

## Spatial implications of remote work: insights from seven European case studies

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### ABSTRACT

In recent years, the rise of remote work has significantly impacted the dynamics of work and living environments across Europe and beyond, yet its spatial implications remain underexplored. This paper examines the spatial implications of remote work through a cross-case analysis of seven European case studies at the NUTS3 level: Barcelona, Lisbon, Milan, Vienna, Enschede, Stockholm, and Volos—drawing on primary data from 19 semi-structured interviews. The study focuses on five aspects of spatial implications: new spatialities and multi-locality; urban development trends; housing and office demand; mobility and transport infrastructure; and the urban-rural divide. Through thematic and cross-case analysis, the paper identifies shared patterns and place-specific dynamics influenced by governance structures, housing markets, and transport systems. Findings suggest that while remote work is linked to residential relocation, reduced office demand, and increased multi-locality, its impacts are shaped by local housing markets, governance structures, and transport systems. Cities with strong public infrastructure and housing regulations appear more adaptable, while others face challenges such as affordability issues, gentrification, and infrastructure gaps. The study contributes to the literature by bridging a critical gap in understanding how remote work reshapes urban and regional spaces beyond economic and technological lenses. It highlights the necessity for adaptable governance approaches that account for multilocal living, infrastructure needs, and spatial justice, thereby offering vital insights for spatial planners and policymakers navigating the post-pandemic urban transition. The findings underscore planning systems' role in fostering resilient, inclusive, and sustainable urban regions under the pressures and opportunities introduced by remote work.

### 1. Introduction

After 2020 -and triggered by the COVID-19 pandemic- remote work evolved into a widespread and, in many cases, permanent feature of the European and global labour landscape. What was once a flexible option limited to a presumably favoured segment of the workforce became

common ground for hundreds of thousands of workers around the world, enabling them to improve their quality of life and cater to their personal needs and preferences (Eurofound, 2024).

Still, while much attention has been given to the economic and technological dimensions of remote work, its spatial implications remain comparatively underexplored. The decoupling of work from

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fixed locations is increasingly reshaping the geography of cities, affecting how land and buildings are used, and influencing demand for housing, office spaces, and mobility services. Many European cities in the post-COVID-19 era experienced a decline in their Central Business District and a rise in suburban and peri-urban growth, while others saw new forms of multilocality, flexible office geographies, and repurposed urban functions (Akhavan et al., 2021; Di Marino et al., 2024; Di Marino & Lapintie, 2020; Krasilnikova & Levin-Keitel, 2022; Zenkteler, Foth, & Hearn, 2022).

Building on these localised dynamics, understanding how remote work transforms space is essential for urban and regional planning and policy making, as it significantly affects longstanding challenges such as urban-rural disparities, housing affordability, gentrification, and infrastructure adequacy (Nordregio, 2024b). While research on spatial aspects of remote work remains recent and limited (Carrasco-Garrido et al., 2023) and urban data sparsity and inconsistency challenge clear trend identification, it is evident that these effects are not universal but rather context-dependent. These variations are profoundly shaped by local housing markets, transport systems, digital infrastructure, and policy regimes (OECD, 2021). Crucially, studies by Althoff et al. (2022) and Kapitsinis (2025) further highlight that the potential for and prevalence of remote work are deeply intertwined with a region's industrial structure and demographic profile. Regions rich in high-skilled labour and sectors like information and communication, financial, and professional services tend to exhibit higher remote work rates, leading to uneven geographies that pose distinct opportunities and challenges for urban and regional planning. Moreover, a city's ability to adapt to these changes often depends on its governance capacity and institutional flexibility-factors that are unevenly distributed across Europe (Sostero et al., 2024).

In light of these challenges, this paper investigates the spatial implications of remote work across different European contexts at the NUTS 3 level, focusing on five key thematic areas: (1) emerging spatialities and multilocality; (2) urban development trends; (3) residential and office demand; (4) mobility patterns and transport infrastructure; and (5) the urban-rural divide. Building on these themes, the study addresses the following research question:

- How does remote work shape spatial development patterns, and in what ways do these effects vary across European contexts at the NUTS 3 level?

To address the research question, the study employs a cross-case analysis spanning seven diverse urban contexts: Barcelona, Enschede, Lisbon, Milan, Stockholm, Vienna, and Volos. These cities were deliberately selected to reflect meaningful contrasts in spatial organisation, remote working cultures, and policy environments, whilst also capturing the broader socioeconomic and institutional divergences that characterise the north-south European divide. Together, they constitute a comparative framework rich enough to illuminate how varying urban and regional conditions shape the spatial implications of remote work. The analysis is conducted at the NUTS 3 (Nomenclature of Territorial Units for Statistics) level, which comprises small regions typically ranging from 150,000 to 800,000 inhabitants. This territorial scale is particularly appropriate for examining the spatial implications of remote work, as it provides sufficient granularity to capture urban-rural variation, localised shifts in housing and labour markets, and intra-regional mobility patterns. At the same time, Europe's shared policy frameworks – including EU digital and cohesion policies – alongside its varied planning systems and socio-spatial conditions, provide a meaningful basis for cross-case comparison. Together, these cases shed light on how, in the post-pandemic context, remote work is driving spatial transformations, prompting planning responses that reflect both common challenges and localised dynamics. This research contributes to the literature by providing a comparative analysis context of remote work's spatial impacts across diverse European settings, thus bridging a

significant gap in understanding region-specific nuances. It offers critical insights for urban and regional planning, highlighting how local contexts mediate the broader trends of remote work.

The paper is structured as follows. Following this introduction, the next section presents a review of the literature on the spatial dimensions of remote work, identifying theoretical frameworks and empirical gaps. The methodology section outlines the criteria for case study selection, the interview protocol, and the analytical procedures for data analysis. The findings are then presented thematically as a cross-case analysis. Finally, the discussion and conclusion reflect on the broader implications for spatial planning and offer directions for future research and policy formulation.

## 2. Literature review

This section provides a brief overview of existing research on the spatial dimensions of remote work. It covers key discussions on the new spatialities of remote work and multilocality, urban development trends, residential and office demand, mobility patterns and urban-rural divide, establishing the foundation for the study's analysis.

### 2.1. Spatialities of remote work and multilocality

The rise of New Working Spaces (NWSs), such as coworking spaces and satellite offices, reflects changing work dynamics driven by digitalisation, labour market flexibility, and hybrid work models (Flipo et al., 2022; Mariotti et al., 2023; Pajević, 2021). Particularly in urban areas, these spaces transform the traditional workplace landscape and commuting patterns (Krasilnikova & Levin-Keitel, 2022; Yu et al., 2019). While NWSs foster economic activity and flexible work arrangements, their diffusion also raises challenges around land use, real estate pressure, and social equity (Di Marino et al., 2023; Nakano et al., 2020). Subsequently, the spatial manifestations of work, referred to as spatialities, are being diversified to include workplaces such as the home office, the mobile office, and the virtual office *via* mobile locations (Aroles et al., 2019; Messenger & Gschwind, 2016).

At the same time, the concept of multilocality has gained prominence, encompassing both multi-local living, where individuals alternate between multiple residences and establish spaces for their everyday activities at each location, and multi-local working, where work is performed across a network of flexible sites beyond the home or office (Danielczyk et al., 2021; Di Marino et al., 2024; Koroma et al., 2014; Reuschke & Ekinsmyth, 2021). These interrelated forms of spatiality enable a more mobile and adaptive lifestyle but also have wide-reaching implications for urban form, infrastructure demand, mobility, and community cohesion. The rise of spatiotemporal working patterns and the diversity of workspaces (Reuschke & Ekinsmyth, 2021) challenge planners to accommodate increasingly fluid relationships between people, places, and work.

### 2.2. Urban development trends

The spatial implications of remote work (RW) on urban development are evident across three interrelated trends: the decline of Central Business Districts (CBDs) and the “Doughnut Effect,” growing suburbanization and peri-urban expansion, and the revitalisation of smaller cities. The “Doughnut Effect” refers to the decline of city centres alongside the growth of suburban and peripheral areas, resulting in hollowed urban cores and vibrant outer zones (Biagetti et al., 2024). A key factor behind this trend is the reduced demand for traditional office spaces, as remote and flexible work arrangements reshape work patterns and diminish the need for centralised workplaces (de Abreu e Silva, 2022; Hölzel et al., 2023; Pajević, 2021). This transition has led to increased office vacancies and a downturn in urban foot traffic and local economic activity (Florida et al., 2023).

Remote work has also reinforced suburbanization, especially post-

COVID-19, as workers seek affordable, spacious housing beyond dense urban cores (Biagetti et al., 2024; Mariotti et al., 2022). Suburbanization is not new; it reflects a long historical process. In Anglo-American cities, factors like car ownership, housing finance, and planning policies drove middle- and upper-class migration to the suburbs, leaving inner cities relatively deprived (Fishman, 1987; Jackson, 1987). In contrast, European countries such as France, Germany, and the Netherlands developed suburbs through stronger state intervention and social housing programs, thereby maintaining a better balance between urban cores and peripheries (Hall, 1998; Le Galès, 2002). These historical differences mean that remote work simply reinforces existing decentralisation trends in Anglo-American contexts, while producing more complex outcomes in Europe, where spatial planning and social policy have traditionally guided urban and suburban growth more deliberately (Pozoukidou et al., 2026).

The COVID-19 pandemic accelerated residential shifts toward less dense, greener areas outside major European cities (Hölzel et al., 2023), driven by social distancing needs and lifestyle preferences. This reflects the longstanding debate on whether people follow jobs or *vice versa*. While early industrial models assumed populations moved toward employment (Carlino & Mills, 1987), growing evidence suggests jobs now follow people, with firms locating where talent and desirable living conditions exist (Florida, 2019). Remote work-driven suburban expansion thus represents a continuation of this broader demographic and economic realignment. This shift often coincides with demand for local coworking spaces and “near working” alternatives, supporting more decentralised work patterns (Mariotti et al., 2022). However, it also promotes increased land consumption and low-density development (Batty, 2021; Rhee, 2009).

Finally, remote work, along with the rise of multilocality, presents the potential to revitalise smaller cities which attract remote workers due to lower costs of living, reduced congestion, and greater access to nature (Alizadeh, 2012). However, this influx risks gentrification, raising housing demand and property values, potentially displacing lower-income residents (Hölzel et al., 2023; Martin & Grodach, 2023; Zenkteler, Hearn, et al., 2022). Many smaller towns and rural areas may still struggle, lacking remote work capacity and agglomeration economies. Beyond economics, gentrification reshapes the social fabric, creating tensions between long-standing residents and newcomers due to disparities in income, lifestyle, and expectations.

### 2.3. Residential and office demand

Residential preferences have shifted in response to remote work, with decisions increasingly based on comparisons among city centres, suburbs, and small towns regarding amenities, mobility costs, and service access (Biagetti et al., 2024). This trend can trigger gentrification, as remote workers raise housing demand and prices in suburban or small-town areas, potentially displacing lower-income residents (Hölzel et al., 2023; Martin & Grodach, 2023; Zenkteler, Hearn, et al., 2022). Evidence derived from a large-scale European survey indicates that since 2020, a notable proportion of remote workers has changed either their place of residence or their place of work. The most frequently cited drivers of relocation among this group of workers include affordable housing, quality of life, proximity to nature and digital infrastructure (Fellnhöfer et al., 2025).

Parallel to residential shifts, remote work is linked to shifts in office space demand as companies adopt hybrid models and desk-sharing practices. With fewer days spent in the office, average occupancy rates have declined. Some forecasts predict a 5–17% drop in office space demand in major European markets by 2026 (Statista, 2024). Pozoukidou et al. (2026) argue that the COVID-19 pandemic triggered a profound transformation in office space demand across Europe, fundamentally reshaping how and where work is conducted. Driven by social distancing imperatives and the rapid normalisation of remote work, companies increasingly abandoned traditional, centralised office

arrangements in favour of flexible, decentralised alternatives. This shift manifested prominently through the proliferation of coworking spaces and new working spaces, which offered adaptable, short-term leasing arrangements suited to evolving organisational needs (Hölzel et al., 2023). In Italy, large coworking spaces demonstrated considerable resilience during the pandemic, with companies adopting decentralised approaches and utilising coworking spaces for occasional in-person collaboration. Similarly, in Norway, coworking spaces experienced substantial growth following temporary pandemic closures, with 45% of spaces now located in small and rural towns, reflecting a broader decentralisation trend. As Pajević (2021) and Shearmur et al. (2022) observe, this proliferation signifies a deeper structural transformation, as work increasingly transcends conventional office boundaries, sprawling across both professional and domestic environments. Consequently, the declining demand for traditional office space has left a growing stock of vacant commercial properties across urban centres, prompting a fundamental reassessment of their role and viability. This reassessment of commercial real estate could stimulate innovation in repurposing vacant properties, potentially reshaping urban centres into more flexible, mixed-use environments (Pattnaik, 2024; Van Nieuwerburgh, 2022).

### 2.4. Mobility patterns and transport infrastructure

Remote work has reshaped mobility patterns by decoupling residential choice from proximity to the workplace (Biagetti et al., 2024). Employees increasingly choose where to live based less on daily commuting requirements and more on housing costs, family needs, access to amenities, infrastructure quality, and proximity to nature (Biagetti et al., 2024). This has encouraged relocation to suburban and rural areas and, in some cases, greater separation between home and workplace, including multilocal living arrangements and weekly rather than daily commuting (de Abreu e Silva, 2022; Greinke & Lange, 2022; Hölzel & de Vries, 2021).

However, the impact of remote work on commuting distances and times is still uncertain, with case-specific studies showing varying results (Eldér, 2020; Hölzel & de Vries, 2021; Krasilnikova & Levin-Keitel, 2022; Pigalle, 2024; Ravalet & Rerat, 2019; Yu et al., 2019). While commuting frequency remains below the pre-pandemic levels, new routines have emerged. Remote workers often replace commuting trips with other daily activities, influencing their mobility (Pigalle, 2024) which increasingly involves more leisure travel (Caldarola & Sorrell, 2022). This shift has been reported to lead to decreased public transport use and rise in active travel modes, especially in cities (Ahmad et al., 2022).

Although remote work reduces total commuting time, it may result in longer travel distances (Hölzel & de Vries, 2021). In suburban and rural areas, non-work-related trips have become more frequent, leading to longer weekly travel distances and greater dependence on private vehicles, as public transport options are often limited; this is known as the “complementary” effect of remote work (Adobati & Debernardi, 2022; Krasilnikova & Levin-Keitel, 2022; Ravalet & Rerat, 2019).

Coworking spaces in regional areas offer an alternative to long distances to traditional offices (Garrett et al., 2017), as well as addressing social isolation. Nonetheless, increased travel between decentralised locations places new pressure on road networks and fuels demand for expanded public transport systems (Biagetti et al., 2024; Krasilnikova & Levin-Keitel, 2022), thus prompting policymakers to reassess infrastructure priorities, where possible.

### 2.5. Urban–rural divide

The urban–rural divide is manifested in various ways in Europe. Urban areas often have stronger economies, improved public services and offer higher wages. They also benefit from better infrastructure, including healthcare, education, transportation, and digital

connectivity, making them more appealing to residents and businesses (Eurofound, 2023). In contrast, rural regions often face limited job opportunities and underinvestment, including gaps in digital infrastructure.

Remote work has the potential to significantly bridge the urban-rural gap by attracting knowledge workers to relocate to rural areas while maintaining urban-based employment (Babb et al., 2018; Hölzel et al., 2023). Freed from the need for daily commuting, remote workers are increasingly choosing less dense, more affordable locations that offer a higher quality of life (Ge et al., 2018). This trend can stimulate rural economies by increasing local demand for services and infrastructure (Yu et al., 2019; Zenkteleer, Hearn, et al., 2022). Over time, the adaptability and resilience of rural areas may make them more appealing for long-term settlement, contributing to a more balanced spatial distribution of work and population (Zenkteleer, Hearn, et al., 2022).

These aspects provide the analytical foundation for interpreting the case study interviews, offering a lens through which to understand how remote work influences spatial dynamics across different contexts. By situating the findings within these broader spatial trends—such as multilocality, urban transformation, mobility shifts, and the urban-rural divide—the study reveals how remote work “is shaping” and “is shaped” by evolving geographic and infrastructural conditions.

### 3. Methods

The methodology followed a three-step approach: (1) interviews, (2) thematic analysis, and (3) cross-case analysis. The following paragraph delineates the criteria for case study selection and provides a detailed

justification for the chosen territorial scale of analysis. The subsequent sections detail the approach taken for conducting the interviews, the analysis of interview data to identify key themes and patterns, and finally, how the results were interpreted. Starting with an overview, Fig. 1 outlines the entire methodology in a step-by-step format.

The case study selection was guided by the regional typologies defined by the European Union, known as the “ESPON Typologies,” which outline six regional types (Dijkstra & Poelman, 2011). Four territorial classifications were considered at the NUTS 3 level: urban-rural, metropolitan, coastal, and mountainous regions, to capture a diverse range of contextual factors and regional characteristics. The analysis operates primarily at the NUTS 3 regional level, while also acknowledging the urban dynamics within each region, particularly in relation to the city that anchors each case study. This dual regional-urban lens is made explicit throughout the analysis, as the spatial effects of remote work often arise simultaneously at both scales.

