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Sprawling Cities And TransporT: from Evaluation to Recommendations

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EXECUTIVE SUMMARY

The objectives of this task were to identify institutional barriers which raise when tackling urban sprawl and analyse new ways of cooperation between institutions.

Analysis of the case studies through the grid of the "institutional square"

The analysis is based on 6 case studies performed in the 6 cities involved in SCATTER: Rennes, Bristol, Brussels, Stuttgart, Helsinki and Milan. In each city, the case study was focused on *one particular policy or policy package* which was envisaged or implemented by the local authorities, and which was related to urban sprawl, either because it attempted to control or reduce sprawl, or because it was aimed to decrease some negative effect(s) of sprawl (e.g. congestion). The case study consisted in describing and analysing the particular institutional issue encountered, the mechanism(s) which was (were) implemented to tackle the issue, the actors involved, the dynamic of co-operation and, if possible, elements for evaluation of the implemented solution. Then a transversal analysis of the 6 case studies was performed.

For convenience, we call "metropolitan institution" the formal structure of cooperation between institutions which was set up to manage urban sprawl, transport, land use, or another related matter, at a metropolitan level.

The 6 metropolitan institutions and forms of cooperation which were analysed in the case studies are as follows:

- Rennes: Pays de Rennes (includes 61 municipalities)
- Bristol: Joint Strategic Planning and Transport Committee (brings together 4 counties)
- Brussels: Brussels-Capital Region (comprises 19 communes) ; cooperation agreement and convention between the 3 Regions and the federal state about the future Regional Express Railway
- Stuttgart: Verband Region Stuttgart (covers 179 muncipalities)
- Helsinki: Helsinki Metropolitan Area Council (covers 4 cities)
- Milan: North Milan Development Agency (brings together 4 municpalities and private partners).

These 6 cases are quite formal structures of cooperation, but in the description of the cases and of the processes, other informal or less formal forms of cooperation were also highlighted, such as: associations, specific places dedicated to political agreement building, etc. Of course these two forms, formal and informal, are not exclusive. In several metropolitan areas, they co-exist, but usually at different scales. This point already lets foresee that it does not exist one single "best" solution to bring a response to the institutional fragmentation in urban planning. In this view, another crucial point is taking into account the specificities of the local context: locality appears as a set of resources and constraints which clearly influences the choice of a type of response to develop new ways of cooperation between political institutions.

These 6 metropolitan institutions are analysed through the grid of analysis of ***the "institutional square"***. This grid of analysis highlights the 4 main features of any institution:

- the ***democratic legitimacy*** (political composition) : directly elected representatives, representatives elected at another level, members appointed or chosen by another non-elective process;
- the ***power*** (action instruments) : legislative power, regulatory power (executive power), intermediary stage regulatory power, consultative role (providing recommendations). Other action instruments to be mentioned are planning instruments and instruments of financial nature (fiscal instruments, financial aids, etc);
- the ***matters of competence*** : in the case of the control/reduction of urban sprawl, 6 matters are related to the main goal : land use, housing, transport, economic policy, environment, social affaires;
- the ***territory*** on which the institution has authority: entire metropolitan area or only part of it.

Democratic legitimacy and action instruments determine the ***degree of authority***, while competences and territory determine the ***scope of authority***.

The sample of 6 metropolitan institutions or "ways of co-operation" analysed here shows that in practice, there is ***a great variety of institutional solutions*** which are experimented, from institutions having only a consultative role, but being the place for a dialogue between municipalities and being initiator for innovative solutions (e.g. Milan) to institutions with directly elected members, having authority for voting laws, several important competences, and covering the whole urban area (e.g. Stuttgart).

The analysis emphasises that the main institutional issue is ***a question of balance and consistency***: the most important condition for efficiency of an institution is balance and consistency, first, between the 4 features themselves, and secondly, between the institution as it is characterised by these 4 features, and the objectives that it has to achieve.

At another level, consistency is also requested between the policies envisaged by the metropolitans institutions, and policies decided at a higher institutional level (e.g. national-level policy as regards the fuel price).

Examples of imbalance within an institution are:

- imbalance between territory and objectives (frequent when tackling urban sprawl)
- imbalance between matters of competence and objectives
- imbalance between political composition and matters of competence or objectives : e.g. representatives elected at a municipal level and delegated in a supra-municipal institution: locally elected people tend to defend their local interests sometimes to the detriment of the interests of the supra-municipal institution
- imbalance between action instruments and objectives
- etc.

As regards the ***legitimacy*** of metropolitan institutions, these institutions generally have low visibility, and technocratic legitimacy rather than a high symbolic or historic legitimacy (compared to states and towns).

Another feature often pointed out is ***complexity*** of the institutions involved in metropolitan management. Complexity comes from the multiplicity of the actors, processes, instruments,

etc, but complexity does not necessarily constitute an obstacle or handicap. For example, the intervention of a multiplicity of actors can mean that a number of problem areas are taken into account, with each institution having its own competences. If completed with adequate interaction and cooperation, this could be synonymous with financial power and effectiveness. On the other hand, some authors have a tendency to put some obstacles under the category "complexity" while they can be of a really different nature. The temptation is then to conclude wrongly that this complexity must be reduced.

Finally, it is also worthwhile noting that the grid of analysis of the "institutional square" is more appropriate to describe the features of formal institutions (such as our 6 cases) than informal scenes of negotiation. Indeed these latter ones do not meet the 4 classical criteria (legitimacy, instruments, competences, territory). Nevertheless, cooperation and arrangements are also taking shape on these informal scenes.

Identification of institutional obstacles

The next stage in the analysis consisted in considering "***where are institutional obstacles raising from ?***". In fact, there are two major types of institutional obstacles. The first type is related to the nature of the institution itself. Examples are: imbalances as seen above, shortcomings, inadequacy (notably regarding the territory covered and the spatial scale of the urban issues whose most take place on large functional areas), too much territorial fragmentation, multiplicity of actors, dissipation of power, inadequate sharing of costs and charges, etc. The second type comes from conflicts between institutions. Examples are: competition between actors competent on connected matters on the same territory, conflicts of interests, deliberate lack of cooperation, lack of an higher-level institution able to arbitrate and regulate conflicts between municipalities, etc.

Types of solutions

The further stage in the analysis consisted in listing the ***different types of response to such obstacles***. The responses can be categorised in 3 types:

- ***creation*** of a new institution: in charge of policies, coordinating policies, or "only" generating dialogue and a prospective reflection,
- more or less deep ***transformation*** of the existing institutions: e.g. creating a common service between 2 or more institutions, transferring fiscal power from one level to another, designing a flexible revising mechanism for the territory over which the metropolitan institution acts, modifying the political composition of the metropolitan institution so that it holds the general interest as a priority, etc.
- ***improvement of cooperation mechanisms*** between existing institutions, e.g. limited technical agreements, general cooperation, etc.
- plus: ***combination*** of 2 or 3 types mentioned above.

Evaluation and conclusions

Finally, when coming to the ***evaluation*** of these different, more or less formalised, forms of co-operation, two elements come under consideration : ***efficiency*** of the institution and ***feasibility*** of the creation and functioning of such an institution.

As regards efficiency in controlling urban sprawl or reducing its negative effects, it seems obvious that, the strongest the institution, the most efficient it will be. An institution with full democratic legitimacy, with legal power, having competences in all the matters related to sprawl and on the whole territory concerned by the phenomenon will in principle be able to decide and implement more efficient policies.

Some experts even argue that such strong institutions with full democratic legitimacy are the only possible institutional solution to the question of the management of metropolitan areas, to overcome the territorial fragmentation, the fragmentation of competences and the divergent local interests. According to them, the municipal institutional level is an heritage from the past which is no more adequate to the current cities and the problems they face.

This latter point can be partly true. However other political experts consider that political institution creation is only one way among several ones to build a capacity for action in the management of large metropolitan areas. According to them, it is crucial to take into account ***locality***, and the local specificities, in the definition of the new modalities of government. Territories bring specific resources (political resource, expertise, budget) whose stock and characteristics influence the choice of most appropriate modalities of political cooperation. These experts take as example the legislative reform concerning the government of metropolitan areas in Italy (1993). The main Italian cities should have been concerned by the settlement of a metropolitan political institution with large powers and a strong legitimacy. But the implementation of this legislative framework has been dependent on local configurations. It has been possible where a tradition of cooperation, or an integrated political leadership and social values of consensus, of collective action, was existing. In a context of traditional fragmentation, legislative decision didn't manage to change the situation. Elected representatives of political institutions (city, province, region) acted in order to stop the implementation of the institutional reform.

Thus the creation of a strong metropolitan institution, depriving partly other authorities of their powers, can be very difficult in practice because of ***historical and/or political reasons***[1], or, less often, because of the strength of the institutional barriers themselves. In such cases, an intermediary solution, i.e. a structure of cooperation with low power or medium power, is the only feasible solution. This type of solution should not be neglected for all that, because it can generate a permanent dialogue between municipalities or other institutional levels, contribute to raise awareness among decision-makers (awareness of the need of cooperation on at least some matters), and can be the first step on which progressively a stronger structure could build on. Stabilisation of political arrangement needs time and non formal cooperation helps to define collectively rules, identities, references or values which make possible a political integration in a later stage.

Besides, the range of appropriate responses to any situation can vary greatly from one urban situation to another, because of local specificities, as mentioned above. Each territory has its own resources. Configurations of political leadership (collegial, individual) represent opportunities, or constraints, for the feasibility of the settlement of a new political institution. Mobilisation of private interests organisations on institutional aspects depend also from the locality. Presence of social values shared by inhabitants, like consensus or collective action capacity, is a specific resource which can make possible the creation of a new political institution.

[1] Not to be confused with actual institutional reasons, as explained in Chapter 4.

Consequently, rather then recommending one single form of metropolitan institution or one single model of cooperation, the report presents first, a variety of types of responses, mainly drawn from the case studies, and mentioned above (sections 5.2 and 5.3), and secondly, general principles of good governance (negotiation, representativeness, clarity of agreements, taking into account people who can not easily express themselves, etc) (section 5.4).

Two more elements appear in the conclusions.

As regards the competition between local authorities, an element which could contribute to overcome the conflicts of interest between these authorities could be a better knowledge of the real stakes underlying urban sprawl, a better knowledge of the negative effects of urban sprawl and of their collective costs. Municipalities for example are often well informed about the potential revenues that they could get from new residential developments (through the income tax) or new economic activities (whether from the tertiary or the industrial sector). However they are maybe not as well aware about costs generated by these new developments.

Finally, the 6 case studies and other examples in Europe also illustrate the fact that ***institutions can change***, on the contrary of the widespread idea that holds that institutional structures can only transform themselves with great difficulty, because of the strength of tradition, because conflicts of interest lead to prefer the *status quo*, or because constitutions or other legal texts limit institutional possibilities. Movements in this matter can be slow or difficult but examples also exist of profound and rapid institutional changes.

1 INTRODUCTION

In its 1998 communication 'Sustainable Urban Development in the European Union: a framework for action', the European Commission called for "stronger policy integration between various levels of government and policy sectors and for citizen empowerment and involvement". Through the Key Action 'City of Tomorrow and Cultural Heritage' from the Fifth Framework, the Commission would support research on the sustainable city. It was then stated that "Government can be improved by better vertical integration of activities of different levels of government and better horizontal integration within and between various organisations at the local level and involvement of stakeholders and citizens in urban policies". Several research projects within the Fifth Framework Programme touched on this theme, with most exploring the second part of the proposition "how to improve citizen involvement and strengthen participative democracy". Project DEMOS concentrated on democratic participation in urban governance[2], LASALA explored new models of urban governance[3], and project PLUS studied the relationship between participation, leadership and sustainable urban development[4].

Little attention has been devoted to the first element of the government-improving proposition, that is coordination of the different levels of governance. In this work package of SCATTER, we are looking for solutions that lift institutional obstacles to managing urban sprawl; this means exploring the up-to-now rather neglected institutional dimension of urban governance.

If previous research projects have examined some institutional obstacles when looking for solutions to mobility or land-use problems, they most often analysed the problems but did not explore in detail, or explored in less detail, possible comprehensive solutions to institutional problems. For example, the COST 332[5] research program and the TRANSLAND project[6] were part of the 4th Framework program. They focused on how to integrate land-use and transport policies and how to transfer solutions to other locations. TRANSPLUS[7] studied the legal, institutional and financial obstacles to transferring land-use and solving transport problems. Moreover, none of these studies dealt with urban sprawl from an inclusive point of view, as they were not dedicated to the urban sprawl phenomenon.

The object of this deliverable is to answer the following question: how can we remove institutional obstacles to urban sprawl management? This complex question must first of all be broken up into several intermediary questions and analysis must be carried out at different levels in order to answer them:

- What is precisely the urban sprawl phenomenon we want to manage? What are its characteristics and components? What is at the core of this phenomenon and how does it constitute either a problem or a threat?

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[2] Project EVK4-CT-2001-00066.

[3] Project EVK4-CT-1999-00011.

[4] Project EVK4-CT-2001-00062.

[5] See *Transport and Land-use policies: innovations in institutional managements for coordination*, COST 332 final report.

[6] Transland, project UR-98-RS-3055, see *Integration of Transport and Land Use planning: final report* and deliverable 2b: *Transport and land use planning: review of institutio*nal issues.

[7] Transplus, project EVK4-CT-1999-00009, see deliverable D4.1, *Assessment of obstacles and solutions.*

- What are the institutional obstacles that are met? What are their origins? How can we recognise and identify them? How can they be defined?
- How can institutional obstacles be removed? What would be the best procedures? How can the distraction of any possible wrong leads be guarded against?

We will deal with these questions as they are presented above so as to clarify the basic components of the problem, which are first urban sprawl, and second, institutional obstacles. Attention will then be paid to the complex matter of possible solutions to institutional problems.

The first series of questions have been answered (or at least an attempt was made) in the first Deliverables of the project, and particularly in Deliverable 1 "State of the art review of urban sprawl impacts and measurement techniques". However, Chapter 2 of the present report resumes a synthesis of the main characteristics of urban sprawl, the problems that urban sprawl creates and the different responses that might be applied.

Chapter 3 presents an in-depth analysis of 6 case studies performed in the 6 cities involved in the project (Rennes, Bristol, Brussels, Stuttgart, Helsinki and Milan). In each city, the case study was focused on *one particular policy or policy package* which was envisaged or implemented by the local authorities, and which was related to urban sprawl, either because it attempted to control or reduce sprawl, or because it was aimed to decrease some negative effect(s) of sprawl (e.g. congestion). The case study consisted in describing and analysing the particular institutional issue encountered, the mechanism(s) which was (were) implemented to tackle the issue, the actors involved, the dynamic of co-operation and, if possible, elements for evaluation of the implemented solution. These case studies were performed by CASA (Bristol), LT Consultants (Helsinki), the *CETE de l'Ouest* (Rennes), STRATEC (Brussels), STASA (Stuttgart) and TRT (Milan). They make up the annexes to this report. Then a transversal analysis of the 6 case studies was performed by the CRISP, with collaboration and under supervision of STRATEC.

The case-study situations usually concern problems in the field of transport. However they do provide an opportunity for understanding the institutional situations from an inclusive point of view, and for perceiving the improvements that could be made to ease the problems associated with managing urban sprawl.

Chapter 4 presents an in-depth study of the institutional question. It aims to clarify the definition of an institution, in terms of being a public or political institution, and to assess precisely the scope of any institutional problems. It sets aside those such as legal or political obstacles that do not constitute real institutional obstacles, the analysis of which as institutional obstacles could lead to false solutions.

Chapter 5 yields the results of the analysis of the possible solutions to lift institutional obstacles to urban sprawl management.

Finally, some conclusions are presented in Chapter 6.

2 URBAN SPRAWL: A SUMMARY OF ITS CHARACTERISTICS, EFFECTS, AND RESPONSES

This chapter resumes some main elements which were presented in the Deliverable 1 of SCATTER : “State of the art review of urban sprawl impacts and measurement techniques”.

2.1 Definition

One of the problems in dealing with urban sprawl is that there is no consensus on how to define the term. Scatter WP1 provided a review of various existing definitions based on form, land-use, impact or density. We chose to retain here a functional definition suited for the institutional review of the cases we undertake. We are suggesting a rather general definition that most people can probably live with. Urban sprawl is the spreading of a city to enclose territories that were formally not urbanised. So what is the difference between growth and sprawl? In sprawling cities, the growth is spontaneous and uncoordinated. Moreover, the new urban differs from the old urban. In the new urban, housing density is lower, specialisation of residential, commercial and industrial functions is greater, and the average length of trips taken by residents is higher. Often - but not always - sprawl is accompanied by decline in the urban centre, both in terms of population and prosperity. This last phenomenon, widely observed in North American cities, is sometimes referred to as the “doughnut syndrome”, where the periphery prospers while the centre declines. Urban sprawl can be precisely detected and measured by using sophisticated statistic analysis[8].

2.2 Various forms

The phenomenon of sprawl can follow a concentric pattern, developing symmetrically while the condition known as suburbia spreads homogeneously. Sprawl can also expand in semi-concentric patterns and develop asymmetrically. This often happens if a natural or institutional obstacle prevents development in one direction. Sprawl also can take hold in previously existing centres when they end up forming one single urban area. This is known as the polycentric model. This model can start by sprawling around a disaffected old centre, or by taking hold in a new development near a still active urban centre. The urban centre’s functions gradually change as activity in the periphery takes over some of them. Sprawl can take place along axes of transport in a linear or strip development. This mode of development can lead to the creation of a maple leaf pattern. Centres of sprawl can develop unevenly in dots around the main city, conforming to the scattered development or leapfrog model. This later case often takes place around existing urban centres close to the main city.

[8] See SCATTER Deliverable 3 : “Statistical analysis in the case cities”.

2.3 Characteristics of a sprawling city

Urban sprawl affects land-use, housing, mobility, the economy, the environment and social issues.

- *land-use*: the residential, commercial, and industrial functions are clearly separated in the peripheral area of an urban zone. These functions all consume more land then they do in a compact city because land is cheaper and more abundant. Furthermore, the prevalent cultural models concerning the desirability of a detached house with a large garden contribute to any decision by a resident to settle away from the core of the city.

- *housing*: housing in sprawling cities is characterised by the prevalence of detached or semi-detached houses with private gardens.

- *mobility*: mobility is high. Distances to and from the work place, school, shops and places of entertainment are greater. In most sprawling cities, mobility is characterised by an increasing use of private transport in the form of cars. Cities such as Stuttgart and Zurich have implemented ambitious public transport systems such as the S-Bahn, and these are reducing the proportion of trips made by private cars.

- *economy*: the characteristics of the economy of a city with sprawl can vary greatly since they depend on many variables other than sprawl. In general, sprawling cities are expanding cities with the associated economic power. Such cities attract the specialised economic activities connected with creating new industrial and commercial zones outside the city itself.

- *environment*: the landscape is modified, as residential, commercial and industrial zones take over rural areas. There is often a mix of old structures and new development outlets in the expanding periphery. More people and more industrial activity generate pollution, as does increased mobility.

- *social issues*: in sprawling cities, population is usually fairly homogenous in a given neighbourhood. This is because the new neighbourhoods appeal to a certain kind of people and a process of selection naturally takes place among the residents.

2.4 Negative effects

The characteristics mentioned above are generally associated with negative effects. In every sprawling city, some or all of the following effects can be observed:

- *land-use*: sprawling cities consume a lot of land with low-density settlements. Additionally, those settlements often occur in a disorderly fashion, making urban planning difficult. Also, they are usually initiated and managed by private consortiums without the cooperation of public authorities. Sometimes building permit procedures are disregarded or circumvented. With little attention being paid to administrative boundaries, new developments often end up straddling them.

- *housing*: the periphery of sprawling cities usually consists of fairly homogenous residential neighbourhoods. New dwellings are built and commercialised with the aim of attracting a specific type of population. This can make it difficult to develop a social housing policy in some neighbourhoods.

- *mobility*: increased travel frequency and length of trips are the rule in sprawling cities. Residents rely largely on private transport, as the low density of settlements make it difficult to build and manage public transport systems. Furthermore, when additional public transport is provided in sprawling cities to reduce traffic congestion and pollution, a reverse effect has been observed or is expected to occur: easier transport facilities (i.e. lower travel times and/or travel costs) generate more sprawl.

- *economy*: it is yet unclear if sprawl affects the global economy adversely. Sprawl has not yet reached a state where the increasing consumption of land for residential purposes is taking away land required for agriculture or industry. Sprawl has an impact on public finances in that it modifies the tax base; how that affects public services depends on the institutional scene in the urban area concerned. Sprawl also increases the cost of public services. Water and electricity has to be distributed to previously non-equipped zones, and the infrastructure for waste management and disposal, transport, and road systems has to be put in place. Who pays for the rising cost of infrastructure is unclear. It is seldom paid entirely by the residents of the new suburbs and is more often supported collectively.

- *environment*: air pollution generated by increased traffic and congestion at entry to the city, the destruction of rural landscapes which are replaced by monotonous panoramas of similar residential units or strings of commercial outlets extending out along the highways, are the obvious negative effects of urban sprawl. In some sprawling cities, there are additional problems related to poor waste management and sewage systems. Sometimes the authorities issue building permits even when the public service infrastructure for the residential area is not in place.

- *social issues*: in many situations of sprawl, the centre of the city becomes home to a poorer population, creating a social segregation between the centre and the periphery. Additionally, the relative poverty and decay in city centres can give rise to increasing crime rates and racial or ethnic segregation, although this latter phenomenon is currently more prevalent in the USA than in Europe.

In a nutshell, urban sprawl is a high cost model of development. Yet, it is still unclear whether sprawl itself is negative, or whether specific characteristics of sprawl have negative effects.

