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Editors

# Peri-urban futures: Scenarios and models for land use change in Europe



Springer

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# Contents

- 1 Introduction** . . . . . 1  
Kjell Nilsson, Stephan Pauleit, Simon Bell, Carmen Aalbers,  
and Thomas S. Nielsen

## Part I Concepts

- 2 The Dynamics of Peri-Urbanization** . . . . . 13  
Joe Ravetz, Christian Fertner, and Thomas Sick Nielsen
- 3 Rural–Urban Regions: A Spatial Approach  
to Define Urban–Rural Relationships in Europe** . . . . . 45  
Ingo Zasada, Wolfgang Loibl, Regine Berges, Klaus Steinnocher,  
Mario Köstl, Annette Piorr, and Armin Werner
- 4 Tools for Modelling and Assessing Peri-Urban  
Land Use Futures** . . . . . 69  
Dagmar Haase, Annette Piorr, Nina Schwarz, Sophie Rickebusch,  
Franziska Kroll, Hedwig van Delden, Affonso Zuin, Tim Taylor, Marco  
Boeri, Ingo Zasada, Carlo Lavallo, Roel Vanhout, Alessandro Sarretta,  
Felix Müller, Mark Rounsevell, and Simon Bell

## Part II Case Studies

- 5 Introduction to the Research Methodology and Role  
of Stakeholders** . . . . . 91  
Carmen B.E.M. Aalbers
- 6 The Hague Region: Negotiating the Common Ground  
in Peri-Urban Landscapes** . . . . . 99  
Judith Westerink and Carmen Aalbers
- 7 Warsaw: Spatial Growth with Limited Control** . . . . . 131  
Mirosław Grochowski, Piotr Korcelli, Elzbieta Kozubek,  
Tomasz Sławiński, and Piotr Werner

<b>8</b>	<b>Manchester: Re-Inventing the Local-Global in the Peri-Urban City-Region . . . . .</b>	<b>169</b>
	Joe Ravetz and Pam Warhurst CBE	
<b>9</b>	<b>Leipzig-Halle: Ecosystem Services in a Stagnating Urban Region in Eastern Germany . . . . .</b>	<b>209</b>
	Annette Bauer, Dietmar Röhl, Dagmar Haase, and Nina Schwarz	
<b>10</b>	<b>The Montpellier Agglomération New Approaches for Territorial Coordination in the Periurban . . . . .</b>	<b>241</b>
	Françoise Jarrige, Jean-Pierre Chery, Jennifer Buyck, and Jean Paul Gambier	
<b>11</b>	<b>Koper: Beyond the Rural and Urban Paradigm . . . . .</b>	<b>275</b>
	Marina Pintar, Anton Perpar, Andrej Udovč, Marko Zupan, Majda Černič-Istenič, Vesna Miličić, Tjaša Babič, Davor Deranja, Georgi Bangiev, and Andrej Mlakar	
<b>12</b>	<b>Hangzhou: Fast Urbanisation and High Population Growth . . . . .</b>	<b>307</b>
	Martin Spiekermann, Youjoung He, Jianjun Yang, Irene Burkhardt, Fei Yan, Xin Yi, and Stephan Pauleit	
<b>Part III Synthesis</b>		
<b>13</b>	<b>Governance and Sustainability of Peri-Urban Areas: A Comparative Analysis of the PLUREL Case Studies . . . . .</b>	<b>341</b>
	Carmen B.E.M. Aalbers and Katarina Eckerberg	
<b>14</b>	<b>Sustainable Land Use in Peri-Urban Areas: Government, Planning and Financial Instruments . . . . .</b>	<b>373</b>
	Iván Tosics	
<b>15</b>	<b>The Future of the Rural Urban Region . . . . .</b>	<b>405</b>
	Kjell Nilsson and Thomas Sick Nielsen	
	<b>Author Biographies . . . . .</b>	<b>431</b>
	<b>Index . . . . .</b>	<b>445</b>



# Chapter 14

## Sustainable Land Use in Peri-Urban Areas: Government, Planning and Financial Instruments

Iván Tosics

### 14.1 Introduction

In the previous chapter the comparison of the PLUREL case study regions focused on a selection of the strategies adopted in each, including Hangzhou, to try to limit sprawl and to safeguard ecosystem services and quality of life as well as to secure a role for agriculture in the peri-urban. This chapter switches focus to examine the kinds of instruments available to local or regional governments in order to see what potential there is in different regions to control land use change. The chapter looks at the broad picture of Europe and in this case ignores the Chinese case study of Hangzhou because of its completely different governmental model. Within the broad overview the case study regions are used to illustrate different points. However, it should be noted that in the framework of different systems found across Europe, the case studies do not represent all possible types (see Chap. 3).

On the basis that the assumptions used in the PLUREL modelling are correct, the scenarios for land use change in the next 20 or more years suggest that in Europe, the continent with the slowest population growth and, in several countries, demographic growth fuelled solely by in-migration, urban development is likely to lead to continuing sprawl. Furthermore, sprawl might continue not only in growing (in population terms) but also in shrinking urban regions. The further spatial dispersal of the stagnating (and from 2040 decreasing even with in-migration) European population and of businesses is likely to lead to serious consequences, questioning the basis of the economic, environmental and social sustainability of urban development.

Urban sprawl, by its very nature as an outward expansion of urbanising pressures, concentrates on the peri-urban areas which represent the largest land reserves for all types of development initiated by nearby urban centres. From a

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sustainability point of view the crucial question is how can the future development of Europe be de-coupled from the factors leading to urban sprawl?

The first step for any new development in peri-urban areas is land use change. From the perspective of market actors, land owners and developers, this is the 'weakest link' in the whole development process, as they have to get approval from public authorities for their planned land-use changes as a first step. This is precisely the point where the sustainability of future development can be influenced by public actors in the name of protecting public interests.

This chapter focuses on the possibilities of exerting public control over market-driven land-use change processes. Public control is a major problem in peri-urban areas, which are—as demonstrated in Chap. 2—areas 'in between' urban and rural and, in most cases, with no clear affiliation to any public institution or policy which aims first and foremost for sustainable development. In the absence of strongly represented public interests in peri-urban areas, the profit motive of land owners and developers, combined with opportunity-led planning systems, most often leads to significant land-use change, increasing the risk of unsustainable new developments.

Following a brief overview of some of the main theories in this area, the potentials of public control over land-use changes are discussed in three main ways. The first approach assesses the formal, broad framework of the territorial government system and the spatial planning policies which together constitute the institutionalized factors on which any land-use change decision has to be based. The second approach examines the financial systems, sectoral policies and legal regulations which influence the interests and behaviour of private and public actors. The third focus evaluates the options for influencing formal processes by informal means (governance building, strategy development). The chapter concludes by summarizing the lessons learnt from the perspective of local municipalities, who play key roles in the control of land-use change.

The chapter is based on a literature review and the author's own investigations into European formal structures, financial and regulatory policies regarding land use change and spatial development. This country-level knowledge is then confronted with and tested using the information acquired from the case study regions.

## **14.2 Theoretical Background: Diverging Individual and Public Interests**

The URBS-PANDENS (2005) project suggested that when analysing the process of urban sprawl it is useful to distinguish between three types of actors:

- Mobile actors in the Rural–urban Region (RUR): households (low-middle-high income), industry/businesses, offices, retail/leisure centres, etc.;
- Non-mobile private actors in the RUR: key actors in the development process (landowners, developers);

- Non-mobile public actors in the RUR: local and supra-local governments (carrying out planning, regulating, financially influencing, investing/taxing).

In the market economies of Europe spatial processes are determined by the location choices of the “mobile actors”. If the free-market logic of land development prevails, and in the absence of strong instruments such as the UK Green Belt system discussed in the previous chapter, the usual outcome is urban sprawl, as the myriad location decisions of individual private actors are usually based on short-term, self-interested considerations where the costs of public infrastructure and other external effects (e.g. increasing travel times and car use) are not taken into account.

