Socio-spatial relations and the governance of city-regional growth: A comparative analysis of two European high-tech regions

Robin Ganser ⓘ, Dave Valler

Abstract

Oxford-Oxfordshire, UK, and the Verband Region Stuttgart or the Metro Region in Germany are two of Europe's high-tech powerhouses, facing similar challenges concerning housing and infrastructure provision and accommodating regional as well as local economic growth. Based on desktop studies and semi-structured expert interviews, this paper examines the respective institutional, political and cultural contexts for strategic planning in the two distinct settings, aiming to identify the evolving balance of socio-spatial dimensions influencing each case. While the interplay of territory, place, scale and network is different across the two cases, both face ongoing dilemmas. In the Stuttgart region, an established and smoothly running economic and spatial growth-machine has stuttered as growth has reached capacity and localities have asserted their constitutional controls on urban expansion. In Oxford (and the wider county of Oxfordshire), there has been a contrasting dislocation between an emerging growth agenda and a fractured governance context that is historically less oriented towards growth. Additionally, Oxfordshire has operated since 2010 against the background of localism in En-
glish planning and an increasing reliance on city and housing/growth 'deals' negotiated with central government to access planning flexibilities and infrastructure funding. Conclusions are drawn with the aim of mutual learning from the different international experiences and of informing approaches to strategic and inter-municipal planning.

Sozioräumliche Beziehungen und Governance von stadtregionalem Wachstum: Eine vergleichende Analyse zweier europäischer Hightech-Regionen

Zusammenfassung

Die Großstadtregion um Oxford in Großbritannien und der Verband Region Stuttgart bzw. die Metropolregion in Deutschland sind zwei Hightech-Wachstumsräume in Europa, die mit ähnlich großen Herausforderungen bei der Bereitstellung von Wohnraum und Infrastruktur konfrontiert sind, um dem regionalen und lokalen Wirtschaftswachstum Rechnung zu tragen. Auf der Basis einer Literaturrecherche, einer Auswertung von Planungsdokumenten und teilstrukturierter Experteninterviews stellt dieser Beitrag die jeweils spezifischen institutionellen, politischen und kulturellen Rahmenbedingungen der strategischen räumlichen Planung vor mit dem Ziel, die sich stets fortentwickelnden sozialen und räumlichen Dimensionen zu identifizieren, welche die jeweiligen Standorte beeinflussen. Während das Zusammenspiel von Territorium, Ort, Maßstab und Netzwerken in beiden Fällen unterschiedlich ist, stehen beide vor einem ähnlichen Dilemma. In der Region Stuttgart ist eine etablierte und reibungslos funktio-

✉ **Prof. Dr.-Ing. Robin Ganser**, Institut für Stadt und Immobilie, Hochschule für Wirtschaft und Umwelt Nürtingen-Geislingen, Schelmenwasen 4-8, 72622 Nürtingen, Germany
robin.ganser@hfwu.de

Prof. Dr. Dave Valler, School of the Built Environment, Oxford Brookes University, Headington Campus, OX3 0BP Oxford, UK
dvaller@brookes.ac.uk

nierende wirtschaftliche und räumliche Wachstumsmaschine ins Stottern geraten, da das räumliche Wachstum an seine Kapazitätsgrenze stößt und die Kommunen in der Region ihr grundgesetzlich gewährtes Recht auf Planungshoheit einsetzen, um kontinuierliche Stadterweiterungen individuell zu steuern bzw. zu bremsen. In Oxford (und der weiteren Grafschaft Oxfordshire) hat es hingegen in der Vergangenheit eine Verschiebung weg von einer allgemeinen Wachstumsagenda und hin zu einem stärker fragmentierten Governance-Kontext gegeben. Darüber hinaus agiert Oxfordshire seit 2010 vor dem Hintergrund des so genannten *localism* mit Fokus auf kleinteiliger und lokal gesteuerter städtebaulicher Entwicklung. Diese ist zunehmend von Stadt- und Wachstums-Abkommen abhängig, welche mit der Zentralregierung ausgehandelt werden, um etwa Zugang zu Planungsflexibilität und Infrastrukturfinanzierung zu erhalten. Im Fazit werden aus den vergleichenden Analyseergebnissen Schlussfolgerungen gezogen, mit dem Ziel des gegenseitigen Lernens aus den unterschiedlichen internationalen Erfahrungen und Handlungsansätzen zur strategischen und interkommunalen planerischen Steuerung.

Schlüsselwörter: Sozioräumliche Beziehungen ▪ Stadtregionen ▪ Strategische Planung ▪ Wachstumsmanagement ▪ International vergleichende Analyse

1 Introduction

Oxford, UK, and the Verband Region Stuttgart (VRS) in Germany are two of Europe's high-tech powerhouses, facing similar challenges of housing and infrastructure provision and accommodating regional as well as local economic growth (Frank/Morgan 2012; Granath Hansson 2019).[1] Oxford city and the wider county of Oxfordshire (Figure 1) is a critical node in the UK national and global knowledge economy, with one of the most substantial, distinctive and important collections of research-based, high-value business activities in Europe. Science Vale Oxford, in the southern part of Oxfordshire, hosts internationally recognised science and research facilities including the Culham Centre for Fusion Energy, Diamond Light Source (the UK national synchrotron facility), UK Atomic Energy Authority, UK Science and Technology Facilities Council, UK Medical Research Council facilities and the UK Space Gateway, including the Satellite Applications Catapult Centre and the European Space Agency (OxLEP 2018: 11). Lead-

ing clusters in the Oxfordshire science and knowledge-based sectors – biosciences and medical research, space and satellite technologies, cryogenics and advanced automotive engineering – have grown substantially in recent years, and there are additional strengths in digital information management, cyber-security, publishing, green construction, professional and business services, and culture/creative industries.

Stuttgart city-region (Figure 2) specialises in the automotive, machinery and electronics sectors, with the world or European headquarters of companies including Daimler, Porsche, Bosch, Celesio, Hewlett-Packard, IBM and Sika. There is related potential also in green industries and high-technology segments like the laser and ICT industry (Hagemann/Christ/Rukwid 2011: 12). Within Baden-Württemberg, VRS is recognised for its strong regional innovation base, accommodating six Fraunhofer institutes, four institutes of collaborative industrial research at local universities, two Max-Planck institutes and a major establishment of the German Aerospace Centre (DLR). This institutional thickness has underpinned strong private sector research and development activity, with approximately 8 % of regional (Land Baden-Württemberg) GDP invested in research and development in 2019, compared to the German average of approximately 2 % (VRS/HWK/IHK et al. 2019: 33). Further to this, the city of Tübingen (part of the wider Stuttgart Metropolitan Region) is home to a major cluster of biotech companies, some of which are spin-offs or in other ways closely linked to the university. Tübingen also hosts Cyber Valley, Europe's biggest research consortium in artificial intelligence, bringing together partners from academic institutions and the private sector.

