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# 8 Digital nomads and coworking spaces

Reshaped perspectives? The Paris mega city-region after COVID-19

Divya Leducq, Christophe Demazière, Étienne Bou Abdo, and Priscilla Ananian

### Introduction

In metropolitan city-regions, the core has traditionally been chosen by the so-called creative class as providing the most opportunities for working, living, and education and leisure (Musterd, 2004; Florida, 2014; Zhao et al., 2017; Mariotti et al., 2021a, 2021b). However, the evolution of work in the knowledge economy and advances in ICT sectors could lead to increasing dispersion of 'digital nomads' (Aroles et al., 2020) to the 'periphery' of metropolitan city-regions. In the case of one leading European metropolitan region, the Paris mega city-region, we examine the extent to which coworking spaces (CSs) play a positive role in such dynamics, especially in the context of the COVID-19 pandemic (Florida et al., 2021).

Firstly, we highlight the residential and work travel mobility patterns of members of the creative class in the Paris mega region. We show that continuously rising housing prices and the search for a better quality of life have gradually undermined the decade-long polarizing dominance of the metropolitan core on the labour market. Select parts of the mega-region periphery are being chosen more and more nowadays since they provide a better quality of life while still being well connected to the core by various transport means. With the recent COVID-19 pandemic, which showed the limits of living in a very dense built environment, one may witness a growth in teleworking and further dispersion of the population outside the metropolitan core (Leducq, 2021).

Next, we consider the decentralization patterns of coworking spaces (CSs) from the core of the Paris mega region to its periphery. Since 2010, CSs in the Loire Valley region have appeared in large urban poles like Orléans and Tours. Thus, the location of CSs tends to follow the residential migration of the creative class outside the core of the Paris mega city-region, and not the general movement of other professions (e.g. employees, civil servants). Most of the time, and especially in the pandemic era, the latter continue to travel to work every day, which is why they settle in the immediate vicinity of the Île-de-France. However, a more detailed analysis of CSs in the Loire Valley shows that in recent years there has been a spread of CSs to smaller urban settlements. Amid the COVID-19 pandemic, such CSs have grown in attractiveness. Therefore, it can be hypothesized

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that in the future, an increasing number of people will telework from CSs, which would reduce daily commutes to the core of the Paris mega region. Such people could enjoy a better quality of life while remaining productive.

The aim of this chapter is to show that the attraction of the Paris megaregion, mainly for the northern Loire Valley region, is in continuous movement as amplified by the COVID-19 crisis. This is due to both teleworking, which favours relocation to better living environments, and the offer of CSs, which tends to respond to the demands of newcomers from the capital. The question then is how public policy may encourage the residential settlement of well-educated professionals in small or mid-sized towns in the Paris mega city-region. After presenting our methods in the next section, we analyze the essential role of commuting and residential migration in the economic and spatial development of the Paris mega region. We then examine the dynamics of teleworking in the context of the pandemic and its potential implications for working populations. Finally, we report on the spatial diffusion of CSs from the core to the periphery of the Paris mega city-region, and how this could be an asset for making teleworking a more widespread practice.

#### Methods

This chapter is based on a study that combines several complementary approaches, both quantitative and qualitative. Firstly, as secondary data collection, a review and analysis of recent work on the residential location of knowledge workers and the spread of CSs in the periphery of the Paris mega city-region was performed. The results were mapped using GIS analysis (Figure 8.1 and Figure 8.2). The portraits of inhabitants leaving Paris for the

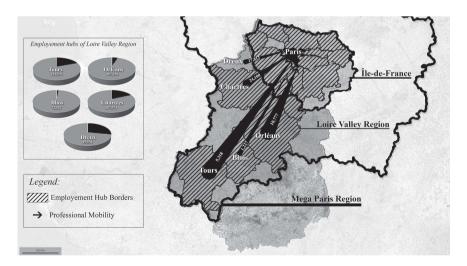
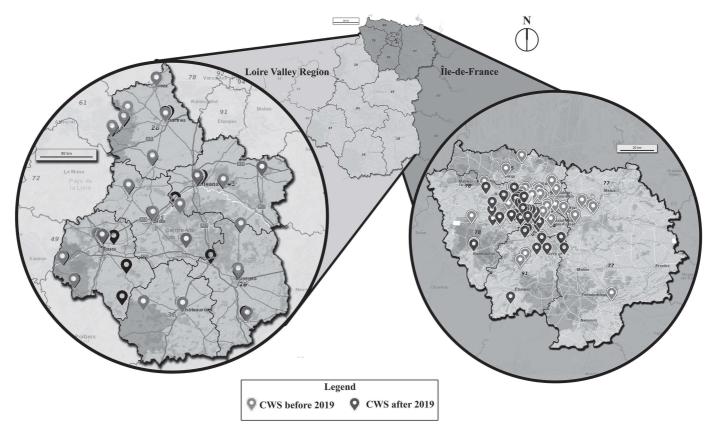


Figure 8.1 Commuting flows within Paris mega-region.

