

Spatial policies for growth management in metropolitan regions. A comparison of U.S. American, Canadian and German approaches

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Received: 31 October 2021 ■ Accepted: 20 October 2022 ■ Published online: 15 November 2022

Abstract

Many metropolitan regions face concerns over sprawling development, increased costs of maintaining infrastructure, and loss of green space and farmland. Some metropolitan regions have intentionally created spatial policies to govern development patterns and manage growth within their region. This paper compares the spatial policies applied in three case studies: the Puget Sound region (Washington State, USA), Metro Vancouver region (British Columbia, Canada) and Stuttgart region (Baden-Württemberg, Germany). While all three regions share a vision that can broadly be summarised as transit-connected communities, each metropolitan planning organisation leverages a variety of spatial policies. Based on the unique planning cultures, various governmental actors take on different roles at the local, county, regional and state levels. This paper categorises and compares the multi-level responsibilities for defining, mapping, and implementing spatial policies. With this focus, the paper provides an international comparative perspective on approaches, context, and contents of multi-level growth management.

Keywords: Regional planning ■ growth management ■ multi-level governance ■ policy instruments ■ comparative research

Raumplanerische Ansätze zum Siedlungsflächenmanagement in Metropolregionen. Ein Vergleich von Ansätzen in den USA, Kanada und Deutschland

Zusammenfassung

Global gesehen sehen sich viele Metropolregionen mit den Herausforderungen des regionalen Siedlungswachstums konfrontiert. In einigen Regionen werden ganz bewusst raumstrukturelle Vorgaben der Landes- und Regionalplanung angewandt, um die Siedlungsstruktur nachhaltig zu lenken. Dieser Beitrag vergleicht die unterschiedlichen Herangehensweisen in der Ausgestaltung von raumstrukturellen Festlegungen in drei Metropolregionen: Puget Sound Region (Washington State, USA), Region Vancouver (British Columbia, Kanada), und Region Stuttgart (Baden-Württemberg, Deutschland). Alle drei Regionen verfolgen Leitbilder einer am Schienenverkehr ausgerichteten Siedlungsentwicklung und der Stadt der kurzen Wege. Trotz eines ähnlichen Leitbildes hat jede Region eine ganz eigene Herangehensweise an die Ausgestaltung von raumstrukturellen Zielen und Grundsätzen (spatial policies) gewählt. Basierend auf unterschiedlichen Planungskulturen nehmen in jeder der drei Regionen die Akteure der öffentlichen Hand unterschiedliche Rollen auf der lokalen, Landkreis-, regionalen und Landesebene wahr. Der vorliegende Beitrag vergleicht die Verteilung der Zuständigkeiten für die Definition, das Kartieren und Umsetzen von raumstrukturellen Vorgaben in den drei Mehrebenensystemen. Aus einer international vergleichenden Perspektive zeigt der Beitrag un-

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terschiedliche Herangehensweisen, Bedingungen und Inhalte von Raumentwicklung in Mehrebenensystemen auf.

Schlüsselwörter: Regionalplanung ■ Wachstumsmanagement ■ Governance ■ Instrumente der Raumplanung ■ vergleichende Forschung

1 Introduction

Planning as a discipline deals with growth-related questions, such as where do new growth and new development occur within a neighbourhood, a city, or even a region. Across the globe, planning systems have developed different responses to the challenge of identifying locations suitable to absorb new population and employment growth. Within North America, the growth management discourse provides a context to understand how private and public sector actors are involved together in growing urbanised areas (Gale 1992; Carruthers 2002; Ben-Zadok 2005; Boarnet/McLaughlin/Carruthers 2011; Weitz 2012). Within Europe, the spatial planning discourse has provided a background for the debate of growth-related questions (Fürst 2010; Reimer/Getimis/Blotevogel 2014). Both discourses point to the multitude of approaches to managing the location of new growth.

The various approaches have evolved in response to unique cultural values manifested in planning systems, such as the German *Raumplanung* (spatial planning), the interactive planning system in British Columbia (Canada), or growth management in Washington State (USA; cf. Heinen 2020). In fact, planning systems across the globe have developed distinctive approaches to directing growth. Each planning system uses unique vocabulary and concepts do not easily translate for an international academic debate. A challenge for cross-country comparative planning policy research resides in thorough understanding of the meanings implied when pursuing compact development, transit-connected centres, or the protection of open spaces. This paper examines the spatial policies in the regions of Stuttgart, Vancouver, and Seattle in depth to build an under-

standing of differences in governing development patterns and directing growth in metropolitan regions.¹

Each of the three regions has adopted a Regional Growth Strategy (planning document) that promotes compact, complete, and transit-connected communities (regional vision). This regional vision is underwritten by similar but distinctly different spatial policies. Each case study showcases different approaches under senior-level government² laws to balance regional and local interests in determining the location of new growth. The paper aims to better understand the bandwidth and nuances within spatial policies. It builds an appreciation for the role of various levels of government in authorising and applying spatial policies.

Spatial policies (*raumstrukturelle Festlegungen*) are rules-in-use to be applied when making decisions in metropolitan regions concerning infrastructure investments and areas for new residential, commercial, and industrial development and redevelopment. Spatial policies can be included in planning-enabling legislation and in regional growth strategies but could also take the form of scoring criteria related to prioritising infrastructure projects. Spatial policies actively shape development patterns in metropolitan regions. They are more general than land use designations or zoning policies. Spatial policies broadly guide the location (not parcel specific) of public investments and, depending on the planning system, can guide local decisions on permitting new development. Frequently, spatial policies are authorised within “planning enabling legislation” in growth managing states. The current growth management literature does not identify spatial policies as a distinctive subset of policies (see Bengston/Fletcher/Nelson 2004; Weitz 2012; Brombach/Jessen/Siedentop

¹ The term metropolitan region is but one example of concepts that do not easily translate across boundaries. In this paper the term is used in reference to the definition by the U.S. Census: “The general concept of a metropolitan area (MA) is that of a core area containing a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that core” (U.S. Census 1994: 13-1). In line with this, the term metropolitan region is used to refer to a planning region. The term is not narrowly applied to refer to designated metropolitan regions in Europe but is applied more broadly.

² Planning systems are established by senior-level government laws. For instance, in Germany federal and *Länder* (state) laws create the legal framework for regional and local planning. In the US, federal laws govern metropolitan planning and state laws shape local planning. In Canada, planning is primarily established by the Provinces with a variety of approaches (for a detailed debate on the approach to planning in the three case studies see Heinen 2022). Henceforth, the term “state level” is used to refer to *Länder* in Germany, Provinces in Canada, and States within the United States. The term “senior-level government” is used to include the federal and state level.

et al. 2017). This paper seeks to understand the types and nuances of spatial policies as they are applied in growth managing states and countries, taking the unique cultural and political contexts into consideration.

