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**Re-inventing the City:**

The Art of Metro-Governance in the  
Stuttgart Region

by

**Andrea Frank and Kevin Morgan**



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STUTTGART REGION**

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School of City and Regional Planning  
Cardiff University

June 2012

ISBN 978-1-908442-04-8

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First published in Great Britain in 2012 by

Cardiff School of City and Regional Planning  
Cardiff University  
Glamorgan Building  
King Edward VII Avenue  
Cardiff CF10 3WA

Telephone: (029) 20874022

Fax: (029) 20874845

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## *Acknowledgements*

We would like to thank Dr. Dirk Engelke, Prof. Detlef Kurth, Prof. Johann Jessen, Dr.-Ing. Oediger, Wolfgang Ratzer, Dr. Peter Dietl, Dr. Thomas Kiwitt and Frau Fleischmann (VRS Stuttgart) for their time and willingness to answer our questions on the organisation, structure and work of the VRS in the Stuttgart Region.

## 1. Introduction

City-centric narratives loom large across large swathes of the globe today. The intellectual dominance of these narratives is best captured in the title of a recent book on the urban renaissance, *Triumph of the City: How Our Greatest Invention Made Us Richer, Smarter, Greener, Healthier and Happier*, written by one America's leading urban economists (Glaeser, 2011). Among other things, this paean to the city argues that there is a near-perfect correlation between urbanization and prosperity across nations, which is one of the reasons why half the world's population is now officially deemed to be "urban".

Glaeser's book (2011) also addresses the central paradox of the modern metropolis which is that physical proximity has become ever more valuable as the costs of connecting across long distance have fallen. A combination of density, diversity and proximity is used to explain why (certain) cities have become engines of innovation and development for their regional hinterlands and their national economies. Although many social and cultural factors play a role in the drama of urbanisation, the positive correlation between agglomeration and productivity tends to dominate these city-centric narratives.

The notion of the city as an engine of prosperity resonates deeply in international policy and planning circles, particularly in the European Union, the OECD and the World Bank, and most national governments also subscribe to this notion. This celebration of the urban form is deeply ironic because cities, as they are presently constituted, are no longer able to deal with the challenges of urbanisation without new forms of governance and new relationships with their municipal neighbours (European Commission, 2012)

In developed and developing countries alike, city governments are seeking to collaborate with neighbouring municipalities in their regional hinterland – a process that is characterised in many different ways, including metropolitan regionalism, city-regionalism, inter-municipal collaboration, and the new spatial planning with its "soft spaces" and "fuzzy boundaries" (Brenner 2004; Scott 2001; Haughton et al, 2011). Although this work does not enjoy the same kind of attention as the urban renaissance literature, it is no less important for being less perceptible. Indeed, the growth of city-regionalism (or metro-governance as we call it) may be a more significant phenomenon, for theory, policy and practice, because it reveals the extent to which cities are embedded in a web of relationships in and beyond their formal territorial jurisdictions. Thinking of cities in terms of a web of social and spatial relationships, with places near and far, is associated with the recent rise of relational geography; but this perspective has actually been used for many years to understand the oldest territorial division in capitalist society, that between "the country and the city", a spatial division that was fashioned by formidable social and economic processes (Williams, 1973).

Equally formidable socio-economic processes fuelled the growth of metropolitan regionalism in Europe in the 1990s. Although sweeping generalisations should be avoided, not least because the politics of each metro-governance system are highly nuanced, it has been argued that in almost all cases it was a response

to heightened economic competitiveness. As a result the metropolitan regionalisms that emerged in the 1990s “mobilised new forms of cooperation within urban regions as a basis for engaging still more aggressively in territorial competition against other urban regions at European and global scales” (Brenner, 2003; 2004).

Brenner’s analysis of the re-scaling process in cities and regions needs to be qualified in two ways. First, it lays itself open to the charge of economic reductionism because its inordinate focus on a narrow economic agenda tends to devalue other determinants, like the search for strategic territorial scales at which to design and deliver public services and infrastructure; in other words, sustainability considerations need to be set alongside economic factors. Second, it has little or nothing to say about capacity, the attribute of the state that is most important from a developmental standpoint (Morgan, 2006). We will illustrate these two points in the following case study of Stuttgart. Although the drive to re-invent Stuttgart from small city to large metropolitan region was originally triggered by economic factors, the art of metro-governance involves planning for sustainability as well as promoting economic viability.

In sum, the key drivers for regional level planning have varied over time. On the one hand, regional planning has been valued as a tool to help control rampant suburbanisation and sprawl with all its negative impacts on the environment such as high levels of commuting times, traffic congestion, and loss of agricultural land and open space. On the other hand, regional planning is seen as a way of coordinating economic development between central cities and the surrounding hinterland to ensure synergies amongst different industrial sectors and competitiveness of the metropolitan region in a globalising economy.

In Europe, in particular, due to EU integration the debate around regional planning and developments has been re-invigorated over the past two decades, both from a theoretical and applied point of view. At the theoretical level for example, scholars have grappled with the idea and definition of what is a region (Davoudi 2010) and the different models of regional organisation and governance. One way of categorising regions is by level of institutionalisation. Kübler (2003) generically distinguishes three concepts of metropolitan governance: (a) rearrangement of administrative boundaries and the establishment of a strong association; (b) public choice with weak association; and (c) new regionalism as a new form of cooperation (Norris, 2001). The latter concept proposes an approach of coordination that goes beyond the mere political sphere and includes a network of private and public actors whose composition and cooperation is customised to address the specific conditions and needs of a region. Based on these three basic concepts a range of reform models can be developed depending on the conditions and particular regional characteristics such as size, number of actors, and structure (Heinz et al 2004).

At the applied level, scholars have sought empirically to contrast and evaluate the effectiveness of regional governance of various European metropolitan regions (Salet et al. 2003) or have started to develop richer models of regional cooperation based on case studies. There is considerable evidence that

various forms of regional governance cooperation co-exist and that regions tend to develop their own solutions depending on local circumstances (Salet et al. 2003; Balducci et al. 2004, Heinelt et al 2011). In Germany, a comparison of 9 different urban metropolitan regions shows that a spectrum of institutionalisation exists from low (voluntary cooperation) to high (with publicly elected regional governance bodies) (Walter-Rogg and Sojer 2006). The governance approach and regional model may in part depend on the urbanisation and administrative structure of a region, i.e., whether a region is monocentric or polycentric, and in part reflect the different state sponsored incentive programmes that foster issue-based cooperation at various scales amongst private, public and non-governmental actors (Fürst 2002).

In particular, this paper will examine the city-region of Stuttgart (Germany), which has a formalised regional government and directly elected representatives coordinating planning measures amongst 179 communities. The paper will focus on regional issues, development goals and objectives, the experiences of actors, and the planning framework in place. We will furthermore look at emerging challenges such as the transition of society to a low carbon state, necessary adaptation of climate change, and the need to build more sustainable livelihoods while maintaining and enhancing quality of life. It is unclear how regional cooperation will address these challenges or whether there is a need to re-conceptualise the city-region first in order to effectively work towards sustainability (Van der Ploeg and Marsden, 2008).

To shed light on these issues, we shall review the goals of the recent regional plan and examine how their implementation is managed and viewed by communities in the region. The assessment of communities of the plan and the relationship with the regional governance body are paramount. Finally, we examine the highly controversial large scale infrastructure project, Stuttgart 21, and assess its implications for the metropolitan region.

## 2. *National Context*

Germany is a federal nation consisting of 16 States, 13 Bundesländer and Berlin, Hamburg and Bremen, 3 cities that are classified as States. Each State has its own constitution, government and elected parliament and is further divided into a series of counties, municipalities and cities (Scholl et al, 2008). While the federation is responsible for domains of national significance, such as national infrastructure, defence and foreign affairs, the States have sovereignty over the majority of domestic policy domains, such as planning, economic development, education and so forth. As a result, municipalities have considerable autonomy in drawing up land use and development plans within their territorial boundaries.

German municipalities derive their income from a variety of sources, unlike their UK counterparts, which are inordinately dependent on central government grants. Their main sources of income are:

- income from a tax on commerce, a tax paid by local businesses based on their post-tax profit (roughly equivalent to a third of the income of a municipality);
- a proportion of income tax of local inhabitants (approximately another third);
- property tax, which is a tax imposed on land and buildings charged to the owner;
- redistributed tax income from the sale of development land and other investment support from the federal and state governments (Bundesministerium der Finanzen, 2011).

In contrast to local authorities in the UK, which are somewhat impervious to local economic fortunes, German municipalities have a direct financial interest in the local economic viability of their jurisdictions, a form of fiscal devolution that renders them more alive to the needs of their local business communities than their UK counterparts. Municipal sensitivity to local economic conditions helps to explain why the economic crisis in Stuttgart in the 1990s triggered such a radical response on the metro-governance front.