Oxfordshire has grown rapidly in recent years, particularly as the economy recovered from the economic crisis in 2008. In 2018, Oxfordshire's Local Enterprise Partnership (OxLEP) reported that growth in Gross Value Added (GVA) had averaged 3.9 % a year since 2007/2008, in contrast to the UK average as a whole and the South East region at 2.9 % and 3.1 % respectively (OxLEP 2018: 14). In the 2019 UK Competitiveness Index, Oxfordshire ranked seventh (of 44) of the most competitive city-regional or Local Enterprise Partnership (LEP) areas in the UK, fourth in the UKCI Output Index and third in the UKCI Outcomes Index (Huggins/Thompson/Prokop 2019: 21–27).[2] VRS also showed continued growth over the past decades, accounting for 30 % of Baden-Württemberg's GDP. In absolute

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[1] See also https://www.regionalstudies.org/news/once-more-unto-the-breach-devolution-and-local-government-reorganisation-in-oxfordshire/ (08.08.2022).

[2] The UKCI Output Index reflects the ability of LEP/city-region areas to process inputs into valuable outputs (e.g. gross value added, employment). The UKCI Outcomes Index reflects the perceived quality of local and regional institutions which are critical to increasing standards of living.
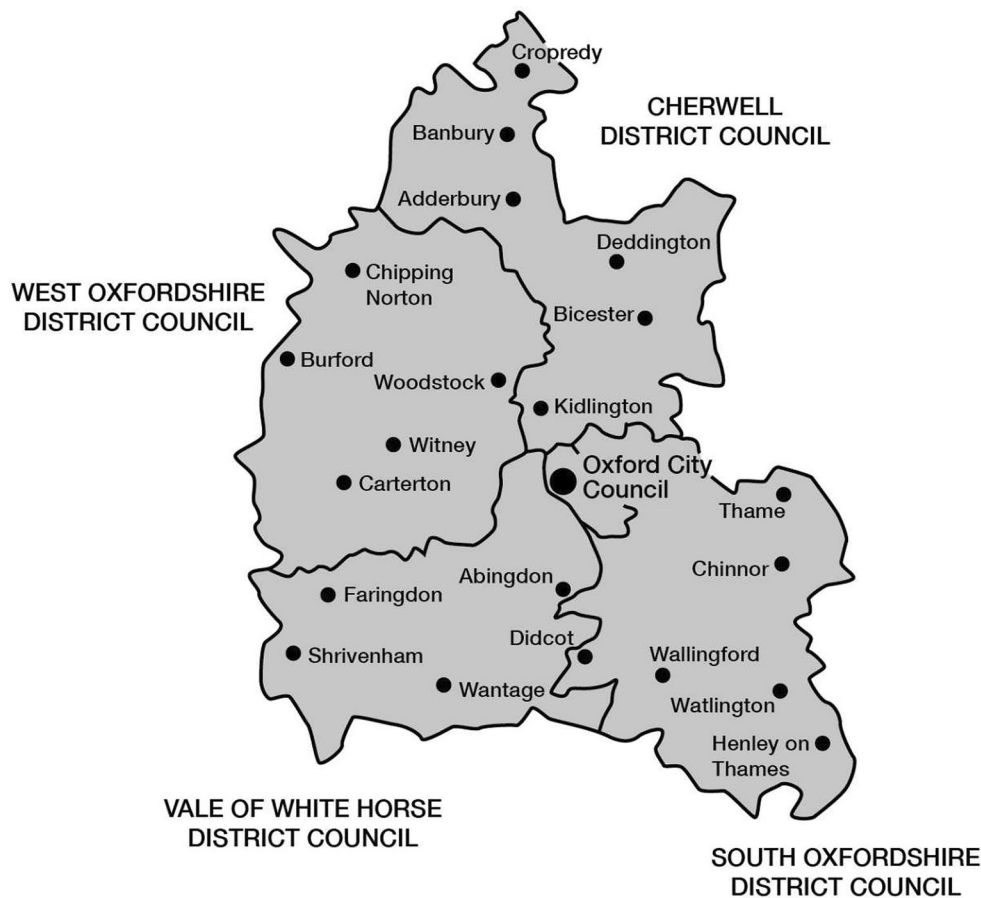
Figure 1 Oxford and Oxfordshire local authority districts

terms, the region's GDP amounted to 149 billion euros in 2017, thereby surpassing smaller European economies such as Hungary (127 billion euros 2017).[3] The VRS workforce has grown by 23 % since the turn of the millennium (VRS/HWK/IHK et al. 2019: 9) with direct impacts on the demand for housing and infrastructure in the region.

Both city-regions face significant growth dilemmas. In 2017 the 'Oxfordshire Innovation Strategy' (Oxfordshire Growth Board 2017) highlighted connectivity issues and environmental concerns amongst the range of challenges of accommodating an additional 267,000 Oxfordshire residents by 2040.[4] Additionally, a 2019 report by Lloyds Bank identified Oxford as the UK's least affordable city, with average house prices 12.6 times average annual earnings

in the city (Lloyds Bank 2019: 1). Similarly, the Stuttgart (metropolitan) region faces affordability issues, with approximately 200,000 job vacancies predicted by 2030 due to demographic changes, and an additional 140,000 new homes required. More supply is required in order to prevent segregation based on house prices and availability, leading to more car-based commuting and exacerbating transportation issues in the region.[5] Notable congestion arises from heavy goods vehicle traffic from the big industrial production centres, and Stuttgart lacks a comprehensive ring road system.[6]

In this paper, we develop a comparative evaluation of strategic planning and governance processes in the face of these dilemmas, examining the institutional, political and cultural contexts across the two cases (see Table 1). The

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[3] https://ec.europa.eu/eurostat/databrowser/view/tec00001/default/table?lang=en (11.08.2022).

[4] www.oxford.gov.uk/news/article/595/oxfordshire_growth_board_secures_215_million_government_investment_deal_for_the_county (08.08.2022).

[5] Personal interview with the Technical Director of Verband Region Stuttgart (07.05.2019).

[6] Personal interview with the Managing Director of LBBW Immobilien Kommunalentwicklung GmbH (09.05.2019).

Metropolregion Stuttgart

Figure 2 Verband Region Stuttgart (VRS) within the wider Stuttgart Metropolitan Region

research is timely due to the evolving politics of growth in both cases, changes in the planning system and devolutionary context in England, and the dilemmas of planning and collective provision in high-tech regions (While/Jonas/Gibbs 2004). The analysis is organised into six further sections. In Section 2, drawing on the work of Jessop, Jones and Brenner (Jessop/Brenner/Jones 2008; Jessop 2016a; Jessop 2016b; Jones 2018), we adopt a theoretical focus on the interplay of territory, place, scale and network (TPSN) in city-regional formations, wherein these various socio-spatial relations combine in diverse and dynamic forms in evolving governance arrangements. We then deploy the TPSN heuristic in elaborating a theoretically informed narrative for each of our cases, constructed in four parts. Thus Section 3 examines city-regionalism in comparative perspective, setting out the changing dimensions of territory and scale within the respective national political and legal contexts. Section 4 presents a characterisation of inherited socio-spatial relations in each case, the dynamic TPSN arrangements through which these were constituted, and the dilemmas associated with these socio-spatial forms. Section 5 then moves on to describe the contemporary growth strategies, planning approaches and governance forms in each city-region and the implications for respective TPSN landscapes, recognising that prior configurations influence the form of new combinations. Section 6 evaluates the extent to which revised arrangements can mitigate or transcend respective growth dilemmas. Finally, Section 7 offers brief concluding thoughts on the prospects for mutual learning.