The paper starts by providing a background discussion on spatial policies and growth management. After a brief review of the research method, the spatial policies in the three case studies are presented: Metro Vancouver region, Stuttgart region and Puget Sound region. Each case study provides detailed examples for positive-allocative as well as protective spatial policies. The discussion compares the three approaches and concludes with consideration of how spatial policies inform growth management decisions.

2 Background: Spatial policies and growth management

In Western democracies, public and private sector entities are commonly involved in questions concerning new growth. Frequently, public sector actors provide public services in locations of new growth, and the private and public sector build new housing, office spaces, retail malls, or industrial parks.³ However, within Western democracies there is a wide variety of nuance in the role of the private and public sector when determining the location of new growth. In some areas, market-led development is predominant (Echenique/Hargreaves/Mitchell et al. 2012). Market-led development is characterised by private sector developers that drive the site selection process for new housing, retail, or job development. In market-led planning systems, governmental actors mostly respond to market pressures by amending zoning codes and providing infrastructure at the request of developers. In other areas, governmental entities are more directly involved in shaping locations of new growth. Particularly in growth managing states and provinces in North America, as well as in spatial planning countries in Europe, a variety of policies have been applied and tested by public actors to shape the location of new growth. To better understand how the public sector can shape the locations of new growth without creating command-and-control type systems, the governance discourse provides context.

Governance is concerned with how multiple actors interact and interrelate their decision-making to address a common problem (Heinen/Arlati/Knieling 2022). In growth management and spatial planning, the common problem is frequently framed as ensuring that existing infrastructure is

utilised, farmland and natural resources are preserved, and sufficient new growth is accommodated. Based on the planning legislation, a variety of actors might be charged with helping to address the common problem. By using a governance lens, one can identify the various responsibilities and take a close look at interdependencies among actors and interactions (Heinen/Arlati/Knieling 2022). Planning systems are governance arrangements that guide development patterns in a given geography. Within these governance arrangements, there is ample variation with regard to the role(s) that various levels of government assume and the mechanisms to integrate decisions across levels of government (Heinen 2022). In that sense, growth management in Washington State and British Columbia as well as spatial planning in Germany are specific examples of governance arrangements.

Growth management has been the keyword in North America to discuss questions of deliberate governmental involvement in the location of new growth in urbanised areas. Growth management is defined as “governmental actions [...] to guide the location, quality, and timing of development” (Porter 1997: vii). Several large comparative studies in North America have demonstrated the variety of involvement of local, regional, and state levels of government in growth management (Gale 1992; Rothblatt 1994). In fact, much of the growth management literature assesses whether spatial policies, such as urban growth boundaries, actually achieve their desired results (Bollens 1992; Carruthers 2002; Weitz 2012). Oftentimes, individual policy mechanisms (regulatory techniques) such as urban growth boundaries are singled out and discussed regarding their effect on land markets and development patterns (Weitz 2012; Carruthers 2002; Ben-Zadok 2005; Pallagst 2007). Growth management research in the United States frequently takes place within the context of a heated political debate over local and state rights.

Spatial planning (*Raumplanung*) in Germany enjoys more of a status quo. The term spatial planning has been primarily used within the EU to discuss the variety of different planning systems found across the European Union (European Commission 1997: 23). Spatial planning tends to refer to comprehensive planning systems with integrated decision-making across levels and sectors of government (Haughton/Allmendinger/Counsell et al. 2010: 32–33). Many of the particularities differ across countries in Europe, so there is not a single definitive type of spatial planning (European Commission 1997). Spatial planning in general refers “to the methods used largely by the public sector to influence the future distribution of activities in space [...]” (European Commission 1997: 24). The core of spatial planning as a discipline is concerned with how the two categories (settled areas and open spaces) are organised

³ Frequently, the public sector builds public housing to ensure affordability.

Table 1 Types of spatial policies to direct growth

Where should urban development occur?	Location categories	Quantity
Positive-allocative strategies	<i>Type 1</i> Policies that <u>create categories of locations/geographies</u> that are suitable for growth. These locations/geographies can have various scales depending on the political consensus (e.g. directing new growth to the urbanised area, creating a classification of cities/communities, or prioritising urban centre/urban core/large brownfields for new growth).	<i>Type 2</i> Policies that assign numeric values to growth (e.g. housing units, density, acres). This type provides a quantitative view on how much growth is going to occur at the location categories (e.g. population/job/household targets for specific types of communities, a target to keep 97% of new growth within the urbanised area, etc.).
Protective strategies	<i>Type 3</i> Policies that create <u>categories</u> to avoid population/job growth in unsuitable locations for environmental/resource or farming reasons (e.g. protection of open spaces, forests, ecosystem services, farmlands, prohibiting new development near highway interchanges in rural areas, urban growth boundaries etc.)	<i>Type 4</i> Policies creating quantitative measures that prevent areas from being developed at urban intensities (e.g. large-lot zoning in rural areas, or limits on the extent of new housing units for specific cities, maximum of new land that can be developed).

within metropolitan regions (Knieling/Kretschmann/Kunert et al. 2012: 21). Broadly speaking, rather than focusing on individual land uses or zoning, spatial planning as a discipline is concerned with broader development patterns in a region.

Both spatial planning and growth management work with spatial policies to steer development patterns. As indicated above, spatial policies are any public sector policy that is targeted at shaping the location of new growth. Better understanding the bandwidth of spatial policies and the nuances in combining and applying such policies can further advance the growth management and spatial planning discourses. In Germany, it is very common to find spatial policies in Statewide Development Plans and in Regional Plans. In North America, spatial policies are commonly found in local Comprehensive Plans but particularly in growth managing states, Regional Growth Strategies also contain spatial policies.

Spatial planning in Germany has routinely worked with a number of spatial policies. Rather than restrictive spatial policies such as urban growth boundaries, some German regions prefer to work with positive-allocative spatial policies (BMVBS 2012: 42). Positive-allocative policies affirm new growth for certain types of geographies by indicating which types of communities or locations are suitable to absorb new growth (BMVBS 2012: 42). For instance, transit-oriented development is one example of a positive-allocative approach that promotes new development near rapid transit. In other words, positive-allocative spatial policies encourage new growth for specific types of locations. In contrast, protective spatial policies restrict growth in open spaces or limit new development to areas already served by infrastructure. Even when it comes to restrictive policies, they are not one-size-fits-all. The governance perspective sheds light on a crucial difference between the case stud-

ies: in the Puget Sound region, the Urban Growth Area is determined by the counties; in British Columbia, the urban containment boundary is negotiated at the regional level; and in the Stuttgart region the developable land is determined by the local government and approved by the state. While one might initially think of spatial policies as regulatory approaches, they can also be combined with incentive-based approaches, the acquisition of land, or negotiation and communicative approaches (Bengston/Fletcher/Nelson 2004). Tab. 1 provides an overview of four types of spatial policies. Specific examples will be presented as part of the case study descriptions.