Source: Bou Abdo et al. (2021).



*Figure 8.2* Location of coworking spaces: Paris region and Loire Valley region. Source: Bou Abdo et al. (2021).

Loire Valley region are outcomes of this desk research (Institut Paris Région, 2021). Secondly, as primary data collection, the authors conducted semi-structured interviews between January and April 2021 with the managers of 22 CSs in the Loire Valley region that provide some input for the last part of this chapter, perspectives. Two questions were addressed: 'How have the CSs been impacted by the health crisis?' and 'Under what conditions can they take advantage, in the coming years, of the boom in teleworking generated by the COVID crisis?'

# The Paris mega city-region: growth based on intense work travel migration

As with London, New York, and Tokyo, the Paris metropolitan region is a major node in the global network of trade in goods, people, and capital (Halbert, 2008). Within this mega city-region, Paris is a small city (2.2 million inhabitants compared to 9 million for London), but it is the heart of the most populated region in Europe: Île-de-France. This region is responsible for a large part of France's economic performance, providing 30.7% of GDP in 2018, 22% of national employment, but above all, 43% of company executive jobs. Twenty percent of jobs in the Île-de-France correspond to the creative class, which indicates a strong inclination towards the knowledge economy and digital innovation (Demazière & Leducq, 2022, forthcoming).

Unlike other European countries, such as Germany or Italy, France is characterized by the long-standing primacy of its capital, which is reinforced in terms of the knowledge economy. This overperformance has profound effects over a vast territory, which is difficult to define because the limits of the Paris mega city-region vary according to the indicators used. It is now accepted that the economic influence of Paris extends well beyond the Île-de-France region. Twelve departments in neighbouring regions are closely tied to the heart of the Paris mega city-region, which offers around 7 million jobs and is easily accessible thanks to dense transport networks. The Paris mega city-region, also known as the Paris Basin (Bassin Parisien), is a vast functional area that represents 17% of the national surface area, 31% of the active population, and more than 40% of the GDP in 2018 (Demazière & Leducq, 2022, forthcoming). In terms of territorial organization, this mega city-region is monocentric (Halbert, 2008). It is characterized by the increasingly rare presence of large cities the closer one gets to the central agglomeration. Thus, with the exception of Creil (100,000 inhabitants), there are only so-called 'medium-sized' towns such as Evreux, Chartres, or Montargis within a 100-km radius from Paris. Cities with 100,000 to 300,000 inhabitants, such as Orléans, Rouen, or Amiens, are located more than 150 km from Paris, or even 200 km in the case of Tours or Caen.

The metropolitanization of the Paris mega city-region can be understood at first glance as the concentration of the qualified population, employment, and wealth, both material and immaterial in Paris and its surroundings

Type of perimeter	,	Area (sq. km)	Population (2017)	Population density (pop/sq. km)	Number of jobs (2017)
Institutional	Paris municipality	105	2,175,601	20,720	1,817,650
	Greater Paris Métropole	814	7,057,905	8,670	3,932,599
	Île-de-France region	12,012	12,174,880	1,013	6,390,000
Statistical	Paris built area	2,853	10,785,092	3,780	5,340,764
	Paris employment zone★	653	6,692,700	10,249	3,829,900
	Paris catchment area**	17,175	13,024,518	758	_
	Parisian Basin★★★	90,447	19,140,000	211	8,800,000

Table 8.1 From the core to the periphery: different perimeters of the Paris mega city-region.

