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RESEARCH ARTICLE

Bridging the gap: Exploring urban resilience and sustainability in Finnish regional development

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Abstract

This study investigates the dynamics of urban resilience (UR) and sustainability (US) in Finnish regional planning cultures, focusing on the Helsinki-Uusimaa and Southwest Finland regions. It highlights the intertwined nature of UR and US, emphasizing the need for clearer distinctions to enhance planning effectiveness. Through comparative case studies, this research explores the role of institutional planning culture in shaping procedural resilience amidst complex socio-environmental changes. It reveals resource constraints as critical challenges, influencing decision-making and collaboration across governance levels. Additionally, it underscores the importance of long-term commitment and integrated regional visions for fostering sustainable development beyond electoral cycles. The paper advocates for an integrated approach to regional development, emphasizing the significance of addressing power dynamics and economic resilience alongside environmental considerations. Overall, it calls for a nuanced understanding of resilience-sustainability interlinkages to craft more effective and adaptive planning strategies.

KEYWORDS

institutional planning culture, regional development, resource constraints, urban resilience, urban sustainability

1 | INTRODUCTION

Regions increasingly confront operational complexities, demanding a nuanced grasp of dynamic change and future uncertainties in planning. Consequently, resilience has emerged as a focal point in urban development. Urban resilience (UR) is pivotal for bolstering urban sustainability (US), evidenced by instances like deforestation near cities, precipitating floods and landslides; for example, green infrastructure development is vital for both resilience and sustainability, mitigating surface water flood risks (Li et al., 2020). Regional agendas are pivoting towards sustainability amidst climate change impacts (Dixon et al., 2022). Many cities have embraced sustainability as a core tenet in future planning, mirroring broader trends in city-regional envisioning (Ravetz et al., 2020). Resilient city regions aim to withstand and

recover from socioeconomic and environmental shocks; thus, adapting practical sustainable development principles (Dixon et al., 2022).

Scholarship on sustainable regional development tackles multifaceted challenges confronting diverse regions (Harrison et al., 2021). This includes addressing migration impacts, regional energy planning, nationalist and regionalist influences, climate-compatible growth, land use demands, and the resilience of regional economies (Colomb & Tomaney, 2020; Iqbal et al., 2023; Li et al., 2024; Rabe et al., 2020). Additionally, scholars are interested in the resilience of regional economies (Iqbal et al., 2023) and competitive environment and growth paths (Bristow & Healy, 2014; Martin & Sunley, 2014).

A notable research gap exists in understanding the interplay between UR, US, and planning institutions, risking the dilution of both concepts due to substantial overlap (Zhang & Li, 2018). Moreover,

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studies often prioritize sustainability evaluation over defining resilience within urban systems (Sharifi & Murayama, 2013, 2014). Clear definitions of resilience and sustainability are crucial for measuring change and success (Cumming, 2011), yet the lack of operational tools to assess urban system resilience presents a critical gap (Ribeiro et al., 2019). Urban culture significantly influences institutional and procedural planning decisions (Othengrafen & Reimer, 2013; Stead et al., 2015), shaping planning scope, values, and political commitments (Knieling & Othengrafen, 2015). Despite its importance, the ambiguity in defining planning culture persists (Taylor, 2013), highlighting another research gap addressed here through the concept of “institutional planning culture.”

This research examines varied interpretations of resilience and sustainability at the regional planning scale, analyzing the role of institutional planning culture in procedural resilience through case studies in Finland's Helsinki-Uusimaa Region (HUR) and Southwest Finland Region (SFR) from October 2022 to September 2023. Integrating perspectives from resilience, sustainable development, and institutionalism, it explores how institutional planning culture influences regional sustainable development. The paper addresses the following question:

How does the institutional planning culture in the Helsinki-Uusimaa Region and Southwest Finland Region contribute to or hinder the procedural resilience of regional sustainable development?

Addressing procedural resilience is driven by institutional planning culture, which is embedded in and structured by each planning context. For this reason, this research used content analysis of relevant planning documentation together with nine semi-structured interviews to explore and compare the perspectives of procedural and cultural resilience in regional planning processes in the two case studies.

2 | LITERATURE REVIEW

2.1 | Interlinking resilience to sustainability

Sustainable Development Goal 11 (SDG 11) urges cities to be inclusive, safe, resilient, and sustainable, emphasizing the role of local governments in planning (Zeemering, 2009). Human activity and ecosystem interactions impact both sustainability and resilience (Romero-Lankao et al., 2016). While urban studies recognize similar drivers for sustainability and resilience, little research examines how UR and US intersect or diverge, leaving their implications unclear (Romero-Lankao et al., 2016). Intergovernmental documents often use resilience and sustainability interchangeably, lacking clear definitions in urban contexts (Elmqvist, 2017). Thus, context-specific interpretations are needed, highlighting the importance of collaborative knowledge production among urban stakeholders (Elmqvist, 2017). Significant resources are invested in co-production experiments to support US and resilience (Muñoz-Erickson et al., 2017). This approach fosters nuanced understandings, enabling adaptive

management of urban commons and promoting diverse learning opportunities (Colding & Barthel, 2013).

Recent studies emphasize developing resilience frameworks and indicators (Abusaada & Elshater, 2023a; Clarke et al., 2020; Osei-Kyei et al., 2023), examining specific crises (Abusaada & Elshater, 2023b; Majewska et al., 2022), and focusing on sustainability at a micro scale (Dessouky et al., 2023). While these studies offer valuable insights into sustainable urban development and UR at city, settlement, or neighborhood levels, they lack a comprehensive schema combining UR and US on a regional scale without crisis contexts. Effective crisis responses alone are insufficient: proactive planning for UR is essential (European Commission, Joint Research Centre, et al., 2017; Matthies & Menne, 2009). Sustainable strategies must integrate into all developmental activities to enhance overall quality of life. This research examines UR and US at the regional planning scale, questioning whether and how they are interlinked.

UR is crucial to the United Nations SDGs, with cities being key players (Salama et al., 2024). Many studies address UR indirectly through US, covering topics such as flood resilience and climate change (Büyükožkan et al., 2022). Zhang and Li (2018) highlight the significant overlap between UR and US, which can dilute both concepts, necessitating clearer distinctions. The relationship between UR and US should be examined at global, regional, community, and facilities scales. Globally, both involve managing and protecting ecological systems, but UR emphasizes self-protection and restoration during crises, while US focuses on utilizing and protecting resources (Zhang & Li, 2018). Regionally, US emphasizes economic self-sufficiency and environmental benefits, while UR focuses on economic stability and diversification to handle risks and pressures.

At the regional scale, US studies emphasize local economic self-sufficiency and environmental benefits of economic activities (Barata-Salgueiro & Erkip, 2014; Toubin et al., 2015), whereas UR focuses on the stability and diversification of urban economic structures to handle risks and pressures (Shi & Yu, 2014; Wei et al., 2016). At the community scale, both UR and US aim to provide basic material conditions such as water, healthcare, and housing, but UR emphasizes employment diversification and insurance benefits (Mehmood, 2016; Saadatian et al., 2013). At the facilities scale, UR focuses on the immediate availability of traffic and communication infrastructure during emergencies, green building design, and seismic requirements (Chang et al., 2014; Takewaki et al., 2011), while US prioritizes infrastructure and architectural planning and layout (Muller et al., 2015).

