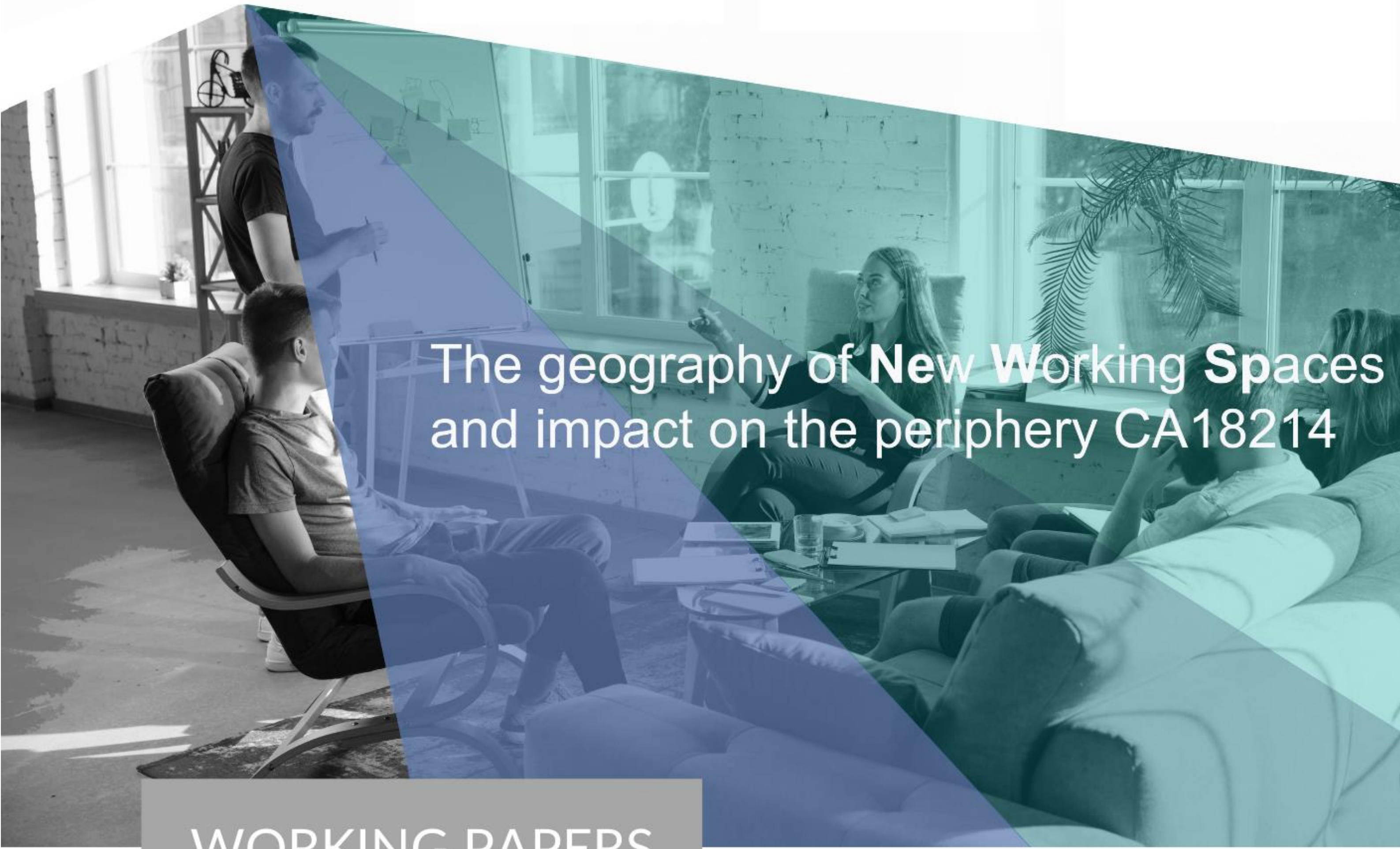

WORKING PAPERS

April 2022

Exploring effects of the Covid-19 Pandemic on New Working Spaces: Worldwide narratives by the academia and media

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COST ACTION – CA18214
The Geography of New Working Spaces and the Impact on the Periphery

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ABSTRACT

Within the framework of the COST Action CA18214 The Geography of New Working Spaces and the Impact on the Periphery, this working paper is the first attempt of the Working Group 2 to offer a joint multi-authored publication from 17 countries involved in the project. The basic idea for this paper stems from the fact that the Covid-19 pandemic hit dramatically the already transforming 'world of work', including working hours and spaces. Therefore, this working paper has attempted to shed light on the immediate effects of this ongoing pandemic on new working spaces, such as coworking spaces.

Cost members contributed to this publication by delivering a short piece about their country's situation (based on primary research or from the media) during the end of 2020 and the beginning of 2021. The core aim is to present and discuss a cross-country collection of narratives considering aspects such as the current functionality of the spaces, new layouts, activities, events, and services provided, as well as national and local measures taken by the governments (at the different level), and current research. The discussion provided in this paper will help structure research frameworks for future empirical studies on new working spaces and their effects on individuals and the environment.

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Introduction

The Covid-19 Pandemic, officially declared by the World Health Organisation (WHO) in March 2020, has dramatically restructured our ways of working. Due to several phases of lockdowns, curfews and safety rules, many employees were forced to work from home. Although the phenomenon of remote working[1] is not new, it is evident that this pandemic has given a sharp rise to the number of people working at home. In 2020, around 40% of EU workers began full-time teleworking during the first months of the pandemic (Ahrendt et al., 2020); about 25% of employment in teleworkable sectors in the EU.

The immediate impact of the Covid-19 pandemic in countries that have imposed lockdowns or severe restrictions seems to be relatively similar. Outcomes of a survey by Coworker.com[2] conducted in mid-March 2020 ("How Coworking Spaces are Navigating COVID-19" - 14,000 CSs in 172 countries worldwide) show that 71.67% of coworking spaces (hereinafter CSs) have witnessed a significant drop in the number of their coworkers since the outbreak. More specifically, managers of these CSs have revealed: 71% event cancellations, about 66% meeting/ conference room cancellations, 34.7% membership cancellations, 24.2% changing members' behaviours, 20.2% space closure and 8.7 % sick members.

This working paper is a collective work by some of the scholars involved in the European COST Action project: 'CA18214 - The Geography of New Working Spaces and the Impact on the Periphery'. We collected the pieces between November 2020 and February 2021. The aim is to present and discuss a cross-country collection of narratives considering the effects and impacts of the Covid-19 pandemic on new working spaces. For instance, addressing current functions, new layouts, activities, events, and services provided. It focuses on what has been published in newspapers, blogs, and other social media, as well as national and local measures taken by the governments (at the different levels) and current research.

[1] Remote working is an umbrella term that includes other flexible ways of working, such as teleworking, smart and agile working, and working from home/ home office (ILO, 2020).
[2] https://www.coworker.com/mag/survey-how-coworking-spaces-are-navigating-covid-19

NARRATIONS OF THE COUNTRIES IN NORTHERN AND WESTERN EUROPE (ESTONIA, FRANCE, GERMANY, IRELAND, NORWAY, NETHERLANDS, SWITZERLAND)

Estonia

As recently pointed out by the World Economic Forum, the Estonian economy could better handle the current Covid-crisis situation in Spring 2020, thanks to its digital and technological advanced society (Silaškova & Takahashi, 2020). The capital, Tallinn, is known to be "*one of the world's best places for working remotely*" (Haynes, 2020); more than 2700 e-services are currently at the customers' disposal. Furthermore, Estonian culture seems to be prone to remote working. Finally, the Estonian territory permits the citizens to reside in different cities for a short period, which partially diminishes the necessity for creating CSs in rural areas. However, in the current pandemic, Estonia's experienced the following processes that have affected the future of CSs in other directions:

i. Local migration from urban to rural areas: due to remote working and increasing risks of staying in the crowded city area, many Estonian people moved to their second homes (summer houses, parents, and other relatives' houses) in the periphery. See: Mobile phone data analysis from Positium report (Tammaru, 2020) - available in Estonian only.

ii. A high degree of digitalization in everyday life and extensive Internet coverage allowed smooth transmission from offices to online and remote work.

iii. Relatively small territory and sound transportation systems allow employed people to return to former offices and workplaces whenever needed for physical presence.

These three points build the framework towards the transformation of new working spaces. Due to the high degree of digitalisation, we observed the speed growth of remote platforms in Estonia. Some local IT companies provided free access platforms, for example, for school education, meetings, etc. People were obliged to stay at home with only minor exceptions; CSs were closed only at the beginning of the pandemic. Gradually easing restrictions (wearing masks, utilisation of disinfectors, and no strict distance-keeping rules), CSs were opened in June 2020 (and now they are open for all users). However, still, people are used to remote working, and some stayed with remote platforms, while others- moved to CSs.

