/dokumenter/strategi-for-smabyer-og-storre-tettsteder-som-regionale-kraftsentre/id2862406/>

Kommunal-og moderniseringsdepartementet. (2021b). Kyststrategi. <https://www.regjeringen.no/no/dokumenter/kyststrategi/id2862477/>

Kommunal-og moderniseringsdepartementet. (2022, January 17). *Rettleiing til retningslinjene for statleg lokalisering* [BrosjyreVeiledning]. Regjeringen.no; regjeringen.no. <https://www.regjeringen.no/no/dokumenter/veileder-til-retningslinjer-for-lokalisering-av-statlige-arbeidsplasser-og-statlig-tjenesteproduksjon/id2600910/>

Kourtit, K. (2016). *Super-Proximity and Spatial Development*. 18.

Kovalainen, A., Poutanen, S., & Arvonen, J. (2021). *Covid-19, luottamus ja digitalisaatio: Tutkimus etätyöstä ja sen järjestymisestä Suomessa keväällä ja syksyllä 2020*. <https://www.utupub.fi/handle/10024/151453>

Kraka-Deloitte. (2020). *Livet med corona—Nye muligheder for klimaet og økonomien?* (Small Great Nation, p. 76). Kraka-Deloitte.

Landdistrikternes Fællesråd. (2021). *Hjemmearbejde rummer potentiale for ny bosætningsstruktur*. <https://www.landdistrikterne.dk/pressemeddelelser/hjemmearbejde-rummer-potentiale-for-ny-bosaetningsstruktur/>

Larsen, K. T., Broegaard, R. B., & Larsen, L. H. (2019). Translokalt engagement i landdistrikterne: Den mobile elites nye legeplads? *Dansk Sociologi*, 30(4), 59–79. <https://doi.org/10.22439/dansoc.v30i4.6232>

Leskinen, T. (2021). Etätyö yleistyi eniten aloilla ja alueilla, joilla sitä ennen tehtiin vähiten. Tieto & Trendit, Statistics Finland. <https://www.tilastokeskus.fi/tietotrendit/artikkelit/2021/etatyo-yleistyi-eniten-aloilla-ja-alueilla-joilla-sita-ennen-tehtiin-vahiten/>

Lindquist, K.-G., M??hlum, S., Vatne, B. H., & Wold, E. G. (2021). *Boligmarkedet i pandemi??ret 2020*. https://norges-bank.brage.unit.no/norges-bank-xmlui/bitstream/handle/11250/2760506/staff_memo_6_21---boligmarkedet-i-pandemiet-2020.pdf?sequence=1&isAllowed=y

Logue, J. (2019). Trade unions in the Nordic countries. Nordics.info, Aarhus University. <https://nordics.info/show/artikel/trade-unions-in-the-nordic-region/>