The sustainable development of the city and its functional urban area can be considered as a public value. Market actors (households, developers, businesses, etc.) strive to increase their individual, private benefits which, however, can only be satisfied at the expense of public interests. In game theory this situation is described as the ‘Tragedy of the Commons’ (Hardin 1968). The problem lies in the fact that the gains (returns) and the costs are neither accrued to nor born by the same actors. Moreover, the gains are often abstract and lie in the future (and in classical economics are discounted back to the present) while the costs are concrete and fall due in the present.

How can this situation be conceptualized for the case of peri-urban development? For many people the move from, say, a small flat in the city centre out to a single family house in a newly developed housing estate in a peri-urban area is considered as giving a significant increase in their standard of living and quality of life. However, with each additional move the environmental quality tends to decrease, as the density of the developing areas increases. Similarly, for the individual resident the use of car is considered to be much more convenient than public transport. However, with urban sprawl comes growing traffic, while increasing car use causes air pollution and road congestion (which contributes to economic losses borne by people other than the new residents).

Thus the sprawl of the urban environment can be characterized by a strong contradiction between private interests and public values.

Hardin’s essay on the tragedy of the commons also addresses potential management solutions to the problem. These include privatization, regulation and the principle that the polluter pays. The privatization and public regulation options correspond to the historical analogy, meaning, in the case of the “enclosure” of common lands in Britain and elsewhere, the change from the unregulated access to a wide range of values by all to systems in which commons are “enclosed” and subject to differing methods of regulated use with access prohibited or controlled by the few.

Hardin argues against the reliance on conscience as a means of policing commons, suggesting that this favours selfish individuals over those with greater foresight. Thus the conscience of private actors cannot be relied upon, necessitating the intervention by public actors on behalf of the public interest who can provide a solution to the dilemma, halting the tragedy of the commons. Based on this analogy,

the competition between the private and public interests in the development of peri-urban areas cannot be solved by 'self-regulation', trusting to the conscience of the private actors. Only the intervention by public actors, in the name of the public interest can bring any solution or stabilization of the situation.

This chapter concentrates on the local and supra-local government structures of the rural-urban region. Their influence is crucial, even (or especially) in those countries where most of the land is in private ownership. As Larsson (2006) suggests, ownership rights do not mean development rights, which need approval via formal plans: "Most Western countries nowadays consider it a power of the local authority to decide if, where, when and how a development may take place."

Thus local and supra-local governments hold key positions to influence land development in the RUR. They can determine the conditions for new developments and through this influence the suburbanisation and peri-urbanisation processes. There are, of course, substantial differences between countries as to how the decision-making power is allocated across the different levels of governments in the RUR area.

This chapter aims to evaluate which factors determine the local governments' interests and what tools they have to counter urban sprawl, through influencing the decisions of mobile actors. Besides this, the supra-local levels will be investigated, to see how these can help to create more cooperation between local governments with conflicting interests.

### **14.3 The Institutional Framework: Government Structures and Spatial Planning Systems**

In the next section a general analysis of European government and spatial planning systems will be presented, followed by some specific aspects which emerged from the study of the case study regions.

#### ***14.3.1 The Strength of Different Systems of Government and Spatial Planning Policy in EU Countries***

Throughout the EU-27, land-use change decisions are based on legal instruments and protocols established by national governments which also produce national spatial planning policies. There are, of course, significant differences between countries, in terms of how these formal systems and policies are shaped and how effective they are for decision making in specific cases at the local level.

In the course of the PLUREL project the formal systems of government and associated planning policymaking and implementation of all EU-27 countries were reviewed, by synthesising information from a series of national reports (see Tosics

et al. 2010). The aim was to compare their potential strengths in exerting public control over land-use change.

The qualitative information collected from the national reports was converted into a comparable form in two steps. The first step was to evaluate the strength of the two factors (government structure and spatial planning mechanisms) for each country, in the following way:

- The government structure was explored in terms of which administrative level of government is or are responsible for land-use change (re-zoning) decisions, or at least which levels can exert some significant influence in the particular country. Then the average size of this main decision-making level was compared to the average size of local governments (based on population numbers per local government unit). The outcome was a classification of countries into different categories along a scale according to our hypothesis that the bigger the responsible administrative units are and the larger (the more integrated) the local governments, the greater the chance of sustainability considerations being reflected in land-use change decisions.
- The spatial planning policy aspect (what kind of regional/spatial policies influence land use change decisions) was assessed in terms of whether any supra-local policy had an influence on the land-use change decisions at the local government level. The outcome was a classification of countries into different categories along a scale of relative influence of supra-local and local levels.

In the second step the two aspects were integrated using a combined matrix. The following table summarises the potential combinations of the two scales, with some simplifications (these result from the assumption that if the supra-local levels are very weak, their size does not influence the strength of the system, while if they are very strong, the size of local authorities loses importance as their competence is very limited and they are strongly controlled) (Table 14.1).

Thus the indicator values in the table reflect the variations in the potential power of the public hand to resist the push of market actors towards more urban sprawl, ranging from a minimum (1) to a maximum (7) degree of power. Based on the results of the analysis fed back to the circumstances of each country as described in the reports, an overall EU-27 pattern can be presented (Table 14.2).

The results show a wide variety of government and planning systems in the EU-27 countries in terms of the potential control over urban sprawl through the intervention of national and local government and the respective planning systems. The North-west European countries (e.g. Denmark, the UK and the Netherlands) show higher levels of potential control mainly because of their consolidated<sup>1</sup> local government systems, while Southern European countries showing a higher potential (such as Cyprus, Greece or Portugal) have more fragmented local government

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<sup>1</sup> Local governments are large and integrated with high level of professionalism as opposed to other countries where local governments are small—closer to the people but less able to work professionally.

**Table 14.1** Strength of public control over land-use changes according to the combined government and planning dimensions

Spatial planning system: control from supra-local levels	Supra-local level of government deciding or influencing land-use changes (average size in millions)	Local level (average size in thousands of population)	Indicator of the strength of public control
Strong supra-local spatial policies	Large (>1m)	Any	7
	Medium-sized (0.5–1m)	Any	6
	Small (<0.5m)	Any	5
Medium level of control	Large (>1m)	Large (>30)	6
		Medium-sized (10–30)	5
		Small (<10)	4
	Medium-sized (0.5–1m)	Large (>30)	5
		Medium-sized (10–30)	4
		Small (<10)	3
	Small (<0.5m)	Large (>30)	4
		Medium-sized (10–30)	3
		Small (<10)	2
		Large (>30)	3
Weak supra-local level of control	Any	Medium-sized (10–30)	2
		Small (<10)	1

**Table 14.2** Results of the country-level evaluation

Value	Countries
7	
6	Denmark, Netherlands, Portugal, United Kingdom
5	Belgium, Cyprus, France, Germany, Greece, Ireland, Lithuania
4	Italy, Spain, Sweden
3	Austria, Bulgaria, Finland
2	Estonia, Latvia, Luxembourg, Malta, Poland, Slovenia
1	Czech Republic, Hungary, Romania, Slovakia

systems, but stronger planning control at supra-local levels. Most new EU member states show a weak control potential, with the notable exemption of Lithuania (where the tradition of strong planning is based on the presence of the former Western Soviet planning institutions) and to a certain level Bulgaria (with a consolidated local government system).

It must be emphasized that this picture does not depict the real strength of public control over land-use change, since in practice these powers can be made more effective in different ways or conversely the potential strong effects are not realised for various reasons. Because of this, these values should be seen more as a potential resulting from the combination of governmental and planning systems. A weak (low level) potential for control is hard to overcome even if the willingness is present, while a high potential may or may not be completely applied, depending on the intentions of the public bodies in power.

### ***14.3.2 PLUREL Case Study Examples on Government and Spatial Planning***

In this section the six European case study regions of PLUREL will be assessed according to the scheme presented in the last section. These do not, however, cover all the different types of government/planning systems arising from the above analysis.

From Table 14.3 it can be seen that three types of European government systems are not represented in PLUREL:

- Classic unitary countries (where the role of local authorities is weak),
- Centralized unitary countries with strong but non-integrated local authorities (strong power given to the local level but fragmented local governments),
- Regionalized unitary countries (where regulations can be very different region by region).