2.5 Possible responses

Once the negative aspects of urban sprawl became generally recognised, the debate on how to respond began. It is still not clear whether the aim of any response should be to reverse the trend towards sprawl, to limit it, or simply to manage it better.

Opponents to urban sprawl have been promoting an alternative scheme of development, known as 'smart growth'[9]. It is based on increasing the density of existing neighbourhoods, known as 'compact development', promoting public transport use and walking, supporting small businesses, improving public services, developing green spaces and fostering cooperation within the community.
In North America, the smart growth model has in turn been subjected to a lot of criticism. It has been deemed utopian, and authoritarian in a country where individual freedom is paramount. The smart growth model is indeed difficult to implement in a democracy. It runs against the tyranny of small decisions.

[9] See the website of the Smart growth network: www.smartgrowth.org

An alternative to trying to reverse urban sprawl is to set more modest goals that would include containing or managing the sprawl.

Containing the sprawl can be an objective. The general strategy would be to make the periphery less attractive and the centre more attractive by means of offering such incentives as fiscal concessions and housing benefits, in the hope that growth will slow at the periphery and new development will take place in the centre.

Managing the sprawl means improving the quality of urban life in the centre and the periphery and trying to suppress or limit some of the negative consequences of the sprawl. Unfortunately, managing the sprawl can easily have a reverse effect and encourage it. For instance, a lower commuting time resulting from improved public transport becomes an incentive for generating more sprawl. Such sprawl management measures need to be carefully thought through and should be part of a global strategy that includes a package of measures. Preserving or creating green spaces is part of improving the quality of life, yet the effect is to increase the actual land area taken up by the city. Limiting the land available for development can lead to an increase in the price of land and housing, thus rendering things difficult for low-income families.

Whatever the aim of the response, a variety of tools are available.

2.6 Institutional situations

Sprawl nearly always means that the functional urban area no longer matches the institutional situation. This actually creates a new problem. We will bear this in mind when in the next chapter we examine the situation of the six cities constituting the case studies of the SCATTER project. We will examine the answers offered for specific problems generated by sprawl – most often in the field of transport – and the institutional obstacles encountered and sometimes overcome in bringing about a solution.

3 SPRAWLING CITIES: 6 CASE STUDIES ON INSTITUTIONAL OBSTACLES AND HOW THE SITUATIONS WERE RESOLVED

3.1 Introduction

This section draws on previous conclusions from the SCATTER project and on additional information provided by the various partners. It summarises the characteristics of the sprawl experienced in each city studied, and the institutional obstacles that were encountered when responses to one or more aspects of the effects of sprawl were applied. This section gives details on the responses each city devised and evaluates their effectiveness. It concludes with a general evaluation of the process of responding to institutional problems.

3.2 Bristol

3.2.1 Characteristics of the sprawl

Bristol has experienced strong economic growth over the last 20 years. Demands for labour has increased commuting to and from the city, as the population growth in the city itself was insufficient. The city centre declined in the 1980s and grew slowly over the 1990s while the economic activity on the periphery grew steadily. This growth was geographically uneven, and was concentrated in the north of the city, in a pattern that followed the physical extension of the road infrastructure in the late 60s and early 70s. The cities of Bath and Western Super Mare are located near Bristol and constitute other urban centres. Bristol is near the border with Wales, and many workers commute from there. The districts around Bristol proper have been competing to attract population and investments. The private sector has been exclusively responsible for any development, unhindered by public regulation.

3.2.2 Main institutional obstacle

In 1996, institutional reform at national level split the former Avon county into four new entities: Bristol City, South Gloucestershire, Bath and Northeast Somerset, and North Somerset. These new entities were now responsible for urban planning, transport, health, social services and education. The reforms generated a disrelation between functions and administration.

In line with national policy the South West Regional Planning Conference and the Government Office for the South West prepared guidelines at regional level. The counties created plans covering structural and strategic directions and local plans for land-use, and these were expected to comply with regional guidelines. However the region did not have authority to enforce decisions.

3.2.3 Solution

A Joint Strategic Planning and Transport Committee was created. It provides a discussion forum for the four new counties, and sets the strategic context for the four development plans. Each county appoints five delegates to the Committee, and the chair of the Committee is appointed by rotation. The Joint Strategic Planning and Transport Unit is the executive arm of the Joint Committee, and produced the Joint Replacement Structure Plan that was adopted in September 2002. The plan sets out directions for policies in overall development, housing, transport and commercial growth, until 2011.

3.2.4 Evaluation

While it is an interesting response to the institutional obstacle that was created by institutional reform, the Joint Committee doesn't have actual power and its decisions are not binding. It has no political authority to act as a real metropolitan institution. The lack of a unified transport authority is particularly damaging.

3.3 Brussels

3.3.1 Characteristics of the sprawl

In the 1980s the area around Brussels grew steadily while the 19 municipalities of the urban centre lost population, and number of workers commuting to the centre increased. The overall nature of employment shifted from industrial activity to office work and administration. Sprawl slowed after 1989; some re-centralisation has begun, starting in 1993. The key factor has probably been the placement of EU institutions in and around the city centre.

For the main part, sprawl has followed the main transport arteries. Louvain-la-Neuve and Waterloo are other urban centres fairly close by and have succumbed to the effects of significant sprawl.

3.3.2 Main institutional obstacle

The urban centre of Brussels consists of 19 municipalities. Together, they form the Brussels Capital Region. Along with the two other Belgian Regions the Brussels Capital Region was established in 1989, and was given the same powers as them concerning land-use, town planning, urban renovation, housing, public transport, the regional economy, employment, and the environment.

Urban sprawl has extended beyond the limits of the Brussels Capital Region, and now takes in municipalities from the Flemish Region and the Walloon Region. The result is that there is no single institutional structure, except the federal state, that has authority over all the territory that effectively comprises the Brussels urban region. However, the federal state no longer has responsibility for land use, regional transport or housing – although the state does retain responsibility for the national railways.

3.3.3 Solution

Nobody has found – or sought to find - an institutional mechanism to manage urban sprawl at a global level. However, those involved have tried special mechanisms for cooperation between the three Regions to ensure the successful completion of the new public transport system known as the *Réseau Express Régional* (RER - Regional Express Railway Network). The first stage has been passing the appropriate Belgian legislation to establish mechanisms to facilitate cooperation between the Regions and the federal state. These mechanisms are in the form of a Conference of communication and infrastructure ministers, and a Cooperation Agreement that was to have been approved by the federal and regional Parliaments. However the Flemish Region refused to go along. Parliamentarians and others then devised an alternative mechanism that was more specific to the problem. This was in the form of a Convention between the three Regions and the federal state that was signed in January 2003.

3.3.4 Evaluation

It was difficult to overcome the institutional obstacles impeding the creation of the RER. The established mechanisms designed to facilitate inter-institutional cooperation failed. The alternative solution of the Convention was probably a weaker arrangement, since elected representatives did not formally adopt it - and its effectiveness remains to be seen.

3.4 Helsinki

3.4.1 Characteristics of the sprawl

Helsinki is the capital of Finland, and is a prosperous metropolitan area comprising around one million inhabitants. It experienced sprawl in the 1960s, in two forms: 1) in concentric rings, and 2) in the form of development along the transport corridors, thus generating a 'maple leaf' pattern of expansion. Growth was relatively slow in the 1970s and 1980s, but resumed with vigour during the last decade. Both the centre and periphery of the city have been experiencing this growth, which has resulted in an increase in density of population of the old urban neighbourhoods.

One major phenomenon connected with urban sprawl is the increase in personal mobility. People make over 3 million trips within the Helsinki metropolitan area on a normal day. The road network includes several radial motorways and two ring roads, and is relatively dense. The public transport network is also highly developed. It includes a metro system, buses, a commuter train network and a tram service. The authorities' main response to urban sprawl has been to increase the availability of public transport. This has succeeded in halting the decline in the proportion of journeys made by public transport in relation to private motorised transport. However, the amount of vehicle traffic - with its associated pollution and noise - is still increasing.

3.4.2 Main institutional obstacle

The main obstacle to developing a coherent mobility plan and coordinating it with land use planning and the development of public services was the existence of several municipalities in the metropolitan zone.

3.4.3 Solution

After experiencing strong growth in the 1960s, the cities of Helsinki, Espoo, Vantaa and Kauniainen founded the regional institution the Helsinki Metropolitan Area Council in 1970. The Council's responsibilities included housing and public works-related matters. The responsibilities of the Council were defined by law in 1974, and were extended through successive legislative measures in 1982 and 1985. The Council then became exclusively responsible for waste management, regional public transport and air quality management. The law was changed again in 1997 to change the Council's structure to the form of elected representatives from the four cities, and to adjust working procedures.

3.4.4 Evaluation

Helsinki tackled urban sprawl quite early on by forming a new institutional body. The promptness of the city's response allowed this Council to develop regional public transport to alleviate some of the pressures associated with urban sprawl. The Council has proved to be adaptable to changing contexts to some extent. Whilst successive changes in the law have increased its responsibilities, the geographical area over which the Council has power has not been extended, so it is not in a position to deal with urban sprawl across the whole metropolitan region. The current networking with adjoining municipalities may not be enough. Another major shortcoming for the Council is that it does not have any say in regulating land use. Land use planning is conducted at regional level, after broad objectives have been defined nationally. Municipalities can then draw development plans, which must be submitted for approval by a national minister. A final point is that the Council's decision-making powers are formalised on the basis of consensus.

3.5 Milan

3.5.1 Characteristics of the sprawl

The city of Milan has experienced massive de-industrialisation over the last few decades, and there has been a continuous exodus of the city's population to the suburbs. Today, the Milan authorities have moved away from working with the concentric sprawling model that resulted from de-industrialisation and have moved towards applying a polycentric development model. Furthermore, the city centre is now witnessing an 'in-fill' process as it has successfully transformed itself from being a precinct for industrial activity to being a financial and commercial centre. The north periphery has been the most problematic zone.

The number of people commuting to the centre has been rising steadily, and public transport connecting the centre to the periphery is rather poor. The Milan urban area comprises 187 municipalities, and is part of the province of Milan and the region of Lombardy.

3.5.2 Main institutional obstacle

The conflicting interests of the city of Milan and the surrounding municipalities put paid to the implementation of national legislation that called for the creation of a metropolitan authority in 1990. The various parties appeared unable to be concerned about the situation from a global perspective.

Both the Lombardy region with a regional development plan and the Milan province with a provincial coordination scheme thus produced strategic designs, but they had no power in law and were not binding. The instruments of any significance are now the master plans produced by the cities.

3.5.3 Solution

The Milan province has tried to coordinate some initiatives but so far without much success.

With the north periphery being the most problematic zone the municipalities concerned created the North Milan Development Agency in 1996, designed to support the rehabilitation of the old industrialised areas. The Agency is a non-profit organisation established by four municipalities and some private partners. It is both privately and publicly funded (including

contributions from European funds) and has put together the North Milan Strategic Plan, establishing guidelines for the period 2000-2010. However, the Agency has no political authority; there is no other institution with the ability effectively to implement the plan if called upon to do so.

3.5.4 Evaluation

Although a comprehensive response to urban sprawl wasn't achieved, a solution was found for the most problematic zone of the Milan urban area. It was possible to set up a non-profit institution, because it didn't challenge the established political power structures.

3.6 Rennes

3.6.1 Characteristics of the sprawl

The metropolitan area of Rennes (ca 500.000 inhabitants) has experienced continuous growth since the end of World War Two. This phenomenon has intensified over the last two decades. It has affected both the centre and the periphery, albeit with different intensities. Growth was slower in the centre. The sprawl that accompanied the growth followed a globally concentric pattern. The city of Rennes itself is surrounded by a green belt, then by two urban successive belts. The road network includes an urban ring and is relatively dense. Public transport takes the form of a metro line, regional commuter trains and a bus service.

The authorities have been concerned for some time that policies created in the areas of urban planning, housing and public transport are indeed common policies. In 1973 the city of Rennes with its neighbouring municipalities created an institution to facilitate a common approach. This came to be known as the urban district of Rennes. This district went on to create general land use plans in 1974, 1983 and 1994. Limiting sprawl was always one of the main objectives.

A combination of three factors led to a worsening of the situation. The three factors were 1) the continuous growth of the city beyond district boundaries, 2) the 1983 decentralisation laws that gave mayors the responsibility for urban development, and 3) the coercive rules associated with some of the district policies. These latter were thought to put constraints on releasing development space in the city centre and boosted development around the periphery.

3.6.2 Main institutional obstacle

Municipalities around the District periphery were reluctant to join any form of organised cooperation. They feared losing their autonomy if they submitted to the authority of the District. The municipalities also had different and conflicting priorities concerning land use. While the District preferred to exert tight public control on urban planning on a large scale and to minimise the consumption of land, the peripheral municipalities favoured a looser development pattern that preserved their quality of life.

3.6.3 Solution

The municipalities and organisations concerned agreed to create a new institution called Pays de Rennes in 1999. Membership of the institution was voluntary, but brought together 61 municipalities to form a non-profit organisation. This group succeeded in drawing up the

SCOT (Schéma de coherence territoriale) master plan that was in line with the national law passed in 2001.

3.6.4 Evaluation

The success of the Pays de Rennes institution was because it was somewhat loose in structure, and was an umbrella organisation that allowed each of the municipalities to retain their autonomy and authority. Moreover, as part of the organisation the District itself had only 50 % of the voting rights even though it represented 80 % of the population. This compromise structure along with the creation of the SCOT plan was the result of a trade-off. The peripheral municipalities accepted a larger dose of public planning in exchange for access to the District's financial resources in developing transport systems. SCOT will be implemented through five local plans applied in the territories that have cooperation institutions ("Communautés de communes"). Whether or not this arrangement will be effective in tackling urban sprawl remains to be seen.

3.7 Stuttgart

3.7.1 Characteristics of the sprawl

Stuttgart has experienced fast growth since the late 1980s. Urban sprawl has taken the classical form of residents and enterprises flocking to the periphery. This has generated expansion and an increase in density of population in peripheral localities, with the population in the centre declining and the centre itself becoming almost exclusively a commercial district. Stuttgart is a major industrial centre and is part of one of Germany's strongest economic regions. New enterprises and existing enterprises relocate to the periphery rather than the centre. Additionally, the new Filderstadt urban centre has been developed south of the city around the fair complex. The motorway network and public transport in the form of buses, the S-Bahn, the U-Bahn, and a high-speed trains system are well developed.

3.7.2 Main institutional obstacle

The reform of local government in 1974 didn't change the boundaries of the city of Stuttgart so the effective urban area functionally speaking extended far beyond the city boundaries. The planning responsibilities were split among 179 different municipalities and 6 state districts ('Kreisen'). The Baden-Württemberg "land" - region - didn't have the power to impose solutions either.

3.7.3 Solution

The authorities created the Verband Region Stuttgart to tackle the problem in 1994. It brought together 5 kreisen and 23 districts covering 179 municipalities to have responsibility over mobility, public transport, land use, economic development, waste management and tourism. It is a political organisation, with its own directly elected assembly. The Verkehrsverbund Stutttgart is an organisation that specifically ensures that the whole region is subject to a common tariff system. Other independent branches of the Verband undertake business promotion and tourism marketing. The Verband have also posted achievements in urban planning, rehabilitation projects, creating 'fill-in' strategies for the centre, improving public transport networks, and fighting air pollution. The main mechanism for landscape and transport planning is a regional plan valid for 10 to 15 years.

3.7.4 Evaluation

Creating the above-mentioned Verband Region Stuttgart was successful in fighting the institutional obstacles to managing urban sprawl. In fact the Verband has worked well enough for the Baden-Württemberg assembly to extend its responsibilities in 1999 to match those of a regional institution. However measures such as those that improved the public transport system – the S-Bahn – have had negative side effects, in that the lower commuting time to the city centre has induced more sprawl.

3.8 General evaluation of the six case-studies

The most adequate response to the problems caused by urban sprawl involved setting up a new institution – this was the case in Bristol, Milan, Rennes and Stuttgart - or using an existing institution, as was the case in Helsinki and Brussels[*]. The following table sums up the characteristics of each institution.

[*] The urban area of Brussels does not have a metropolitan authority. However, part of the area constitutes an autonomous region of the federal state of Belgium, the Brussels-Capital Region. To allow institutional comparison, we have put Brussels-Capital Region in the table, even though it is not an institution set up to address urban issues.

City	Institution	Public / private	Composition/ democratic legitimacy	Power	Competence	Territory
Bristol	Joint Strategic Planning and Transport Committee	public	delegates from four authorities (elected at another level)	planning instruments, binding if adopted by all four authorities	land-use, housing, transport	four authorities covering most of the urban area
Brussels	Brussels-Capital Region	public	directly elected members	laws	economy, employment, energy, environment, housing, transport, public works, town planning	19 municipalities covering part of the urban area
Helsinki	Helsinki metropolitan area council	public	representatives from four cities (elected at another level)	regulations (waste management, public transport, air quality), recommendations on other matters	waste management, public transport, air quality, housing, public works	four cities covering part of the urban area
Milan	North Milan Development Agency	public/private	delegates from municipalities and private partners	recommendation	various matters concerning local development	four municipalities covering the northern part of the urban area
Rennes	Pays de Rennes	public	representatives (elected at another level) from municipalities and Rennes District	planning instruments, binding if adopted by the municipalities	urban planning, land-use, transport	61 municipalities covering the urban area
Stuttgart	Verband Region Stuttgart	public	directly elected members	laws	land-use, economy, transport, waste management, tourism	179 municipalities = the urban area

Managing urban sprawl necessarily calls for setting up a formal structure of cooperation or using an existing one. We will hereafter refer to this structure of cooperation as a 'metropolitan institution' for the reader's convenience. As we can see in the above table, the metropolitan institutions encountered in our six case studies vary greatly. We shall attempt to make a first classification of the various institutional forms encountered based on their ability to deal effectively with urban sprawl, thus pointing to their level of authority in this matter[10].

The authority of an institution depends upon several factors: the power it has, the democratic legitimacy it enjoys, the matters in which it is competent, and the territory for which it is responsible. Chapter 3 will return to these concepts and develop them, so we will limit ourselves here to a brief explanation.

- power: institutions have legislative power - adopting laws that have direct effect - or they have regulation power - adopting regulations to apply laws that have been adopted by another level of power - or they only have the capacity to issue recommendations. Note that some institutions produce planning instruments that have no direct authority but become binding once adopted by other authorities. It is an intermediary stage;

- democratic legitimacy: some institutions have representatives who are directly elected for this function. Others have representatives who were elected at another level, and some institutions have people who are appointed or chosen by another non-elective process;

- matters of competence: institutions can have all or some of the skills relevant to tackle urban sprawl. These include land use, housing, mobility, economic policy, environmental policy and social affairs;

- territory: institutions find themselves having authority over an entire sprawling urban area, or only parts of it.

The level of power and democratic legitimacy determines the global degree of authority of an institution. The matters in which the institution is competent and the territory that the institution is responsible for determine the scope of their authority.

Degree of authority

This represents the depth of the power of an institution. The degree of authority depends on the type of power vested in the institution and the level of democratic legitimacy the institution has. Some institutions enjoy full legislative power and a high degree of democratic legitimacy, since they have directly elected members – as is the case in Brussels and Stuttgart. Some institutions with elected members have regulatory powers to implement laws adopted at another level; some institutions have regulatory powers, but do not have elected members. Some institutions have only the capacity to issue recommendations, and typically don't have directly elected members although such a possibility is conceivable. Institutions producing planning instruments that can become binding once adopted by the constitutive members of the institution belong to an intermediary category.

Institutions that have legislative or regulation powers can be called constraining institutions. If they are made up of elected representatives, we will refer to them as constraining by

[10] Chapter 3 deals in details with the various characteristics of institutions. Here we will attempt a classification based on empirical observations of the six case-cities ability to deal with urban sprawl.

election. Such cases include Brussels and Stuttgart. The institution's authority is reinforced by its full democratic legitimacy.

Constraining power can as well be vested in an institution by law. We will refer to such institutions as constraining by delegation. In such cases, the institution has members elected at another level or representatives of a democratic authority. This institution thus enjoys partial democratic legitimacy even as it exerts full authority. Such a case is Helsinki. Sometimes the authority – as in Helsinki - has the power to decide on its own. Sometimes its decisions are not binding until the constituting bodies approve them. Examples here are Rennes and Bristol. In fact, Bristol constitutes an intermediary category of conditional constraining institutions. The problem faced by such institutions resides in the tension between their decision-making capacity and their limited autonomy. Moreover, locally elected people tend to defend their local interests sometimes to the detriment of the interests of the supra-municipal institution.

Institutions that have no power to enforce their decisions can be called non-constraining institutions (Milan). Such institutions have a consultative role, and their degree of efficiency is usually low. These institutions can accomplish certain tasks in specific circumstances, but this is an unreliable mode of operation. Non-constraining institutions are generally - but not always - composed of not-directly-elected members.

Scope of authority

The scope of any institution's authority is measured by the matters and the territory over which it has competence. Maximum competence is enjoyed by an institution that is vested with powers in all relevant fields and over an entire urban area – such as in Stuttgart. Medium competence is enjoyed by an institution vested with powers in all relevant fields but not over an entire urban area – such as Brussels - or by an institution vested with powers over an entire urban area but only in some of the relevant fields. Minimum competence is enjoyed by an institution that is vested with powers in only some fields and over only part of the territory. This is the case in Milan.

4 INSTITUTIONAL OBSTACLES

Institutions set up to manage urban sprawl are almost always political in nature in both senses of the word. They are composed of elected party hacks or hangers-on, and are mandated to prepare for or take decisions in the common interest concerning the life of the *polis* or town, or city.