Source: Authors

(Demazière & Leducq, 2022, forthcoming). It also occurs through diffusion in more distant spaces, thanks to transport networks that allow working populations to travel on a daily basis (Faguer et al., 2010). Thus, urban or rural areas located 50, 100, or even 150 kilometres from Paris benefit from the constant development of mobility, ensuring the dissociation of places of residence and work, consumption, and leisure. At the heart of the mega city-region, the Paris employment zone attracts 1.1 million people every day who do not live there, compared to the 400,000 who travel the opposite way. The majority of these exchanges take place within the Île-de-France region. However, 200,000 daily trips are also made between Paris and the province, and as many between other employment areas in the Île-de-France and the province (Louchart et al., 2017). The functional ties between Paris and territories outside the Île-de-France are intense and growing stronger.

Over the last few decades, residential sprawl has benefited Paris less than the fringes of the mega city-region. Between 1975 and 2009, the Paris employment zone saw employment and population increases of 0.1% per year on average, much less than national trends (+0.6% and +0.5%, respectively). Apart from Paris, other employment areas of the Île-de-France have generally enjoyed strong simultaneous growth in employment and population (op. cit.). If we consider the territories around the Île-de-France, they also show very favourable figures in terms of employment and population growth.

In Figure 8.1, 'employment hub borders' refers to a group of municipalities in which most of the active population resides and works. A catchment area is composed of a pole, defined on the basis of population density, total population, and employment criteria, and a ring of municipalities in which at least 15% of the working population works in the pole. The Mega Paris Region is composed of the Île-de-France and twelve neighbouring departments which maintain close ties with the Île-de-France through home-work flows, residential migration, head office-establishment relations, and links between principals and subcontractors

To account for the dynamics within the mega city-region, two types of migration are considered here: commuting and residential migration. With regard to commuting, more and more people are coming from farther away (Figure 8.1). The Paris urban area extends far beyond the boundaries of the Île-de-France. Thus, in demographic terms, the Chartres and Dreux employment areas are among the most dynamic: between 2008 and 2013, the population there increased by 0.6% and 0.4% per year, respectively, essentially due to migration (Gascard & Lu, 2019). This population increase is accompanied by a smaller increase in the number of working people (0.3% per year in Chartres and 0.1% in Dreux), which means more commuting to the Île-de-France for new working residents.

Figure 8.1 also shows that from Orléans to Tours, the Loire axis, which is home to half the population of the Centre-Val de Loire region, is also integrated into the vast labour market of the Paris mega city-region. It is also worth noting that Vendôme, a small town located 150 kilometres from Paris, has benefited from seven daily return trips to Paris since 1990, thanks to the opening of a high-speed rail line (TGV). The number of commuters there is growing strongly and almost half are executives (Leducq et al., 2019).

Within the Île-de-France, residential migration from the heart of the region to the periphery also occurs (Beaufils, 2016). In Paris, the housing stock is composed mainly of small units. It allows young people to study or start their professional career while enjoying amenities that are unique in France. However, as soon as couples form and families grow, the small number of large dwellings and their cost do not allow most households to continue residing in the capital. The desire for a more spacious home, to live in a house or become a homeowner then leads to movement away from the heart of the conurbation. Within the Île-de-France, 72% of houses are located in the outer suburbs (Seine-et-Marne, Essonne, Yvelines, and Val-d'Oise departments).

One study focused on Île-de-France households that move in order to become homeowners (Louchart & Beaufils, 2018). When they do not have children, six out of ten households buy their homes, most often a small one, in Paris or the outer suburbs (Hauts-de-Seine, Seine-Saint-Denis, Val-de-Marne). Households with children, on the other hand, mostly buy in the outer suburbs and occupy larger homes. Due to the continuous increase in property prices, particularly since the 2000s, home ownership in Île-de-France is increasingly affecting wealthier categories of households: 37% of mobile homeowner households in the Île-de-France are executives, compared to 16% in the provinces (Louchart & Beaufils, 2018). We also note that the Île-de-France region is concentrating increasing numbers of households of graduates with above-average incomes. Between 1973 and 2013, the proportion of managers rose from 13% to 24% in the Île-de-France, compared to 6.4% to 13% in mainland France (Le Goff, 2020).

Because of the continuous increase in land and property values, some households even leave the Île-de-France to settle in one of the eight neighbouring departments and develop a home ownership project there (Louchart et al., 2017). Many continue to work in the heart of the Paris mega city-region,

resulting in long commutes, as shown by the portrait of Valentin (Box 1), unless teleworking is possible for a large part of the week, as in the case of Raphaël.