Consequently, the results from the PLUREL case study analyses cannot be generalized for the whole of Europe. The case study material, however, is very good for illustrating problems and demonstrating innovative solutions.

In the following sections the two dimensions of the matrix will be presented separately, highlighting selectively some good practices as well as problems from the perspective of public control over land-use changes in RUR areas.

## **14.4 Governmental Systems**

In Poland—contrary to most of the other post-socialist countries—a strong, elected middle tier of the formal governmental structure had developed by the end of the 1990s. The Warsaw case study describes the general picture of decentralized, fragmented local government, which is a common feature in most post-socialist countries after the transition to a free market economy. The unique aspect of this case study is the story of the Warsaw Metropolitan Area. To develop strong cooperation between the settlements in the RUR of a capital city is not an easy task anywhere in Europe. In the Warsaw case, efforts to develop this remain for the moment unsuccessful, since neither the city nor the administrative region really supports the idea. Besides this, the strong political power given to the municipality level makes any bottom-up cooperation efforts illusory in the face of the much stronger interest in competition between different local municipalities.

The case of Manchester is interesting from the perspective of the quickly changing situation. Successive UK central governments have changed the conditions for territorial development frequently and sometimes quite radically, resulting in very different opportunities for cooperation between municipalities in functional urban areas. Recent developments by the latest government following the 2010 general

**Table 14.3** Draft typology of territorial governmental systems in the EU27 plus Norway and Switzerland

Government structure	2. Centralized unitary					
	1. Classic unitary countries	countries with strong, but non-integrated local authority level	3. Centralized unitary countries with strong, integrated local authority level	4. Decentralized unitary countries with strong local and strong regional level	5. Regionalized unitary countries	6. Federal states
EU-15 and EFTA countries	Greece Ireland Luxembourg	Portugal	Denmark Finland Netherlands Sweden Norway Estonia Latvia Lithuania Slovenia	France United kingdom	Italy Spain	Austria Belgium Germany Switzerland
New member states		Bulgaria Czech Rep. Hungary Romania Slovakia Cyprus Malta		Poland		

Based on Tosics-Dukes (2005), with alterations based on ESPON project 3.2 (2006).



election have abolished the regional level while offering some new opportunities for bottom-up cooperation in the RUR.

The multi-layered Dutch system allows for all types of cooperation and planning at the city-region level. The case study of The Hague Region describes the efforts to supplement the weak government and planning power of the city-region through innovative attempts to create more cooperation around topical agendas.

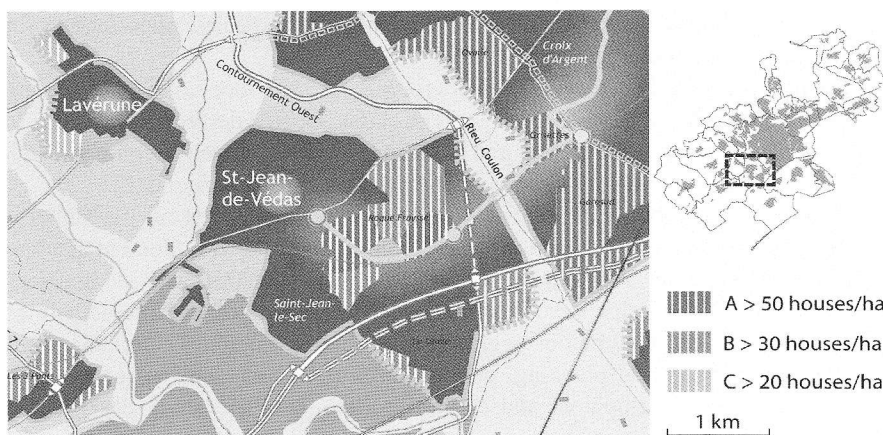
Montpellier is probably the case study with the most developed city-region level government structure, in the form of the creation of a top-down settlement association. The Montpellier Agglomeration has existed since 2001 as a compulsory association of 38 municipalities. Disputes over voting resulted in 7 municipalities opting out, thus the Montpellier agglomeration finally brought 31 municipalities together covering spatial planning, public transport, water management, housing policy, economic development and cultural policy. The case study describes in detail how the new administrative framework contributed to the change in the mentality of local leaders away from competition towards cooperation.

## 14.5 Planning Policies

The Manchester case study describes the very different planning powers and traditions at the different levels: the politically strong national green-belt policy has no similarly strong local counterpart, while the regional level has recently been abolished. Both politically strong and weak planning policies have their problems: while the fixed green-belts are sometimes 'leapfrogged over' by development (and cause in this way their own problems), the flexible bottom-up planning methods do not always achieve the necessary cooperation between municipalities.

In Germany, as a federal country, the sub-national Land (federal state) level is the most powerful in terms of the governmental and planning aspects of land-use changes. The federal states have developed their own internal structure and planning regulations—as a consequence of which the building legislations, funding programmes and spatial planning policies differ between neighbouring states. This may present problems for cooperation in RUR areas which cross the borders of federal states—as is the case in the Leipzig-Halle case study. In such cross-border situations even the relatively well-developed German bottom-up government cooperation and flexible planning practices may achieve only very limited results.

The Dutch planning system is also multi-layered, without being fragmented by politically strong regions. As well as national guidelines, funding systems and cluster policies, the provincial level provides the framework for the local planning system. Thus, the case of The Hague Region should be understood as finding a special role for the city-region within the planning responsibilities already shared between the state, province and municipality. The main role of the city-region level is to prepare the regional structure plan with the aim of coordinating different ideas (concertation). In addition, more power must be given to the administrative level of the province, which is closer to the size of the RUR.



**Fig. 14.1** Montpellier SCOT territorial plan. One of the schemes of the Montpellier SCOT, showing the planned expansions of the built-up area, defining three categories of the minimum density according to the available level of public transport (RED: extension with more than 50 units/ha density; ORANGE: extension with more than 30 units/ha density; YELLOW: extension with more than 20 units/ha density) (Source: <http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/files/client-guides/lud-examples-design.pdf>)

As a compulsory settlement association, in 2005 the Montpellier agglomeration adopted the SCoT planning system (Montpellier Agglomération, 2006), for a period of 15 years, which is the most important tool to handle peri-urban issues. The SCoT defines growth areas and determines three categories of minimum levels of density, depending on local environmental aspects and public transport accessibility (Fig. 14.1). The public sector has pre-emptive land acquisition rights and is able to intervene to achieve higher densities where necessary. The SCoT is also innovative in protecting open space. Estimates for the effect of the SCoT suggest that over the 15 years of its life the amount of sprawl will be half that which would have occurred if no SCoT had existed.

The local plans of all the 31 municipalities of the Montpellier agglomeration have to be adjusted to fit the approved SCoT. In order to do so, some incentives and supporting tools are offered and special funding is available for urban studies before extensions are planned.

The SCoT planning system is an innovative approach to the difficult and controversial planning issues of metropolitan areas. This system could handle the development dilemmas of the whole RUR of Montpellier. Unfortunately the Montpellier agglomeration with its 31 settlements covers only a part of the RUR, which extends to 93 municipalities. In this larger area there are more inter-municipal associations with no coordination between their SCoTs. Another sign showing how difficult it is to achieve changes is that 4 years after the SCoT was introduced speculative strategies still exist and farmers still think that selling farmland for development will be their best decision.

## **14.6 Financial, Sectoral and Regulatory Factors Influencing the Processes in the Rural-Urban Regions**

Within the formal framework established by governmental structures and the planning system, there are a range of further factors which influence the behaviour of public and private actors in a RUR. These factors were assessed on the basis of information gathered from the case study regions. The following factors will be discussed in detail:

- The local government financing system (from where and according to what parameters local governments receive their revenues).
- The taxation system (the existence of different types of taxes local governments are allowed to levy and the spatially relevant consequences of these).
- Sectoral (infrastructure, economic development, transport, housing, etc.) planning policy, regulation and subsidy systems.