This paper is based on a literature review, desktop studies and 15 interviews – five in the Stuttgart metropolitan region and a further ten interviews undertaken in Oxfordshire. The study was funded by Oxford Brookes Uni-

Table 1 Comparative city-regional research contexts: VRS Stuttgart and Oxford-Oxfordshire

	VRS Stuttgart	Oxford-Oxfordshire
Population	2,700,000	692,000
Area	3,654 km^2	2,605 km^2
Population density	733/km^2	266/km^2
Predominant spatial form	Polycentric	Monocentric
Employment	1,000,000	338,000
GDP	c. €150 bn	c. £23 bn
Districts/ Municipalities	6/179	5/250 (Parish and Town Councils)
City-regional governance	Elected regional assembly with responsibility for regional planning, funding and management of regional public transport, aspects of waste management, regional tourism marketing, cultural and sporting events, business support and development, spatial planning advice for local authorities.	Oxfordshire Growth Board (recently renamed as 'Future Oxfordshire Partnership') joint committee of five districts together with key strategic partners to coordinate local economic, housing and infrastructure development, to support local planning policy, to seek to secure funding and oversee the delivery of related work programmes delegated by the constituent local authority members.
Governance finance model	Municipal dependence on local transport management, local business performance and local demographic as well as economic development.	Municipal finance largely dependent on central government funding and recent deal-making.
Planning history/ culture	Established culture of regional strategic planning.	Context of urban political dissonance. Historical separateness of urban-rural contexts. Recent strengthening of localism in English planning.
Predominant city-regional spatial strategy	Transit-oriented development; polycentricity emphasises coordination and communication between Stuttgart and surrounding cities; national and international connectivity an ongoing theme; green corridors follow topographic structures such as stream and meadow valleys; city-regional planning and explicit commitment to equalisation and balance in spatial development; control sprawl and coordinate centre-periphery relations.	Growth directed in the past to the 'country towns' (Bicester, Didcot, Banbury, Witney) and away from Oxford city, the greenbelt and delicate rural villages. Current lack of clear overall spatial strategy and approach. Some loosening of the Oxford greenbelt to allow for urban extensions, plus ongoing growth in established country-towns and ad-hoc additions to the Oxfordshire districts.

versity's Research Excellence & Impact Awards scheme 2018/2019. This built on a substantial existing body of research undertaken over several years in Oxford-Oxfordshire and funded by the Royal Town Planning Institute (2014/2015 and 2015/2016) and the Royal Institute of Chartered Surveyors (2013/2014). Similarly, in VRS the project extended previous research and networks funded by local government and the Federal Office for Building and Regional Planning in the context of a national analysis of new urban quarters. Interviews in Germany were conducted face-to-face in May 2019, but proposed interviews in England in March 2020 were subsequently moved online due to Covid-19. Interviewees comprised senior officers of local, county and city-regional governments, regional funding agencies, planning consultants and advisors, and the Oxfordshire Local Enterprise Partnership (OxLEP). Additional insights emerged from regional government and council meetings and other online discussions which expanded significantly under the Covid-19 lockdowns. Interview transcripts were analysed independently by both authors in order to identify relevant themes and distil comparative insights and important points of difference.

2 Theorising socio-spatial relations: territory, place, scale, network

An extensive literature on international comparative planning has demonstrated that spatial planning and governance is complex and characterised by multiple interdependencies (see *inter alia* Booth 1993; Sanyal 2005; Booth 2011; Nadin 2012; Nadin/Stead 2013; Reimer/Getimis/Blotevogel 2014; Othengrafen/Galland 2019). Different political structures and legal frameworks lead to widely differing planning tiers and varied spatial and organisational structures, in which the planning institutions fulfil different roles and are characterised by very specific power structures. This literature is well-established and we postpone further discussion of it here in favour of a brief statement of our adopted approach.

In order to capture more precisely the differences between the cases, the dilemmas they face and the nature of their strategic responses, we focus on the spatial dimension of the state and adopt the 'territory, place, scale, network' (TPSN) schema mentioned above. This argues that the governance of regions, city-regions and localities should be seen as combinations of territory, place, scale and network relations. Briefly here, 'territory' refers to state forms, political boundaries and power containers; 'place' denotes varied types of localities, cities and regions with their distinctive histories, cultures and institutional contexts; 'scale' introduces relations amongst governance hierarchies across local, regional, national and supra-national levels; while 'network' relates to governance partnerships, relations between areas and other societal interests (e.g. business, community, environmental groups). These relations are always in play, though their relative influence is dissimilar in different places and may change over time as strategies evolve in the search for a 'spatio-temporal fix' which contributes to regulating and resolving crisis tendencies (see for example Harrison 2013).

The TPSN heuristic is useful in engaging the multiple dimensions of governance formations and the dynamics of socio-spatial relations. It requires, on the one hand, a degree of precision in the differential weighting and articulation of the various dimensions across diverse contexts, and, on the other hand, the specification of more concrete concepts and related vocabularies which seek to capture the specificity of individual cases (Jessop/Brenner/Jones 2008: 393–394). We therefore examine how the relative importance and combinations of territory, place, scale and network relations vary through time in each case and assess their contributions in securing the coherence of spatio-temporal relations (Jones/Jessop 2010; Harrison 2013). We also adopt a range of second-order theoretical and categorical concepts to characterise the respective local political, institutional and cultural contexts and to facilitate thick description and concrete-complex explanation. In this way the comparative analysis of international city-regional cases builds on Jessop's argument for using the TPSN heuristic at national scale that "these aspects and their relative weight and overall articulation provides another way to characterise and differentiate state forms and political regimes" (Jessop 2016b: 135). The analysis is taken forward in Sections 3–6, after a brief methodological outline.

3 City-regionalism in a comparative context

City-regions have been a key part of the devolution and de-centralisation agenda in Britain since the late 2000s, following the derailing of New Labour's regional agenda in 2004 (Harrison 2010; Shaw/Tewdwr-Jones 2017). This has had a distinctive economic focus, with city-regions identified as the primary engines of economic growth and associated policy around innovation, transport and skills, though the city-regional focus was to some degree diluted by a more nebulous sub-regional concept operating in parallel, given the political sensitivities raised by an over-zealous city-centrism (Haughton/Allmendinger/Oosterlynck 2013; Allmendinger/Haughton/Knieling et al. 2015). Subsequently, a coalition government from 2010 progressed the city-regional agenda within the overall context of localism, with 'City-Deals' (introduced under the Localism Act 2011) giving ministers the power to transfer policy responsibilities to individual cities that came forward with innovative proposals to promote economic growth. The first wave of City-Deals covered the eight largest cities in the so-called Core Cities Group (including Manchester, Birmingham and Newcastle). A second wave then encompassed the next 14 largest cities, plus the six cities with the highest population growth between 2001 and 2010. These included smaller city regions such as Greater Cambridge, Oxford and Oxfordshire, Tees Valley, and Hull and the Humber.[7] The interest in city-regions at this time also reflected the growing body of national and international academic research that highlighted their importance as "locomotives of the national economies within which they are situated" (Scott/Storper 2003: 581) and as the appropriate scale for policy interventions (Rodríguez-Pose 2008; Turok 2008). Yet as a number of authors have described, there remains a clear sense of central government direction in these ostensibly localised arrangements (see for example Kennett/Jones/Meegan et al. 2015; O'Brien/Pike 2015; Wall/Vilela 2016; Sandford/Ayres/Flinders 2017).