Planning at regional scale is not a new task in the German planning system (Fürst 2002). Associations of local governments existed already as early as in the 1920s and 30s to facilitate regional level land use planning in the Prussian provinces. In terms of policy and legislation there are several elements in the German context that have sanctioned or endorsed regional spatial planning activities. For one, it is the requirement at Länder level to create regional plans, although generally this instrument is relatively weak and there are few levers to compel the traditionally strong local authorities to adhere to the regional planning goals. In Baden-Württemberg the scale and territorial expanse for these regions was defined in 1973 based on territorial areas that are economically linked by networks and commuter flows.

More recently, the Federal conference of the ministers for spatial planning in 1995 introduced an entirely new category of the “metropolitan region” for densely urbanised areas with European and international significance. This new settlement category moved the policy debate beyond what was possible along the traditional Christaller inspired classifications used in German spatial planning of centres and sub-centres. One criteria necessary to achieve the status of metropolitan region is a region’s accessibility across national borders by rail and air. This class of metropolitan region is now recognised officially in the latest

German national spatial report (Bundesamt für Bauwesen und Raumordnung 2005), which identified a total of 11 metropolitan regions with European importance in Germany (Figure 1). The report expressly acknowledges the contribution of these large city regions to economic growth, innovation and competitiveness. Several support and research programmes at the level of the federation as well as the Länder (e.g., MORO) are currently in place with the aim of developing more intelligent governance structures and approaches for metropolitan level governance, or even supra-regional planning and strategic development (ARGE 2010 ). The development of metropolitan level organisation and governance is considered to be key in addressing issues such as globalisation (and economic competitiveness), climate change, and (social) cohesion. Additional objectives at metropolitan planning levels include securing future resources, renewable energy production and knowledge management. City-regions, that is regions and their urban fringe and rural surroundings as planning units have a special status in German planning also because there is a commitment to equalisation and balance in spatial development which seeks to integrate and draw on rural areas in the quest to fulfil the governments directive of growth and innovation in spatial development (ARGE 2010, p. 9).

**Figure 1: Metropolitan Regions as defined in the 2005 National Spatial Plan**



At present, a range of different models for regional planning and governance has been implemented in Germany (Walther-Rogg and Sojer 2006; Kurth 2010). Perhaps the most comprehensive model of regional governance can be found in Hanover, where in 2001 administrative duties of the county and city have been merged to form a much larger “regional county” with comprehensive powers to replace the original multi-tier system of local authorities, counties and districts. The government of the regional county holds all the powers of decision making including healthcare, social housing, social services and infrastructure planning (Fürst and Rudolph 2003).

A second model is that realised in the Region of Stuttgart, where a new entity, the Association of the Region of Stuttgart (Verband Region Stuttgart, aka VRS) was formed to take responsibility for regional spatial planning, regional economic development, landscape planning and marketing. The work of the VRS is legitimised via a directly elected regional parliament. Other regions in Germany currently have more or less loose voluntary agreements of cooperation and networks. These cooperative agreements are often not spatially congruent with the area of the designated region and in many cases focus merely on certain sectoral aspects such as public transport or economics (Walther-Rogg and Sojer 2006; Heinelt et al 2011).

### 3. *Stuttgart and the Stuttgart Region*

The city of Stuttgart represents the urban core of an administrative region – one of twelve – designated by the federal State of Baden-Württemberg (BW) in 1973 for the purpose of regional spatial plan development. The city is also the capital of Baden-Württemberg. The region covers an area of 3654 sqkm and as of 2009 has around 2.67 Mio inhabitants. It is one of the most densely populated areas in Germany and with an average of 730 persons/sqkm has twice the average population density of Baden-Württemberg (Regionalplan Region Stuttgart 2009).

*Figure 2: Baden-Württemberg's 12 regions*



The Stuttgart region has a highly polycentric urban structure, consisting of 179 municipalities. The central city of the region, Stuttgart, is relatively small with a population of just under 600 000, while the surrounding area has over 2 million inhabitants. Nine of the communities in the immediate surroundings hold city status, predate in their history the capital and have a substantial size of between 40.000 and 92.000 residents (Statistisches Landesamt BW, 2009). This peculiar regional settlement structure has been attributed to history and the hilly terrain with narrow river valleys (Plathua and Halder, 2006: 32).

A number of sources from the municipalities that we interviewed in preparation of this paper have suggested that the constraints of limited land resources, and considerable density of economically successful cities and towns in close proximity have early on created a tradition and indeed need of coordination and communication in respect to land use planning between adjacent municipalities. At the same time it can be seen as remarkable that a region with so many wealthy and strong municipalities agreed to the formation of a strong regional body with considerable planning power and influence as traditionally conditions would suggest the development of a looser voluntary network based association (Walther-Rogg and Sojer 2006).

The region is economically successful and boasts relative high income levels and purchasing power and an ethnically diverse population with around 15% consisting of foreign nationals. The roots of this diversity lie in part in policies from the 1970s and 80s when industry invited labourers from Mediterranean nations including Spain, Italy and Turkey to work in Germany. Although these were meant to be temporary arrangements, many workers stayed and brought their families into the country. Unemployment levels in the region have been lower than the average in the state and the country as a whole (4.1% versus 4.6% for BW, and 8.4% for Germany in 2008), despite a strong dependency on export and industrial production. The Stuttgart region is known nationally and internationally for its automotive industry (Porsche and Daimler-Benz) and powerful, innovative small to medium size manufacturing firms in a variety of specialised sectors. In addition, the region is home to a significant cluster in biotechnology and IT.

Stuttgart as the seat of the state government itself has considerable cultural offers, museums, two well-ranked universities and a range of other educational institutions, as well as a (river-based) harbour, and an international airport. While the region is overall well connected via road and rail, a navigable river and the sixth largest airport in Germany, there is a keen awareness amongst business leaders that accessibility and connectivity need to be continually improved to ensure easy transportation of goods and people in and out of the region. There are considerable efforts to improve the region's link with the recently approved – albeit controversial project Stuttgart 21, designed to guarantee the capital's integration in the international West-East rail connection Paris-Budapest.

#### ***4. Cooperative and Regional Planning: The Verband Region Stuttgart***

The current level of institutionalised regional organisation developed gradually over nearly four decades. In 1973, the Land Baden-Württemberg established twelve regions for which regional plans have to be developed by law. In the German planning system regional plans build a bridge between the spatial and economic goals and objectives developed at state level and the land use plans devised by municipalities. Each regional plan therefore needs to build on the guidelines of the spatial plan for the state (and cannot contradict its goals and objectives); plans are typically renewed and updated every 10-15 years. And, while cities and municipalities in the German system are very autonomous, their legally binding land use plans (Flächennutzungspläne) and detailed building plans (Bauleitpläne) need to adhere to the stated goals and policies of the regional plan and they ought to honour in particular guidance on development axes, commercial hubs and open space preservation. Sectoral plans (e.g., transport) also should refer and implement the goals and objectives outlined in the regional plan. Regions bordering other states must coordinate objectives across boundaries where necessary (e.g., with Bavaria or Hesse, see Figure 2).

One of the 12 regions was the Region Mittlerer Neckar (Mid-Neckar Region). It consists of 179 communes, which are organised into 5 counties (Böblingen, Rems-Murr, Esslingen, Ludwigsburg and Göppingen) and the city of Stuttgart. In view of the economic crisis in the late 1980s and beginning 1990s, resulting in a massive loss of work places in the automotive industry, there was a political move to strengthen regional collaboration. In 1994, the former regional association was replaced by a new kind of institution: the Verband Region Stuttgart (VRS). The VRS was given greater powers and responsibilities which are legitimised by virtue of a directly elected regional assembly. This quite radical change makes the region unique in comparison with others. The move was mostly driven by an economic recession which impacted greatly on the automotive/manufacturing based region. Pressures exerted by the population, and especially from major businesses in the region, led to a paradigm shift in the attitudes of the mayors and councils who agreed to transfer powers and resources to the new institution to strengthen cooperation and promote a more coordinated form of economic development in the region (Heinelt, et al 2011).

##### ***4.1 Organisation and Structure***

As explained above, the VRS derives its legitimisation from the directly elected regional parliament. Representation for the 91 seats in the regional assembly is determined proportionally based on the population in the 5 counties and the city of Stuttgart. According to this formula, the city of Stuttgart has 22 seats, the counties of Ludwigsburg and Esslingen have 19 seats each, Göppingen has 7 seats, and Rems-Murr-rural district and Böblingen have 12 seats each. A wide range of political parties are represented (Table 1); representatives include professionals and interested citizens as well as several of the region's mayors and county councillors (Landräte).