The public sector has various tools to guide the land development process (through influencing the parameters of new developments which determine the interest of the mobile actors). Among these the following deserve the most attention:

- Regulations applied to new land developments in general, such as sectoral conditions attached to permits for larger-scale new land developments (in order to balance between jobs and homes, transport services, physical and social infrastructure requirements) and financial regulations, such as taxes on green field investments, subsidies for brown field redevelopment;
- Rules applied in the case of specific decisions on larger-scale land developments: possibilities for the public sector to capture some part of land value increases when allowing the re-zoning of a piece of land or at the moment when building permission has to be issued for the planned project.

From the overview of these factors it is possible to highlight the problems of peri-urban development. Such an overview also leads to ideas as to how legal and financial regulations could be adjusted in order to direct the development process in more sustainable directions.

### ***14.6.1 Factors Influencing the Interests/Motivations of Local Governments to Attract Mobile Actors***

Local governments are embedded within the national regulations for public sector financing, taxation and sectoral policies. These regulations are usually not studied in detail when discussing the dynamic processes in the RUR context, although they strongly influence the motivation and the “behaviour” of local governments.

### 14.6.1.1 Local Government Financing Systems

There are major differences among European countries regarding local government financing systems, determining from where and according to which parameters local governments receive their revenues. There are at two main questions here, from the spatial planning point of view. One is the method by which financial resources are transferred from supra-local (central, regional) levels towards the local government. The other is the level of independence enjoyed by local governments to raise their own revenues—this will be discussed in the next section dealing with taxation systems.

A taxonomy of the grant system made by Bahl-Linn (1992) takes into account three different dimensions. The first is the determination of the size of the total amount of money to be distributed in a given year, that is the divisible pool. The second is its allocation among local governments. Once the amount of the pool is determined, allocations among local governments are typically made in four ways: by returning shares to the jurisdiction from which the taxes were collected, that is, using a derivation principle; by formula (e.g. pro rata according to the number of residents), ad hoc or by reimbursing costs.

From the perspective of local government autonomy the third dimension is also very important, whether the transfers or grants are unconditional (or general purpose) or conditional. In the first case local governments have full control over the use of the money, while in the second the freedom to use the money is strictly defined *ex ante*. Block grants offer a third variant: the transfer can be freely used by local governments but only within a certain defined area of service provision.

In the higher-level financing of public services it is of crucial importance to know to what extent the real net costs (deducting fees collected for the service) of the services are covered by these transfers. If the centrally provided normative support only covers e.g. 2/3 of the real net costs of providing the particular service, the rest has to be secured from the budget of the local government entity which provides the service.

The grant allocation principles influence the behaviour of local governments to a large extent. If the share of general purpose transfers and/or grants calculated by a simple formula (e.g. number of residents) is high, this creates pressure to increase the amount of population in general. Regarding service-related conditional transfers, local governments tend to have more "positive interests" in those services which are financed by higher level transfers to a greater extent, while this interest is much lower in the case of the centrally less-financed services.

Some public services have spill-over effects (or externalities) on other jurisdictions. Examples are pollution control (water or air), inter-regional highways, education and social services, recreation facilities (which may be used by neighbouring areas), etc. The spatial consequences are clear: local governments are less ready (less eager) to run a public service where the larger share of the real net costs has to be financed from their own budget. If a public service gets little higher-level financing, the interest of the local government is not to run this service but convince the population to use the service provided by another municipality. In this case the population is using the service as



**Fig. 14.2** New garden city without any social infrastructure built by a developer. The picture shows one of the new 'garden cities' around Warsaw where new housing development is not accompanied by the development of new social infrastructure e.g. schools or highways

"free rider" in the other municipality (not being resident there, thus not contributing by taxes, etc., to the general budget of this settlement).

As a consequence, families moving out to peri-urban settlements often face a lack of services—especially those services which are funded less by higher level financial transfers (Fig. 14.2). In such cases families are forced to use the services in the urban core from which they moved, contributing both to the increase of traffic and to the increase of financial difficulties in the city's budget.

To solve such problems metropolitan-wide programmes can be set up to deliver local public services which would otherwise have inter-jurisdictional spill-over effects. This is, however, only possible if a higher level law makes this compulsory (see e.g. the French inter-communal associations or the German transport associations) or the municipalities of the area voluntarily cooperate with each other. A financial agreement has to be reached, in the framework of which the municipalities not offering such services contribute to the costs of those municipalities which run them, proportional to the number of their residents (the free riders) who use the services.

#### 14.6.1.2 Taxation Systems

Local governments are allowed to levy different types of taxes and these can result in different spatial consequences based on the decisions of mobile actors, such as residents and businesses Kovács (2009).

Although most productive revenue sources are usually reserved to the central government, a certain portion of financial sources can be assigned directly or indirectly to the local level as part of fiscal decentralization. There are several arguments for levying taxes at lower levels of government:

- The provision and financing of local services at a local level might lead to an improvement in public attitudes towards taxation, because those who pay taxes directly receive the benefits from their use. This may make tax collection easier and more efficient.
- Higher local tax revenue might reduce the dependence on state budget support.

The share of public financial sources which are assigned, either directly or indirectly, to local governments, indicates the level of their financial independence. Needless to say, there are major differences in this regard across Europe. According to a British analysis (House of the Commons 2009):

Danish municipalities raise 60% of their revenue from local taxes (mainly income tax), and a further 14% from charges for services. . . . Similarly, Swedish municipalities raise 69% of their revenue from local taxes (mainly income tax), and only 15% in the form of government grant. The local government representatives . . . felt that the clear link between local tax payment and the delivery of local services led to a strong engagement in local democracy. In England the financial situation is reversed. Local government raises, in total, only 25% of its revenue locally—mainly through the council tax.

Another country where municipalities have little freedom to raise taxes themselves is The Netherlands, where the bulk of their budget comes from the state, the amounts being based on the number of inhabitants in each municipality.

A basic division in tax systems is between “benefit” and “non-benefit” taxation (Oates 1996). Benefit taxation refers to systems in which taxpayers are taxed according to the benefits they receive from the public purse. In the alternative “non-benefit” tax system there is no link between taxation and local government services (one form of this is “ability-to-pay” taxation).

There are some “rules of thumb” suggested by economists to enable sub-national governments to control their own revenues and to be able to act responsibly when making their own policy choices. Thus, a lower level of government should rely as much as possible on benefit taxation, raising revenues from mobile economic units, including individuals and mobile factors of production. It is also essential that: “to the extent that local governments make use of non-benefit taxes, they should employ them on tax bases that are relatively immobile across local jurisdictions” (Oates 1996, p. 36).

Bird (1999) notes that property taxes, excise taxes, personal income taxes, sales taxes and taxes on business are the only economically acceptable categories which can be levied by local government. Property taxes and/or personal income taxes are the economically and socially most justified types for lower level of government. The property tax is a stable form of revenue, allowing for only limited tax exportation. It also acts as a rough form of benefit charge: the value of real estate such as housing is strongly influenced by the level of local services such as schools. Nonetheless, property tax is an unpopular form because it is a visible burden and citizens confront it directly. Property taxes levied on plots and buildings may also

discourage investment in improvements. The other important and frequently used form is a local personal income tax, generally collected in the form of a surtax on the national income tax, which is much less visible to taxpayers and is neutral in terms of its effect on property values, for example.

It is a general opinion that local taxes on business are very weakly efficient and are often criticized for distorting business location decisions. Even so, such taxes are widespread and generally popular amongst politicians (as being easy to collect and might result in substantial revenues) and by the population (as they do not have to pay it) (Bird 1999).

Local taxation is based on property taxes in the United Kingdom, France, Spain and Poland. On the other hand the Scandinavian countries provide examples of personal income tax dominated local tax systems.

From the point of view of peri-urban development the most important question regarding local taxes is the topic of tax-competition within the RUR. According to Goodspeed (1998) tax competition occurs "... when the tax system of one government entity affects the tax system of a second governmental entity, usually through an effect on the second entity's tax revenues." If local governments within the RUR are entitled to levy a certain type of local tax, and can also determine by themselves the parameters of this tax (within the limits allowed by the tax law), the result is usually tax competition: some municipalities will lower their rates in order to become more attractive to mobile actors. Tax competition exists in some of the PLUREL case-study regions (e.g. Leipzig, Warsaw).