- Lucas, D. (2021, June 28). Ny statistik: Fritidshus blev 47.000 kroner mer vært varje måned. *Dagens Nyheter*. <https://www.dn.se/ekonomi/ny-statistik-fritidshus-blev-47-000-kronor-mer-vart-varje-manad/>
- Lundgren, A., Alex Cuadrado, Mari Wøien Meijer, Hjördís Rut Sigurjónsdóttir, Eeva Turunen, Jens Bjørn Gefke Grelck, Viktor Salenius, Jukka Teräs, & Stian Lundvall Berg. (2020). *Skills Policies—Building Capacities for Innovative and Resilient Nordic Regions*. <http://pub.nordregio.org/r-2020-17-skills-policies/>
- Lundgren, A. & Wøien Meijer, M. (2022). Labour market mobility between the Nordic countries, in G. Norlén, L. Randall, N. Sánchez Gassen, C. Tapia (eds.) *State of the Nordic Region 2022*. Stockholm: Nordregio. <http://doi.org/10.6027/R2022.2.1403-2503>
- Läpple, D. (2001). *City and Region in an Age of Globalisation and Digitization*. 40(2), 13–34.
- Løvgren, M. (2021, July 16). *Unge lønmodtagere mistrives med hjemmearbejde*. Fagbevægelsens Hovedorganisation. <https://fho.dk/blog/2021/07/16/unge-loenmodtagere-mistrives-med-hjemmearbejde/>
- Løvslett Danbolt, I. (2016). The ultimate balancing act: Work and family in the Nordic Region. Nordic Council of Ministers. Copenhagen. <https://norden.diva-portal.org/smash/get/diva2:1045569/FULLTEXT03.pdf>
- Mathiesen Dam, J. (2020). *Virksomhederne venter mere hjemmearbejde fremover—DI*. Dansk Industri. <https://www.danskindustri.dk/arkiv/analyser/2020/6/virksomhederne-venter-mere-hjemmearbejde-fremover/>
- Medarbejder- og Kompetencestyrelsen. (2022). *Hjemmearbejde på statslige arbejdspladser*. Medarbejder- og Kompetencestyrelsen. <https://www.medst.dk/arbejdsmraader/hjemmearbejde-paa-statslige-arbejdspladser/>
- Milder, N. D. (2020). Remote work: An example of how to identify a downtown-related trend breeze that probably will outlast the COVID-19 crisis. *Journal of Urban Regeneration & Renewal*, 14(2), 135–154.
- Myndigheten för Arbetsmiljökunskap . (2022). Distansarbete - - översikt av internationella forskningen om arbetsmiljö och hälsa, balans i livet och produktivitet före och under covid-19 pandemin med särskilt beaktande av kvinnors och mäns villkor. Kunskapssammanställning.
- Myndigheten för Arbetsmiljökunskap. (2021). Kartläggning och analys av öruddsättningar för arbete hemifrån under Coronapandemin.
- Ministry of Finance and Economic Affairs (2021). Störf án staðsetningar: Staða og framtíðarhorfur [Jobs without a set location: Current state and future visions]. Stjórnarráð Íslands.
- Ministry of Labour and Social Inclusion. (den 5 July 2002). Regulations relating to work carried out in the employee's home. <https://lovdata.no/dokument/SF/forskrift/2002-07-05-715>
- Ministry of Labour and Social Affairs. (2006). Lov om arbeidsmiljø, arbeidstid og stillingsvern mv. (arbeidsmiljøloven) [Working Environment Act]. https://lovdata.no/dokument/NL/lov/2005-06-17-62/KAPITTEL_15#%C2%A714-5
- Ministry of Labour and Social Inclusion. (den 18 March 2022). Regulations relating to amendments to regulations 5 July 2002 no. 715 on work carried out in the employee's home. <https://lovdata.no/dokument/LTI/forskrift/2022-03-18-409>
- Morgan, K. (2004). The exaggerated death of geography: Learning, proximity and territorial innovation systems. *Journal of Economic Geography*, 4(1), 3–21. <https://doi.org/10.1093/jeg/4.1.3>
- Morgunblaðið (2022, 1. March). Fjarvinna ein besta samgöngubótin [Remote work the most valuable transportation improvement]. https://www.mbl.is/frettir/innlent/2022/03/01/fjarvinna_sogd_vera_verdmaetasta_samgongubotin/?msclid=9f838951b65f11eca80ce24f44e899ba
- Mortensen, C. W. (2021). *Din alder afslører, om du er til hjemmearbejde*. SDU. <https://www.sdu.dk/da/nyheder/forskningsnyheder/hjemmearbejde>
- Myndigheten för Arbetsmiljökunskap. (2021). Kartläggning och analys av förutsättningar för