Unfortunately, there is a lack of official statistics on using remote platforms and the number of people who returned to CSs instead of remote online platforms during this period. However, we might assume that not many users of CSs came back. Based on mobile phone data, movements under virus restrictions decreased and were localised to the closest areas to the home location from 27 to 17 kilometres (Mobility Analysis for Estonia, 2020). Hence, we might assume that people do not commute to work or use CSs and prefer to stay at home offices. Nevertheless, CSs are valuable alternatives as working spaces during the present crisis, and they can allow a safe environment for workers as a substitute for persistent isolated remote work (Garret et al., 2017).

The number of CSs is limited in Estonia. However, other endogenous needs could increase the presence of such new working spaces, especially in rural areas. We might assume that rather active regional mobility of Estonian people gave path to rural coworking to emerge due to i) increasing demand for working spaces in the periphery, ii) relatively cheap land prices in non-metropolitan areas, iii) some cultural traditions to be closely related to rural life even working in cities, including double rural-urban life. Many Estonian families own country-side houses or other living places in rural areas and move there for weekends or larger holidays, escaping from big city life.

There are several discussions on the possibility of developing regional policy measures related to creating new CSs, especially in rural areas (Arenguseire Keskus, 2019, p.46). This policy is twofold. Firstly, subsidising the creation of CSs in rural areas will allow further regional development as employed people remain in peripheral municipalities. Secondly, new CSs may provide opportunities for a demographic mix of majority (Estonian-speakers) and minority (Russian-speakers) populations. Many Russian speakers (mainly Russians, but also Ukrainians, Belorussians) moved to Estonian territory for study, family, or work reasons during the USSR period. They remained there after the USSR collapsed, forming a minority population of Estonia nowadays. Their social and work interactions with the majority population are limited, especially in rural areas where residential segregation levels are higher than capital (Magi, 2018 - Ethnic residential segregation and integration). The emergence of CSs over Estonia, especially in rural areas, aims to combine several ethnic groups.

France

Several factors have severely affected the functioning of CSs, both in large urban centres and on the outskirts: a succession of lockdowns (a first strict one in France in the spring of 2020, then a second shorter one in the fall, the threat of lockdown following the example of other European countries during winter season); physical distance restrictions and other barrier measures; curfews forcing closure earlier in the evening (18:00 or 20:00) and finally the classification of these new working spaces entitled to receive the public incentives as "non-essential economic activities" according to the decrees that obliged them to leave them partially closed.

Remote workers are mainly service sector employees, administrative and business executives. Some of them had already taken up teleworking before the crisis, while their numbers drastically increased with the pandemic. These e-workers are from many sectors: digital, design, communication, etc. Additional categories have emerged, including teachers, researchers, and students. The pandemic and its negative consequences have widely revealed the interest of French home-based workers in small and medium-sized cities to improve their quality of life and living environment.

CSs are plural, multifunctional, and well-located third spaces for work, which are more likely to survive than conventional office spaces with no distinctive advantages (architecture, design, high-end services). The Covid-19 crisis raised the importance of the community in many ways: social (mutual aid, non-profit organisations), economic (the ecosystem of start-ups, innovation) and environmental (ecological transition). That appeared as a resilience factor of ECWs in the periphery.

We hypothesise that the recurrent periods of telework over the past year (more than the previous crisis like the Yellow Jackets movements and recurrent rails strikes) have contributed to demonstrating the importance of CSs as a territorial object at the meeting of several demands. That of remote workers and evolution of work modes, of course, and other concomitant needs - which have become almost imperative - of contemporary society: recognition between peers, mixed places vs dedicated places or new solidarities between generations and individuals. The future directions of coworking will influence the evolution of the global trend in the number of coworkers and will therefore affect the survival, extension, or disappearance of the ECW phenomenon.

Germany

Like many European countries, Germany imposed a national lockdown from mid-March 2020. Shops - except for daily needs - and schools have been closed. Personal contacts have been restricted; borders were also closed. Employees were encouraged to work from home, and employers were asked to allow remote work. Starting from April 2020, the restrictions were released depending on the regional number of infected people.

During the first lockdown, the traffic intensity dropped. Car traffic on highways declined up to 50% around Eastern (Strick, 2020) and city traffic (VIZ Verkehrsinformationszentrale Berlin, 2020). The government called people to avoid travelling: rail traffic also drops by 85% in long-distance connections and 65% in regional connections (tagesschau.de, 2020) compared to the pre-pandemic numbers. Passenger air traffic drops by 97 % (Hagen et al., 2020). Public transport falls to 37% in the number of passengers related to March 2019 in Frankfurt (Hagen u. a. 2020).

The Covid19 crisis gave a boost to remote working. When people were called to work from home as much as possible, and employers were forced to enable that, the number of people who worked from home increased rapidly (Alipour et al., 2020). Many people preferred to continue remote working even after the restrictions were lifted (Alipouret al., 2020).

Restrictions have hit the coworking sector hard at first, as meetings were cancelled, and tenants stayed away. But only for a short period. Applying rules for keeping distance and hygiene in the working space, the tenants gradually returned (Foertsch, 2020). The massive gap between the contract duration of coworking operators and their tenants was seen as a high risk for the sector (Wiktorin et al., 2020). But during the lockdown, a new client group discovered opportunities in CSs. Those people who get anxious by parallel working-from-home and household duties (including schooling) evaded to CSs. On this matter, many authors predict a boom for CSs after the pandemic crises (Klös, 2020; Rathenow, 2020; Consbruch, 2020).

Major cities in Germany were already suffering under rapidly increasing rents (Statistisches Bundesamt, 2019; Statista, 2016) and real estate prices for years (Statista, 2021) due to the financial market and the swarm city-effect (Simons & Weiden, 2016). When it was realised how far-reaching teleworking was possible, the first forecasts were made for the housing (Cischinsky et al., 2020) and office market (Voigtländer, 2020). Some authors detect a trend toward *rurality* (Dähner et al., 2019) even before the corona crisis, and their numbers increased during the last year (Hebenstreit, 2020). Although rural dwellings are generally larger than urban dwellings, there is a growing demand for rural work opportunities outside the home, further intensified by the increasing number of remote workers due to the corona crises. Since 2019, CoworkLand[3] has been committed to spreading CSs in rural areas,

[3] https://coworkland.de/de

initially only in northern Germany but now all over the country. The concept of the commuter port is fascinating here. This creates a ring of CSs around a metropolis and relieves commuter traffic (Bähr et al., 2020).

The Republic of Ireland

The Republic of Ireland (the southern counties of the island of Ireland) was put into lockdown in March 2020. There was a slight relaxation of the restrictions initially posed between July and August. Still, the rising numbers of Covid cases forced the government to insist on a second strict lockdown on 25th September 2020 to last for six weeks. The conditions of this strict lockdown ('Level 5') mean only essential services are open and that all employees 'work from home where possible'.

The restrictions have no doubt had a huge impact on employees who were relying on CSs on a daily basis; before the pandemic hit, "the concept of coworking had been enjoying somewhat of a boom in Ireland" (Maguire, 2020). While that may have suffered an initial setback, there seems to be a renewed opportunity for many of the CSs, both in and outside of cities, to benefit from a new demographic of a workforce now pushed out of their offices into their homes by Covid-19 restrictions. Indeed, "80% of us now favour a hybrid model, working remotely for a portion of the week and on-site for the rest" (Coleman et al., 2020). In a positive move, Coleman, Jennings and Hennigan (2020) report that the Irish government has responded quickly and opened up funding for existing CS, such as digital hubs, to support small businesses impacted by the pandemic. It appears CSs are responding with agility to the challenges. For example, The Iconic Offices (in four locations across Dublin) indicate that they have redesigned the environment to be Covid-compliant with the addition of "the Iconic Plexi-Pod" - desks which are separated by plexiglass. Similarly, The Republic of Work in Cork states they have adapted their layout to include a one-way system, sanitising stations, and a bespoke contact tracing app.

Indeed, many businesses seem to indicate an uptick in interest in CSs as more people have been driven to work from home. WestWorks coworking space in Galway states on their website: "If working at your kitchen table surrounded by all the snacks, laundry, noise, children and dog is getting to you, get in touch and join our supportive and friendly workspace!!" According to Coleman, Jennings & Hennigan (2020), "Hubs can also negate the potential negative impacts of the 100% work-from-home model for remote working." They advocate that a coworking model is a potentially meaningful one for Irish people to embrace as the future of their workplace changes due to Covid-19.