According to Zhang and Li (2018), UR involves monitoring, facilitating, maintaining, and recovering the positive interaction between ecosystem services and human well-being under external pressures. In contrast, US integrates and co-evolves urban subsystems, ensuring development does not limit growth potential and reducing negative impacts on the biosphere. Muñoz-Erickson et al. (2017) argue that to support US and resilience, it is essential to understand how existing epistemic and governance practices are intertwined across various city processes and institutions. Therefore, understanding the institutional planning culture is crucial, as discussed in the following subsection.

2.2 | Institutional planning culture

Resilience in planning hinges on the ability of the system to adapt to unforeseen pressures, a process contingent on regional complexity. As shown in Figure 1, planning approaches may vary from the culturized planning model (Knieling & Othengrafen, 2015; Othengrafen, 2010) to regional planning through three perspectives (Purkarthofer et al., 2021), including critiques on planning culture by Taylor (2013). The culturized model delineates “planning artefacts,” “planning environment,” and “societal environment,” reflecting values and norms shaped by political commitments and institutional memory. Political dedication fosters resilience (Peters, 2013; Rouhinen, 2014), promoting integration (Nordbeck & Steurer, 2016) and breaking down silos (Russel & Jordan, 2009). However, sustaining commitment beyond electoral cycles poses challenges in sustainability-driven democracies (Ward, 2008; Wong & Heijden, 2022).

Planning culture, defined by Sanyal (2005) as the collective ethos and attitudes towards state, market, and civil society roles, intertwines with institutional memory, embodying taken-for-granted assumptions and power patterns (Knieling & Othengrafen, 2015). This culture shapes a distinct subculture within planning, influenced by actors and processes (Neuman, 2007).

Taylor (2013) critiques the diverse interpretations of “planning culture,” questioning its analytical precision. Planning culture may oscillate between being an independent variable driving change or a dependent variable influenced by broader factors, referencing professional or societal norms. Healey (1997) views planning culture as organizational, shaped by national traditions, while Sanyal (2005) and Faludi (2004) highlight the impact of national professional norms. Conversely, planning culture can be shaped by neoliberal globalization (Friedmann, 2005a, 2005b) and EU policies (Tewdwr-Jones & Williams, 2001). Addressing cultural stability and change challenges, historical institutionalism offers insights into the evolution of planning systems (Hay, 2008). Distinguishing formal and informal institutions, new institutional analysis explores how configurations favor certain interests (Taylor, 2013) and considers ideas and macrostructural variables in institutional dynamics (Schmidt, 2010).

Purkarthofer et al. (2021) propose tackling regional planning complexity through three interrelated perspectives: interests, institutions, and relations. The “interests” perspective highlights motivations from different government levels and ideologies. “Institutions” encompass the formal and informal rules shaping planning, from established legal processes to experimental initiatives. “Relations” focus on the interactions among actors and processes, linking regional planning with sectors such as labor, education, health, and industry. This approach can help sidestep some debates raised by Taylor (2013).

Concerning the interests, Taylor et al. (2020) studied resilience strategies in 14 cities within the 100 Resilient Cities Programme, highlighting differences in stakeholders’ interests regarding future uncertainties and risks. Most strategies present a unified community image, despite promoting diversity as a strength. In Finnish



FIGURE 1 Schematic structure from culturized planning model to institutional planning culture.

regional planning, significant tension exists between local and regional perspectives due to the high autonomy of local governments in planning, services, and taxes. Granqvist et al. (2020) highlighted this in Kotka-Hamina, where municipal interests often clash with regional goals supported by the Kotka-Hamina Regional Development Company Cursor, resulting in unrealistic growth goals promoting collaboration. Smas and Schmitt (2020) found that mismatches between administrative and planning systems cause regional tensions, focusing more on cross-boundary issues than proper intervention scales. Walsh (2020) identified competing objectives in maritime spatial planning for the North Sea 2050 strategy, including wind energy, aquaculture, biodiversity, and cultural heritage, but failed to prioritize conflicting interests. Ecological concerns often clash with economic benefits shared by a few businesses (Purkarthofer et al., 2021; Walsh, 2020). Although citizen involvement in planning is increasing in Europe, it sometimes

remains symbolic rather than meaningful (e.g., Nadin et al., 2020; Purkarthofer et al., 2021).

Regarding the institutions, Purkarthofer et al. (2021) describe regional planning as a “contested strategic arena” due to diverse interests, governance levels, evolving institutional procedures, and complex inter-scalar and inter-sectoral tensions. Studies emphasize the importance of organizational resilience in meeting evolving institutional expectations driven by SDGs and environmental, social, and corporate governance (ESG) criteria (Liang & Li, 2023). Adaptive planning approaches necessitate a fundamental review of planning institutions, including professional culture and capacity, and strengthening integrity and probity, demanding resilient and flexible structures (ESPON, 2013). Regional planning administrations, subject to fluctuating political ideologies and reforms, often lack agility to adapt efficiently (Davoudi et al., 2020). Such rigidity may undermine the effectiveness of regional planning outcome. Thus, more fluid governance structures require agile planning activities (Harrison et al., 2021). Andres et al. (2021) suggest incorporating informal and temporary dynamics where formal planning is hindered, as formal institutions often undermine the importance of informal policies or innovative practices. New institutionalism and gradual institutional change theory provide frameworks to understand institutional constraints and resources in regional planning (Mahoney & Thelen, 2010; Sorensen, 2018). Smas and Schmitt (2020) offer insights into the institutional mechanisms guiding regional planning in Europe. Contrary to claims that resilience shifts disaster preparedness responsibility to communities, Taylor et al. (2020) found that most resilient city strategies rely on state-centric actions and existing planning institutions. However, resilience concepts still place more disaster preparedness responsibility on communities, minimizing state authority (Taylor et al., 2020).

Regarding relations, Purkarthofer et al. (2021) introduce an innovative perspective by utilizing social network analysis to investigate knowledge integration and learning in Finland's strategic planning process. This methodology enables exploring the evolving social and sectoral dynamics of planning practice, emphasizing its non-linear and intricate nature. They demonstrate that planning is influenced by ongoing interactions among institutional rules, organizational practices, and individual competencies and attitudes. The complexity of regional planning is rooted in vertical relationships between government tiers and horizontal connections between sector policies and across administrative boundaries (Purkarthofer et al., 2021). However, while fostering resilience could boost collective capacity-building, many cities have not prioritized stakeholder relationships for this purpose, instead opting for expert-driven, technocratic planning (Taylor et al., 2020). The delicate relational aspect of planning at the regional level encompasses “trans-scalar, trans-sectoral, and trans-territorial perspectives” (Purkarthofer et al., 2021). This relationality makes the “regional” a vital research focus (Paasi et al., 2018) as it shapes decisions regarding both UR and US.

Finally, in the realm of regional sustainable development across Europe, challenges such as economic shifts, demographic transitions,

TABLE 1 Organizational resilience at different levels.

Level	Organizational resilience
Micro-level	Competencies of human resource enabling the institution to address external threats and cope with environmental uncertainty (Lai & Cai, 2023)
Meso-level	Active ability nurturing the institution's capacity to deal with a situation-specific challenge and react timely to external pressures (Liu & Yin, 2020).
Macro-level	A result of the intertwinement of the institution with external stakeholders (Wang et al., 2022).

globalization, and climate change abound (Stead, 2013). This research adopts the three perspectives interests, institutions, and relations, simplified in the term institutional planning culture; however, it is essential to further discuss organizational resilience.