- arbete hemifrån under Coronapandemin – Myndigheten för arbetsmiljökunskap.
<https://mynak.se/publikationer/kartlaggning-och-analys-av-forutsattningar-for-arbete-hemifran-under-coronapandemin/>
- Nadler, R. (2009). *Multilocality: An Emerging Concept between the Terms of Mobility and Migration*. https://www.academia.edu/20352366/Multilocality_An_Emerging_Concept_between_the_Terms_of_Mobility_and_Migration
- Navrbjerg, S. E., & Minbaeva, D. (2021). Virtuel ledelse under corona-krisen: Rapport 2 de kvantitative studier. 105.
- Norden. (n.d.). *Our Vision 2030*. <https://www.norden.org/en/our-vision-2030>
- OECD. (2022). "Housing Prices (Indicator)." OECD. doi:10.1787/63008438-en.
- OECD. (2021). *Implications of Remote Working Adoption on Place Based Policies: A Focus on G7 Countries*. OECD. <https://doi.org/10.1787/b12f6b85-en>
- Larsen, K. T., Broegaard, R. B., & Larsen, L. H. (2019). Translokalt engagement i landdistrikterne: Den mobile elites nye legeplads? *Dansk Sociologi*, 30(4), 59–79. <https://doi.org/10.22439/dansoc.v30i4.6232>
- Pitkänen, K., Hannonen, O., Toso, S., Gallent, N., Hamiduddin, I., Halseth, G., Hall, C.M., Müller, D.K., Treivish, A. & Nefedova, T. (2020). Second homes during corona-safe or unsafe haven and for whom? Reflections from researchers around the world. *Matkailututkimus – Finnish Journal of Tourism Research*, 16(2), 20-39.
- Ramani, A., & Bloom, N. (2021). *The Donut Effect of Covid-19 on Cities* (Working Paper 28876). National Bureau of Economic Research. <https://www.nber.org/papers/w28876>
- Randall, L., & Norlén, G. (2022). Working from home. In *State of the Nordic Region 2022*. Nordregio. <https://pub.nordregio.org/snr22/#97746>
- Randall, L., Ormstrup Vestergård, L., & Wøien Meijer, M. (2020). *Rural perspectives on digital innovation: Experiences from small enterprises in the Nordic countries and Latvia*. <http://urn.kb.se/resolve?urn=urn:nbn:se:norden:org:diva-5952>
- Rannanpää, S., Antikainen, J., Aro, R., Huttunen, J., Hovi, S., Pitkänen, K., Strandell, A., Nurmio, K., Rehunen, A., Vihinen, H., & Lehtonen, O. (2021). *Monipaikkaisuus – nykytila, tulevaisuus ja kestävyys*. 251.
- Rannanpää, S., Antikainen, J., Aro, R., Pitkänen, K., Strandell, A., Rehunen, A., Vihinen, H., Lehtonen, O., Muilu, T., & Weckroth, M. (2022). *Towards sustainable multi-locality—Valtioneuvoston selvitys- ja tutkimustoiminta. Selvitys- ja tutkimustoiminta*. <https://tietokayttoon.fi/julkaisu?pubid=40501>
- Rasmussen, G. N. (den 3 March 2022). Homeworking post-COVID-19: Flexibility for workers or a means to cut business overheads? <https://www.colliers.com/en-dk/news/hjemmearbejde-efter-covid19--fleksibilitet-for-de-ansatte-eller-spareoelse-for-virksomhederne>
- Refsgaard, K., Cuadrado, A., & Tragotsis, N. (2022). Consumption, GHG emissions, car sales, and housing markets. in G. Norlén, L. Randall, N. Sánchez Gassen, C. Tapia (eds.) *State of the Nordic Region 2022*, Stockholm: Nordregio. pp. 134-148. <http://doi.org/10.6027/R2022.2.1403-2503>
- Regeringen. (2021). *Aftale om udmøntning af genåbning pr. 21. Maj 2021*. Justitsministeriet.
- Regeringen (2015). *Bedre Balance. Statslige arbejdspladser tættere på borgere og virksomheder*. 2015/16:2, Finansministeriet
- Regeringskansliet (2021). Nationell strategi för hållbar regional utveckling i hela landet 2021–2030. Regeringens skrivelse 2020/21:133. <https://www.regeringen.se/rattsliga-dokument/skrivelse/2021/03/skr.-202021133/>
- Regeringskansliet (2015). En nationell strategi för hållbar regional tillväxt och attraktionskraft 2015–2020. <https://www.regeringen.se/contentassets/98919a0ca0f1427491a3eef22a7d177c/en-nationell-strategi-for-hallbar-regional-tillvaxt-och-attraktionskraft-20152020.pdf>
- Remote Lab, & Future Place Leadership. (2021, June 18). *Report: Remote work & new relocation patterns in a post-covid world*. The Remote Lab. <https://remotelab.io/remote-work-new->

[relocation-patterns-in-a-post-covid-world/](#)