Norway

During the Covid-19 pandemic, Norwegians have been forced to change their daily work-life due to the national and local governments' new regulations and employers. Under the first lockdown, offices, CSs, libraries and coffee shops were closed. There were also several limitations to using public transport. At that time, the only available space for work was the first home. However, it was not always possible to have an additional room for home-office, considering other issues such as lack of concentration, isolation, stress, insomnia, interfering with household duties (childcare and home-schooling), lack of comfortable furniture for working, etc. Also, there was the desire to change spaces (e.g., libraries and coffee shops) (see webinar with Jørn Haanæs-Oslo Business region on FB). At the end of April 2020 (beginning of May), the Norwegian government allowed people to move to the second home, from the cities to the countryside. Libraries and CSs reopened later on with limitations of the number of people in their spaces and strict sanitation standards to follow.

Despite the lockdown, some incubators and accelerators quickly turned into digital spaces (e.g. three prominent ones are START UP LAB, KATAPULT and FACTORY in Oslo). Several sectors transformed into digital working practices in a short time. Others kept going as usual (since they were already digitalised), while other new working spaces suffered due to the lack of income from the rent of the spaces (see webinar with Jørn Haanæs-Oslo Business region). During the first lockdown, in April 2020, 55.8% worked in home offices, but in June, they were around 38.7 % (TØI, 2020). The survey of TØI institute covered a sample of about 1000 participants. 61% of those who still work at home say that the employer still imposes or recommends a home office. Other reasons for still having a home office are saving commuting time (63%) and avoiding the risk of infection by using public transport. This survey is supplemented by the Norwegian statistics, which have recently reported a decrease in job travel in the country. Norwegians also find everyday life less busy as they shift to the home office (40%) (TØI, 2020). However, many have stated that they have missed the social interactions in the work environment (63 %). But the survey has mainly focused on analysing the advantages and disadvantages of working from home and office, while other new working spaces have not been considered.

Today, we are approaching the second lockdown in Oslo and other municipalities, which has affected the daily work life of Norwegians. People cannot commute from one municipality to another for work purposes (unless the physical presence is inevitable). The government has recommended people to stay at home and avoid social interactions (Norwegian government, 2020). So far, the digitalized working practices and services provided by CSs, offices and public libraries have supported the coworkers with local variations. However, new surveys and interviews should be conducted to give a clearer picture.

The Netherlands

The Netherlands was hurt similarly to most other Northwest European countries in the first wave of the pandemic: an initial peak in March 2020 led to a lockdown of public life, with all schools closed and everyone working from home as much as possible. In May and June, measures were gradually released. Although commuting was still officially discouraged, public and private transport use rose gradually, with road traffic intensity regaining its usual intensity by week 30 (late July; Centraal Bureau voor de Statistiek, 2020). The second wave hit the country starting in late September, leading to a smaller lockdown, with schools and shops staying open but restaurants closed. Public transport was slightly reduced in late October 2020.

New working spaces had remained outside the public eye, closing down during the first wave without particular attention in the press and not gaining particular attention when measures were gradually released in the late spring and summer. Non-profit "third spaces", such as coffee shops and libraries, were probably used more as replacement offices in the denser cities, where housing space is more restricted. Still, there is no data available to investigate this hypothesis. The official regulations emphasise that working from home should be the norm (Ministry of Social Affairs and Employment).

However, we should note that the Netherlands has always been the leader in remote working (Bishop, 2020), but not in CSs. These have mainly been of interest to self-employed, for whom the pandemic was also an advantage: "the normalisation of the virtual office has made it easy for freelancers and small business start-ups to operate without the need for dedicated office space" (Bishop, 2020).

CSs suffered from a drastic reduction in the rental of meeting rooms; on the bright side, regular employees increasingly find a place at coworking sites (de Man, 2020). Not long after the start of the pandemic, the first sounds were heard of increased appreciation of the lower densities the countryside has to offer - both as a short-run effect of avoiding the now dangerous density of the city and because of a renewed appreciation of space, particularly garden spaces (Eerenbeemt, 2020; RTL nieuws, 2020; Voermans, 2020), while prices in the core cities remain high. Such a development is in line with international developments (Michael, 2020). It remains to be seen what this means for population growth in the periphery, which in the Netherlands already is densely populated compared to most of Europe.

Rather than a general dislike of urban living, a simple expansion of telecommuting options might also spread welfare more evenly and give peripheral regions a much-needed boost (Werkhoven, 2020; Straus & Felix, 2020). In combination with developments in the organisation of offices, where large central offices may be on the way out, this may mean an increased interest in regional hub offices, which could take the form of shared CSs.

Switzerland

In Switzerland, CS emerged in 2007 (Thao, at al., 2019). At the beginning of the 2010s, there were 25 CS throughout Switzerland. By 2018, the number had already risen to 155, serving a total of 10,000 coworkers (Coworking Switzerland and Deskmag, 2018). In recent years, moreover, there has been a noticeable trend towards creating CS not only in urban but also in rural areas, such as tourism-related mountain regions of Switzerland. Since 2019, many CSs are founded in these regions, supported by government initiatives (Thao et al., 2019). At present, about fifty of more than two hundred CSs in Switzerland are located in rural areas (Z'Rotz & Ohnmacht, 2020). Recent research results indicate that CSs, especially in urban areas, can support Switzerland's commitment to reduce greenhouse gas (GHG) emissions in the transport sector in line with the Paris Climate Agreement (Ohnmacht et al., 2020a, 2020b).

In general, the structural changes in Switzerland in the economy towards a service economy can be seen as an opportunity to adopt teleworking arrangements. "White-collar workers", meaning employees who do professional, desk, managerial, or administrative work, mainly belong to the tertiary sector, which accounted for two-thirds of all Swiss employees in 2019, indicating the great potential for teleworking (SFOS, 2020). According to the latest figures from the Swiss Federal Office for Statistics (SFOS), working from home more than quadrupled between 2001 and 2018, rising from 250,000 to over one million employees and self-employed persons, or roughly a quarter of all Swiss employees. The number of people spending 50% or more of their working time working from home increased from around 30,000 in 2001 to 138,000 in 2019 (SFOS, 2019).

One factor affecting the remote working dynamic worldwide since the spring of 2020 is the coronavirus pandemic, which is not only a medical but also a social, economic and political challenge. This pandemic has temporarily shut down the entire economy and mobility during the first wave. According to a research project by ETH Zurich on the mobility behaviour in Switzerland during the pandemic, the mobility of the Swiss population dropped drastically in the first weeks of the lockdown. Public transport was almost completely avoided. In the meantime, public transport use has increased again, but it is still 40 to 60% below the numbers compared to 2019 (Molloy et al., 2021). The lockdown, implemented in many countries, including Switzerland, led to the closure of many working places, and thus a high proportion of employees moved to the home office (Kylili et al., 2020).

During the lockdown in spring 2020, the Swiss Competence Centre for Social Sciences (FORS) carried out a survey (Swiss Household Panel) to assess the living conditions of the Swiss population. Concerning educational attainment, the study found that people with higher educational status are more likely to work from home. In contrast, those with lower qualifications are more likely to face job insecurity, or short-time work (Refle et al., 2020). MOSAiCH (Measurement and Observation of Social Attitudes in Switzerland) is an annual social science survey by FORS that deals with the topics of well-being, work, compatibility of family and career, as well as politics. The respondents are interviewed at different points in time to measure the effects of Covid-19 in the longer term. According to the study, the work situation has changed during the lockdown for most of the respondents (83%), such as additional or less work, short-time work, job loss, or relocation to the home office. As a result of the Corona crisis, 21% of the respondents worked fewer hours per week than before, while 17% worked more hours. There is also an apparent increase in the number of people working from home. 26% of the respondents work entirely from home and 15% partially due to the corona pandemic. In addition, 14% of all employed persons were affected by short-time working during the lockdown. Regarding the financial situation, it appears that about three-quarters of the respondents are satisfied with their work and financial situation. Two-thirds of the employed respondents expect their employees to be the same in the next three months as before the lockdown (Ehrler, et al., 2020).

Moreover, there is an indication that the domain of “worcation” will increase. Owners use their second homes in Ski resorts more often during the pandemic, which leads to tourism destinations thinking more and more about the implementation of CSs to provide a third place for work. The occupancy rate, for example, in the Ski region of Engelberg has climbed from 10% to over 30%. This increased use is influenced by the obligation to work in the home office during the pandemic. The possibility of performing home-office is considered to increase the occupancy rate of second homes ("Worcation"). The implementation of coworking facilities can be seen as flanking measures to increase the attraction to work in remote destinations.