2.3 | Organizational resilience and institution

Mechanisms that enhance organizational resilience aim to increase situational awareness, minimize vulnerabilities to systemic risks, and restore efficacy after disruptive events (Burnard & Bhamra, 2011). Despite these advancements, there is a notable lack of in-depth knowledge regarding the institutional and organizational dimensions within resilience and adaptation management. This gap underscores the need for a comprehensive theoretical understanding of the mechanisms shaping resilience debates and actions (Garschagen, 2013). Resilience governance and institutional innovations emphasize the importance of flexible organizational structures that allow for the development and experimentation of innovative approaches by pioneering stakeholders (Tschakert & Dietrich, 2010). Organizational resilience is complex due to its numerous definitions (Hillmann, 2021). It emerges from the interplay between structural and relational resilience, enhancing an organization's dynamic capabilities and driving strategic and operational initiatives for sustainable alignment with the external environment (Ciasullo et al., 2023). It also considers the procedural and social aspects of organizing, strengthening the capacity for continuous development (Hillmann, 2021; Mamouni Limnios et al., 2014). Organizational resilience ensures functionality under constraints (Hillmann, 2021), making it a key factor for future success (Marwa & Milner, 2013). In the sustainability debate, resilience is understood as the ability to resist changes or “bounce back,” adopting an ecological view of resilience where the system operates on the edge of instability (Holling, 1996). Hillmann (2021) emphasizes developing an organizational “ecological embeddedness and sensemaking” to involve society and the environment (King, 1995). Organizational resilience is structured by various resources that enable adaptation, anticipation, and coping with changes (Rodríguez-Sánchez et al., 2021). It is not a static attribute (Sevilla et al., 2023) but a dynamic capability (Darkow, 2019), shaped by past procedures and current resources (Palumbo & Manna, 2018). This resilience is crucial for meeting evolving institutional expectations, such as the SDGs and

TABLE 2 Types of resilience based on Yamagata and Sharifi (2018) evolutionary as in Davoudi et al. (2013).

Type of resilience	Description
Engineering	Accentuates reducing vulnerability to disasters by improving robustness of the physical infrastructure.
Ecological	Entails a more flexible and dynamic approach that recognizes inadequacy of resistance and robustness characteristics for building urban resilience. It further promotes structuring safety margins into the design of the system allowing it to absorb initial shocks, retain functionality, and minimize overall losses.
Adaptive (also called evolutionary)	Facilitates appropriate interactions between slow and fast variables in the system allowing the system to smoothly alternate between long periods of stability and short periods of chaotic change, without losing its integrity and functionality. Social-ecological memory, self-organization, and learning from the past are essential characteristics for achieving adaptive resilience. Transformability is what distinguishes evolutionary resilience from engineering and ecological resilience. It broadens the description of resilience beyond its meaning to incorporate the dynamic interplay between persistence, adaptability and transformability across multiple scales and time frames in ecological (natural) systems.

ESG criteria (Liang & Li, 2023). Organizational resilience levels are briefed in Table 1.

2.4 | Exploring approaches to regional resilience

The literature on regional resilience discusses three main approaches: engineering-based resilience (Fingleton et al., 2012), ecological resilience (Zolli & Healy, 2012), and evolutionary resilience (Pike et al., 2010; Simmie & Martin, 2010) (see Table 2). Engineering-based resilience focuses on a system's ability to return to equilibrium after a shock. Ecological resilience involves adapting to new equilibrium states in response to external shocks, leading to ambiguity due to multiple equilibria (Zolli & Healy, 2012).

This paper adopts the evolutionary approach to resilience, viewing it as an ongoing process rather than a return to equilibrium (Simmie & Martin, 2010). Resilience entails regions creating new growth paths to counter decline or stagnation in their economy (Saviotti, 1996), highlighting the importance of adaptability over historical legacies (Swanstrom, 2008).

The literature on regional resilience predominantly examines the industrial composition of regions. For instance, specialized regions, dominated by a principal industry, tend to be less vulnerable to sector-specific constraints due to their focused nature (Boschma, 2015). Evolutionary resilience literature often links regional

TABLE 3 Conventional versus resilience-oriented planning adapted from Table 1.1 in Yamagata and Sharifi (2018).

Planning theme	Conventional planning	Resilience-oriented planning
Vision and strategy	Linear Static (blueprint) Emphasizes eliminating risks Recovery from disaster by equilibrium approach Predict & Prevent approach	Adaptative through regular and iterative processes of monitoring and scenario making
Institutional reform	Sector-based Using high technical language in communication Top-Down Limited share of private investment in urban infrastructure management (obvious in developing counters)	Interactions between sectors (interconnected and interdependencies) Decentralized planning Promotion of the culture of collaboration Incremental and learning by doing approaches Recognize the significance of behavioral changes Transparent decision making process Communication using a commonly understandable language Strong public-private partnerships
Sectoral, spatial, and temporal interlinkages	Failure to address interlinkages between different sectors and dimensions Silo-based Lack of understanding of spatial and temporal dynamics	Not carried out in silos Efforts to understand interconnections between different sectors Emphasis on understanding spatial and temporal dynamics

resilience with adaptability (Pike et al., 2010). However, scholars argue that resilience encompasses not just adaptability but also the capacity to navigate the tension between adaptability (openness) and adaptation (control and efficiency) (Boschma, 2015). Resilience thinking in long-term regional research emphasizes how territories perform and adapt under extreme pressure and events (Bailey & Turok, 2016).

Understanding a region's ability to respond (resistance and recovery) versus its adaptability and adaptive capacity (reorientation and renewal) is crucial (Eraydin, 2016). Planning authorities should develop adaptive and innovative strategies to prepare for risks (Ahern et al., 2014). Resilience thinking challenges the suitability of blueprint planning (linear and static) for its rigidity to adapt with uncertainties and continuously changing risk profile (see Table 3); thus, an essential paradigm shift is needed from blueprint planning to adaptive planning (Yamagata & Sharifi, 2018). This shift requires institutional reforms that enhance collaboration among stakeholders, fostering continuous involvement, feedback loops, and learning (Crowe et al., 2016). Such reforms enable complex interrelationships within urban systems,

TABLE 4 The main characteristics of urban resilience (adapted from Ribeiro et al. (2019).

Characteristics	Description
1. Redundancy	Existence of several functionally similar components, allowing the system to avoid failing when one of the components collapses.
2. Diversity	Existence of several functionally different components to protect the system against the different pressures. The more diversity the system possesses, the better the ability to adapt to a wide range of diverse circumstances.
3. Efficiency	Positive relationship between the functioning of a static urban system in relation to the operation of a dynamic system.
4. Robustness	Ability to resist attacks or other external forces. Robust design anticipates potential system failures, ensuring that failures are predictable, secure, and not disproportionate to the cause.
5. Connectivity	Connected system components for support and mutual interaction.
6. Adaptation	Ability to learn from experience and be flexible in the face of change.
7. Resources	Existence of resources that can be rapidly displaced to respond to disruptions and their effects.
8. Independence	Ability to operate for a continuous post-disaster period without relying on external physical intervention.
9. Innovation	Ability to quickly find different ways to achieve goals or meet their needs during a shock, or when a system is under stress. Innovation is critical to developing a city's ability to restore the functionality of critical systems under severely limited conditions.
10. Inclusion	Development of broad consultation and involvement of communities, particularly of the most vulnerable groups in the development of processes and plans. An inclusive approach contributed to a joint vision to build the city's resilience.
11. Integration	Integration and alignment between urban systems promotes stronger decision-making and ensures that all users/components mutually support each other for a common outcome. The exchange of information between systems allows them to function collectively and respond quickly through shorter response cycles across the city.

operating across various spatial and temporal scales (Yamagata & Sharifi, 2018).