Similar impulses were felt in Germany, though building on different foundations. The modern German planning system in particular is characterised by its evolutionary nature, developed and refined by means of many small steps since the 1960s. It consists of several tiers, reflecting the federal political structure (see Figure 3). There is no national-level spatial plan, but a concise set of overarching planning principles. These are particularised in strategic spatial plans at *Bundesländer* (state) level and spatial planning regions, which comprise a Spatial Development Plan or Programme for each state and Regional Spatial Development Plans. Additionally, projects of supra-local significance such as major infrastructure projects are subject to sectoral plan approval procedures, which are coordinated with spatial planning documents and procedures. All of these planning tiers

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[7] https://www.gov.uk/government/collections/city-deals (11.08.2022).

D and GB: Planning Systems

Figure 3 English and German planning tiers

and relevant actors are interlinked by a set of requirements of notification, participation, coordination and compliance across the different statutory planning documents, striving to strengthen the influence of spatial planning and aiming to avoid contradictory policies and plan designations.

The competencies and responsibilities of the different planning tiers are defined by the German constitution (*Grundgesetz*, GG).[8] Article 28 (2) GG (Autonomy of Municipalities) prescribes that local municipalities must be guaranteed the right to regulate all local affairs on their own responsibility, within the limits prescribed by the laws. Within the limits of their functions designated by a specific law, associations of municipalities also have the right to self-government. This right to regulate local affairs includes the competency for local development planning, at the heart of which is the drafting of preparatory and binding land-use plans. Local planning authorities therefore hold a relatively strong position within the spatial planning system. However, higher-level planning interventions on the local level are possible, to aid the delivery of strategic infrastructure projects or to ensure coordination across the large number of local planning authorities. In this context, the relationship of local planning authorities with higher tier

planning authorities and those with sectoral infrastructure planning competencies are of particular interest.

According to the so-called 'principle of countervailing influence' – also referred to as the 'counter-flow-principle' – the development, organisation and protection of the individual regions and local authority areas shall match the conditions and requirements of the territory of a state or region as a whole. At the same time the development, organisation and protection of the whole territory shall allow for the conditions and requirements of its individual regions and local authorities (see Section 1 (3) Federal Regional Planning Act; Raumordnungsgesetz ROG).[9] In practice this means that local planning authorities must adhere to higher tier planning documents. In parallel, the planning bodies at regional and state level must strive to accommodate the spatial planning objectives of local planning authorities, particularly those which are part of statutory local development plans.

The late 1990s saw the introduction of a new planning instrument – the Regional-Local-Development Plan (Section 13 (4) ROG), which allows regional and local planning authorities to draft a joint plan which integrates the functions of regional plans and local development plans. Due to the federal nature of the planning system, the organisation and influence of regional planning varies across the different

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[8] Basic Law for the Federal Republic of Germany in the corrected version published in the Federal Law Gazette (*Bundesgesetzblatt*) Part III, sub-section 100-1, as last amended by Article 1 of the Act of 28 June 2022 (Federal Law Gazette I p. 968).

[9] Spatial Planning Act of 22 December 2008 (BGBl. I p. 2986), as last amended by Article 3 of the Act of 20 July 2022 (BGBl. I p. 1353).

Bundesländer. VRS is an example of strong city-regional planning with an elected body and specific competencies, including public transport.

4 Inherited socio-spatial relations

4.1 Oxford-Oxfordshire – dominant historical and territorial relations

Previous research in the Oxford city-region has highlighted the primacy of territorial and place relations in shaping governance and strategic planning (see Phelps/Valler 2018). This emphasises, inter alia: the sharp urban-rural contrast which characterises the county, strongly reinforced by greenbelt designation around Oxford city, a fragmented and highly differentiated context of local government structures with six local authorities covering a population of 692,000, and the apparent 'territorial discrepancy' consequent upon economic and population growth set against the background of static local government boundaries. These conditions have underscored an historical policy dilemma regarding the growth and physical expansion of Oxford city, which has had critical implications for planning policy in the county and for the growth prospects of the city and the sub-region. The result has been a context of territorially founded 'urban political dissonance' marked by sustained patterns of political conflict and tension, strategic action on the part of disparate local government actors aiming to delay, disrupt and reduce prospects for agreement, contradictory and incoherent policy agendas or programmes, and difficulty or inability to find compromise or workable policy resolution.

Further, a corollary of the localism agenda since 2010 has been the breaking down and recasting of scale relations. The election of the Conservative-led coalition government under David Cameron in 2010 effectively removed the regional level of governance and spatial strategy in the English regions outside of London, and local plans regained sovereignty within the context of a streamlined National Planning Policy Framework. Given the dissonant and conflictual history in Oxfordshire, localism and the decentralisation/devolutionary context have further licensed a distinctive "policy style" which might be described as a localised form of "guerrilla governance" (Heilmann/Perry 2011). Here, individual actors exploit a fluid and uncertain institutional and policy context to their own advantage, variously demonstrating agility, single-mindedness, creativity and defensiveness. Policy tactics are marked by opportunism, secrecy, calculation, experimentation, improvisation, manoeuvrability and manipulation. Such characteristics have been transparently evident in local debates around

unitary government for Oxfordshire (2014-2017) and may well resurface in the current development of a Joint Statutory Spatial Plan for Oxfordshire (Oxfordshire 2050) and in response to the ongoing proposals for growth planning across the larger Oxford-Cambridge Arc area (Valler/Jonas/Robinson 2021).

Against the background of these conflictual relations, the Oxfordshire Growth Board (OGB – recently renamed the 'Future Oxfordshire Partnership', FOP), established from 2014, has had limited governance capacity. OGB/FOP is a joint committee of the six local authorities together with key strategic partners including the universities and OxLEP, set up to facilitate joint working on matters concerning economic development, strategic planning and growth. However, despite its important role in supporting collaborative working and helping to secure a £215m Oxfordshire Housing and Growth Deal and two Housing and Infrastructure Fund bids totalling over £500m, shortcomings have been clearly acknowledged. At one level this is evident in the limited ability of the Oxfordshire Growth Board to command joint positions amongst the Oxfordshire councils. For example, in September 2019 OxLEP launched a Local Industrial Strategy (LIS) for the county, but a senior LEP representative subsequently noted: "The council political leaders are very careful not to be assumed to be endorsing it in their own right. All of the leaders sit on the LEP Board, they all supported the LIS and they all contributed to it. Some councils took it through their different leadership structures, others steered well clear of it. But at Growth Board level, there was a decision taken by the Chief Officers not to formally have it endorsed within the Growth Board, which is bizarre, really" (24 April 2020).

Additionally, in late 2019/early 2020, a formal Growth Board Review exercise accepted that the Oxfordshire Growth Board appeared to lack clear aims and vision, and communication with councillors, partners and the public had led to a series of misunderstandings.[10] For example, consultation responses to the Growth Board Review demonstrated misunderstanding of Oxfordshire Growth Board's limited monitoring and oversight role in strategic planning for the county, where under localism local planning authorities hold sole responsibility through their own democratic processes. Also here, the formal structure of Oxfordshire Growth Board meetings, the name of the board, the use of a scrutiny function, and voting and non-voting terminology had created a mistaken impression of regularised decision-making rather than a collaborative and facilitating arrange-

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[10] https://democratic.southoxon.gov.uk/documents/s18616/Annex%201%20-%20Growth%20Board%20Review%20Consultation%20Summary.pdf (11.08.2022) (paragraph 8).

ment. More broadly, there was ongoing ambiguity around Oxfordshire Growth Board's function as both a space for public engagement and as a strategic coordination group, as well significant concerns around a lack of democratic accountability and legitimacy. In sum, therefore, Oxfordshire has had no strong basis for a scalar or network-based response to the ongoing tensions and conflictual relations of territory and place.