3 Method

To better understand the variety of spatial policy configurations, this paper compares the spatial policies applied in three case studies: the Puget Sound region (Washington State, USA), the Metro Vancouver region (British Columbia, Canada), and the Stuttgart region (Baden-Württemberg, Germany). While all three regions share a vision that can broadly be summarised as compact and complete transit connected communities, the metropolitan planning organisations in each case study leverage different spatial policies, as authorised under senior-level government laws or by locally elected officials. In all three cases, directing growth is one of the purposes of planning across levels of government by law⁴, however, the particular rules-in-use

⁴ British Columbia Local Government Act 2018, Section 428; Washington State Growth Management Act 36.70A.020; Raumordnungsgesetz vom 22. Dezember 2008, § 2.

are sufficiently different to study the nuances in designing spatial policies.

Robinson (2016) describes studying variation across case studies as a basis for innovation. Spatial policies in each setting follow their own logics in terms of the levels of government applying and mapping the spatial policies; yet, they share important similarities in how they approach guiding development patterns for settled areas and open spaces. Through an iterative process of document analysis and 79 expert interviews, the specifics of each case study were studied in depth. Each planning system uses unique vocabulary and concepts that have different meanings for implementation. The iterative process of literature review, plan analysis, and interviews helped with theory formation (Robinson 2016). Working with three case studies had the benefit of avoiding the trap of observed binary positions when discussing two case studies; a third case study enables a wider frame of reference (see Gläser/Laudel 2010). A specific challenge with cross-cultural comparative case studies is to avoid utilising the categories of one culture to judge and describe another culture (Knieling/Othengrafen 2009).

The case studies were identified from a set of potential cases by looking at three criteria: firstly, at the state level there needed to be a planning law that authorised growth management at subsequent levels of government. A second criteria was that metropolitan regions needed to be growing. In order to be able to manage new growth, an assumption is that a region will be growing and not shrinking over the next decade. Shrinking regions have a different set of challenges than growing regions, specifically in regard to managing land markets; therefore, the focus here is on regions experiencing growth, which are thus in a position to quantitatively allocate growth across communities. Lastly, many urbanised areas contain more than one unit of local government. Therefore, the search emphasised cases in which the core cities had comparable population sizes but did not represent significantly more than a quarter of the urbanised area.

4 Case study review: Mix of spatial policies in three regions

All three regions have in common that they are part of federal-type systems. Federal-type systems are characterised by hybrid forms of power sharing across multiple levels of government (European Commission 1997: 38; Brown 2012: 323). Usually, the constitution in a country assigns responsibilities and powers to each level of government and addresses questions on how much power is centralised and decentralised (Benz 2009). Being federally organised means that other levels of government have considerable

decision-making powers in addition to the federal government (Brown 2012: 324; Peters/Pierre 2016: 128). Across all three regions, local governments make zoning decisions and permit new development. Yet, based on the unique planning laws, the spatial policies in the Regional Growth Strategy have different implications for communities. This is deeply related to governance questions over the responsibilities at various levels of government, the legally binding character of plans, and integrating mechanisms (Heinen 2022).

Prior to reviewing each case study in detail, two examples illustrate the difference in distributing responsibilities to various levels of government: For instance, the drawing of the urban containment boundary is a regional task in the Metro Vancouver region, a local task in the Stuttgart region, and a county task in the Puget Sound region. Furthermore, the designation of urban centers as a growth-affirming spatial policy is also designated to different levels of government: the urban centres are mapped at the local level in the Metro Vancouver region and the Puget Sound region. In contrast, in the Stuttgart region, the regional level introduced priority areas for high-density housing “Entwicklungsschwerpunkte” which are designated by the region. Lastly, community classifications as growth-affirming spatial policies are also created by different levels of government: Community classifications are jointly created by the state and region in Stuttgart whereas it is developed at the regional and county level in the Puget Sound region. To summarise for the three regions: they deviate by the extent that state law authorises spatial policies and other levels of government.

Subsequently, the governance arrangements and spatial policies in each region are presented in more depth.

4.1 Case 1: The Metro Vancouver region

In Canada, regulating municipalities and regional governance is a provincial task (Hamel 2017: 182; Miller 2017: 217).⁵ Canadian provinces have chosen to be involved, to varying degrees, in local and metropolitan planning: Ontario, for instance, maintains tight oversight over planning activities at the local level (Deangelo/Harvey 1998: 121; Krawchenko 2012: 114). In contrast, in the 1990s, legislation evolved in British Columbia which established a voluntary framework for regional coordination among locals (Smith/Oberlander 1998: 372). With the so-called interactive planning system in British Columbia, Metro Vancouver

⁵ Canadian Constitution of 1982, Article 92, clause 8.

is at the centre of regional planning for the Metro Vancouver region.

Metro Vancouver is the regional planning organisation in the Vancouver region. It is a federation of 21 municipalities, one Treaty First Nation⁶, and one Electoral Area. All have seats on the board. Seven communities have over 100,000 residents. Since 2007, Metro Vancouver has been responsible for sewerage, water, and housing, but also for broad planning which includes the creation of the Regional Growth Strategy.⁷ Particularly, the responsibilities for broad planning shifted in the past from possessing the ability to prepare regional plans, to voluntary regional planning in the 1980s, and advanced to regional growth management in the 1990s (Wichern 2004: 48–49). Under provincial law, Metro Vancouver's responsibility is to prepare a Regional Growth Strategy which is approved by the 21 municipalities of the region.⁸ Metro Vancouver is thought of as a regional federation since all local governments are represented, by law, on the board that prepares the Regional Growth Strategy.

The Regional Growth Strategy (2011) layers together multiple spatial policies to manage growth in the Vancouver region. The spatial policies in the strategy are authorised by provincial law which describes the purpose of the Regional Growth Strategy as follows: the Regional Growth Strategy “[...] should work towards [...] settlement patterns that minimize the use of automobiles and encourage walking, bicycling and the efficient use of public transit”.⁹ While the provincial law provides a broad direction for the spatial policies, the specific policies are self-regulated by Metro Vancouver. Metro Vancouver combines growth affirming with growth restricting measures: the Regional Growth Strategy (Metro Vancouver 2011) envisions a region of compact and complete communities along transit corridors to absorb a population increase of one million people by 2040 (Metro Vancouver 2018: 45).