Resilience-oriented planning for urban areas should integrate principles like robustness, diversity, redundancy, flexibility, efficiency, modularity, and innovation (Yamagata & Sharifi, 2018). Ribeiro et al. (2019) extended these principles to 11 characteristics in their comprehensive literature review for an UR conceptual framework (see Table 4). Additionally, the definition of cause and effect in regional resilience warrants further examination (Boschma, 2015).

3 | METHODS

In this research, the focus is on analyzing expert interviews. The interviewees represented civil servants and elected officials in the two regions. The experts were identified through a snowball sampling technique, expanding the sample through referrals from interviewees. All interviews lasted between 60 and 120 min, were held online, recorded, and transcribed. The interview questions were developed based on a review of the literature and considered the definitions, institutional settings, and substance-related issues of resilience in each region. The interviews aimed to gather insights from experts with a range of perspectives and experience in regional planning processes—either as organizers, planners, decision-makers, or users of the plans. The interviewees ($N = 9$) are called in this paper respondent 1–7.

Data from the case studies and expert interviews were analyzed using content analysis. The interviews considered topics of substance-related resilience of the discussed regional plans and visions, resilience of knowledge practices during the planning processes, as well as the role of regional planning as the mediator of interests from national and municipal scales. For content analysis, the interview data was further categorized based on the criteria provided by Ribeiro et al. (2019): redundancy, diversity, efficiency, robustness, connectivity, adaptation, resources, independence, innovation, inclusion, and integration. To protect the confidentiality of the participants, pseudonyms were used in all transcripts and publications. Data was stored on a password-protected computer and only accessible to members of the research team.

4 | SETTING THE SCENE

4.1 | Evolving Finnish regional planning

Until the 1980s, the Finnish regional balancing policy aimed to reduce disparities, resulting in GDP and income convergence (Kangasharju & Pekkala, 2004; Pelkonen, 2016). However, since the 1990s, disparities have grown (Kangasharju & Pekkala, 2004), coinciding with Finland's shift to a competitiveness-oriented model (Julkunen, 2001; Patomäki, 2007). Political shifts to the right have also influenced regional structures (Pelkonen, 2016). Harmonizing state and municipal policies, especially in the capital region, is crucial for promoting growth (Hautamäki & Ranta, 2011; Pelkonen, 2016), given conflicts between state and city interests (Pelkonen, 2016). Acknowledging these disparities, Finland faces a transition from welfare to market models, highlighting varying state and municipal priorities. Strategic land use, housing, and transport planning on a city-regional scale (MAL) have emerged as responses to identified needs (See Figure 3). This paper links Finnish planning to its “planning environment,” witnessing a shift from rational to communicative planning (Eräranta et al., 2015), albeit with limited public participation (Hewidy, 2023). Institutional planning culture blends rationalist and collaborative approaches (Bäcklund & Mäntysalo, 2010), marginalizing citizen

input (Niitamo, 2020). Therefore, resource reallocation is needed to empower participatory planning (Mattila, 2018; Niitamo, 2020).

4.2 | Justification of case selection

The southwest region capital city, Turku, served as the Finnish capital until 1812, when Tsar Alexander I of Russia relocated it to Helsinki in the Uusimaa region. These areas offer comparable comparisons due to their similar land areas (see Table 5) and shared historical, cultural, and political significance. Both regions, forming the base of the

Southern Finland Macro-Region growth triangle of Helsinki-Turku-Tampere (Figure 2), boast the highest population, business volumes, and investments among the 19 Finnish regions (Halonen, 2022). In February 2020, the Finnish State and seven municipalities, including Helsinki and Turku, initiated a project to plan and finance a fast rail connection, the one-hour train, linking Helsinki and Turku. Serving as connecting nodes on the Trans-European Transport Network (TEN-T) network, both regions' capitals facilitate East-West and South directions, contributing to their rapid regional development. For simplification, this research excludes the Pirkanmaa region, with its capital Tampere.

TABLE 5 Comparison of the case regions.

		Helsinki-Uusimaa region (HUR)	Southwest Finland region (SFR)
Region	Inhabitants	1,723,000	481,403
	Size	9,568 km ²	10,910 km ²
	No. of municipalities	26	27
Organization	Employees	appr. 80	appr. 70
Regional assembly	No. of elected officials	83	104
	Largest parties	The National Coalition Party (23), The Social Democratic Party (14), The Greens (14)	The National Coalition Party (26), The Social Democratic Party (19), The Finns Party (16)
Regional Plans	Plans in force (year of ratification)	Helsinki-Uusimaa Regional Land Use Plan 2050 (2023); Regional Land Use Plan for the Östersundom area (2021); Phased Regional Land Use Plan 4—only markings for wind power (2020)	Regional plan for natural values and resources (2021); phased regional plan for land use, services and transportation in urban areas (2018); phased regional plan for wind power (2014); regional plans of Loimaa region, municipalities of the Turku region, Turunmaa and Vakka-Suomi (2013); regional plan for Salo region (2008); regional plan for the Turku city region (2004)

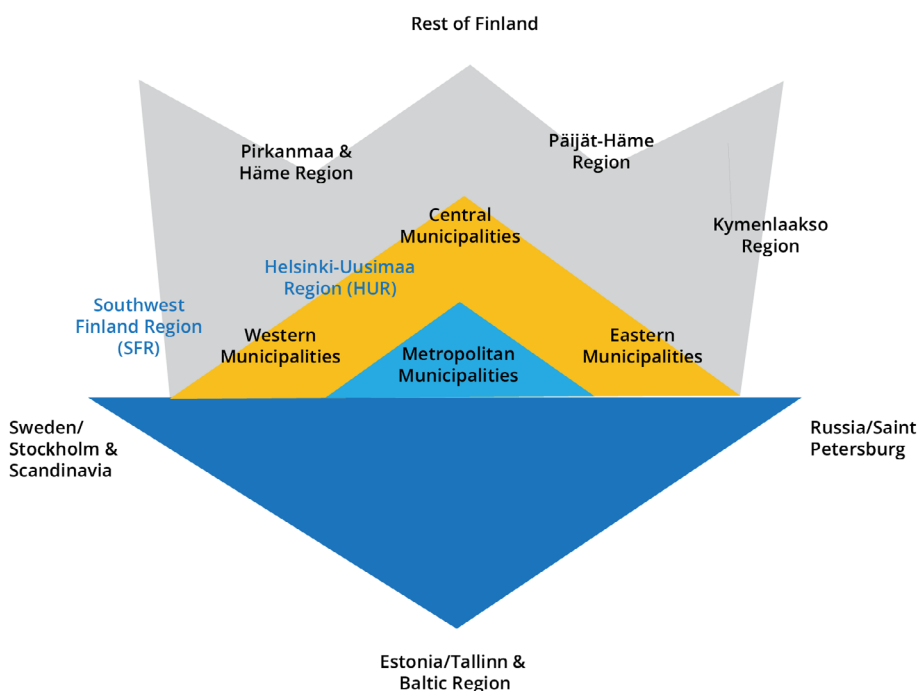


FIGURE 2 Southern Finland macro-region growth triangle.