So, what are the immediate and the medium-term effects on CSs? CSs have experienced substantial growth in recent years (Mazareanu, 2019) but had to close due to the lockdown. The business models with regard to the financial situation, especially for CS in rural areas, were in danger. In the immediate term, it is supposed that a relevant number of CS will disappear. But due to the higher flexibility of work regarding time and space accelerated by the Corona pandemic, it is assumed the number of CSs will rise in the meantime after the pandemic situation is overcome. Collaborative and creative forms of working now face the challenge of reorganising themselves. In the immediate, it is therefore assumed that the corona crisis will cause some CSs to disappear again, as they are suffering excessive losses. In the medium-term, however, CSs are expected to resume their growth. Due to this pandemic, many employees had to work from home. Consequently, digitalisation has been pushed forward significantly (Kanda & Kivimaa, 2020). This development contributes to the fact that in the future, more employees will have the technical possibilities to work flexibly from other locations than their working places, so there is great potential for CSs to rise again. Covid-19 thus does bring not only challenges but also the opportunity to support environmental change (Kylili et al., 2020). Virtual travel, the replacement of business trips and conference tourism by video conferencing, and remote working are considered coping strategies that will continue to affect and be sustainable in the long term even after the crisis has passed.

NARRATIONS OF THE COUNTRIES IN EASTERN AND SOUTHERN EUROPE (CZECH REPUBLIC, GREECE, ITALY, MALTA, PORTUGAL, REPUBLIC OF NORTH MACEDONIA, ROMANIA, SLOVAKIA)

Czech Republic

CSs have grown in numbers in the Czech Republic, especially in the most populous cities (Holajová, 2020; Mayerhoffer, 2020) and began to emerge also in the mid-sized cities promoted by enthusiasts, real estate owners, non-profits and educational institutions alike. The types of new working spaces included chains and corporate CSs, university and public sector established CSs, a community established CSs with a frequent emphasis on childcare, and small informal CSs established by enthusiasts in cafés and the like.

The Covid-19 pandemic has strongly influenced their daily operations. It is necessary to emphasise that the Czech Republic has gone through two vastly different waves of this pandemic so far. The first one (March-May 2020) was characterised by negative expectations, early adoption of protective measures, and a high level of complicity with governmental regulations by the general public (Widimsky et al., 2020). As the negative expectation and predictions went unconfirmed, the country eased into a period of optimism and disregard for the severity of the consequences of the pandemic health-wise, if not economic-wise, which lasted through summer into early September 2020. This was reflected in delaying regulations that would prevent the spread of Covid-19 during the second wave, which hit the Czech Republic in full force, rendering the country one of the most severely affected in Europe during October 2020 (Cameron, 2020; Looi, 2020). The ongoing second wave is characterised by the accelerated spread of Covid-19 with great strain on the healthcare sector, slower adoption of regulations on the central government and a decidedly lower level of complicity in public, including decreased trust in the government. The effects of the Covid-19 pandemic on coworking in its first phase were mainly as follows:

i. Temporary closing of premises on account of the governmental regulations.

ii. Readjustments - allowing coworkers to use closed offices regardless of the type of membership; decrease in the number of available seats to maintain appropriate distance; providing coworkers with hygiene products (CBRE, 2020).

iii. Cancellation of in-person events (Novák, 2020a) and partial shift to the online environment.

iv. Coworkers' return to their home offices due to their health concerns (Novák, 2020a). In most cases, the withdrawal was partial, and coworkers merely limited their activities, in some cases, the coworkers withdrew temporarily.

v. Redundancies in coworking managerial positions and limitation of new activities in terms of opening new spaces (Brejčák, 2020)

During the first wave, which was relatively mild in the Czech Republic, the coworking operators were mainly optimistic about the future outlooks, expected and experienced an increase in demand for the provided services (Tomanka, 2020). In between the two waves, these expectations seemed valid as companies, influenced by previous events, rethinking the need for office spaces, preferring more temporary arrangements for the workers and combining office spaces, CSs, and home offices. This led to increased interest in coworking, where the regular full-time offices emerged as a less economical option (Němec, 2020; Novák, 2020b).

The effects of the second wave are harder to describe and predict as it is still ongoing. Nevertheless, the demand for newly built permanent office spaces is low (Kubátová, 2020), and alternative arrangements will be necessary to mitigate its impact on developers. Pre-pandemic, the coworkers in the Czech Republic recorded a relatively low average age, which might aid in an early return to coworking spaces for the numerous young workers (Appel-Meulenbroek et al., 2021) somewhat less endangered by the Covid-19.

Greece

The most common typology of new working spaces in Greece is CSs and Maker Spaces - including Fab Labs. During the March-April-May period, the Covid-19 pandemic significantly changed working practices and new working places in Greece. The Greek Government set strict rules, so if someone could work online, he/she should not go to the office. At the same time, sectors such as construction, law and financial activities were limited to the minimum required needs. The lockdown that took place in March 2020 imposed companies and organizations to conduct their activities remotely. As CSs are based on the social interaction of their members, many of them recommended their members to work from home as much as possible. In this framework, new ways of co-communication were developed as Virtual Coworking

(VC) sessions, which allowed the participants to work together online and keep the human interaction alive.

What is impressive is an initiative by the Cultural Center of Chania city that worked in an opposite direction. As the city has two Universities and many students lost the interaction needed for their work (team projects), it adjusted its spaces under the existing pandemic restrictions and invited students to co-work there. Still, this effort was not entirely successful as many students faced this new concept with scepticism regarding the safety measures.

Italy

In Italy, Milan records the highest number of CSs. The emerging landscape shows a combination of transnational corporations and networks landed in the city; national-level actors expanding their presence with multiple buildings and medium-sized independent businesses and small coworking spaces integrated as concurrent or accessories to other economic activities. In Milan, the Covid19 pandemic has impacted this sector, especially CSs, continuously growing, forcing it to undergo an economic slowdown and restructuring process. In this piece, we present some of the preliminary findings of the study funded by the Municipality of Milan within the '*Milano Collabora*' project ('Milan collaborates' in English). In October 2020, 50 semi-structured in-depth interviews were conducted with CSs' managers in Milan, gathering data on the management of this phase and the impact of the first lockdown on their spaces.

Among the coworking managers, there is a shared optimism towards the future of CSs in general. The pandemics brought blended work to the centre of the public debate and in the daily experience of many different workers. Coworking managers believe that this phenomenon will favour a paradigmatic shift in the organisation of work towards a model that will increasingly encourage using CSs by individuals, teams, and entire businesses. However, they also commonly mention the struggle for survival in the present state of great difficulty caused by the first lockdown, which brought a general loss of revenues and customers. They also mention great uncertainty about the future that hinders workers' return to the CSs and the possibility of planning recovery strategies. Besides, they are preoccupied with confronting the economic consequences of other lockdowns. Overall, the managers believe that the current scenario of Milanese CSs is undergoing significant socio-economic transformations. According to them, the spaces that will prove to be resilient in this phase will benefit from future opportunities.

New trends were observed across the interviews, such as the appearance of a new type of customer that has not been attracted by CSs: the employee. On the one hand, the crisis caused the resignation of the lease by many freelancers. On the other hand, the mass of employees forced to work remotely partially chose CSs as a safe and professional workplace. In these places, employees searched for concentration on work without distractions from home. This phenomenon results in different strategies and ways of using the working space. Some employees rented a desk in the CS autonomously and at their own expense. Other employees rented a desk and asked for a refund from the company, arguing that they work more productively in a professional environment such as coworking. Some employees directly approached the CS supported by the firm.

Furthermore, they do not seek the traditional lengthy period of a lease, but they ask for a carnet or flexible solutions to visit the working space. This situation encourages CSs to activate more flexible offers and plans. On the other side, some coworking managers mention the difficulty in managing daily or short-term desks during a pandemic and the risks associated with it. These managers tend to consider these solutions temporary and continue looking for long-term leases as the main objective of relaunching the coworking activity.

Besides, a pre-existing trend accelerated during the pandemic. Some firms have moved into a CS by renting a cubicle or an open space. Usually, they either decide to move their entire headquarters or part of their workforce. In the first case, they aim to lower the costs associated with autonomous offices maintaining at the same time a professional environment. In the second case, they usually seek an affordable temporary solution for employees far from the headquarters or who want to search for concentration. In the coworking space, they tend to adopt a shifting of the employees. Furthermore, a trend reversal is occurring amongst the firm profiles. Before the pandemic, young startups were typically using CSs, looking for a temporary arrangement before scaling up. During the pandemic, it seems that already established companies tend to choose a CS to optimise and reduce fixed expenses.