4.2 Stuttgart Region – territorial fragmentation meets effective regional coordination

Verband Region Stuttgart (VRS) presents a significant contrast to the Oxfordshire situation. Despite an intensely fragmented territorial context (with six sub-regions and 179 local authorities), there has traditionally been more agreement over city-regional growth, a stronger sense of a polycentric city-regional network, and much stronger scale relations comprising tiered state plans, elected city-regional government, and the overall context set by the counter-flow-principle and relative stability in the planning system. The regional self-conception of an established growth machine contributes to a clearer city-regional/metro identity, in contrast to the established urban-rural opposition in Oxford-Oxfordshire.

The roots of this growth orientation lie in the establishment of Bosch and Daimler in the late 19th century, which within a short period of time created thousands of jobs and an extensive pattern of urban development (Müller 2021: 15). While Stuttgart developed into an important industrial location itself, the limiting city boundaries meant that neighbouring local authorities also saw substantial urban development and housing growth. Additionally, since around 1955 – with the so-called *Wirtschaftswunder* – numerous economic migrants came to work and live in Stuttgart (Müller 2021: 18). Overall, the historical evolution of the city has provided a receptive context for economic growth and city-regional formation, supported by both top-down and bottom-up impulses.

It was the state government who saw the economic competitiveness of the Stuttgart region as vital for the prosperity of the state as a whole: Stuttgart was considered the economic motor driving the Baden-Württemberg economy (Heeg 2003:166–167). Like the state government, however, regional and local politicians, business leaders and academic think-tanks were all starting to subscribe to the newly dominant regional development theories and 'beliefs' of these globalising times – for example, metropolises as 'engines' of growth, trickle-down effects from metropolitan centres to more peripheral regions, cities and businesses needing to get fit for global competition, regional develop-

ment policy to foster those centres already integrated into the global economy, and regional development policy to provide physical and intangible infrastructure supporting further integration.

In this scalar context, strong support emerged for regional governance formation, particularly following an economic crisis in 1992-1995 which strengthened the case for a serious institutional response and highlighted the importance of strategic planning and infrastructure issues. Building on previous regional associations (the Regionalverband Mittlerer Neckar founded in 1973 and the Regionalverband Stuttgart from 1992), VRS was created in 1994 as an elected city-regional body, taking on responsibilities in regional spatial planning, transportation policy, public transport, and regional economic and tourism promotion. A 15-year plan has been produced by VRS to set overall spatial planning objectives and guide regional development, and to act as a formal regional plan with binding commitments for local authorities. Some sense of the regional identity ingrained in local planning culture may be gleaned from the introduction to the regional plan, where the polycentric character of city-regional life is explicit.

People in the Stuttgart Region live their lives with a regional approach. Most of them accept the need to commute between their homes and their jobs. Children go to school in the neighbouring town and football fans travel into Stuttgart to watch matches, while those in search of recreation head out into the country. Administrative boundaries are practically irrelevant to everyday life. To establish an appropriate balance between all the demands made on the land, the respective tasks have to be coordinated right across the region. In concrete terms, this refers to settlement development, protecting the open spaces, or preserving and expanding the infrastructure. It also includes coordinating sites for large-scale retail centres and parks. This is where the regional level comes in, between the general development guidelines issued by the federal state and the concrete planning activities of the towns and local authorities.

Scale and network relations have thus been central to the politics of growth in VRS, with the city-region at once intricately tied into a comprehensive framework of spatial planning tiers, perceived as the engine of economic development in the state, and as a naturally polycentric assemblage. In recent years, however, there is a clear sense of growth satiation, with rising local political opposition and conflict over land constraints. The growth machine has effectively stalled. Where previously local authorities had been keen to attract growth and development as they benefited significantly from growth in financial terms, the response has become more reluctant as growth has reached perceived limits and as local authorities have reaped apparently sufficient rewards. In this context, housing provision and af-

fordability has become an increasingly important constraint and medium-term issues loom around congestion, skills and labour supply. These growth challenges are sharpened by local administrative fiat, underpinned by the German Basic Law and the federal guarantee of local planning sovereignty. While VRS can make strategic arguments for growth, the scalar mechanisms available to the elected regional government are essentially limited to persuasion. VRS can, for example, cultivate serious conversation regarding growth challenges, make the case for a response, and draw on an electoral foundation to enhance the legitimacy of their argument. Additionally, there are links between politicians across the city-regional and local levels, enabling further political engagement and leverage between these spheres. Yet beyond this, the limitations imposed by local planning sovereignty are clearly evident and municipalities exert ultimate control over whether development should or should not be accepted in their areas. In this sense, relations of territory and place have recently been reasserted.

5 Contemporary strategies and governance

5.1 Oxford-Oxfordshire – deal-based and incentivised inter-municipal cooperation

Much of the context for local economic strategy in England has been shaped by central government austerity since 2010. The implications for local government have been severe. In May 2019, for example, the Institute for Fiscal Studies reported that average local government spending on services in England had declined by 21% in real terms since 2009/2010. Spending on planning, development and housing decreased by more than 50% over the period, with highways and transport services also down more than 40% (Amin-Smith/Phillips 2019: 2). These cuts undoubtedly pushed local authorities into major changes in the search for efficiencies and service transformation and were accompanied by significant local government restructuring. This also formed part of the ongoing 'devolution revolution' highlighted above, with central-local 'deals' often *requiring* significant changes in the shape and operation of urban governance forms – a point which underlines the level of ongoing central government influence.

In Oxfordshire, however, the path of local government reorganisation was highly contested and largely unsuccessful. From 2014 to 2017 at least eight separate moves for some form of unitary government were brought forward, variously comprising proposals for one, three, four and five unitary bodies, together with contrasting ideas around formalising local government links into neighbouring counties,

the introduction of an elected mayor and the possibility of an Oxfordshire combined authority (CA). Without rehearsing the complexities of this tortuous story (for a more detailed exposition see Valler 2020), some sense of the territorial tensions can be gleaned from the view of the Chair of Oxford Civic Society, who accused the local authorities of presiding over 'a shambles': "There is a desperate need for councils in Oxfordshire to work together more closely but the unitary council proposals do not have widespread support and now people seem to be jumping ship from the devolution bid. This is going to look like a complete shambles to the Government. And I am sure they will also be frustrated because they have clearly recognised the economic potential of Oxford but it now risks not being delivered because of petty squabbling between local authorities here. It is very unfortunate" (Oliver 2017).