Since around 2010, communities in the Metro Vancouver region have experienced a building boom around their transit stops. During the interviews, planners attributed the building boom partly to a shift in the real estate market. The Metro Vancouver property market witnessed a doubling and

tripling in real estate values, particularly in areas around newly built rapid transit stops. During the interviews, practitioners speculated that several factors may have contributed to the building boom: positive experiences in some urban centres such as Metrotown in Burnaby, foreign investments from Asia, and low interest rates. While it is unlikely that the spatial policies caused the building boom, they did ensure that communities were ready to direct new growth into their locally designated urban centres. The subsequent discussion dives into detail on the spatial policies in the Metro Vancouver region that promote transit-connected urban centres.

The spatial policies are all mapped on a Regional Land Use Designation Map which is a central feature of the Regional Growth Strategy. The vision of transit-connected communities is supported by four strategies that involve spatial policies: (1) limiting outward sprawl through an urban containment boundary, (2) focusing new growth in urban centres along transit corridors, (3) protecting rural areas from urban development, and (4) not allowing extension of sewers to areas outside the urban containment boundary (Metro Vancouver 2011: 13, 45). The four strategies are mapped on the Regional Land Use Designation map which clearly delineates urban from non-urban land through an urban containment boundary.¹⁰ The map combines growth-affirming policies such as “Urban Centres” with growth-restricting policies such as “urban containment boundaries”. While the parcel-specific designation of urban centres remains a local task, the urban containment boundary is designated by the region. Overall, the Regional Land Use Designation Map provides a broad framework for the more detailed local land use designation maps.

Having parcel-specific urban containment boundaries is a controversial spatial policy within North America. The boundary depicted in the Regional Growth Strategy of Metro Vancouver is mostly a result of a provincial law that created a so-called Agricultural Land Reserve in 1973.¹¹ The urban containment boundary in the Regional Growth Strategy is partly predetermined by the extent of the Agricultural Land Reserve under provincial law. If land in the Agricultural Land Reserve was to be utilised for urban uses, a developer would have to petition the Provincial Agricultural Land Commission as well as Metro Vancouver for permission.

⁶ Indigenous people have the right to govern themselves within the framework of the Canadian constitution. Hence, they are represented on Metro Vancouver's board. For more information see: <https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/about-first-nations-treaty-process> (23.09.2022).

⁷ British Columbia Local Government Act 2018, Section 428.

⁸ British Columbia Local Government Act 2018, Sections 432.444.

⁹ British Columbia Local Government Act 2018, Section 428, paragraph 2.

¹⁰ The non-urban areas include three land use designations: (1) rural, (2) agricultural, and (3) conservation and recreation (Metro Vancouver 2011: 9–10). The urban land use designations include: (1) general urban, (2) industrial, and (3) mixed employment (Metro Vancouver 2011: 9–10).

¹¹ British Columbia Agricultural Land Commission Act 2002.

The urban containment boundary is also supported by other mechanisms. Metro Vancouver is responsible for water and sewers in the region under provincial law. Through a policy in the Regional Growth Strategy, Metro Vancouver does “not allow connections to regional sewerage services to lands with a rural, agricultural or conservation, and recreation regional land use designation [except for a few exceptions]” (Metro Vancouver 2011: 14). The interviewed expert indicated that the limitation on the extension of sewers is a strong implementation mechanism for urban containment in the region.

In addition to the protective spatial policies, Metro Vancouver’s Regional Growth Strategy leverages positive-allocative spatial policies, such as the designation of Urban Centres and Frequent Transit Development Areas. Both are considered primary locations for redevelopment at higher densities around transit stops. From a multi-level governance perspective, it needs to be highlighted that the urban centres and FTDA are actually designated by local governments themselves based on a set of general criteria contained in the Regional Growth Strategy. Hence, most of the 21 communities in the Metro Vancouver Region have at least one urban centre that is (or will be) connected with rapid transit infrastructure to downtown Vancouver (Metro Vancouver 2011: 9).

Throughout the region there are differently sized urban centres, some serve the municipality level while others serve as regional hubs. The regional hubs are identified as primary locations for regional-scale employment and commercial activities, for major institutional uses, and for high and medium density housing (Metro Vancouver 2011: 19). In comparison, municipal centres primarily serve the local area as focal points for employment and denser housing (Metro Vancouver 2011: 19). Lastly, responding to development along rapid transit stops, Metro Vancouver has more recently introduced the Frequent Transit Development Areas, intended as locations for medium density housing and mixed uses along the Frequent Transit Network (Metro Vancouver 2011: 19).

The location of urban centres is determined by the communities who report them to Metro Vancouver through a provincially regulated integrating process (Metro Vancouver 2011: 16). Additionally, quantitative growth targets are assigned to each urban centre and Frequent Transit Development Area by Metro Vancouver in coordination with the municipalities (Metro Vancouver 2011: 16–18). Based on the general guidance in the Regional Growth Strategy, communities adopt policies in their local plans that apply to the urban centres (Metro Vancouver 2011: 16–19).

For each of the urban centres and Frequent Transit Development Areas, Metro Vancouver includes employment and housing growth targets in the Regional Growth Strat-

egy (Metro Vancouver 2011: 18). The targets are supposed to guide local decisions on infrastructure investment and rezoning that will be needed to increase capacity (zoned capacity). Provincial law requires the inclusion of growth targets in the Regional Growth Strategy and Official Community Plan¹², however, the targets are considered guidelines since there is no recourse if communities either do not achieve or overachieve on the targets. Metro Vancouver develops the targets in close coordination with the municipalities, which helps to build community support for and acceptance of the targets.

Through this collaborative process, communities recognise the need to increase the zoned density within their urban centres. As the region plans to absorb the projected increase of one million residents by 2040 within the urban area (and not on rural land) (Metro Vancouver 2018: 45), the urban centres play a crucial role here. Focusing new growth in the designated urban centres also preserves existing single-family neighbourhoods, as one local planner pointed out, which frequently is a major concern in North America. The planner reasoned that instead of redeveloping single-family neighbourhoods at medium-density (3-8 stories), cities are absorbing a lot of new growth in high-rise apartment buildings in the urban centres. This development has not been without its downsides (Peck/Siemietycki/Wyly 2014). For instance, some of the new high-rise apartments mostly contain condominiums (*Eigentumswohnungen*) and have replaced older buildings with many rental units. This has contributed to the affordability problems which Metro Vancouver is now trying to address.