Another significant finding from the interviews is the growing bonds between the CS and the neighbourhood, especially for spaces outside the city centre. Both neighbourhood and working space nourish this bond. On the one hand, many coworking managers mention the growth of coworkers from nearby compared to the pre-pandemic period. On the other side, they expressed their willingness to create or strengthen networks with other entities belonging to the same district and become an active local actor and a reference point for the neighbourhood. Notably, one coworking manager who has been holding numerous buildings in several areas of the City of Milan reported that the semi-peripheral areas have suddenly become more attractive and vital than the central areas. Other coworking managers say that they perceive a change in the way coworkers assess a space: they have used a criterion of geographical proximity (e.g., in close distance to home) rather than professional proximity with their coworkers.

In general, due to the smart working and the feeling unsafe on public transport, workers seem to rethink the daily commute and consider working closer to home. Simultaneously, by looking at the flow of customers around the neighbourhoods, many coworking managers are undertaking a more active role at the local level, fostering the potential multiplication of a 'neighbourhood coworking' model. The municipality of Milan is supporting these initiatives that are contributing to the realisation of a '15 minutes city', intending to make essential services always reachable for residents in 15 minutes by foot or bike. This initiative has been embedded in the strategic plan to face the current pandemics. To this end, co-design sessions within the CSs are promoted. This way, CSs are becoming, even more, an integral part of the strategic plan of the municipality of Milan to overcome the challenges posed by the pandemics, building a more sustainable city.

Malta

The formal CSs started establishing themselves in Malta only in recent years. The establishment of such new working spaces might have started in 2014 since foreign workers were attracted to the diversified quaternary industry established in Malta, including gaming industries and other types of employment that involve technology (Grech, 2016). Even though there are no available official statistics yet, coworking spaces for the economically active cohorts are gaining momentum. Such spaces have not been utilised by the established industries or companies in Malta but primarily by freelancers, foreign businesspeople and self-employed persons. The Valletta Design Cluster Project recently inaugurated the Old Abattoir renovation, including CSs and Makerspaces (Valletta Cultural Agency, 2021).

The present (2021) official number of CSs amounts to 20 office locations. The website Coworker.com[4] lists and advertises several locations in Malta, namely, Valletta (the Capital City), Sliema, St Julian's and Mosta. Moreover, in 2015 Malta, through the European Architecture Students Assembly (EASA), had organised Fablabs for its students through the Malta Fablab Foundation – Fablab Malta[5]. Considering that this

[4] https://www.coworker.com/malta
[5] https://www.fablabs.io/organizations/fab-foundation-malta-fablab-malta

project was discontinued, the website[6] is inactive. Since Malta focuses its economy on the tertiary and quaternary industries, Fablabs are in their inception and limited in their number[7]. The informal CSs have been long established in Malta; however, the usage of such spaces is not being recorded. These informal types of coworking spaces include cafeterias and libraries. Malta boasts good internet access, public open spaces such as beaches and gardens in urban areas, and free WIFI. Nine out of 10 persons between 16 and 74 in 2019 have used the internet at home (NSO, 2020). During the soft lockdown resulting from the Covid-19 pandemic that took place between the 13th of March and early July 2020, Maltese employees in public and private sectors worked remotely, mostly from home. Some private companies and government entities still engage in this mode of work.

Gig workers, businesspeople and freelancers tend to work in such spaces, primarily those who work with IT companies or gaming companies. Students have long worked in these coworking spaces. Moreover, specifically because of the pandemic during test week in June 2020, the local council and religious communities provided spaces where students could do their exams in these quiet locations away from their possibly noisy households.

Covid-19 has contributed to the changes in the way events take place. Indeed, events, including working meetings, arts festivals, and cultural events (e.g., national book fair), are generally carried out remotely, online using networks such Zoom, Google Meet, Skype, and Microsoft Teams. When people started physically attending feasts and parties in July/August, the rate of contagion increased, and we are now suffering the repercussions of these activities.

Although the government and many private companies during the soft lockdown advised people to work from home during summertime and in early autumn with a very high spread of Covid19 cases, the government entities and several private employment sectors did not allow their employees to work remotely. This raises questions with regards to the employer's trust in his/her employees; the norms and ideas of employees and employers that work can mostly be done in a place of work and not remotely; and if the employer measures the right for a wage for the work done within the premises within specific working hours. Therefore, even with a pandemic, the idea of working remotely from other spaces is still limited within the Maltese employment culture. However, recently (April 2021), the government and other business entities have discussed the benefits of e-working/teleworking both for employees and employers because of the pandemic.

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[6] https://fablabmalta.org

[7] E.g. https://www.facebook.com/mattermakemalta/

Portugal

To mitigate the spread of the pandemic Covid-19, on March 18, 2020, the Portuguese Government approved a set of measures such as the general duty of confinement of the population, the closure of public spaces and schools and travel bans. It also declared the mandatory telework regime whenever the functions allowed it. Companies and workers had to adopt solutions to continue operating rapidly. About half of Portuguese companies during the second quarter of 2020 adopted a remote work regime, of which 90% were large companies and only a quarter were micro-enterprises (Manteu et al., 2020). Other changes in the organization of work have also been introduced, such as the introduction of rotating work scales and time-lagged working hours, which have had effects, for example, decreasing traffic intensity.

Until the beginning of the pandemic, telework in Portuguese companies was almost uncommon and used mainly by highly skilled and self-employed workers occasionally. But confinement measures and the shuttering of many workplaces and schools have increased the number of new teleworkers, especially in the service sector (notably in education, financial services, and public administration). Most of such work was carried out from home rather than any other location. This was a substantial special challenge for many families with children, with parents working from home and children in remote learning and having many internet access difficulties. Some people have decided to temporarily leave their homes and move to their second homes outside the large cities, also because the schools closed. Besides, hotels and local accommodations have adapted their offer to remote workers.

In the first lockdown, many CSs, between March and June 2020, closed or reduced the users' physical presence, so they had to improve their services online to continue to support their communities. Fab labs and Maker Spaces helped to provide visors and other support materials to the medical community. After that, they gradually opened again, following the Government and the Health Directorate General's guidelines, reducing their capacity, applying hygiene rules and social distancing, etc. Many CSs even experienced increased demand during the summer, especially from occasional users and digital nomads, but many regular users remained on digital platforms. The most significant difficulties pointed out by many are the replication of social gatherings, the implicit sharing of knowledge, access to capital and the restoration of supply chains and connections to local businesses affected by the crisis. In 2020, according to the Portuguese National Incubator Network, startups in virtual incubation grew by close to 40%, adapting to changes and focused on raising funding and internationalizing (RNI, 2021).

For now, the Government has approved the extension of the mandatory teleworking regime until the end of 2021 as long as it is compatible with the worker's functions. According to different studies published in the media, companies are already adjusting their plans to more work flexible forms. Companies and CSs with large office spaces in the central areas are rethinking investments to shrink or decentralize their physical location outside the central areas to places with great amenities. In general, we will probably see a more flexible use of "third spaces" as CSs and a combination of work from home, coworking, and cafes with presidential office work.

Republic of North Macedonia

The Republic of North Macedonia was hurt similarly to most other Western Balkans countries in the first wave of the pandemic in March 2020. First measures were undertaken at the beginning the March that led to a lockdown of public life, with many restrictions on public life (all schools and universities were closed, and everyone working from home as much as possible). Depending on the situation, the measures were relaxed or tightened, given that the number of positively infected people from Covid-19 was still high during spring 2020. North Macedonia mobilized whole-of-government and non-government institutions to fight the coronavirus, including scaling up emergency response mechanisms in all sectors. In addition, several important aspects of dealing with the pandemic in the Republic of North Macedonia will be presented:

Businesses are allowed to open, including shops in shopping malls, betting establishments, and grocery stores. They may operate with reduced working hours and limits are placed on the number of people entering shopping facilities at any time. Other businesses, including education and training centres for adults, as well as exam centres and driving schools, gyms and outdoor individual sports practices, have been allowed to resume work with social distancing and other measures in place. Group sports are prohibited. Health and safety protocols are in place on beaches, including wearing face coverings and social distancing and at swimming pools. Other measures include the cancellation of some cultural and sporting events, restrictions on gatherings in public areas and the closure of some schools and universities. To tackle the health, social and economic challenges of Covid-19, the Government adopted[8] a decision to freeze the price of basic products such as bread, salt, oil, milk and dairy products, eggs, flour, meat, pasta, medicines and disinfectant products at the level of the day when WHO declared the outbreak to be a pandemic (unless they have since been imported at higher prices). Tracking and reporting of price fluctuations are undertaken by the Market Inspectorate, with extraordinary control of warehouses and distribution centres to make sure there are no hidden stocks of basic products.