Yet despite the difficulties associated with the unitary government question, on 22 November 2017 the Oxfordshire Growth Board suddenly announced that the Oxfordshire councils and OxLEP had reached an outline 'Housing and Growth Agreement' with Government, the first of this new form of growth deal to be agreed. The announcement was something of a surprise given that previous growth deals had generally been contingent upon significant governmental change including Oxfordshire combined authorities and mayoral positions. Indeed, the failure in Oxfordshire to agree a devolution proposal and a county-elected mayor was blamed for the 'disappointing' outcome of a £380m Local Growth Fund bid to Government in 2016, where only £24.2m was approved and 30 identified schemes were overlooked (Oliver 2016). It was only on 21 November 2017 – one day before the Oxfordshire announcement – that Department for Communities and Local Government Secretary of State Sajid Javid stated that "non-mayoral combined authorities" were now "a possibility".[11] Clearly, though, the Oxfordshire authorities and key partners had been engaged in discussions with Government for several months.

The 'deal' would see an additional £215 million of Government investment provided over five years, with £60m for affordable housing, £150m (£30m p.a.) for infrastructure improvements and £5m in capacity funding to help meet the costs of taking the investment programme forward. This overall package was presented by the Oxfordshire partners as a 'down payment' on investment in infrastructure and housing needed to deliver the existing growth plans for Oxfordshire itself and also as part of an emerging Cambridge-Milton Keynes-Oxford corridor initiative. It also reflected, it was argued, a commitment from Government to further

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[11] County Councils Network (CCN) conference, 21 November 2017.

work with Oxfordshire to address barriers to growth and avoid unplanned speculative development (CDC 2018: 2). The programme would include the development of a 'Joint Statutory Spatial Plan' (JSSP) to provide a county-wide integrated planning framework to guide sustainable growth and would be overseen by the Oxfordshire Growth Board working in partnership with the Homes and Communities Agency (HCA), the Highways Agency (HA) and other partners.[12]

While the Government's objective with the Housing and Growth Deal was clearly focused on housing delivery, the Oxfordshire councils saw it not as additional housing provision *per se*, but rather as providing what had already largely been earmarked in local plans following the outcome of a Strategic Housing Market Assessment in 2014. This assessment had radically increased housing allocations in the county to approximately 100,000 new homes over the period 2011-2031. As the county council leader remarked: "This is really good news for Oxfordshire. If you look at the local plans, there are already about 96,000 houses in them up until 2031. So the expectation is that those 96,000 houses would be built anyway. This gives the opportunity for additional funds, £215m coming in first of all."[13]

Either way, a strategic policy conflict between increased housing delivery and reduced greenfield development arises. Although the former quantitative brownfield targets vested in national planning policy are no longer valid, these have been replaced by more flexible planning principles, which call on local authorities to give priority to suitable brownfield land well-served by public transport – introduced by the 2017 Housing White Paper. Data on the absolute amount of greenfield development in Oxfordshire is hard to find but the land-use change statistics indicate that brownfield development in relative terms is very uneven across the region. Looking at the proportion of new residential addresses created by previous land usage category over the period from 2015 to 2018 for example, it is evident that in West Oxfordshire only 18 % of such development took place on previously developed land, whereas in Oxford City Council this share was 89 %.[14]

A detailed delivery plan for the Housing and Growth Deal was developed into 2018 with the Homes and Communities Agency (HCA) and the new Ministry for Housing and Local Government (MHCLG), which was then quickly agreed by all the Oxfordshire councils and OxLEP by the end of February. To a degree, therefore, it is possible to identify some enhancement of scale relations through the deal-based arrangements and some potential further clarity emerging over spatial strategy through the proposed Joint Statutory Spatial Plan. However, the extent to which this might transcend established territorial conflicts and the actual strength of the new scale relations remain significant questions which we consider further below in Section 6.

5.2 Stuttgart Region – stable government structures with strong scale relations

The VRS and Stuttgart Metro Region have well-established, stable governance structures and formally adopted Regional Spatial Plans, accompanied by strategic infrastructure planning documents including the Regional Transport Plan (VRS 2010; RVNA 2013; VRS 2018). The latter underpins a transit-oriented spatial strategy with residential growth points along public transport corridors. The main objective in this context is the expansion of public transport capacity, which VRS supports with an annual investment of approximately €250 million.[15] In addition, the Regional Transport Plan also includes plans for a north-east ring road around Stuttgart to avoid journeys through the city centre.[16] All regional planning frameworks are under the legal obligation to carry out strategic environmental assessments. For the first time, in the case of the Regional Transport Plan 2018, this was accompanied by focused climate-proofing to optimise the reduction of CO_2 emissions. These strategic environmental assessments set the framework for the environmental protection and compensation system operating at the local level.

Business and science networks with global connections are strong within the region and clearly reflected in the planning frameworks. The regional plan requires an emphasis on land for production and high value jobs rather than retail, striving to reserve the scarce developable sites for these land uses while furthering high quality spatial development in the region. On a supra regional scale there is an emphasis on national and European connectivity including the high-speed link to Paris and to Munich as well as to Mannheim and Frankfurt.

Historically, economic growth in Stuttgart equated to large-scale greenfield development. Between 2006 and 2012

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[12] www.oxford.gov.uk/news/article/595/oxfordshire_growth_board_secures_215_million_government_investment_deal_for_the_county (09.08.2022).

[13] www.oxfordtimes.co.uk/news/headlines/15989974.Two_more_councils__cabinets_agree_to_back_Growth_Deal/ (08.08.2022).

[14] www.gov.uk/government/statistical-data-sets/live-tables-on-land-use-change-statistics (08.08.2022).

[15] Personal interview with the Technical Director of Verband Region Stuttgart (07.05.2019).

[16] Personal interview with the Technical Director of Verband Region Stuttgart (07.05.2019).

alone, approximately 4000 ha of greenfield land were converted to new roads as well as residential and industrial areas or other settlement-related land uses (VRS 2015: 3). This translates into daily land consumption of almost 2 ha. Given the nationwide goal to reduce greenfield development to 30 hectares or less per day by 2030, this requires a substantial reduction: broken down to the level of the *Länder*, the whole of Baden-Württemberg should develop a maximum of 3 ha of greenfields per day and the Stuttgart region will have to meet a target value of 0.3ha per day based on area, or of 0.75 ha per day based on development per head of population (VRS 2015: 3). The Stuttgart Region clearly faces a dichotomy which is hard to resolve in terms of accommodating growth while restricting greenfield development.

Additionally, while there is general support for growth in the Stuttgart Region[17] the spatial strategy of transit-oriented development with regional growth points is not without tensions given the 'counter-flow-principle'.[18] The lack of immediately developable land is in many cases not due to physical or planning constraints in the local planning frameworks. Indeed, there is enough housing land allocated in the Preparatory Land-Use Plans for approximately 450,000 dwellings.[19] However, land ownership issues and local politics can hinder development.[20] Moreover, there are several powerful planning instruments which could enable or speed up development. Urban Development Measures, for example, provide compulsory purchase powers for local authorities or their trustees to expedite development in cases of urgent housing or employment land pressures, but in some cases local politicians are unwilling to use these instruments.[21]