It is easy to assume that tax competition between the municipalities of a RUR is harmful because it distorts the location decisions of mobile actors. However, the economic literature suggests that this is not always the case. The analysis of Goodspeed shows that horizontal (i.e. between local governments) tax competition can result in an efficient allocation of resources if the taxes used are benefit taxes. In such cases "... firms and individuals will sort themselves among jurisdictions to obtain their most preferred tax-expenditure package in the same way that individuals shop in the private market. Benefit taxes reflect social marginal costs and therefore lead consumers and firms to choose jurisdictions efficiently. If taxes do not reflect benefits, however, externalities are created so that tax prices diverge from social marginal costs. This creates incentives for inefficient location decisions. ... Consequently, one cannot gauge the level and effects of tax competition simply by analyzing differences in tax rates" (Goodspeed 1998).

On the basis of this overview, the public actors in a RUR should evaluate the local taxation systems applied across their constituent local authorities. When exploring these taxes the major question to ask is: which of these create horizontal tax-competition within the region and how strong is this competition (to what extent does it influence the location decisions of mobile actors)? In order to assess the real effect of this competition on the functioning of the RUR a tax should be analysed in terms of to what extent it can be considered as benefit tax. Finally, the potential of higher level regulations (e.g. in order to limit such competition) should be explored where these are feasible (such as where there is a regional-level authority with power to do this).



### 14.6.1.3 Sectoral Planning

As the following examples will show, the internal development of the RUR is not only affected by general financial and taxation issues but also by different sectoral policies, regulations and subsidy systems. From the broad range of possible sectoral issues, this section only deals with three: economic development and infrastructure, transport, and housing.

#### Economic Development and Infrastructure

Economic development and infrastructure is usually planned in parallel at different government levels or by different departments or agencies. While national plans and policies deal with macro-regional aspects (such as international competitiveness and regional inequalities), regional and sub-regional ones are more concrete and territory specific.

There are wide differences in Europe regarding the strengths of the supra-local tier of administration: while in some countries elected regional governments with strong planning power exist, in others only some weak planning and symbolic administrative roles are allocated to non-elected regional bodies. In more centralized countries public control can be executed through functional (sectoral) bodies. In the most decentralized countries upper-level public control is weak: neither administrative nor strong functional control exists over local municipalities.

From the perspective of development within the RUR it is of crucial importance as to which level economic and infrastructure development decisions are taken. If such decisions are taken at a regional or other administrative level which covers the RUR, there is a good chance that the sustainability aspects of development will be taken into account—new economic investments will accord with other infrastructure conditions for development, also taking environmental and social aspects into account. The risk of unsustainable development is much greater when these decisions are decentralized to the local government level.

If the strength of supra-local administrative levels to steer economic development processes is weak (e.g. limited to drawing up non-compulsory structural plans or regional economic development concepts), then the real decisions to attract economic investors will be taken at the local level. Local governments can decide the level of local taxes, as discussed in the previous section, as well as direct or indirect subsidies (e.g. in the form of subsidies for infrastructure development) given to investors, in order to attract new developments to their territory. Agreements between local governments and investors might be kept confidential, claiming them to be a private business matters. In the absence of higher level regulations municipalities do not even have to take into account the interests of the neighbouring areas (whether the planned investment will cause any harm to other municipalities through increased traffic, pollution, etc.). In extremely decentralized systems, probably the only regulation to be taken into account is the EU



competition legislation which forbids the giving of too many subsidies to investors which would distort the functioning of the free market.

In the national patterns of infrastructure development similar differences can be seen across Europe. Here also the biggest problem from the perspective of sustainable development is the strongly decentralized system with the almost total control by the local government over new infrastructure investments. In such cases not only is RUR-level coordination difficult but so is the possibility to achieve concerted actions between neighbouring municipalities.

## Transport

Transport is one of the main challenges in urban areas from sustainability (air pollution) and competitiveness (congestion) viewpoints. Urban traffic and congestion is expected to grow as a consequence of increased urbanisation and greater urban sprawl. Congestion reduces the logistic efficiency of deliveries, which suffer from the 'last kilometre' problem (virtually all transport tasks/routes start and end in dense urban areas).

Cities may not be able to accommodate any larger volumes of private cars because road space to drive and park may be limited. Many cities might have to find radical ways of dealing with congestion (European Commission 2009).

Transport policies, if developed in a coordinated way for the RUR or even larger areas, can contribute in many ways to the required direction of changes:

- In urban areas, which are the main nodes in the transport system of larger regions, the links between the different transport providers (local and suburban transport companies vs. long distance transport providers) of different size and ownership (public or private) have to be optimized. Coordination and multi-modal types should enable better access to public transport and reduce the need to use the car to travel to the urban core. "Co-modality" should be achieved in such a way that the share of private car use decreases.
- Financial regulations, such as taxes, road charges and emission trading systems should under no circumstances create incentives for car use. On the contrary: such tools should ensure the internalization of the external costs of transport, while maintaining users' free choice of transport modes. Only real market prices, which fully reflect costs, can lead to economic efficiency.<sup>2</sup>
- In the case of new developments (commercial, industrial, office, housing, etc.) above a certain size, a compulsory element of the planning process should be the

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<sup>2</sup>The German commuters' tax allowance (Entfernungspauschale) is an example of subsidizing commuters' expenses. People commuting from more than 20 km distance can reduce their taxable income, independently of the real expenses and of the transport mode (foot, bike, motorbike, public transport or car). From the ecological point of view the commuters' tax allowance is very critical as it contributes to the spatial detachment of residence and work, i.e. work in town, live in the countryside ("Premium for urban sprawl").



**Fig. 14.3** Road user charging system in Oslo. The 2007 picture shows one of the entry points into Oslo, where the road-user charge had to be paid (this system has been fully automatized in the meantime; there are no collection booths any more)

preparation of a mobility or transport audit, the results of which should be taken into account in the location decisions, within the framework of strict land use policies.

- On top of all these measures, in the most dense urban areas—besides the improvement of public transport services—the application of special mobility management tools, such as green zoning and urban road pricing<sup>3</sup> should be considered (Fig. 14.3). These measures should contribute to the behavioural change of transport users without decreasing their mobility options.
- Public authorities have an essential role in providing the planning, the funding and the regulatory framework for a complex system such as that of transport. They should also act as catalysts in city region-wide public transport associations.

RURs include territorial units with very different densities, ranging from high-density core urban areas through medium density residential, office and commercial parks to very low density peri-urban areas and rural hinterlands. These different elements usually have very different dominant transport modes, ranging from high-capacity fixed track rail-metro-tram systems through buses to individual cars. The big challenge for the RUR is to find the optimal way of connecting these transport modes, ensuring very different aims at the same time: avoiding congestion in dense urban areas, assuring mobility options even in low density (especially the more

<sup>3</sup> The best known European examples of urban road pricing are London, Stockholm and Oslo, while the system introduced in Milan has a strong environmental character. In Manchester the idea for a large-scale congestion charging system was rejected in a local referendum, although a 1.5 bn GBP government fund was offered for the expansion of public transport network.

rural) areas while controlling for the sustainability of transport and the reduction of urban sprawl over the whole area.

The organization of transport across the RUR area, based on a public transport association for the denser urban areas and extended by opportunities provided for changes between different transport modes (Park-and-Ride, etc.) can become one of the strong identity elements in the strengthening of the RUR cooperation.

## Housing

The mobility of households is naturally very closely linked to housing policy. Both market processes and public interventions (subsidies, building regulations and available financial resources) have to be assessed in terms of their spatial consequences as a result of the movement of households.

New residential locations significantly influence the environmental and social conditions of an area and they also influence the spatial distribution of wealth or poverty through the taxation aspect. Cooperation in land-use and housing policies between the municipalities of a RUR (based on jointly accepted regulations) might help to avoid urban sprawl and its unwanted negative externalities, such as traffic congestions, air pollution or social segregation, and might contribute to a more balanced, cohesive and sustainable functioning of the RUR. If housing is also included in multi-sectoral strategic planning, this might help to establish stronger links between the development of residential and workplaces in the RUR, which is necessary to avoid increases in traffic.