The adoption of the NUTS 3 geographical scale is a scalar choice that proves particularly well-suited to the analytical ambitions of this study. Operating at a level of spatial disaggregation that broader territorial classifications systematically obscure, NUTS 3 is granular enough to capture urban-rural differentials within larger regions, localised shifts in housing and labour markets, and intra-regional population movements and spatial patterns. This level of analysis is especially pertinent – given that remote work fundamentally reconfigures residential location decisions, commuting geographies, and local labour market structures – processes that operate precisely at the sub-national scale that NUTS 1 and NUTS 2 classifications cannot meaningfully resolve. By interrogating spatial patterns at this finer resolution, it becomes possible to

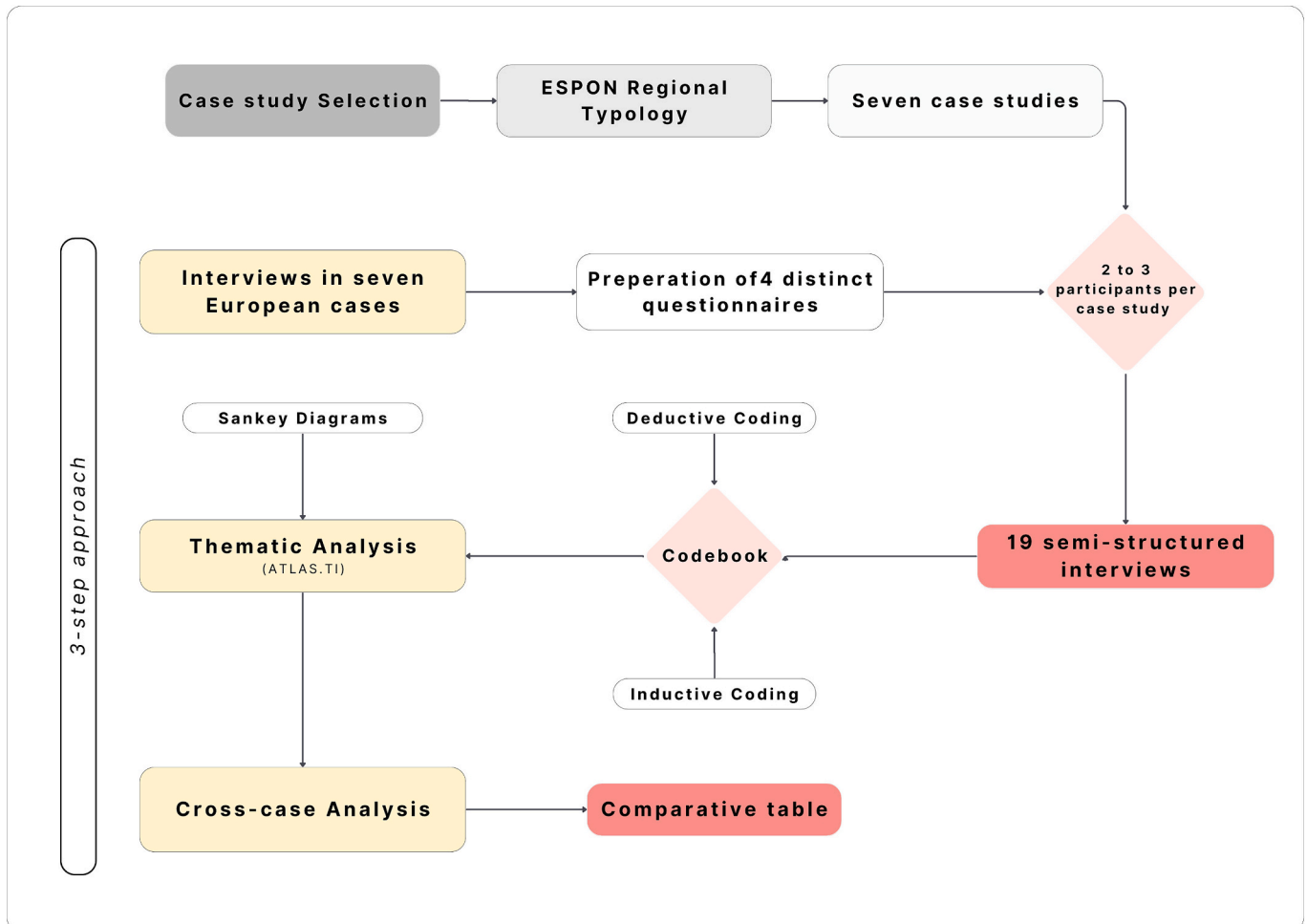


Fig. 1. The methodology approach.

identify whether workers are undergoing residential redistribution from high-density urban cores toward peripheral or rural regions, thereby surfacing emergent spatial reorganisation trends that coarser scales of analysis render statistically invisible. Moreover, the NUTS 3 framework aligns closely with prevailing EU regional policy architectures, facilitating systematic cross-country comparative analysis of the extent to which remote work mediates territorial cohesion, housing market pressures, and regional economic disparities (Dijkstra & Poelman, 2014). In this respect, the NUTS 3 scale provides a methodologically defensible equilibrium between spatial granularity and cross-national data comparability, rendering it the most analytically appropriate geographical unit through which to examine how remote work is reconfiguring regional settlement patterns, labour market geographies, and territorial inequalities across the European context.

The research findings are based on empirical data obtained through interviews. In total, seven case studies, were selected, drawing on multiple sources to strengthen the validity of the research findings (Yin, 2003). It should be noted, however, that given the limited number of interviews per case study and the particularities of each regional and urban socio-economic context, these case studies are not intended to be generalised as fully representative of all EU NUTS 3 regions sharing the typological features described in Table 1. Rather, they offer contextually grounded insights into the spatial manifestations of remote work across a purposefully diverse set of European settings.

By incorporating case studies from southern, central, and northern Europe, the goal was to achieve a geographically balanced sample that reflects the unique socio-economic and spatial dynamics of these regions within the limit of seven European case studies. The final selection of case studies was influenced by the responses received and the willingness of individuals and organisations to participate in interviews, ensuring the chosen case studies were relevant and practical for the qualitative analysis that followed. As a result, the case studies were selected from Austria, Greece, Italy, Portugal, Spain, Sweden, and the Netherlands. As presented in the Table below (Table 1), these studies are classified as urban and intermediate regions, metropolitan and coastal areas, with some also being in mountainous regions.

**Table 1**  
ESPON Regional Typology for each case study at the NUTS 3 level.

|               | ESPON Regional Typology                   |                                |                   |                              |
|---------------|---|--------------------------------|-------------------|------------------------------|
|               | Degree of Urbanisation                    | Mountain/Coastal               | Border            | Metropolitan                 |
| Barcelona, ES | Predominantly Urban                       | Coastal Region                 | Non-border region | Metropolitan Regions         |
| Enschede, NL  | Predominantly Urban                       | Non-Mountain or Coastal Region | Border region     | Metropolitan Regions         |
| Lisbon, PT    | Predominantly Urban                       | Coastal Region                 | Non-border region | Capital Metropolitan Regions |
| Milan, IT     | Predominantly Urban & Intermediate Region | Mountain Region                | Border regions    | Metropolitan Regions         |
| Stockholm, SE | Predominantly Urban                       | Coastal Region                 | Non-border region | Capital Metropolitan Regions |
| Vienna, AT    | Predominantly Urban                       | Non-Mountain or Coastal Region | Border regions    | Capital Metropolitan Regions |
| Volos, GR     | Intermediate Region                       | Coastal Region                 | Non-border region | Non-Metropolitan Regions     |

### 3.1. Interviews

The research findings are based on primary data obtained from qualitative research conducted through interviews. In total, 19 semi-structured interviews were conducted to capture the perspectives of local key actors. Focusing precisely on the spatial effects of diverse remote work spatialities across the EU, the interview guide was developed based on existing literature and policy documents. It was designed to address five key themes: i) urban development trends, ii) the urban-rural divide, iii) residential and office demand, iv) mobility and transport infrastructure, and v) energy and the environment.

The participants were individuals with expertise in urban development and a thorough understanding of the remote working phenomenon in their region. The sample included (6) researchers from various fields, (4) representatives from regional authorities, (4) planners, (2) real estate experts, and (2) CS experts, one of whom is also a founder, as well as one (1) remote work community facilitator (manager and supporter of a group of RW, who organises activities and ensures the smooth operation of the community). For each case study, 2 to 3 interviews were conducted between early June and mid-July 2024 (Table 2). Four distinct open-ended questionnaires were developed to accommodate the wide range of interviewees' specialisations, each comprising 14–19 questions. The full interview guides are provided in Appendix [B].

### 3.2. Thematic analysis

The systematic documentation and the quantitative analysis of the material acquired from the interviews were performed using ATLAS.ti software tool. To facilitate analysis, “deductive coding” was applied using a predefined “codebook” derived from the existing literature (e.g., Braun & Clarke, 2012). The codebook includes keywords reflecting the 5 initial key themes identified in the literature. To further enrich the initial pool of codes, the “inductive coding” technique was applied, identifying emerging patterns and themes beyond pre-existing frameworks. This process resulted in a final codebook of 29 keywords, each representing a distinct spatial implication (e.g., gentrification, urban sprawl, multi-locality, decreased office demand). Afterwards, a manual classification of the critical words and sentences was conducted into 10 general categories, for better processing and analysing the main patterns and links between notions that occurred, as seen in Table 3.

The analytical approach adopted here is primarily quantitative, coding-based, drawing on the frequency and co-occurrence of coded terms rather than on extended narrative analysis of interviewee

**Table 2**  
Number of interviewees per case study and their field of expertise.

| Case Study           | Expertise   | Number of interviewees |
|----------------------|---|------------------------|
| Barcelona, ES        | Researcher on urban planning and development<br>Researcher on urban governance<br>Planner/expert in Rural Development | 3                      |
| Enschede, NL         | Regional policy advisor and researcher  | 3                      |
| Lisbon, PT           | Researcher on NWS<br>Real estate and gentrification expert  | 2                      |
| Milan & Trentino, IT | Real estate expert<br>Researcher on remote work<br>Policy Analyst   | 3                      |
| Stockholm, SE        | Planner in a Regional Authority<br>Researcher on remote work<br>Urban Transport Planner                               | 3                      |
| Vienna, AT           | Planner for a Regional Authority<br>Urban Planner   | 2                      |
| Volos, GR            | Remote work community administrator<br>Coworking space owner<br>Coworking space expert                                | 3                      |

**Table 3**  
Thematic analysis code book structure.

| General Category                    | Code Book                | Frequency |
|-------------------------------------|--------------------------|-----------|
|                                     | Urban Area               | 85        |
|                                     | Suburban Area            | 36        |
|                                     | Rural Area               | 76        |
| Digital Nomads                      | Digital Nomads           | 37        |
| Housing & Office Demand             | Housing                  | 83        |
|                                     | Housing Prices           | 74        |
|                                     | Office Demand            | 36        |
|                                     | Office Re-use            | 22        |
| Mobility Patterns                   | Mobility Patterns        | 66        |
|                                     | Modes of Transport       | 51        |
| Movement                            | Movement to City Centre  | 13        |
|                                     | Movement to Periphery    | 74        |
| Multilocality                       | Multilocality            | 42        |
|                                     | Second Homes             | 32        |
| Planning & Policy                   | Other Policies           | 43        |
|                                     | Transport Planning       | 41        |
|                                     | Urban Planning           | 76        |
| Spatialities of Remote Work         | Coworking Space          | 88        |
|                                     | Hybrid                   | 42        |
|                                     | Home-Office              | 53        |
|                                     | Third-Place              | 22        |
| Urban Development                   | Land Use Pattern         | 39        |
|                                     | Gentrification           | 34        |
|                                     | Regeneration             | 11        |
|                                     | Urban Form               | 61        |
| Urban-Rural Divide & Infrastructure | Digital Infrastructure   | 35        |
|                                     | Energy/Environment       | 18        |
|                                     | Utilities Infrastructure | 31        |
|                                     | Urban-Rural Divide       | 51        |

accounts. This choice reflects the cross-case comparative orientation of the study, where systematic comparability across seven diverse contexts was prioritised. For instance, the value of “88” to the term “coworking spaces” indicates how often this concept was expressed within meaningful statements, not the literal count of the words' occurrence. The coding frequency data enabled structured comparisons that would have been difficult to achieve through purely interpretive qualitative methods. Furthermore, the quantitative coding process enabled detailed and in-depth thematic analysis, ensuring relevance and focus on specific spatial aspects. This also enabled exploration of the interview data without preconceived notions, uncovering new insights as the findings were compared across the seven case studies.

Sankey diagrams produced in Atlas.ti were used for each thematic category to present the relative magnitudes and the areas with the largest contributions to the discussions across study areas (ATLAS.ti, n.d.). The Sankey Diagram is a technique for visualising the association of data elements, presenting data flows and connections while showing the volume and direction of flows (ATLAS.ti, n.d.). The diagrams show the flows between the grouped thematic categories and case studies. The thickness of the line corresponds proportionally to the number of times a connection was made between the themes and each study area, essentially portraying the number of times each theme was discussed during the interviews.

### 3.3. Cross-case analysis

Following data collection from the interviews and the description of all the case studies' unique conditions related to remote work, a cross-case analysis, as documented by Miles and Huberman (1994), was conducted to facilitate comparisons among the seven case studies. The objective was to identify emerging patterns, as well as similarities, differences, or correlations occurring across one or more other cases. The process was structured around key themes that emerged earlier during the coding process. Consequently, the case studies underwent a variable-oriented analysis. For better interpretation, each case was documented and presented in a table, with a high level of detail against the identified themes. Ultimately, a comparative table was developed to incorporate

the main implications per topic, clarifying whether the implications were induced by remote work or cannot be entirely attributed to remote work.

### 3.4. Limitations

As mentioned in the above section, the primary limitation of this study concerns the restricted number of interviews per case study (2–3), which may not fully capture the diversity of perspectives within each regional context, and although participants were selected for their direct expertise, individual views may carry disproportionate analytical weight and cannot be fully verified. Moreover, the seven case studies are typologically diverse but are not representative of all EU NUTS 3 regions, so it is inadvisable to generalise the findings.

With regard to the quantitative coding approach used for the thematic analysis, it enables systematic cross-case comparison, while offering less interpretive depth than a more narrative qualitative analysis would provide. The authors acknowledge this trade-off, particularly in terms of reduced narrative depth, potential oversimplification of complex interview accounts, and the risk that coding frequency may privilege recurrent themes over less frequent but equally significant insights. While the quantitative coding method strengthens systematic comparison across cases, it may also limit sensitivity to context-specific meanings and the unique nuances of individual interviewees' perspectives. The latter limitation is partly counterbalanced through the interpretation of the findings in relation to the wider socioeconomic context of each case study. Lastly, the single round of interviews conducted in summer 2024, along with the heterogeneity of available regional statistics, constrains the longitudinal validity and cross-national comparability of the findings.

## 4. Case studies

This section outlines the characteristics of the case studies as a foundational context for understanding the variety of urban and regional environments in which the spatial implications of remote work were discussed. Barcelona, Enschede, Lisbon, Milan, Stockholm, Vienna, and Volos showcase a range of urban environments with diverse sizes, populations, levels of urbanisation, planning approaches, prevalence of remote work, and socio-economic profiles, offering a nuanced interpretation of the findings. An aggregated table summarizing their key characteristics can be found in Appendix A.

### 4.1. Barcelona, Spain

The Barcelona Metropolitan Region (BMR), is one of Europe's leading hubs for economic production and innovation, functioning as a poly-centric network of cities, integrating historic industrial hubs like Mataró, Granollers, Sabadell, and Terrassa with newer business centres, creating an interconnected economic landscape (Camagni & Capello, 2011). Its strategic location, strong innovation ecosystem, and skilled workforce, make Barcelona one of the top five most attractive European cities for investors (Àrea Metropolitana de Barcelona, 2020). The region is a significant employment hub attracting workers from across Catalonia, as well as digital nomads from outside the European Union working for international companies.

Spain's digital nomad scheme, with its high annual income requirement of 28,000 EUR, has reinforced Barcelona's appeal to high-earning remote professionals from all around the globe, contributing to rising housing demand. Key demographic shifts, including growth in single-person households (from 10% to 26% between 1981 and 2017) and a shrinking average household size, have further intensified housing pressure (Statistical Institute of Catalonia, 2021). The BMR generated €120.8 billion in GDP in 2017, while Barcelona produced 65,2% of regional GDP. The economy is primarily service-based yet retains strong industrial foundations. However, industrial land shortages pose a

challenge, limiting competitiveness in a globalised economy.

Business structures have also shifted toward smaller enterprises, while mid-sized firms have declined. The region remains a significant employment hub, attracting workers from across Catalonia as well as from outside Spain. However, job-residence imbalances persist, with Barcelona lacking 220,000 workers to meet its job demand. This generates heavy daily commuting, with 12.3 million trips per day, with 51% by walking or cycling, 24% by public transport, and 25% by private vehicle. Daily, approximately one million vehicles enter and leave the city, exacerbating congestion and the urban heat island effect (Àrea Metropolitana de Barcelona, 2020).

#### 4.2. Enschede, Netherlands

Enschede, the largest city in the Twente subregion of Overijssel province, is located in the eastern Netherlands, near the German border. As of 2025, its population totaled 162,337 (Gemeente Enschede, 2025). Historically reliant on the textile industry, Enschede has repositioned itself as a centre of technological innovation. The national government has designated Twente as one of the four hotspots for the national high-tech manufacturing industry, making a significant contribution to the vision for a knowledge economy. Through the Netwerkstad Twente partnership with four neighbouring municipalities, it pursues regional economic growth strategies focused on knowledge and innovation, while also attracting remote workers, given the rising proportion of employed people working from home at the national level to 52% in 2024 (Eurostat, 2025). Despite such initiatives, the city faces persistent challenges in retaining highly skilled graduates, with concerns about the outward migration of talent amid population decline. Housing costs remain relatively low compared to national standards, which may appeal to remote workers priced out of larger Dutch cities.

Enschede actively applies Transit-Oriented Development (TOD) principles to improve sustainability and urban connectivity and the STOMP mobility hierarchy, prioritising walking, cycling, public transport, and shared mobility. New housing is strategically located along transit corridors to discourage suburban sprawl. The city benefits from its proximity to Germany and its position within the European transport network. However, the absence of a local international airport may limit its appeal to remote workers. Urban planning in Enschede is informed by national frameworks such as “Metro Mix” (College van Rijksadviseurs, 2019), which promote multifunctional, integrated urban environments that combine work, living, and leisure. Densification policies are concentrated around Enschede Central Station and Kennispark. In 2022, only 43% of residents owned a car – significantly below the national urban average – reflecting the effectiveness of these strategies. The city ranks mid-range nationally in the proportion of residents commuting over 40 km to work, indicating a notable share of long-distance or hybrid workers (Centraal Bureau voor de Statistiek, 2022). While the Twente region overall ranks among the most prosperous in the country, Enschede still contends with socio-economic challenges, particularly around income inequality, environmental conditions, and public health.