Rispling L. & Norlén, G. (2018). Asylum seekers. In Karlsdóttir, A., Rispling, L., Norlén, G. & Randall, L. (Eds) (2018). State of the Nordic Region 2018: Immigration and integration edition. Nordic Council of Ministers. <https://nordregio.org/publications/state-of-the-nordic-region-2018-immigration-and-integration-edition/>

Rissanen, P. (2021). Promotion of multi-location working. Ministry of Finance. <https://vm.fi/en/promotion-of-multi-location-working>

Sigurjónsdóttir, H.R.; Sigvardsson, D.; Oliveira e Costa, S. (2021). Who is Left Behind? The Impact of Place on the Possibility to Follow Covid-19 Restrictions. Nordic Council of Ministers: Copenhagen, Denmark. <https://www.norden.org/en/publication/who-left-behind-impact-place-possibility-follow-covid-19-restrictions>

Sanchez Gassen (2022). Marriage, divorce, and birth trends. In Norlén, G., Randall, L., Sánchez Gassen, N. & Tapia C. (Eds) (2022). State of the Nordic Region 2022, available at: <https://pub.nordregio.org/snr22/>

Sandow, E., & Lundholm, E. (2020). Which families move out from metropolitan areas?: Counterurban migration and professions in Sweden. *European Urban and Regional Studies*, 27(3), 276–289.

Schmeid, A. (2021). *Rural Co-working in Europe - Status Quo, as far as we Know*, Bertelmanns Stiftung, DOI 10.11586/2021119

Schmidt-Kallert, E. (2016). No Arrival without Origin—Multi-locality Re-visited. *Trialog*, 62–68.

Scott, A. J. (2011). A world in emergence: Notes toward a resynthesis of urban-economic geography for the 21st century. *Urban Geography*, 32(6), 845–870.

Servillo, L., Atkinson, R., & Hamdouch, A. (2017). Small and medium-sized towns in Europe: Conceptual, methodological, and policy issues. *Tijdschrift voor Economische en Sociale Geografie*.

Sigurbjörnsdóttir, Áslaug Arna (2022, 5. February). Ráðuneyti án staðsetningar [Ministry without set location]. Reykjavík: Morgunblaðið. <https://xd.is/2022/02/08/raduneyti/?msclid=a7e4ea5fb9911ec9b60d548e159a7ba>.

Šinko, S., Prah, K. & Kramberger, T. (2021). Spatial Modelling of Modal Shift Due to COVID-19. *Sustainability*, 2021:13, 7116. <https://doi.org/10.3390/su13137116>

SKR (2021). *Ekonomirapporten, oktober 2021: om kommunernas och regionernas ekonomi*, Sveriges Kommuner och Regioner, ISBN 978-91-7585-970-5

Skärgårdskommunerna. (n.d.). *Här jobbar jag—Var jobbar du? En broschyr om distansarbete*. <https://www.foglo.ax/sites/default/files/attachments/page/distansarbetsbroshyr.pdf>

Slätmo, E., Ormstrup Vestergård, L., Lidmo, J., & Turunen, E. (2019). *Urban–rural flows from seasonal tourism and second homes: Planning challenges and strategies in the Nordics*. Nordregio. <https://doi.org/10.6027/R2019:13.1403-2503>

Soroui, S.T. (2021). "Understanding the drivers and implications of remote work from the local perspective: An exploratory study into the dis/reembedding dynamics, *Technology in Society*, 64, 101328.

Sostero, M., Milasi, S., Hurley, J., Fernandez-Macias, E., & Bisello, M. (2020). *Teleworkability-and-the-COVID-19-Crisis-A-New-Digital-Divide.pdf*. <https://www.regionalstudies.org/wp-content/uploads/2020/08/Teleworkability-and-the-COVID-19-Crisis-A-New-Digital-Divide.pdf>

STAMI. (2021, August 17). *Arendalsuka 2021: Se opptak av STAMI-debatten om fremtidens arbeidsmiljø*. STAMI. <https://stami.no/arendalsuka-2021-se-stami-debatten-om-fremtidens-arbeidsmiljo/>

Statistics Faroe Islands. (2022). *Population*. <https://hagstova.fo/en/population/population/population>