*Table 1: Stuttgart's regional assembly political profile: 2009 and 2004*

	2009 votes	2009 seats	2004 vote change	2004 seats change
Christian democratic party	30.9%	29	-7.8%	- 9
Social democrats	18,2%	17	-2.8%	- 3
Free voters	17,1%	16	+3.1%	+3
Green party	16.2 %	15	+3.5%	+3
Liberal democratic party	9.5%	8	+5.6%	+5
Left party	3.2%	3		+3
Republicans	2.5%	2	-2.1%	- 2
Ödp	1.6%	1	+1.3%	+1

The assembly selects from its ranks a chair (non-paid position) to lead the assembly over a 5 year legislative period as well as an executive director for the period of 8 years who heads the VRS regional office. Aside from 3-4 meetings of the parliament over a year, members also work in at least one of three committees intensively to set goals and objectives and monitor adherence of the member communities to regional planning goals. Each committee has 30 members and membership is organised based on party representation. The economics committee meets 3-4 times, whereas the transport and planning committees meet on a monthly basis. The work and decisions of the VRS are implemented with the support of a relative small team of planners and technical staff (ca. 50 employees) based at the head office in Stuttgart.

#### **4.2 Responsibilities, Tasks and Activities**

At present the VRS is responsible for a range of region-wide tasks such as

- **Regional planning** (determines settlement patterns, development axes, locations of commercial and retail development and protected open space)
- **Landscape framework planning** (is a prerequisite for the regional plan and includes an inventory of land and water resources, links landscape to climate change mitigation, determines areas for open space preservation and the conception, planning and implementation of a landscape park for the region)
- **Regional transport planning and public transit** (including planning and operating regional light rail public transit)
- **Parts of waste management** (the VRS manages mining waste and toxic soils regionally)
- **Regional economic development** (aside from guidance on location planning for commercial and industrial development; the VRS works with its partner the Wirtschaftsförderung Region Stuttgart (WRS) to support economic development)
- **Regional tourism marketing** (the VRS in partnership with the Regio Stuttgart Marketing and Tourismus GmbH promotes the region as tourist destination)

Furthermore, the association has the right to voluntarily take on tasks in the fields of culture, sports, events and trade fairs at the regional scale. The VRS uses this opportunity currently to work with a

number of partner organisations to promote the region's social, economic and cultural assets (see 4.5.1, VRS, n.d.).

While these competences are comprehensive compared to other regional associations in BW or Germany, the partial competency of the VRS in the area of public transit (limited to managing and operating the regional light rail S-Bahn) have led to calls to pass greater powers to the VRS especially in respect to public transport. Proponents of an expansion of powers have argued that particularly for public transit provision this would create efficiencies as the complex and tedious coordination of schedules and connections between different service providers causes unnecessary expense. A strengthening of the powers of the VRS would require however a state act and political leaders in the past have failed to secure sufficient support. Nevertheless, prior to the state election in March 2011, the leader of the Social Democratic Party supported stronger regional powers for the VRS, with a suggestion that the VRS should receive responsibilities not only for all public transit in the region but also for hospitals and social services (Stuttgarter Zeitung 2010).

#### *4.2.1 Regional Planning*

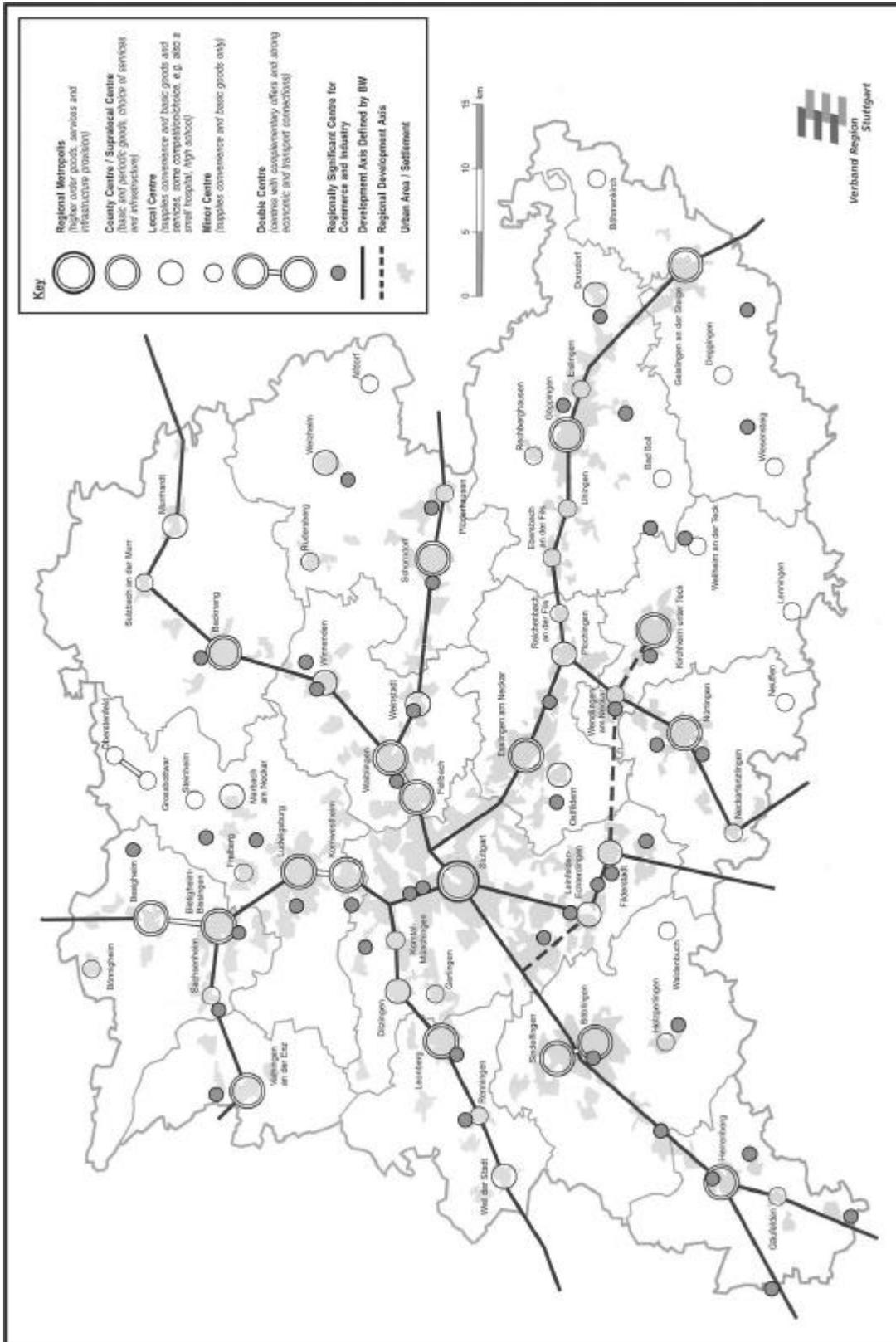
One of the main tasks of the VRS is regional planning. The regional plan is a substantial document which is legally binding for the land use planning for all municipalities, large and small, in the region. The plan establishes key goals and objectives for the future spatial organisation and development of the region and provides guidance for the development of the regional settlement structure by defining areas which should remain peripheral or rural and which should be developed further as urban centres (Figure 3). It also determines development axes along which retail, commercial and housing needs should be focused. At the same time the plan determines areas for open space protection. Regional plans are updated every 10-15 years. In 1998, the VRS passed its first regional spatial development plan. A new, updated regional plan for the Stuttgart Region was approved by the elected assembly in July 2009. The current plan focuses on the dual goals of:

- (1) facilitating economic prosperity with sufficient housing and retaining of employment and development of new employment opportunities in the region, and
- (2) protecting the diversity of the landscape and open spaces allowing for recreation near towns and cities.

Needless to say, this requires a frugal use of natural and financial resources. So, while one of the targets is to attract more knowledge based, high tech industries and support innovation and enterprise to bolster international competitiveness of the region, this is complemented with aims to reduce greenhouse gas emissions and mitigate effects of climate change at local and regional level. A large section of the framework focuses on outlining goals and objectives for the development of a sustainable intermodal transport network in the region as well as infrastructure provision for waste management and renewable energy production. Transit oriented approaches to development are favoured designating more development in cities and towns along existing transit routes than in more rural areas. This is true for both

housing and commercial development. In addition, the plan embraces gender mainstreaming as well as providing equal opportunities for disabled and elderly and mobility for all. The latter is going to be achieved by a strategic and networked multimodal approach.