The socio-professional status of commuters shows heterogeneity in the territories of the periphery of the Paris mega city-region. For example, the share of executives among commuters working in the Paris employment zone is only 33% in Dreux and 48% in Chartres, both medium-sized towns 100 kilometres from Paris. However, it is as high as 80% for the agglomerations of Orleans and Tours, two large cities which have, among many assets, a rich cultural scene, real business opportunities, and much lower property prices than Paris, all of which attract the creative class (Leducq & Demazière, 2021). While working populations in these urban centres on the periphery experienced the COVID-19 crisis and related confinement without too much difficulty, the situation has been quite different in the heart of the region (Brajon, 2020). Indeed, the small size of housing was not well received by many households residing in Paris or the inner suburbs due to forced teleworking from home. Conversely, in the periphery, additional home area has proved to be invaluable for a good standard of living, especially for households with children.

# Telework in the Paris mega city-region, during the lockdowns and after

In comparison with other European countries, teleworking arrived late in France. This situation changed gradually, as the percentage of teleworkers (among the entire French workforce) grew from 8% to 17% between 2002 and 2016 (Mettling, 2015). The proportion is much higher in the Paris mega city-region, given its orientation in the knowledge economy (Demazière & Leducq, 2022, forthcoming). For Shearmur (2016), 'with access, regardless of location, to tools and information, the idea that the knowledge worker needs to sit in an office is increasingly outdated as he or she increasingly works at a distance from the company premises'. Among explanatory factors, the rise of project-based work in companies is leading to a boom in assignments lasting a few months, an accumulation of part-time jobs, etc. But freelancers, gigeconomy players, intermittent workers somehow considered precarious are not precarious in reality, because they are able to continuously manage their entry and exit from the market (Conseil national du numérique, 2016).

Moreover, since the 1990s, ICT has become increasingly widespread and has increased mobility through computers, smartphones, and easy access to the Internet. Whereas fixed workplaces on company premises were previously essential places for coordinating tasks and communicating, the creative class worker now has a choice with regard to workplace(s). With regard to the residential sprawl of the Île-de-France region, which we mentioned earlier, it is increasingly possible to work outside company premises, at least part of the time. The first alternative to the traditional workplace was the home. However, the limits of this form of teleworking are well known, whether it is the resulting social isolation or the difficulty of reconciling work and personal life.

During the first French confinement (March to May 2020), the share of teleworkers in the Île-de-France more than doubled among the employed population, reaching 39%, compared to 18% before this period (Brajon, 2020). Teleworking has been applied in a variety of ways, ranging from one to five days a week. Teleworking was most often done at home, but it strongly depended on the sector of activity and the socio-professional position of the individuals (Eurofound, 2020). Some companies were already adept at this form of organization, such as in the information and communication sectors, where almost half of the workforce had experimented with teleworking before 2020. On the other hand, teleworking was a complete novelty for 27% of the Île-de-France workforce. The number of teleworkers increased, with two thirds of teachers teleworking for the first time, 50% of people in the finance and insurance sector, 40% in scientific and technical activities, and 30% in administrative services (Brajon, 2020). The increase in teleworking was most noticeable among managers: 75% teleworked, compared to 40% before confinement (and not every day). In terms of post-COVID perspectives, 18% of Île-de-France workers who were already teleworking were asked about their wishes after the confinement. While 36% wanted to keep the same amount of time spent teleworking, 60% wished to increase it (and 4% to decrease it).

Beyond the COVID-19 lockdown periods, which in France have totalled six months, the rise of teleworking may have a real impact on the mobility of workers in the Paris mega city-region (Leducq, 2021). In May 2020, at the end of the first COVID lockdown, 39% of teleworkers surveyed expected to reduce the number of weekly trips to and from work. More generally, the distance to work in the Paris mega city-region favours teleworking. Individuals who teleworked before 2020 had a significantly longer average commute time than those who did not telework. For these heavy commuters, the experience of the pandemic has revealed some benefits of teleworking: better work-life balance, improved living conditions, etc. Nevertheless, the disadvantages of teleworking cannot be ignored: isolation, loss of reference points, lack of motivation, cramped and non-functional accommodations, more complex marital/parental life, etc.

In addition to working from home, the growth in demographics of nomadic workers a year after the first confinement could encourage the development of coworking spaces. The experience of the first confinement was far from perfect for all teleworkers (Leducq, 2021). Since many people involved in the labour market in the mega city-region would like to continue teleworking at least a few days per week, this creates a potentially huge demand for CSs.