#### 4.3. Lisbon, Portugal

Lisbon, the capital of Portugal, is the centre of the Lisbon Metropolitan Area (LMA), covering an area of approximately 3,000 km<sup>2</sup> with a population of around 3 million (Eurostat, 2024c). As Portugal's economic and political hub, Lisbon draws a diverse range of industries, including tourism, finance, and a growing tech start-up scene. The city plays a central role in national education and research, housing universities and innovation hubs (Carvalho, 2018). Although classified as a “Moderate Innovator +” in the European Innovation Scoreboard (Hollanders, 2023c), Lisbon continues to foster entrepreneurial and digital ecosystems through local and EU-supported initiatives.

The urban structure of the LMA has evolved from a radial to a more networked model, mainly facilitated by the development of motorways

and the existing railway network. Lisbon is the most densely populated city of LMA, and around 96% of its inhabitants live in “predominantly urban areas” (Instituto Nacional de Estatística, 2019), yet it is experiencing a continuous loss of inhabitants, who opt to relocate to adjacent or peri-urban areas. This phenomenon is attributed to residential mobility and the decentralisation of the economy, resulting in urban sprawl. This change has resulted in population dispersal and the growth of smaller towns, leading to an increasingly polycentric model in terms of population and economic activity (Área Metropolitana de Lisboa, 2024; Louro et al., 2021).

Lisbon is considered to be among the most desirable destinations for remote workers, valued for its climate, affordability, and quality of life (Nomad List, 2024), contributing to the national average of around 20% of employees working from home occasionally (Eurostat, 2025). Portugal's digital nomad visa is among the most attractive in the EU, notably allowing holders to support their permanent residency application after five years. However, the phasing out of tax benefits under the revised Non-Habitual Resident regime may reduce Lisbon's fiscal appeal to foreign remote workers (KPMG, 2025), in conjunction with incentives offered by more remote regions of Portugal, such as Madeira, which provides free Wi-Fi and access to coworking spaces.

The influx of international remote workers and short-term rental platforms has intensified housing pressure in central areas, prompting resident displacement toward more affordable peripheral municipalities (Jones, 2023). New land law reforms introduced in 2025 aim to simplify licensing and encourage sustainable development in peripheral zones increasingly sought by both locals and remote professionals (TPN, 2025). The rise of coworking spaces in Lisbon and nearby suburbs – including Cascais and Almada – reflects a broader shift in work geographies driven by flexible arrangements (Di Marino et al., 2023). This urban evolution has created new mobility demands and challenges, while car use for commuting has increased substantially, tripling over two decades to reach 54% of the modal share in 2011 (Santos, 2017), a trend that remote work may partially reverse.

#### 4.4. Milan, Italy

Milan, the capital of Lombardy, is Italy's financial and industrial centre, and a metropolitan area of approximately 3.2 million residents (Città metropolitana di Milano, 2025). Covering nearly 18,200 ha, Milan is predominantly urbanized, and in 2024, the registered population reached 1,407,044, with the population presenting a fluctuating trend. The city's structure has historically been uncentric, though in recent decades it has shifted toward polycentricity, with surrounding areas developing their own economic and residential functions (De Vidovich & Scolari, 2022). Milan serves as a hub for high-tech industries, finance, fashion, manufacturing, as well as cultural and educational development (Bourdin, 2024). Milan's extensive and multimodal public transport network provides coverage across the city (Agenzia Mobilità Ambiente e Territorio, 2023) and supports flexible commuting patterns compatible with hybrid work. The concentration of managerial and strategic functions in the city core sustains demand for central office space, even as flexible working arrangements reshape office use across the metropolitan area.

Italy introduced a digital nomad visa following COVID-19, though its eligibility criteria are demanding and primarily target high-income professionals (Casi et al., 2024). Milan has nonetheless attracted international residents, including expats following Brexit, contributing to recent population growth (Giuffrida, 2023). Remote work penetration in Lombardia remains moderate: the region is classified as a “Moderate Innovator +” in the European Innovation Scoreboard (Hollanders, 2023b), with a reputation for creativity and entrepreneurship in a knowledge-intensive economic base that is conducive to remote and hybrid working arrangements.

#### 4.5. Stockholm, Sweden

Stockholm is the capital of Sweden and the largest Nordic capital, with approximately 2.4 million residents in the metropolitan area (Eurostat, 2024c). The region accounts for nearly one-third of Sweden's GDP and exhibits higher population growth and productivity than the rest of the country (Eurostat, 2024a). Stockholm has a polycentric urban structure with a compact city center, extensive green spaces, and a planning framework focused on sustainability and zero-carbon competitiveness (Region Stockholm, 2018; Stockholms stad, 2018). Housing availability impacts the labor market and economic growth. The increasing population in the Stockholm metropolitan area intensifies pressure on an already strained housing market. New housing developments in the suburbs aim to ease pressure on the city center, but rising demand in central districts remains a challenge. The office real estate market in central Stockholm stays competitive and among the most robust in Scandinavia, despite growing demand for flexible and hybrid work arrangements.

Sweden ranks among the highest in the EU for remote work, with over 40% of workers working from home regularly or occasionally in 2024 (Eurostat, 2025), and about 50% of jobs in the Stockholm region could be performed remotely (Eliasson, 2023). Even though Sweden does not offer a digital nomad visa or specific incentives for remote workers, it continues to be a popular destination for international professionals and expatriates. Stockholm was the fourth most innovative region in Europe in 2023 (Hollanders, 2023d).

Migration patterns show that 33% of people moving out of Stockholm County to smaller towns or rural areas are RW, primarily freelancers and high-tech professionals, while most of these individuals retained their jobs in Stockholm (Region Stockholm, 2018). The phenomenon of multilocality in smaller towns is influenced by remote work, although it is difficult to distinguish population growth caused by remote work from that driven by other factors. Certainly, the increase in coworking spaces in rural and suburban areas near Stockholm promotes multilocality and contributes to the outflow from the capital to smaller towns in Stockholm County (Nordregio, 2024a), motivated by larger housing options and proximity to nature.

#### 4.6. Vienna, Austria

Vienna, the capital of Austria, is situated in the east of the country along the Danube, with a metropolitan population of approximately 2 million. The city of Vienna features a polycentric urban structure with a compact city centre, a well-connected transportation system, and extensive green spaces covering 49% of the urban area (Province of Vienna, 2023). Vienna's urban development strategy emphasises sustainability, zero-emission buildings, and green innovation. (Province of Vienna, 2023; Vienna Business Agency, 2023).

As of 2011, Vienna's housing system was notably diverse, with 24% of all housing classified as public housing, primarily municipal, which effectively prevents the displacement of low- and middle-income residents and promotes urban cohesion and accessibility (Merrifield, 2023), while maintaining socially mixed neighbourhoods even as housing demand rises (Province of Vienna, 2023). Despite this, increasing demand in inner-city areas has driven up property and rental costs, prompting the city to focus on expanding housing in peripheral areas and developing mixed-use communities (Vienna Business Agency, 2023). What sets Vienna apart is its robust and inclusive social housing policy, which ensures that affordable housing is not relegated to the city's suburban areas.

In 2024, approximately 25% of workers in Austria worked remotely at least occasionally (Eurostat, 2025). While Austria does not offer a formal digital nomad visa, Vienna remains attractive to international professionals due to its high quality of life and relatively affordable living costs compared to other European capitals (Vienna Business Agency, 2023). The city's economy is increasingly diversified in terms

of remote working arrangements, with office spaces transitioning toward adaptable and shared workspaces.

Multilocality is an emerging trend in Vienna's metropolitan area, with a growing number of residents relocating to surrounding rural areas and smaller towns – in proximity to nature, while retaining employment in the city, citing remote work as a key enabling factor. This is supported by a growing network of coworking spaces in peri-urban areas and by Vienna's highly integrated transport system. As of 2022, walking accounted for 35% of all trips, public transport for 30%, cycling for 9%, and private car use for only 26% - Austria's lowest car ownership rate at 37 cars per 100 inhabitants (Province of Vienna, 2023).

#### 4.7. Volos, Greece

Volos is the administrative center of the Regional Unit of Magnesia and the second largest city in the Region of Thessaly. The Municipality of Volos has a population of 139,670 and covers 385.6 km<sup>2</sup>, with the city itself home to 117,687 residents (ELSTAT, 2021). Volos is classified as a Primary National Pole with a strategic objective - only partially realised to date (Greek Government, 2018). The city is built on a simple rectangular grid (Hippodamianplan) along the coastal front and remains largely monocentric, with key functions concentrated around the historic centre, and public green spaces being limited and unevenly distributed (Volos Municipality, 2020). The coastal zone and the Pelion Mountain hinterland pose distinctive characteristics that make Volos a key tourist destination - a context relevant to understanding second-home dynamics and multilocality patterns in the region (Volos Municipality, 2020).

Remote work has been gaining traction in the Magnesia region, partially driven by the transformation of vacant commercial spaces into coworking hubs (Manika, 2020; Manika et al., 2022), and supported by digital technologies that stimulate economic revitalisation and professional collaboration (Lalenis & Ruchinskaya, 2018). In terms of remote work (RW) policies, Greece has introduced a digital nomad visa aimed at attracting non-EU remote workers (Work from Greece, 2023). Despite offering a 50% tax reduction for up to seven years, the visa carries rather strict eligibility requirements and has had limited success to date. This is also reflected in the relatively low proportion of remote work from home levels nationally at 7.1% (Eurostat, 2025). According to the European Innovation Scoreboard 2023, the region of Thessaly (EL61) is classified as "Moderate Innovator +", demonstrating a cumulative increase of 25.9% in innovation performance over recent years (Hollanders, 2023a). The local economy is dominated by the tertiary sector, with specialisation in commerce, tourism, financial services, and public administration. Additionally, the high unemployment rates disproportionately affect women in the local labour market (Volos Municipality, 2020).

## 5. Results

The insights from the interviews are presented here following six themes that arose from the literature review and the thematic analysis of the transcripts: (1) Spatialities of remote work, (2) Urban Development Trends, (3) Residential and Office Demand, (4) Mobility Patterns and Transport Infrastructure, (5) Urban-Rural Divide, and (6) Policies.

The results are synthesised here in a comparative table (Table 4) that highlights the direct or indirect spatial implications of remote work in each case study. This cross-case comparative analysis enables the identification of similarities and differences, as well as patterns, across diverse spatial contexts and varying spatial dynamics. The classification of the codes utilises colour to distinguish between implications directly related to remote work and those that are indirect or not linked to remote work at all. Blue is used for spatial implications that are induced by remote work, while red indicates spatial implications that cannot entirely be attributed to remote work. The colour black is used to describe the current situation for a given factor.

**Table 4**  
Comparative table summarizing the results.

|  | Barcelona ES  | Enschede NL  | Lisbon PT  | Milan IT  | Stockholm SE   | Vienna AT  | Volos GR   |
|--|---|--|--|---|--|--|--|
| <b>Spatialities of RM</b>              | <b>Home office:</b> people prefer to work from home, but houses are not appropriate to support this<br><b>Coworking spaces:</b> they have not risen significantly<br><b>Third places:</b> their use has increased and they are mostly cafes and libraries   | <b>Home office:</b> common practice, it is deemed the most popular option<br><b>Coworking spaces:</b> not that popular<br><b>Third places:</b> common practice before Covid-19   | <b>Home office:</b> preferred mostly in suburban and peri-urban areas<br><b>Coworking spaces:</b> popular in Portugal, used mostly in dense urban areas but also in rural areas for a sense of community<br><b>Third places:</b> N/A   | <b>Home office:</b> it is preferred outside the large cities<br><b>Coworking spaces:</b> very popular in Italy and especially in Milan, combined with near-working policies to provide a good working environment<br><b>Third places:</b> in Lombardy, especially public buildings in collaboration with municipalities   | <b>Home office:</b> common practice, it is deemed the most popular option<br><b>Coworking spaces:</b> preferred in rural areas as they act as community centres and collaboration hubs<br><b>Third places:</b> N/A   | <b>Home office:</b> People mostly work from home<br><b>Coworking spaces:</b> not that popular<br><b>Third places:</b> not that popular   | <b>Home office:</b> common practice, it is deemed the most popular option<br><b>Coworking spaces:</b> the city has only 1 dedicated coworking space<br><b>Third places:</b> some cafes function as coworking spaces in and out of the city   |
| <b>Urban Development</b>               | <b>Gentrification:</b> mostly linked to the combination of tourism and digital nomads/ expats in the centre<br><b>Multilocality:</b> has increased with RM, especially in coastal areas<br><b>Movement to the periphery:</b> low-income individuals are moving to the suburbs mainly due to housing prices  | <b>Gentrification:</b> not a significant problem yet<br><b>Multilocality:</b> N/A<br><b>Movement to the periphery:</b> remote workers are moving to Enschede from other regions of the country because of the relatively cheaper living conditions | <b>Gentrification:</b> mostly linked to tourism, the phenomenon is evident in the metropolitan area<br><b>Multilocality:</b> seemingly not widespread in relation to RW<br><b>Movement to the periphery:</b> People are moving to the suburbs and the perimeter of the metropolitan area, taking advantage of RW arrangements  | <b>Gentrification:</b> pre-existed in Milan, linked with development projects, enhanced by high costs<br><b>Multilocality:</b> common practice, linked with second homes<br><b>Movement to the periphery:</b> People are moving to the suburbs and smaller cities with good road/transport connectivity   | <b>Gentrification:</b> happening particularly in smaller towns that were not affected by tourism before<br><b>Multilocality:</b> very common practice, linked with second homes, tends to create pressure on infrastructure or services in less populated areas<br><b>Movement to the periphery:</b> People are moving to the suburbs and smaller cities within a commuting distance   | <b>Gentrification:</b> pre-existed in specific areas of the city centre<br><b>Multilocality:</b> common practice linked to the suburbs and smaller towns<br><b>Movement to the periphery:</b> the city is expanding in the suburbs, but not far from the inner centre, due to hybrid working arrangements  | <b>Gentrification:</b> not much data to suggest it, short and mid-term rentals boost rent prices<br><b>Multilocality:</b> common practice, linked with ownership of second homes in Pelion<br><b>Movement to the periphery:</b> people come to Volos from larger cities like Athens. There is a slight tendency to move to the suburbs                 |
| <b>Residential &amp; Office Demand</b> | <b>Housing stock:</b> affordable housing in the city centre is low, while short-term leases exacerbate this phenomenon<br><b>Housing prices:</b> the property value in the city centre is high<br><b>Office spaces:</b> The need for office spaces remains as the city attracts companies, but most of them need less space with the layout of a coworking space<br><b>Second homes:</b> in the coastal area, people turn their second homes into primary residences instead of renting an apartment in the city centre | <b>Housing stock:</b> not affected<br><b>Housing prices:</b> not affected<br><b>Office spaces:</b> not affected<br><b>Second homes:</b> N/A  | <b>Housing stock:</b> difficult to find affordable residence in the city, short and mid-term rentals are widespread<br><b>Housing prices:</b> rising, ripple effect from the perimeter of the metropolitan area<br><b>Office spaces:</b> seemingly back to normal after the pandemic, easy transformations to hotels and residence happened<br><b>Second homes:</b> there are no data to link this with remote work, but it is happening to a degree | <b>Housing stock:</b> difficult to find affordable housing in larger cities like Milan, short and mid-term rentals are widespread<br><b>Housing prices:</b> rising, people move to smaller cities to find affordable housing<br><b>Office spaces:</b> downsized a bit during the pandemic, some open parts of the office to be used as coworking spaces<br><b>Second homes:</b> widespread practice to use them periodically in combination for example, with holiday periods | <b>Housing stock:</b> doesn't seem to be affected by remote work, the market is regulated with rent controls and waiting lists. It is easier to find affordable housing outside of Stockholm<br><b>Housing prices:</b> not directly linked to RW in the city, in smaller cities and rural areas is observed<br><b>Office spaces:</b> consolidated during the pandemic, now there is a trend to open smaller offices in the CBD moving from the outskirts<br><b>Second homes:</b> a common practice in Sweden | <b>Housing stock:</b> is regulated by housing policies that secure balanced housing options<br><b>Housing prices:</b> housing is expensive but within an affordable range in the city, while it has increased in the suburbs<br><b>Office spaces:</b> The office demand remains high because of the constant economic development<br><b>Second homes:</b> common practice during the winter months, especially in mountainous villages of the Alps | <b>Housing stock:</b> doesn't seem to be affected by remote work<br><b>Housing prices:</b> maybe a slight rise, not directly linked to remote work<br><b>Office spaces:</b> no data to suggest they are affected by remote work<br><b>Second homes:</b> common practice during warmer months, especially in coastal and mountainous villages of Pelion |