In the preceding chapter we have seen that these institutions can take very diverse forms, and enjoy varying degrees of authority. However these variations concern a small number of *common* characteristics within political institutions, of general characteristics that they possess although in a specific form in each instance. To understand the institutional problems that could arise, it is necessary to have a more exact idea of these common characteristics. This will facilitate gaining a more detailed understanding of the nature of metropolitan institutions.

4.1 General framework: the "institutional square"

Every political institution has four major types of characteristic:

- it is competent and has a formal mandate to intervene in certain *matters*;
- it has a number of *action instruments*, several practical ways of defining or applying a policy in a given matter;
- it has a *political composition* and a mode of assigning its members. The process gives it a particular position within the general institutional framework. It is associated with a particular mode of decision-making;
- it operates on specified *territory*.

We will set out here, for each type of characteristic, the essential elements to take account of in terms of dealing with the urban sprawl problem.

4.1.1 The matters

Six areas are involved in the urban sprawl phenomenon:

- territorial development, including separating functions and allocating land;
- housing policy in the form of new types of building, garden development, and moving people between various types of housing;
- mobility in terms of home-work commuting, home-school commuting, travelling to leisure centres, and commercial traffic flows;
- the economy as represented by industrial sites, commercial networks, service systems, and other relevant activity and cost centres;
- the environment in relation to landscaping, developing transport systems, new life styles and new consumption patterns;
- social issues in terms of dualism or growth of urban space heterogeneity, and the social consequences of movements that affect property prices.

These can be seen as stakes of a political nature, and they can be identified as such - or not - at any given moment. The list of responsibilities explicitly attributed to different authorities thus varies with time. However there are two stages. First, issues can objectively be listed, but then secondly politicians become aware of particular items that can then be deemed to have crossed a "*politicalisation* threshold", making them political topics.

These responsibilities concern both assessing the magnitude of the *problem* of urban sprawl, in those areas where we can evaluate the difficulties, and in formulating the *solution* to the problem, in those areas where it may be possible to intervene and have an effect on the phenomenon. For example, housing and mobility are areas that are directly relevant to the problem of urban sprawl, and *at the same time* are the areas in which policies can be applied globally to manage it.

Most of the responsibilities involved in the political decision-making process are *shared* between different power levels and different types of institution. The fact that an institution has competence across a large number of areas of responsibility is thus not, in itself, an index of significant power. As will be seen in the following point, the action instruments that an institution has in terms of being effective are as decisive as the nature of its particular field of competence. In any case it is not rare, particularly at metropolitan institution level, for an institution to have as great competence in terms of the matters covered as its action instruments are limited. A simply consultative institution, or one limited in its cooperation and propositional role, can more easily see itself entrusted to important matters on which it can exercise its reflection. Its limited action instruments do not constitute a "competitive" threat.

4.1.2 Action instruments

The action instruments available to political institutions vary greatly. They can be categorised into major groupings as a way of focussing on the important points.

First, institutions exercise different types of power, and can adopt or apply different types of norm. These are:

- legislative power in the form of constraining regulations of a general nature adopted by a parliamentary assembly;
- regulatory power in terms of particular legal norms that are inferior to legislative norms and which are adopted by an executive power or local-type assembly;
- executive power in terms of adopting administrative decisions that apply legislative or regulatory norms;
- legal or arbitrage power[11] in terms of ruling on disputes between private parties and public authorities or between public authorities, by imposing the terms of arbitrage on the parties concerned.

As a general rule, in each area of concern such as housing or transport, legislative authority is strictly defined. To avoid conflicts of norms, one sole institution should have legislative power over any one matter. However each area could be divided into a number of sub-areas over which different authorities would exercise legal competence, that could sometimes lead to a complex tangle of powers. An example would be reserving social housing and the law of expropriation to the central state whilst the housing policy itself was decentralised to be decided on and carried out by regions.

It should also be noted that municipal authorities with the capacity to adopt regulations and make administrative decisions also have competence over a large number of matters, although they may not have legislative power.

Certain political institutions exercise none of the four types of power mentioned above. They can neither adopt norms, nor deal with disputes in a constraining way. Thus some institutions have a *consultative or expert* role in giving advice, although this has no legal force. Other

[11] This is the strictly legal power of courts and tribunals.

institutions apply *conciliation and dialogue.* They cannot impose a settlement, and they can simply invite the parties concerned to engage in dialogue and try to reach a consensus. The opinions expressed in such a process do not have any legal authority. In Rennes and Bristol the metropolitan institutions are mandated to draw up plans, but they only have legal power when the local authorities have approved them.

Political institutions can also have different action instruments in dealing with financial matters. These include:

- fiscal competence in the fullest sense. In this case institutions could decide on a tax, including determining its base, deciding its mode of collection, setting possible exemptions, and keeping the tax proceeds whether in the form of land, property, income, value added or car tax;
- relative or shared fiscal autonomy. Here institutions have the capacity to negotiate regulations with another authority. These could concern taxes such as those to balance out the application of policies across the metropolitan territory in the common interest, or the right freely to modulate taxes or duties upwards to dissuade or downwards to persuade;
- the capacity to grant financial aid outside the fiscal framework. Here authorities could grant premiums for access to properties, or social assistance to maintain social diversity;
- other public interventions with a financial nature, such as purchases and sales on the land or property markets.

Any fiscal competence can only be exercised within the law. An institution can only decide on taxes if the law authorises it. Other financial interventions in terms of assistance or public intervention assume that the financial resources are available and a sufficient budget has been established that is supported by a borrowing capacity as needed. The institution also would have the possibility of obtaining revenue from the services it provided, or from owning a heritage site, maybe of some size. Political institutions can find themselves in extremely diverse situations in this area, and can be in a position to exercise local or territorial powers.

Political institutions also have several intervention modes of another nature. For all of these to have practical effect it has to be assumed that the institutions also have the power to adopt norms or financial means. These other modes are as follows:

- constraining planning powers over green spaces, housing, businesses, companies, and the siting of activities and installations. These can take the form of by-laws that lower level authorities apply, legislative texts and regulations, and can be more or less global, integrating the different dimensions of urban sprawl more or less narrowly;
- powers over development, equipment and infrastructure projects. Institutions can take direct action on “building” and land schemes, in transport, housing, establishing enterprises, public agency activity and green space designation and use.

Here again, note the difference between the two main types of institution. The first includes those that have constraining instruments to back up their decisions and have the means to apply their political will themselves. The second includes those that have to confine themselves to adopting recommendations or non-constraining plans, and do not have the means in terms of budgets or fiscal leverage to put their wishes into practical form.

4.1.3 Political composition

A political institution can be made up of different organs. These include an assembly with or without legislative or regulatory powers, an executive-type entity with an administration and a budget of some size to put its decisions into practice, technical services, decentralised locations, people of standing in public law, etc., that complete its activity. The practical make-up in any particular situation can differ greatly. The degree of complexity of the organs that make up a political institution reflect the importance of *matters* in which it has a competence and, above all, the nature and significance of the *action instruments* that it can bring to bear.

In terms of metropolitan institutions, an essential component is the mode of member selection, deciding on those to be called to serve or exercise a decision-making role in its principal organs. This *political composition* is important in terms of authority and legitimacy, as previously discussed and will be returned to. It also has an impact on the mode of decision-making used within the institution.

It could be thought that members of a political institution are inevitably elected, directly designated by the population concerned to exercise a mandate within the institution. However there are exceptions to this rule.

First of all, members of metropolitan institutions *are not necessarily elected*. Milan in particular has a mixed public/private institution. The private partner element is essentially made up of enterprises or economic interest groups who have put forward experts or representatives who in no way have been elected. Generally in any political institution, and *a fortiori* in metropolitan institutions, appointment mechanisms can make provision for non-elected members to sit. These can be either coopted by an organ composed of elected people, or appointed by the institution founders or partners. These non-elected are appointed by virtue of either their expertise or their practical experience, or the trust that they enjoy of those who chose them in defending their point of view and their interests. Non-elected people can also be appointed by groups – such as unions or associations – to defend particular interests, or possibly appointed by administrations or public authorities.

These appointment mechanisms for experts, representatives and non-elected delegates are frequently used by metropolitan institutions. In many cases these institutions are in effect the product of other authorities, be they at a higher level such as the central or state, or at the intermediary level between the central and local power bases, or authorities of a more local nature than that of the metropolitan institution. Most often these are the municipalities. In the first case, the metropolitan institution has been the result of a movement towards decentralisation. In the second case, it has resulted from a desire for “centralisation” - for the articulation of, for the gathering of, for the processing of particular questions at a larger territorial scale. In both cases the metropolitan institution can be made up of members who are assigned by the authorities who founded the institution, and who draw their mandate from this delegation process and not from an election.

Often a selection system takes place that is an intermediary process between appointing non-elected delegates and conducting a direct election. This is known as an *indirect election.* In this case the institution is made up of members who were elected to set at another level of authority, usually the municipal level, and who are assigned by this other authority to sit in the metropolitan institution. The mode of delegation by this other authority can vary between having representation only from the majority, or having joint representation of the majority and the opposition, or having representation proportional to the different political persuasions. This would be the same as dividing up the seats between representatives of the various associated authorities, where there would be an equal number of seats for each associated authority. The number of seats would be proportional to the population,

geographical area or other criteria. The city itself could be deliberately under-represented to avoid the over-dominance of its representatives within the body.

Brussels and Stuttgart demonstrate another mode of designation by having *direct* elections for the members of their metropolitan organs. In such a system the people expressly choose the representatives to exercise this mandate, and this *a priori* gives the representatives more independence, legitimacy and authority.

We would point out that there is no automatic strict correlation between modes of designation and the type of power exercised. It is possible directly to elect an assembly that only has advisory powers. It is also possible to use an indirect election to make up an assembly that has legislative and other powers. Even if an assembly of experts with legislative powers cannot be visualised, many combinations of the various action instruments and modes of making up the political composition of an institution are possible.

4.1.4 The territory

In any given territory there are always several political institutions that exercise their powers within it, and to whom legal norms for the territory apply. In all countries of the European Union, there are at least three discernible competent institutional levels in each portion of territory at local, national and European level.

With some exceptions, the authority itself does not define the territory on which a public authority exercises its powers. To avoid conflict in fixing territories on which authorities are competent, it is generally a higher level authority that fixes the territorial borders. Treaties define commonly recognised borders at nation-state level. The act of fixing territory is an essential element for institutions with the same level of authority. The “border” between institutions, such as between two localities or two regions, ensures both an effective interface and stable territorial separation for the land on which the institutions operate. If it is not disputed by either of the parties, fixing borders guarantees peaceful relations between institutions.

At the level of metropolitan institutions a superior authority generally ratifies and thus gives legal force to the fixing of territory, but it is negotiated at local level between the municipalities concerned and possibly with the participation of the intermediary power at a level between the state and the municipalities. Localities that are included in this territory are generally represented on the organs of the metropolitan institution in one way or another, and will in any case be directly concerned by its activities. In the case of these institutions the “objective” situation tends to drive negotiations on the fixing of territory. Thus this situation – as represented by the extent and observable limits of the phenomenon of the development of urban sprawl - needs to be taken into account. This rational criterion does not exclude taking into account other more political interests, but the process is different from the way in which borders at intermediary levels of power such as regions are fixed over time. In these last cases, the criteria are more “symbolic”, cultural or political, perhaps involving language, religion, past ecclesiastical divisions or feudal territorial limits.

4.2 The question of balance

All political institutions have four major characteristics that we propose to review. We are using the image of the “institutional square” to introduce this part. This is because one institution, to be viable and effective, must truly be a “square”. That is to say, the dynamics must balance. Our square is in no way made up of four straight lines that cross in twos. It is made up of four straight lines of equal length that cut each other at right angles. None of

these lines or angles can be different from the others. If one line is longer than the others, the figure is out of balance with the angles becoming obtuse or acute. If the sides have different lengths, *a fortiori* it is no longer a square. In the same way, political institutions are out of balance if one or other of their characteristics is developed too little or too much, if one component is too powerful or too weak in relation to the others. There has to be a balance between the different facets of the institution. This was detailed using synthetic data in the preceding chapter.

4.2.1 Concerning the territory

An important source of institutional problems is an unbalance in relation to the territory over which the institution has authority. If it's an institution that has to gain control over an urban sprawl phenomenon, *it must be able to act on a piece of territory that extends at least to the limits of the area affected by the urban sprawl phenomenon.* That is to say it is substantially larger than the territory covered by the city centre on its own. The successive enlargement or extension of the recognised territory around Rennes and Stuttgart over which the metropolitan institution had authority gives witness to this. Reciprocally, the blockages or difficulties that appear when the territory is badly suited to the practical authority that has to be exercised in dealing with urban sprawl can be illustrated as follows:

- in Bristol, the county of Avon was split into four administrative areas for the purpose of managing the territory and developing transport and social services. However each of the new entities has been working in too confined an area given the realities on the ground, whilst the regional authority who can adopt plans on a larger scale in terms of transport and spatial development, does not have the legal power to impose its plans. In this case, the territorial parcels, responsibilities and action instruments are out of balance;

- in Brussels, the regional authority has virtually all the authority it needs to have control over urban sprawl. It has control over almost all the relevant areas (with the exception of the railways), it has authority over the directly elected political organs at regional level and has sovereign legislative power in some aspects [12]. However the Brussels Capital Region can only act in a territory that is strictly limited to the 19 municipal areas - "communes" – that cover the centre of the city and the immediately neighbouring areas. The very large territorial parcels around the periphery where urban sprawl is rampant highlights how the other two regions are holding on to their prerogatives and are having great difficulty in cooperating with Brussels itself. Political reasons lie behind the stand-off. These include the traditional rivalry between the Flemish and the Francophones in Brussels, which is itself essentially a Francophone-dominated territory surrounded by Flemish territory. Another source of rivalry is between Brussels as the historical seat for various authorities, and the economically and culturally more fragile Wallonia. They cooperate with even more difficulty since Brussels has legislative power and political autonomy. Any cooperation can appear as a possible basis for Brussels to seize the peripheral territories. This is one of the reasons for the considerable delay in putting together a project as essential in solving the transport problem as the Brussels Regional Express Network – the REN – is, whilst in other areas no form of cooperation has even been seriously envisaged. Re-zoning the territory so as to have some control over the disputes without directly dealing with aspects of the urban sprawl problem is enough to render any control of this sprawl almost impossible, whilst the Brussels Region and its co-regions have nearly all the other cards in their hands.

[12] There is a federal supervisory mechanism that oversees some legislation the Region adopts, but in practice it does not paralyse the legislative process.

Finally, in Helsinki a metropolitan-type regional institution has been in place since 1970, and its practical authority and its mode of political composition have been reviewed at different times. The problem of urban sprawl there has been the object of an early awareness and of several institutional modifications, but which did not extend the territory assigned to the metropolitan institution sufficiently. The difficulty is obviously peculiar to the phenomenon. By definition, urban sprawl continually pushes back the frontiers of the problem, thus risking rendering territorial zoning inappropriate, and forcing the public authorities into a sort of permanent modification mode.

4.2.2 Concerning areas of responsibility

Different imbalances concern the areas of responsibility in which metropolitan institutions can act. It must first be stressed that several institutions only have authority over some part of the areas of responsibility touching on urban sprawl, whilst specialised studies show that there is a strong interdependence between the various dimensions of the phenomenon. Any policy applied to one dimension or aspect will have an effect in other areas. Now Brussels is a particular case in that it is urban territory with the powers of a region inherited through historical and political reasons. However, in many institutional configurations social authority is almost always neglected, authority over the economy and the environment is badly defined, the authority over housing – closely linked to the economy and the social situation – varies, whilst almost all metropolitan institutions find themselves assigned authority over territorial development and transport. The different facets of urban sprawl are thus dealt with unequally, as if the awareness of the complexity of the phenomenon has not fully been taken aboard. There is a risk of only seeing some facets of the question even begun to be tackled, to the detriment of applying a global approach but also of having an active understanding of the interrelations between areas of responsibility. The fact that responsibilities are exercised at a regional level could be an obstacle to their attribution at metropolitan level. Like central states, decentralised entities can resist the idea of ceding their authority to an institution acting on a more modest territorial scale. However there are no general rules in this area, as the Stuttgart case shows. In that case, Baden-Württemberg accrued the powers of a metropolitan institution that approached those of a regional-type institution.

The second imbalance lies in the relations between the areas of responsibility most often attributed to entities – territorial development and transport – and the action instruments available. It is possible to apply a persuading or dissuading transport policy, using the different characteristics of various services available. However that presupposes the availability of direct financial mechanisms for such things as infrastructure and road management, and a fiscal authority that metropolitan institutions only rarely have. In terms of territorial development it is possible to act productively on a metropolitan scale, but that presupposes having control of the planning instruments and the instruments to enable the *constraining* application of these tools. If the entity does not have these instruments, the plans will remain stillborn. Metropolitan institutions do not always have the legal means to apply their plans, not, at least, without the previous agreement of the other authorities, thus not without negotiation and the risk of bureaucratic delays.

The third imbalance concerns the relationship between the matters dealt with and the mode of political composition of the institutions. If it is primarily composed of delegates or people elected at municipal level, a metropolitan institution could have trouble managing territorial development, housing and economic development whilst preserving a perspective of care for the general interest and maintaining social and environmental balance. Some delegates will be tempted to put the interests of their own municipality first, through which they had been assigned or from the level at which they had been elected. This widely used mode of political composition is probably the reason why the range of matters on which the metropolitan

institutions can intervene is so narrow. Municipalities easily agree on the need to regulate transport problems, but it is more difficult for them to work together on their economic interests or on housing policies (they are potentially competitive in these matters as they try to attract certain investments or certain categories of population), or to show solidarity in the struggle against social dualism or the environmental damage brought on by certain forms of urban development.

4.2.3 Concerning action instruments

Of the six towns studied Brussels is the only one that has a “metropolitan” institution with access to almost all the action instruments that could control urban sprawl, including fiscal powers. In other cases, a major difficulty is that the action instruments ceded to the metropolitan institution are largely ineffective. This “side” of the institutional square can be too short in relation to other institutional characteristics.

The shortcomings of the action instruments are of different types, depending on the category of instrument. They are related to the constraining force of the policy or trend that the entity decides to adopt. In Milan, neither the Lombardy region, nor the Milan province, nor the North Milan development agency has the legal instruments to ensure their development or coordination plans are applied. In Bristol and Rennes, the planning instruments only have constraining force if the counties or municipalities adopt them. In Helsinki, the metropolitan institution only has powers of incentive and proposal in certain matters.

There are also shortcomings in the financial instruments that are available, in the technical instruments, in the administrative follow-up mechanisms - in short, in all that could facilitate putting legislative mechanisms or constraining plans in place. Finally shortcomings can be seen also within the entity’s fiscal autonomy and in the fiscal instruments in general, that the metropolitan institutions in the six towns studied here (with the exception of Brussels) do not have to their disposal. Yet fiscal measures are a major tool which can be used either in persuasive or dissuasive policies, both in the area of transport and land use, for housing or business.

These remarks do not means that in all circumstances we are recommending that a bundle of instruments be attributed to a metropolitan-type institution. The “shortcomings” term used here points to the lack of balance or consistency in relation to a supposed objective. We are simply observing that if one wants to mandate a metropolitan institution to control urban sprawl, it is not enough to give them substantial competences on extensive matters and to allow them to act on an extended territory. They must also have instruments through which they can invoke constraining measures or put constraining decisions into practice. However we have seen that in both Rennes and Stuttgart constraining rules taken to a metropolitan level have produced perverse effects. No institutional building is safe from such consequences. Some institutional solutions simply provide more chances than others of ending in practical change, whether positive or negative.

Certain perverse effects are connected to a particular imbalance. An institution that has access to substantial action instruments, including the possibility of adopting and applying constraining norms, can in good faith apply a damaging policy because it applies these means within a narrow practical authority, for example centred on the transport question. This type of mandate is directed at only one dimension of the phenomenon without dealing with the potential inter-relationships. Considerably to improve the transport service at metropolitan level in an attempt to deal with the road congestion resulting from urban sprawl can end up encouraging urban sprawl rather than controlling it. This is something that an institution with wider practical powers with the associated relative breadth of vision could more easily notice.

4.2.4 Concerning political composition

As the summary table in the preceding chapter shows, metropolitan institutions rarely have political organs that have been directly elected by the people at this level of authority. Most often, they bring together representatives of local powers who are delegated by their municipality to sit in the metropolitan institution. The democratic legitimacy of that institution is thus low; its members are not able to pretend that they have been elected to carry out the objectives that the institution is pursuing. In particular, the integrity of the institution could be called into question. When its members sit there as representatives of their locality, they are as inclined to defend the specific interests of their municipality as to deal with the wider questions concerning the whole of the metropolitan territory. Some conflicts of interest and loyalty are thus likely to emerge, with the elected representatives knowing that they have to account to "their" municipal electorate rather than defend their record in relation to the metropolitan territory as a whole. Local elected representatives who defend the historically rooted objective of "independence" for the municipalities risking having difficulties when acknowledging that there is a profound interdependence between the localities concerned by the same urban sprawl dynamic. A spirit of competition between municipalities can even subsist. Local authorities are inevitably only interested in the advantages that the residents of neighbouring municipalities can draw from their policy on housing, transport and the economy. Here there is an uneasy fit, an imbalance, between, on the one hand, the institution's scope of responsibility (its competences) and the nature of the territory in which the institution - by nature transversal – works, and on the other hand, the institution's mode of composition, which leads to local stakes, particularly if the municipality representatives have a right of veto on the policy directions they do not like. This imbalance is even more problematic if the institution has substantial action instruments in the form of legal force of constraint and budget for applying their choices. The search for consensus on the basis of such a political composition is more difficult when the directions taken lead to tangible results*, rather than ending in a limbo of non-constraining plans and recommendations.*

Institutional consistency can also be in peril if some mistrust exists towards the representatives of the city centre. This may happen if the centre is suspected of wanting to affirm its historical pre-eminence, or because the city centre's larger size gives it a particular status that leads it to be unconcerned about problems more specific to peripheral localities. We saw in the preceding chapter that certain metropolitan institutions saw their activities hindered for this reason. The peripheral authorities did not trust the idea of cooperating with the city centre. Various procedures can be used to respond to this suspicion. One is to give the city centre representation that is lighter than its actual weight. This is how Rennes works, where the District, which represents 80% of the population, only has 50% of the votes in the Pays de Rennes. Another way is to give the right of veto to each municipality associated with the metropolitan institution. This forces members overall to search for a consensus in all matters and thus gives considerable blocking powers to each component group. The system of delegation of the municipal authorities can be an essential step in raising members' awareness of common and cross interests, but there comes a point when the procedure becomes counter-productive in relation to the objective being pursued. This can particularly happen when the metropolitan institution is in charge of all the competences related to urban sprawl. Taking into account all these dimensions would appear easier when each member is directly elected to deal with them, rather than having a municipality tackling urban sprawl when it is likely only to concern itself with certain facets of the problem.