5 | CASE DESCRIPTION

In Finland, regional councils are legally mandated, with their primary source of funding being their member municipalities (See Figure 3 Simplifying the Finnish Planning System). The country has a total of 18 regional councils, charged with the tasks of long-range regional land-use planning, as well as promoting local and regional interests. The highest decision-making bodies within the councils are the Regional Assembly and the Regional Board to which all officials are politicians elected by the member municipalities for a fixed term of 4 years. Regional councils are responsible for the regional land use plans that serve to establish the guiding principles for urban structure and the use of areas designated for specific purposes. This study is based on case studies of two Finnish regions, Helsinki-Uusimaa and Southwest Finland, which are adjacent to each other (Figure 4 and Table 5). Uusimaa comprises 26 municipalities and has a population of a little over 1.7 million while Southwest Finland has 27 municipalities and a population of approximately 481,000. Both regions have coastline along the Baltic Sea and encompass diverse spatial areas, including major urban centers, smaller towns and villages, agricultural areas, and islands.

5.1 | Helsinki-Uusimaa region

The HUR is currently experiencing rapid growth due to migration, making it one of the fastest-growing regions in Europe. Being the location of the country's capital city, Helsinki, the region has long been recognized as a hub for international competitiveness, research, and development. The Helsinki-Uusimaa Regional Land Use Plan extends until the year 2050 (Figure 5). The plan has four primary targets: steering sustainable growth and a regional balance, facing climate change and the sustainable use of nature and natural resources, increasing welfare and attractiveness, and enabling sustainable competitiveness. The plan is structured into two levels: a strategic structural plan that covers the entire HUR, which is then complemented by

three phased regional land use plans for the Helsinki Metropolitan Region, as well as Eastern and Western Uusimaa.

5.2 | Southwest Finland region

SFR is projected to experience population growth in the near future as one of the four regions in Finland expected to do so. Southwest Finland is a typical European medium-sized region, characterized by a larger city region surrounded by a more rural-like area of influence. The Regional Land Use Plan for Southwest Finland (Figure 6) has been

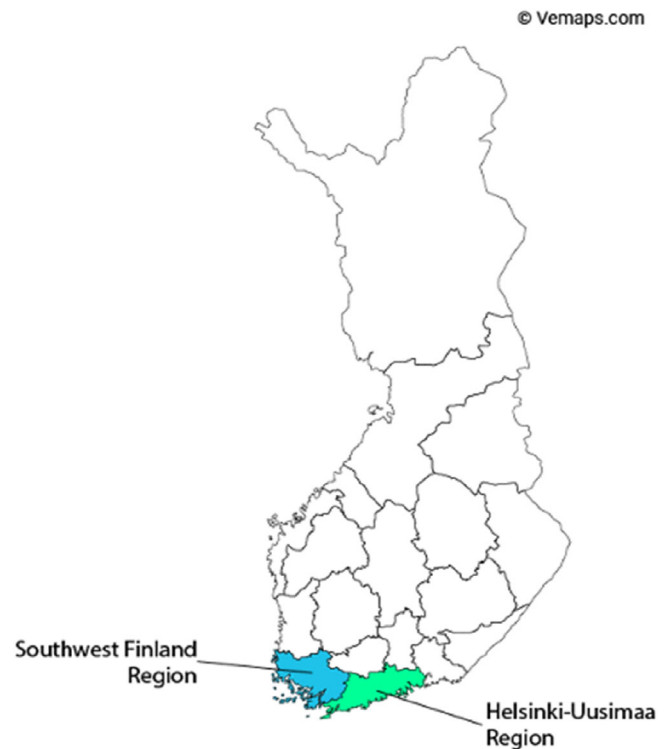


FIGURE 4 Location of the case areas in Finland.

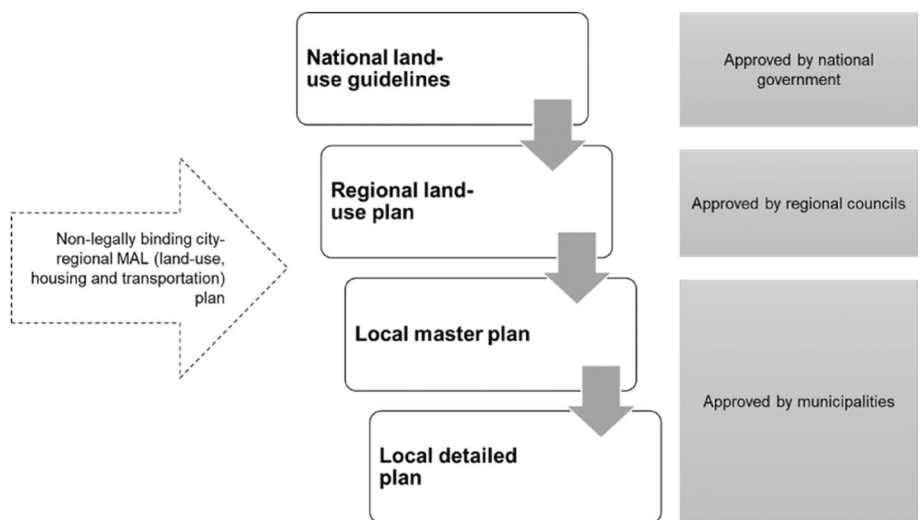


FIGURE 3 Finnish planning system and approval levels.