Interestingly, most cities chose to designate existing retail locations, initially auto-oriented indoor malls or strip malls with an excess of surface parking, as urban centres. The new high-rises are built on access parking. Currently, the urban centres are rapidly transforming to high-rise residential and office development. Overall in the Metro Vancouver region area, 75 to 80% of growth occurs through redevelopment and intensification. About 20% is on greenfields inside the urban area (expert interview).

4.2 Case 2: Stuttgart region

Spatial planning in Germany is considered a shared responsibility among all levels of government (local, regional, state, and national). By functionally separating the responsibilities, each level has distinct and clearly defined powers (European Commission 1997: 40; Turowski 2005: 895–897; Schmidt/Buehler 2007: 57). The primary role of the fed-

¹² British Columbia Local Government Act 2018, Section 429, paragraph 2.

eral legislature is to provide a coherent legal framework for planning across the country to ensure legal consistency and predictability for property owners (Goppel 2005: 562; Schmidt/Buehler 2007: 57; Stark 2009: 44). Federal laws are then filled in by state laws and regional policies, incrementally becoming more specific. The local level acts as the implementer by administering zoning and building permits as well as by determining suitable sites for (re)development. The regional level provides a place for coordination among local, state, and various sectoral agencies on the spatial development of the region (Fürst 2010: 15–20; Schmitz 2005: 965). The regional level does not usually have its own layer of government but is rather organised as a functional layer. Regional planning organisations are frequently structured as councils of government in which communities come together to plan (Schmitz 2005: 965; Falk 2006: 97; Schmidt/Buehler 2007: 59; Fürst 2010: 96–97).

The Stuttgart region is governed by a regional council called Verband Region Stuttgart (VRS). VRS prepares the Regional Growth Strategy for 178 local jurisdictions in five counties, under German federal law. The board of the VRS is elected by voters as a regional parliament with 80 regionally elected officials.¹³ The primary responsibility of the VRS under federal and state law is spatial planning, which includes the preparation of the Regional Growth Strategy (*Regionalplan*)¹⁴ for the Stuttgart region. Besides its regional planning function, the VRS is also responsible for open space planning, transportation planning, waste management, economic development, and tourism marketing.¹⁵ In its responsibility for spatial planning, VRS prepares the Regional Growth Strategy in collaboration with communities and the state government.¹⁶ The Regional Growth Strategy contains maps and policies regarding the urban area, open spaces, and infrastructure in the region. When the Regional Growth Strategy was developed in 2008 and 2009,

the region was actually not planning for much growth as population growth was stagnant at the time. Hence, the Regional Growth Strategy suggested a modest housing unit growth of 105,000 units between 2009 and 2020 (Verband Region Stuttgart 2009: 55). However, the Stuttgart region has experienced an influx of population over the past decade that is related to large companies in the region, such as Daimler (Mercedes-Benz Group). Rather than projecting population growth, the Regional Growth Strategy assumed that larger communities would grow by 1.5% and smaller by 1% (Verband Region Stuttgart 2009: 55).

The spatial policies in the Stuttgart region are authorised under the German Federal Spatial Planning Law (*Raumordnungsgesetz*) and specified within the Baden-Württemberg state planning law. The federal and state laws require the designation of open spaces, a prioritisation of development corridors, and a classification of communities. Furthermore, under federal and state law, VRS is permitted to assign density requirements to specific locations. The German federal planning system creates an intentionally nested planning system in which spatial policies become more specific with each level of government (Heinen 2022). The requirements at the federal level are intentionally abstract to allow discretionary decision-making at the state, regional, and local levels (Stark 2009: 44). The responsibility at the regional and local levels is then to balance (*abwägen*) the different needs with regards to the specific available land and conditions (Runkel 2005: 1316; Fürst 2010: 16).

The protection of open spaces is an example of the nested structure of the German planning system that becomes incrementally more specific. The federal law defines general rules, the regional level maps general patterns of open spaces, and the local level determines the parcel-based boundaries of open spaces. The local decision is approved by the counties that ensure that the local level complies with the federal and regional frameworks. Open spaces, as a category, are defined and protected under various EU, federal, and state laws. In fact, natural resources are protected under the German constitution.¹⁷ For the purposes of regional planning in the Stuttgart region, open spaces include areas designated for (1) preservation of natural habitats, agricultural land and forests, (2) production of fresh water, (3) holding of water during flooding events, (4) protection of natural resource rich areas, and (5) recreational purposes (Verband Region Stuttgart 2009: 149). Based on EU, federal, state, and regional policies, these different areas have an inherent value and function to the people living within a region.

¹³ Gesetz über die Errichtung des Verbands Region Stuttgart (GVRS), § 8 and § 12.

¹⁴ It may seem odd at first to translate a German regional planning document as Regional Growth Strategy. As indicated above, planning terms and concepts do not easily translate across countries. Stuttgart's *Regionalplan* shares an important similarity with the Regional Growth Strategies in Metro Vancouver and in the Puget Sound region: namely, the three documents all contain spatial policies intended to steer development patterns. As indicated, the regional planning documents have very different legal implications for local actors based on the planning laws. Furthermore, both North American strategies have a clear focus on allocating future growth, while the focus of the Stuttgart's *Regionalplan* is to ensure sustainable development patterns.

¹⁵ Gesetz über die Errichtung des Verbands Region Stuttgart (GVRS), § 3, paragraph 1, no. 1-7.

¹⁶ Bundesraumordnungsgesetz (ROG), § 7 and § 13.

¹⁷ Grundgesetz für die Bundesrepublik Deutschland (GG), Artikel 20a.

In contrast to growth boundaries in North America, a central feature of mapping open spaces is the non-parcel-specific boundary: the regional and state maps are not parcel specific. The parcel-specific maps are negotiated during the preparation of the local land use designation maps, meaning that the boundary between urban uses and open spaces is fuzzy in the Regional Growth Strategy (Verband Region Stuttgart 2009: XI). Within the negotiated context, there is some room for discretionary decision-making when determining parcel-based boundaries during the local land use designation planning process. There is a clear mandate in the federal law to restrict housing and retail developments in designated open spaces.¹⁸

Besides the restricting spatial policies, a growth affirming spatial policy is the designation of primary development corridors which are characterised by certain infrastructure features (*leistungsfähige Bandinfrastruktur*) such as frequent transit, federal, and state highways, as well as large power, water, sewer, and telecommunication lines (Verband Region Stuttgart 2009: 34). The primary development corridors are designated by the state government as well as by the regional planning organisation. The Stuttgart region intentionally aligned its primary development corridors with the rapid transit network to ensure that new developments occur in proximity to the rapid transit network. Other regions in Baden-Württemberg generally align their primary development corridors with the interstate system. The primary development corridors guide subsequent infrastructure investments. Multiple spatial policies prioritise communities along the primary development corridors for new developments (Verband Region Stuttgart 2009: 34). Particularly, spatial policies concerned with the community classification align communities designated for more growth with the primary development corridors.