When the members of the metropolitan institution are directly elected at this level of authority, theoretically within the members themselves that avoids conflicts of interest or loyalty between the local and the global, between the municipal and the metropolitan. However it can show up another type of imbalance. An institution can be made up of directly

elected people and could have been expressly created to take questions of cross interest into account, but is only responsible for some of the issues connected with urban sprawl. Or the body may not have the legal powers or budgetary means to translate its decisions into acts. The legitimacy that it draws from its mode of political composition is then disproportionately large in relation to its other characteristics. This could bring about conflicts with the central or regional institutions that have the action instruments that it itself lacks.

4.3 The question of legitimacy

Over and above its action instruments, a political institution has a greater or lesser *legitimacy* that is more or less unquestioned. Without entering too deeply into this difficult question, it must at least be noted, within the framework of this study, that the nature of the legitimacy of metropolitan institutions is different from that of national or local institutions.

Institutions at national level, whether state, central state, or federal state, generally have a triple legitimacy, in that it is political, cultural and ideological. This legitimacy comes about as a result of a secular history that is part of the make-up of the nation-state. The state is an incarnation of the nation and its own identity. The legitimacy of the state can appear less strong in federal countries, particularly if the federalism takes the form of a growing autonomy being accorded to federal entities. This latter can be seen in countries such as Belgium, Spain, and in certain respects in the United Kingdom. Switzerland and Germany are examples of initially independent states integrating nationally. It is a fact that even the movements who are fighting for the autonomy of certain regions in relation to the central state do not question the criteria of state legitimacy. They simply pretend that the regions can respond better to concerns than the central state can, and that they even can form themselves into states. In their way they thus confirm the high degree of legitimacy that has been accorded to the state as such over several centuries.

The local powers, and in particular the *towns* that interest us here, also have a legitimacy within a secular history. The political autonomy of the city in Europe even precedes the movement towards nation-states. Some towns that are facing urban sprawl may not have a prestigious past of economic, religious or political capital behind them. However they generally do have a long history, have traditions, and have a memory of the struggles for local political liberties, and for the symbols of their existence. In short, they have a strong political and symbolic legitimacy, which can give rise to attachment and a collective identity.

The institutions put in place to regulate urban sprawl do not have a comparable legitimacy. Even when their members are directly elected as such, the democratic legitimacy of these institutions remains recent, and has not yet been accompanied by the other forms of legitimacy that eventually strengthen, in the case of towns or states, electoral legitimacy in the strictest sense. The “visibility” of these organs in the eyes of the population is less than that of institutions that have a long history behind them. Their members are generally not well known, and do not always offer actions that are easily understandable as being within a political plan, and that might be rationalised as being part of a way of thinking, be it left or right, productivist or environmentalist, etc. The tacit norm favours the consensus and if one has recourse to a vote that can bring deliberation to a close, it does not translate into a majority/opposition type split, as it would do at municipal level.

Whatever may be the mode of composition of their organs – by delegation, indirect or direct election – the legitimacy of metropolitan-type institutions is, in essence, rather more *technocratic* than democratic or symbolic. These institutions are rationally created with the aim of responding as effectively as possible to a series of practical and precisely defined problems that cannot be resolved at other levels of authority. This is also the reason why the

consensus mode is ideal in these cases. It symbolises agreement in the spirit of “objective” solutions, or of those “in the general interest” rather than being the product of potentially divisive political choices. These institutions have a “cold” rather than “warm” legitimacy, which is founded on particular qualities of expertise and action.

This particular type of legitimacy does not necessarily handicap such an entity’s action. On the contrary, it can be helpful if the entity’s role and effectiveness are recognised. The strict and circumstantial mode of such an entity’s creation can be a “plus”. These entities generally have well-defined, limited skills, and do not carry with them the weight of a more or less divisive or unbalanced past, as can happen with towns suspected of wanting to dominate peripheral municipalities. The intervention of such institutions however should be *negotiated*, discussed and validated - even more than in other situations. Whether it is in relation with the population, with private sector players, or with other public powers that may carry a stronger political legitimacy, the intervention and achievements of these “new arrivals” never assert themselves naturally. This is the reason why, in Bristol and Rennes, the plans adopted by the metropolitan institution only will acquire legal constraining force if they are approved by the constituent powers of the institution in the shape of the counties and municipalities. This illustrates where the democratic legitimacy lies in the minds of the decision-makers, and maintains the metropolitan policy in significant dependence on the will of each of the components of the territory covered.

4.4 The question of complexity

The study of institutional problems generally involves dealing with the central difficulty of complexity. Examining the situations met in the six towns under study here has led us to give less importance to this question. It seems less decisive than questions concerning degrees of balance or legitimacy.

It is not to deny the problem of complexity. In most cases, metropolitan territories have many institutions exercising their powers within their space. It is also without question that this complexity can be a hindrance in some situations, and can often be painful. It can take the form of administrative problems, slow progress of files, the involvement of an increasing number of people and decision-makers, and the development of a culture of permanent request for the opinions of many people. These phenomena can have a substantial effect when the slowness in coming to a public decision is in contrast to the speed of creating the initial proposal or the intensity of the feeling of urgency that some of the participants can manifest. The dynamics at play here can lead to de-motivation, various forms of objection and withdrawal from co-operation.

The increasing complexity of instruments and processes that can be used to make policy decisions is all the less questionable because the information available from the six case studies leads to a more general conclusion : this concerns the range and variety of decision-making instruments available to the authorities, whether these be central, regional, metropolitan or local, in matters connected to the urban sprawl phenomenon. Expertise and planning instruments, in particular, are very developed in towns of some size. More precisely, if the question of controlling urban sprawl arises, that in itself indicates a disjunction between the diagnoses made or the objectives posted, and the results obtained. Entities are adopting increasingly numerous measures and increasingly global plans to manage the problems of mobility, but traffic congestion does not disappear in the metropolitan areas concerned about the question of urban sprawl.

Plans, legislation, and regulations do not always have visible effects on the landscape. This leads to people doubting the ability of the public authorities to modify the course of things. In

reality authorities do have this capacity, but it diminishes when several public authorities have to spell out intentions, projects, assign individuals and find various instruments as individual authorities, with each authority being hindered as much by the initiatives from its "competitors" as by their own shortcomings. High complexity can lead to double intention generating double work, and legal vacuums as reflected in the issues not being dealt with, the bits of territory not included, and action instruments missing for the institutions involved. The situation in Bristol alone illustrates several aspects of the problem of complexity, but it also shows that these facets are often connected with the question of the balance of the "institutional square". Particular factors cause imbalance. One is that the old county was divided into four entities having transversal competences affecting the whole of the old territory. Also, territorial development plans at regional level do not have constraining power. Another factor is that the metropolitan arena is generated out of the four entities that delegate representatives, and the metropolitan institution has to reach consensuses which have no legal power, as long as the other levels of authority do not adopt them …

Institutional complexity is not necessarily an obstacle or handicap. The intervention of a multiplicity of institutions can mean that a number of problem areas are taken into account, with each institution having its own competences. These could be synonymous with financial power and effectiveness. On the other hand, examining some of the studies on the institutional obstacles to controlling urban sprawl and some of its implications in the fields of transport and housing reveal the tendency of some authors to classify some obstacles as "institutional" when they are not. They also tend to group together obstacles - whether they are really institutional or not - under the category of "complexity", and label them as being the major cause of difficulty. The temptation is to conclude that controlling urban sprawl can be thwarted by the overly complex nature of institutions, and that this complexity must be reduced to increase any capacity for control. However the difficulties and the related solutions can be of a really different sort. We set out several distinctions below that can be studied to refine the analysis.

4.5 So-called "institutional" obstacles

1. The first rule of any diagnosis of institutional problems is *not to confuse institutional obstacles with political obstacles.* When two political institutions that are different in level or nature enter into conflict, some might try to see it as an "institutional" conflict, a dispute between two authorities that see themselves as competitors, where one will try to impose their will on the other, etc. Now in some cases such opposition is absolutely independent of the institutional framework within which the authorities act. The opposition can simply be *political*, being a conflict between divergent values, different priorities, incompatible analyses, contrasting projects or inherently opposing interests.

2. Beyond institutional obstacles as such, conflicts can be more "technical" or "scientific" rather than political, and can be concerned with the nature and extent of the problem to be dealt with. Different actors and experts can disagree on the dynamics that are in play, on their precise extent and their future progression, and on their likely consequences, etc. Whatever the existing institutional framework, such a possible conflict should lead to broad consultation and dialogue between the actors involved. In this way, points of view can be reconciled, or at least the reasons for the differing perspectives can be discovered. Such a sharing of expertise can also prepare the terrain for defining common objectives and putting agreed planned solutions into practice.

3. Also, conflicts within a given institution (personal in nature, turf battles, etc) can hinder any policy for controlling urban sprawl - but they do not constitute institutional obstacles.

They are disputes connected with the internal workings of the institution, and any solutions will be related to internal organisation and human resource management.

4. In the same way internal legal disputes in any given institution can take the form of contradictory or incompatible norms within themselves that had been adopted by the same institution. Whether these reflect political disagreements or not, these legal problems do not make an institutional obstacle. The problems can be dealt with through simple political initiatives taken by the institution concerned.

5. Also to be avoided is to categorize as institutional obstacles the difficulties that simply raise from the inappropriate content of certain sector-specific policies that have not assimilated the question of urban sprawl,. In some cases, a solution can be found through simply adapting legislation in areas such as transport, territorial development, housing, budgetary allocations and tax.

4.6 Summary: the main institutional obstacles encountered

There are two major types of institutional obstacle. One is that connected with the nature of the institution itself in terms of complexity, shortcomings or inadequacy. In this first case, it is the particular nature of the institutional framework that poses the problem, in any case in relation to the problem area being considered, which is the occurrence and control of urban sprawl. The second major type of institutional obstacle concerns disputes between institutions that see themselves as being in competition, or as being at a lower level, or having the authority, or lacking the authority. In this second case, the origin of the difficulties is that a multiplicity of institutions are meeting to deal with the issue under consideration.

This distinction allows us to categorise the main obstacles discovered in the six towns studied as part of the SCATTER project, and to add some major obstacles noted in the specialised literature. The situations that have not been detailed up to now are easily understandable if one considers the tensions that can arise within well-known major institutional configurations. The two lists that follow summarises the essence of the existing data in a form that integrates both the analysis conducted here, centred on the notion of an “institutional square” drawn from the examination of the six town case studies, and the classic question of “complexity”.

4.6.1 Main obstacles connected to the institutional framework itself

- disjunction between the political will of the actors and their powers. This manifests itself in shortcomings in practical authority, budgetary instruments, fiscal skills, and legislative or regulatory competences;
- inadequacy between the authority of the actors (in terms of responsibilities and action instruments) and the territory over which they have authority;
- too much territorial fragmentation. Several institutional actors at the same level work each on a piece of territory when it would be better to cover the area with one common activity;
- lack of competent actors (other than strictly local) on one part or across the territory under consideration, which is likely by definition to grow in size in the face of the problem of urban sprawl;
- skewed sharing of the costs and charges of all types between the actors, including the problem of balance, for each actor, between autonomy and mandate;
- competitive relationships between institutions working on contiguous territories, each looking to attract residents and investment to their territory, and each tempted to push any nuisances over to the neighbouring territory;

- right of veto of the representatives of the municipal or other authorities. This allows them to block decisions that are contrary to their own particular interests;
- multiplicity of actors on the territory concerned, leading to a dissipation of power and a deficit in taking responsibility by “passing the buck”, in the absence of an overarching institution charged with coordination or ensuring dialogue.

4.6.2 Main obstacles connected with disputes between institutions

- competitive multiplicity of actors who are competent in the same matters or in related matters on the concerned territory;
- deliberate lack of cooperation between actors hindering planning or hindering the concerted implementation of any plans adopted;
- the central power refusing to acknowledge and take note of the analyses, priorities and requests from local or regional institutions directly faced with the urban sprawl phenomenon;
- power conflicts between institutions, with one institution adopting regulations in a matter on which, according to other institutions, it does not have competence or the right to intervene;
- conflict of interests between institutions, one seeing its own interests threatened by an initiative taken – or no initiative taken – by another institution within the framework of its competences;
- the lack, by fact or by law, of an arbitrating or higher level institution that is able to regulate conflicts between municipal and/or metropolitan institutions.

5 RESPONSES TO INSTITUTIONAL OBSTACLES

Drawing from the analyses in Chapter III, in no sense is there “the one” solution that could be offered to deal with general institutional problems. There is not even a select list of solutions from which an entity could choose a suitable response. The “institutional square” notion implies that each institutional problem can come from a particular imbalance affecting one or several institutions - one “side” of the square, or several “sides” at the same time - in any number of combinations. Complementary questions concerning legitimacy and complexity also arise in practical terms. These can vary from one situation to another, as well as being related to the particular history of a country or a city, in terms of the relationships of power and influence between the different political actors. They can also be influenced by the nature of the institutional architecture in force, such as whether it is a unitary, federal, decentralised country with various types of intermediary authority between local and national levels.

This is why the synthetic lists given at the end of the preceding chapter are not exhaustive. New obstacles could appear. It is no longer important that one particular territory is likely to be confronted by *one* of these difficulties. Obstacles are difficult to isolate. They often exist as “constellations”, more or less interdependent in terms of having a common source or being mutually reinforcing. Such groupings of obstacles call for a global response that can act on several levers, in the image of a *package* solution. The more a particular territory is confronted by a multiplicity of institutional obstacles, the more specific the diagnostic process to use and the solutions to apply will be, rendering them more difficult to transpose wholesale to other situations.

More practically, specific and precise recommendations can only be applied if three conditions are fulfilled:

- the *situations* must be *similar* or even identical;
- the *diagnoses* must be *convergent*;
- the *objectives* being pursued must be *common* and widely shared.

In these conditions, analyses and recommendations can be transferable from one case to another, possibly increasing the amount of expertise that could validate the analysis model and ratify the set of recommendations. It goes without saying that these conditions are rarely combined, and that in this study there could not be any sense of favouring certain types of situation over the others.

In this last chapter we thus should propose options that open the door to multiple alternatives. It is for the actors concerned to establish a diagnostic process that takes in all the specifics of the situation to be dealt with, and to decide for themselves which directions and which intervention paths are the most appropriate to follow in relation to the diagnosis results. We will set out these alternatives at points 2 and 3 below, after summarising the issues that have to be faced in most of these situations. Point 4 then brings together a series of recommendations that are applicable to any situation or issue, whether arising from the analysis of the situations and the solutions in the six town case studies, or being taken from the specialised literature.

5.1 The three major stakes

We will not rehearse here in any systematic way the question of balance, legitimacy or complexity. In the preceding chapter the reader would have been able to deduce the objectives that needed to be set to respond to the problems observed. But certain observations should still be made to complete the analysis and avoid ambiguity.

5.1.1 The question of balance

If the analyses developed are pertinent, it goes without saying that it is appropriate to search for a balance between the different "sides" of the "institutional square". This can be applied to each institution concerned. But that does not at all prejudge the extent of the action instruments needed, any territorial requirements, or the responsibilities to be bestowed on any particular institution, any more than for a particular model of political composition. Account must be taken as much for the specifics of each dynamic of urban sprawl as for the national institutional framework in which a solution should be applied. One can only suggest that for each institution it is appropriate to search for the best balance between, on one side, the institution's characteristics – the sides of the square – and, on the other side, the role that the institution should play, given the mission that it has been assigned. In trying to create a balance it is assumed that issues to do with sharing the costs and expenses across the players, and especially maintaining an equilibrium between autonomy of decision-making and expenditures that each player is in charge of, will be handled.

The best balance must also be searched between the institution's characteristics and the state of local resources (political leadership, private interests organisation, social values shared by population).

Finally, a supplementary condition, not mentioned so far, is consistency between the policies envisaged by the metropolitan institution, and policies decided at a higher institutional level (e.g. national-level policy as regards the fuel price).

5.1.2 The question of legitimacy

Intervention from the central authority might be necessary to attain this balance in view of the financial implications in a wide sense. It is a question of ensuring the right financing of the institutions and particularly of their missions, which requires either intervention from the central or regional authority or allowing them to fund themselves by their own revenues or by fiscal means. This latter approach can rapidly meets its limits in matters related to urban sprawl, where the potential costs are greater than possible receipts. Central authority intervention may also be necessary in light of the competition that could arise between institutions concerning regulations and competences, mediation and arbitrating functions, and legal constraints, particularly constitutionally speaking. However, these solutions should not be seen as coming directly or essentially from the central authority if a metropolitan institution is to have democratic legitimacy that covers the extent of the missions that they have been assigned. Institutions created "from the top", or perceived as such, can face particular difficulties to enter the existing institutional framework and to obtain constructive cooperation from the authorities already in place.

More generally such institutions acquire legitimacy through action, by actively demonstrating that they can effectively participate in an institutional configuration which they have necessarily modified in one way or another by their very existence. This remark can lead to propose the creation of institutions acting in a specific field (e.g. housing or transport) before a generalisation of their competences. By acting in a specific field, the institution can bring

the testimony of its utility and can reduce political tensions created by its apparition. It can also be useful to invent new organisational modalities, to "reassure" existing institutions so that they are ready to cooperate for the general interest, and to convince them that it is not a question either of making them give their allegiance or of depriving them of their prerogatives. These new organisational modalities could include involving private actors, or giving a private statute to a metropolitan institution (see the case cities Milan and Rennes). The problem of legitimacy, which we have been stressing, goes therefore beyond the simple question of the political composition of a metropolitan institution. It is certainly a fact that the problem arises in the most specific terms from one instance to another. If such a problem is likely to create a real blockage, it can only be dealt with effectively by first making a very careful analysis of the political, historic, economic and social configurations peculiar to the territory concerned.

5.1.3 The question of complexity

The challenges of urban sprawl give rise to profound sociological movements that are difficult to deal with. Urban sprawl results from a multitude of micro-decisions taken by individuals and companies about fiscal, professional and economic issues, about housing, land development and modes of transport. These micro-decisions are affected by the diversity of technical possibilities, and by the global increase in available financial means, as well as through legislative facilities and a social environment that favours freedom of choice rather than any constraints.

Given this context, it could be useful to associate private actors with the decision-making process for dealing with urban sprawl. Policies exclusively initiated by the public authorities risk being tripped up by two obstacles. The fist one is an insufficient knowledge of private actors' expectations, practices and the capacity of such actors to resist. The second potential one is the resistance of these actors to any decisions taken, whether in the form of protests, refusals to comply with certain constraints, or unexpected practices, which are at the limit of the law, in an attempt to get round the law or render it ineffective. Over and above the pattern of institutional responses to institutional obstacles, associating private actors with the decision-making process is a way of drawing profit from the "governance" model which tends to be adopted today. This model recommends to pursue a series of inter-connected objectives : proximity, openness, participation, coordination, responsibility, consistency.

One can obviously worry about supplementary actors complicating the decision-making process, by obstructing or even blocking it. This risk is even more real when the private actors necessarily do not have a common position on the questions raised by urban sprawl. Expectations and behaviour can strongly differ between car-users and users of public transport, low- and high-income households, entrepreneurs and salaried staff, and residents and project promoters, to name but a few.

The diversity of positions and interests is not impossible to deal with. Associations, federations, organisations of all sorts are already around, working in particular directions, on behalf of a particular territory, category of participant or part of the population. These organisations synthesise their own positions and can adopt positions after taking internal expertise or advice. For the public authorities they constitute representative interlocutors to varying degrees, whose positions don't necessarily permit finding solutions but in any case can highlight a facet of the problem to be dealt with.

Should the public authorities always decide in the last resort? Is it possible to generate integrated approaches that combine four rationales, those of political decision-makers, administrations, citizens and companies with their objectives and their particular modes of organisation? Depending on the country or tradition, advice concerning these questions will

vary. In any case it would be illusory to start something purely and simply with private pressure groups so as to *arbitrate* on differences of opinion between public authorities. An institutional dispute can have thrown light on it by the intervention of certain pressure groups, or be defused through a proposal that they might put forward. However these groups are too diverse to play the role of arbitrator in the name of their common position. More often, they have diverging positions themselves.