According to better economic measures, the Government[9] adopted a decision to abolish customs fees for critical products (wheat products, sunflower oil, sugar, sanitary products, masks, sanitary and medical uniforms etc.), as well as all customs fees for the import of protective medical equipment such as face masks, gloves, and disinfection products. They also introduced several new restrictions, such as an export ban of wheat and wheat flour to all countries for an indefinite period, the prohibition of companies from initiating procedures to go bankrupt during the crisis, and the issue of vouchers to travel agencies for arrangements that were cancelled because of Covid-19.

Romania

The work from home option generated by the measures aiming to alleviate the Covid-19 sanitary crisis – which envisages, among other things, depending on its severity, lockdown, or simply social distancing – has strongly impacted the CSs, requiring innovative solutions to make this organisational model survive and resume after the crisis end. Even if of a seasonal character, such a solution has been applied in several Romanian cities, Bucharest included. It refers to outdoor CSs placed within attractive modern markets (so-called “Mercato Comunale”): they bring together CSs, well-known food trucks, local producers, artisans, etc., also offering socialising opportunities and hosting cultural events while observing the social distancing rules. Such urban gardens result from investments in itinerant projects of a seasonal character, aiming to transform abandoned pieces of land in the inner city into lively places using temporary urban equipment. This formula contributes to preserving some of the most important advantages/effects of CSs, such as the support for meeting opportunities, collaboration, job satisfaction and, in a broader context,

[8] https://www.covid19healthsystem.org/countries/northmacedonia/livinghit.aspx?Section=6.%20Measures%20in%20other%20sectors&Type=Chapter

[9] https://vlada.mk/covid19_en?ln=en-gb

urban regeneration and revitalisation of open-air and retail activities in attractive locations.

Slovakia

CSs as the primary type of new working spaces in Slovakia grew dramatically just before the Covid-19 pandemic. According to Holienka et al. (2015), there were 24 active CSs operating in 11 Slovak cities in 2015, which differ from each other in size, focus, and legal form. This number has risen significantly to 55 coworking spaces operating in 24 Slovak cities at the end of 2019 (Rafaj, 2020). This means that every regional capital in Slovakia has a coworking space. Lately, they have also appeared in smaller towns (Francelová, 2018). The country ranked fifth in the ten best cities for freelancers in 2018 research (Slovak Spectator Staff, 2018). Low prices, fast internet, and low taxes were the reasons why freelancers often have picked Bratislava as their base. Since the year 2010, approximately two new coworking spaces have arisen every year. In 2019 there were 19 coworking spaces in Bratislava. In terms of typology, more than 26% of them are considered as general CSs, 21% are creative ones, and other CSs are technological, start-ups, etc. In terms of size, 26% of CSs are classified as mini (Belvončíková & Némethová, 2021).

Working practices before the pandemic were in favour of flexible working possibilities outside the office, especially in the millennial generation (aged 16-34 years old). Microsoft and Ipson Mori survey (Katarina, 2019) asked millennials in SMEs of 19 European countries about their most frequent places of remote work. 32 % of Slovak millennials work from home, in comparison to 27% of other European countries. Coworking spaces are used by 15% of Slovaks (17% of other Europeans); the other places for remote work are taken “on travel” and “in cafes”.

The coronavirus pandemic had similar consequences in Slovakia as in other countries around the world. The first and second pandemic waves also affected coworking services. Most people could not attend their usual places of work. A large group of people were reliant on the home office, which, of course, has its strengths and weaknesses. This is where the importance of coworking spaces comes in compliance with all security measures (Žákovič, 2021). The two waves have been entirely different. In the first wave, strong general measures were applied in March 2020. Even a week earlier, general restrictions were used in the capital city Bratislava since the first reported Covid-19 cases appeared here. There was a change of government after the parliamentary elections, so the new administration took over after one week of the outgoing decisions. The coronavirus pandemic negatively affected the performance of the Slovak economy. The economic and employment slump in the first quarter of 2020 ranks Slovakia among the most affected EU countries – GDP decline was more than 5%, similarly to Spain, Italy, and France (SBA, 2020). However, these countries had much worse epidemic situations than Slovakia. Entrepreneurs criticised the Slovak government, especially for the late adoption of measures to mitigate the economic effects of the pandemic. There was complete closure for six weeks and then another six weeks of the gradual reopening of business premises. The second ongoing wave meant full closure from December 20, 2020, for the Christmas holidays, and until now, the premises are closed again.

CSs in Slovakia, mainly in Bratislava:

i. Were closed entirely for 6 weeks, most of them without any activities. Later they firstly opened for their registered members in separate offices, mainly small independently run CSs; so, attendance dropped sharply (Spojenaba, 2020). Later they reopened spaces but adopted hygienic measures, reduced the number of persons per m2 and other governmental regulations. They also moved their activities to virtual space, but usually with limited activities (ongoing research on coworking in Bratislava). Some coworking spaces in the capital city have remained closed until February 2021. This has also been applied to large CSs and those organised in international chains.

ii. One new CSs in the shopping mall (the first in a shopping centre in the country) that started to operate at the end of February was closed until June. After reopening, coworkers have quite quickly found it and used it (Spojenaba, 2020).

iii. The real estate market has also changed. In Bratislava, about 20% of flats for tourists' rents came suddenly into the real estate market (NPC, 2020). Some percentages of these flats are offered as micro or larger coworking spaces (internet pages of real estate agencies, such as Corris, reality, bazar etc.) and are used by mainly microfirms of 3-5 people as health safe second place for work instead of a home office (revealed by an owner of small coworking space).

The future of CSs in Bratislava is in close connection with the change of habits regarding the place of work. According to some opinion (Žákovic, 2020), after a pandemic, new patterns come in terms of the place of work, presumably a combination of home office and office work. This reflects the ongoing development of Slovak CSs. Despite the closure of some CSs, some new ones have also arisen. Large CS as "The Spot" for 360 persons in new real estate development Sky Park could serve as an example. It has planned its opening, and its capacity is currently reserved at 93% (Obšitník, 2020).

NARRATIONS OF EXAMPLES OUTSIDE EUROPE (USA, LEBANON)

USA

One outcome of Covid-19 has been a dramatic shift in the location of work, from offices and factories to homes. Many workers appreciate the opportunity to work from home, yet there has long been resistance to the practice from employers concerned about monitoring employees and maintaining productivity.

When forced to allow the practice, both employers and workers have shown the strengths and weaknesses of such a system that will likely shape the future work environment. Recent surveys by Gensler show that working from home is famous for many. However, the balance between workplace and home varies on several factors, including age, type of work and personal preference.

If working from home becomes famous, what are the implications for land use and urban planning?

Lesson 1: Communications Infrastructure

One clear lesson from our recent experience is the essential role of communications and the internet to allow many dimensions of our lives to continue, including work, education, health care, and staying in touch with friends and family. Working and learning from home have become the norm. A planning priority must be to guarantee access to the networks and technology that will enable people to remain connected and productive.

Lesson 2: Location, location, location

Workplaces with fewer workers may redesign spaces as co-working areas and need less room so that, over time, commercial real estate may have softer demand. In contrast, working from home may spur renovations and encourage relocation as footloose workers seek to live in high amenity areas instead of convenience to the workplace.

Lesson 3: The daily commute

One of the appealing features of working from home is saving time and money from not commuting. Greater personal time and fewer transportation costs appeal to many workers and carry congestion savings and environmental benefits. WFH may also reduce the efficiency of public transit systems in major cities designed for high volume traffic, so it may require a rethinking of mobility strategies and priorities for many communities.

Lesson 4: Follow the tax dollars

Many cities rely on local sales taxes and income taxes to support services and infrastructure. Yet working from home may shift resources away from cities to surrounding areas that do not have such taxes. The cost advantage of working remotely could encourage relocation away from cities to areas with lower housing costs and taxes, leaving central cities with continuing high costs yet reduced revenue. The reverse may be that WFH demands residential communities to spend more to meet the full-time needs of residents, especially for infrastructure development and changes in education delivery.

Lesson 5: Not everyone benefits

Covid-19 is already recognized for its unequal impact, particularly hurting low income and minority residents and communities. Many essential tasks are performed by low-income workers who must interact with coworkers and the public, while information workers can benefit from WFH. Neighbourhoods with strong communications infrastructure have continued functioning during the lockdown, but communities and neighbourhoods on the wrong side of the digital divide face significant challenges around work and education that will create economic hardship and delay academic and personal development. Planners serve all residents and need to be mindful of the social justice implications of this seismic change in how we live and work.