The allocation of new population growth in the Stuttgart region is based on a classification of communities (*System der Zentrale Orte*). The theoretical underpinning of the community classification is Christaller's theory of central places (Blair/Carroll 2009: 52). This classification is required under federal law which specifies that new growth should occur within communities that already have sufficient infrastructure.¹⁹ Sufficient infrastructure includes, for instance, transportation, sewer, and water utilities but also social services such as daycare facilities, hospitals, and schools. Based on the federal law, each of the 16 states

in Germany creates its own kind of typology (BMVBS 2012: 40). In Baden-Württemberg, the state development plan specifies a four-tiered classification system for communities (WM BW 2002: 20–21). First tier and second tier communities are designated by the state while the lower ranking communities (third and fourth tier) are negotiated at the regional level.²⁰ The highest ranking communities (first and second tier) include cities such as the core city of Stuttgart and larger historically significant communities with employment agglomerations.²¹ These fourth tier communities are called “low-growth communities” (*Gemeinden beschränkt auf Eigenentwicklung*). The low-growth communities primarily consist of rural villages across the region. VRS created a growth target for such communities: low-growth communities are permitted to develop new housing equalling 1% of existing housing units every five years (Verband Region Stuttgart 2009: 55).

As more new development is permitted in first, second, and third tier communities, sprawl could still represent a challenge. Therefore, VRS introduced density requirements. In closer proximity to the rapid transit system, higher densities for housing (*Bruttowohndichte*) are required (Verband Region Stuttgart 2009: 59–60). The density requirements (*Richtwerte für Siedlungsdichte*) range between 20 to 36 residents per acre (50–90 residents per hectare) depending on the community type (Verband Region Stuttgart 2009: 56). The density requirement is applied as an average for the community at large (BMVBS 2012: 21). This allows some flexibility. The community does have the option to permit higher and lower densities in various locations as long as the average equals the minimum density requirement (Verband Region Stuttgart 2009: 59–60).

Generally, communities have the right to determine the locations of new development within the urbanized area as long as they comply with the spatial policies in the Regional Growth Strategy. For some communities, the Regional Growth Strategy identifies “preferred locations for higher-density housing” (*Schwerpunkte des Wohnungsbaus*) which are usually in proximity to transit. Regardless of the tier of the community, the Regional Growth Strategy permits (and requires) a higher minimum density in such locations (90 residents per hectare – 36 people per acre; Verband Region Stuttgart 2009: 56). These preferred locations are identified at parcel level and no other conflicting uses are permissible (Verband Region Stuttgart 2009: 139–141).

All of the spatial policies are applied during the preparation of the local land use designations map by the munic-

¹⁸ Baugesetzbuch (BauGB), § 35; with a few exceptions for agricultural and energy producing facilities. Another layer of protection for agricultural land is added by the federal agricultural law which only permits farmers to sell their land to other farmers.

¹⁹ Bundesraumordnungsgesetz (ROG), § 2, paragraph 2, no. 2.

²⁰ Landesplanungsgesetz Baden-Württemberg, § 11, paragraph 3.

²¹ Landesplanungsgesetz Baden-Württemberg, § 7, paragraph 2, no. 2.

ipality. Based on the growth targets and minimum density, a community can determine how much new buildable land it needs to open up for new development to service the projected population growth (Verband Region Stuttgart 2009: 59–60). As the community determines the need for new buildable land, a clear directive is to prioritise infill over greenfield developments (Verband Region Stuttgart 2009: 55). The nested German planning system pre-structures the local decision-making process on how much new land to open up for new developments. This approach protects natural resources and existing investments in infrastructure.

4.3 Case 3: Puget Sound region

The planning legislation in most states within the United States originated in the Standard State Zoning Enabling Act (SSZEA), which delegated all zoning rights to cities without also creating a planning law (Kaiser/Godschalk 1995: 126; Meck 2006: 589; Elliott 2008: 15–16). Subsequently, in most states in the U.S., any sized community can control land use. In most states, local governments create their own legal frameworks for zoning, including procedures and zoning categories (Kantor 2013). Starting in the 1960s and early 1970s, 13 states began to revise their zoning enabling legislations and enacted more comprehensive planning laws due to environmental concerns and the negative externalities of suburbanisation (Kayden 2001: 46; Daniels 2009: 187). These states are frequently referred to as growth management states. As a growth management state, Washington State decided to establish a framework for joint planning across levels of government in order to direct growth to the urbanised area. However, in the spirit of home-rule, Washington State primarily defines desirable outcomes while leaving many specifics up to self-regulation. Within the Washington State Growth Management Act, plan consistency and coordination between counties and communities is a core concern. Furthermore, joint planning by multiple counties is optional: four counties in the Puget Sound region established a contract for joint regional planning.

The metropolitan planning organisation in the Puget Sound region is called the Puget Sound Regional Council (PSRC). Geographically, PSRC covers the counties of King, Kitsap, Pierce, and Snohomish as well as the 86 local jurisdictions contained therein (PSRC 2014: v). Based on federal and state law, PSRC is primarily responsible for planning the regional transportation system and ensuring cooperation between the state and local jurisdictions on transportation issues.²² Therefore, PSRC prepares the long-

range transportation plan under federal law, which the agency decided to embed in a Regional Growth Strategy. From the State of Washington's perspective, a primary task of PSRC (as a Regional Transportation Organisation by state law) is to coordinate and ensure cooperation between state and local jurisdictions to achieve statewide and local transportation goals (RCW 47.80.010).²³ Yet, the board of directors granted PSRC the authority to embed transportation planning in a larger context.

The Regional Growth Strategy "Vision 2040" charts the course for the Puget Sound region to grow up to 5 million residents with 3 million jobs by 2040 (PSRC 2009: 3). A strong regional economy around large employers such as Microsoft, Amazon, and Boeing are driving the projected population growth of more than 1 million people. Similar to the other two regions, the Puget Sound region was in the midst of a building boom in 2018, during the time of the interviews. Interviewed experts attributed the building boom to a shifting market demand where more people were moving closer to newly built transit. Several spatial policies administered by PSRC, the counties, and communities direct growth to the urbanised area and to urban centres.

At the heart of growth management in Washington State is the designation of the urban growth area by the counties. The urban growth area is characterised by adequate public facilities; outside of the urban growth area, no urban growth can occur.²⁴ The designation of the urban growth area is, on the one hand, a growth affirming spatial policy for the urbanised area, but at the same time has the effect of protecting open spaces outside of the urban growth area. However, it is primarily intended to ensure that existing infrastructure is adequately leveraged and the need for new infrastructure on greenfields is reduced (fiscal argument).