### Coworking in the periphery of the Paris mega city-region during and after the pandemic

In France, the first CS was established in Paris in 2008 and 13 years later, the Île-de-France region is at the top of the list of regions in terms of the number of CSs, due to the centrality of the capital region for creative, intellectual, or

innovative activities. We studied CSs in the southwestern periphery of the Paris mega city-region, investigating the potential for growth in the numbers of digital nomads or location-independent workers. Since coworking falls within the sociology of knowledge work as a new organizational method different from the classic work-from-home scenario (Flipo & Lejoux, 2020), we hypothesize that the CS model has the potential to hold urban leverage for peripheries adapting to the digital economy. However, it remains to be seen whether teleworking in CSs can be developed outside the core of the Paris metropolitan region.

According to Gascard and Lu (2019), the departments of the 'Grande Couronne' that have benefitted most from residential migration from the core are Yvelines and Essonne, in the south-west of the Île-de-France. Both departments connect the Paris mega city-region to the Loire Valley area. This zone combines contemporary business districts such as Paris Saclay with tourist and cultural attractions such as Château de Versailles, les Châteaux de la Loire, etc. The urban fabric thins out as we cross from the Île-de-France region to the Loire Valley. The following area regroups different types of urban localities ranging from cities like Orléans and Tours (each has 300,000 inhabitants) to medium-sized towns like Chartres and Dreux, or small towns like Vendôme. Within the mega city-region, the Loire valley has traditionally been a place where certain populations have been drawn away from the Île-de-France (Leducq & Demazière, 2021).

Bourdin (2017) makes the presence of numerous third places a specific feature of metropolitan cores. Nevertheless, in many countries, there has been an increase in the number of collaborative workspaces migrating from metropolitan areas to peripheral territories (Akhavan et al., 2018). In 2019, 279 CSs existed in Greater Paris, and 15 were found in the western departments of the Île-de-France (Val d'Oise, Essonne) (Lévy-Waitz et al., 2019). As shown in Figure 8.2, all the CSs that existed before 2019 still existed after 2019, and in 2021, 40 more CSs have been set up in the western part of the Île-de-France region. The regional government has launched a plan to reach 3,000 CSs in the coming years, with most of the newly planned spaces in rural and suburban areas. This development is supposed to enhance working conditions, creating an alternative to long-distance commuting and reducing greenhouse gas emissions, as well as providing a better balance between personal and professional life.

Falling outside the Île-de-France but still part of the Paris mega city-region, the Loire Valley region is also experiencing notable coworking dynamics. The number of CSs rose from 22 in 2018 to 32 in 2019, with 37 in 2020 and 46 in 2021. Figure 8.2 shows the spatial distribution of CSs within the regional urban hierarchy. With three CSs established by 2012, Tours is the regional cradle of coworking. Two CSs were then created and established in Orléans between 2013 and 2015. In 2021, the majority of CSs will still be located in Tours and Orléans, the central municipalities of the region's two largest urban areas. These conurbations cannot be described as metropolises, but their proximity to the Parisian metropolis means they receive the activities and population leaving

the Île-de-France. Within the Loire Valley, they are distinguished from other urban centres (small or medium-sized towns) by their mass and population density, the large number of production and research structures, and a certain social diversity, i.e. variables that favour the birth and development of CSs. These areas are attractive to Parisian households in the creative class and business leaders. In the end, there is preferential development of CSs in the largest cities on the outskirts of the Paris mega city-region, reflecting approaches that favour innovation and business creation.

More recently, there has been a gradual shift of coworking to the less dense periphery of the mega city-region. As shown in Figure 8.2, CSs have appeared since 2019 in medium-sized cities such as Chartres, small towns such as Châteaudun or Nogent-le-Rotrou, or villages such as Preuilly-sur-Claise or Montlouis-sur-Loire. During the pandemic, the contribution of these new CSs to the development of the mega city-region has been real, reducing the frequency of long commutes while providing an alternative to the home office.

Before the COVID-19 health crisis, France had more than 1,200 CSs (Lévy-Waitz et al., 2019). In 2020, coworking slowed due to confinements, curfews, and social distancing rules. In the Loire Valley, however, our surveys show that the direct effects of the pandemic were variable (Leducq, 2021). In some cases, the CSs were forced to close their public areas, resulting in a drop in attendance of up to 90%. Other CSs, which were able to remain open or which implemented hygiene protocols from spring 2020, experienced an increase in attendance. One CS in Nogent-le-Rotrou was even very successful, because it provided an infrastructure for Parisians to move to the countryside. Generally speaking, rural CSs are emerging as winners from the crisis, with attendance up 25% compared to before COVID. In medium and large cities, students – perceived as vulnerable – have become a specific target for CSs. In Tours, for example, free places are offered to ease their isolation.