Figure 3: Regional Plan



#### 4.2.2 *Regional Open Space Framework*

The regional plan has several key instruments to help shape the organisation and preservation of the landscape and its natural productivity. These are further developed in the open space framework (Landschaftsrahmenplan). One such instrument gives certain land uses priorities over others while the second instrument protects areas from uses other than the designated ones. In addition, areas are being identified to protect natural resources, and support flood management and prevention. Areas for agricultural use, habitat protection, forestry and drinking water are also identified for protection. The combined aim of these instruments is to create regional green corridors and buffers and identify areas suitable for contributing to the creation of a green open space network.

A few overarching objectives of the plan relating to open space and landscape planning are notable. First, the plan begins to link the potential of mitigating climate change with the provision of green infrastructure. The plan stipulates that forested areas in the region are to be maintained and deforestation is to be limited to the absolute necessary. Although it is not spelled out – this will maintain the current level of carbon sequestration, while also contributing to other goals such as enhancing the quality of life in the region. Any loss of forested land is to be mitigated in close proximity to the loss. Moreover, vegetated open spaces are clearly identified as sources of cooler fresh air and are to be used strategically in mitigating air contamination and urban climate impact (such urban heat islands). Details of the open space planning and area designation can be found in the so-called landscape plan that is traditionally produced in parallel to the regional plan. Second, the plan also promotes the long term goal of the establishment of the Landscape Park Region Stuttgart, which is to be contributing to a network of ecological biotopes and recreational opportunities for residents of the region. The planning and implementation of such a park which is to be secured across municipal boundaries requires the buy-in of a large number of municipalities. The VRS cannot implement the plan top down and thus is working with soft instruments such as financial incentives to secure the involvement of the local municipalities.

The approach is showing results and step-by-step different sections are being planned and implemented. Masterplans for the Landscape Park Neckar and Rems have already been completed.

#### 4.2.3 *Regional Infrastructure and Transport Planning*

The VRS is responsible for the management and operation of the regional light rail system S-Bahn. The network of the S-Bahn is extensive with six lines totalling 195 kilometres. The lines reach into four of the five counties surrounding the core city and carry an average of 340.000 passengers on a daily basis at intervals of 15-30 minutes. Night time coverage is secured by a night bus system. Passengers can use the service seamlessly with one ticket for all the regional public transport modes including busses, trams and local trains of the national rail network. The system is only partially financed by fares (ca. 55%), the rest of the cost is covered by levy's from the counties serviced and subsidies for regions by the German Government and the state.

The 2009 Regional Plan states that the transport system in the Stuttgart region should support the planned development in the region. For this the transport infrastructure needs to be developed to form a future orientated, powerful and functional system that networks effectively different transport modes in order to

- Foster a sustainable, environmentally and socially sound mobility for the development the area and to strengthen the economic attractiveness of the region
- Support the intra-regional development
- Respond to the changing demands of global competition.
- Secure the region's accessibility nationally and internationally
- Enable the participation of the region in European integration processes

In light of these overarching transport planning goals, the VRS has been an early supporter and is now a minority partner in the project Stuttgart 21, a grandiose urban project which was originally designed in the mid-1990s to guarantee the integration of the Stuttgart region into the European high speed rail network. The project's finances were finally secured and approved in 2007 (Jessen 2008) in conjunction with the improvements on the Stuttgart – Ulm rail line to reduce travel times to Munich, Vienna, Milan etc. The VRS is in fact a minority stakeholder in the project but the bulk of the funding comes from the German Rail company and the state government (Figure 4).

The debate about regional infrastructure has been totally dominated by a single issue – the future of the Stuttgart 21 project. Stuttgart 21 is a large-scale infrastructure and urban regeneration project which, among other things, is designed to free up around 100 hectares of prime inner city land by moving the railway tracks of the existing terminus train station underground and converting it into a through station which requires fewer tracks. The regeneration of the railway site is expected to create space for a third of the city's housing needs over the next 20 years (Oediger 2010). In a city that is desperately short of space, the use of a brown field site for new housing units enables local planners to preserve the green field sites which are desperately needed to mitigate the heat island effects and smog that the city frequently experiences due to its topography. The existing master plan for the site also foresees the extension of a city park and the creation of office and commercial property. On the surface then, it would seem that Stuttgart 21 caters for the multiple planning requirements of an ambitious metropolitan region, which is why the political establishment – in the city, the region, the Land and the Federal government – sponsored the project in the first place. Despite such high-level political sponsorship, embracing every party except the Greens, Stuttgart 21 has provoked the biggest conflict between citizens and the state since 1953, when the Land of Baden-Württemberg was created.

Although various inner city construction phases of Stuttgart 21 were officially approved as early as 2004 (Kiwitt 2010), the project has become progressively more controversial, culminating in an unprecedented confrontation in October 2010, when police used water cannon and teargas to forcibly clear protesters from a Stuttgart park in which trees were about to be felled. Opposition to Stuttgart 21 is fuelled by many factors – particularly cost concerns, ecological fears and the NIMBY factor – all of which helps to explain why the protest movement has succeeded in drawing support from across the entire political spectrum,

from left-wing environmentalists to right-wing CDU supporters. The hardline police tactics transformed Stuttgart 21 into a national political issue when it was made the subject of a debate in the Bundestag as well as a hearing in the Interior Committee, which deals with police matters. The Stuttgart 21 issue had already registered on the federal political agenda a month earlier, when Angela Merkel, the German chancellor, publicly endorsed the project, arguing that “Germany would put its future on the line if it failed to complete high-tech projects that had been sanctioned by democratic bodies” (Wiesmann, 2010). The hardline police tactics were most closely associated with Stefan Mappus, the state premier in Baden-Württemberg at the time, and he was forced to make some cosmetic concessions to the protestors, including the appointment of a mediator in the form of Heiner Geissler, a retired CDU politician who commanded respect across party lines. If Geissler’s appointment was designed to sanitise the Stuttgart 21 issue, it backfired badly because in the televised public hearings the protestors appeared to be much better informed than the official sponsors of the project, tantamount to a public relations disaster for the state government. Following the urban confrontation in October 2010, Mappus told the state parliament that Baden-Württemberg desperately needed the Stuttgart 21 project and therefore his CDU government would continue to support a “groundbreaking concept for the future of mobility” (Wiesmann, 2010). However, when the CDU lost the state election in March 2011 - ending a unique era of one party rule that began with the founding of the state in 1953 - the defeat was widely attributed to the government’s inept handling of the Stuttgart 21 issue. The real winners of the 2011 state election were the Greens, though this was not the first time that they had benefited from orchestrating the opposition to Stuttgart 21. In the municipal election in August 2009, the Green Party had secured a completely unexpected landslide victory, and again this was attributed to their opposition to the Stuttgart 21 project:

“For the first time in a large German city, they had become the strongest parliamentary group in the council, whereas all other parties that supported Stuttgart 21 lost votes and the conservative party who had ruled local politics in Stuttgart since the mid-sixties lost its parliamentary backing. Probably for the first time in a large city, a controversy about a single major urban project has completely changed the distribution of local political power”