As studies on the NIMBY syndrome have shown, neighbourhood associations can retreat into refusals based on local selfishness. Nonetheless they represent an active movement, and have a capacity to resist that needs to be taken into account, and thus to be understood. The growing recourse to tribunals with a view to having public authority decisions cancelled, concerning for example night flights over large towns, and the successes secured for justice through the numerous associations of litigants, shows the power that "simple citizens" can acquire. Thus, public authorities would draw benefit from starting a formal dialogue with pressure groups, especially if this dialogue can ensure the avoidance of subsequent blocking. Besides, many dialogue mechanisms already officially exist or can be developed informally : *lobbying* is a reality in matters related to urban sprawl.

The formalisation of any dialogue makes the whole thing more transparent, giving it a public character that alleviates suspicions and reduces risks of manipulation or shady intent, in terms of possible collusion or buddy deals. A public dialogue, written into a mechanism under the rules, is also potentially fairer. In reflecting on ways of organising such a dialogue but also in announcing it, the chances are multiplied of identifying groups that could legitimately pretend to be associated with it. This constitutes one of the objectives included in the contemporary model of "governance".

If the dialogue makes decision-making more complex, increases the number of actors and adds intermediary stages, it also allows for a great diversity of positions to be aired. It is true that final arbitration could be even slower to work through, drawing conclusions could be more difficult, and that the public authorities would be paralysed if they had to respond favourably to all demands. But the arbitration decisions finally made at the end of a process that involved all the actors will be more legitimate and more solid. Here again, the analysis of the institutional stakes should have its rightful place in relation to the question so often raised concerning complexity. It is appropriate in each particular case to know until which point the decision-making processes should take account of the complexity existing within society and inherent to the issues to be dealt with.

5.2 Three main types of response

Whatever may be the situation encountered, and whatever may be the priority to be given to the question of balance, legitimacy and complexity, there are three major types of operational response for resolving the difficulties revealed:

1. the *creation* of a new institution to respond to the challenge of urban sprawl. It could accrue the symbols of competences, authority and an adapted territorial responsibility;
2. the more or less profound *transformation* of the existing institutions covering the territory concerned. This could be done by modifying their responsibilities, their action instruments, and their political composition or their respective territories to take account of the need to deal with urban sprawl;
3. the *improvement* of cooperation mechanisms between existing institutions without modifying these significantly.

These three types of response could possibly be combined; a fusion of types 1 & 2 or 1& 3 would also be possible.

It seems more “economical”, in terms of the decision-making process and time management, to use one sole type of response to remove institutional obstacles. It can however be more effective to combine two types of response, because all the responses do not necessarily need to be within the same timetable or aim at the same type of decision.

For example, it can be relevant to create a new institution in charge of non-constraining planning, in the medium and long term, and covering the whole of the territory concerned (or even beyond), to control the future developments, and in the same time, improve the mechanisms of cooperation between the institutions in charge of the short term issues, and dealing with more limited territorial responsibilities (i.e. use type 1 + 3 responses). Still by way of example, one could create a new institution charged with medium and long-term constraining planning, whilst remodelling the existing institutions to allow them effectively to apply the plans from the integrated policies set out by the new institution (types 1 + 2).

We stress that the diversity of responses to any situation can vary greatly from one urban situation to another, and thus render this or that type of response more pertinent. Each territory has its own resources. Configurations of political leadership (collegial, individual) represent opportunities, or constraints, for the feasibility of the settlement of a new political institution. Mobilisation of private interests organisations on institutional aspects depend also from the locality. Presence of social values in inhabitants like consensus, like collective action capacity is a specific resource which can make possible the creation of a new political institution.

This is also one way of replying to the very widespread idea that holds that institutional structures can only transform themselves with great difficulty. The common idea is that this lethargy is due to the strength of tradition, or because conflicts of interest prefer the *status quo*, or because the constitution or other legal text limit institutional possibilities. It is accurate to say that movements in the matter can be slow or difficult, but several European countries including Spain, Italy and Belgium are recent examples of profound and rapid change. The legal texts, including constitutions, are never inviolable, even if it sometimes requires a qualified majority before they can be changed. Resistance generated by traditional elements or particular interests are real, sometimes deep, but they are not insurmountable. This is especially so *if one opens the scope for possible responses* and one does not *a priori* shut oneself up into a maximalist project, such as the creation *ex nihilo* of an institution in charge of controlling urban sprawl and whose capacity for action implies that it can brutally deprive other authorities of their powers.

5.3 Practical responses which can be envisaged

Each type of response corresponds to a general approach, to the choice of a general type of solution, that could be rendered practical in several ways. It is not possible to give all the conceivable solutions for each type. Each particular solution can generate an original scenario, not used so far. Nonetheless one can draw up a list of the principal responses suggested by the six case studies, adding to them the responses observed or recommended from the specialised studies we have consulted.

5.3.1 The first type of response

- Create a metropolitan authority which is *in charge*, solely or in partnership*, of policies* concerning the control of urban sprawl. Thus it would have the financial and legal means needed, and would work across the whole territory affected by the problem;
- Create a metropolitan institution charged with *coordinating* policies to control urban sprawl, and having an *ad hoc* budget as well as a decision power or a control authority on the institutions involved in the coordination or participating in the implementation of decisions taken;
- Create a metropolitan institution charged with generating *dialogue* and producing *prospective analysis* in relation with urban sprawl. This institution would constitute a permanent forum for dialogue for all the authorities concerned and would have means for expertise. The decisions as such would remain the prerogative of the authorities already in place.

5.3.2 The second type of response

- Absorption, fusion, close articulation, create a common service between two or more existing institutions, as a way of introducing greater integrity or eliminating sources of antagonism;
- Transfer local level institutional powers to another level of competency over more extensive territory, in order to unify policies over the territory. An example would be transferring fiscal power so as to avoid any opposition to policies between the centre and the periphery, and to obtain tax-equalisation effects;
- Introduce a flexible revising mechanism for the territory over which the metropolitan institution in charge of managing urban sprawl acts, so as to adapt the territory to concrete development of the phenomenon;
- Modify the political composition of the metropolitan institution so that it holds the general interest as a priority;
- Widen the action instruments attributed to the metropolitan institution (legislative or regulatory powers, fiscal autonomy, budget, etc);
- Extend the list of matters connected with urban sprawl over which the metropolitan institution and/or an intermediary power between the local and the nation can intervene;
- Generally speaking, separation, specialisation, redistribution, refinement, … of the competences of the existing institutions (regarding the matters, the powers, the instruments and the territorial scope).

5.3.3 The third type of response

- Direct and general cooperation between institutions hitherto working independently or in a competitive way, so creating a *package* of integrated policies;
- Direct cooperation around a specific initiative whether that is sector or territory-based. This option could be in the form of “preparing the groundwork” for cooperation or for acting on integrated policies to a greater extent;
- Limited “technical” agreements that could unblock a situation without interfering with any other forms of cooperation;
- Compromise between parties, or rationalisation of the relations of power. This type of solution works in particular in conflict situations between several institutions having antagonistic projects in the same field (transport, land use planning, …), or between institutions having different competences and implementing, each in its field of competence, policies with opposite effects;

- Create a specific “institutional scene” to manage urban sprawl, a permanent discussion and dialogue instrument between the institutions involved, but which has neither the financial or legal means to apply or impose policies. The main objective here is to maintain cooperation between pre-existing institutions. Thus it is not a question of creating a new institution in the classical sense, but rather to generate and support dialogue. In this scenario, an expertise cell can nevertheless be envisaged that would not be the same than the “discussion cell”. The expertise cell would be in charge of designing or commenting policy proposals, and study the effects of the proposed policies.

5.4 Recommendations valid for all situations

The most common problem concerns the fragmentation of the policies, due to a lack of balance within the institutions, and to the fact that the issues involved in the urban sprawl problem are not sufficiently being placed in a global perspective. The solution implemented should therefore encourage all the decision-makers to take account of the interactions between all the public authorities on the one hand, and between all the sector policies on the other hand. Several recommendations can be made to achieve this objective.

5.4.1 For a successfully completed set of actions

There are four stages to be distinguished in the process of managing urban sprawl. The last stage involves re-launching the process:

- the *strategy* stage: making the diagnosis, fixing objectives, defining global policies;
- the *tactics* stage: setting up operational plans, which express the objectives and policies, bringing all the financial, legal and administrative instruments together, fixing a timetable and implementation deadlines;
- the *implementation* stage, practically applying operational plans in line with the timeline and implementation deadlines;
- the *evaluation* stage, assessing implementation procedures, studying field results, noting any desirable or undesirable secondary effects, and assessing conformity with policies and objectives.

The evaluation stage could lead to a new process of diagnosis, which in turn could relaunch the strategy process that would include pursuing new objectives and setting new policies.

Problems occur when these stages are not clearly planned for, and are not expressly distinguished one from another. Another area to watch is when the process is blocked because there is no competent actor involved or when relationships are not harmonious. If these problems are not dealt with, the process of managing urban sprawl is compromised. Any institutional configuration should be ready to respect these different stages of the process. Caring for the process in such a way should ensure the success of each phase, thus helping them to be linked harmoniously with the other phases.

5.4.2 For successful coordination of action in a complex institutional framework

The techniques for efficiently developing action in networks can be resumed to ensure an efficient functioning of the institutional framework, in the context of the control of urban sprawl, whatever the type of solution adopted. In all situations, the following rules should therefore be observed :

- identify potential actors with their interests and expectations, with their capacities and resources, using a list of selection criteria which has been duly validated;
- identify problems and obstacles that could hamper cooperation;
- apply the “bottom up” principle as a condition for the best use of expertise and the involvement of each;
- improve the conditions of joining and involvement of the actors, including procedures for strengthening participation and cohesion;
- work to get maximum clarity in establishing the subjects on which each actor can intervene and in determining the various roles;
- use a transversal and global approach integrating all actors;
- look for the best model for cooperation, given the actors involved, and set up procedures that foster cooperation;
- create arbitration procedures to establish priorities and resolve points of tension and dispute;
- strengthen partnerships, differentiating between the actors, with each contributing according to their competence and priorities;
- make a guarantee that each actor will have the opportunity to see and verify the effects of his or her involvement;
- implement procedures that facilitate public debate and the participation of external assessors, so as to avoid the “institutionalising” of functions;
- to identify the capital of local resources which can represent opportunities or constraints for an institutional reform. For example: local characteristics of political leadership and more generally of local politics (electoral competition, parties representation); existence of local private interests representation, its representativeness, its sensitiveness to governance issues; existence of social capital in local population (sense of collective action, sense of consensus).

6 CONCLUSIONS

First of all, the present report does not provide one single “best” solution to the question of institutional barriers faced when managing urban sprawl, but rather offers a grid for analysis. This grid is in fact valid for any type of institution and highlights the 4 facets of any institution (democratic legitimacy, power and instruments, competences, territory). The analysis emphasises, as the most important condition, the need of balance and consistency, first, between the 4 features themselves, and secondly, between the institution as it is characterised by these 4 features, and the objectives that it has to achieve.

At another level, consistency is also requested between the policies envisaged by the metropolitans institutions[13], and policies decided at a higher institutional level (e.g. national-level policy as regards the fuel price).

Secondly, the sample of metropolitan institutions or “ways of co-operation” analysed here shows that in practice, there is a great variety of institutional solutions which are experimented, from institutions having only a consultative role, but being the place for a dialogue between municipalities and being initiator for innovative solutions (e.g. Milan) to institutions with directly elected members and having authority for voting laws (e.g. Stuttgart).

Furthermore, the 6 analysed institutions are quite formal structures, but in many metropolitan areas, formal structures co-exist with less formal or informal forms of cooperation, such as: associations, specific places dedicated to political agreement building, etc. In this view, another crucial point is taking into account the specificities of the local context: locality appears as a set of resources and constraints which clearly influences the choice of a type of response to develop new ways of cooperation between political institutions.

When coming to the evaluation of the different institutional solutions and also less formalised forms of cooperation, two elements come under consideration : efficiency of the institution and feasibility of the creation and functioning of such an institution.

As regards efficiency in controlling urban sprawl or reducing its negative effects, it seems obvious that, the strongest the institution, the most efficient it will be. An institution with full democratic legitimacy, with legal power, having competences in all the matters related to sprawl and on the whole territory concerned by the phenomenon will in principle be able to decide and implement more efficient policies.

Some experts even argue that such strong institutions with full democratic legitimacy are the only possible institutional solution to the question of the management of metropolitan areas, to overcome the territorial fragmentation, the fragmentation of competences and the divergent local interests. According to them, the municipal institutional level is an heritage from the past which is no more adequate to the current cities and the problems they face.

This latter point can be partly true. However other political experts consider that political institution creation is only one way among several ones to build a capacity for action in the management of large metropolitan areas. According to them, it is crucial to take into account locality, the local specificities, in the definition of the new modalities of government. Territories bring specific resources (political resource, expertise, budget) whose stock and characteristics influence the choice of most appropriate modalities of political cooperation.

[13] As a reminder, we call for convenience “metropolitan institution” the formal structure of cooperation between institutions, set up to manage transport, land use, urban sprawl, or another related matter, at a metropolitan level.

These experts take as example the legislative reform concerning the government of metropolitan areas in Italy (1993). The main Italian cities should have been concerned by the settlement of a metropolitan political institution with large powers and a strong legitimacy. But the implementation of this legislative framework has been dependent on local configurations. It has been possible where a tradition of cooperation, or an integrated political leadership and social values of consensus, of collective action, was existing. In context of a traditional fragmentation, legislative decision didn't manage to change the situation. Elected representatives of political institutions (city, province, region) acted in order to stop the implementation of the institutional reform.

Thus the creation of a strong metropolitan institution, depriving partly other authorities of their powers, can be very difficult in practice because of historical and/or political reasons[14], or, less often, because of the strength of the institutional barriers themselves. In such cases, an intermediary solution, i.e. a structure of cooperation with low power or medium power, is the only feasible solution. This type of solution should not be neglected for all that, because it can generate a permanent dialogue between municipalities or other institutional levels, contribute to raise awareness among decision-makers (awareness of the need of cooperation on at least some matters), and can be the first step on which progressively a stronger structure could build on. Stabilisation of political arrangement needs time and non formal cooperation helps to define collectively rules, identities, references or values which make possible a political integration in a later stage.

Besides, the range of appropriate responses to any situation can vary greatly from one urban situation to another, because of local specificities, as mentioned above. Each territory has its own resources. Configurations of political leadership (collegial, individual) represent opportunities, or constraints, for the feasibility of the settlement of a new political institution. Mobilisation of private interests organisations on institutional aspects depend also from the locality. Presence of social values shared by inhabitants, like consensus or collective action capacity, is a specific resource which can make possible the creation of a new political institution.

On the other hand, as regards the competition between local authorities, an element which could contribute to overcome the conflicts of interest between municipalities or other institutional levels could be a better knowledge of the real stakes underlying urban sprawl. Municipalities for example are often well informed about the potential revenues that they could get from new residential developments (through the income tax) or new economic activities (whether from the tertiary or the industrial sector). However they are maybe not as well aware about costs generated by these new developments.

A German researcher for example showed that in the case of Greater Hamburg, new housing developments in most of the suburban locations have no fiscal effect on the municipal revenues, as additional revenues and additional expenditures more or less match[15]. He emphasised that this is in contradiction with the high expectations that the individual communities have regarding the fiscal surplus that new developments are supposed to generate. This example is closely depending on the German fiscal system, but more generally, a better knowledge of the negative effects of urban sprawl and of their collective costs, by local authorities, could contribute to overcome, at least partly, the inter-municipal competition.

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[14] Not to be confused with actual institutional reasons, as was said in Chapter 4.

[15] Jens-Martin Gutsche, "The role of the municipal fiscal system in the traffic increase in conurbations", Technical University of Hamburg-Harburg, paper presented at the European Transport Conference, Strasbourg, October 2003.

Finally, the 6 case studies and other examples in Europe also illustrate the fact that *institutions can change*, on the contrary of the widespread idea that holds that institutional structures can only transform themselves with great difficulty, because of the strength of tradition, because conflicts of interest lead to prefer the *status quo*, or because constitutions or other legal texts limit institutional possibilities. Movements in this matter can be slow or difficult but examples also exist of profound and rapid institutional changes.

ANNEXES

The annexes present the 6 case studies which constituted the basis for the analysis of institutional barriers and ways of cooperation between institutions. These case studies were performed in the 6 cities involved in SCATTER: Rennes, Bristol, Brussels, Stuttgart, Helsinki and Milan. In each city, the case study was focused on *one particular policy or policy package* which was envisaged or implemented by the local authorities, and which was related to urban sprawl, either because it attempted to control or reduce sprawl, or because it was aimed to decrease some negative effect(s) of sprawl (e.g. congestion). The case study consisted in describing and analysing the particular institutional issue encountered, the mechanism(s) which was (were) implemented to tackle the issue, the actors involved, the dynamic of co-operation and, if possible, elements for evaluation of the implemented solution. The first annex gives the common analysis framework which was applied in the 6 cities.

ANNEX 1 : ANALYTICAL FRAMEWORK FOR THE CASE STUDIES

1. FIRST PART : DESCRIPTION OF THE CASE

1.1 Explaining the institutional issue

Description of the nature of the problem; description of the policy design or implementation for which an institutional barrier exists. Provide details in the description of the institutional barriers (should include a brief description of the institutions involved). Which types of institutional barriers are in game here ? Problems of boundaries ? Concurrence in legal competence between several authorities? Opposite interests ?

1.2 Explaining the mechanism implemented to tackle institutional issue

In this part, the document should adopt a descriptive perspective to explain as clearly as possible in what consists the solution implemented.

- Who are the players (actors involved) ?
- What are the main objectives ?
- Which tools are implemented ? Creation of a political institution with large powers ? Creation of forums, arenas where agreements are built ? Rules? Land-use plans? Symbolic measures? Description of the tool(s) implemented :

  - Who decides what ? Which competences does the new organisation have ? Which powers ? Which policies can it potentially implement ?
  - Size and definition of the territory covered ?
  - Democratic legitimacy ?
  - Which budget does it have ?
  - How is achieved the control of the actual implementation of the decisions ?

2. SECOND PART: ANALYSIS OF THE CASE

2.1 Resources of actors involved

Before analysing the way of agreement setting, please list succinctly :

- Preferences, motivations of each player (actor involved) ?
- Resources that each can mobilize ? (financial, technical, rules, political)
- Powers / authority : which are the relations (in terms of power and authority) between the pre-existing institutions (described in section 1.1 above) and the new organisation/arrangement (described in section 1.2 above) ? Indicate hierarchy if applicable
-

2.2 Dynamic of cooperation ?

By dynamic of cooperation, we mean :

- Nature of exchanges between players
- Who define the agenda of negotiation ?
- Equality of players ? Balances/unbalances ? Conflicts ?

2.3 Elements for evaluation (if possible) ?

- Efficiency and stability of the solution implemented ? Results ?
- Side effects of the solution ? Examples of positive side-effects : Did the solution implemented permit to build a capacity of action ? Does this capacity have other applications beside tackling urban sprawl ?
- At the stage of implementation of this solution, do new institutional barriers appear ?

ANNEX 2 : RENNES CASE STUDY : MASTER PLAN ELABORATION AS A WAY TO TAKLE INSTITUTIONNAL BARRIERS

1. FIRST PART : DESCRIPTION OF THE CASE

1.1 Explaining the institutional issue

As many metropolitan areas, urban sprawl concerns a large territory around Rennes. Several political institutions are concerned. Some of them have implemented a policy to fight against urban sprawl, others didn't. See in more details the content of this gap between issue and political boundaries.

Since 1973, municipalities located around city centre of Rennes share policies about urban planning, housing, public transport. A specific political institution of cooperation called urban district of Rennes[16] has been implemented by the mayor of Rennes Henri FREVILLE (1954-1977). Rennes district has large legal competences, financial capacities linked with a local specific tax, expertise resources (an agency for regional urban planning called AUDIAR). General land-use plans were elaborated by district in 1974, 1983 and 1994 with an urban sprawl limitation objective. To implement this objective, different tools were mobilized: large public land-banking, detailed land-use plans for all municipalities of Rennes district, subsidies to social housing and to protect green belt around the city centre.

Municipalities concerned by urban sprawl but located around Rennes district didn't implement actions to tackle this issue. Institutional forms of coordination between municipalities were created only to deliver services (refuse collection, sewerage). Until 1983, local state administrations (les "services de l'Etat") was in charge of urban planning for municipalities. The laws on decentralisation passed in 1983 gave mayors the responsibility for urban development within their communes. To promote commune development, mayors have modified detailed land-use to favour dwellings building, business parks. Undeveloped sites consumption was increased strongly. For a large part, urban development dynamics in this peripheral municipalities can be explained in terms of lateral effects of Distric Rennes policies. Public land-banking, planning coercive rules have produced a lack of land to develop new projects in the central part. High level of prices have constrained owners locating around district during the eighties and the nineties.

In 1983, and in 1994, political leaders of Rennes district negotiated with peripheral municipalities mayors to extend land-use plan boundaries. They were aware of urban sprawl intensity in Rennes area and persuaded in the well founded of their policies to tackle it. But negotiations failed. For peripheral communes mayors, to be included in planning process would risk to loose their political autonomy. For them, the president of Rennes District Edmond HERVE was aimed by the willingness to increase his political leadership on the whole urban area. A the end of the nineties, situation appears locked. Problem of administrative boundaries is increased by political conflict between elected people of Rennes district and mayors of the periphery. An political agreement to tackle urban sprawl can't be stabilised.

[16] It was the first urban district in France.

1.2 Explaining the mechanism implemented to tackle institutional issue

A political agreement was obtained in 1999 to create a political cooperation form at a large scale called *Pays de Rennes* including the urban district of Rennes and the major part of peripheral communes of Rennes urban area. In 2001, this new decisional arena has decided to elaborate a master plan, called Schéma de Cohérence Territorial (SCOT).