On the outskirts of the Paris mega city-region, the demand for access to CSs could experience permanent growth. Many teleworkers who have felt very isolated by working from home want to find a suitable working environment without having to return to their company premises every day. By attending a CS close to their home, they can save on travel time, which will benefit their quality of life. In response to this demand, service companies of all sizes, from SMEs to large groups, have approached CSs for shared office space (Leducq, 2021). This allows them to rationalize their own office space and thus reduce property costs.

As a result, CSs appear as a third space, an ideal in-between place to work even after the health crisis has passed. However, in order to satisfy new executive clients, CS managers will need to design private spaces to ensure the privacy of conversations or business meals. CSs will need to provide high-range working facilities, for example ergonomic seating, or high-quality video-conferencing rooms. To retain employees in labour-scarce sectors (e.g., IT developers, HR consultants), companies could also require high-quality standards for teleworkers who are based at both CSs and headquarters. Some CSs could also reaffirm

their values of solidarity and mutual aid by welcoming workers recognized as having a disability or students with digital insecurity.

### Conclusion

Coworking responds to a growing demand from the creative class to work in a different way and in a different place than on company premises or at home (Shearmur, 2016; Akhavan et al., 2018). In France, CSs are present not only in the heart of metropolitan regions, but also in metropolitan peripheral areas, as in other countries (Mariotti et al., 2021b, for Norway). CSs meet different but complementary needs in dense urban areas and the countryside. On the scale of the Paris mega city-region, the COVID-19 pandemic reveals that CSs in the periphery offer knowledge workers an alternative to long-distance commuting. For households living in flats in the dense urban areas of the Paris mega cityregion, the three confinements that France experienced between March 2020 and May 2021 show the need for nature and more spacious private amenities. The residential sprawl of Paris is currently expanding towards the peripheral areas of the south-west of the Île-de-France region. Some people are even taking advantage of their outbuildings to set up 'infrastructure'-type CSs where office space is shared with other local residents (Leducg, 2021). Further afield, 100 kilometres from the heart of the mega city-region, some Parisians who chose to leave the capital during the first confinement eventually stayed in the countryside to settle in their second home permanently. CSs then provide them with the high-speed Internet connection they need for exchange with their business partners or clients. All in all, CSs can support the residential attractiveness of the periphery of this vast metropolitan region with a global reach.

However, the periphery of the Paris mega city-region is diverse. It comprises small towns in the Île-de-France region that are well connected to core employment poles, a few large cities in the neighbouring Loire Valley region that are increasingly integrated into the labour market of knowledge economy executives, or medium-sized towns in the immediate vicinity of the Île-de-France region. Not all of these territories will benefit from the health crisis and the rise of teleworking, however. Indeed, Western France and the Atlantic coastline from Brittany to the Basque Country in particular are even more attractive to wealthy households working as knowledge economy executives. A form of seaside coworking has emerged that allows the functions of work, family life, and personal leisure to coexist (Leducq, 2021). These choices are sometimes made by companies. In sectors with labour shortages such as computer developers or specialized consultants, the possibility of teleworking and therefore of choosing a living environment is an argument for hiring. Thus, there is a risk that the rising demand of digital nomads and thus the creation of CSs will take the form of leapfrog development, jumping over the periphery of the Paris mega city-region and occurring farther from cities.

Local governments in the Paris mega city-region should therefore support CSs to benefit from the current strong development of teleworking. Among

many examples is the city of Cergy (Val d'Oise), where the mayor is calling for tax incentives for companies that reserve spaces in CSs for their employees. In another example, the City of Paris has set itself the goal of reducing the number of commutes to and from work by 30% by 2030, in particular through telecommuting and the creation of CSs located near homes. In France's second largest metropolitan area, Lyon, the village of Val d'Oingt (4,000 inhabitants) decided to renovate a municipal building and purchase equipment for the upcoming opening of a CS. The municipality responded to the demand of a group of 35 people who wanted to cowork in the village and no longer travel daily to Lyon, which is 40 kilometres away. Thus, as these few examples show, the development potential of CSs in the periphery of mega city-regions deserves to be considered by French spatial planning policies, from the national to the municipal levels.

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