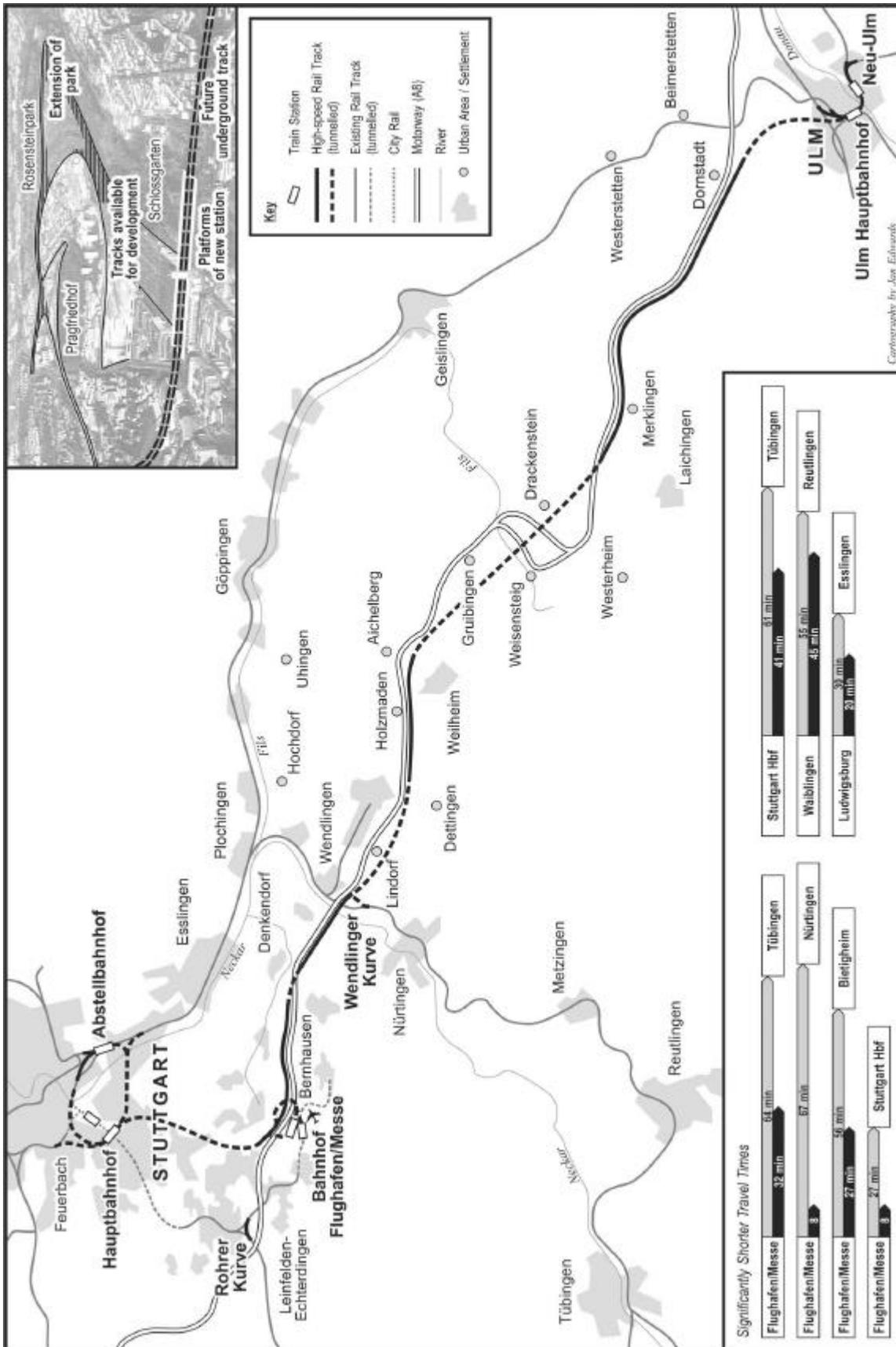
*(Jessen and Mayer, 2010:14).*

Two important messages seemed to emerge from these events. The first is that metro-governance is more a political art than a technocratic exercise, and the sponsors of Stuttgart 21, the former state premier in particular, had signally failed to master this art. If the key attributes of the art are the ability to collaborate, to listen, to learn and to convey compelling urban narratives of the future, it is clear that the traditional political establishment still has a lot to learn. The second message is that urban narratives of mobility, public space and sustainability are highly contested issues and, as such, are totally at odds with the technocratic idea of “best practice”, which implies “one best way” of doing things.

One of the most remarkable aspects of the Stuttgart 21 controversy is that the project could have been presented as an urban exemplar of sustainable development, but the green cause was effectively monopolised by the opposition, with the result that the sponsors of the project were left with a narrow

technical argument about shorter train journeys. We return to the art of metro-governance in section 5, where we address the longer term implications of Stuttgart 21 for the future of the city-region.

Figure 4: Stuttgart 21- new train route location



#### 4.2.4 *Regional Economic Development*

Creating a regional economic development agency for one of the richest regions in the EU might appear misguided, but this is not how it is perceived by state officials or the business community in the Stuttgart region. Indeed, securing the economic future of the region was the single most important motive for the creation of the VRS in 1994. As we argued above, a crisis mentality had gripped the local elite in response to two threats: (i) the deep recession of the early 1990s, which exposed the region's manufacturing sector to the "lean production" challenge from Japan and (ii) the fear of a corporate flight, especially to Berlin, where the federal government had decided to re-locate following German unification. Against this background it is hardly surprising that the Stuttgart Region Economic Development Corporation (Wirtschaftsförderung Region Stuttgart GmbH or WRS) was created in 1995, within a year of its VRS parent body.

Compared to regional development agencies in other European regions, the WRS is a small and lean agency, with a full time staff of 45 employees and a budget of just 8 million Euros, 5 million of which comes from its VRS parent. The latter is also the majority shareholder in WRS, controlling 51% of the shares. Another major shareholder is the Association of Municipalities, which controls 24% of the shares.

Although WRS offers four different types of business support – namely business services, investor services, start-up services, and services for municipalities – half its total budget is devoted to innovation support. In contrast to the grant-based support systems that are common in other regions, the WRS support system emphasises knowledge brokerage activity because this is what resonates most for local firms. Two prominent examples of such knowledge brokerage activity are the network support programme and the competence and innovation centre programme (Fleischmann 2010).

In the case of the network programme, the WRS helps to broker a total of 10 networks covering the following sectors: biotechnology, creative industries, energy and environmental technology, health, ICT, mobility and the automotive sector, university start-ups, the film sector, open source technology, and the music business. Although largely sector-based, these networks help start-up companies to meet established firms, fostering an infusion of new ideas that helps to keep mature firms on an innovative footing. This is especially the case in the automotive sector, where firms like Daimler and Bosch are at the forefront of new technologies like fuel cell technology and new conceptions of sustainable mobility.

The competence and innovation centre programme began in 1999 and it has evolved to the point where more than 450 firms (mainly SMEs), 50 university institutes and research facilities and 15 municipalities are actively involved in a programme that has to date created 14 centres. The fundamental aim of these centres is to accelerate the commercialisation of research results by fostering inter-organisational collaboration and knowledge exchange. While the WRS helped to fund the original set up costs of the centres, all of which are housed in the municipalities that won the right to host them, they have to subsist on membership fees, a condition which is designed to ensure that they remain commercially alert and therefore relevant to their member companies. Even so, some centres have been much more successful

than others and the WRS freely concedes that the performance of some centres (environmental engineering centre for example) has been disappointing.

Taking the WRS business support system as a whole, the main point to note is that, while it is a very modest function in and of itself, the WRS is part of a very sophisticated regional innovation system, where the needs of small firms are especially well catered for through such institutional networks as the Steinbeis Transfer Centres and the Fraunhofer Gesellschaft, as well as a Chambers of Commerce (IHK) network that is second to none in Europe (Cooke and Morgan, 1994; 2000).

#### 4.2.5 *Tourism Marketing*

The VRS promotes tourism in partnership with the Regio Stuttgart Marketing and Tourismus GmbH in which it is a stakeholder. It maintains with its partners a welcome centre at the Stuttgart airport with information for arriving travellers. Over the last years the region has progressed its visibility in terms of motor/car tourism with its two new high profile car museums (Mercedes-Benz and Porsche Museum), but the region has also considerable historical and cultural assets including the residence of the former kings of Württemberg in Ludwigsburg and the historical city centre of Esslingen.

### 4.3 *Financing Regional Governance*

Regional governance has its price. The VRS at present is financed through contributions from the Land Baden-Wuerttemberg, three different levies (association, transport, waste) from its member communities, income from running the regional rail system (S-Bahn) as well as project funding for which the VRS applies regularly from the Land, the federal government, the EU or private sector sponsors to bolster its budget. Around one quarter of the budget is derived from the public light rail transport levy (Table 2) – however this is also the largest expense item (see also 4.2.3). The budget for 2010 total is to be 290 Mio Euro with the transport levy rising from 60 to 75 Mio in 2010 (Table 2).

**Table 2: Transport levy from different participating counties (note: Göppingen does not benefit from the S-Bahn network and therefore does not pay) (source: VRS website)**

	Levy 2009*
City of Stuttgart	13,79 Mio €
County Böblingen	10,81 Mio €
County Esslingen	13,86 Mio €
County Ludwigsburg	13,87 Mio €
Rems-Murr-rural county	11,78 Mio €
Total	59,77 Mio €

### 4.4 *Evolution of Regional Governance and the future of the VRS*

The Stuttgart city region is not static but has become a highly dynamic construct albeit currently geographically bounded by long established traditional administrative boundaries. Nevertheless, similar

to other European regions (van der Heiden 2010) the VRS has for example, opened its own lobbying office in Brussels in parallel to the offices that the Land BW maintains, (Blatter 2004) and applies regularly for project based funding from the national government and the European Union to support ambitious projects and participate in new initiatives which help to position the region in a competitive European network of cities and raises its profile at the European and international state. The VRS forming the core of a larger territory has now also become part of a Metropolregion with European significance (Map 1) designated by the German government. In fact the VRS was chairing for several years the forum of German metropolitan regions (Initiativkreis Metropolregion, IKM) and is also active in the European wide network of metropolitan regions METREX. In a recent project the Stuttgart Region explored future activities with the four adjacent regions of Heilbronn-Franken, Neckar-Alb, Nordschwarzwald and Ostwürttemberg (ARGE 2010). These five regions cover 40% of the area of BW and are home to about half the population of BW.