Creation of the "Pays de Rennes"

The Pays urbain de Rennes was created as a result of discussions during the summer of 1999 between conurbation community President Edmond Hervé and the president of the other presidents of cooperation political institutions between municipalities (*établissement public de coopération intercommunale)* of Rennes urban area. Its first general meeting was held on 18 November 1999.

Membership is voluntary and the Pays de Rennes currently comprises 67 municipalities divided into five political institutions of cooperation between municipalities including the urban district of Rennes transformed in Rennes Metropolis in 2001.

The *Pays de Rennes* takes the form of a legally constituted non-profit association and has no staff of its own. Technicians of Regional Urban Planning Agency (AUDIAR) work for the *Pays de Rennes*. In 2001, it has evolved in a public interest group in order to draw up development contract, called *contrat de pays,* with the state. In 2001, *Pays de Rennes* has adopted its development charter. This document holds the principles of a sustainable development strategy with metropolization matters (university, high-tech economic activity, culture), urban quality (transport, green belt) and social cohesion. Elected political representatives participating in *Pays de Rennes* decided to elaborate together a new master plan called Schéma de cohérence territorial (SCOT) to treat specifically urban planning, housing, transport and environmental issues.

Presentation of SCOT

In France, the State defines principles at the national level together with the procedural rules which govern town planning. In 2001, a new law, "Solidarité et renouvellement urbain"[17] aims at planning on a larger scale, the functional urban area, and also at improving coordination between land use, housing, transport and environment. From these two objectives, a new planning tool has been created : the "SCOT", "Schéma de COhérence Territoriale".

The SCOT is a general land-use plan which purposes are:

- providing long-term development goals, objectives or principles; often it is required that they must be reviewed about every five to ten years;
- providing a framework for detailed local planning and regulation;

Elaboration of SCOT is in charge of some elected people of communes included in plan boundaries[18]. They are advised by local technicians, experts and state. An organisation is set

[17] Law dated 13 December 2000, so-called SRU, "Solidarité et renouvellement urbain"

[18] Elections aren't especially organised for planning process. Elected people participants are issued form municipalities councils.

up for SCOT elaboration. Its activity is maintained after final vote of the document in order to follow conditions of its implementation. This organisation differs clearly with a political institution. Its own legal competence is to elaborate and to evalue SCOT. Its budget is built with subsidies of communes.

How the creation of Pays de Rennes and SCOT elaboration can help to tackle institutional issue?

Creation of Pays de Rennes and SCOT process planning represent **new forms of decisional arena** between elected people of Rennes District and peripheral communes. They differ clearly from traditional institutional forms. *Pays de Rennes* and SCOT elaboration remain manageable frameworks, a venue for consultation and harmonization of the policies of the different existing institutions. Each partner keeps its political independence which helps to build agreement. Political authority of mayors on their commune isn't affected.

Urban sprawl issue will be specifically a subject of SCOT elaboration. Some **characteristics of this process planning** help to wrestle with urban sprawl by limiting political conflicts.

Scientific results produced by experts, agencies participate at the objectivation of the necessity for elected people to work at a large scale, and to make decisions in order to control urban sprawl. Statistical data are produced about location of new dwellings, new jobs as a testimony about phenomenon intensity. Gap between functional and political territories boundaries appears clearly at mayors. They can discover or be also convinced by expertise about negative consequences of urban sprawl.

Process planning implicates also for political leaders a temporal projection beyond electoral calendars. SCOT implementation is thought about 5 or 10 years.

As SCOT is a jurisdictional document, rules precise steps in SCOT elaboration and some content elements. It can help to stabilize agreements between elected representative people. It can help also technicians to obtain political decisions about several issues which must be contained in a master plan. Nevertheless, we can observe a general evolution of urban planning laws since 1970 in the sense of less precise indications about content of general land-use plans.

2. SECOND PART: ANALYSIS OF THE CASE

2.1 Resources of actors involved

In the negotiation of SCOT content (and especially dispositions to tackle urban sprawl),of Pays de Rennes setting up the main actors involved are political leaders of Rennes District and of peripheral communes. To sum up, preferences of Rennes District elected people are to keep a public control scheme about urban planning and to act at a larger scale. It's the only way for them to prevent from a high land consumption, a social space polarisation. Motivations of elected people of peripheral communes are to keep a development essentially based on dwellings (they are afraid of social housing and collective buildings), to benefit from district-level organisational resources. For example, all mayors are expecting to see their commune be connected to Rennes city centre by a specific transport public line. They participate in *Pays de Rennes* to benefit from services, subsidies.

To get agreement on their preferences, each group has its own resources. Political leaders of Rennes District have financial resources (district budget can be mobilized to implement actions of SCOT), technical resources (expertise, …). But elected people of peripheral

communes keep a strategic political resource. They can stop SCOT approbation or *Pays de Rennes* political activity by vote. In the organisation in charge of SCOT elaboration, and in the *Pays de Rennes* non profit association, Rennes District political leaders had to accept to have only the half of voices (while Rennes District represents 80% of inhabitants). Also, mayors of surrounding municipalities keep political authority about detailed land-use plans elaboration, about local policies. If they judge that SCOT or *Pays de Rennes* charte objectives fight against municipality interests, they'll create obstacles in their implementation.

2.2 Dynamic of cooperation

Why an agreement has been found about a large scale urban planning in 2001 after two failures in 1983 and 1994? Why *Pays de Rennes* has been created ?

An exchange about process planning has been concluded between players. SCOT will be in fact an addition of five detailed land-use plans (which scale is around ten municipalities). Boundaries of this detailed plans respect political boundaries of cooperation political institutions[19]. This bargain represents a risk for experts. Objectives of detailed plans won't be necessarily at the same level of precision and of voluntary about urban sprawl limitation, or social housing promotion for example. But local actors consider this political exchange as the only way to work at a larger scale than district level. Agenda of negotiation in SCOT process planning is defined by mayors. Their political role is confirmed. Decisions are negotiated between mayors before general council vote. If a conflict appears at mayors meeting level, agenda can be modified. Consensus building is always pursued, valorised.

Concerning *Pays de Rennes,* this political form has received a political agreement because its manageable characteristics distinguishes it clearly from an integrated political institution. Contract drawn up with the state represents also a financial opportunity which has helped building agreement.

[19] Communautés de communes, district.

2.3 Elements for evaluation

SCOT elaboration starts so it's difficult to evalue efficiency and stability of the solution implemented. We can note that certainly at the stage of implementation of this solution, new institutional barriers should appear. First, the new generation of general land-use plan has a rule force which is decreasing. They stop setting out the broad land-use and infrastructure patterns across the area through zoning or land allocation maps. Second, implementation of SCOT objectives will depend on existing political institution tools. SCOT precise policies principles but didn't have sufficient ressources to implement them. For example, housing or transport objectives can be implemented if a local housing plan exists. This tools exist only on Rennes district.

Creation of *Pays de Rennes* doesn't mean that the intermunicipal cooperative groupings (EPCI) will move at the same speed. Rennes Metropolis and other EPCI will keep differing time-frames. The desire of broader cooperation must not generate delays for impending projects within the new framework.

	Population (1990)	Population (1999)	Dwellings (1990)	Dwellings (1999)	Jobs (1990)	Jobs (1999)	Population evolution 1990/1999	Dwellings evolution (1990/1999)	Jobs evolution (1990/1999)
Pays de Rennes	373070	419559	152706	189676	179657	202129	12,50%	24,20%	5,60%
Rennes urban District (Rennes Metropolis)	326311	364652	135241	168669	168505	188906	11,70%	24,70%	12,10%
Area surrounding Rennes urban District and included in Pays Rennes	46759	54907	17465	21007	11152	13223	**17,40%**	20,30%	**18,60%**

Source : INSEE

The *Pays de Rennes* comprises 67 municipalities and 420.000 inhabitants

Institutions (in original language)	Origin	Composition	Territory	Scope of competence	Matters of competence (in link with urban sprawl)	Instruments adopted
Ville de Rennes		Elected representatives (directly elected)	City of Rennes	reglementary financial	Urban planning, land allocation	Plan local d'urbanisme
District urbain de Rennes	1973	Elected representatives (they are designated by municipality concils)	Cities around Rennes (36)	reglementary financial	Land use, housing, public transportation, economic development, environment,	Schéma Directeur, Schéma de secteur Projet d'agglomération, plan de développement économique, charte d'urbanisme, plan des déplacements urbains, programme local de l'habitat, programme d'action foncière.
Communauté d'agglomération « Rennes Métropole »	2001 (application de loi du 12 juillet 1999 relative au renforcement et à la simplification de la coopération intercommunale)	Elected representatives (they are selected in municipalities)	Cities around Rennes (36)	reglementary financial	Rennes Métropole keeps the same competences that Rennes District.	Idem than Rennes district.
Pays de Rennes	2001 (application de la loi du 25 juin 1999 d'orientation pour l'aménagement et le développement durable du territoire)	Elected representatives from Rennes Métropole end other municipalities (50/50)	Rennes district and surrounding municipalities (total 67)	financial	Pays de Rennes is competent for the master land use plan elaboration. Its chartre precises several cooperation objectives (difreente from competences) : balance in demographic and economic development, mixity, solidarity, sustainable development.	SCOT (schéma de compétence territoriale) Contrat de pays (Pays/Etat)

ANNEX 3 : BRISTOL CASE STUDY : NON-BINDING CROSS-BOUNDARY COLLABORATION IN THE BRISTOL REGION

1. FIRST PART : DESCRIPTION OF THE CASE

1.1. Explaining the institutional issue

Until April 1996, local government services, including urban planning were organised via a two-tier system of local authorities: district and county councils. The planning system was based on development plans, which set out policies and proposals on future land-use and development within the boundaries of local administrative areas. In particular County Councils were responsible for structure plans, which included strategic policies while districts were in charge of district local plans, which identify actual sites for different land-uses and include detailed policies to guide day-to-day development control decisions. Following the reorganisation of local government in 1996, Avon County, which comprised of the city of Bristol and the surrounding districts, was dismantled as an institutional body and four new unitary councils Bristol, North Somerset (formerly Woodspring district), Bath and North East Somerset (formerly Wansdyke and Bath districts) and South Gloucestershire (formerly Northavon and Kingswood districts) were established. As a result planning competence was passed to these unitary authorities, which are now providing the entire range of local planning instruments and services: structure plans and local plans. Therefore there was no longer a strategic planning authority at the county or sub-regional level neither a supra-local planning instrument to coordinate spatial and transport strategies of the four new local districts.

1.2. Explaining the territorial issue

Similarly to other fast growing urban regions, there is a lack of fit between functional area and administrative area in the case of Bristol, where a substantial proportion of the built-up area, which may be regarded as functional part of Bristol, or at least functionally complementary to it, lies outside the control of the City Council. This was at a certain time exacerbated by the conflicting political regimes, where there was a controlled approach within the City but a laissez-faire approach to development in the hinterland area, namely in the South Gloucestershire district at the north of Bristol where pressure for urban development was high. The result of this conflict has manifested itself in the growth of residential suburbs and of office parks and shopping malls just outside the northern boundary of Bristol City district in an area called the North Fringe. The mismatch between the functional and the administrative areas has most negatively impacted on the management of commuter traffic in the North Fringe and between this area and Bristol city centre. This is due to the fact that

1.3. Explaining the mechanism implemented to tackle institutional issue

The Joint Strategic Planning and Transport Committee and the Joint Strategic Planning and Transport Unit.

(Information taken from TRANSPLUS D4.1)

In order to improve the provision of a planning strategy for the actual functional urban area of Bristol, the strategic level (so-called County level) transport and land use planning was undertaken in 1996 by the Joint Strategic Planning and Transport Committee (JSPTC) and

its executive arm the Joint Strategic Planning and Transport Unit (JSPTU). These bodies exist even though there is no longer a 'County' or political institution directly associated with it.

After institutional reorganisation, the four local authorities therefore agreed to work jointly, in line with Government advice, on matters of strategic importance in the former Avon County Council area. A Joint Committee for Strategic Planning and Transportation was formed to co-ordinate joint working, and the Joint Strategic Planning and Transportation Unit (JSPTU) was set up support the work of the committee. The Joint Strategic Planning and Transportation Committee is now responsible for the Joint Replacement Structure Plan.

The Joint Strategic Planning and Transportation Unit produces the Structure Plan on behalf of the four councils and of the Joint Committee, carries out research and advises the local authorities on strategic planning and transportation issues.

2. SECOND PART: ANALYSIS OF THE CASE

2.1. Resources of actors involved

The Joint Strategic Planning and Transportation Unit is headed by a Director charged with providing independent advice to the Committee. The Unit comprises of some staff who are seconded by each of the authorities and some who are directly employed. The JSPTC and JSPTU members are drawn from the four constituent Unitary Authorities (including Bristol City Council). The Councillors of the Joint Committee are appointed by the four authorities, five for each authority. The Chair of the Committee normally rotates between the authorities for every meeting. The Joint Committee is supported by the Officer Steering Group, comprising the relevant Directors of the four authorities, and the Joint Strategic Planning and Transportation Unit.

The JSPTC/JSPTU represents an 'umbrella group' which acts as an overarching vehicle for cross-boundary collaboration and co-operation. It is a joint arena for strategic decision-making and possibly for the solution of inter-institutional conflicts.

2.2. Dynamic of cooperation

Joint Replacement Structure Plan

The Joint Replacement Structure Plan provides strategic land-use and transport policies for the area covered by the four councils of Bath and North East Somerset Council, Bristol City Council, North Somerset Council and South Gloucestershire Council. It replaces the former Avon Structure Plan originally approved by the Secretary of State for the Environment in 1985.

The Joint Committee prepared and published the first Deposit Plan in June 1998 together with a Report on Public Consultation and a Technical Report. In October 1998 the Committee published some suggested changes for clarification to the wording of policies and supporting text in the Deposit Plan, and after further consultation, agreed a revised list of changes in December 1998. The Deposit Plan and agreed changes were subject to an Examination in Public in March 1999.

The Examination in Public Panel's Report contained a number of conclusions and recommendations. The Joint Committee considered the Panel's Report and other representations and in November 1999 published Proposed Modifications. In July 2000 the four councils received a Direction from the Secretary of State for the Environment, Transport and the Regions to modify Policy 33 (Housing Policy) of the Structure Plan. This required the Policy to be modified to make provision for 54,300 dwellings and show a revised distribution of those dwellings.

On 7th March 2002 the Joint Committee resolved to adopt the Joint Replacement Structure Plan. Each of the four constituent authorities have now agreed, at their full Council meetings, that the Joint Replacement Structure Plan should be formally adopted without significant amendment. On 23rd September 2002, the Joint Replacement Structure Plan for the four authorities of Bath and North East Somerset, Bristol, North Somerset and South Gloucestershire was formally adopted.

The structure plan is mainly a strategic document and promotes its aims through the following:

- A location strategy, which seeks to concentrate development within or adjoining existing principal urban areas; to encourage high density and more mixed uses to locate where there is good accessibility to strategic public transport routes;
- Policies for development, which aim at securing a supply of employment land of a scale, distribution and quality required for an efficient economy, promoting spatial patterns of employment that minimise the need to travel and maximises the opportunities to use alternatives to the private car and fostering, wherever possible the redevelopment of brownfields keeping the use of greenfield areas to a minimum.
- Policies for housing aimed at increasing housing densities and promoting housing typologies more suitable and affordable to smaller households;
- Policies for shopping and town centres, which again seek to regenerate the central areas of the main centre of Bristol and at the same time, support the development of secondary centres.
- A transport strategy, which seeks to encourage alternative modes of transport to the car, to discourage car use where appropriate alternatives are available, and to integrate transport with urban regeneration and planned development.

The Joint Replacement Structure Plan provides the strategic context for the four Local Development Plans and the Local Transport Plans and the Joint Unit is involved in the following areas:

- Rail Strategy
- Strategic Rail Planning
- Accessibility Analysis
- Parking Standards

2.3. Elements for evaluation

Although the formation of the Joint Committee for Strategic Planning and Transportation and the Joint Strategic Planning and Transportation Unit (JSPTU) can be seen as an interesting response to an organisational barrier, the barrier would not have existed if local government reorganisation had not taken place. Thus, it is debatable whether this is really a solution to a barrier, or actually the creation of a barrier and then an attempt to find a (perhaps sub-

optimal) way to overcome one of the resultant problems within the constraints of the new system.

Moreover, the Joint Replacement Structure Plan works as a strategic framework for local development and transport planning but has no legally binding role. Even though decision-making appears to be more integrated, actually strategic planning for land use and transport is more problematic because there is no binding co-ordination at the county level. Because travel patterns (and public transport routes) often extend well beyond unitary authority boundaries, decision-making at the county level in areas such as the Ex-Avon County would make logical sense. To make strategic decisions across unitary authority boundaries, the authorities in these areas now have to rely only on joint working arrangements with no statutory backing.

The Bristol area therefore is essentially a metropolitan area without any metropolitan institutions: strategic planning and transport decisions are made by an organisation with no statutory backing in the absence of a transport authority (such as those existing in metropolitan areas) to act as a policy making body in respect of all transport services.

ANNEX 4 : BRUSSELS CASE STUDY : COOPERATION TOOLS ENVISAGED FOR THE IMPLEMENTATION OF THE FUTURE REGIONAL EXPRESS RAILWAY NETWORK

1. THE BRUSSELS' REGIONAL EXPRESS NETWORK (REN)

1.1. The project

The Regional Express Network (REN) is aimed at significantly improving the public transport supply from, to, inside and around Brussels and inducing a significant modal shift in favour of the public transport: public transport share of trips travelled between the near periphery of the Brussels-Capital Region and the Brussels-Capital Region should increase from 30 to 50%.

According to the political decisions already made, at the final implementation stage in 2010, the REN would comprise :

- 8 new radial/transversal railway services linking the Brussels-Capital Region with its periphery inside of an area with a radius of 30km around Brussels centre; this area[20] is hereafter called the "REN zone";
- possible new orbital railway services around Brussels, in the Flemish and Walloon Regions;
- bus services linking Brussels with its periphery;
- new orbital bus services around Brussels, in the Flemish Region.

Services would be operated with attractive headways and commercial speed, using comfortable vehicles appropriately designed for such services.

The implementation of the REN will involve:

- infrastructure investments on railway lines whose present capacity does not meet related future needs;
- renovation/development of existing stations and building new stations, including new or additional park & ride facilities and facilities for bicycle parking;
- purchase of new railway rolling stock and new buses;
- integration of the new services with existing local public transport services, in terms of routes, time schedules, fares and ticketing;
- implementation of accompanying measures aimed at restricting the use of private cars for daily trips, notably "hierarchisation" of the road networks inside of the urbanised areas, restriction of parking capacities both on street and off street inside private premises;
- concerted promotion activities by the public transport operators.

An intermediate development stage has also been defined at horizon 2005, with the beginning of two railway services operation.

[20] It comprises the 19 municipalities of the Brussels-Capital Region, 74 municipalities of the Flemish Region and 33 municipalities of the Walloon Region, with a total population of x.x millions inhabitants; it is xxx km^2 wide.

1.2. The present situation of the REN development

To date the following has been achieved or will be undertaken:

- the pilot project of the REN type operation of railway line/service 26 Halle – Brussels – Vilvoorde with existing rolling stock, which is promising;
- Line 124 (Brussels – Charleroi) : project to add two more tracks between Brussels-South and Nivelles (on this stretch, the line comprises only two tracks presently).
- Line 161 (Brussels – Namur) : project to add two more tracks between Watermael and Ottignies–Louvain la Neuve (on this stretch, the line comprises only two tracks presently).

2. THE INSTITUTIONAL BACKGROUND

2.1. Decision making levels, actors, competences et prerogatives

2.1.1. At the level of the European Union :

- Regulations fort the functioning of the single market in the railway domain :
  - ✓ separation between infrastructure and operation ;
  - ✓ opening of the railway networks to other operators than the "historical" ones, i.e. in Belgium the Belgian National Railway Company (*Société Nationale des Chemins de Fer Belges (SNCB)*);
- Identification of priority routes and subsidisation of related investments ;
- Directives on matters such as interoperability.

2.1.2. At the level of the Belgian State

a. The Federal State

According to the 1988 regionalisation law, the competences of the Federal State are now restricted to the railway transport and the national airports.

In the field of the railway transport, as organizing authority the Federal State :

- administratively supervises the SNCB' activities through approving its statutes, appointing the members of the Board of Directors and contracting Management Contracts with the Company ;
- grants subsidies to the SNCB for the provision of services being subject to public service obligations (see hereafter).

In the transport domain, the Federal State also grants subsidies to the Regions for the development of infrastructures of national or international interest in the framework of Cooperation Agreements contracted or to be contracted with the Regions ; such agreements were formally provided for by the 1988 law addressing the regionalisation of governing competences, notably in the domain of transport.

b. The *SNCB*

The *SNCB* has the status of autonomous public enterprise. Its activities are essentially as follows :

- Activities subjected to public service obligations: provision of domestic passenger services and management (development, maintenance and operation) of the railway infrastructure in the framework of 5 years Management Contract with the Federal State; Management Contracts comprise a 10 years Investment Plan;
- Activities not subject to public service obligations, i.e. activities provided on a purely commercial base : international passenger transport and freight transport for which the *SNCB* has complete freedom of action.