|   | Barcelona ES   | Enschede NL  | Lisbon PT   | Milan IT  | Stockholm SE  | Vienna AT   | Volos GR   |
|---|--|--|---|---|---|---|--|
| <b>Mobility Patterns and Transport Infrastructure</b> | <b>Commuting time:</b> differentiated peak hours and congested suburban road networks<br><b>Public transport/car use:</b> multimodal public transport<br><b>Transport Infrastructure:</b> partially covers the needs with good connectivity in the metropolitan area   | <b>Commuting time:</b> not affected<br><b>Public transport/car use:</b> multimodal and well-connected public transport, use of cars in rural areas and increasing use of active transport in the city<br><b>Transport Infrastructure:</b> adequate, good connections, multimodal   | <b>Commuting time:</b> maybe extended a bit, but it happens less frequently<br><b>Public transport/car use:</b> public transport, high car use but not directly linked with RM<br><b>Transport Infrastructure:</b> adequate, good connections   | <b>Commuting time:</b> due to hybrid working models, it has been extended but happens sparsely, in Milan there are no predictable peak hours<br><b>Public transport/car use:</b> public transport and especially railway networks attract inhabitants in smaller cities with good connections to hubs<br><b>Transport Infrastructure:</b> adequate without much coverage of remote areas, good connections, a network that is expanding | <b>Commuting time:</b> due to hybrid working models, it has been extended, given the fact that it happens fewer times per week/month<br><b>Public transport/car use:</b> the use of public transport has not yet reached the pre-pandemic levels, maybe a rise in car use<br><b>Transport Infrastructure:</b> is struggling with lower ridership and higher costs | <b>Commuting time:</b> differentiated peak hours and congested suburban road networks<br><b>Public transport/car use:</b> car use prevails to commute from suburbs to the city<br><b>Transport Infrastructure:</b> the existing road network accommodates an increasing number of new residents in the suburbs, but public transport needs careful planning   | <b>Commuting time:</b> not affected at a local level<br><b>Public transport/car use:</b> public transport is not good after the recent natural disasters, car use prevails outside the city<br><b>Transport Infrastructure:</b> doesn't cover the needs  |
| <b>Policies</b>                                       | <b>Attraction Policies:</b> Digital Nomad Visa<br><b>Regulating Policies:</b> ongoing policies for the mitigation of short-term leases   | <b>Attraction Policies:</b> New apartments are planned in the inner city to boost its densification for better accessibility<br><b>Regulating Policies:</b> Efforts to avoid residential expansion to areas with limited accessibility by public transport   | <b>Attraction policies:</b> Digital Nomad Visa, tax benefits make Portugal very popular with digital nomads<br><b>Regulating policies:</b> regarding affordable housing and quotas in short/mid-term rentals, are not applied well  | <b>Attraction policies:</b> Digital Nomad Visa, tax benefits, and policies like 1-euro houses try to attract people to less populated areas<br><b>Regulating policies:</b> near-working policies, south-working during the pandemic, collaborations with different stakeholders for opening coworking spaces  | <b>Attraction policies:</b> not at the national level, some municipalities try to attract permanent residents by taking advantage of RW arrangements<br><b>Regulating policies:</b> N/A   | <b>Attraction Policies:</b> smaller towns do not want more incoming residents and try to regulate the influx. Due to migration policies, Digital Nomads do not appear that much<br><b>Regulating Policies:</b> housing and land use policies  | <b>Attraction policies:</b> Digital Nomad Visa, tax benefits, nothing specific at the local level<br><b>Regulating policies:</b> N/A   |
| <b>Urban-Rural Divide &amp; Infrastructure</b>        | <b>Digital Infrastructure:</b> some gaps in very rural and remote areas<br><b>Access to Services:</b> the transport network provides access to the smaller towns and the rural areas<br><b>Public Facilities:</b> remote or mountainous areas do not have easy access to public facilities<br><b>Infrastructure:</b> digital connectivity and infrastructure issues in rural areas | <b>Digital Infrastructure:</b> The digital connectivity, as well as the utilities infrastructure are well developed in the country<br><b>Access to Services:</b> rural areas face issues regarding public amenities such as doctors, or other commercial services<br><b>Public Facilities:</b> partial lack of services and amenities in rural areas<br><b>Infrastructure:</b> adequate in the whole country | <b>Digital infrastructure:</b> some gaps in very rural and remote areas<br><b>Access to services:</b> the transport network provides easier access and reduces distances<br><b>Public Facilities:</b> easier access with the transport infrastructure within the metropolitan area<br><b>Infrastructure:</b> some connectivity issues | <b>Digital infrastructure:</b> some gaps in very rural and remote areas<br><b>Access to services:</b> the transport network provides easier access and reduces distances, it is difficult in rural and remote areas<br><b>Public Facilities:</b> remote or mountainous areas do not have easy access to public facilities<br><b>Infrastructure:</b> gaps exist mainly in very rural and remote areas                                    | <b>Digital Infrastructure:</b> good connectivity except in remote areas<br><b>Access to Services:</b> smaller towns face issues regarding sewage and garbage collection infrastructure and services with the temporary population rise<br><b>Public Facilities:</b> N/A<br><b>Infrastructure:</b> adequate, with some utility issues in the very rural areas      | <b>Digital Infrastructure:</b> is sufficient<br><b>Access to Services:</b> lots of commercial vacant spaces due to online shopping, while services and utilities infrastructure in the suburbs need improvements<br><b>Public Facilities:</b> partial shortages, pressure on services and amenities in rural areas<br><b>Infrastructure:</b> need for improvements in the suburbs, the digital connectivity is good | <b>Digital infrastructure:</b> not good connectivity outside the city<br><b>Access to services:</b> only in and near the city, not adequate in the rest of the area<br><b>Public Facilities:</b> mainly available in Volos<br><b>Infrastructure:</b> not covering the needs, especially outside the city |

### 5.1. Spatialities of remote work

The growth of remote work during the pandemic exhibited significant variability across the case studies and among different regions and degrees of urbanisation. Interviewees stressed that the hybrid model may be becoming standard across all cases. There was almost a consensus that working from home is the most common arrangement across all case studies, particularly in suburban and peripheral areas. Fig. 2 highlights how often each theme was mentioned, focusing on remote work spatialities and digital nomads.

However, preferences for alternative workspaces vary. In Southern Europe, where houses in historical city centres tend to be small, many remote workers rely on third places like coworking spaces, libraries and cafés. In the cases of Lisbon and Barcelona, neighborhood-scale libraries and cafés provide alternative work environments. In contrast, remote work remains primarily home-based in more regulated housing markets like Stockholm and Vienna. In Vienna, for example, has integrated common workspaces within new housing developments open for use among the residents.

According to the interviewees, coworking spaces exhibit different levels of popularity across the cases. They are relatively well established in Portugal and Italy, with Milan standing out as an early adopter. Near-working policies have been explored in Milan, involving cooperation between municipalities, companies, and coworking spaces to provide workspaces close to residential areas, including public buildings such as libraries. In contrast, coworking spaces are not widely used in Vienna and Enschede. Interestingly, as remote workers seek fully equipped work environments outside the home in rural areas, demand for coworking spaces is rising. In Sweden, for instance, coworking spaces in rural areas function as community and cultural hubs and are more popular than in urban areas.

Another significant factor shaping the spatialities of remote work is the presence of digital nomads. In Southern Europe, policies to attract digital nomads have contributed to expanding coworking spaces and third places, as seen in Lisbon and Barcelona. In Volos, with an influx of digital nomads during the warmer months, the demand for professional spaces with reliable internet is increasing, although there is currently only one coworking space.

### 5.2. Urban development trends

According to the interviews for the seven case studies, specific urban trends linked to the implications of remote work are not yet emerging due to the newness of its widespread adoption. Three phenomena arose that seem to be the basis of developing trends: gentrification, multilocality, and movement to the periphery. In Fig. 3 this aspect of the interviews is highlighted.

The interviews highlighted that while gentrification predated remote work, its interaction with remote work trends has reinforced existing

patterns, particularly in cities experiencing high tourism pressures. Simultaneously, multilocality is established as remote workers can divide time between multiple residences. Additionally, across the different case studies, a movement to suburban and rural areas has been observed, motivated by housing affordability, improved quality of life, and changing work arrangements.

In the case studies of Milan, Lisbon, and Barcelona, gentrification was mentioned as a significant issue in relation to the influx of digital nomads, expats, and high-income remote workers, which has exacerbated housing affordability. The interviewees agreed that gentrification is heavily related to over-tourism, development projects, and rising real estate prices in Milan. In Lisbon, the influx of digital nomads and the rising popularity of short-term rentals have intensified tourism-related gentrification. In Barcelona, it is linked to the incoming digital nomads and expats with higher incomes, who can afford higher prices and prefer short-term rentals. As a result, location-dependent, low- and middle-income workers tend to move to the suburbs or smaller cities nearby, looking for affordable housing. In contrast, gentrification was not considered a significant issue in Vienna, Volos and Enschede interviews. In Sweden, gentrification has taken a different form, affecting medium-sized towns rather than metropolitan centres, as suburban and rural areas gain population due to remote work.

Multilocality is becoming increasingly popular, with remote work being a contributing factor. In Italy, there is a significant correlation between multilocality and second homes. This is explained by the fact that Italians have high rates of residence ownership (Eurostat, 2024b), and it is common to own more than one house. A similar trend is seen in Stockholm, where many remote workers split their time between urban residences and second homes in rural areas, sometimes converting these properties into primary residences. However, this rise of multilocality is combined with pressure on the existing infrastructure (sewage, garbage collection) as the temporary population outnumbers the permanent residents. In Barcelona, individuals who own second homes on the coastline use them as primary residences while maintaining an apartment in the city for occasional commuting. In Vienna, multilocality is similarly facilitated by second-home ownership, with many residents maintaining properties in the Alps to balance work and leisure. Volos differs from all the other case studies since it is a relatively small city and attracts multilocals from Athens or Thessaloniki (Greece's largest cities). Conversely, in Lisbon, Volos, and Enschede, multilocality is not as closely linked to remote work, although some movement patterns between cities and rural areas are observed.

The movement to suburban and rural areas has been identified as a trend in many case studies, though its underlying causes vary. Drivers seem to be the larger housing options, affordability, lower costs, and proximity to nature. In Lisbon, the pandemic accelerated a shift toward peripheral areas, as in Milan, with people moving to smaller towns and suburban areas, still maintaining work connections with the city. In Stockholm, movement to the periphery is also driven by affordability and housing availability, and many choose to relocate to smaller cities while remaining within commuting distance of the capital. The interviews highlighted that in Vienna, many residents opt for locations closer to nature while maintaining professional ties to the city. Enschede presents a unique case since it attracts workers, including remote workers, from other Dutch cities and even Germany due to its relatively lower living costs and high quality of life. In Barcelona, the movement to the suburbs and peripheral areas is linked to gentrification and remote work, resulting in a “sleeping rural nuclear” effect, where rural and suburban residents continue engaging in urban economic activities. For the case of Volos, a slight seasonal trend toward movement to the periphery has been observed, but it is far from being a permanent shift.

While it is still early to see a significant change in urban development trends as a response to remote work implications, gentrification, multilocality, and movement to the periphery manifest differently across the case studies. In cases with unregulated housing markets, remote work has accelerated displacement and changed residential preferences.

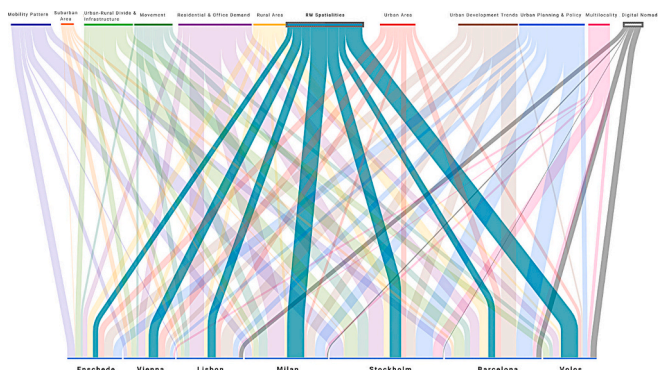


Fig. 2. Sankey diagram presenting the thematic analysis of the interviews per case study. Highlights on remote work spatialities and digital nomads.

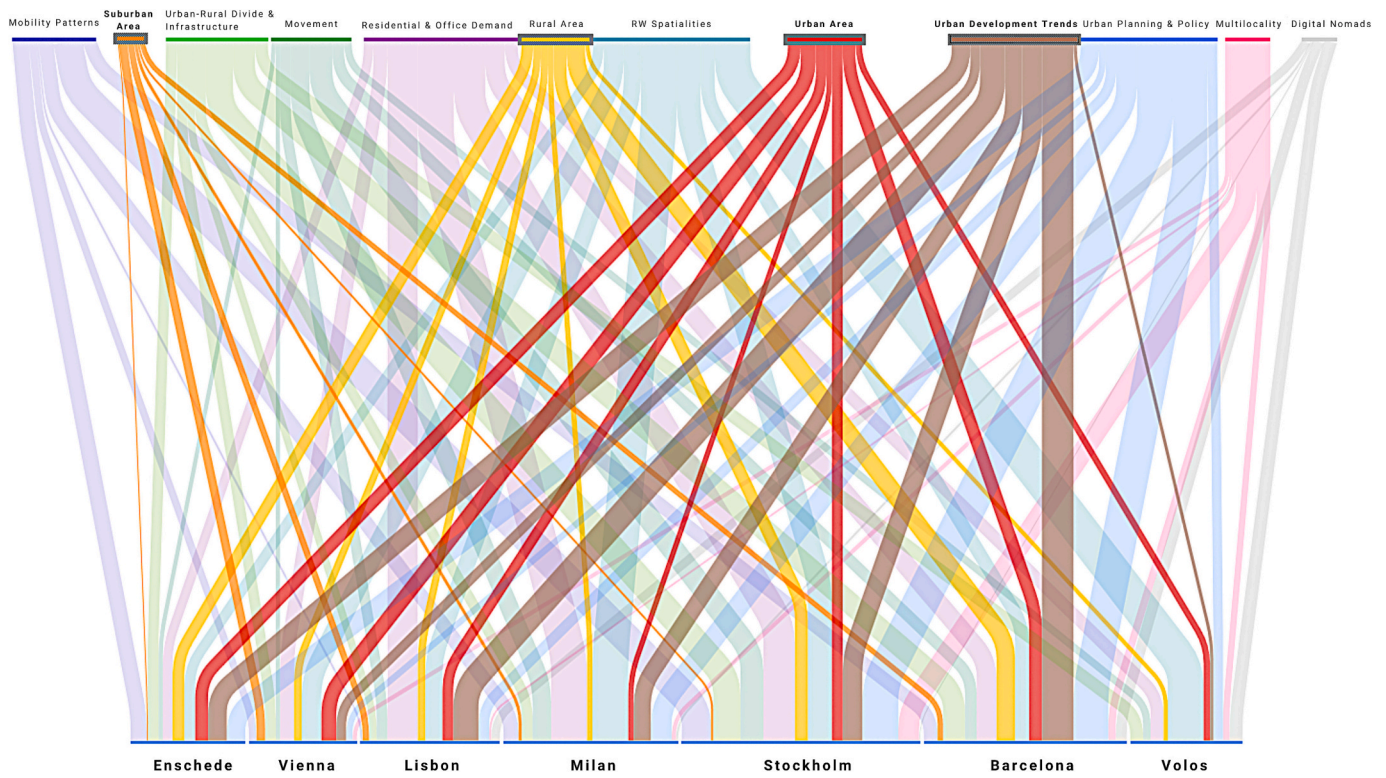


Fig. 3. Sankey diagram presenting the thematic analysis of the interviews per case study. Highlights on urban, suburban, rural areas and urban development trends.A.

Where there are strong second-home ownership or access traditions, multilocality is becoming increasingly common and is enhanced by flexible working arrangements. Meanwhile, the shift toward suburban

and rural areas highlights evolving residential patterns driven by affordability, infrastructure, and lifestyle considerations.

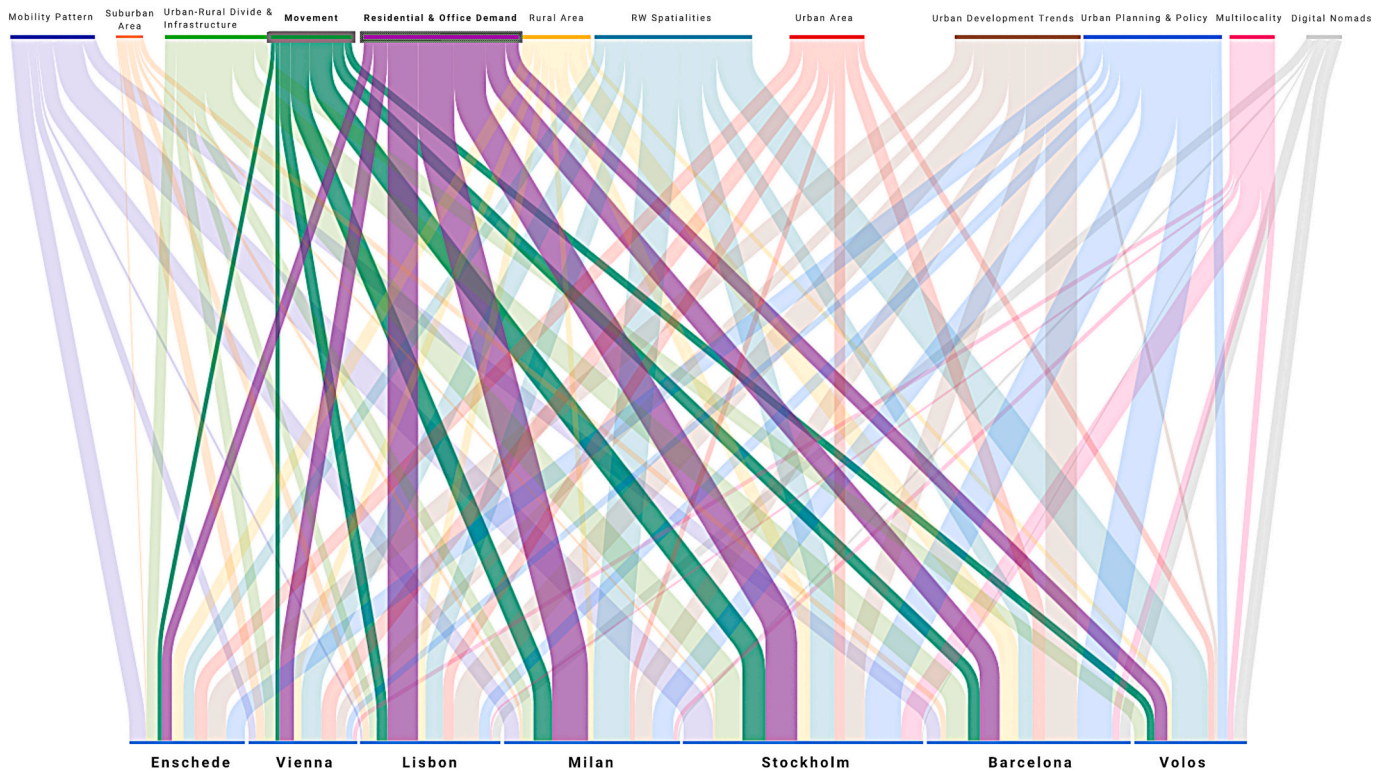


Fig. 4. Sankey diagram presenting the thematic analysis of the interviews per case study. Highlights on movement to suburban and rural areas, residential, and office demand.