Thus, the housing sector can potentially play an important role in strengthening cohesive development, sustainability and the competitiveness of RURs. This is a strong argument in favour of controlling the housing sector by public policies generated at a higher territorial level, such as the functional urban area or the RUR. If agreements can be reached on housing policy cooperation (controlling access to and distribution of housing development possibilities, such as developable land and infrastructure) this might also ensure the environmentally and socially sound functioning of the whole RUR. Moreover, new housing development strategies agreed for larger areas, if well connected to economic development potentials, might contribute positively to the competitiveness of the RUR. The spatial distribution effects of new housing investments might easily create conflicts between housing and urban aspects. For lower income groups, in the absence of any public intervention, housing affordability requires the construction of new housing in outer and remote areas (with lower land values), which, at the same time increases transport demand and is therefore in clear contradiction to the basic principles of sustainable urban development.

To resolve this contradiction there are different possible forms of public intervention. One possibility is to ensure the affordability of new housing which is built according to the principles of sustainability. One method to achieve this is to prescribe by law or by conditions placed on the approval of building permission the minimum share of social (affordable) housing in all new developments.



**Fig. 14.4** Montpellier social housing in city centre. In this model (mock-up) new houses can be seen in Montpellier: one of the buildings is social housing, the other private, the third university dormitory—from outside no difference can be seen, which is which. . .

In France all new housing developments have to include at least 20 % social housing. Municipalities which do not comply with this rule have to pay a penalty to the regional government, which is then used to support social housing in other parts of the region (Fig. 14.4). Similar regulations are in force or under discussions in other countries (Germany, UK).

A second possibility is to ensure the sustainability of new housing built according to the principles of affordability. This can be achieved through creating links between new social housing and spatial planning decisions (e.g. to ensure that new social housing is close to public transport, as has been attempted in France), through public interventions into the land market, such as land banking and by selecting investors for the construction of new housing on land made available by the municipality by the criteria that in the new housing project both sustainability and affordability principles have to be applied.

European countries apply different models in the location of decision making power in housing issues. In the majority of countries housing matters are the exclusive right of local municipalities. In some countries, however, housing matters are transferred in whole or in part to a supra-local level. The UK and Netherlands are just two examples where decisions about the number of units to be built are taken “above” the municipalities.

A further way to influence the housing market is to issue compulsory guidelines about the spatial allocation of new housing construction. In the NW region of England, according to the NW regional spatial strategy 60 % of all housing has to be on brownfield land (in Greater Manchester this share rises to 80 %).

In the Netherlands prescriptions exist for the share of new housing units which have to be built within the existing borders of developable land of municipalities.

### ***14.6.2 Tools for the Public Sector to Steer New Land Developments in the RUR***

The public sector has a range of tools available in order to be able to steer the land development process. The point of departure is the demand from the side of the mobile actors (households, businesses, developers) for new development somewhere in the RUR. The municipalities (and/or higher level public actors) have some power to influence the parameters of new developments, which, in turn, have an effect on the decisions of the mobile actors.

The most direct intervention tool of the public sector is land acquisition. A municipality can directly intervene in the land market by buying up land for future development purposes (land banking). If the proportion of the municipality among the different types of owners of developable land is high, then it can affect land prices and can also impose conditions on developers who buy the land for their developments from the municipality. This was the case, for example, in Vienna: the city could initiate large social housing construction on land bought up in the 1920s. Later housing development was also influenced in a less direct way, by selling the land to developers under specific conditions. Several European countries, such as Netherlands, Sweden and Spain actively use land banking strategies (Larsson 2006, p. 57).

More indirect powers of municipalities to influence new large-scale land development consist of regulations applied to new land developments in general, and more detailed rules applied via specific decisions on larger new land developments.

#### **14.6.2.1 Regulations Applied on New Land Developments in General**

Jorgensen et al. (2007) provide an overview of tools to manage urban growth. As well as examples from PLUREL, some of the examples quoted below come from the USA, where the strict planning tools used in most European countries (zoning regulations, clear limits of developable land, etc.) are not universally applied. Instead, there are many local attempts to control otherwise very un-regulated urban development and from these examples some interesting and innovative ideas can be found.

European practices are very much concentrating on "... restricting urban growth through land use regulations that hinder or forbid urbanisation in certain parts of the urban fringe or the peri-urban areas ... urban growth boundaries, various forms of zoning, green belt protection, or the like. These strategies are thus connected very strongly to protection of land from urban development rather than attracting urban growth to the more densely built up areas" (Jorgensen et al. 2007).

Examples of tools from the PLUREL case studies include the following. In Montpellier a Green Tax is paid by people building or buying new houses, in order to preserve green or blue areas. In the Greater Manchester area 47 % of land is

protected in principle as green belt (no development possible), but exemptions exist (e.g. road developments). Recently a policy change has been suggested from green belt towards 'eco-belt' in which eco-friendly activities should be allowed—as UK planning approaches move from direct regulation and fixed zoning towards partnerships, spatial management and flexible frameworks. In Leipzig an inter-communal land balance pool has been established in the Green Ring of Leipzig, in order to make use of the legal obligation for compensation in the process of land use change. In The Hague region some of the profits gained by municipalities from developing a residential area have to be paid into a green fund, ensuring the future of the remaining farmland. The state also bought up land for buffer zones between settlements for landscape protection.

Many of the American attempts can be summarized under the heading of "smart growth techniques" which aim to achieve more sustainable development through a combination of economic incentives and disincentives, rather than strict planning regulations. "Economic incentives comprise several instruments: development impact fees that internalise infrastructure costs via a fee on new development corresponding to the infrastructure services cost, transfer of development rights (TDR) from some areas to others in a sort of quota organisation, and tax reductions in areas that meet certain requirements (density, nearness to public transport) and direct support for denser and socially mixed neighbourhoods as well as for infill and revitalisation" (Jorgensen et al. 2007).

Some special versions of smart growth techniques (applied in some especially innovative US cities) are the following:

- Balance between jobs and homes: larger office developments are required to pay a contribution to the city fund from which affordable housing is being built (Santa Monica, California)
- Physical and social infrastructure requirements: as a result of new private developments (office, retail, housing) the level of public services should not decrease below a certain threshold—if this would be the case, the private developer has to contribute to the development of the public service or has to postpone the development (Boulder, Colorado) until the public sector increases the level of service
- Transport services: as a consequence of large developments, transport possibilities usually deteriorate—in Palm Beach county, California a plan of anticipated future road congestion has to be prepared and if the outcome shows a significant deterioration, the private developer has a choice of contributing to road development or waiting until the public sector is able to do this.

A special version of these techniques is that of Transit Oriented Urban Development (TOD), addressing the relationship between transport infrastructure and urban development. "TOD implies that the link between urban development; functions; and public transportation is designed at the project level or through targeted policies" (Jorgensen et al. 2007).

Among the European versions of the TOD approach, the Dutch ABC-location principle<sup>4</sup> and the idea of VINEX locations<sup>5</sup> for residential development is well known. In Denmark the general principle of proximity to railway stations is applied to the location of intensive land uses. The Montpellier SCOT plan defines different urban densities with special regard to increased urban densification around new tram stops (as part of priority for urban renewal in a strip of 300 m either side of the tram lines).

An important lesson to be learnt from the American examples, that "...local growth management programs without a state-wide framework have negative consequences, such as regional traffic congestion, increased housing affordability problems, income segregation, etc. ... therefore growth management need to be practised at regional or state level" (Jorgensen et al. 2007). This observation is also valid for the more traditional planning tools, such as zoning: restrictive measures only have real effects if introduced over a sufficiently large area, otherwise the development power migrates just outside the restricted area, causing even more trouble.