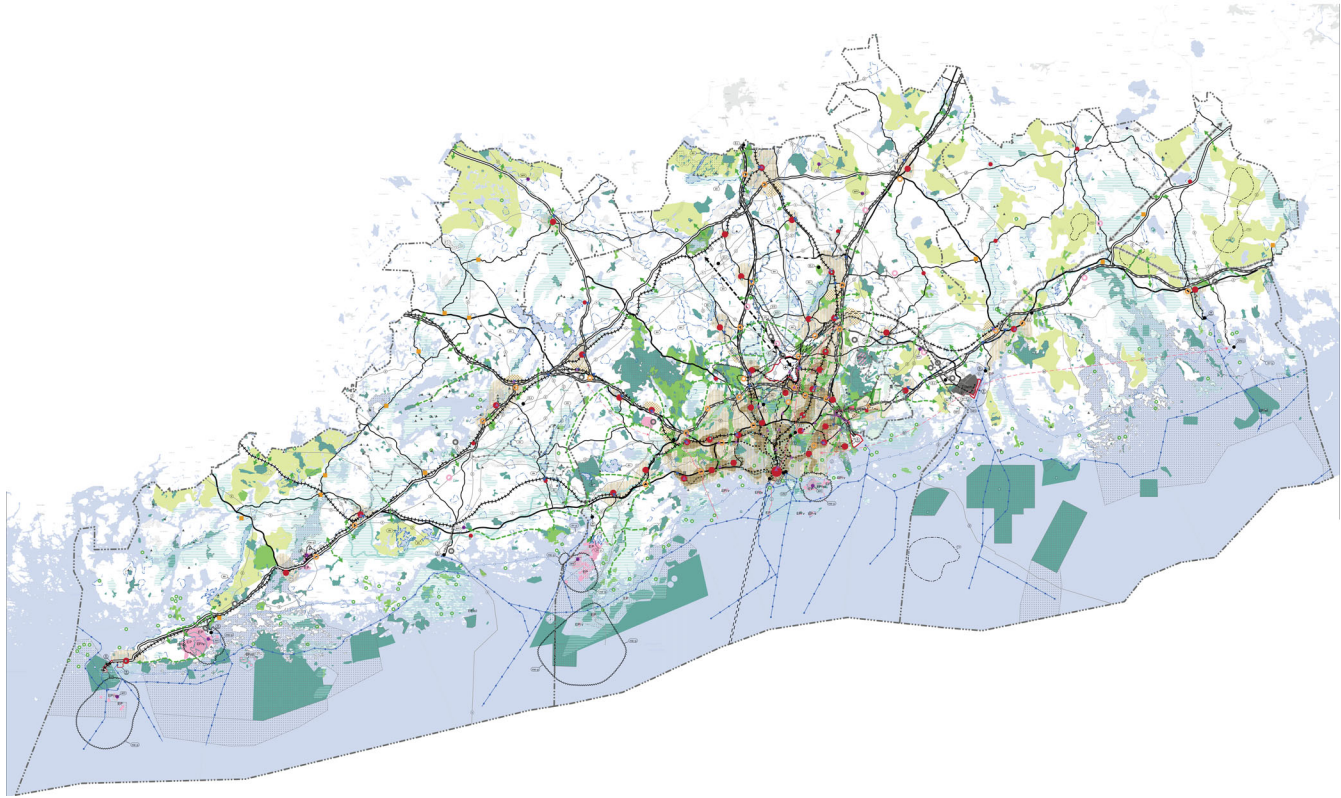


FIGURE 5 Unofficial combination of current regional plans of the Helsinki-Uusimaa Region (Helsinki-Uusimaa Regional Council, 2023).

developed in stages based on different areas, supplemented by theme-specific phased regional plans. Currently, the regional plan consists of seven component plans, which are all at least partly in force simultaneously.

6 | FINDINGS

In both organizations, regional planning was considered resilient overall due to its strategic nature and long-term perspective. As indicated by a respondent from both regions, planning reinforces legal connotations and resilience cannot only be interpreted through ultimate flexibility, as the plan acts as a legally ratified steering document. The interviews in both cases revealed that there is no well-defined definition of resilience in common use. Whereas the broad definitions of resilience usually entail perspectives beyond environmental sustainability, interviewees from both HUR and SFR considered resilience mostly as an environmentally aligned concept that deals for example with adaptation to climate change and measures taken to prevent biodiversity loss. Some of the interviewees even suggested that resilience is currently utilized more as a tool for regional and city branding and organizational identification than as a way of steering the actual planning solutions and processes. This was also suggested as a reason for not having an acute interest in defining the concept in a more precise manner. Similarly, interviewees from HUR suggested that resilience

is strongly intertwined with the targets and indicators of planning. A plan can only be as resilient as the indicators chosen to measure the solutions.

6.1 | Resilience as a process of systematic foresight and iteration

Despite the differences in the context, the interviewees from both HUR and SFR shared an understanding of resilience as a future-driven concept that requires iterations over time. Interviewees from both regions described that regional planning itself is an iterative process, as it is never started from scratch, but is always founded on already existing areas and infrastructure:

Resilience is somehow already bound to the concept of making a regional plan because the plan is supposed to be for a long time. [...] It is not reasonable for the regional plan to be too detailed, as we do not have all the information. [...] This means that we are constantly having meetings with the municipalities on how they can fulfil the goals.

(Respondent 1, HUR)

Due to the systematic iterative practices, the process also stays resilient as it can acknowledge changes in the operational environment as

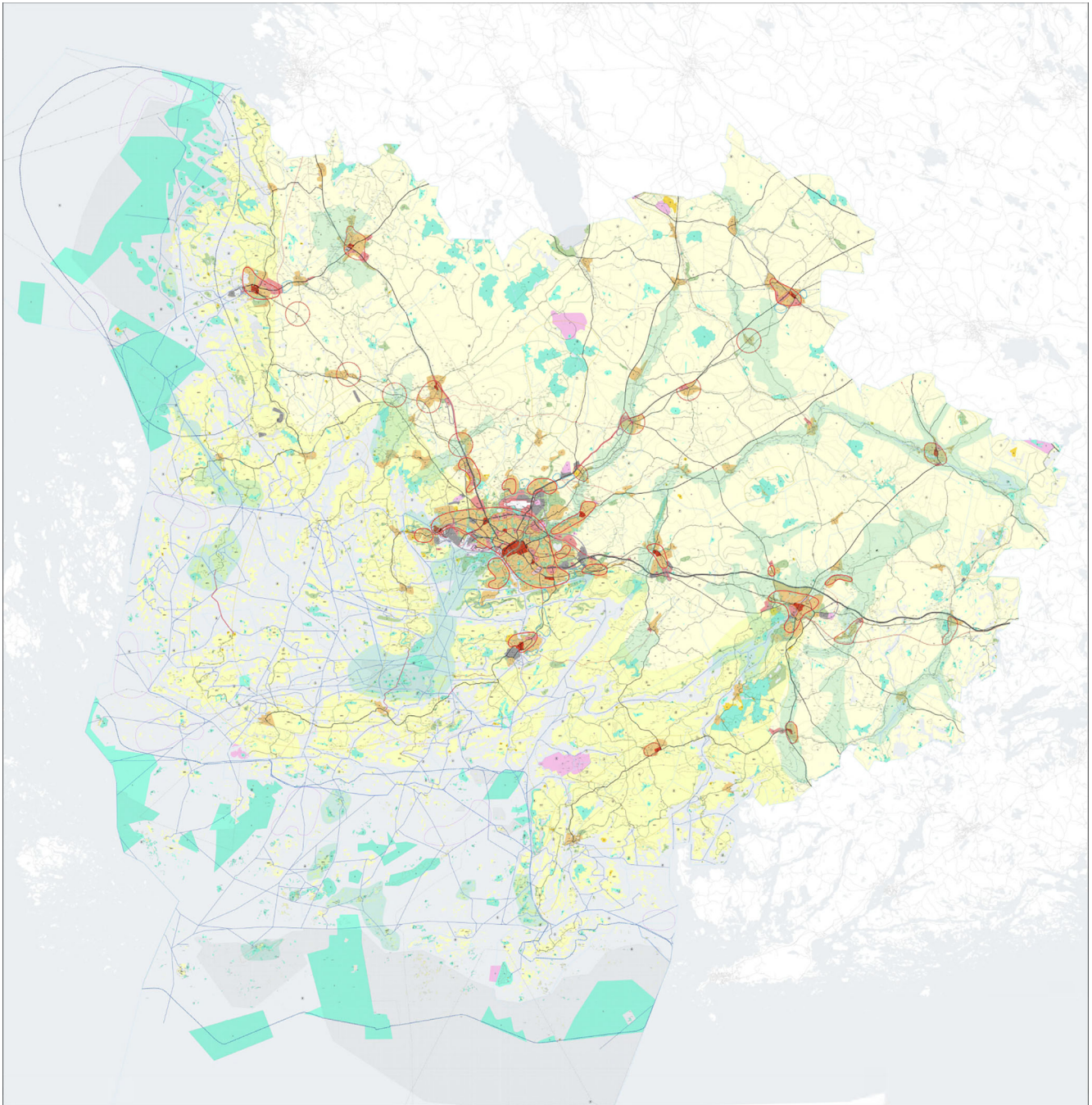


FIGURE 6 Unofficial combination of current regional plans of the Southwest Finland Region (Regional Council of Southwest Finland, 2022).

they take place, also providing adaptive capability for planning through the ability to learn from experiences. Concerning foresight, the importance of willingness to change and learn was highlighted as an important factor in addition to institutional practices and planning culture:

I always want to start about the mentality, mindset, and governance. What do those mean. Because those explain what has happened and what can be achieved

even when there is a need to make giant leaps.