### 5.3. Residential and office demand

The interviews highlighted a shift in residential preferences due to remote work, with varying effects on housing and office demand across the case studies. Fig. 4 highlights the themes that emerged regarding residential and office demand. For the housing costs, in Barcelona, Lisbon, Milan, and Volos, interviewees expressed concerns about rising rents and gentrification. Although not solely caused by remote work, the presence of digital nomads and expats was seen to exacerbate these trends. Short-term rentals, common in tourist-heavy areas, have contributed to local displacement, particularly of lower-income workers. In contrast, Enschede, Vienna, and Stockholm are characterized by relatively stable housing markets. Vienna's strong housing regulation curbs speculative inflation, while Enschede's inner-city apartment development policies support affordability. In the case of Stockholm, despite high housing prices, suburban affordability is maintained through rent controls and strict regulations.

A second pattern involves migration to suburban and rural areas among workers adopting hybrid working arrangements, seen in Barcelona, Lisbon, Milan, and Stockholm. In Barcelona, high housing costs combined with the ability to work remotely have prompted many residents to relocate to their second homes in the coastal area and commute when necessary. In Lisbon hybrid working arrangements and COVID-19 have encouraged relocation to the periphery of the metropolitan area for better quality of life. In the case of Milan, a similar trend is witnessed with residents choosing more affordable housing in medium-sized cities. Likewise, in Stockholm a shift toward suburban and rural living is noted, as remote work diminishes the necessity for daily commuting.

Office space transformation was mostly discussed in the cases of Barcelona, Lisbon, Milan, and Stockholm, where hybrid work models are linked to decreased demand for traditional office spaces. In Barcelona, there are examples of companies downsizing and repurposing office buildings into coworking spaces. In the case studies of Lisbon and Milan a similar restructuring trend has been observed, with an increasing emphasis on coworking hubs and mixed-use developments. A post-pandemic rebound in central office demand is observed in Stockholm,

while repurposing for housing is being considered for vacant suburban spaces. In contrast, in Vienna and Enschede office demand remains steady. Specifically, in Vienna office demand is stable, with companies opting to remodel internal layouts rather than reduce overall space. In Enschede, since remote work has not been as widely adopted as in other Dutch cities, office space usage remains relatively unchanged.

Policy responses also vary. Vienna and Stockholm benefit from strong regulations, including rent controls and inclusive zoning, which have helped mitigate extreme price fluctuations. Enschede has proactively expanded its housing stock to prevent affordability issues from arising. Meanwhile, in Barcelona, Lisbon, Milan, and Volos, challenges persist in regulating short-term rentals and ensuring access to affordable housing. In Lisbon and Milan, mixed-use developments are being explored as a potential solution to balance the demand for housing and office space.

Overall, the impact of remote work on residential and office demand is evident across all case studies. Still, the extent of its influence is highly context-dependent, shaped by housing and economic policies, local governance, and the ability to adapt to changing real estate trends.

### 5.4. Mobility patterns and transport infrastructure

The interviews indicated variations in the impact of remote work on mobility patterns across the case studies (Fig. 5). In most case studies, increased movement to suburbs or smaller towns has intensified pressure on transport infrastructure and contributed to rising road traffic. However, in Barcelona, Enschede, and Volos, remote work appears to have limited implications on mobility patterns. In Enschede, for instance, remote work is less prevalent compared to other Dutch cities, which is also the case for Volos.

In contrast, Lisbon, Vienna, and Stockholm have experienced more pronounced changes. A clear trend observed is the migration from metropolitan cores to peripheral or rural areas, which has significantly increased demand for public transport and road networks. The inner suburbs of Lisbon and Vienna are considered highly desirable due to the affordability of housing options. In contrast, a significant number of

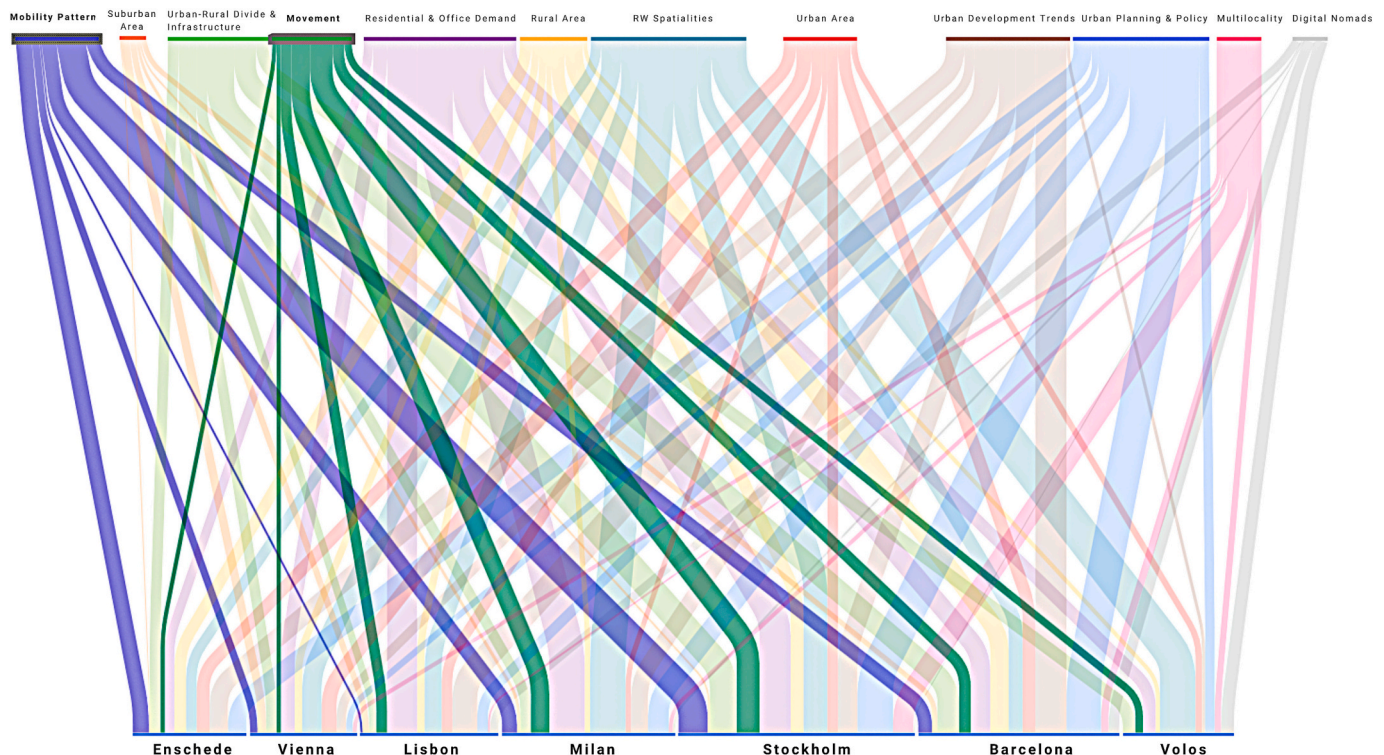


Fig. 5. Sankey diagram presenting the thematic analysis of the interviews per case study. Highlights on movement and mobility patterns.

individuals opt to relocate from the Stockholm metropolitan area to nearby towns such as Södertälje and Uppsala, or to more rural areas further afield. Overall, it was observed that the spread of remote work has led to increased home-based work and reduced daily commuting.

A major challenge emerging from the interviews is the growing use of private vehicles following the relocation of remote workers to less densely populated areas. In Vienna, reliance on cars for commuting from suburban areas has increased, resulting in bottlenecks and added pressure on the road infrastructure. This phenomenon contributes to environmental degradation through elevated CO<sub>2</sub> emissions. A similar pattern is observed in Milan, where commuting patterns have diversified peak hours and days and placed new demands on central road networks and public transit.

The cases of Enschede and the Metropolitan Areas of Barcelona, Vienna, and Stockholm are characterized by an integrated and multimodal public transport system. In Barcelona, Milan, and Stockholm, the regional train lines connect the periphery and smaller towns to city centre. Interestingly, in Stockholm, public transport ridership has not yet returned to pre-pandemic levels, stabilising at approximately 85% of what it was in 2019, although this is not directly an outcome of remote work and has been observed in several cities across Europe. Similarly, the municipality of Enschede promotes combined living and working in close proximity to large urban centres, taking advantage of the sufficient public transport options provided. However, after COVID-19, commuting patterns have shifted, presenting an increased use of bicycles and/or cars.

In general, the findings of the interviews did not demonstrate a clear correlation between remote work and mobility patterns, as it is still too early to ascertain the deeper implications. Furthermore, the impacts on mobility patterns are largely related to the urban form and available modes of transport in each case study. In most of the study cases, the movement of the population outside the city center differentiated travel patterns and changed transport infrastructure needs.

### 5.5. Urban-rural divide

The rise of remote work has reshaped urban-rural dynamics across the seven case studies with varying impacts on digital infrastructure, utility infrastructure, and migration patterns (Fig. 6). While some cities seem to have adapted to these shifts, others face significant challenges in bridging the urban-rural divide.

The cases of Enschede, Stockholm, and Vienna illustrate how strong digital infrastructure can support remote work in both urban and rural areas. In particular, the Netherlands and Nordic countries like Sweden have long been digital frontrunners, ensuring that even smaller towns and remote regions remain well-connected. On the other hand, in the case studies of Milan, Lisbon, and Volos moderate infrastructure gaps are noted, particularly in mountainous and coastal areas, limiting the potential for widespread remote work adoption. In Barcelona and Milan pronounced digital divides are recorded, with rural areas lacking the connectivity and resources necessary for seamless telecommuting.

Enschede and Volos, both relatively smaller cities, attract workers from other regions due to their lower cost of living. Enschede draws workers from the western parts of the Netherlands and from nearby Germany. Volos, meanwhile, attracts mainly digital nomads from abroad. Yet, while Enschede benefits from strong infrastructure, Volos faces challenges in equipping rural areas with adequate digital and public services.

Beyond digital infrastructure, the migration from urban centers to peripheral areas creates additional strains. One major challenge is the pressure placed on the resources of smaller municipalities, which often lack capacity to meet rising infrastructure demands. For instance, in the cases of Barcelona and Lisbon, notable suburban migration is observed due to the high rental prices in the city center. This shift displaces residents to surrounding suburbs or rural areas while they maintain work and daily activities in the city, creating what has been referred to as the “sleeping rural nuclear” effect. A similar pattern has been observed in Vienna. This shift has economic implications due to unequal tax distribution and public service funding in areas absorbing the influx.

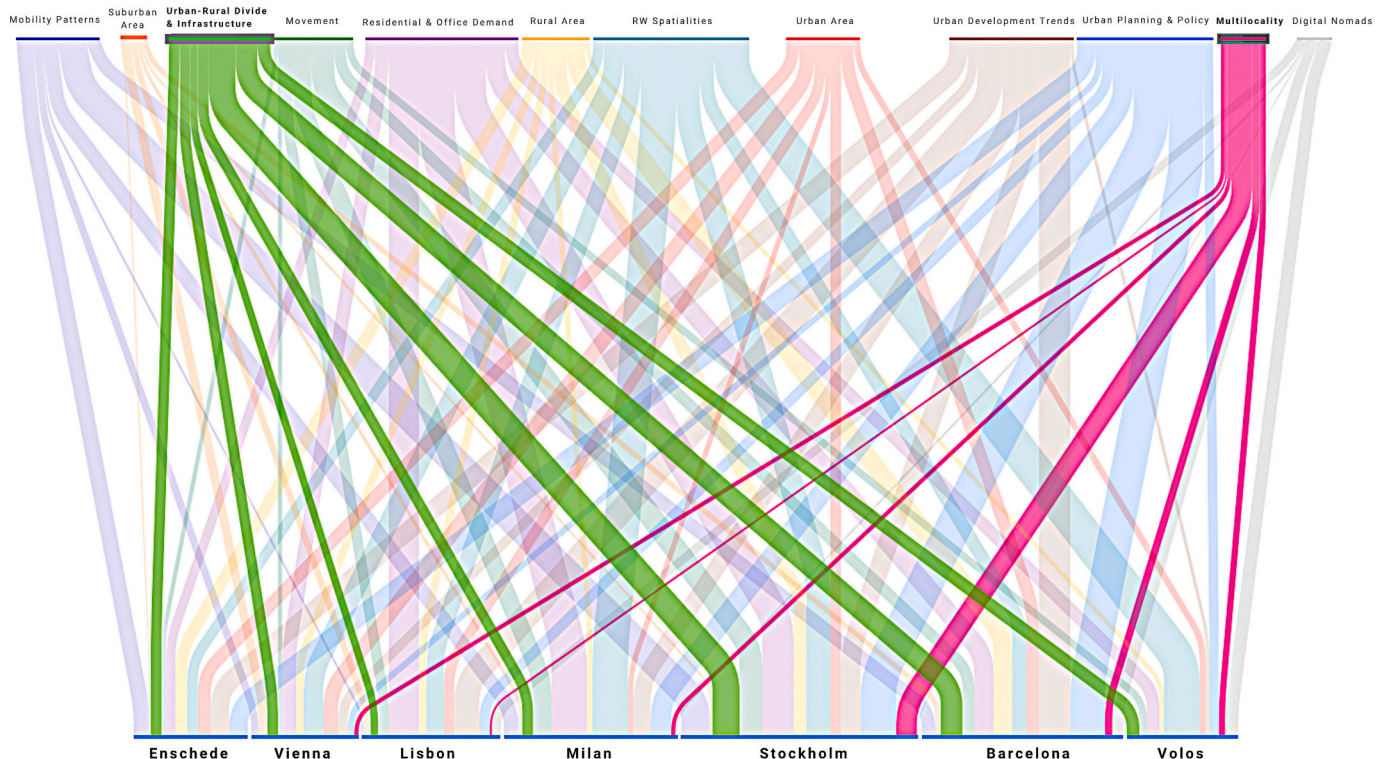


Fig. 6. Sankey diagram presenting the thematic analysis of the interviews per case study. Highlights on multilocality and urban – rural divide and infrastructure.

The rise of multilocality is another aspect of remote work that alters the residential patterns, causing tax distribution issues. This phenomenon was discussed in detail in the Milan and Stockholm cases, where multilocality offers new investment opportunities in rural areas. Yet, concerns remain about the return on investment and infrastructure adequacy. These challenges extend beyond housing and digital infrastructure to environmental and utility infrastructure concerns, including waste management, sewage systems, and transport limitations. Such pressures are particularly visible in Milan, Stockholm, and Volos, where suburban and rural areas experience seasonal and long-term population fluctuations driven by multilocality, tourism, and digital nomads.

In conclusion, while some cities have leveraged digital infrastructure and housing opportunities to support remote work across urban and rural contexts, others face significant gaps that exacerbate the urban-rural divide. Addressing these disparities will require targeted policy interventions, improved infrastructure investment, and innovative housing solutions to fully harness the opportunities of remote work.

### 5.6. Policies

The policy context is fundamental to understanding the spatial implications of remote work. Based on insights derived from interviews conducted across the seven case studies, the relevant policy measures were classified into two broad categories: Attraction Policies and Regulating Policies. Although these do not constitute spatial planning policies in the strict sense, they nonetheless have significant implications for the geographies of remote work, shaping urban development trajectories, patterns of residential and office demand, mobility flows, and the broader urban-rural relationship.

Attraction Policies refer to measures aimed at drawing new residents, particularly digital nomads, to specific locations. Such policies often include incentives such as Digital Nomad Visas, fiscal benefits, and housing-related initiatives. In some contexts, these strategies also promote urban densification through new residential developments or through schemes such as “1-euro houses,” which are intended to stimulate settlement in depopulating or sparsely populated areas. By contrast, Regulating Policies are intended to manage the spatial and housing-related consequences of urban development. These measures address issues such as the proliferation of short-term rentals and seek to restrict residential expansion in areas with limited accessibility to public transport. Other forms of regulation include affordable housing requirements, rental quotas, and broader housing and land-use policy instruments.

According to the interview findings, Italy emerges as a notable case, having introduced measures that more directly address the evolving spatial organisation of work. In particular, the country has promoted near-working within the framework of the 15-min city. Milan and Bologna, for example, have experimented with near-working policies by collaborating with businesses and coworking spaces to provide employees with workspaces closer to home. More broadly, Italy has been an early adopter of policies supporting collaborative work environments, including coworking spaces, maker spaces, and incubators. In Milan, several initiatives have also been implemented in recent years to encourage business start-ups and foster local economic development.

A key trend among the case studies is the emphasis on attraction policies rather than on regulatory measures. As seen in the cases of Lisbon and Barcelona (Fig. 7), southern European countries are trying to attract non-European remote workers *via* Digital Nomad Visas and tax incentives. In contrast, the Netherlands provide alternative visa options, while Sweden and Austria do not have a specific Digital Nomad Visa.

A major challenge identified in the interviews is the need for policies regulating housing markets in response to remote work. The contrast between Southern and Central-Northern Europe is particularly pronounced. In the cases of Stockholm and Vienna, there is the benefit of strong regulation in the housing market with control over short and mid-term rentals. On the other hand, in the cases of Lisbon and Barcelona,

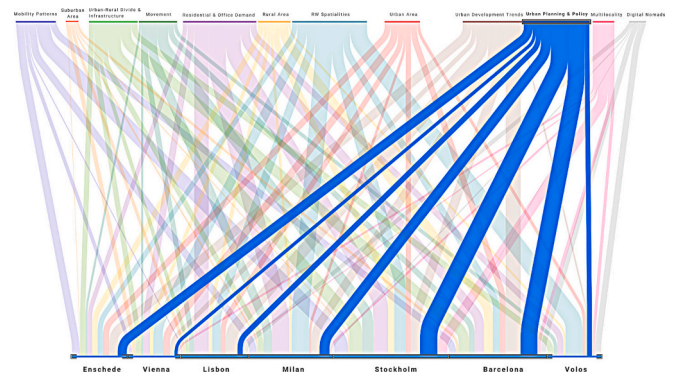


Fig. 7. Sankey diagram presenting the thematic analysis of the interviews per case study. Highlights on urban planning and policies.

due to short- and mid-term rentals covering a large percentage of the housing stock, housing shortages and affordability issues are observed. While discussions on policies to mitigate these effects are ongoing, implementation remains limited. For example, quotas to restrict short-term rentals to a maximum of 20% per neighborhood have been introduced in Lisbon but have not yet been implemented.