The urban growth area is delineated from the rural and resource lands by a parcel-specific boundary. Initially, each county in the Puget Sound region had its own process for designating the urban growth area. The multicounty planning policies in the Regional Growth Strategy are supposed to ensure a coherent process to implement the spatial policies at the county level. If conflicts over the boundary do arise, the state has created the Growth Management Hearing Board, which is a court specialised in land use questions within Washington State. Otherwise, in King County, the urban growth area is reviewed at least every ten years during the amendment process of the King County comprehensive plan (King County 2012: 22).

The designation of the urban growth area is the strongest

²² United States Code, Section 134; Revised Code of Washington State 47.80.010.

²³ Revised Code of Washington State 47.80.010.

²⁴ Revised Code of Washington State 36.70A.110 (1 and 3).

spatial policy within the Growth Management Act as it is directly required as a policy under state law. Besides the designation of the urban growth area, PSRC and King County have also included other spatial policies in the multicounty and countywide planning policies. The other spatial policies include a framework for regional growth centres and a process around growth targets which are used to allocate growth among cities based on a city's current size. The basis for the allocation of growth targets is a classification of communities into "regional geographies" by PSRC.

Under the Growth Management Act, local comprehensive plans have to include projections for future population growth.²⁵ Within this context, the state issues growth assumptions for each county. The counties then further allocate the growth assumptions to the communities through a coordinated process. Within the PSRC region, this negotiation between the counties and cities is informed by the growth assumptions for each regional geography issued by PSRC to ensure that each community receives a "fair share" of growth (King County 2012: 5; PSRC 2009: 47).

The regional geographies classify communities within the urban growth area into four primary categories: metropolitan cities, core cities, large cities, and small cities. Thereby, the majority of the growth is envisioned in metropolitan cities. There are five designated metropolitan cities which are expected to absorb a large portion of the projected future employment (42%) and population growth (32%; PSRC 2009: 20). Each county contains one metropolitan city, with King County having two designated metropolitan cities. Besides the metropolitan cities, further growth is projected in the second highest ranking communities, called "core cities".

The growth targets are intended to be used during the local comprehensive planning and zoning processes to ensure sufficient capacities to absorb future growth. As mentioned above, the countywide and multicounty planning policies provide general directives for local comprehensive plans (King County 2012: 1–4). During the last round of growth targeting and subsequent updates of local comprehensive plans, most communities adopt the agreed targets, however, some communities come up with their own growth targets. The most significant conflict in King County occurred when communities exceeded their growth targets by 500 to 700%. The conflict arose during the certification of local comprehensive plans by PSRC and revolved around the question as to whether exceeding growth targets makes a comprehensive plan inconsistent with a county plan.

Another spatial policy includes the designation of re-

gional and countywide growth centres. The regional growth centres are envisioned in the Regional Growth Strategy as areas within cities characterised by a mix of uses and high densities which are connected by transit. Initially, each of the four counties within PSRC had its own approach to designating regional growth centres. In 2003, in an effort to harmonise the county approaches, PSRC developed numeric thresholds describing what qualifies as a centre for the region (expert interview). Ultimately, communities apply to PSRC to have a location designated as a regional growth centre (PSRC 2009: 48). During the application process, the regional spatial policies are applied as criteria to determine if a location qualifies as such a centre. The specific spatial policies used for the designation of growth centres include existing densities, planned densities, mix of uses, minimum size, existing and planned transit access, market potential, and evidence of a regional role (PSRC 2018: 5–6). Additionally, communities are asked to prepare a sub-area plan for the regional growth centre prior to designation (PSRC 2018: 5). Lastly, communities are also asked to demonstrate local investments in the urban centre to prove their local commitment (PSRC 2018: 4).

The spatial policies on regional growth centres are closely connected to the regional geographies classification as well as to the growth targeting process. During the growth targeting process, communities can justify higher growth rates if they have designated regional growth centres (expert interview, PSRC 2009: 48). Eventually, the regional growth centres are intended to be connected through rapid transit as part of a regional network. To further incentivise planning for regional growth centres, the multicounty planning policies prioritise regional growth centres for transportation and economic development funding controlled by PSRC (PSRC 2009: 48).

5 Discussion: Spatial policies informing growth management decisions

Spatial policies are substantive rules-in-use which express desirable development patterns for a region. In each case study, multiple spatial policies have been applied to affirm growth for certain locations and limit growth in other locations. While there are similarities in the types of spatial policies across the case studies, a significant difference is the question of which levels of government authorise and apply spatial policies. All spatial policies in the Stuttgart region are authorised under federal and state laws. In contrast, in the Metro Vancouver and Puget Sound regions, only growth limiting policies are authorised under state laws, while the growth affirming policies are designed at

²⁵ Revised Code of Washington State 36.70A.070 (1).

the regional level. Besides the authorisation of spatial policies, the application (defining the categories, mapping the categories, and implementing them) is also organised differently. For the Stuttgart and Vancouver case studies, state legislation places the regional level at the centre of ensuring multi-level coordination. In contrast, in the Puget Sound region, state law creates the voluntary option for counties to work together on multicounty planning policies.

As shown in Fig. 1, there is a wide variety in how planning systems authorise and apply spatial policies. The three case studies presented here are all examples of multi-level growth management. In multi-level growth management, various levels of government have distinctly different roles in authorising and applying spatial policies. Hence, multi-level growth management is a type of planning system that is distinctly different from market-led planning systems and government-led planning systems. In multi-level growth management, governmental entities at various levels (local, county, region, state) play a clear role in structuring regional development patterns through spatial policies, but there is still ample opportunity for market actors to seize development opportunities. However, even within a multi-level growth-managing planning system, there is a wide vari-

ety of ways to structure the multi-level interactions (Heinen 2022). Keeping this in mind is particularly relevant when comparing the impact of spatial policies on development patterns, as is crucial for plan evaluation research.