Statistics Finland. (2019). *Population projection 2019–2070*. Population Projection 2019–2070;

- Statistics Finland. https://www.stat.fi/til/vaenn/2019/vaenn_2019-09-30_tie_001_en.html
- Statistics Greenland (2021). *Greenland in figures 2021*, Statistics Greenland, ISBN: 978-87-998113-6-6
- Statistikmyndigheten SCB. (2020). *En av tre jobbar hemifrån*. Statistiska Centralbyrån. <http://www.scb.se/pressmeddelande/en-av-tre-jobbar-hemifran/>
- Stjernberg, M. (2020). Ageing as a major demographic trend. In Grunfelder, J., Norlén, G., Randall, L. & Sánchez Gassen, N. (Eds) (2020). *State of the Nordic Region 2020*. <https://pub.norden.org/nord2020-001/>
- Suomen Yrittäjät. (2021). Yrittäjägallup: Yhä useampi yritys aikoo lisätä pysyvästi etätöitä <https://www.yrittajat.fi/tiedotteet/yrittajagallup-ya-useampi-yritys-aikoo-lisata-pysyvasti-etatoita/>
- SWECO. (2021). *Sveriges nya geografi—Pandemins flyttmönster*. Sweco Sweden. <https://www.sweco.se/projekt/sveriges-nya-geografi/>
- The Danish Nature Agency. (2012). *Spatial planning in Denmark*. Ministry of the Environment, Denmark.
- Tomaz, E., Moriset, B., & Teller, J. (2021). *Rural coworking spaces in the Covid-19 era. A window of opportunity?* <https://halshs.archives-ouvertes.fr/halshs-03235464>
- Traficom. (2021). *Fungerande internetuppkopplingar en förutsättning för smidigt distansarbete – framtiden sätter press på utvecklingen av bredbandsnät*. Traficom. <https://www.traficom.fi/sv/aktuellt/fungerande-internetuppkopplingar-en-forutsattning-smidigt-distansarbete-framtiden-satter>
- Trafikverket. (2022). *REMM för bättre digitala möten i svenska myndigheter*. Remm. <https://www.remm.se/>
- Transportministeriet [Ministry of Transport]. (2021). *Danmark fremad: Infrastrukturplan 2035* [Denmark forward: Infrastructure plan 2035]. Copenhagen.
- Tønnessen, M. (2021). Movers from the city in the first year of Covid. *Nordic Journal of Urban Studies*, 131-147.
- Visit Åland. (n.d.). *Skärgården som arbetsplats*. <https://visitaland.com/skargarden-som-arbetsplats/>
- Vass, T. (2021). Multi-local living broadens our understanding of urbanisation. *Kvartti Quarterly* 3/2020. <https://www.kvartti.fi/en/articles/multi-local-living-broadens-our-understanding-urbanisation>
- Vogiazides, L., & Kawalerowicz, J. (2022). *Urban exodus in Covid times: Who moves out of the inner city of Stockholm and where do they go?* <https://doi.org/10.17045/sthlmuni.19248190.v1>
- Voutilainen, O., Korhonen, K., Ovaska, U., & Vihinen, H. (2021). *Mökkibarometri 2021*. Luonnonvarakeskus. <https://jukuri.luke.fi/handle/10024/547644>
- United Nations. (2018, May 16). 68% of the world population projected to live in urban areas by 2050, says UN. Retrieved from Department of Economic and Social Affairs - News. <https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html>
- Weichhart, P. (2015). Residential Multi-Locality: In Search of Theoretical Frameworks. *Tijdschrift Voor Economische En Sociale Geografie*, 106(4), 378–391. <https://doi.org/10.1111/tesg.12156>
- WSP. (2021). *Increased telework—How Swedish cities and municipalities are affected* WSP Sweden. <https://www.wsp.com/sv-SE/insikter/okat-distansarbete-sa-paverkas-svenska-stader-och-kommuner>
- Willberg, E.; Järv, O.; Väisänen, T.; Toivonen, T. (2021) Escaping from Cities during the COVID-19 Crisis: Using Mobile Phone Data to Trace Mobility in Finland. *ISPRS Int. J. Geo-Inf.* 2021, 10, 103. <https://doi.org/10.3390/ijgi10020103>
- YLE. (2020, April 5). *Ylen kysely: Yli miljoona suomalaista siirtynyt etätöihin koronaviruksen aikana – heistä noin puolet haluaa jatkaa etätöissä koronan jälkeenkin*. Yle Uutiset. <https://yle.fi/>