Much will be asked of planners in the coming months and years as we are called on to work with communities to rethink how we want and can live under the changing work and health conditions. What is clear about the future is that planning matters.

Lebanon

The CSs in Lebanon are all located in the capital city Beirut, and they are all private. The impact of the Covid-19 pandemic on the CSs varies with the restrictions, from total lockdowns to curfews, to semi-lockdowns, opening with half capacity, etc. At the beginning of the pandemic, the CSs had closed for a few months. Then, starting from June 2020, the government encouraged businesses to reopen with a lower spatial capacity to ensure social distancing.

Based on a first survey conducted in April 2020 (El Sahli, Akhavan, Kassem, 2022), where a questionnaire was sent to the managers of the CSs, we brief the following findings:

i. The majority – 36% of CSs– answered that the immediate response to the pandemic was cancelled events. Followed by – 29% of the CSs – had a cancellation of the booking of meeting rooms, while equal amounts 14% of CSs answered that training courses were cancelled and that memberships (desks and offices) were cancelled. Noting that none of the CSs suffered from all the given consequences at once.

ii. When asked to provide a rating from 1-10, to what extent the CSs were able to maintain their community, the majority gave a 6-7 rating, which is considerably high.

iii. Concerning the strategies between the coworking spaces and their landlords, most CSs managers mentioned that they haven't had any problems in that concern and that there was leniency in payment because of the given situation. However, in the cases where the real estate owners themselves run the CSs, this question was not applicable.

iv. Concerning the actions that need to be taken before the end of the year 2020, 33% of CSs stated that they have reshaped the spaces and supply. In contrast, the remainder is divided between believing that no action is taken now and that the situation will be back to normal, and that online conversion of several services became a must during this time. 16% of CSs answered that they do not know what needs to be done but are hopeful that there will be more opportunities. Notably, none of the spaces has chosen to close temporarily or permanently, nor were there any employee reductions mentioned by the CS managers.

Around March 2021, and after almost a year since the start of the pandemic, a second survey was sent to the managers of the CSs (El Sahli, Akhavan, Kassem, 2022). From the interpretation of the results, we qualitatively individualize the following findings:

i. 30% of the CSs were still open, while 70% were open for essential activities only.

ii. Many of the impacts can be confused with the effects of the current political and financial crisis. (Since 2019, a significant economic crisis has exploded, including a severe devaluation of the local currency, which lost 80% of its value). The pandemic has therefore inflated many financial impacts shared with the crisis.

iii. Both the economic crisis and the Pandemic have pushed many businesses to downsize, leave their original offices, and seek coworking offices that are financially more convenient due to the flexibility in the rental plans.

iv. The Lebanese economy is a “dollarized” one because almost everything relies in USD currency. Therefore, due to the devaluation of le Lebanese currency in front of the American dollar, everything became much more expensive. Thus utilities and maintenance started to be considered costly by the CSs.

v. The common problem among the majority of coworking spaces is the rental contracts for offices and desks; clients were paying their medium- or long-term rentals, but now due to the pandemic, they are paying without being able to use their spaces due to repetitive lockdowns and curfews.

vi. The financial crisis has also added to this dilemma, as most of the rental contracts with the clients were already made in USD following the previous official exchange rate to LBP. But now, due to the new governmental restrictions on the use of foreign currencies and the severe devaluation of the LPB in front of the American dollar, and so everything is now being rethought between the client and the CSs.

vii. Rent suspensions, flexible rental packages and daily passes were among the leading offered solutions in those regard.

viii. One of the coworking spaces stated that the majority of their clients are foreign NGOs with long term rental contracts. Therefore this status provided a stable income in USD, which made this coworking space more relaxed facing the pandemic and the crisis.

ix. Regarding the profile of the coworkers, the majority of the CSs have noticed an increase of freelancers, students, autonomous professionals, medium enterprises, and downsizing businesses.

x. The dimensions of the spaces played an important role during the pandemic. Coworking spaces with large open floor plans were quickly able to secure distancing between desks, lounges, cubicles, etc. CSs spaces with extensive flexible open floors were already using mobile partitions, cubicles, and configurable furniture to accommodate privacy and distancing. While the ones with smaller spaces had to re-organize the furnishing layout, reduce the number of activities per day, and organize them into shifts and schedules to avoid crowds that exceeded six people.

xi. It was also noted how much the community is a crucial element. The community or the coworking family is missed. The managers nostalgically described the pre-covid times with all the events that used to bring the community together, such as happy Fridays, holiday celebrations, aperitives, and lunch gatherings. While now, during the pandemic, the managers are still trying to maintain the ties with the community and among coworkers, through emails, online events, group chats, Webinars, online workshops, organized tournaments, and competitions online.

xii. All the CSs - which are all private - have confirmed that they did not obtain any governmental support to counter the economic effects of the crisis.

Despite all the difficulties, almost all the managers have answered that they are optimistic about the future of coworking spaces. The CSs in Beirut are showing many survival mechanisms. The coworking model seems to provide a sort of flexibility that is very convenient when political and socio-economic conditions are constantly changing and/or in crisis. Both the coworking spaces and the coworkers benefit from this flexibility in how they handle their time, space, money, and work. The new working spaces models seem to be liberated from the rigid mechanisms of the traditional working spaces.

COMPARISON OF THE NARRATIONS FROM THE COST COUNTRIES

Development of the digital economy and new working spaces (NWS) prior to the pandemic

To summarise the reports from the different regions and countries, we can consider New Working Spaces (NWS), mainly CSs, occurring in various degrees of distribution. The pioneers NWS were launched during the late 2000s and early 2010s, mainly in Italy, Switzerland, Czech Republic and France. In other countries, for instance, Malta, the phenomenon got tack in the later 2010s. In some cases, like in Estonia, the number of spaces remains small and is concentrated in the capital city. The phenomenon of NWS first occurs in major cities and urban centres, where their numbers proliferate (Milan, Ireland, et al.). The early NWS were launched by enthusiasts and non-profit organisations or were somehow related (libraries, universities, etc.) to or funded by the public sector (France). Later, companies and “chains” discovered this market for their purpose (Czech Republic, Slovakia, Germany). After the urban start, the phenomena spread in smaller towns and rural regions (Slovakia, Switzerland, etc.), and the NWS got more bound into their neighbourhood (Milan).

In countries and regions with a significant share of the quaternary sector of the economy (Malta) and which are famous as a hub for freelancers (Slovakia, Bratislava), the influence of digitalisation is notable. In general, digitalisation, digital business – e.g., gaming industries – (Malta) and digital governmental services (Estonia) are far developed in some regions and countries and are important drivers for the economy. Digitalisation may be far developed (Estonia), and remote work may be a common kind to perform work (Netherlands), but NWS could not be a usual place to do that. The Netherlands has a developed culture of remote work to perform the job from home, but it still has less experience to perform the job at some third place, like a Coworking Spaces / NWS. Many countries have a huge potential for remote working (Switzerland, Germany etc.), and already some initiatives or policies to support NWS, particularly in rural areas and touristic regions (Estonia, Switzerland, Germany, France).

Governmental measurements to tackle the pandemic and their effects on NWS and the economy

Reports from the different countries give the impression that the pandemic struck each country in the same manner as typical for a global pandemic. The governments responded to that crisis somehow in the same way, as it was recommended by medicine and science, with slightly different measures to reduce personal contact and embank the spreading of the virus. During a lockdown, public life was stopped by closing bars, restaurants, and shops, except for daily needs and pharmacies. Schools were partly closed; people were obliged to avoid meeting others. In some countries and regions, leaving home was prohibited without urgent reasons like taking care of animals or going to work, where a physical presence is indispensable, like a hospital or critical infrastructure. In some countries, many people moved to a second home or relatives at the country's side due to a close relation to the country. These people live with their families, parents, or relatives, or, if they own one, ot their rural property (Estonia). In some countries, it was temporarily forbidden to move to a second home (Norway).

The first lockdown started in the middle of March 2020 and was repealed step by step in April. A second, mostly not that strict, lockdown begins between September and December 2020. The pandemic and the lockdown effects have a massive impact on the economy, mainly in mobility, transport and consumption, energy, engineering, culture, and other sectors. The GDP drops significantly (Slovakia, France). Governments are taking measures to keep goods of daily need available by freezing prices (North Macedonia) and tackling economic fall by subsidising companies and employees to keep people paid and let them still afford life.