#### **4.5. Regional Planning in Practice**

##### *4.5.1 Working with Partners*

The VRS while a classical new government tier works not only within formal structures but has developed a network of partnerships with other associations which may be operating in parts of the region or in an area that is greater than the region. For example, over the last three legislative periods a number of additional specialist associations have established themselves, or have been established through the initiative of the VRS to help improve the environmental, social and economic conditions in the region (Table 3). In effect, these networked relationships extend the reach and influence of the VRS whose actual remit is clearly described in the act that created the association in 1994. And although the remit was extended in some areas in an amendment the collaboration with various partner organisations reflects the planner's recognition that improving quality of life and sustainability is not possible without a holistic and comprehensive approach that involves many factions and sectors.

**Table 3: List of organisations and associations working in collaboration with the VRS**

Name	Remit/mission	Established
Wirtschaftsförderung Region Stuttgart GmbH	Regional economic development agency like organisation, which supports network building, new entrepreneurs and seeks to attract investors and new businesses into the region	1995
Medieninitiative	Association of more than 400 members from the creative industries (photographers, webdesigners etc). The association facilitate the identification of location for film crews and helps to find resources for large music events.	1997
Forum Region Stuttgart e.V.	Non partisan club of citizens and entrepreneurs who aim to create more awareness of the values and characteristics of the Stuttgart region by residents within the region and other regions.	1994

Regio Stuttgart Marketing and Tourismus GmbH	Official tourism partner of the Region Stuttgart with the goal to promote the region for city and group tours, for events, congresses and conferences etc.; The association is supported by 28 cities, the VRS and the chamber of commerce.	
JugendRegion Stuttgart	Organisation that coordinated the activities and services of the various youth organisations in the region.	
KulturRegion Stuttgart e.V.	Association of 36 municipalities in the region and two other cultural organisation which organise the cultural activities in the region but also contribute to the discourse and idea creation for the future of the region	1991
SportRegion Stuttgart e.V.	The goal of this organisation is it to improve the coordination between communal sports associations and clubs and contribute to the development of sporting talent and event marketing and overall improve the image of the region	1996
FrauenRatschlag Region Stuttgart	Unique model of involvement of women in politics to support gender specific approaches in land use/regional and transport planning founded by women from local politics, the churches, education etc.	1995
Dialogforum der Kirchen in the Region Stuttgart	Interfaith association with a mission to emphasise aspects beyond economic growth in the region including social well being and quality of life factors	1994

(source: VRS website, translation by A Frank)

#### 4.5.2 *The Verband and its Communities: A Cooperative Dialogue*

Considering the number of different local authorities with legally protected planning rights, it is surprising that the regional plan and its rather stringent goals can be implemented. Nevertheless this seems to be the case. In fact, planners working on the technical level in two of the larger communes declared that overall the communities seem to recognise very well the benefits that are gained from being part of the VRS. Clearly none of the communities could afford to make representations at the large real estate and investors, or tourism fairs. Furthermore, the funding for the nature park initiative represents welcome incentives to drive forward green space planning locally. The management of the S-Bahn also is seen as valuable as commuter traffic in the region is considerable.

Many of the planners interviewed stated that the working relationship with the VRS was very positive and constructive and that there is a lot of will to cooperate and find mutually agreeable solutions for any issues and conflicts that may arise from what the city wanted and the regional plan prescribed. It was suggested that one reason for the good cross-municipal work relationships could stem from the fact that many of the planners and especially transport planners know each other from university or working in the region for many years and this informal network helps them to communicate amongst each other and share ideas, plans, issues early on which help to address problems in the pre-plan and development phase.

One of the keys to this positive relationship is not to be confrontational but seek dialogue early. For example, one city with a local firm that expressed a strong desire to expand and for this requiring land

adjacent to existing property to develop recognised that allowing this would be in contradiction with the regional plan which designated a green buffer in exactly that area as an important route for cool air exchange along the Neckar valley. So, city planners started a dialogue with the VRS to develop a solution that would allow the city to provide the required land and secure the additional employment without jeopardizing the underlying aims of the regional plan. This required additional evaluations and studies on biodiversity, airflows and a stringent master plan prescribing the height, volume and orientation of future buildings on the land initially reserved for open space.

The regional plan also has clear guidance on the location of large retailer such as IKEA or garden centres only in cities of a certain size (so called middle centres). In order to protect the vitality of inner city retail further, the plan also limits retailers such as furniture houses to sell goods such as small decorative articles or dishes that can be offered in smaller stores in the inner city, via the floor area that can be dedicated to such goods in city fringe locations.

Again, one of the planners interviewed for this study explained that the city discussed the plan's limitations with interested retailers and while a few declined to cooperate one of the interested furniture houses amended its concept and is now very successful with the location. The limitation of small goods provision to 350 sqm was contractually integrated in the building permit granted and the regional planning goals are upheld.

By contrast, municipalities that have behaved in a more aggressive and opportunist way (by unilaterally trying to secure large retail developments in their area for example) have lost ensuing law suits with the VRS because such developments contravened the regional plan.

#### *4.5.3 Sub-regional Planning and Cooperation*

In addition to working through the VRS, many communities are also working in smaller task groups together on planning projects and initiatives which they feel may be too localised to be of relevance to the entire region. For example the city of Stuttgart is working with one of adjacent northern municipalities to address the need for a logistics centre that is desperately needed but so far no space has been allocated in a land use plan due to Nimbyism of the communities. More successful have been co-financing arrangements between Stuttgart and the southern communities to find an area for the new modern fairgrounds.

## 5. *Conclusions: Achievements and Challenges*

By the inter-communal standards of Europe and North America, where competition often trumps cooperation, the VRS constitutes one of the most successful examples of regional cooperation. This achievement seems all the more remarkable when we remember that the Stuttgart Region consists of a staggering 179 municipalities, each of which has its local autonomy guaranteed by Article 28 of the Basic Law. According to our interlocutors, the lack of inter-communal fighting for short term gains in the Stuttgart Region is largely attributable to the fact that nearly a third of elected members of the regional assembly are also mayors of cities within the VRS. This dual function helps to ensure that mayors, who are quite powerful in the German planning hierarchy, have a wider and more nuanced perspective than their own local turf, and this helps to temper the parochial and opportunistic behaviour commonly associated with local boosterism.

Inter-communal political cooperation is reinforced at the professional level by a high degree of formal cooperation in the planning community, where planners freely admit that informal know-how trading and a common educational background have helped to fashion a high degree of trust in inter-communal negotiations. That inter-communal relations are not all sweetness and light, however, is evidenced by the fact that some municipalities have sought to negotiate bilateral deals with firms such as IKEA, deals that manifestly contravened the regional plan, and in these cases the rule of law was invoked to settle jurisdictional disputes.

What has been achieved in the Stuttgart Region is increasingly acknowledged by experts on spatial planning and public administration, one of whom goes so far as to say:

“Probably the Stuttgart model is best suited to the situation of German metropolitan regions and more future-fit. The regional parliament provides the regional association with sufficient leeway vis-à-vis the restrictive local interests, at the same time offering the necessary capacity to resolve regional conflicts via party organisation and majority decision rule. The Region Stuttgart corresponds well to the requirements...for building the organising capacity of metropolitan regions: an administrative organisation, the capacity for strategic networking (given by the association and its director), leadership (embodied in the director), vision and strategy to enable regional collective actions, and the capacity to mobilise political and societal support”

*(Fürst, 2005:162).*

Notwithstanding these achievements, the VRS faces a number of challenges in the future, especially with respect to economic development, connectivity, and climate change, each of which merits some attention.

### 5.1 *Innovation and Economic Development*

Although the Stuttgart Region has enjoyed considerable economic success since 1994, when the VRS was founded, this achievement cannot be attributed to regional governance alone. The VRS is only one variable in the regional economic equation and, because it is impossible to isolate the causal effect of a single variable, it is therefore impossible to attribute local economic outcomes to particular forms of sub-

national governance, a point that researchers have made in Canada and Europe (Wolfe, 2009; Harding, et al, 2010). While the “institutional turn” in economic geography has rightly drawn our attention to the array of non-market institutions involved in economic development – public as well as private, social as well as economic, informal as well as formal – it tends to underplay the role of the firm, still the most important institutional vehicle for innovation and economic development. For all the institutional richness of the Stuttgart Region, a dense network of inter-firm relations lies at the heart of its economic success and keeping the regional economy on an innovative footing is the primary economic challenge. Two aspects of this challenge deserve to be mentioned here, namely: the changing nature of the innovation process and the looming labour shortage.