[uutiset/3-11291865](#)

Ålands Radio. (2021, June 9). *Rekommendation om distansarbete upphör*. Ålands Radio & Tv Ab.
<https://alandsradio.ax/nyheter/rekommendation-om-distansarbete-upphor-0>

ÅSUB (2021). Statistical Yearbook 2021, Ålands statistik- och utredningsbyrå

Annex 1: Expert interviews

Interview guide: Representatives of the Nordic Thematic Groups for Regional Development and Planning 2021-2024

1. Which ministries / policy sectors are responding to the remote work trend? Is a specific ministry or government body taking a leading role?
2. What is the overall sentiment towards increased remote working in the public and private sector post-covid? (e.g., high priority supported with resources and strategies, supportive but no specific policies/resources)
3. How is the public sector responding to the trend of increased remote working?
 - a. What opportunities do they see? (e.g., rural development benefits, more balanced regional development, ease pressure on urban infrastructure, improve workers wellbeing/work-life balance, increase productivity)
 - b. What challenges do they anticipate and how might these be addressed?
4. What are the legal and administrative barriers to increased remote working in the long term? How are these being addressed? (e.g., insurance, taxation, working environment regulations)
5. What urban development considerations are raised? (e.g., changes to city structure, implications for land-use planning in inner and outer urban areas, implications for transport planning, implications for green space planning)
6. What rural development considerations are raised? (e.g., combatting negative population development trends, increased pressure on service provision, spill-over effects of increased use of second homes)
7. What regional development considerations are raised? (e.g., changes to mobility patterns, implications for infrastructure expenditure (physical and digital), regional skills supply/demand)
8. Are there any relevant publications that we should check out?

Interview guide: National level public sector officials

1. What has been the situation with respect to remote work during the pandemic? How many are working from home? Dominant sectors? Demographic considerations?
2. How did remote work feature in regional development policy pre-covid?
3. Which ministries / policy sectors are responding to the remote work trend? Is a specific ministry or government body taking a leading role?
4. What is the overall sentiment towards increased remote working in the public and private sector post-covid? (e.g., high priority supported with resources and strategies, supportive but no specific policies/resources)
5. How is the public sector (national level) responding to the trend of increased remote working?
 - a. What opportunities do they see? (e.g., rural development benefits, more balanced regional development, ease pressure on urban infrastructure, improve workers wellbeing/work-life balance, increase productivity)
 - b. What challenges do they anticipate and how might these be addressed?
6. What are the legal and administrative barriers to increased remote working in the long term? How are these being addressed? (e.g., insurance, taxation, working environment regulations)
7. How (if at all) is the public sector changing its own structure / ways of working to promote remote working?
8. What support / incentives / direction is being provided to businesses to support increased remote working?

9. What support / incentives / direction is being provided to local and regional actors to respond to changes in mobility and settlement patterns?
10. What actions are being taken (at the national level) to support cross-regional or inter-municipal collaboration?

Interview guide: Trade union and business associations

1. What has been the situation with respect to remote work during the pandemic? How many are working from home? Dominant sectors? Demographic considerations?
2. What are companies saying about the future of work post-covid?
 - a. What types of remote-working policies / agreements do you anticipate post-covid (e.g., freedom to work from home 1-3 days per week; companies with no physical office at all)?
 - b. Which types of remote-working agreements are likely to be the most common and why?
 - c. Have you noticed particular trends in different sectors?
 - d. What role does company size play?
3. What are Nordic workers saying about the future of work post-covid? Have you conducted or are you aware of any studies we could access?
4. What equality concerns are raised? (e.g., marginalisation of those who cannot work from home)
5. What are the main considerations / opportunities / challenges associated with increased remote work? What types of actions are being considered in response?
 - a. For workers? e.g. wellbeing, work / life balance
 - b. For companies? e.g. online management/leadership, managing hybrid work models, preserving / creating company culture

About this Report

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