2.1.3. At the level of the Regions : Brussels-Capital, Flemish and Walloon

a. The Regions

There are 3 Regions in Belgium : the Brussels-Capital Region, the Flemish Region and the Walloon Region. Their competences being concerned are as follows:

- Land use planning : each region is solely competent for land use planning of the regional territory and to supervise land use planning at local (municipal) level. This can have as a result that respective regional land use plans might lack consistency with each other, both in terms of plan' objectives and land use targets, and there isn't any formal dialogue procedure to remedy this. One must also add that Regions are actually competing for possible geographical redeployments of housing and activities and this can induce more urban sprawl around the Brussels-Capital Region…;
- Issuing "permis d'urbanisme" and environmental permits : each Region has its own legislation. Practically this notably means that the duration of realising all the works needed by the REN implementation is depending on the good will of the Regions being concerned;
- Developing local public transport infrastructure;
- Developing and managing (operation, maintenance) transport infrastructures other than railways and national airports : roads, motorways, inland waterways, seaports and inland ports, regional airports;
- The Regions are the organizing authorities for the local public transport: as such, in addition to the development of related infrastructures, the Regions also:
    - administratively supervise the public transport operators' activities through approving their statutes, appointing the members of the Boards of Directors and contracting Management Contracts with the Company ;
    - grant subsidies to the operators for the provision of services subject to public service obligations.

The above shows that if the core of the REN project is essentially railway based and under responsibility of the Federal State, the Regions have however an important role to play in its implementation through licensing development works during implementation and contributing to integration with the local public transport services through their respective public transport operators.

b. The local public transport operators

The local public transport operators – the *STIB* for the Brussels-Capital Region, *De Lijn* for the Flemish Region and the *TEC*s for the Walloon Region – have the statute of autonomous public enterprise and their activities are subject to Management Contracts with their respective Region.

In principle the services which they provide are limited to the territory of the Regions, but for historical reasons this « rule » suffers exceptions : some services of the Brussels' public transport operator have part of their route in the Flemish Region, and similarly some services provided by the Flemish and Walloon operators – *De Lijn* and *TEC* – penetrate up to the centre of the Brussels-Capital Region or even have their whole route inside of the Brussels-Capital Region.

There isn't any obligation made to the *SNCB* and the local public transport operators to integrate their respective services at potential interfaces in terms of complementing respective routes, harmonising time schedules and integrating fares and ticketing. Initiatives have however been made in that direction, notably for Brussels' interfaces. The more the regional political representatives become aware of the need to promote the use of the public transport for trips travelled to and from the great urban areas, the more they are now pushing towards the integration' direction.

2.1.4. At the local/municipal level

The municipalities also have competences being concerned by the REN implementation and operation to the extent they have responsibilities in on street parking regulation and enforcement and traffic management on their respective road network.

2.1.5. Conclusion

This brief description shows that many actors are involved in the development, implementation and operation of the REN, in one way or in another, mainly as :

- the Federal State is in principle competent regarding railway transport, but infrastructure investments needs permits to be issued by the regions;
- integration of REN services over the whole REN zone requires contributions from all the 4 public transport operators.

This means that cooperation is an absolute necessity for a successful REN.

The next section briefly describes possible tools for achieving cooperation.

2.2. Existing cooperation tools

2.2.1. Cooperation Agreements and conventions between the Federal State, the Flemish Region, the Walloon Region and/or the Brussels-Capital Region

Before the 1988 law of regionalisation of competences was promulgated, little efforts were made in terms of transport supply coordination in Belgium, as mobility problems were not yet as critical as today. Since then progress remained weak to the extent Belgium is now far behind countries such as Germany, Switzerland, France and Spain in that domain, notably because of the lack of ad hoc permanent structures.

After the regionalisation law of 1988 was promulgated the situation became more complicated in Belgium due to the existence of 4 entities having competences in the public transport domain : the Federal State and the 3 Regions! In addition the provisions of the law itself were somewhat ambiguous : the railway services of local or regional interest remained a competence of the Federal State however the public transport of local/regional interest had become a competence of the Regions.

An appropriate vehicle aimed at achieving coordination if not integration between public transport operators is the Cooperation Agreement for which provisions are included in the

1988 law of regionalisation. For example such an agreement has been concluded in June 1991 between the three Regions and their respective public transport operator concerning services, fares and ticketing integration in and around the Brussels-Capital Region. The cooperation procedure provided by the Agreement was too complicated with a result that not all parties actually complied with it, and operators kept competing with each other instead of cooperating, notably *De Lijn*, the Flemish operator, slashes prices and unduly operates bus services inside the Brussels-Capital Region. This agreement should actually be revised.

Another example of Cooperation Agreement is the agreement concluded in July 2001 by the Federal State, the Flemish Region, the Walloon Region and the Brussels-Capital Region concerning the *SNCB*' Investment Plan for the period 2001 – 2012.

Besides Cooperation Agreements, Conventions can also be used by the parties to achieve coordination or integration of public transport services, but a convention is less binding as each party keeps its own competences and there are consequently greater risks of the integration process being frozen.

2.2.2. Other cooperation structures

Other institutional frameworks have also be created at Ministers level such as the Conference of the Ministers for Communications and Infrastructure (*Conférence Interministérielle des Communications et de l'Infrastructure (CICI)*), which was later replaced by the Conference of the Ministers for Mobility, Infrastructure and Telecommunications (*Conférence Interministérielle de la Mobilité, de l'Infrastructure et des Télécommunications (CIMIT)*). More recently an Executive Committee of Ministers for Mobility (*Comité Exécutif des Ministres de la Mobilité (CEMM)*) has been created in the framework of the Cooperation Agreement concerning the SNCB Investment Plan of July 2001. These "conferences" and committee appear to be merely aimed at arbitrating conflicting situations so as to enable to resume the decision making process.

2.3. Cooperation tools envisaged for the REN design, implementation and operation

2.3.1. The action of the Conference of the Ministers for Communications and Infrastructure

In 1999, on the base of the report presented by the *Syndicat d'étude RER*, the Conference of the Ministers for Communications and Infrastructure had reached a verdict in favour of the REN project, including notably the following works :

- The construction of two additional tracks on the line 124 (Brussels – Charleroi) between Brussels and Nivelles;
- The construction of two additional tracks on the line 161 (Brussels – Namur) between Brussels and Ottignies-Louvain la Neuve;
- The realiosation of the Josaphat – Schuman railway tunnel in the Brussels-Capital Region;
- The realisation of additional links between the Brussels-National Airport and on the one hand the line 36 (Brussels – Leuven – Liège) and on the other hand the lines 25 and 27 (Brussels – Mechelen – Anrwerpen).

The representatives of the Regions in the Conference committed also themselves in issuing the "permis d'urbanisme" and the "environmental permirts" within reasonable time.

The Conference also :

- Invited the public transport operators to finalise fares and ticketing integration in the area being concerned by the REN project;
- Established a high level REN group with a view to draft a Cooperation Agreement between the Federal State, the Flemish Region, the Walloon Region and the Brussels-Capital Region comprising at least :
    - The agreements made inside the Conference;
    - An operation scheme for the REN;
    - An investment programme concerning the infrastructure and the rolling stock;
    - An organisational scheme establishing the responsibilities and expected financial contributions of the parties to the Agreement (Federal State, Regions, pubic transport operators);
    - The accompanying measures to be taken to ensure full benefit of the REN project.

2.3.2. The draft Cooperation Agreement between the Federal State, the Flemish Region, the Walloon region and the Brussels-Capital Region concerning the regional express network from, to, inside and around Brussels

The draft Cooperation Agreement was approved by the Federal Council of Ministers in April 2001 and thereafter submitted to the regional governments for comments. More precisely the proposed Cooperation Agreement included the following:

- General considerations;
- Organisation of the cooperation between the parties and their respective public transport operators;
- Travel demand analysis and transport supply design (routes, commercial speeds and headways, operation modes, rolling stock, …);
- Accompanying measures;
- Financial arrangements;
- Programme of actions and priorities.

Regarding the organisation of the cooperation, the draft proposed the following:

- The **general coordination** would take place within the framework of the **Conference of the Ministers for Communications and Infrastructure**;
- The **dialog between the representatives** of the federal and regional ministers competent for public transport, the representatives of the federal and regional administrations competent for public transport and the representatives of the 4 public transport operators would take place within a **Steering Committee** composed of all the above mentioned representatives and a representative of and ad hoc Group of Economic Interest (GEI) to be created by the 4 public transport operators; the Steering Committee is chaired by the Federal Minister with competence for mobility or his representative;
- The **operational coordination** would be taken in charge by the 4 public transport operators within the above mentioned **GEI** that would act on behalf of these operators.

The Steering Committee is responsible for the monitoring of the carrying out of the Agreement. It is also in charge of drafting proposals on any matter of interest for the REN through self initiative or on request of the parties.

The Steering Committee also has :

- To draw a methodology for the analysis of the existing situation of REN stations and stops and of their potential for development;
- To have an analysis of the travel demand being carried out not later than 31 December 2005 and thereafter being updated every 5 years;
- To have a Business Plan being prepared with a view to optimise the financial means to be used for the infrastructures and operation costs of the REN.

The Steering Committee puts forward its opinions and proposals by consensus. In case unanimity cannot be achieved, the Steering Committee submits the conflicting opinions and/or proposals to the Conference of the Ministers for Communications and Infrastructure.

Inside of the GEI, the public transport operators coordinate their activities inside of the REN zone:

- Promotion of and information on the REN transport supply;
- Integration of their respective services, including fares and ticketing;
- Improvement of conditions of connection between services;
- Recommendations regarding layout of stations, stops, connecting places, car parks.

Not later than 31 December 2005:

- At least two REN railway services and two REN bus services will be in operation;
- the operators would have launched the common ticketing system in the whole REN zone, using appropriate advanced technologies, on the base of a study to be carried out under responsibility of the GEI.

The activities of the public transport operators that are subject to public service obligations remain a matter of their competence in accordance with the federal and regional legislations.

The financial contributions of the parties to the funding of the implementation and operation of the REN would also be in line with these legislations. *SNCB* could however negotiate with the regions the financing of works needed to prepare the great railway investments on their respective territory. Preliminary studies would be financed by the parties as follows : 30% by the Federal State, 30% by the Flemish Region, 10% by the Walloon Region and 30% by the Brussels-Capital Region.

The Agreement also would make it also mandatory to the Regions to issue the permits needed to commence the works within a period of time of 16 months after submission of the related application files to the competent authorities.

The Steering Committee is also able to provide information at any time concerning the progress of the actions undertaken in the framework of the Cooperation Agreement.

In accordance with the 1988 law of regionalisation, the Cooperation Agreement would bind the parties right after approval by the Federal Chambers (the Senate and the Chamber of representatives) and the Regional Councils.

Concerning the **democratic legitimacy**, the following must be underlined : the Agreement would be approved by the Federal Chambers and the Regional Councils, whose members have been democratically elected. In such conditions one may say that the Cooperation Agreement is in accordance with the principles of representative democracy.

But one must also note that trough signing the Agreement, the parties, more particularly the Regions, commit themselves in issuing the permits requested for the building works and the REN operation, which means that the procedures provided by the regional legislations for issuing such permits (realisation of impacts assessment studies, public consultation, etc) will be somewhat meaningless as through the Cooperation Agreement the Regions have already promised to issue the needed permits. In other words participative democracy will not be as effective as could have been expected.

2.3.3. The commitment of the federal State and the Regions in the framework of the Cooperation Agreement concerning the *SNCB'* Investment Plan (July 2001)

According to the Cooperation Agreement concerning the *SNCB'* Investment Plan,

- The parties commit themselves in signing the Cooperation Agreement concerning the REN as soon as possible on the base of the railway network proposed in March 2001 by the *SNCB*;
- A first part of the REN rolling stock must be available in 2005 to enable beginning operation of two REN railway services not later than 31 December 2005.

But the Cooperation Agreement concerning the REN will never be signed : the Flemish Region refused the principle of the cooperation agreement and preferred the principle of a simple convention between parties.

The significance of such a convention is much weaker than that of a Cooperation Agreement as provided by the 1988 law of regionalisation.

Meanwhile the Conference of the Ministers for Communications and Infrastructure had been replaced by the Conference of the Ministers for Mobility, Infrastructure and Telecommunications, but competences regarding the REN implementation at that level were later assigned to an Executive Committee of Ministers for Mobility as a result of the conclusion of the Cooperation Agreement concerning the *SNCB'* Investment Plan.

2.3.4. The Convention between the Federal State, the Flemish Region, the Walloon region and the Brussels-Capital Region concerning the regional express network from, to, inside and around Brussels

This convention has finally been signed by the Federal State and the Regions in January 2003.

Its provisions are very similar when not identical to those of the aborted Cooperation Agreement and take account of the comments made about the draft Agreement by the three regional governments . Main differences are as follows:

- The REN implementation will be completed not later than 23012 instead of 2010;
- Regarding cooperation between parties :
  - The general coordination is now assigned to the Executive Committee of the Ministers for Mobility instead of the late Conference of Ministers for Communications and Infrastructure and Conference of Ministers for Mobility, Infrastructure and Telecommunications;
  - The strategic and tactical coordination is explicitly assigned to a Steering Committee, with the same composition except the absence of a GEI representative as there is no provision in the Convention for a GEI;
  - The operational coordination is now taken in charge by an Operational Group instead of a more formal GEI; the public transport operators might however

create another type of juridical structure for their coordination on request of the parties.

- Additional precisions are provided regarding the fare and ticketing integration by the public transport operators

3. ANALYSIS

3.1. Resources of actors involved

The motivations of the parties which signed the Convention on the REN implementation and operation might be very different:

- The Brussels-Capital Region wants the daily road traffic flow of commuters to be reduced, but its residents are likely less concerned by the new REN transport supply;
- The Walloon Region is not very interested by the REN but the Walloon commuters to and from Brussels are;
- Similarly the Flemish Region is more concerned about railway infrastructures linking the port of Antwerp to its hinterland than by the railway links with Brussels, but again here Flemish commuters are likely more interested by the future new transport supply.

Each player is in a position to mobilize technical resources; as far as financial resources are concerned, the main part of the effort will be supported by the Federal state, and the Regions do not feel so much concerned.

Regarding the powers and authorities, the convention does not bring any modification to the existing relations between the parties : its main objective is to coordinate the actions of the parties so that the development of the new network should be consistent. The convention does not provide with any new hierarchy beyond the functional hierarchy between the three levels of responsibility (Executive Committee of the Ministers for Mobility, Steering Committee and Operational Group.

3.2. Dynamic of cooperation

As far as the convention is not as strong a vehicle as a Cooperation Agreement may be as the second one should have been submitted to the approval of the Federal Chambers and the 3 Regional Councils. Conflicts might then appear much more often with the Convention, inside of the Steering Committee as well as in the Operational Group, and the Executive Committee of the Ministers for Mobility will likely be very often requested to arbitrate the conflicts[21] to come.

Unbalances might arise in connection with the level of implication of the parties : the federal state, with the SNCB, and the Brussels-Capital Region are highly implicated or concerned while the implication of the Walloon region is lower.

3.3. Elements for evaluation

The efficiency and stability of the solution which could finally be implemented are presently rather unpredictable and will largely depend on the good will of the parties.

[21] Political bargaining might extend to domains other than passenger transport.

The solution should however permit to build a capacity of action that did not exist within the Belgian institutional context of the transport activities.

At this stage of implementation of the solution, no new institutional barriers are actually in sight.

It should also be underlined that the technical solutions which were adopted for the REN' development were strongly constrained by the narrowness of the territory of the Brussels-Capital Region, which imposed the involvement of so many parties. If this had not be the case, one could have expected other technical solutions to prevail, such as extensions of existing Brussels' metro lines or tramway lines for example, instead of "traditional" heavy railway techniques.

ANNEX 5 : STUTTGART CASE STUDY : MASTER PLAN ELABORATION AS A WAY TO TAKLE INSTITUTIONNAL BARRIERS

1. FIRST PART : DESCRIPTION OF THE CASE STUTTGART

1.1 Explaining the institutional issue

The **reform of local government** in 1974 left the municipal boundaries of the city of Stuttgart unchanged. Since then urban growth and industrial relocation have moved outside these boundaries, therefore reducing the possibility for the city to manage spatial and functional evolution and taking taxes collected on income and productive activities away from the city.

The eventual proclamation of the Stuttgart Metropolitan region, in August 2002, has set an important frame for the competitive positioning of the Stuttgart region in the international context. This is seen to have positive effects in the evolution of the city and region of Stuttgart, as one of the problems of the region is the extreme fragmentation of the governing system.

The region of Stuttgart acquired its own political organisation in 1994 as the Verband Region Stuttgart and has a directly elected regional assembly. It has become a model for other regions in the state and in the Federal Republic itself.

Its competences cover regional, infrastructure, landscape and transport planning as well as economic development, local public transport, waste management, and tourism. The central goal of the Verband Region Stuttgart is the co-ordination of policies among the independent municipalities. This regional institutional structure, based on 23 districts, each grouping several municipalities, promotes a structured well planned development of the region.

1.2 Explaining the mechanism implemented to tackle institutional issue

The key actor organisational networks Kreistag, Landtag, Verband Region Stuttgart play an important role in the decision-making process of the Stuttgart region with respect to land-use and transportation. The VVS (Verkehrsverbund Stuttgart) is responsible for the common tariff system in the Stuttgart Region.

To support the positive effects and impacts and to reduce urban sprawl different policies and measures have been proposed:

- Better coordination of the different planning systems and a better inclusion of the population.
- The municipalities of the Region of Stuttgart should develop a common area development concept (Flächennutzungsplan) so that a better settlement control can occur against urban sprawl.
- This also requires a system of supporting measures, for instance for those municipalities refusing to extend new land-use developments and which are

compensated by the other municipalities for it. The tariff system should become more flexible and more easy to use.

- Introduction of a telecommunication system for the busses and the trains in order to obtain better information about the schedule and to minimise possible delays.

The urban planning has shifted in two main directions. On the one hand the development towards the southern part of the Stuttgart region: the new fair complex in the Filder area, the ICE station and the expansion of the airport have acted as attraction centre of further residential and industrial developments. In addition, a cluster of leisure and service activities close to the motorway in the southern periphery of Stuttgart has developed. On the other hand, the Stuttgart 21 Plan aims at rebuilding the Stuttgart – Ulm – Augsburg rapid rail line, comprising improvements in regional and long-distance transportation; excellent connections to the Filder Plain and the airport; development of new urban neighborhoods in the city centre; enlargement of park areas and creation of new jobs at the centre of the Stuttgart region. This aim will be achieved by rerouting a part of the tracks through underground tunnels and lowering the station, it is possible to significantly reduce the inner-city area required for tracks. This opens up urban development opportunities and space for new development (about 1 km^2) right in the heart of the city.

Regeneration projects, especially focused on the re-use of dismissed military activities, are also a factor determining the formation of new 'centres of gravity' for urban growth.

Regional planning laws strictly regulate land-use changes and the conversion of fallow, agricultural and water catchment's areas into urban uses, thereby controlling urban growth. However in the last years the infilling processes characterising the growth of suburban areas have occurred mostly unplanned and attempts to convey the most part of new developments along the transport infrastructure failed.

To summarise, the high costs and reduced availability of areas, houses and apartments in the city centre together with the processes of economic restructuring are at the basis of the first wave of sub-urbanisation. These first relocation trends from the central to the peripheral areas of the city of Stuttgart have also been facilitated by the significantly **shorter travel times** of trips from core to peripheral areas and by the radial extension of the road and rail networks. At present the high levels of traffic congestion surrounding the city of Stuttgart are one of the reasons behind decentralisation trends of both residential and productive activities.

A further factor has been and still is the housing market and housing supply, which are, in turn, affected by the economic cycles. Spatially located and planned interventions have also played a significant part in setting the direction of new developments: the Stuttgart airport, the cluster of entertainment industries, and the economic poles of attraction in the Vaihingen and Wallgraben areas have all shifted new settlements towards the southern part of the region. The Filder area is an outstanding example of the effects of growth and relocation factors on suburban centres. During the 1980s the population of the city of Filderstadt has grown of nearly one third as a result of migration flows from the city of Stuttgart, while since the mid 1990s saturation effects have slowed growth rates down. The area is in a favourable location with regards to the accessibility to all major transport networks and proximity to the airport and the southern employment areas and the quality of life, environment and services is generally very high. All these elements have attracted population from the city of Stuttgart. Differently from the city of Stuttgart, the population of Filderstadt is mainly characterised by

an increase of young families (ages ranging between 15-35) with children and a loss of older population.

Policies affecting mobility. The suburban light rail system and the subway network have been and are currently being extended and improved. The streetcar system has been updated to improve speed and therefore transport capacity. The road network has also been extended towards the north and east of Stuttgart. Despite the initial goal of these interventions to reduce congestion along the radial transport infrastructures, a continuous increase of induced traffic and traffic density has prevailed over the increased road capacity. As a result travel times are now as long as they were before any intervention of the road network. The main goal of implemented transport policies is sustainable mobility. This goal has been pursued by a new traffic plan, which aims at:

- Separating long distance traffic from regional mobility;
- Reducing the level of congestion and pollution along transport routes leading toward the city centre by the realisation of an eastern by-pass and the introduction of speed limits to control CO2 emissions.
- Increasing the number of trips by public transport and reducing the use of cars.

Political and pressure groups have different opinions on the relevance and efficiency of the traffic plan and this has hampered its implementation. Future transport policies should focus on local-level policies such as road-pricing measures and the promotion of alternative means of transport, such as cycling and walking as well as on interregional policies such as the improvement of the overall accessibility of the city to the European transport network.

With regards to overall **measures to reduce air pollution**, the city is promoting the use of natural gas for heating purposes. All new urban developments are equipped with natural gas heating systems.

Spatial planning has aimed at the development of agglomeration nodes around decentralised industrial centre and at the regeneration of peripheral urban centres, which have become less attractive due to the development of commercial centres and the leisure clusters. A solution to the further dispersal of settlements and to a more systematic planning of transport infrastructure could be the adoption of a regional land-use and spatial plan supporting the development of mixed land-use settlements around existing urban centres. In general the city is looking for a stronger definition of its role in the competitive and international urban market.