Although there are no overarching regional housing targets, the local authorities regularly monitor housing development and there is a statutory requirement to plan for housing needs. VRS encourages such development at sustainable locations. There is a mix of methods at play in this context. For example, the International Building Exhibition (IBA) strives to highlight existing good practice and provide new examples of high-density homes with attractive public areas and green infrastructure.[22] The university city of Tübingen (population approximately 100,000) introduced its comprehensive 'Fairer Housing' strategy only recently (Landwehr 2019) but has provided good practice examples for a long time. In this context, the city strives to follow the brownfield first paradigm and in doing so, provide approximately 5,000 dwellings per decade. The necessary land is set out in the Preparatory Land-Use Plan. As a rule, Tübingen tries to acquire land ownership for all sites, thereby combining planning powers and ownership. Once sites have been purchased – in some cases through compulsory purchase orders – binding land-use plans are drawn up, sometimes based on extensive urban design competitions. A good example for a successful regional growth point is the town of Ostfildern (population approximately 40,000) south of Stuttgart. Since the departure of US troops in the 1990s, a 140 ha military conversion site has been developed, serviced by a purpose-built S-Bahn rail link, providing a high-density new urban quarter, the Scharnhauser Park, which has grown to 8,500 inhabitants and 2,000 jobs (Sanierungs- und Entwicklungsgesellschaft Ostfildern 2017: 45). Careful master planning and ecological design principles offer a high-quality urban environment, further cultivating a generally positive local response to growth.[23] There are plans for new urban quarters, utilising the (compulsory) purchase of development sites to combine ownership and planning powers.[24] Unlike Stuttgart and Tübingen, these will be urban extensions, rather than brownfield developments within the existing urban areas.

Generally, what emerges in Stuttgart city-region is a sense of stability and consistency in the direction of the strategic response, reflecting the stronger basis for scale and network relations and the influence of an elected regional authority in setting regional priorities. Established institutional and political relations at city-regional level have sought to accommodate and pragmatically respond to contemporary challenges.

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[17] Personal interview with the Managing Director of LBBW Immobilien Kommunalentwicklung GmbH (09.05.2019).

[18] Personal interview with the Technical Director of Verband Region Stuttgart (07.05.2019).

[19] Personal interview with the Technical Director of Verband Region Stuttgart (07.05.2019).

[20] Personal interview with the Technical Director of Verband Region Stuttgart (07.05.2019) and with the Managing Director of LBBW Immobilien Kommunalentwicklung GmbH (09.05.2019).

[21] Personal interview with the Managing Director of LBBW Immobilien Kommunalentwicklung GmbH (09.05.2019).

[22] Personal interview with the Technical Director of Verband Region Stuttgart (07.05.2019).

[23] Personal interview with the Head of Planning in Ostfildern (09.05.2019).

[24] Personal interview with the Head of Planning in Ostfildern (09.05.2019).

6 Regulating city-regional growth dilemmas

6.1 Oxford-Oxfordshire – political shifts lead to planning rifts

Clearly the Housing and Growth Deal represented a considerable success for the Oxfordshire Growth Board and its various stakeholders and partners. The initial Government investment of an additional £215m was significant, offering the prospect of further investment into the future. Even the delivery plan mentioned above was agreed by Government and by the local authorities with relatively little controversy, certainly in comparison to the unitary government experience. Yet despite these successes, important limits also became evident in terms of the precise scale and scope of the agreement, and the level of active buy-in from the respective councils. A senior county council officer noted, for example: "There's been this 'Kumbaya' moment where everyone comes together where 'of course we are going to have this deal, of course we'll overcome our differences, of course we'll get over any issues to receive this deal and £200m+'. And there was a point in time, a couple of years ago, when you couldn't get over these problems – when all the unitary issues were going down etc. So there's been progress – and you've got to play nice, be at the ribbon cutting, and politics play into that. So politics has changed. But there's a big difference between all the leaders smiling for the picture and in reality all the leaders making a smooth ride and all the background operations and all the officers' actual work to make these things happen and get things delivered. When you get into the weeds and say, 'What does this really mean for when you review applications, have meetings with developers and negotiate finance and legal and environmental issues, all these complex three-dimensional aspects of planning – are they really aligned across the councils and the county? Are they lined up across how everyone is doing their job, how everyone is making their contribution? Are they considering, and embedding in their approach the priority of developing the deal for the whole county? If you don't even have the right managers signed up to the project, then you're not going to achieve what you're setting out to with this deal".[25]

Additionally, the Joint Statutory Spatial Plan encountered a major challenge in May 2019 when South Oxfordshire District Council's political composition changed considerably, with the Liberal Democrat Party and the Green Party displacing formerly very strong Conservative control. Un-

der new leadership, South Oxfordshire District Council's (SODC) Local Plan (which provided for 28,500 new homes to 2034 including in greenbelt areas) came under significant pressure and the council threatened its withdrawal. But this in turn jeopardised the Housing and Growth Deal, part of which required all of Oxfordshire's Local Plans to be submitted for examination by 1 April 2019. On Wednesday 9 October 2019, Secretary of State for Housing, Communities and Local Government Robert Jenrick wrote to SODC directing that the council take no further steps in connection with its own Local Plan, effectively preventing the council from withdrawing its plan at a scheduled council meeting less than 24 hours later. Reports of the subsequent meeting recorded the fury of councillors and residents alike, who reacted with claims of "an unacceptable intervention into local democracy" (Briant 2019). Subsequently, progress on the Joint Statutory Spatial Plan was delayed, and the Minister of State for Housing confirmed on 25 March 2021 that the schedule had been extended to 2023. Latterly the local political landscape has shifted again with local elections in May 2021 seeing Oxfordshire County Council moving from Conservative leadership to a Liberal Democrat, Labour and Green Party coalition. This in turn has shifted the balance of OGB/FOP and there has been active discussion over the nature of the Board, its role and identity. The direction of the Joint Statutory Spatial Plan has become less certain and there was criticism of an ongoing lack of specificity as the plan moved into a further round of Regulation 18 (part 2) consultations on planning and spatial strategy options in summer 2021.

However, Oxfordshire not only requires further housing, but more specifically additional affordable housing as well as the associated infrastructure. In this context, tried and trusted instruments are utilised: the Community Infrastructure Levy (CIL) and Planning Obligations (often referred to as Section 106 agreements). While the Community Infrastructure Levy is a planning charge on new development to aid the funding of infrastructure, Planning Obligations strive to collect private developer contributions to help with the provision of affordable housing and with other predominantly site-specific measures, which are required to mitigate the impact of development.[26] Both instruments profit from their quasi-ubiquity and transparent employment in England. West Oxfordshire is a good example of a District Council consisting of many smaller towns and villages, where between 2001 and 2015, a total of 1,408 affordable homes were provided through Planning Obligations, equating to an average of 20% of total housing delivery per

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[25] Personal interview with Senior Policy Officer in Oxfordshire County Council (13.02.2019).

[26] https://www.gov.uk/guidance/planning-obligations (11.08.2022).

annum.[27] Research undertaken by the Universities of Cambridge and Sheffield underlines the (growing) importance of Section 106 completions as a proportion of all new affordable housing but also highlights that this depends heavily on the buoyancy of the housing market (Monk/Crook/Lister et al. 2006; Brownill/Cho/Keivani et al. 2015).