Governance gaps and data collection challenges further hinder policy development. Volos, and Greece in general, exemplify this issue, as no official statistics exist on remote workers and digital nomads, making it difficult to develop targeted policies. Interviewees highlighted the importance of municipal and regional involvement in shaping remote work policies and the need for incentives to support coworking spaces as part of entrepreneurial empowerment and urban regeneration.

In some cases, remote work's indirect effects are integrated into broader urban and regional strategies. In Vienna, land-use planning prioritizes the adaptive reuse of vacant commercial spaces for offices, short-lease housing, or other functions to maintain the city's appeal. Similarly, in Enschede remote work is considered within its transport and green space planning strategies. In response to behavioral shifts linked to remote work and to attract high-skilled workers while preventing gentrification, the city's housing policies emphasize a balanced mix of social (30%), affordable (40%), and luxury housing (30%).

Rural development was another significant theme that emerged during the interviews. In Sweden, some rural municipalities recognize the potential of remote work in regional revitalization and use investment in infrastructure in less populated areas as an incentive to attract new residents. In Italy, the provincial government of Trentino has introduced initiatives to promote remote work through decentralised public offices and repurposing abandoned buildings into coworking spaces. A Strategic Plan for Promoting Agile Work was launched in 2022, building on earlier policies developed during the pandemic to encourage remote work in rural and southern regions. During the pandemic, policies for revitalizing rural/remote areas were implemented, such as the 1-euro houses and relocation grants for families. South working was also introduced, with remote workers moving to southern and inner areas of the country while working for employers based in the big cities of the North or even abroad.

Overall, the interviewees agree that while attraction policies for remote workers are becoming popular, comprehensive strategies addressing remote work's broader spatial implications are still in the early stages. Also, the divergence between Southern and Central-Northern Europe in housing regulation underscores the role of pre-existing governance structures in shaping responses to remote work.

## 6. Discussion

The empirical findings of the study confirm several key insights from the existing literature while also revealing context-specific dynamics across the seven European case studies. Three cross-cutting themes

emerge, indicating the spatial implications of remote work: the contextualization of multilocality and new spatialities, differentiated impacts on urban development and housing demand, and governance and policy as mediating variables in shaping outcomes.

Remote work has clearly expanded the notion of multilocality and diversified the range of workspaces, a trend well-documented in the literature (Aroles et al., 2019; Reuschke & Ekinsmyth, 2021). The findings affirm that home-based work remains the most common arrangement across all case studies, particularly in suburban and peripheral areas. However, preferences for alternative work environments, such as coworking hubs and third places like cafes and libraries, vary across contexts. In cities like Milan and Lisbon, the rise of coworking spaces has been facilitated by near-working policies and the influx of digital nomads. In contrast, in cities with stronger housing regulations and compact urban forms, such as Vienna and Stockholm, coworking remains less prominent, and home offices are more common. Notably, in rural Sweden, coworking hubs assumed an additional role as community anchors, highlighting the multifunctional role these spaces can play. These variations align with the literature's assertion that spatialities of remote work are inherently fluid but deeply embedded in local socio-spatial structures.

Urban development trends also reflect the literature's emphasis on the “doughnut effect,” suburbanization, and pressures on the housing market (Biagetti et al., 2024; Zenkteler, Foth, & Hearn, 2022). In cities like Barcelona, Milan, and Lisbon, remote work has intensified gentrification and affordability issues, particularly as digital nomads and high-income remote workers compete in limited housing markets. In contrast, Vienna and Enschede show relative housing stability, reinforcing findings that governance tools such as rent controls and targeted housing supply can mitigate displacement. The widespread trend of individuals relocating to suburban or rural areas—often to access more space, affordability, and nature—further illustrates how remote work is reshaping residential patterns. The role of second homes in enabling multilocality, particularly in Italy and Sweden, adds another dimension to this shift.

Policy and infrastructure have emerged as critical mediators (OECD, 2021; Sostero et al., 2024). Well-planned cities with resilient transport and digital systems (e.g. Stockholm, Vienna) have adapted more effectively to the spatial demands of remote work. Conversely, places like Volos and parts of Lisbon face growing pressures due to weak infrastructure and limited regulatory capacity. Where national or municipal strategies have focused on attracting remote workers without parallel regulatory measures, housing markets have experienced significant strain. Overall, while general trends identified in the literature are visible across the case studies, their spatial manifestation is context-specific and mediated by governance structures, infrastructural readiness, and socio-economic conditions.

## 7. Conclusions

The findings of this research underscore the profound and multifaceted spatial implications of remote work which has become a prominent employment model across Europe since 2020. Drawing on the seven diverse case studies, the findings reveal both common patterns and local variations shaped by infrastructure, housing, governance, and sociocultural attitudes. Key themes include spatialities of remote work, urban development trends, residential and office demand, mobility patterns, urban-rural divide, and policies.

Remote work is shaping our cities by reducing reliance in traditional office districts and fostering multilocality, as people split time between homes, coworking spaces, and peripheral areas. This shift is driving urban decentralisation and repurposing of real estate, while also increasing demand in suburban and rural areas.

The impact varies by context. Regions with robust digital infrastructure and affordable housing have seen more significant decentralisation, whereas others face challenges due to weak services and regulatory gaps. Equity concerns are also emerging, as remote work remains more accessible to certain professions and regions, potentially widening spatial divides.

For planners and policymakers, these transformations call for updated planning strategies, stronger digital infrastructures and inclusive policies. Remote work offers opportunities for balanced spatial development, but realizing this potential will depend on proactive governance and strategic, long-term policy thinking.

## CRedit authorship contribution statement

**Georgia Pozoukidou:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Investigation, Conceptualization. **Theodora Istorou:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Investigation, Formal analysis, Conceptualization. **Dimitra Plastara:** Writing – review & editing, Writing – original draft, Visualization, Methodology, Investigation, Formal analysis, Conceptualization. **Margarita Angelidou:** Writing – review & editing, Writing – original draft. **Katharina Fellnhofner:** Writing – review & editing, Writing – original draft. **Lisa Fontanella:** Writing – review & editing, Writing – original draft. **Mandy Franz:** Writing – review & editing, Writing – original draft. **Vidit Kundu:** Writing – review & editing, Writing – original draft. **Thomas Mone:** Writing – review & editing, Writing – original draft. **Greta Nasi:** Writing – review & editing, Writing – original draft. **Marilena Papageorgiou:** Writing – review & editing, Writing – original draft. **Karin Pfeffer:** Writing – review & editing, Writing – original draft. **Elli Roma-Athanasiadou:** Writing – review & editing, Writing – original draft. **Nikolas Thomopoulos:** Writing – review & editing, Writing – original draft. **Zoi-Eirini Tsifodimou:** Writing – review & editing, Writing – original draft. **Shi (Tracy) Xu:** Writing – review & editing, Writing – original draft. **Efstratios Stylianidis:** Writing – review & editing, Writing – original draft.

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## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## Appendix A

Table 5

Key figures and characteristics of the seven case studies.

|           | Population and Population Density in Region (R) and/or Metropolitan Area (MA)   | Spatial development characteristics  | Economic Indicators and Innovation*   | % of employees working from home (usually/sometimes)     | Related Policies: Taxation, Insurance, economic VISA   |
|-----------|---|--|---|--|--|
| Stockholm | <p><b>MA</b><sup>1</sup> (2023): 2.440.027, 23% of country population</p> <p><b>Area MA</b><sup>2</sup>: 6.524 km<sup>2</sup></p> <p><b>Pop. Density</b><sup>3</sup> (2023): 374/km<sup>2</sup></p>   | Polycentric <i>via</i> Transit Oriented Development (TOD), compact development, extensive green spaces   | <p><b>GDP</b><sup>4</sup> (2021): €171.268,72 million</p> <p><b>Innovation Index</b><sup>5</sup> (2023): Stockholm Region Innovation Leader + 4th in Europe</p> | <b>Sweden</b> <sup>6</sup> (2024): 11,9% / 31.3%         | <p>No visa for Digital Nomads</p> <p>EHIC can provide health insurance for EU nationals (eligible at home)<sup>7</sup></p>   |
| Barcelona | <p><b>MA</b><sup>1</sup> (2023): 5.797.356, 12% of country population</p> <p><b>R</b> (2023)<sup>8</sup>: 7.901.963</p> <p><b>Area MA</b><sup>2</sup>: 7.715 km<sup>2</sup></p> <p><b>Pop. Density</b><sup>3</sup> (2023): 751/km<sup>2</sup></p>         | Functions as a polycentric network of cities, historic industrial hubs are integrated with newer business centers, creating an interconnected economic landscape   | <p><b>GDP</b><sup>4</sup> (2021): €173.722 million</p> <p><b>Innovation Index</b><sup>5</sup> (2023): Cataluña is Strong Innovator -</p>                        | <b>Spain</b> <sup>6</sup> (2024): 6,3% / 6,4%            | <p>Digital nomad visa details<sup>9</sup>: 12 months, extendable for up to 5 years</p> <p>Income: 28.000 EUR/y</p> <p>For non-EU national working for non-Spanish companies Qualified/Experienced in their field</p> <p>EHIC can provide health insurance for EU nationals (eligible at home)<sup>7</sup></p>  |
| Enschede  | <p><b>City</b><sup>10</sup> (2023): 161.235, 0,9% of country population</p> <p><b>R</b> (2023)<sup>8</sup>: 638.897</p> <p><b>Area</b><sup>2</sup>: 1.502 km<sup>2</sup></p> <p><b>Pop. Density</b><sup>3</sup> (2023): 425/km<sup>2</sup></p>            | Transit-Oriented Development (TOD) principles, compact urban form, and complementarity, goal to reduce car dependency  | <p><b>GDP</b><sup>4</sup> (2021): €26.173 million</p> <p><b>Innovation Index</b><sup>5</sup> (2023): Overijssel is Strong Innovator +</p>                       | <b>The Netherlands</b> <sup>6</sup> (2024): 9,4% / 38,3% | <p>No visa for digital nomads</p> <p>EHIC can provide health insurance for EU nationals (eligible at home)<sup>7</sup></p>   |
| Lisbon    | <p><b>MA</b><sup>1</sup> (2023): 2.889.670, 27,5% of country population</p> <p><b>Area MA</b><sup>2</sup>: 2.810 km<sup>2</sup></p> <p><b>Pop. Density</b><sup>3</sup> (2023): 1.032/km<sup>2</sup></p>   | Increasingly polycentric model regarding residents and economic activities, urban sprawl and intense daily commuting   | <p><b>GDP</b><sup>4</sup> (2021): €76.602,81 million</p> <p><b>Innovation Index</b><sup>5</sup> (2023): Moderate Innovator +</p>                                | <b>Portugal</b> <sup>6</sup> (2024): 7,6% / 11,5%        | <p>Digital nomad visa details<sup>9</sup>: For longer than 1 year and can be extended</p> <p>Stay can be used to apply for permanent residency, unlike other countries</p> <p>D8 visa</p> <p>EHIC can provide health insurance for EU nationals (eligible at home)<sup>7</sup></p>   |
| Milan     | <p><b>MA</b><sup>1</sup> (2023): 4.329.748, 7,3% of tot. Country population</p> <p><b>R</b> (2023)<sup>8</sup>: 9.976.509</p> <p><b>Area MA</b><sup>2</sup>: 2.730 km<sup>2</sup></p> <p><b>Pop. Density</b><sup>3</sup> (2023): 1.586/km<sup>2</sup></p> | Historically unicentric model that gradually embraces polycentricity, where surrounding areas have developed their own economic and residential centers  | <p><b>GDP</b><sup>4</sup> (2021): €228.436 million</p> <p><b>Innovation Index</b><sup>5</sup> (2023): Lombardia is a Moderate Innovator +</p>                   | <b>Italy</b> <sup>6</sup> (2024): 2,9% / 6,1%            | <p>Digital nomad visa details<sup>9</sup>: 12 months</p> <p>Income: Min. 28,000/y</p> <p>6 months of previous remote work experience</p> <p>No criminal convictions in the past 5 years</p> <p>Application: Through Italian Embassy/Consult at home country</p> <p>EHIC can provide health insurance for EU nationals (eligible at home)<sup>7</sup></p> |
| Vienna    | <p><b>MA</b><sup>1</sup> (2023): 2.971.753, 32% of country population</p> <p><b>Area</b><sup>2</sup>: 8.522 km<sup>2</sup></p> <p><b>Pop. Density</b> (2023)<sup>3</sup>: 349/km<sup>2</sup></p>  | Compact urban development with significant green spaces; emphasis on sustainable urban planning. The "Austrian Spatial Planning Concept" focuses on improving the social infrastructure for children.                        | <p><b>GDP</b><sup>4</sup> (2021): €140.330,19 million</p> <p><b>Innovation Index</b><sup>5</sup> (2023): Strong Innovator</p>                                   | <b>Austria</b> <sup>6</sup> (2024): 8,7% / 16,3%         | <p>No specific Digital Nomad Visa: standard Schengen visa policies apply; taxation based on residency status</p> <p>EHIC can provide health insurance for EU nationals (eligible at home)<sup>7</sup></p>  |
| Volos     | <p><b>Urban complex</b><sup>11</sup>: 117.687 people, 1% of country population</p> <p><b>Area of urban complex</b><sup>12</sup>: 49.778 km<sup>2</sup></p> <p><b>Pop. density</b> in urban</p>  | Simple rectangular grid (Hippodamian plan), built on the waterfront, urban complex including the residential areas of Volos and Nea Ionia, largely monocentric, Public and green spaces are limited and unevenly distributed | <p><b>GDP on NUTS3</b><sup>13</sup> (2021): € 9.808 million</p> <p><b>Innovation Index</b><sup>5</sup> (2023): Thessalia is a Moderate innovator</p>            | <b>Greece</b> <sup>6</sup> (2024): 2,5% / 4,6%           | <p>Digital nomad visa details<sup>9,14</sup>: For non-EU, EEA &amp; Switzerland</p> <p>Income: 3.500 EUR/m</p> <p>No criminal record</p> <p>RW proof</p> <p>Applicants often target Greek islands</p>  |

(continued on next page)

Table 5 (continued)

| Population and Population Density in Region (R) and/or Metropolitan Area (MA) | Spatial development characteristics | Economic Indicators and Innovation* | % of employees working from home (usually/sometimes) | Related Policies: Taxation, Insurance, economic VISA   |
|---|-------------------------------------|-------------------------------------|--|--|
| complex: 2.364 people/km <sup>2</sup>   |                                     |                                     |  | Tax: 50% income tax reduction option for 7 years<br>EHIC can provide health insurance for EU nationals (eligible at home) <sup>7</sup> |

\* The overall performance of each national innovation system is summarized by a composite score, the Summary Innovation Index (SII), leading to a classification with subcategories of Innovation Leaders, Strong Innovators, Moderate Innovators, Emerging Innovators 12.

Sources:

- <sup>1</sup> Eurostat. Population on 1 January by five year age group, sex and metropolitan region. Eurostat doi:10.2908/MET\_PJANGRP3 (2024c).
- <sup>2</sup> Eurostat. Area of the region by metropolitan region. Eurostat doi:https://doi.org/10.2908/MET\_D3AREA (2024).
- <sup>3</sup> Eurostat. Population density by metropolitan region. Eurostat doi:https://doi.org/10.2908/MET\_D3DENS (2024).
- <sup>4</sup> Eurostat. Gross domestic product (GDP) at current market prices by metropolitan region. Eurostat doi:10.2908/MET\_10R\_3GDP (2024a).
- <sup>5</sup> European Commission. Regional innovation scoreboard - Regional profiles by country. [https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/regional-innovation-scoreboard\\_en](https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/regional-innovation-scoreboard_en) (2023).
- <sup>6</sup> Eurostat. Employed persons working from home as a percentage of the total employment, by sex, age and professional status (%). Eurostat doi:10.2908/LFSA\_EHOMP (2025).
- <sup>7</sup> European Commission. European Health Insurance Card. *European Commission* [https://employment-social-affairs.ec.europa.eu/policies-and-activities/moving-working-europe/eu-social-security-coordination/european-health-insurance-card\\_en](https://employment-social-affairs.ec.europa.eu/policies-and-activities/moving-working-europe/eu-social-security-coordination/european-health-insurance-card_en) (2024).
- <sup>8</sup> Eurostat. Population on 1 January by age group, sex and NUTS 3 region. Eurostat doi:https://doi.org/10.2908/DEMO\_R\_PJANGRP3 (2025).
- <sup>9</sup> ETIAS. Digital Nomad Visas in European Countries. *ETIAS Visa* <https://www.etiasvisa.com/etias-news/digital-nomad-visas-eu-countries> (2024).
- <sup>10</sup> Eurostat. Population on 1 January by age groups and sex - cities and greater cities. Eurostat doi:https://doi.org/10.2908/URB\_CPOP1 (2025).
- <sup>11</sup> ELSTAT. Resident Population 2021. (2021).
- <sup>12</sup> Volos Municipality. Operational Program of Volos Municipality 2020 – 2023: Phase A - Strategic Plan. (2020).
- <sup>13</sup> Eurostat. Gross domestic product (GDP) at current market prices by NUTS 3 region. Eurostat doi:https://doi.org/10.2908/NAMA\_10R\_3GDP (2025).
- <sup>14</sup> Work from Greece. Work from Greece - Become a Digital Nomad in Greece. *Digital Nomads* <https://workfromgreece.gr/> (2023).