(Respondent 1, HUR)

Based on the information gathered from the interviews, HUR has systematic and robust practices for including foresight, iteration, and peer learning during their regional planning processes. During the iterations, a balance between target-oriented steering and strategic flexibility is sought and tested through concrete cases, as well as experiences from previous rounds of planning. HUR explained that

they invite external experts to evaluate the existing and ongoing plans to identify outdated elements in the plans as well as to improve the quality and credibility of the plan through external revisions, future panels, and shadowing at multiple phases of the process to avoid what was also identified by SFR:

If we do the development according to the plans, how sustainable is it, as the plans are maybe 10 years old. The sustainability logics of even 5-year-old plans might be completely different to the current... It is following more the principles of Western neoliberalism.

(Respondent 4, SFR)

In SFR interviews, the conclusions differed suggesting that in the future especially comprehensive plans are needed to bring together all themes, avoid suboptimization and ensure resilience. Moreover, the discussion focused more on the interpretation of already existing plans, of how to interpret old plans through the new strategic targets in a way that they would stay strategically resilient over council terms without a need to reopen the plan every time the operational environment changes. SFR further pointed out that iterations also have restrictions and especially themes that were difficult to decide in previous rounds, should not be reopened in the near future:

Of course, we have themes that cannot be opened. Should not be opened. Already approved. For example, some new rail corridors. It is there [in the plan], fixed. It is better not to open for discussion until it is built.

(Respondent 2, SFR)

6.2 | Resilience as nurturing of trust, acceptability and solidarity

In addition to the collaborative practices during iterations, interviewees from both regions pointed out that collaborative practices support procedural resilience, acceptance, and solidarity.

Regarding procedural resilience, the ability to share and store information was mentioned as an essential element. For example, HUR has well established methods for steering the process as well as making memos and storing information so that the process is not dependent on single individuals and their knowledge. The situation in SFR is considerably different due to scarce resources. In SFR, the interviewees explained that having such “safety” practices in place is not possible due to the low number of individuals and resources available. However, what was missing in resources was compensated through close and trustworthy relations with other actors.

In contrast to the interviews in HUR, which emphasized diversity of resource-intensive and systematic collaborative practices, those in SFR provided examples of how to cope with systematic foresight and iteration procedures with scarce resources. In SFR, the scarce resources were also mentioned as a benefit, as everyone already knows everyone, and scarce resources force the experts to focus on collaboration instead of conflict-seeking:

The discussion is fluent, and we discuss with them [here: the state] almost every day. [...] If we do not know something, then we call them on the other side of the river and ask what they mean. It is very easy.

(Respondent 4, SFR)

In fact, the interviewees were not able to remember many actual arguments between conflicting interests in the region:

Are we not doing ambitious enough work? Or is it more that we have so scarce resources that we cannot waste them in arguing. So, we really need to cooperate, as we have so few experts here. We do not get anything done if we just argue about issues [with experts from the state level and other municipalities].

(Respondent 3, SFR)

In relation to acceptance over time, interviewees from HUR explained that the collaborative multi-value sphere is a central element. For example, the interviewees described that it is important that the same elected officials decide on the start of a plan, set the goals for the process, steer the process and finally accept the plan so that the whole process is done according to the values set in the beginning. Another key issue regarding the acceptability of the plans was the language utilized. It is important to support the participants in finding relevant information in an understandable form to improve the justice of the process.

Furthermore, one interviewee suggested that resilience is not only about getting things done as efficiently as possible, but also about building a culture of solidarity to support more long-term change and resilience:

I feel that it is important that people feel they are a part of the environment and a part of the society and have the feeling that they can influence. The feeling of having an influence in this society is important because that makes you support long term resilience. You will give your best to it. You will build, not destroy. I think we should do everything for that.

(Respondent 4, HUR)

The findings also introduced an interesting question of power positions in the two processes. The analyzed documentation suggests that the interests of the larger municipalities were considered in the plans in a more detailed manner, whereas the interests of smaller municipalities were not as explicitly stated. In the interviews, the power relations between the municipalities or the municipalities and the national level were not explicitly discussed.

6.3 | Resilience as integration, persuasion and commitment

Inadequate resources were mentioned as a reason for limited integration in SFR. Although having multiple experts join collaboration

meetings would be ideal for overall knowledge co-creation, integration, and testing of ideas, only one expert can typically attend due to scarce resources. Consequently, the discussion typically remains at a very concrete level and around themes that the participants themselves are working with at that specific moment, and does not extend to more holistic themes:

Resources are very thin outside of the Helsinki metropolitan area. In the metropolitan region, there are loads of humans working on these [strategic planning issues]. There is always someone who is ready to take responsibility, but outside that region there is no time for strategic thinking.

(Respondent 5, SFR)

Both regions explained that resilience in regional planning is essentially about integrating the various pieces of information, differing targets and values, and expectable changes with each other into a single plan. However, when describing the integration, both regions mainly referred to coordination. For example, in HUR, the previous planning process included almost 200 studies, which were mainly utilized for filling in identified knowledge gaps in the process. Many of the studies were done by external consultants and steered by the regional planning organization. As the HUR representatives explained, the steering of this multi-actor information process is a delicate act:

The general plan is like a piano. And then this regional plan... It has a huge number of participants, themes, and scales. It is like organs that are in the cathedral. You are all the time playing and have all those little things that you have to pour out like this and then you have to step with your legs and remember also to turn the page.

(Respondent 6, HUR)

This coordination act was further described by the interviewees, suggesting that it is not as much about integrating knowledge between diverse experts but about coordinating the pieces of information that come from the experts:

As a consultant, you are in a way sitting under the table. The clients are eating on the table and the pieces of bread are dropping on the floor. You get these pieces of information for the work you need to do. And you do it. But it is just a small part, a piece of the whole bread that is actually there on the table. But you cannot see it when you are a consultant. You just do your part as well as you can and give it back to the table where this one little piece is added.

(Respondent 6, HUR)

Hence, whoever has the coordinating role has also relational power in how the pieces finally fit together, and much of the resilience resides

in these coordination posts. It was pointed out that integration and boundary-crossing is not only a technical act, but also requires curiosity and willingness to learn new at the individual level as the operational environment is dynamically changing and the education and practices of the past do not offer needed skills for addressing the dynamics of the system.