#### 14.6.2.2 Rules Applied in the Case of Concrete Decisions on Land Development

Local governments have key role in the process of land development, deciding on re-zoning of land and issuing building permissions for planned projects. In both cases the public sector, usually the local government, aims to capture some part of the land value increase which is connected to public action. This is the idea behind value capture financing which aims not only to share the risks and costs of urban development between public and private sectors, but also the rewards. "VCF sees some of the costs associated with making urban development succeed internalised within the balance sheets of the developments themselves" (Huxley 2009, p. 7). Regarding land development this might mean that through a land-related tax,

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<sup>4</sup> The ABC location policy (since 1988) is designed to help reduce the growth of car travel. The policy aims to match the mobility needs of businesses and amenities with the accessibility of different locations. The core element of the ABC location policy for companies is the classification of types of locations (good or bad accessibility by public transport and by car) and types of companies (number and mobility needs of workers, visitors' intensity, need for transport of goods). "The policy aims to locate each company on a location with an accessibility profile in accordance with its mobility characteristics" (Martens and Griethuysen 2000).

<sup>5</sup> VINEX locations refer to the Dutch planning policy, introduced in the early 1990s, aiming at locating new residential, work and recreational areas and public facilities in and as close as possible to large and medium-sized cities" (VROM 1993, pp. 6, 7, quoted in Roo 2003, p. 62, where also the critical analysis of this planning policy can be read).



increases in private land values generated by a new public investment are “captured” in all or in part.

The re-zoning of land leads to land value increases which can be very substantial. According to a brochure of the Town and Country Planning Association (TCPA 2007) agricultural land in England had at that time a market value of 8–10 thousand GBP/ha, while this value increased to at least 800,000 GBP/ha when the owner was given planning consent for new housing. At the time of issuing building permission to a specific project another financial issue also emerges: the share of the costs needed for infrastructure development. Given the fact that the building permission contributes to a further increase of land value, the local government might try to place a condition in the building permission on the developer that they contribute to the costs of the necessary infrastructure developments such as schools.

There are very different conditions for negotiations between local governments and private actors regarding value capture and infrastructure contributions across EU countries. Wolff's analysis (2007) shows that at least four actors are in competition with each other to obtain the largest possible share of the value increase created by re-zoning or building permission: the landowner, the developer, the owners of the new homes and the public hand. The latter has in principle several tools to obtain a share of this increase: “having the land owner pay for or take care of some measures, by following an integrated land development procedure, entering into an agreement, levying a tax or obligating the land owner to in kind contribution” (Wolff 2007, p. 4).

These options, however, are not easy to apply and depend on the legal system of the country concerned. The TCPA brochure (2007) describes the four attempts of the UK government to ensure a share for the public sector from land value increases. The first attempt was in 1947 when landowners were obliged to obtain permission from local authorities for any land development. This and the following two government attempts were unsuccessful, the measures introduced by a Labour government usually being withdrawn by the subsequent Conservative government. The last attempt was the 2004 Labour proposal to introduce a Planning Gain Supplement to impose a charge, levy or tax on the increase in the development value of land attributable to the grant of planning consent.

Austria is another country where the capture of the value increase of re-zoned land is difficult. According to a decision of the High Court in Austria it is forbidden to combine public and private law—thus zoning cannot be connected to taxation. Therefore the only possibility for the public actors is to be more active in the land market, as the public sector can only get back money if participating in the process when acting as a development company.

In the Netherlands, after long debate, the outcome is a new regulation which allows the local municipality to capture some part of the land value increase—not as a “profit tax”, however, but in a regulated process to force the landowner to pay for quite broadly defined costs the public sector incurs in connection with the development. Because of the many possibilities left open by the law, the system



allows more than simple cost recovery. Conversely, the process is made transparent, insofar as the public costs have to be reported and proved that they are used for the area and improve spatial quality.

In Hungary the legal possibilities for value increase taxation are absent. Recently a flexible tool has been introduced into the building law, that of "development agreement". This allows a local government to negotiate with the developer over the financial conditions for new developments, in the cases where a municipal decision is needed because of re-zoning of land or of giving building permission for the project. Even if such development agreements clarify the situation to some extent to, they do not compensate for the lack of value-increase taxation. Neither is the problem of a lack of territorial cooperation between municipalities solved. The development agreements are purposely very flexible, there being no prescribed content. As a consequence, in Hungary a competition situation emerges between the municipalities as to who offer better conditions for the developer. From this it logically follows that developers will determine the place and the sequencing of their developments according to the financial criteria the different municipalities insist upon. In this way the financial conditions and not the substance of the development determines the location decision. As a further problem municipalities usually do not have sufficient trained officers to negotiate good agreements with the developers—and also the danger of corruption is high.

The contractual relationship between the local municipality, the landowner and the developer is broadly applied in European countries. The content of the development agreements differ across countries and besides the economic and financial conditions, in many cases the timing is also specified—in some countries after a given number of years the land can be expropriated by the municipality at pre-development value if the developer does not perform its duties (Larsson 2006, p. 59).

The British system, being grounded in common law, is based on cases, not rules. Although the size of local governments is large (not fragmented, as in France or Hungary), they are not independent in their decisions, the influence of the central government being substantial, exercised through the development agencies. The procedure can be highlighted by the example of the Royal Woolwich Arsenal, which lies in one of the poorest parts of East London. The task of development of this former military area was given to the London Development Agency. After a general plan was passed by Greenwich Council, the main developer was selected by competitive bid. The developer had to get the building permissions for each block separately, until which the value of the plot had not been decided. Thirty percent of the new flats have to be affordable, the costs of social infrastructure and the preservation of heritage values also have to be covered by the developer. As a result, in the final evaluation, the price of the plot may even be zero, if the developer has many public tasks to perform. However, if a profit is achieved (above a given limit) this has to be shared with the local government.

### ***14.6.3 PLUREL Case Study Examples***

The PLUREL case study regions offer some interesting examples of financial policies and regulatory tools:

- The Hague region introduced an area fund from which payments are given to farmers for their “services”. In this way the green-blue services are strengthened with the contributions of those members of the urban populations who enjoy these high quality areas.
- Montpellier agglomeration is a tax-sharing association of 31 municipalities. A new legal tool, the ZAD enables local authorities to prevent land speculation, as the future development areas of the SCoT are put under price control. The precise delimitation of development areas gives clear signals to land owners and developers.

The more detailed comparison of case study regions has shown that in order to ensure public control over land-use change, important aspects of the processes have to be well regulated:

- The value of land before and after development has to be known.
- Transparent procedures have to be in place for issuing permissions, sharing benefits (value increases) and sharing costs (infrastructure development).

In most European countries the developers are gaining in importance and the public hand is losing opportunities to fight for sustainable development—opportunistic planning is gaining ground as job creation becomes more and more politically important.

## **14.7 Informal Structures: Governance Procedures, Actors and Their Interrelations**

The analysis of the governance aspects in this section is not as detailed as that of the more ‘hard’ factors of peri-urban processes, discussed in the previous sections. The main reason for that is that the governance aspects were analysed thoroughly in Chap. 13, focusing on ‘Strategies’ as discourses around which coalitions can be built in PLUREL case study regions.

### ***14.7.1 Governance Relations and Their Potential Role in Public Control Over Land Use Changes***

The previous sections of this chapter have shown that the ‘hard’ elements of territorial systems, such as the government and planning framework and the financial,

sectoral and regulatory factors show large variations across different EU countries. Now we turn to the more 'soft' elements and aim to explore the role that these (governance) elements can play from the perspective of public control over land-use processes: can they contribute to the strengthening of the control or just the opposite, do they weaken the potential control based on the hard elements? Governance practices involve vertical and/or horizontal links between government levels and non governmental units in both formal and informal ways, influencing the functioning of the RUR and influencing the strength of public sector control over market processes.

It is assumed that informal structures, governance and participation factors can modify the strength of public control over market processes in both directions: making it stronger or weaker. Strong governance relations and practices (cooperation, win-win strategies, etc.) can result in greater public control over the market as far as the institutional/planning framework in the given country and region will allow. We will illustrate this point using the example of the case study region of Leipzig-Halle (further examples could have been taken from The Hague or Manchester).