In sum, the 'deal' in Oxfordshire encouraged new 'scale' relations with central government and for a period tempered the dissonant context. Substantial housing growth has gradually become more accepted and recent updates to local plans have acknowledged the proposed growth and expansion of Oxford city, including through some significant release of land from the Oxford green belt. Yet there is little sense in which the underlying territorial tensions and conflictual politics have been resolved, or that a foundation is in place to deliver an Oxfordshire Plan which is more than a lowest common denominator and secondary to local plans. Indeed, despite the 'reaching-in' of central government to dictate the path of South Oxfordshire's Local Plan, the scope for a scale-based resolution of local political dilemmas seems remote. As an Oxfordshire interviewee summarised regarding the proposed joint plan: "Government's concern was that the Oxfordshire authorities didn't have a fantastic reputation for working closely together, or for delivering on their local plans. So, the Oxfordshire authorities needed something that would give Government confidence that they would be able to do it; they tried to sell it to Government as a non-statutory joint strategic framework, but it wasn't enough. Government wanted a statutory plan, to legally bind them all. The councils agreed at that point then to go forward with the statutory joint plan, but not as far as having shared governance structure. So, for a joint plan all the authorities individually have to adopt it, because there's no joint governance – and there is still substantial risk attached to this."[28]

6.2 Stuttgart Region – from growth management to strategic growth incentives

In Germany, given their constitutional powers, localities can say no to spatial growth, but regional government can also exert leverage through control of investments and more informally through political linkages. Scale relations are strong and relatively stable, and polycentricity has under-

pinned network relations in the city-region. Indeed, these provide an effective bulwark against a more territorial politics consequent upon growth satiation. This is further reinforced by VRS investment in public transport and other infrastructure at strategic locations, covering the cost for planning consultants or direct investment as an incentive for local authorities to deliver growth. Overall, the VRS has invested approximately 7 billion euros over the past decade.[29] The overall logic is that policy integration across housing, transport, education, health and welfare, together with clear-cut planning tiers and competencies combined with financial incentives and transparency leads to political backing of growth at sustainable locations. In order to provide sufficient housing and particularly affordable units, the Stuttgart Intensification Model (SIM) sets out systematic developer contributions e.g. towards affordable housing – similar to the Community Infrastructure Levy or Section 106 agreements in Oxfordshire. However, not all local authorities in the region employ such instruments, in some cases because they are too small and expect little impact.

Given the strong position of local authorities, however, it is important to understand the local perspectives and diverse approaches to urban development: at the local level across the metro region different planning strategies are pursued in parallel. The cities of Stuttgart and Tübingen, for example, have been following a zero greenfield development policy for a long time,[30] which has focused development within the existing urban areas and particularly on brownfields. In Ostfilden, urban extensions have been the focus. This in turn highlights the overarching regional strategy which is based on a 'brownfield first', but not 'greenfield never' principle. This is underpinned by strategic regulations in Baden-Württemberg, which require minimum densities and plausibility analyses of greenfield needs in the development plan process (MW 2017). The objective is to achieve new development in sustainable locations, which can be serviced efficiently by public transport.

All three cases – leading by good example – can further help to overcome growth exhaustion. Given the foundation of stronger and more stable scale relations and no structural antipathy towards growth *per se,* there are realistic prospects for a reinvigoration of a sustainable growth agenda which can overcome current governance dilemmas. Importantly, the political links between the different tiers of government and planning can also be utilised to expedite development in

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[27] https://www.westoxon.gov.uk/media/4ldlsxel/cil8-overview-of-past-affordable-housing-delivery-and-planning-obligations-secured.pdf (11.08.2022).

[28] Personal interview with Planning Consultant in Oxfordshire (17.03.2020).

[29] Personal interview with the Technical Director of Verband Region Stuttgart (07.05.2019).

[30] Personal interview with the Head of Planning in Tübingen (08.05.2019).

allocated growth points.[31] In short, the city-regional growth machine is not so broken that it cannot be restarted.

7 Conclusions

Oxford-Oxfordshire and the Stuttgart Metro Region/VRS are diverse city-regions set within very different institutional, political and cultural contexts. The German federal and state structures, layered and stable scale relations, and strong tradition of regional and strategic planning provide a marked contrast to the current English context of localism and differentiated – almost patchwork – deal-based devolution. In addition, Oxfordshire has been characterised by conflictual politics around growth and planning, while VRS has operated as an effective growth machine to the point at which the appetite for growth has been largely sated. Yet both city-regions face similar challenges of housing and infrastructure provision, as well as environmental concerns.

Given this diversity, the TPSN heuristic offers a multiplex reading of governance formation and an apparatus through which to evaluate respective crisis tendencies and dynamic spatio-temporal responses. In requiring elaboration of the varied dimensions and their interactions across diverse contexts, it permits the development of distinctive concepts and vocabularies which illuminate the specificity of cases. In Oxfordshire we have deployed notions of 'urban political dissonance' and 'guerrilla governance' to capture specific institutional and political contexts and legacies, whereas VRS fits more comfortably within established discourses around urban growth machines, for example. Understanding the socio-spatial foundations of these characteristic forms extends analytical and comparative breadth and depth. Yet notwithstanding these strengths some difficulties of the approach remain, for example in clearly allocating aspects of the analysis within particular TPSN dimensions, and also the potential for redundancy between the various categories.

Different city-regions experience and perceive crises in different ways and have diverse foundations upon which to construct strategic and governmental initiatives. As such, there will be limits to the transferability of policy across diverse contexts. Yet nonetheless, there remains scope to learn, both from comparative experience per se and from the ways in which individual cases interpret their particular governance challenges and reorient their TPSN arrangements in response. This offers scope in crystallising respective city-regional mechanisms and capacities to negotiate their own crisis tendencies.

Clearly, some immediate lessons emerge. Strategic planning at a city-regional scale plainly benefits from some degree of institutional stability and a level of coherence in scale relations. The Stuttgart case demonstrates the importance of these aspects in managing a potentially more robust – and statutorily reinforced – local territorial politics as the growth agenda has come under question. An elected regional government with powers over regional planning, transportation and economic development policy provides a further critical influence in sustaining the regional perspective. In Oxfordshire, the relative instability in the planning system and the weakness of scale and network relations has allowed conflictual territorial relations to persist over an extended period, and contemporary government policy seems to offer little prospect of transcending ongoing governance dilemmas. Oxfordshire could benefit from a more stable systemic context – not only in terms of scale relations, but also with less frequent changes to the planning system itself. Obviously, this is not to argue that there can be any simplistic transfer of established German regional practice to the wholly different current context in England. Rather, such considerations might prompt deeper questions about how and why the English planning system has been restructured in particular ways, and what TPSN options might be feasible in the current context.

Additionally, though, there may be more detailed aspects of comparative practice which offer scope for reflection and learning in each case. These might include, for example, the role of informal planning instruments and joint planning documents where more formal arrangements are not feasible, the potential role of local authorities in driving development rather than a heavy reliance on private developers, the scope for coordination across infrastructure investment, public transport and housing planning, the role of incentive-driven development alongside statutory planning instruments, and the possibility of a more flexible approach to brownfield versus greenfield development to achieve overall sustainability. The Stuttgart region in turn can benefit from the experiences with incentive-driven development in Oxfordshire, which should obviously accompany strategic planning instruments – not replace them. Further to this, the systematic and transparent application of the Community Infrastructure Levy and Planning Obligations may act as a role model for improving the less standardised approach in Germany in order to optimise private developer contributions towards affordable housing and community infrastructure. Posing meaningful questions around these more detailed practical issues offers a fruitful avenue for future comparative planning research.

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[31] Personal interview with the Technical Director of Verband Region Stuttgart (07.05.2019), with the Managing Director of LBBW Immobilien Kommunalentwicklung GmbH (09.05.2019) and with the Head of Planning in Ostfildern (09.05.2019).

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