For long-term resilience, this would also require that the integration and combination is done in the multi-actor sphere so that the values and targets cross the realm of planning also in a vertical manner—reaching beyond the regional scale. Interviewees from SFR provided an example of what might happen if the combination and integration is not done through a process that would also commit other actors to the stated targets and provide direction for their interpretation:

You can do these plans and things like that, but then you have the operational level and if there is a gap in the information, then the tree is cut. Even if the decision is that the tree is not cut.

(Respondent 7, SFR)

7 | DISCUSSION AND CONCLUSIONS

The research focused on two neighboring Finnish regions to examine differences in their institutional planning cultures and their responses to knowledge complexity and the increasing need for resilience amid accelerating multiscale changes. The vague definition and operationalization of procedural resilience suggest three main conclusions.

First, resources such as experts and expertise (Ribeiro et al., 2019; Yamagata & Sharifi, 2018) are major vulnerabilities and catalysts for procedural resilience. Time is another key constraint, with the expectation that elected officials should oversee the entire process from idea initiation to ratification. The lack of resources for communication and coordination between different governing levels adds complexity to procedural resilience. Consequently, regional planning contextualization often ignores cultural dimensions. Evolutionary resilience is a continuous state, not a recovery mechanism (cf. Simmie & Martin, 2010). Therefore, a consistent thread between successive rounds of elected officials is necessary to ensure resilience attributes are continuously integrated into planning processes and regional visions. Without this continuity, the vague definition of procedural resilience may lead to its use for city branding rather than actual planning.

Second, properties of procedural resilience such as iteration, independence, redundancy, integration, inclusion, and diversity (Crowe et al., 2016; Pitidis et al., 2023; Ribeiro et al., 2019) are susceptible to resource scarcity. Limited resources often result in adherence to previous decisions due to the resource-intensive nature of addressing challenges. Scarce resources also promote target-oriented collaboration, diminishing inclusion and diversity. Moreover, constrained resources prioritize coordination of short-term issues over strategic long-term planning.

Third, the lack of resources is not only a hindrance but may further enforce cultural settings that support procedural resilience by generating efficiency, trust, connectivity, acceptability, long-term robustness, and solidarity between actors (Martin & Sunley, 2014; Ribeiro et al., 2019). When resources are scarce, collaboration is more based on building a culture of solidarity to support long-term change and resilience.

Statistical generalization is not commonly discussed in qualitative studies; therefore, it is not applicable to the case at hand. However, the findings of this research can be discussed and situated within the frameworks of analytical generalization (Simons, 2014). By doing so, the authors generalize the findings to the theoretical notions presented in the literature review, thus demonstrating theoretical generalizability. Additionally, there is still a margin for generalization to similar cases under comparable circumstances in European states.

The importance of Institutional Planning Culture is encapsulated in the three words “mentality, mindset, and governance,” as reported by a planner. These terms are rooted in the perspectives of institutions, interests, and relations (cf. Purkarthofer et al., 2021). Furthermore, drawing on Tschakert and Dietrich (2010), the flexible organizational structure is recognized for enabling an easy communication between the regional and state levels (reported by a planner). In line with Eräranta et al. (2015), social network analysis through flexible communication between different governing levels highlights the importance of regional planning encompassing “trans-scalar, trans-sectoral, and trans-territorial perspectives” (cf. Purkarthofer et al., 2021).

Due to the lack of an operational definition of resilience, both UR and US are used interchangeably, with UR mostly interpreted as an environmentally sustainable or climate issue (cf. Elmqvist, 2017). Drawing on Romero-Lankao et al. (2016), there is a need for an integrative model that clarifies how UR and US intersect or diverge and the relevant consequences of their relationships. Furthermore, context-specific interpretations and the co-production of knowledge through diverse stakeholders and experts are necessary (cf. Elmqvist, 2017).

Regarding organizational resilience and its alignment with institutional planning culture, individuals exhibit partial capability in addressing micro-level external factors (cf. Lai & Cai, 2023), promoting sustainability within institutional memory (cf. Heideman, 2016). However, the meso-level was not explored due to research generality (cf. Lai & Cai, 2023). Notably, regions encounter challenges at the macro-level due to state interests and city influence, hindering smooth stakeholder flow (cf. Wang et al., 2022). Continuous development of long-term commitment and regional visions integrating sustainability and resilience into policy is crucial, extending beyond election cycles (cf. Ward, 2008; Wong & Heijden, 2022).

Regarding the representation of both cases, two significant points can be noted. First, municipal autonomy empowers local governance in negotiations with regional and national levels (cf. Granqvist et al., 2020). Municipalities with similar autonomy and a monopoly on planning can engage in mutual learning from the cases in this research. Second, the TEN-T network and European spatial cohesion policies

impose commitments on many European regions to serve as nodes, similar to the case studies in this work. This increases the need for fluid governance that responds to continental plans, globalization, and coping with economic and demographic disruptions while also considering the localities of the regions (cf. Harrison et al., 2021; Stead, 2013).

However, a few limitations need to be acknowledged. Although the selection of the two regions, Helsinki-Uusimaa and Southwest Finland, has been justified, the findings of the research are context-specific and may not be directly applicable to other regions with different socio-economic and political contexts. The sample size of nine respondents, while providing in-depth insights, is relatively small and may not capture the full diversity of perspectives within the regions studied. Furthermore, representativeness is a main limitation of the snowball sampling method, as the sampling is dependent on the referrals of the initially contacted respondents rather than being random (e.g., Cohen & Arieli, 2011). The initially contacted respondents in this research were those with wider social networks, seeking a more diverse representation in the sampling. Additionally, regional planners interested in resilience and sustainability, due to professional commitment or individual values, can recommend others with similar interests; thus, the sampling can be specific and focused. However, the authors acknowledge that respondents with dissenting opinions may be excluded in such sampling. Another limitation of the study is its temporal scope. The study was conducted over the period from October 2022 to September 2023, during which the findings could be influenced by temporal factors (e.g., specific policy changes or socio-economic conditions). Moreover, the content analysis and thematic coding involve a margin of subjectivity in interpretation by the researchers, which, although unintentional, should be acknowledged as a possible source of bias.

Finally, the paper urges the improvement of organizational resilience in regional planning, emphasizing that procedural resilience is a socio-institutional phenomenon. If socio-institutional settings follow an engineering-based interpretation of resilience, aiming to return the system to previous equilibrium states through risk-averse, past-oriented planning cultures, the ability to introduce adaptation and innovation (cf. Ribeiro et al., 2019) may significantly decrease. While a strong institutional planning culture can help planning at different levels, address short-term needs and maintain fundamental processes, it may also reduce the system's long-term capacity to reorganize and adapt amid complex global and local dynamics.

The paper calls for an integrated approach to regional development, stressing the importance of sustainability and resilience across micro, meso, and macro levels. Key complexities remain to be addressed through further research. First, power dynamics between state, regions, and municipalities necessitate harmonized knowledge flows, suggesting the need for a central governing body. Second, while literature discusses regional rescaling, economic resilience is often overlooked, despite its significance in planning resilience. Assumptions highlight the need to consider economic factors alongside environmental perspectives, otherwise the taken-for-granted may continue to steer planning outcome (cf. Knieling & Othengrafen, 2015).

CONFLICT OF INTEREST STATEMENT

The authors declare no conflicts of interest.

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