## Appendix B

The questions aimed to capture the spatial implications of remote working arrangements through interviews with urban planners, regional authorities' representatives, real estate experts, researchers, and experts in coworking spaces. The interviews covered four thematic areas. The questions per theme are listed below

Questions intended for Urban Planners

1. **What is the spatial profile of your city?** (Please describe the spatial pattern of the geographic, demographic, and socioeconomic characteristics, i.e., dense urban center with extended suburbs, clusters (if any) of economy within the city, distribution of high/medium/low-income households, etc.)
2. **Is your city considered the primary urban center in your region?** (Describe the functional structure of the urban system that your city is part of, i.e., polycentric, monocentric, dipole, urban, rural, etc.)
3. **Which model(s) of remote work arrangements do you identify in your area/city?** (work from home/home office, third place, i.e., coworking spaces, library, cafes, etc.)
4. **How has RW affected the spatial development of your city?** (i.e., urban expansion with sprawling characteristics, degradation of the urban Centre and CBD, rise of multiple subcenters in the periphery of the city, etc.)
5. How does RW affect the nearby smaller towns? Do you recognize opportunities or threats?
6. What are the potential impacts of RW on office space utilization in the core of the city/main city center/office parks?
7. Do you see any implications of RW on land use patterns in:
  - i. Residential areas, if so, in which ones and how have they changed? i.e., emergence of new urban amenities to cater to the needs of remote workers at their place of residence.
  - ii. Central Business Districts within the municipal/city boundary, i.e., repurpose commercial and office spaces to other uses such as short-term rentals.
8. Has RW affected positively or negatively the suburban, peri-urban area and ex-urban areas in your region?
9. Do you think RW will affect or hinder the revitalization of your City Centre?
10. Do you think RW will affect or hinder the revitalization of rural and/or remote town centers?
11. Do you see gentrification occurring in your city because of RW?
12. How are transportation networks and mobility solutions evolving in response to remote work trends, and what spatial planning considerations are necessary to support these changes?
13. **How does RW change commuting patterns** (peak hours, duration, means of transport, bottleneck)?
14. Is your telecommunication infrastructure sufficient for bridging the urban-rural digital divide and enhance connectivity for remote workers and businesses?
15. **What are the environmental impacts of increased RW, particularly concerning energy and resource consumption in both urban and rural areas?** (i.e., increased use of energy in the household, water & sewerage infrastructure, adequacy of energy distribution networks etc.)
16. **How has RW changed the housing market and housing stock in your area?** (Be specific about the spatiality of the changes. i.e., rise in demand of a certain neighborhood)
17. What is the role of developers or policy in the provisioning of housing supply?

18. How do you incorporate potential spatial impacts of RW into your urban/regional strategy, *i.e.* population shifts, pressure on urban infrastructure, and utilities.
19. What are the challenges and opportunities for rural communities in attracting remote workers and digital nomads, and how can spatial planning strategies support this transition, *i.e.*, transportation, energy, land use, *etc.*?

#### Questions intended for Policy Makers/Regional Authorities

1. **Is your city considered the primary urban center in your region?** (*describe the functional structure of the urban system that your city is part of i.e., polycentric, monocentric, dipole, urban, rural etc.*)
2. How RW has affected the demographic distribution between urban and rural areas in your area/region?
3. **Which model(s) of remote work arrangements do you identify in your area/city?** (*work from home/home office, third place i.e. co working spaces, library, cafes etc.*)
4. **In recent years there has been a rise of multilocality\*. Do you identify this in your region?** (*\*Multilocality refers to the practice of carrying out active everyday life in multiple places. This generally implies access to, but not necessarily ownership of, more than one residence.*)
5. Do you see remote work as a brain drain or gain opportunity in your area?
6. Are there any strategies and policies for RW in your city/region/country?
7. How do you incorporate potential spatial impacts of RW into your urban/regional strategy *i.e.* population shifts, pressure on urban infrastructure, utilities.
8. What are the challenges and opportunities for rural communities in attracting remote workers and digital nomads, and how can development strategies support this transition in *i.e.* transportation, energy, land use *etc.*
9. How can spatial planning and policies incorporate strategies on the fair access to remote work facilities?
10. How are transportation networks and mobility solutions evolving in response to remote work trends, and what strategies are necessary to support these changes?
11. How do you think RW aligns environmental sustainability and why?
12. **What are the environmental impacts of increased RW, particularly concerning energy and resource consumption in both urban and rural areas?** (*i.e. increased use of energy in the household, water & sewerage infrastructure, adequacy of energy distribution networks etc.*)

#### About the current situation

1. How does RW affect the nearby smaller towns? Do you recognize opportunities or threats?
2. Has RW affected positively or negatively the suburban, *peri* urban area and ex urban areas in your region?
3. Do you think RW will affect or hinder the revitalization of your City Centre?
4. Do you think RW will affect or hinder the revitalization of rural and/or remote town centers?
5. Do you see gentrification occurring in your city because of RW

#### Questions intended for Real Estate Agents

1. **Is your city considered the primary urban center in your region?** (*describe the functional structure of the urban system that your city is part of i.e., polycentric, monocentric, dipole, urban, rural etc.*)
2. How RW has affected the demographic distribution between urban and rural areas in your area/region?
3. **Which model(s) of remote work arrangements do you identify in your area/city?** (*work from home/home office, third place i.e. co working spaces, library, cafes etc.*)
4. **In recent years there has been a rise of multilocality\*. Do you identify this in your region?** (*\*Multilocality refers to the practice of carrying out active everyday life in multiple places. This generally implies access to, but not necessarily ownership of, more than one residence.*)
5. **How has RW affected the spatial development of your city?** (*i.e. urban expansion with sprawling characteristics, degradation of the urban Centre and CBD, rise of multiple subcenters in the periphery of the city, etc.*)
6. How does RW affect the nearby smaller towns? Do you recognize opportunities or threats?
7. What are the potential impacts of RW on office space utilization in the core of the city/main city center/office parks?
8. Do you see any implications of RW on land use patterns in:
  - i. Residential areas, if so in which ones and how have they changed? *i.e.* emergence of new urban amenities to cater to the needs of remote workers at place of residence.
  - ii. Central Business Districts within the municipal/city boundary *i.e.*, repurposing of commercial and office spaces to other uses such as short-term rentals.
9. **How has RW changed the housing market and housing stock in:** (*i.e. rise in demand of certain neighborhood, transportation options*)
  - i. suburban, *peri* urban area and ex urban areas in your region?
  - ii. City Centre?
10. Do you think RW will affect or hinder the revitalization of your City Centre?
11. Do you see gentrification occurring in your city because of RW?
12. **Are there any RW friendly housing options?** (*Need to know what an interviewee considers a RW-friendly housing option, i.e. telecommunication infrastructure.*)
13. **How is the housing stock affected by seasonal conditions** *i.e.*, *how the housing market changes during the touristic period or the academic period?*
14. What is the role of developers or policy in the provisioning of housing supply?

#### Questions intended for Co-working Space Owners

1. Which model(s) of remote work arrangements do you identify in your area/city? (work from home/home office, third place i.e. co working spaces, library, cafes etc.)
2. In recent years there has been a rise of multilocality\*. Do you identify this in your region? (\*Multilocality refers to the practice of carrying out active everyday life in multiple places. This generally implies access to, but not necessarily ownership of, more than one residence).
3. How many co-working spaces operate in ... (name of city/town)?
4. What is the type of your coworking space? (Public/private, for profit/non-profit)
5. In how many locations are you currently operating?
6. What are your future expansion plans?
7. What type of memberships do you offer?
8. How many members do you have? Do you see a rise in terms of your memberships in the last year?
9. Do you see a seasonal fluctuation in your memberships?
10. What type of services do you offer?
  - infrastructure provider
  - community host/social events
  - knowledge disseminators
  - reference places
  - global pipeline Connectors
11. Does your co-working space act also as a hotspot attracting nearby amenities? (allocation of new amenities i.e. ATM, coffee shops, bakery, groceries, restaurants, etc.)
12. What means of transport do your members use to access your facilities? (i.e. bike, car, metro, etc.).
13. Are your members mostly within walking distance (15 min) of the co-working space?
14. How did you decide on the location of your coworking space?
  - i. Did you consider existing public transportation or parking space availability?
  - ii. Are there any policies regulating the location and development of the co-working spaces?
15. What are the potential impacts of RW on office space utilization in the core of the city/main city center/office parks?
16. Are there any RW-friendly housing options? (Need to know what an interviewee considers a RW-friendly housing option and then ask the question).
17. Is there any support for the public or private sector to facilitate RW in collaborative spaces? If yes, how? i.e. coupons, vouchers

## Data availability

The results presented are based on qualitative research through interviews. The transcripts cannot be made publicly available. Details on software/coding applied are fully documented within the text.

## References

- de Abreu e Silva, J. (2022). Residential preferences, telework perceptions, and the intention to telework: Insights from the Lisbon Metropolitan Area during the COVID-19 pandemic. *Regional Science Policy and Practice*, 14(S1), 142–161. John Wiley and Sons Inc <https://doi.org/10.1111/rsp3.12558>.
- Adobati, F., & Debernardi, A. (2022). The breath of the metropolis: Smart working and new urban geographies. *Sustainability (Switzerland)*, 14(2). <https://doi.org/10.3390/su14021028>. MDPI.
- Agenzia Mobilità Ambiente e Territorio. (2023). *Report della mobilità Milano*. Comune di Milano. <https://datashare.amat-mi.it/index.php/s/5T7P7tdZk88fRXo>.
- Ahmad, N., Harun, A., Khizar, H. M. U., Khalid, J., & Khan, S. (2022). Drivers and barriers of travel behaviors during and post COVID-19 pandemic: A systematic literature review and future agenda. *Journal of Tourism Futures*, 1–23. <https://doi.org/10.1108/JTF-01-2022-0023>
- Akhavan, M., Di Vita, S., & Mariotti, I. (2021). Introducing the Worldwide Phenomenon of Flexible Workplaces. In *Research for Development* (pp. 1–9). Springer Science and Business Media Deutschland GmbH. [https://doi.org/10.1007/978-3-030-63443-8\\_1](https://doi.org/10.1007/978-3-030-63443-8_1).
- Alizadeh, T. (2012). Teleworkers' Characteristics in Live/Work Communities: Lessons from the United States and Australia. In *Journal of Urban Technology*, 19(3), 63–84. <https://doi.org/10.1080/10630732.2011.642569>
- Althoff, L., Eckert, F., Ganapati, S., & Walsh, C. (2022). The geography of remote work. *Regional Science and Urban Economics*, 93, Article 103770.
- Àrea Metropolitana de Barcelona. (2020). *Avanç del Pla Director Urbanístic Metropolità*. Àrea Metropolitana de Barcelona (AMB). <https://docs.amb.cat/alfresco/api/>.
- Área Metropolitana de Lisboa. (2024). *Investimento Territorial Integrado da Área Metropolitana de Lisboa 2030*. Área Metropolitana de Lisboa. , March <https://documentacao.aml.pt/>.
- Aroles, J., Mitev, N., & de Vaujany, F.-X. (2019). Mapping themes in the study of new work practices. *New Technology, Work and Employment*, 34(3), 285–299. <https://doi.org/10.1111/ntwe.12146>
- ATLAS.ti. (n.d.). *Code-Document Table: Visualization (Sankey-Diagram)* [ATLAS.ti 9 Windows - User Manual]. Retrieved 19 May 2025, from <https://doc.atlasti.com/>.
- Babb, C., Curtis, C., & McLeod, S. (2018). The Rise of Shared Work Spaces: A Disruption to Urban Planning Policy? *Urban Policy and Research*, 36(4), 496–512. <https://doi.org/10.1080/08111146.2018.1476230>
- Batty, M. (2021). Science and design in the age of COVID-19. *Environment and Planning B: Urban Analytics and City Science*, 48(1), 3–8. <https://doi.org/10.1177/2399808321989131>
- Biagetti, M., Croce, G., Mariotti, I., Rossi, F., & Scicchitano, S. (2024). The call of nature. Three post-pandemic scenarios about remote working in Milan. *Futures*, 157. <https://doi.org/10.1016/j.futures.2024.103337>. Elsevier Ltd.
- Bourdin, A. (2024). *Major French Cities facing Metropolization*. Springer Nature Switzerland. <https://doi.org/10.1007/978-3-031-59314-7>
- Braun, V., & Clarke, V. (2012). *Thematic analysis* (pp. 57–71).
- Caldarola, B., & Sorrell, S. (2022). Do teleworkers travel less? Evidence from the English National Travel Survey. *Transportation Research Part A: Policy and Practice*, 159, 282–303. <https://doi.org/10.1016/j.tra.2022.03.026>
- Camagni, R., & Capello, R. (2011). *Spatial Scenarios in a Global Perspective: Europe and the Latin Arc Countries*. Edward Elgar Publishing.
- Carlino, G. A., & Mills, E. S. (1987). The Determinants of County Growth. *Journal of Regional Science*, 27, 39–54. <https://doi.org/10.1111/j.1467-9787.1987.tb01143.x>
- Carrasco-Garrido, C., De-Pablos-Heredero, C., & Rodríguez-Sánchez, J.-L. (2023). Exploring hybrid telework: A bibliometric analysis. *Heliyon*, 9(12). <https://doi.org/10.1016/j.heliyon.2023.e22472>
- Carvalho, L. C. (2018). Entrepreneurial Ecosystems: Lisbon as a Smart Start-Up City. In *E-Planning and Collaboration: Concepts, Methodologies, Tools, and Applications* (pp. 1120–1138). IGI Global Scientific Publishing. <https://doi.org/10.4018/978-1-5225-5646-6.ch053>.
- Casi, E., Mardan, M., & Stage, B. M. B. (2024). Citizenship/residence by investment and digital nomad visas. In A. Lejour, & D. Schindler (Eds.), *Research Handbook On The Economics Of Tax Havens* (pp. 179–195). Edward Elgar Publishing. <https://www.elgaronline.com/>.
- Centraal Bureau voor de Statistiek. (2022). *Wijk- en buurtkaart 2022*. Webpagina. Centraal Bureau voor de Statistiek <https://www.cbs.nl/nl-nl/dossier/nederland-regionaal/geografische-data/wijk-en-buurtkaart-2022>.
- Città metropolitana di Milano. (2025). *Popolazione residente*. In *Statistica - Osservatorio metropolitano*. January 7 [https://www.cittametropolitana.mi.it/statistica/osservatorio\\_metropolitano/statistiche\\_demografiche/popolazione\\_residente.html](https://www.cittametropolitana.mi.it/statistica/osservatorio_metropolitano/statistiche_demografiche/popolazione_residente.html).
- College van Rijksadviseurs. (2019). *Guiding Principles Metro Mix*. College van Rijksbouwmeester en Rijksadviseurs (CRA). <https://www.collegevanrijksadviseurs.nl/adviezen-publicaties/publicatie/2019/04/11/reos-advies>.
- Danielzyk, R., Dittich-Wesbuer, A., Duchêne-Lacroix, C., Fischer, T., Hiltl, N., Perlik, M., Petzold, K., Ritzinger, A., Scheiner, J., Sturm, G., Tippel, C., & Weiske, C. (2021). *Multilocal living and spatial development*. *Positionspapier Aus Der ARL*. Article 123 <https://ideas.repec.org/p/zbw/arpos/123.html>.
- De Vidovich, L., & Scolari, G. (2022). Seeking polycentric post-suburbanization: A view from the urban region of Milan. *Urban Geography*, 43(1), 123–133. <https://doi.org/10.1080/02723638.2020.1858587>