Underpinning the use of spatial policies is a question over the planning culture and the constitutional legality of interventions in land markets by governmental actors. Cultural values are generally accepted within a society (Knieling/Othengrafen 2009), by a particular group, or in a particular setting (Geertz 1992). Cultural and societal values in planning may include, for instance, attitudes towards acceptable government intervention in land markets, appropriate senior level involvement in local decisions, the extent of administrative discretion, and the acceptability of a “common good” (Hardinghaus 2004: 149). Certainly, of the three case studies, the German nested planning system intervenes the most in land markets by restricting development of open spaces and directing growth to certain communities. The community classification creates clear winners and losers among the municipalities. Culturally, this is done in an effort to ensure that tax money is spent prudently and new development is prioritised in locations that have already seen the most public investment in infrastructure (values). The pub-

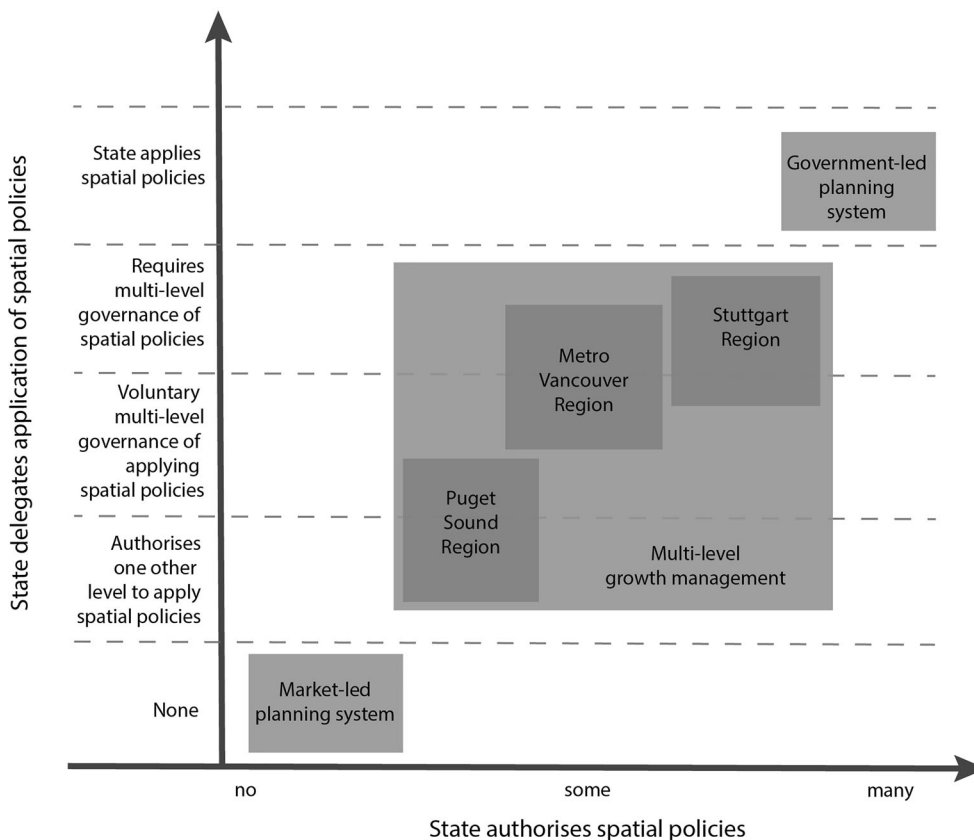


Fig. 1 Multi-level growth management in the context of other planning systems

lic good is generally prioritised over individual property rights, however, there is still ample protection for property owners to ensure just compensation and to prohibit takings. In the Metro Vancouver region, there is also a strong sense culturally for the value of agricultural land, ecologically sensitive areas, and resource lands. Therefore, interventions in the land markets by senior-level government seem warranted in the aligned planning system (Heinen 2022). In contrast, the tolerance for intervening in land markets is much lower across the United States (see Kelly 1993: 767 for a detailed discussion of legal issues with growth management in the United States). Even in a growth managing state like Washington State, King County still felt the need to purchase land protected by the urban containment boundary. Rather than relying on regulation (designation of the urban growth areas), a financial incentive was created for property owners. Furthermore, interventions by senior-level government are not as accepted in Washington State, hence an overlapping planning system ensures plan consistency (Heinen 2022).

6 Conclusion: Balancing local and regional interests

The paper builds an appreciation for the role of various levels of government in authorising and applying spatial policies. Across the case studies, the mix of spatial policies allows for an affirmative direction of growth to differently sized locations. Metro Vancouver can direct growth to urban centres, Verband Region Stuttgart can allocate growth to community types and preferred locations for higher density housing, and Puget Sound Regional Council, together with its counties, can contain growth within the urban growth area. Nevertheless, in all three case studies, local governments are the actual implementing entities that make decisions on building permits and zoning. However, these local decisions are shaped by spatial policies. In all three regions, carefully designed integrating mechanisms ensure coordination across levels of government in the application of spatial policies to local decision-making.

It cannot be stressed enough that there are distinctly different functions between levels of government in authorising and applying (designing categories or quantities, monitoring and mapping, and implementing) spatial policies. Further research might compare the reasons for and outcomes of various configurations of responsibilities across levels of government. Investigation of the performance of spatial policies depending on the responsibilities allocated to different levels of government would also be of interest. Additionally, research on planning culture might explore the assumptions and cultural values that have shaped the

allocation of responsibilities across levels of government. A challenge for comparative research is to find the appropriate “level” of analysis: comparative research may focus on regional planning documents while assessing the state and federal planning legislations as well as the implications for local governments. It could also look at how common problems and conflicts in spatial planning and growth management are addressed and resolved in a specific planning system. Starting from a similar conflict has the benefit of being able to “frame” the case studies as different responses to these problems that have evolved from the unique rules-in-use in a specific planning system.

Particularly within North America, urban containment boundaries are frequently critiqued because they tend to increase housing prices within the urbanised area (limiting land supply with increasing demand from a growing region will raise prices if permissible densities are not increased at the same time). Therefore, a crucial task for the regional and local level seems to be combining growth limiting policies with growth affirming policies. By affirming growth for certain locations within the urbanised area, while being aware of the problems of market interventions and unintended side-effects, redevelopment at higher densities in these locations can be encouraged and subsequently alleviate the pressure on the housing market because the supply will also increase. Combining qualitative and quantitative growth affirming policies can pre-structure regional development patterns without needing to specify exact land uses. However, these types of deliberations are political in nature and require dialogue within a region.

This paper has not addressed the performance of spatial policies but has introduced a typology that can be utilised for future cross-country comparative research. It should be noted that population and job growth within metropolitan regions cannot be attributed to spatial policies as other factors such as economic development, migration patterns, and household preferences play a role (Brombach/Jessen/Siedentop et al. 2017). Nevertheless, spatial policies can influence the location of new development during a building boom if they are embedded in multi-level growth management. Determining the location of new growth in metropolitan regions remains a sensitive political question in regions across the globe. This paper has explored nuances in spatial policies for growth managing states which can help in conceptualising growth policies aiming to achieve more sustainable land use in growing metropolitan regions to counterbalance the negative externalities of sprawl.

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Hier steht eine Anzeige.