Lockdown effects on remote work

As people were officially forced to work from home and employers were called to enable remote work, the share of work performed not at the formal location of the employer was massively increasing. Work was getting virtualised, in most countries, by the increasing use of the internet and tools for digital work such as file sharing, video conferencing software etc. In some countries, the share of remote work rose more than half at the beginning of the lockdown and declined later (Norway, the share of remote work: 55,8 % April 2020, 38,7 % June 2020). Depending on the economic sector, the potential of work that can be performed remotely from the employers' location is estimated at 89 % financial sector and 37 % in agriculture and traffic (Germany).

The exceptional situation of the Covid-19 pandemic forces employers to make a huge leap forward in remote work, challenging the traditional understanding and culture of work (Malta), as the workforce must perform work, and the management has to control and observe them and their work (France). The relationship between employee and employer seems to be not based on trust (Malta).

Lockdown effects on NWS

With the beginning of the lockdowns in March, also NWS were closed. They reopened step by step in April, impelling hygiene concepts composed of distancing, wearing masks, disinfection, reduced number of users and so-called "Plexi-Pod" – desks separated by plexiglass (Ireland). But not every tenant came back (Estonia), and the NWS are economically suffering from the drop of lettings of meeting and conference rooms. Not only employer offices were avoided during the pandemic, but also NWS. The location where work is performed was transferred from offices and NWS to the home. But a new group of tenants are occurring at NWS. People are stressed by the double task of private life with childcare, home-schooling, laundry etc. and professional life with video conferences one after one at the same location – flat or home. These people are looking for a new place to separate both parts of life and where they can focus on the current task at home or the office / NWS (Ireland, Germany, France).

The contact restrictions imposed to contain the spreading of Covid-19 oppose what NWS have been for many users before the pandemic. Working in NWS/ CSs was a chance to avoid the home office loneliness, get some structure in the course of the day and have some social contacts. The number of users in NWS is shrinking due to the hygiene concepts and changing demand. Tenants of NWS are leaving, or they are looking more for short term conditions (Milan).

Sometimes coworking sessions and events were virtualised to keep the contacts and the network up. Regarding the better hygienic conditions in exterior conditions, outdoor coworking settings and events called *Mercato Comunale* were developed (Romania). Location is still relevant, but it seems that the focus moves from central and work-related locations of NWS to more peripheral locations related to housing and neighbourhood (Milan) or other attractive advantages such as a beautiful environment. Educational institutions have opened their doors and let people work in their buildings (Greece).

Lockdown effects on mobility and traffic

The lockdown with contact restrictions and the request to stay home let traffic drop more than half in public transport by 85 % and road traffic by 50 % (Switzerland, Germany). After the repeal of the contact restrictions, the numbers in public transport are rising again but not as before, e.g., 40-60 % related to 2019 (Switzerland). Road traffic is back in numbers as before the lockdown in July (Netherlands, Germany). The lockdown influenced the commute to work, travelling and vacations were cancelled or postponed, cultural (Concerts, museums, talks etc.) and social events were cancelled and, where possible, virtualised. Events are getting remote (Malta).

Lockdown effects on housing and real estate

The effects of the lockdown on the real estate and housing market are not as visible as the effects, e.g., on public transport, but trends are visible. People were moving to second or vacation homes or to their cottages (Norway, Estonia) which are usually located in rural regions, to perform their work at these places. Due to travelling for tourist reasons being impossible in the lockdown, apartments for tourists were given to people to live there or work there and use the apartment as a coworking space. The aim is to separate people, keep them more distanced, and tackle the pandemic's spreading (Slovakia). People appreciate the countryside due to fewer contacts for health reasons and the offered greenery, the more space, and the option of a garden (Netherlands). A real effect on the housing and real estate market is not detectable yet, e.g., by decreasing prices. Still, requests for offered fats are declining, and there are predictions of some experts who see reduced demand for apartments and offices in cities (Czech Republic, Germany, France).

Further development of rural or peripheral NWS

The huge leap forward for remote work could bring work back to home or at least in the vicinity of the dwelling, so with that, the place where people work is also the place where people spend money. The allocation of work can contribute to regional development (Estonia). NWS can bring people together who live close to each other but do not have contact yet, due to cultural and language differences. NWS could be a working space to socialise, meet and bring people together (Estonia). Rural or peripheral NWS could become a third place for work aside from the company office and the desk at home (Ireland, Slovakia). Work is getting multi-local, and the meaning of location is shifting. Regional hubs (Netherlands) or 'commuter ports' around major cities (Germany) and metropolitan areas (France) could avoid the commute or straighten the rush hour. The trends seem to allocate work in space and time and delinked to the location of the employer. That is bearing chances for more remote and rural areas, could relieve major cities and 'swarm cities' (Germany), offers chances for urban revitalisation (Romania) and renewal opportunities for small and medium sized-cities (France).

Discussion and conclusion: A framework for future research on the effects of New Working Spaces

The Covid-19 Pandemic has imposed several effects on work and spaces for work. Some are immediate effects and will last for a short time (such as the closing down of the space), some will last longer (namely the reorganisation of the space to meet the physical distancing), and some will stay for a long time (remote working and hybrid working). Digitalisation made structural changes to the economy and industry and shifted the added value from physical goods to intangible goods. Forced by this trend, the digital economy is becoming more important for the whole economy on a national and local level. Regarding the impact of the pandemic on work, the place, and the location of work, as well as the relation between work and life, it seems that digitalisation unfolds its expansive spatial impact in a new dimension. Working is becoming flexible and not bound to space and time anymore.

These adaptation strategies are closely correlated in time and space to the phenomenon of the diffusion of ECWs on the French territory and to the generalisation of the practice of telework. These two phenomena did not appear with the Covid-19 crisis but are nevertheless tending to become widespread in a period that is both favourable to the development of CWSs in the classical market economy and the collaborative economy of the urban commons (Leducq, 2020, p. 72; Advikos et al., 2021). In line with the idea that the urban fabric is made more complex, not only by uncertainty but also by crises of various kinds (climatic, terrorist, social, health, identity, etc.) which affect society, to adapt and survive, the CWSs will also need to be part of increasing hybridity between the commercial model (profit) and the common good model (non-for-profit).

In this working paper, some preliminary insights regarding the immediate and short-term effects of the pandemic on new working spaces (most specifically coworking spaces) in the Western World have been reported. Although the literature on this topic is growing fast (Akhavan, 2021), empirical studies on the effects of new working spaces are limited (see, for example, Mariotti et al., 2021; Yu et al., 2019). Table 1 summarises the main topics related to studying the direct and indirect effects pre and during the Covid-19 Pandemic. This can be used as a theoretical framework for future empirical studies on the effects of NWS, in particular, CSs.

Table1: Matrix of direct and indirect effects of new working spaces

<table>
<tr><td>Direct effects (on the individuals)</td><td colspan="3">Cost-saving (office rental, office energy consumption, employees' commute times); reduce their risks of isolation; increase meeting opportunities; boost business collaboration and promote innovation; foster employee work productivity and working efficiency; reduce CW' commute times; earnings growth; boost CW' job satisfaction and wellbeing</td></tr>
<tr><td rowspan="2">Indirect effects (on the living, working and built environment)</td><td>Urban space</td><td>Working Practices</td><td>Environment</td></tr>
<tr><td>▪ Urban regeneration and revitalization of existing retail and commercial activities
▪ Enhance urban attractiveness
▪ Development of spontaneous communities in the neighbourhood (i.e., Social Streets)
▪ Transformation of the public space (temporary installations, permanent/new elements)</td><td>▪ Contribution to the development of innovative services
▪ Extension of daily and weekly cycles of use
▪ Community creations at work
▪ Strengthening mini clusters of creative and cultural productions</td><td>▪ Pollution reduction
▪ Decreasing traffic congestion
▪ Enhance the energy use patterns both at home and associated with travel/ transportation
▪ Changes in the urban transport planning</td></tr>
<tr><td>Effects – During the Pandemic</td><td colspan="3">Negative impacts:
▪ Imposed working from home: many NWSs were closed – and then re-opened with few coworkers
▪ Imposed Working from home: Social distancing, isolation issues, and need for more proximity
▪ Gender issues? Some data say that work-life balance has been harder for women in pandemic

Positive effects:
▪ The rise of remote working: less community, less traffic…
▪ “Working from everywhere”: potential for peripheral areas and rural development?
▪ Teleworking revolution and public awareness of teleworkable sectors
▪ Gender issues? Women can benefit more from flexible working models
▪ NWSs may become the future of workplaces, replacing the traditional concept of office for good?
▪ Reshaping local urban plans: the concepts of 15-minutes city and neighbourhood coworking?
▪ Will NWSs thrive in the post pandemic society?</td></tr>
</table>

Source: adapted from Mariotti, I.; Akhavan, M and Di Matteo, D. (2021)

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