- Di Marino, M., & Lapintie, K. (2020). Exploring multi-local working: Challenges and opportunities for contemporary cities. *International Planning Studies*, 25(2), 129–149. <https://doi.org/10.1080/13563475.2018.1528865>
- Di Marino, M., Tittu, M., Rehunen, A., Chavoshi, S. H., & Lapintie, K. (2024). Multi-locality in the regions of Oslo and Helsinki: A regional planning perspective after the COVID-19 pandemic. *Regional Studies*, 1–18. <https://doi.org/10.1080/00343404.2024.2355290>
- Di Marino, M., Tomaz, E., Henriques, C., & Chavoshi, S. H. (2023). The 15-minute city concept and new working spaces: A planning perspective from Oslo and Lisbon. *European Planning Studies*, 31(3), 598–620. <https://doi.org/10.1080/09654313.2022.2082837>
- Digital Nomad Visas in European Countries'. ETIAS Visa. <https://www.etiasvisa.com/etias-news/digital-nomad-visas-eu-countries>, (2024).
- Dijkstra, L., & Poelman, H. (2011). *Regional typologies: A compilation (n° 01/2011; Regional Focus: A Series of Short Papers on Regional Research and Indicators Produced by the Directorate-General for Regional Policy)*. Directorate-General for Regional Policy, European Union. [https://ec.europa.eu/regional\\_policy/en/information/publications/regional-focus/2011/regional-typologies](https://ec.europa.eu/regional_policy/en/information/publications/regional-focus/2011/regional-typologies).
- Dijkstra, L., & Poelman, H. (2014). *Regional working paper 2014*. A harmonised definition of cities and rural areas: the new degree of urbanisation. WP, 1, 2014 [https://ec.europa.eu/regional\\_policy/en/information/publications/working-papers/2014/a-harmonised-definition-of-cities-and-rural-areas-the-new-degree-of-urbanisation](https://ec.europa.eu/regional_policy/en/information/publications/working-papers/2014/a-harmonised-definition-of-cities-and-rural-areas-the-new-degree-of-urbanisation).
- Eliasson, K. (2023). *Work from home and big city out-migration before and after the pandemic*, 5/2023 (p. 32). Growth Analysis. Swedish Agency for Growth Policy Analysis [https://www.tillvaxtanlys.se/download/1/WP\\_2023\\_05\\_Work\\_from\\_home](https://www.tillvaxtanlys.se/download/1/WP_2023_05_Work_from_home).
- Eldér, E. (2020). Telework and daily travel: New evidence from Sweden. *Journal of Transport Geography*, 86, Article 102777. <https://doi.org/10.1016/j.jtrangeo.2020.102777>
- ELSTAT. (2021). *Resident Population 2021*. ELSTAT. <https://www.statistics.gr/2021-cen-sus-res-pop-results>.
- Eurofound. (2023). *Bridging the rural–urban divide: Addressing inequalities and empowering communities*. Publications Office. <https://data.europa.eu/doi/10.2806/647715>.
- Eurofound. (2024). *Living and working in Europe 2023*. Publications Office of the European Union. <https://data.europa.eu/doi/10.2806/49049>.
- European Commission. European Health Insurance Card'. European Commission, December 11. [https://employment-social-affairs.ec.europa.eu/policies-and-activities/moving-working-europe/eu-social-security-coordination/european-health-insurance-card\\_en](https://employment-social-affairs.ec.europa.eu/policies-and-activities/moving-working-europe/eu-social-security-coordination/european-health-insurance-card_en).
- European Commission. (2023). *Regional innovation scoreboard—Regional profiles by country*. [https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/regional-innovation-scoreboard\\_en](https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/regional-innovation-scoreboard_en).
- Eurostat. (2024a). *Gross domestic product (GDP) at current market prices by metropolitan region* [Dataset]. Eurostat. [https://doi.org/10.2908/MET\\_10R\\_3GDP](https://doi.org/10.2908/MET_10R_3GDP)
- Eurostat. (2024b). *Housing in Europe*. European Commission. <https://data.europa.eu/doi/10.2785/5544429>.
- Eurostat. (2024c). *Population on 1 January by five year age group, sex and metropolitan region* [Dataset]. Eurostat. [https://doi.org/10.2908/MET\\_PJANGRP3](https://doi.org/10.2908/MET_PJANGRP3)
- Eurostat. (2024d). *Area of the Region by Metropolitan Region*. Eurostat. [https://doi.org/10.2908/MET\\_D3AREA](https://doi.org/10.2908/MET_D3AREA)
- Eurostat. (2024e). *Population Density by Metropolitan Region*. *Met\_d3dens*. Eurostat. [https://doi.org/10.2908/MET\\_D3DENS](https://doi.org/10.2908/MET_D3DENS)
- Eurostat. (2025a). *Employed persons working from home as a percentage of the total employment, by sex, age and professional status (%) (lfsa\_ehomp)* [Dataset]. Eurostat. [https://doi.org/10.2908/LFSA\\_EHOMP](https://doi.org/10.2908/LFSA_EHOMP)
- Eurostat. (2025b). *Population on 1 January by Age Groups and Sex - Cities and Greater Cities*. *Urh\_cpop1*. Eurostat. [https://doi.org/10.2908/URB\\_CPOP1](https://doi.org/10.2908/URB_CPOP1)
- Eurostat. (2025c). *Gross Domestic Product (GDP) at Current Market Prices by NUTS 3 Region*. *Nama\_10r\_3gdp*. Eurostat. [https://doi.org/10.2908/NAMA\\_10R\\_3GDP](https://doi.org/10.2908/NAMA_10R_3GDP)
- Eurostat. (2025d). *Population on 1 January by Age Group, Sex and NUTS 3 Region*. *Demo\_r\_pjangrp3*. Eurostat. [https://doi.org/10.2908/DEMO\\_R\\_PJANGRP3](https://doi.org/10.2908/DEMO_R_PJANGRP3)
- Fellnhöfer, K., Angelidou, M., Flacke, J., Fontanella, L., Franz, M., Karanfil, Ö., ... Kayı, İ. (2025). A large-scale dataset for analysing remote working in urban and rural areas across Europe. *Scientific Data*, 12(1), 1681. <https://doi.org/10.1038/s41597-025-05972-z>
- Fishman, R. (1987). *Bourgeois utopias: The rise and fall of suburbia*. New York: Basic Books.
- Flipo, A., Lejoux, P., & Ovtracht, N. (2022). Remote and connected: Negotiating marginality in rural coworking spaces and “tiers-lieux” in France. *REGION*, 9(2), 87–107. <https://doi.org/10.18335/region.v9i2.405>
- Florida, R. (2019). *The Rise of the Creative Class*. Hachette UK.
- Florida, R., Rodríguez-Pose, A., & Storper, M. (2023). Critical Commentary: Cities in a post-COVID world. *Urban Studies*, 60(8), 1509–1531. <https://doi.org/10.1177/00420980211018072>
- Garrett, L. E., Spreitzer, G. M., & Bacevice, P. A. (2017). Co-constructing a Sense of Community at Work: The Emergence of Community in Coworking Spaces. *Organization Studies*, 38(6), 821–842. <https://doi.org/10.1177/0170840616685354>
- Ge, J., Polhill, J. G., & Craig, T. P. (2018). Too much of a good thing? Using a spatial agent-based model to evaluate “unconventional” workplace sharing programmes. *Journal of Transport Geography*, 69, 83–97.
- Gemeente Enschede. (2025). *Enschede in Cijfers—Bevolking—Enschede*. Enschede in Cijfers. <https://enschede.incijfers.nl/dashboard/bevolking>.
- Giuffrida, A. (2023). Grazie, Londra: Why Milan can thank Brexit for a new lease of life. In *The Guardian*. April 22 <https://www.theguardian.com/world/2023/apr/22/grazie-e-londra-why-milan-can-thank-brexit-for-a-new-lease-of-life>.
- Greek Government. (2018). *Approval of the Revision of the Regional Spatial Planning Framework of the Region of Thessaly and its Environmental Approval*. A.A.II./269.
- Government Gazette [https://ypen.gov.gr/wp-content/uploads/2020/11/20200728\\_Thessalia\\_FEK.pdf](https://ypen.gov.gr/wp-content/uploads/2020/11/20200728_Thessalia_FEK.pdf).
- Greinke, L., & Lange, L. (2022). Multi-locality in rural areas – an underestimated phenomenon. *Regional Studies, Regional Science*, 9(1), 67–81. <https://doi.org/10.1080/21681376.2021.2025417>
- Hall, P. (1998). *Cities in Civilization: Culture, Innovation, and Urban Order*. Weidenfeld & Nicolson.
- Hollanders, H. (2023a). *Regional Innovation Scoreboard 2023—Regional profiles: Greece* (p. 18). European Commission [Innovation] [https://ec.europa.eu/assets/rtd/ris/2023/ec\\_rtd\\_ris-regional-profiles-greece.pdf](https://ec.europa.eu/assets/rtd/ris/2023/ec_rtd_ris-regional-profiles-greece.pdf).
- Hollanders, H. (2023b). *Regional Innovation Scoreboard 2023—Regional profiles: Italy* (p. 26). European Commission [Innovation] [https://ec.europa.eu/assets/rtd/ris/2023/ec\\_rtd\\_ris-regional-profiles-italy.pdf](https://ec.europa.eu/assets/rtd/ris/2023/ec_rtd_ris-regional-profiles-italy.pdf).
- Hollanders, H. (2023c). *Regional Innovation Scoreboard 2023—Regional profiles: Portugal* (p. 13). European Commission [Innovation] [https://ec.europa.eu/assets/rtd/ris/2023/ec\\_rtd\\_ris-regional-profiles-portugal.pdf](https://ec.europa.eu/assets/rtd/ris/2023/ec_rtd_ris-regional-profiles-portugal.pdf).
- Hollanders, H. (2023d). *Regional Innovation Scoreboard 2023—Regional profiles: Sweden* (p. 13). European Commission [Innovation] [https://ec.europa.eu/assets/rtd/ris/2023/ec\\_rtd\\_ris-regional-profiles-sweden.pdf](https://ec.europa.eu/assets/rtd/ris/2023/ec_rtd_ris-regional-profiles-sweden.pdf).
- Hölzel, M., Akhavan, M., & Leducq, D. (2023). Concluding Remarks: European Narratives About the Effects of the COVID-19 Pandemic on Coworking. In *SpringerBriefs in Applied Sciences and Technology* (pp. 143–153). Springer Science and Business Media Deutschland GmbH. [https://doi.org/10.1007/978-3-031-26018-6\\_15](https://doi.org/10.1007/978-3-031-26018-6_15).
- Hölzel, M., & de Vries, W. T. (2021). Digitization as a driver for rural development—An indicative description of German coworking space users. *Land*, 10(3). <https://doi.org/10.3390/land10030326>. MDPI AG.
- Instituto Nacional de Estatística. (2019). *Retrato Territorial de Portugal*. INE. <https://www.ine.pt/xportal/>.
- Jackson, K. T. (1987). *Crabgrass Frontier: The Suburbanization of the United States*. Oxford University Press.
- Jones, S. (2023). Portugal’s bid to attract foreign money backfires as rental market goes ‘crazy’. *The Guardian*. July 29 <https://www.theguardian.com/world/2023/jul/29/>.
- Kapitsinis, N. (2025). Spatialities of remote work across the EU regions in the context of the Covid-19 pandemic: regional trends, factors, interlinkages. *Applied Geography*, 176, Article 103531.
- Koroma, J., Hyrkkänen, U., & Vartiainen, M. (2014). Looking for people, places and connections: Hindrances when working in multiple locations: a review. *New Technology, Work and Employment*, 29(2), 139–159. <https://doi.org/10.1111/ntwe.12030>
- KPMG. (2025). *Portugal – Expatriate Tax Regime Ended; New Tax Incentive for Scientific Research and Innovation*. KPMG. February 21 <https://kpmg.com/xx/en/our-insights/>.
- Krasnikova, N., & Levin-Keitel, M. (2022). Telework as a game-changer for sustainability? Transitions in work, workplace and socio-spatial arrangements. *Sustainability (Switzerland)*, 14(11). <https://doi.org/10.3390/su14116765>. MDPI.
- Lalenis, K., & Ruchinskaya, T. (2018, December 17). *Building Urban Resilience of Public Places in Volos (Greece). Perspectives and possibilities of related contribution of digital tools*. Urban Design and Management: Infrastructures and Services. IFOU 2018: Reframing Urban Resilience Implementation: Aligning Sustainability and Resilience. <https://doi.org/10.3390/IFOU2018-05931>
- Le Galès, P. (2002). *European Cities: Social Conflicts and Governance*. Oxford University Press.
- Louro, A., Marques da Costa, N., & Marques da Costa, E. (2021). From livable communities to livable metropolis: Challenges for urban mobility in Lisbon Metropolitan Area (Portugal). *International Journal of Environmental Research and Public Health*, 18(7), Article 7. <https://doi.org/10.3390/ijerph18073525>
- Manika, S. (2020). Transforming vacant commercial spaces: From localized hotspots of urban shrinkage to “smart” co-working places. *Open Journal of Social Sciences*, 8(6), Article 6. <https://doi.org/10.4236/jss.2020.86009>
- Manika, S., Karalidis, K., & Gospodini, A. (2020). Spatial analysis of economic activities as a tool for effective urban policies. *Smart Cities*, 5(1), Article 1. <https://doi.org/10.3390/smartcities5010017>
- Mariotti, I., Capdevila, I., & Lange, B. (2023). Flexible geographies of new working spaces. *European Planning Studies*, 31(3), 433–444. <https://doi.org/10.1080/09654313.2023.2179232>
- Mariotti, I., Di Matteo, D., & Rossi, F. (2022). Who were the losers and winners during the Covid-19 pandemic? The rise of remote working in suburban areas. *Regional Studies, Regional Science*, 9(1), 685–708. <https://doi.org/10.1080/21681376.2022.2139194>
- Martin, D., & Grodach, C. (2023). Resilience and adaptation in gentrifying urban industrial districts: The experience of cultural manufacturers in San Francisco and Melbourne. *International Journal of Urban and Regional Research*, 47(4), 625–644. John Wiley and Sons Inc <https://doi.org/10.1111/1468-2427.13175>.
- Merrifield, W. (2023). Lessons from Vienna. In *The Center for Social Housing and Public Investment*. December 7 <https://www.socialhousingcenter.org/blog/lessons-from-vienna>.
- Messenger, J. C., & Gschwind, L. (2016). Three generations of Telework: New ICTs and the (R)evolution from Home Office to Virtual Office. *New Technology, Work and Employment*, 31(3), 195–208. <https://doi.org/10.1111/ntwe.12073>
- Miles, M. B., & Huberman, A. M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. SAGE.
- Nakano, D., Shiach, M., Koria, M., Vasques, R., Santos, E. G.d., & Virani, T. (2020). Coworking spaces in urban settings: Prospective roles? *Geoforum*, 115, 135–137. <https://doi.org/10.1016/j.geoforum.2020.04.014>
- Nomad List. (2024). *Top Cities for Digital Nomads 2024*. Nomad List. <https://nomadlist.com/>.

- Nordregio. (2024a). *Remote Work in Smaller Towns: Possibilities and uncertainties* (p. 50). Nordregio. <https://pub.nordregio.org/r-2024-5-remote-work-in-smaller-towns/r-2024-5-remote-work-in-smaller-towns.pdf>.
- Nordregio. (2024b). Synthesis of the research project: Remote work and multilocality post-pandemic - Planning around remote work: Latest research and implications for planners and policymakers. <https://pub.nordregio.org/r-2024-24-planning-around-remote-work/synthesis-of-the-research-project-remote-work-and-multilocality-post-pandemic.html>.
- OECD. (2021). *Implications of Remote Working Adoption on Place Based Policies: A Focus on G7 Countries*. OECD. <https://doi.org/10.1787/b12f6b85-en>
- Pajević, F. (2021). The Tetriss office: Flexwork, real estate and city planning in Silicon Valley North, Canada. *Cities*, 110. <https://doi.org/10.1016/j.cities.2020.103060>. Elsevier Ltd.
- Pattnaik, S. (2024). How remote work is transforming urban real estate—A push towards community living. *International Journal of Innovative Science and Research Technology (IJISRT)*, 2931–2937. <https://doi.org/10.38124/ijisrt/IJISRT24MAY1999>
- Pigalle, E. (2024). What are the impacts of teleworking on activity-travel behaviour? A text mining study. *Articulo – revue de sciences humaines*, 24, Article 24. <https://doi.org/10.4000/articulo.5601>
- Pozoukidou, G., Istorou, T., & Plastara, D. (2026). Spatial Implications of Remote Working Arrangements. Transformations in Urban and Rural Territories. In A. Loukaitou Sideris, & A. Gospondini (Eds.), 52.2. *Remote Work: Impacts on Cities and Policy Responses Build Environment* (pp. 157–176).
- Province of Vienna. (2023). *Vienna in Figures 2023*. Statistics Vienna. , August <https://www.wien.gv.at/statistik/pdf/viennainfigures-2023.pdf>.
- Ravalet, E., & Rerat, P. (2019). Teleworking: Decreasing Mobility or Increasing Tolerance of Commuting Distances? *Built Environment*, 45, 582–602. <https://doi.org/10.2148/benv.45.4.582>
- Region Stockholm. (2018). *RUF5 2050: Regional Development Plan for the Stockholm Region*. Region Stockholm. <https://www.regionstockholm.se/495fef/siteassets/>.
- Reuschke, D., & Ekinsmyth, C. (2021). New spatialities of work in the city. *Urban Studies*, 58(11), 2177–2187. <https://doi.org/10.1177/00420980211009174>
- Rhee, H.-J. (2009). Telecommuting and urban sprawl. *Transportation Research Part D: Transport and Environment*, 14(7), 453–460. Elsevier Ltd. <https://doi.org/10.1016/j.trd.2009.05.004>
- Santos, S. (2017). Mobility and spatial planning in Lisbon Metropolitan Area. *Finisterra*, 52(104), Article 104. <https://doi.org/10.18055/Finis6970>
- Shearmur, R., Ananian, P., Lachapelle, U., Parra-Lokhorst, M., Paulhiac, F., Tremblay, D.-G., & Wycliffe-Jones, A. (2022). Towards a post-COVID geography of economic activity: Using probability spaces to decipher Montreal’s changing workspaces. *Urban Studies*. <https://doi.org/10.1177/00420980211022895>
- Sostero, M., Bisello, M., & Fernández-Macias, E. (2024). *Telework by region and the impact of COVID-19 pandemic: An occupational analysis (JRC Working Papers on Labour, Education, and Technology 02/2024)*. European Commission. <https://www.eurofound.europa.eu/en/publications/eurofound-paper/2024/telework-region-and-impact-covid-19-pandemic-occupational>.
- Statista. (2024). *Impact of hybrid work on office demand in Europe 2026*. Statista. September 11 <https://www.statista.com/statistics/flexible-office-demand-hybrid-work-impact>.
- Statistical Institute of Catalonia. (2021). *Continuous Household Survey 2014-2020 [Dataset]*. <https://www.idescat.cat/>.
- Stockholms stad. (2018). *Stockholm City Plan*. City of Stockholm. <https://vaxer.stockholm/siteassets/>.
- TPN. (2025). *Changes in land law published*. The Portugal News. April 13 <https://www.theportalnews.com/news/2025-04-13/changes-in-land-law-published/>.
- Van Nieuwerburgh, S. (2022). *The Remote Work Revolution: Impact on Real Estate Values and the Urban Environment (Working Paper 30662)*. National Bureau of Economic Research. <https://doi.org/10.3386/w30662>
- Vienna Business Agency. (2023). *Vienna’s Economy on the Road to Net Zero*. Vienna Business Agency. April <https://viennabusinessagency.at/>.
- Volos Municipality. (2020). *Operational Program of Volos Municipality 2020–2023: Phase A - Strategic Plan*. Volos Municipality. <https://dimosvolos.gr/sites/>.
- Work from Greece. (2023). *Work from Greece—Become a Digital Nomad in Greece*. Digital Nomads. <https://workfromgreece.gr/>.
- Yin, R. K. (2003). *Case Study Research: Design and Methods* (3rd ed.) (3rd ed., 5. SAGE [https://iwansuharyanto.wordpress.com/wp-content/uploads/2013/04/robert\\_k\\_yin\\_case\\_study\\_research\\_design\\_and\\_mebookfi-org.pdf](https://iwansuharyanto.wordpress.com/wp-content/uploads/2013/04/robert_k_yin_case_study_research_design_and_mebookfi-org.pdf).
- Yu, R., Burke, M., & Raad, N. (2019). Exploring impact of future flexible working model evolution on urban environment, economy and planning. *Journal of Urban Management*, 8(3), 447–457. <https://doi.org/10.1016/j.jum.2019.05.002>
- Zenkter, M., Foth, M., & Hearn, G. (2022). Lifestyle cities, remote work and implications for urban planning. *Australian Planner*, 58(1–2), 25–35. Routledge <https://doi.org/10.1080/07293682.2022.2096086>.
- Zenkter, M., Hearn, G., Foth, M., & McCutcheon, M. (2022). Distribution of home-based work in cities: Implications for planning and policy in the pandemic era. *Journal of Urban and Regional Analysis*, 14(2), 187–210. Editura Universitatii din Bucuresti 10.37043/JURA.2022.14.2.2.