The alternative view is that the procedures of public participation, the functioning of pressure groups and lobbying might lead to bottom-up resistance against planned public policies or to pushing through some changes against the will of politicians and planning procedures. If these processes become very strong, they can lead to a substantial decrease in public control over market processes involved in land use changes. Some aspects of such developments will be illustrated by the Warsaw case study.

## **14.7.2 *PLUREL Case Study Examples***

### **14.7.2.1 Leipzig-Halle**

The special (though not at all uncommon) feature of the Leipzig-Halle case is that the functional area of Leipzig and Halle straddles the border of two federal states, Sachsen and Sachsen-Anhalt (Philipp 2009<sup>6</sup>). This fact made the German post-reunification development of public policies even more difficult. Private development without regional planning in the first 5 years after reunification proved to be disaster. Large and territorially uncontrolled subsidies given for green-field developments (retail, industry and housing in peri-urban areas) has led to the fast development of sprawl, some communities growing quickly from 500 to 5,000 people without the necessary infrastructure being put in place.

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<sup>6</sup> Notes taken by the author from a presentation given by N. Andrea Philipp, ICLEI Europe, at the DG Regio, 2009: EC-DG Regio Urban-rural conference, January 2009.

Since the middle of the 1990s spatial planning has been strengthened and the Saxon Metropolitan Area (Dresden-Leipzig-Halle) has been established. The hierarchy of centres around Leipzig has been established. 'Green Ring Leipzig', a voluntary association, has been formed by 13 municipalities to enable joint coordination and alignment of regional development, the main aim being to preserve the cultural landscape and biodiversity while highlighting the values and attractiveness of the area.

New strategies have been designed against sprawl, based on the rehabilitation of the inner city while designating the urban fringe for recreation and concentrating development on existing land uses in peri-urban areas. The New Leipzig Lakeland idea has been developed—based on the creation of 90 new lakes on former opencast brown coalfields, 190 sq. km in area, to be ready by 2050 and connected to Leipzig city centre by waterways.

In the opinion of the local politicians, Greenland was a positive idea dating from 1996, which attracted cooperation by neighbouring municipalities. Lakeland became an even bigger idea, turning the whole area into something qualitatively different. The cooperation which started in landscape planning turned into cooperation regarding industrial development: small municipalities joined their efforts to offer place for large new industries (e.g. Porsche, TNT and DHL) around the airport.

In the Leipzig-Halle case strong regional planning was the initial step of key importance. This was extended by voluntary cooperation—first in landscape planning, later expanding to other, more difficult areas of development. The result is an increased readiness for shared land-use planning to respond demographic changes and applying a coordinated mix of instruments for urban-rural linkages.

The difficulties of strengthening multi-level governance across state borders are still substantial. Some results, however, can be achieved through development strategies which obtain funding and require voluntary cooperation.

#### **14.7.2.2 Warsaw**

In Poland, similar to the other post-socialist countries, local municipalities obtained a large degree of independence in the early free market period of development. Though Poland was more successful than the other countries in developing a strong, directly elected middle tier of government (16 regions), by the end of the 1990s when this happened, local governments had already become very strong and it would have been politically risky to constrain their power. The planning code enacted in 2003 increased liberalism by disqualifying the previously existing hierarchical planning system and providing for the possibility of investor-driven development. As a result, urban sprawl has become very substantial in the metropolitan area of Warsaw; settlements compete with each other, to see who can attract more and bigger developments to their territory (Fig. 14.5).

These preconditions are not very advantageous for any governance ideas aimed at strengthening public control over land use change. The Warsaw case study describes the attempts towards inter-municipal cooperation, which is a relatively weak cooperation model but the only one with any real chance of success, as it



**Fig. 14.5** Warsaw suburban development. The picture shows a congested 2\*1 lane road, just outside the city border of Warsaw, heading to new suburban housing, office and shopping development—which are connected to Warsaw only with this narrow, always congested road

would leave the policy domain of local governments intact. In 2002 the Metropolitan Warsaw Association was formed as a result of a grass-root initiative by local leaders from municipalities of the metropolitan area of Warsaw.

Though the city of Warsaw joined the association in 2006, it was never an active supporter of the idea. A nationwide political debate started at the end of the 2000s about the possibility to create metropolitan areas as compulsory or as voluntary settlement associations. However, this issue is politically risky for many politicians regardless of whether they are active on the local, regional or national political scene. Without the active support of Warsaw and the region, the Metropolitan Warsaw Association remained a largely unsuccessful attempt to create cooperation in the peri-urban area, which is still dominated by direct competition among individual municipalities.

### **14.7.3 Summary**

The analysis of governance processes in the case study regions has shown that they can be effective if they are based on a solid formal government and planning system—otherwise they have only very little potential to modify the strength of control over market processes in peri-urban areas. It is highly unlikely that informal policy agreements can be reached without strong backing of the formal government system and the financial and regulatory processes. Thus the correct setup of the formal institutional systems, policies and regulations is of prime importance for resisting urban sprawl and while governance processes can become useful extensions, they cannot substitute for these in the RURs.

Equally, governance procedures and policy arrangements between local governments are of crucial importance for cross-sectoral and cross-territorial integrated development, as these are the most important content-elements of the functioning of the formal government and planning system.

## 14.8 Conclusions

Sustainable urban development requires territorial government for large enough areas which also include the peri-urban zone and extend into the rural hinterland. Multi-functional, integrated development is needed in these territories, led by the public sector, also including all the other important actors in governance arrangements.

Public money is likely to be less available in the future, while the tasks and challenges will be bigger. Thus the public sector has to use all available means—regulatory power, planning tools, financial and indirect tools—to influence the behaviour of market actors to follow more sustainable directions. Municipalities who want to exert more control over land-use change processes have to:

- Fight for supra-local level compulsory settlement associations and/or compulsory comprehensive integrated planning in the functional rural–urban areas
- Aim to gain control over the financial, sectoral and regulatory tools, in order to decrease their sprawling effects
- Attempt to create informal cooperation, bottom-up partnerships in general or along specific strategies, with all the important actors involved in territorial development.

These options are not mutually exclusive: they can and should be combined with each other. Both the hard (strengthening the role of the province/region, planning control, tax equalization, etc.) and soft tools (e.g. funds for green-blue services) are needed to enable sustainable development, based on plans with regional leadership.

Though the analysis has proved the importance of all three types of factors listed above, results show that these are not of equal importance: first and foremost are the “hard factors” (government and planning systems, financial regulations, sectoral policies, land use regulations) which should be strengthened. In the lack of strong institutions, planning processes and regulations, informal governance attempts will not be able to solve all major problems: voluntary governance procedures are not enough on their own to achieve systemic results. In the case of strong formal institutional and planning frameworks, however, the role of governance relationships could be bigger so as to achieve changes towards more sustainable development and thus avoiding unnecessary urban sprawl.

The government and governance analysis explored two extreme types of countries from the perspective of public control over urban sprawl processes in peri-urban areas. There are a few countries (among the case study countries these include the Netherlands, the UK and France) where the potentially strong control

assured by the formal government system and planning policies over RUR processes seems to be underpinned by financial, taxation and sectoral policy and regulatory tools which are used in practice. These countries have good opportunities to control peri-urban development and to avoid urban sprawl—especially if informal governance agreements can also be reached among the partners in this direction.

The other extreme is the group of countries (mainly the new EU member states) where the formal government institutions and planning policies are weak and do not allow for sufficient control over the RUR processes. In these countries neither the financial, taxation and sectoral policies and regulatory tools, nor governance processes assure such control, so that the public sector is weak in all aspects in terms of being able to control peri-urban development. The most likely consequence is extensive urban sprawl.

This PLUREL government and governance analysis has highlighted the importance of effective formal institutions, planning, financial and sectoral policies at the RUR level, especially targeted to the peri-urban areas. In the absence of such formal systems the more informal (governance) processes can achieve only very limited results at controlling urban sprawl. The PLUREL synthesis report *Peri-urbanisation in Europe: Towards a European Policy to sustain Urban-Rural Futures* (Piorr et al. 2011) presents some hypothetical models as to how the European level could contribute to the strengthening of the basic formal elements of public control over peri-urban processes.

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