ANNEX 6 : HELSINKI CASE STUDY : HELSINKI METROPOLITAN AREA COUNCIL'S FORMATION AS A WAY TO TACKLE INSTITUTIONAL BARRIERS

1. DESCRIPTION OF THE CASE

The strong growth in migration and business activity in the 1960s spurred greater co-operation among the municipalities in the capital region. The Helsinki Metropolitan Area (YTV) area encompasses the capital city region, which comprises Helsinki, Espoo, Vantaa and Kauniainen.

The day-to-day business between municipalities in the region increased and led to the need for land use, public works and services to be planned and arranged on a common basis, across municipal boundaries . There was strong agreement about the need for co-operation but opinions differed about how to actually co-operate. In 1970 the capital city's regional government, YTT, was founded.

YTT's initial responsibilities dealt with land use, housing, and public works related matters. At its inaugural meeting it was found that the regional municipalities were participating together in 45 different organisations or projects.

Quite soon it became apparent that YTT's legal position was inadequate and thus a special law, dealing with the capital regional government, was drawn up and came into effect at the beginning of 1974. At the same time, municipal structures in the region were made more uniform. Vantaa became a city at the beginning of 1974. Espoo and Kauniainen had received city rights two years earlier.

In practice, this meant that YTV would legally continue carrying out YTT's functions. The enactment of the YTV law terminated plans to verify municipal boundaries that were under consideration by public authorities and particularly regional government promulgation in the capital region.

YTV was given its first significant responsibility to fulfil at the beginning of 1982, when waste management was transferred by agreement to it from the regional municipalities. During the same year the municipalities also shifted some new air quality management activities to YTV.

A big change in YTV's operations occurred in 1985 when the YTV-law was renewed entirely. In accordance with the previous law, operating powers still required agreement from all municipalities and thus a large portion of the functions were dismissed to the study and planning stage.

In accordance with the new law, YTV received exclusive responsibility for waste management and regional public transport management as well as air quality monitoring. In particular, the introduction of regional public transport tickets in 1986 began a new phase in the capital region's history. Public transport ticketing and traffic management came into effect in the whole region regardless of municipal boundaries.

The 1990s were noteworthy for YTV in terms of increasing service provision, paying attention to economic aspects of operations, and also becoming a more streamlined state owned corporation type organisation. Functions in which YTV's role was minor were dropped from the law and rigid bureaucratic procedures were dismantled.

The first competitive tendering of bus services in the Helsinki Metropolitan Area was held in 1994 and the tendered traffic commenced operation in early 1995. Both waste management and traffic competitive tendering achieved significant cost savings. These cost savings have made it possible to reduce payments and increase service levels. Also the municipal share of the costs have remained at a stable level, less than a third of YTV's revenues. The regional supervisory roles have been successfully implemented in the form of PLJ and PKS projects.

YTV's upper decision-making body, 44-member committee, was changed to a 22 member regional council at the beginning of 1997 in line with the new YTV-law. The new law broadened the possibilities to strengthen co-operation with outlying municipalities especially in terms of YTV's core business areas.

The Helsinki Metropolitan Area, YTV, is a customer oriented, quality demanding, and sustainable development heeding service organisation, whose operations are based on open, diverse and active co-operation.

YTV's operational parameters are 79 million public transport passengers, 8 million emptied waste containers, and 7 million air quality measurements a year.

The final budget (2000) was 142,2 million euro and the staff size is 288. Personnel's share of the total expenditures, though, is only 7 %.

At the end of 2001 YTV had 320 employees (yearly average of 314). 46% were women and 54% men. Half of the staff has been employed by YTV for more than 10 years. The largest operating areas in term of employment are waste management (141 persons) and the transport department (99 persons). There are 54 employees working in administration, 18 in the environment department, and 8 in development planning.

YTV promotes capital region development by providing high quality public transport, waste management, air quality management, and development planning services. YTV carries out its functions according to sustainable development principles in a customer oriented, transparent and co-operative fashion. In practice, the area council's tasks are:

1. look after the waste management and related activities of member municipalities
2. arrange regional public transport service and procure regional transport services as well as look after other public transport related co-operative work of member municipalities
3. prepare the capital region transport system and public transport related plans and further their implementation
4. approve the capital region's required tariffs and ticket system and regional traffic tariffs
5. take care of member municipalities' air quality management monitoring, research, planning as well as education and training
6. take care of capital region and member municipalities' common services related to studies, research, planning and implementation as well as give advice on collaborative activities

YTV has five business centres; transport department, waste management administration, environment office, development planning office and administration.

The regional council is the decision-making body in the regional government. Helsinki has 5 elected representatives on the regional council while Espoo and Vantaa have five each and Kauniainen has one.

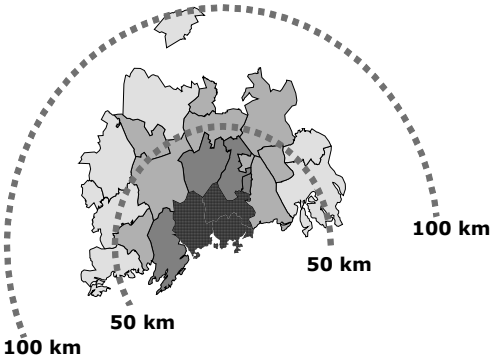
YTV's executive committee's term in office can only be as long as the time between municipal elections, which is currently 4 years. It is elected by the regional council based on political party standings in the last municipal election that stood at 7 for Helsinki, 3 each for Espoo and Vantaa, and one for Kaniainen. This arrangement also abides by the law of equality. YTV city mayors serve as expert members in the government.

YTV works in close co-operation with the capital region municipalities. Co-operative networks are also in place with surrounding municipalities, municipal coalitions (e.g. provincial federations) state administrations (e.g. ministries) and research organisations.

2. ANALYSIS OF THE CASE

The capital region's, and thus also YTV's, field of activity has gradually changed since the 1970s. The capital region is growing rapidly and networking with neighbouring municipalities has increased. Social and environmental impacts on YTV operations are on the increase. More stakeholders are involved in project implementation, creating new challenges.

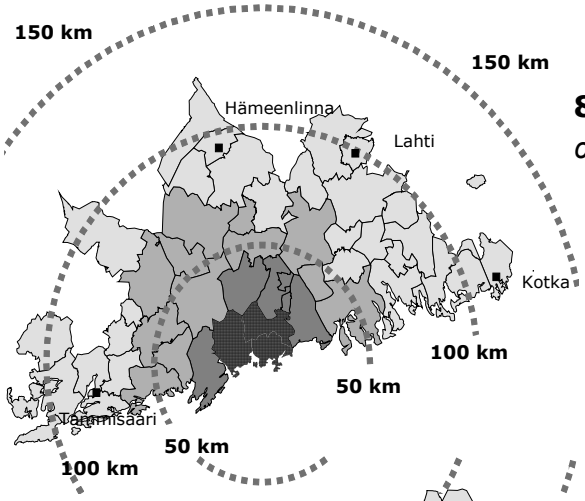
1980



47 000

commuters to HMA (Helsinki Metropolitan Area)

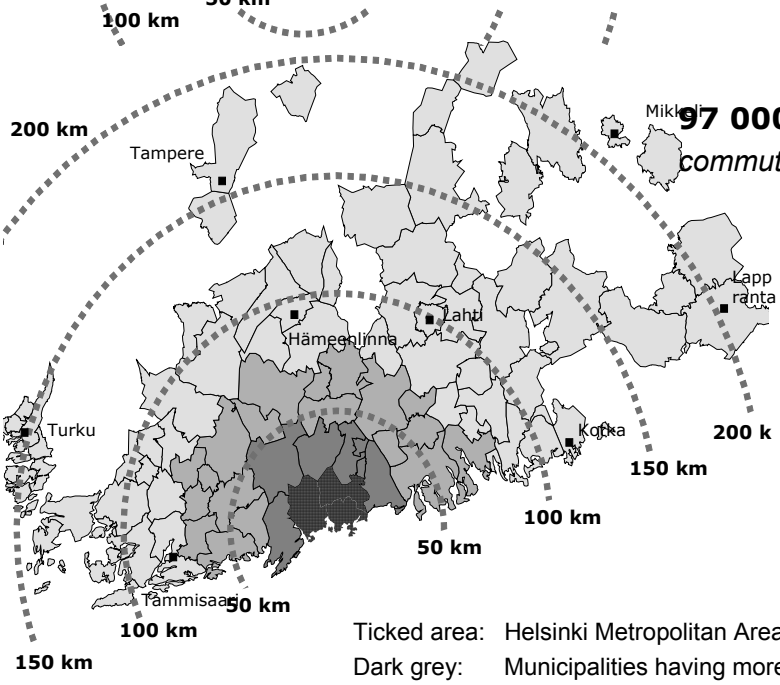
1990



88 000

commuters to HMA

1999



97 000

commuters to HMA

Ticked area:	Helsinki Metropolitan Area (HMA)
Dark grey:	Municipalities having more than 40% of employed people working in HMA
Grey:	Municipalities having 10-39,9% of employed people working in HMA
Light grey:	Municipalities having 2-9,9% of employed people working in HMA

The continuing rapid growth (population, jobs and economy) creates pressures to monitor estimates of long term development, its preconditions and impacts. The difficult housing situation related to this growth, as well as the service and construction requirements,

necessitate the intensification of planning co-operation throughout the entire Helsinki region. The demands of international worldwide co-operation and competition blocks are reflected at many levels in the development and planning of Finland's sole metropolitan area. Progress in other regional planned works (provincial plans, master plans, city programmes, and mega-projects) brings with them new starting points for compiling PKS- future visions. The planned regional area expands in all aspects in the direction of the basic town planning strategy programme.

The population of Helsinki Metropolitan Area is growing. The growth is directed mainly to Espoo and Vantaa as well as nearby municipalities. The migrants require information about services and add to the service demand. Commuting over the capital region's boundary is increasing and rush hours are getting worse. These trends create high demands especially on public transport service levels. The region appears more than ever to be one entity. Boundaries are dissolving for residents and public transport passengers in the YTV region as well as outside. Co-operation between different travel modes and especially public transport system is increasing.

YTV's success in supporting co-operation among the capital region's municipalities is generally viewed as unquestionable. It has been seen that YTV operates in a co-operative manner, in which there is possibility to support the member municipalities' ambitions to form an economically, socially and environmentally sustainable urban region. However, one of the limitations of this organisation is that it only includes cities within the Helsinki Metropolitan Area. The capital region has however expanded outside of the commutershed and outer municipalities are not necessarily committed to the same goals as YTV. The solution could be the enlargement of HMA Council or a wider co-operation agreement between HMA Council and other municipalities.

The second critical aspect has been YTV' role in real decision-making. YTV can offer recommendations but its actual decision-making power is restricted. For example, in order to further the implementation of infrastructure projects, the capital region municipalities must hold a similar view of the project in question. The state shares in the funding only if the municipalities manage to agree.

ANNEX 7 : MILAN CASE STUDY : THE STRATEGIC AREA PLAN: A WAY TO TACKLE INSTITUTIONAL BARRIERS

1. FIRST PART: DESCRIPTION OF THE CASE

1.1 Explaining the institutional issue

The Milan area has experienced, and is still now experiencing, the sprawl phenomenon at a higher and higher scale. The first "historical" waves of urban growth were mainly located along transport infrastructure (railways and underground) and affected Milan and its immediate surroundings. More recent waves have a wider extension, which in many cases is detectable even over the Province border, and a far higher penetration force.

The phenomenon is now characterised by an infill processes of areas not necessarily connected to the infrastructure system. On the other hand we can state that the changes in the socio-economic structure of the whole area led to a radical process of de-industrialization, that mainly affects the "historical" heavy-industrial sectors located in the Milan peripheral areas and in the municipalities immediately surrounding the main municipality, that cause the loss of thousands of jobs and the redundancy of million of square metres of former industrial sites.

To manage this new type of city at this wider, regional or even interregional spatial/functional scale, where Milan can be seen as one node in a polycentric system and as part of a compact conurbation extending to the north and to the east, the needed set of actions to be implemented are partially different from the one adopted in the past.

The planning institutions have some difficulties to manage this evolving situation, due to the scale and to the type of the interventions. The problem with respect to the type of initiative is that the "old" planning coercitive rules, if not enforced with active actions by the public administrations, no more guarantee the physical implementation of land-use plans. With reference to the scale of the intervention the main obstacle is that functional and political territories boundaries rarely match, so the existing situation requires an active cooperation between the local authority at each level, and such cooperation can be not easy to obtain if the local interest and priority are conflicting.

To tackle such institutional problems, the central government instituted the 142 Law (1990) regarding the reform of the local autonomies. One of the innovations proposed by such law was the institution of a new level of governance to be acted in the main Italian conurbations (Milan, Turin, Genova…) called "Area Metropolitana". But the new planning level was, in its original proposal, partially in contrast with the former planning institutions, which would have loosed some political autonomy (mainly with the Provinces, that should transfer some critical task to the new planning level, and the capital municipalities, that will loose part of their local hegemony) and was never put into practice. Such Metropolitan Areas are now considered mainly in relation with the environmental critical issues (traffic bans) and is in several institutional researches on transport and environment. The political debate on such theme is at the moment still on-going and the reform of the law 142 will probably propose some innovations on it.

The goal of coordinating the single municipalities, with particular attention to the implementation of critical aspects (generally those that invest an area wider then the one of

the single municipality, and so a common and shared definition of the strategy to act in relation to such problem) of the single City Master Plans is actually covered by the Province with the "Piano Territoriale di Coordinamento Provinciale" (province coordination plan). Such plans do not have the strength to impose planning strategies to local institution[22], but can be a powerful tool when acknowledging some planning design developed at a local level, following a sort of bottom-up approach to the design and implementation of sovra-local urban policies

1.1.1 North Milan case

For almost a century the north Milan areas were one of the major industrial centres in Lombardy and Italy. The serious industrial slump which affected traditional production sectors - such as electromechanical and metal-working industries - and their consequent upgrading led to the closure of large companies (Falck, Marelli, Breda, etc.), causing the loss of thousands of jobs (from 1991 to 2001 in the entire outer urban ring -27%) and the redundancy of about three million square metres of former industrial sites.

In such situation private enterprises demonstrated to be, if left alone, unable to regenerate the economic and social structure of the area. The analysed solution refer to an effective coordination of existing powers, to a multi-governance of a region whose spatial dimensions match with the planning issues, aimed to restore of the system of centralities through the reconstruction of local identities and urban communities as well as of functional specialization and structured and co-operations among urban centres. A more structured and therefore more manageable mobility is one of the expected virtuous effects of such policies.

1.2 Explaining the mechanism implemented to tackle institutional issue

The North Milan Development Agency (ASNM) is a joint-stock company established in 1996 on the initiative of the Municipality Council of Sesto San Giovanni in partnership with the Municipality Councils of Bresso, Cinisello Balsamo and Cologno Monzese. The tool chosen to build up a shared vision and reference framework for inter-council policies is the North Milan Strategic Plan.

Creation of the "Agenzia per lo Sviluppo del Nord Milano"(ASNM)

ASNM was set up to deal with the closure of the large manufacturing industries in the area and to relaunch the area called North Milan from the point of view of its economy and employment. The aim is of transforming the exixting situation into an opportunity for the regeneration of the area, from both the economic and social point of view and from that of the environment and town planning.

The more innovative aspect of the Agenzia is that, despite the promoters are public institutions, an important role in the definitions of the strategies, and especially in the implementation of them, is played by private enterprises.

ASNM is in fact a no profit organization established in 1996 on the initiative of the Municipality Council of Sesto San Giovanni in partnership with the Municipality Councils of

[22] When PTCP tried to impose a sort a sovra-municipality Master Plan, was rarely successful or was only partially implemented because of the resistance of the single municipalities)

Bresso, Cinisello Balsamo and Cologno Monzese and include the Milan Province, some institution agency at wider level (Finlombarda, a regional agency, and Camera di Commercio di Milano) and the main private enterprises operating in the area. It is self-funded through the promotion and management of projects and actions, and is supported, in the physical implementation of such projects, by public institutions (Municipality Councils, Province of Milan, Lombardy Region, Ministries, European Union) or co-funded by private bodies.

ASNM's activity has enabled the town councils to create joint strategic schemes, discussion forums, working approaches which have led to the conviction that inter-council co-ordination of the more strategic policies and actions is needed to strengthen the position of North Milan at a local, national and international level. The tool build up to match such goals is the “North Milan Strategic Plan”.

Presentation of the North Milan Strategic Plan

The Strategic Plan identifies resources and problems in the area related to local development, and supplies a series of economic, local, social and institutional scenarios, principles and guidelines for possible feasible actions in the 2000-2010 time span.

The main objectives of the approach adopted pinpoint policies for sustainable local development, formulated jointly with local government, public and private bodies and services, strengthening the management capacity of the transformation processes. A new profile of the North Milan area will thus be defined, highlighting the critical nature of the area and giving guidelines on the priority of intervention for a concerted guided action oriented to the forms of production and work around: innovation (technology, production, and administration) and urban and environmental quality.

How the creation of ASNM and North Milan Strategic Plan elaboration can help to tackle institutional issue?

The ASNM and North Milan Strategic Plan process planning clearly are an innovative example of cooperation between public and private enterprises. And, only considering public sectors, between various institutions of different scale and functions. Moreover in the decisional arena an important role is played also by some non-institutional organizations that represent the categories of citizen living in the area.

The political authority of partners on their own territory isn’t directly affected by the new Agency, and this help to enforce the political agreement around the planning process and the proposed action.

ASNM's activity has enabled the town councils to create joint strategic schemes, discussion forums, working approaches that have led to the conviction that inter-council co-ordination of the more strategic policies and actions is needed.

Urban sprawl is not a specific issue of the North Milan Strategic Plan; anyway most of the expected results will have a significant impact in the overall phenomenon. In fact several characteristics of this process planning wrestle with urban sprawl because, by limiting political and socio-economic conflicts in sensible areas, can enforce the polycentric and plural functioning of the urban systems, which can counterbalance the growth of urban sprawl. Such policies can indeed promote a more structured and therefore more manageable local and sovra-local mobility.

2. SECOND PART: ANALYSIS OF THE CASE

2.1 Resources of actors involved

Strategic plans are "light" planning tools aimed at outlining a shared reference framework and different strategies based on actions and projects fielded by public and private bodies.

In the case of North Milan, the Strategic Plan takes on the nature of a local political manifesto and for local government planning tool, in order to meet a definite need expressed by the Municipalities of Bresso, Cinisello Balsamo, Cologno Monzese and Sesto San Giovanni, and is coordinated by the North Milan Development Agency (ASNM). The promotion of the projects and actions is on behalf of or in partnership with the main agents involved in the process of local development, from local government (Municipality Councils, Province and Region) to private operators.

For this reasons the ASMN can directly supply the actions of the North Milan Strategic Plan only with technical resources (expertise, …). A direct founding of the plan is carried out by the political institutions that have proper financial resources and by the private enterprises involved in the various project.

2.2 Dynamic of cooperation

All the projects proposed by the plan lie behind of the Forum for North Milan Development, a consultancy organ in which the main socio-economic agents in the area discuss strategic plans and approaches for development of the area.

Cooperation and negotiation between the agents involved are the main tool to create the political, social and economical agreement that is needed to put into practice the proposed actions.

Regarding public institutions, such cooperation is always voluntary: political authority of partners on their own territory isn't directly affected by the ASNM. Local actors promoted this planning practice because they needed, in such a physical situation, to work at a larger scale than municipality level.

2.3 Elements for evaluation

The evaluation of the above-described planning process can be performed from two points of view:

The first regards indeed the planning approach implemented to tackle institutional issue. And in this case the evaluation can't be but positive because the main institutional goals was reached: a general agreement about the objectives to reach, and a more practical agreement about the actions and tools to implement to reach such objectives was found. The coordinated "North Milan Strategic Plan" was approved by all the involved actors and is now in the implementation phase. Moreover through its partnerships ASNM has developed a strong network of relationships at a local, national and international level, which are highly effective in promoting feasible initiatives and projects.

The second regards the practical effects of the implemented actions. In this case we can have only a preliminary evaluation because of the time threshold of the plan (2000 – 2010) do not permit to know if all (or which of) the proposed actions will have a physical implementation and which will be in practice the physical, long term impact in the living environment. Anyway the successful cooperation leaded to a dynamic and propositive environment: in the first two years few projects was completed, but many are in progress. The expected results, at this stage only partially reached, are the enforcement of the polycentric and plural functioning of the urban systems, which can counterbalance the growth of urban sprawl and promote a more structured and therefore more manageable mobility.

Institutions	Composition	Territory	Scope of competence	Matters of competence (in link with urban sprawl)	Instruments adopted
Comune di Sesto San Giovanni Comune di Bresso Comune di Cinisello Balsamo Comune di Cologno Monzese	Elected representatives (directly elected)	Municipality located in the north Milan	regolamentary financial	Land use destination, urban planning	"North Milan Strategic Plan", City Master Plans, Local detailed plans
Provincia di Milano	Elected representatives (directly elected)	Milan province	reglementary financial	Land use, housing, public transportation, economic development, environment	Piano Territoriale di Coordinamento Provinciale, economic incentives for enterprises location
Camera di Commercio di Milano	Representatives are designated by political authority	Milan province	economical	Economic development	
Finlombarda	Representatives are designated by regional authority	Lombardia region	economical	Project founding	Economic incentives for enterprises location
Falck ABB Banca di Credito Cooperativo di Sesto San Giovanni Brollo - Marcegaglia Edilmarelli	Private enterprises			Project founding	