Because it recognises that firms learn best from other firms, the VRS has sought to broker networks in which and through which local firms can engage with each other and with other knowledge-based institutions to keep abreast of innovation. However, the sector-based networks which form the basis of VRS business support may be too limiting and too self-referential when firms need to combine heterogeneous sources of knowledge spread across different sectors, technologies, and organisations – the “combinatorial knowledge dynamics” that characterise the frontiers of innovation today (Strambach and Dieterich 2011). These multi-sectoral knowledge flows are as pertinent to “old” industries like the automotive industry as they are to any other industrial sector, perhaps even more so because the auto industry, being highly integrated with other sectors, provides fertile ground for generating new knowledge-intensive business services, especially in the Stuttgart Region, where the complexity of the innovation process sets a premium on close proximity between the key actors, and this means cognitive as well as physical proximity (Strambach and Dieterich 2011; Morgan 2004; Healy and Morgan 2010).

Another, more immediate economic challenge lies in the looming labour shortage, a consequence of the “demographic timebomb” in Germany. In the recent past the Stuttgart Region relied on flows of migrant labour from East Germany to meet surging labour market demand, but these flows have dried up, partly because of the lack of affordable housing in the region. The VRS is becoming increasingly agitated by the economic effects of demographic decline because, on present trends, it cannot see where its labour force will come from in 2020, when the region will require 10% fewer spaces in kindergarten (Kiwitt 2010).

## **5.2 Connectivity**

State-of-the-art connectivity (embracing both digital connectivity and physical connectivity) is one of the key planning issues for cities and regions that aspire to be in the premier economic league in the 21st century. Since time not distance is the metric on which cities benchmark themselves, high-speed rail is assuming ever more importance in the transport mix because, apart from being the most ecological mode, it is also deemed to be the fastest mode for short to medium distance inter-city journeys in Europe. A case in point is the success of the high speed train service between Stuttgart and Paris which commenced in 2007 and reduced the journey time from 5 hrs 55min to 3hrs 40 min. As of 2012 there are now 290,000 passengers per annum travelling by train versus 269,000 selecting to fly the Stuttgart – Paris route. Due

to the declining demand two airlines have ceased servicing this route and only one carrier remains with five daily flights (Stuttgarter Zeitung, 2012). It is in this context – the context of inter-urban connectivity comparisons based on time not distance - that the VRS locates Stuttgart 21, a project it deems to be essential to the Stuttgart region if it is to remain a premier economic location.

The victory of the Greens in the state election posed a serious dilemma for the Stuttgart 21 project: either it was totally abandoned, in which case the sponsors would have incurred hefty financial penalties for failing to honour their contractual obligations, or it would be allowed to proceed in a modified fashion, which could damage the Green Party for its failure to honour its manifesto commitments.

From a VRS perspective, the Stuttgart 21 crisis has had three damaging consequences. First, it means that the Stuttgart Region has found it very difficult to solve its rail connectivity problem because, of the five directions, only the high speed route to Mannheim is considered adequate. Second, Stuttgart 21 has polarized the Regional Assembly, the first time the body has been polarised since it was formed in 1994, and this sets a dangerous precedent for a region which prides itself on consensus politics. Third, the failure to deliver a complex urban project like Stuttgart 21 undermines the region's reputation for being a technologically competent region.

The challenge for the VRS is to recognise that metropolitan governance is more a political art than a technocratic exercise, so much so that it needs to invest much more time and effort in helping its partners to appreciate the critically important role of popular planning, which means that complex urban projects are effectively co-produced with civil society. Admittedly, the planning process and practices were very different when the Stuttgart 21 project was originally conceived. Then infrastructure planning was a highly technocratic and top-down process, with little perceived need for political communication and popular participation. Today almost any urban intervention is considered a socially negotiated process in which contested conceptions of public space, social and spatial mobility, regeneration and sustainability vie for political attention and the successful outcome has to be established through democratic deliberation or through what some planning theorists call “collaborative planning” (Healey, 1997).

The Stuttgart 21 controversy appears to have been resolved through the medium of a state referendum in 2011, when a majority of voters (58.9% to 41.1%) voted to continue the project on a turnout of 48.3% of the eligible electorate. There was a higher turnout in the city of Stuttgart itself, where 67.8% voted, of which 52.9% voted to continue the project. The referendum delivered two tangible benefits for the Greens: (i) it enabled them to save political face by continuing with a project that they had opposed in their election manifesto and (ii) they managed to avoid the large fines that a cancellation of the project would have entailed.

### ***5.3 Green Space Planning and Climate Change***

As the Stuttgart region is one of the most densely populated areas in Germany protecting and actively improving the open space areas in the region is a key objective of regional planning and the regional plan for the Stuttgart region. The primary reasons are for one the maintenance of a good level of quality of life

in the region and the provision of opportunities for day and weekend recreation for urbanites. Green/open space planning (or landscape planning) is generally considered a vital element of sustainable spatial planning and development in Germany as it aims to protect what is nowadays labelled ecosystem services (including fertile soils for agriculture, areas for drinking water and mining, wildlife habitat etc).

The strict open space protection currently adopted by the VRS and its regional plan is not uncontroversial – particularly in smaller more rural municipalities which are frequently restricted to minimal residential and commercial growth. In some of the interviews, both planners and mayors have criticised the lack of flexibility in the regulation and the inability to locate land uses that do not seem directly harmful to the protection of open space such as the expansion of a horse riding facility for a local club. The issue is here probably a larger one as municipalities that protect ecosystem services and provide recreational and leisure opportunities by foregoing development do lose out on tax income and revenue for local coffers. The income generated by low impact tourism is minimal in comparison to that derived from commercial and residential development and at present there is no systematic approach to compensate, award or pay municipalities for “non-development.” One mayor lamented the lack of a clear strategy for the future purpose of rural areas as he did not want his community to be merely the “zoo” for the rich urbanites coming along for the weekend leisure trip. There are serious concerns like elsewhere in rural areas how services, retail etc can be maintained in an aging community with restricted development opportunities.

Perhaps somewhat ironically this protection of landscape and open areas also contravenes with renewable energy production as interviews revealed problems of municipalities to attract investors for a wind farm (on a suitable and labelled site, which requires however costly provisions based on the landscape protection at the same time) or a biofuel plant.

One aspect gaining importance in this area is the conservation of landscape to mitigate the effects of climate change and global warming. Experts suggest that a network of green areas needs to be created and maintained to provide for a cooling of air and support cold air exchange with the hotter urbanised areas. This is particularly important as the core area of the Stuttgart region is susceptible to poor air quality due to its topography and industrial production. In order to address these issues around air quality the VRS recently financed a study on the climatic characteristics of the region to establish a baseline to monitor future development.

Beyond the required planning of green and open spaces as part of the landscape element of the regional plan, the VRS has developed the concept of the landscape park Region Stuttgart as a strategy to guide municipalities in actively protecting and shaping the landscape and create a network of linear parks and areas. There are several subsections following the major rivers in the region such as Neckar and Rems. The municipalities along those rivers have the opportunities to apply for match funding for projects that will enhance the quality and protect the landscape. The landscape park funding is for many small municipalities in the peripheral areas of the region the most tangible and visible benefit from the VRS and the regional activities which they subsidize through various levies and legally binding contributions.

#### ***5.4 The Art of Metro-Governance***

The unprecedented controversy that surrounded Stuttgart 21 is a sobering reminder that metro-governance is more of a political art than a technocratic exercise. Fashioning the Stuttgart metro-region has been a genuine achievement, but it is also a process rather than an event and it requires constant vigilance to ensure that the new governance arrangements are actually delivering real benefits to all members of the association, i.e., the small municipal partners at the periphery as well as the large partners at the centre. Especially, smaller municipalities have been critical of the VRS because, being small, they do not have the human and financial resources to secure their interests in the regional plan. In the future such small municipalities might be allowed to benefit from innovative financial instruments that, for example, compensate peripheral areas for non-development, which could be one way to strike a balance between the twin goals of economic development and ecological integrity in a region that values both of these things.

The art of metro-governance consists of striking these fine balances - between economy and environment, between large and small municipalities and of course between the VRS and its local government members. The relationship between the VRS and its members may be the next big challenge because, if it acquires further powers and responsibilities for public service delivery, this reform could threaten the delicate equilibrium between the traditional structure of local government with its local accountability mechanism and the new phenomenon of metro-government. To pre-empt local opposition to its future growth, the VRS will need to demonstrate that metro-governance, far from being a purely institutional innovation, actually delivers a whole series of tangible economic, social and ecological benefits.

## 6. References

- ARGE der Regionalverbände der Europäischen Metropolregion Stuttgart (2010). Von der Vision zur konkreten Projektarbeit: Das Moro-Projekt "Metropolregion Stuttgart" Bericht zum Modellvorhaben der Raumordnung (MORO) "Überregionale Partnerschaften – innovative Projekte zur stadtreionalen Kooperation, Vernetzung und gemeinsamen grossräumigen Verantwortung". VRS/Fischbach Druck: Reutlingen.
- Balducci, A., K. R. Kunzmann and F. S. Sartorio (2004). Towards Creative City Region Governance in Italy and Germany. *DISP* 158: pp 2-4.
- Blatter, J. (2004) Metropolis unbound, rebound or unbundled? New Forms of Regional Governance in German Metropolitan Areas. Paper presented at the ECPR workshop in Uppsala 13-18 April 2004.
- Brenner, N. (2003) Metropolitan Institutional Reform and the Rescaling of State Space in Conetemporary Western Europe. *European Urban and Regional Studies* 10(4) 297-324.
- Brenner, N. (2004). *New State Spaces: Urban Governance and the Rescaling of Statehood*. Oxford and New York: Oxford University Press, 2004.
- Bundesamt für Bauwesen und Raumordnung (2005) Raumordnungsbericht 2005. Vol. 21 (especially Chapter 6.1 "Metropolräume", p. 177-190)
- Bundesamt für Bauwesen und Raumordnung (BBR) und Bundesministerium für Verkehr Bau und Stadtentwicklung (BMVBS) (2007) Initiativkreis Europäische Metropolregionen in Deutschland. Werkstatt: Praxis Heft 52. Bonn: BBR und Berlin: BMVBS. [http://www.region-stuttgart.org/vrsuploads/WP\\_52.pdf](http://www.region-stuttgart.org/vrsuploads/WP_52.pdf) (need to print)
- City Regions Commission (2005) *Seeing the Light? Next Steps for City Regions*. London: New Local Government Network.
- Cooke, P. and K. Morgan (1994) The regional innovation system in Baden-Wurttemberg. *International Journal of Technology Management*, Volume 9 (3/4), pp.394-429
- Cooke, P. and K. Morgan (2000) *The Associational Economy: Firms, Regions and Innovation*. Oxford: Oxford University Press
- Davoudi, S. (2010) Defining the 'city-region.' *Town and Country Planning*, April, pp 180-185.
- Dialogforum der Kirchen (n.d.) Dialogforum der Kirchen – seit 1994 Activ. Online: <http://www.dialogforum.de/Geschichte.html> (accessed June 2012)
- Federal Institute for Research on Building, Urban Affairs and Spatial Development (BBSR) (2011) *Metropolitan areas in Europe*. BBSR online publication 01/2011 - ISSN 1868-0097. [http://www.bbsr.bund.de/cln\\_032/nn\\_857258/BBSR/EN/Publications/OnlinePublications/2011/DL\\_ON012011,templateId=raw,property=publicationFile.pdf/DL\\_ON012011.pdf](http://www.bbsr.bund.de/cln_032/nn_857258/BBSR/EN/Publications/OnlinePublications/2011/DL_ON012011,templateId=raw,property=publicationFile.pdf/DL_ON012011.pdf)
- Fleischmann, (2010) Personal Discussion 8 November 2010.
- Fürst, D. (2002) *Metropolitan governance in Germany*. Hannover: University of Hanover.
- Fürst, D. (2005) Metropolitan governance in Germany, in H. Heinhelt and D. Kübler (eds) *Metropolitan Governance*. Abingdon: Routledge, pp. 151-168
- Fürst, D. and A. Rudolph (2003). The Hanover metropolitan region. In: Salet, W., A Thornley and A. Kreukels (eds). *Metropolitan Governance and spatial Planning*. London Spon Press.
- Glaeser, E. (2011) *Triumph of the City: How Our Greatest Invention Made us Richer, Smarter, Greener, Healthier and Happier*, London: Penguin.
- Haag, H. (2007) *10 Jahre Medieninitiative Stuttgart*. Press release. Online <http://six5.region-stuttgart.de/sixcms/detail.php/258306>

- Harding, A. (2010) *The Case for Agglomeration Economies in Europe*. Brussels: ESPON
- Haughton, G. , P. Allmendinger, D. Counsell, and G. Vigar (2011) *The New Spatial Planning: Territorial Management with Soft Spaces and Fuzzy Boundaries*, London: Routledge.
- Healey, P (1997) *Collaborative Planning: shaping places in fragmented societies*. London: Macmillan Press.
- Healy, A. and K. Morgan (2012, forthcoming) Spaces of Innovation: Learning, Proximity and the Ecological Turn. *Regional Studies*,
- Heinelt, H. and D. Kübler (2005) (eds) *Metropolitan Governance: Capacity, democracy and the dynamics of place*. Abingdon: Routledge.
- Heinelt, H., E. Razin and K. Zimmermann (2011) (eds). *Metropolitan Governance: Different Paths in contrasting contexts: Israel and Germany*. Frankfurt/Main: Campus.
- Heinz, W., P. v. Kodolitsch, N. Langel, and M. Reidenbach (2004) *Interkommunal Kooperation in baden-württembergischen Stadtregionen*. Berlin: Deutsches Institut für Urbanistik.
- Jessen, J. (2008) Urban Regeneration and Local Governance. The Case of the Stuttgart region. In: T. Kidokoro, N. Harata, L.P. Suaru, J. Jessen, A. Motte and E. P. Selzer (eds.) *Sustainable City Regions. Space Place and Governance* Tokio. P. 227-246.
- Jessen, J. (2010) Personal Discussion 10 November 2010.
- Jessen, J. and H. Mayer (2010). Regional Competitiveness and quality of Life: The Case of Portland and Stuttgart. *PNDonline* II, pp 1-17. [http://www.planung-neu-denken.de/images/stories/pnd/dokumente/2\\_2010/jessen\\_mayer.pdf](http://www.planung-neu-denken.de/images/stories/pnd/dokumente/2_2010/jessen_mayer.pdf)
- Kiwitt, T. (2010) Personal Discussion 8 November 2010.
- Kübler, D. (2003). *Metropolitan Governance oder Die Unendliche Geschichte der Institutionenbildung in Stadtregionen*. Informationen zur Raumentwicklung, Volume 8/9 : 535-541.
- Kurth, D. (2010). Personal Discussion 8 November 2010.
- Morgan, K. (1999) Reversing Attrition? The Auto-Cluster in Baden-Wurtemberg, in T. Barnes and M. Gertler (eds) *The New Industrial Geography*. London: Routledge
- Morgan, K. (2004) The Exaggerated Death of Geography. *Journal of Economic Geography*, 4 (1): 3-21.
- Norris, D. F. (2001). Prospects for regional governance under the new regionalism. *Journal of Urban Affairs* (5): 557-571.
- Oediger, Personal conversation 10 November 2010.
- Salet, W., A Thornley and A. Kreukels (eds) (2003). *Metropolitan Governance and Sspatial Planning*. London Spon Press.
- Scholl, B., H. Elgandy and M. Nollert (2008). Germany. In: J. Ryser and T. Franchini (eds) *International manual of planning practice* (5<sup>th</sup> edition). The Hague, NL: ISOCARP
- Schulze-Baing, A. (2010). Containing Urban Sprawl? Comparing Brownfield Reuse Policies in England and Germany. *International Planning Studies*, 15 (1): 25-35.
- Scott, A. (2001) *Global City-Regions*. Oxford: Oxford University Press.
- Strambach, S. and I. Dieterich (2011) *The Territorial Shaping of Knowledge Dynamics in Baden-Wurtemberg*, Dept of Geography Paper 1/11, University of Marburg
- Stuttgarter Zeitung ([www.stuttgarter-zeitung.de](http://www.stuttgarter-zeitung.de)). Der TGV hat das Flugzeug abgehängt bei Mathias Bury und Bärbel Nückles. 09. June 2012
- Stuttgarter Zeitung ([www.stuttgarter-zeitung.de](http://www.stuttgarter-zeitung.de)). Stadt, Region und Land. SPD fordert regionales Konzept fuer für Kliniken by Thomas Faltin. P. 19. Tuesday 9 November 2010.
- Van der Heiden, Nico (2010). *Urban foreign policy and domestic dilemmas*. Colchester UK: ECPR press

Van der Ploeg, J. D. and Marsden T.K. (2008) *Unfolding webs: towards a theory of regional and rural development*. The Netherlands: Royal van Gorcum.

Verband Region Stuttgart (VRS) 2009. *Regionalplan Region Stuttgart* vom 22 July 2009. Online: [www.region-stuttgart.de](http://www.region-stuttgart.de)

Walter-Rogg, M. and Sojer, M. (2006). Metropolitan Governance Reform in Germany. Paper presented at the INRS-Urbanisation Conference in Montreal, April 24-25, 2006.

Wiesmann, G. (2010) Move to defuse Stuttgart protests, Financial Times, 7 October 2010.

Williams, R. (1973) *The Country and the City*, New York: Oxford University Press

Wolfe, D. (2009) *21st Century Cities in Canada: The Geography of Innovation*. Toronto: Conference Board of Canada.