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Conference Paper

Planning for Polycentricity in European Metropolitan Areas - expectations, rationales and practices

50th Congress of the European Regional Science Association: "Sustainable Regional Growth and Development in the Creative Knowledge Economy", 19-23 August 2010, Jönköping, Sweden

Provided in Cooperation with:

European Regional Science Association (ERSA)

Suggested Citation: Schmitt, Peter (2010) : Planning for Polycentricity in European Metropolitan Areas - expectations, rationales and practices, 50th Congress of the European Regional Science Association: "Sustainable Regional Growth and Development in the Creative Knowledge Economy", 19-23 August 2010, Jönköping, Sweden, European Regional Science Association (ERSA), Louvain-la-Neuve

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Planning for Polycentricity in European Metropolitan Areas
– expectations, rationales and practices

Track P. Regional and urban policy, planning and governance.

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Abstract

Polycentricity is one of the key words coined by the ESDP in 1999 to frame strategic planning at the transnational level. In recent years, however, the concept of polycentricity (and its inherent expectations) has increasingly trickled down as well to the regional level. The paper stems from observations and findings gained from assisting, advising and moderating an international expert group that consists of planners coming from a dozen of European metropolitan areas. Within this group the objective has been to identify major challenges, to reflect current methods, routines and debates and to share lessons and experiences with regard to the applicability and implementation of the concept of polycentricity in their respective metropolitan area.

Using text analysis as well as participating observation, the paper will derive a typology of different analytical and normative understandings of polycentricity at the regional level. By exploring three thematic strands that have been chosen by the group to further discuss the potential performance of the concept of polycentricity (here: a: metropolitan governance and the implementation of plans and policies, b: urban sprawl and climate change response, c: functional labour division between centres and economic competitiveness/resilience), the paper will reflect similarities and differences of the planners' rationales and expectations, their current practices and activities and their experiences (so far) that are closely connected to the application of polycentricity within European metropolitan areas. The paper will also illustrate the high degree of context sensitivity to which the concept of polycentricity has to respond to in each of the twelve metropolitan areas that have been examined.

1 Introduction: thematic scope and method

Polycentricity is one of the key concepts coined by the European Spatial Development Perspective (ESDP) in 1999 and later on followed-up by the Territorial Agenda (TA, 2007) to frame strategic planning at the transnational level. In recent years, however, the concept of polycentricity - and its inherent expectations, diverse understandings and interests - has been increasingly trickled down as well to the regional level, in order to guide in particular spatial development 'within metropolitan areas'.

On the initiative of the Office of Regional Planning of the Stockholm County Council an Expert Group on intra-metropolitan polycentricity (*which will be abbreviated in the following with IMP*) has been constituted within the METREX Network of European Metropolitan Regions and Areas to consider common issues of interest in this respect.¹ Spatial planners from a dozen of metropolitan areas across Europe have been gathered to distinguish and further explore three thematic strands that are closely related to the concept of polycentricity 'within' metropolitan areas. The central objective within this group has been to identify major challenges, to reflect current methods, practices, routines and debates and to share lessons and experiences with regard to the performance, applicability and implementation of the concept of polycentricity in the respective metropolitan areas that are represented by the group. The group has been constituted by the following metropolitan areas:

- Veneto
- Warsaw/Mazovia
- Frankfurt/Rhine-Main
- Paris/Île-de-France
- Rotterdam - The Hague
- Sofia
- Naples
- Helsinki
- Emilia-Romagna
- Tri-City (Gdansk, Gdynia and Sopot)
- Metropolitan Region Central Germany (Leipzig, Dresden, Magdeburg, Erfurt etc.)
- Stockholm

¹ METREX provides a platform for the exchange of knowledge, expertise and experience on metropolitan affairs, and joint action on issues of common interest. The Network has members from some 50 metropolitan regions and areas and partners in Europe.

The following paper reflects some observations and findings by the author gained from assisting and advising this international expert group of practitioners.²

Working method and procedure

The group has had a first constitutional workshop in Stockholm in February 2009. Prior to this, a questionnaire has been sent to each participating metropolitan area. The general objective of this questionnaire has been to get a basic understanding and overview on the expectations and experiences of the group, the challenges and problems each partner is facing at the moment, and, finally, to get an idea how each partner conceptualises and works with 'Intra-Metropolitan Polycentricity' (IMP). The results have been presented and discussed during this first workshop. They have also served as a base for the brainstorming and finally identification of the three thematic strands that are closely related to the concept of polycentricity 'within' metropolitan areas and which should be further explored within this group. In addition on this first meeting it has been agreed upon the working format, future time schedule and the general level of ambition. For each of these thematic strands one specific workshop has been organised that was hosted by one of the members of the Expert Group.

- Metropolitan Governance and the Implementation of Plans and Policies (May 2009 in Paris)
- Urban Sprawl and Climate Change Response (November 2009 in Leipzig)
- Economic Competitiveness and Functional Labour Division between Centres (February 2010 in Sofia)

The discussions on each workshop have also been prepared by questionnaires that have been sent to all partners prior to such meetings. Each theme has been divided into the same set of three key questions. At first the members of the expert group have been asked to motivate their reflections on the particular thematic strand by paying attention to their rationales, expectations, and assessments why (and in how far) intra-metropolitan polycentricity is a useful concept (or not) and what are the pros and cons in this respect. Secondly they have been invited to give possible examples, describe 'current' strategies, projects or programmes which might be illustrative. Finally, (if possible) they have been asked to specify any experiences, 'lessons learnt', or recommendations to the group.

The results presented in the following base upon such written reflections in the questionnaires as well as in the subsequent discussions and group work during the workshops (participating

² The author would like to thank the initiator Hans Hede (Office of Regional Planning of the Stockholm County Council) and the other members of the Expert Group for their inputs and interesting viewpoints and most importantly for their great collaboration and enthusiasm. A special thank goes to Susan Brockett (Plan and Process, Hakadal, Norway) who has excellently facilitated and moderated the all in all five workshops within this group.

observation). It has to be mentioned here that the results and viewpoints in this report are naturally dependant on the expert's particular responsibility and institutional affiliation.

In addition it has to be noted that the following chapters vary in terms of length and the level of concreteness/abstractness, which, however, must be considered as a matter of fact as it reflects the focus of the discussion and the level of experiences within the Expert Group in relation to the issues at hand. However, before analysing the voices of the practitioners, we will have a closer look on the major strands of research in the literature.

2 Polycentricity within metropolitan areas – an effort towards greater clarity

In a literal sense, the term 'polycentric' indicates that a spatial entity consists of multiple centres. The term, however, does not clarify what kinds of centres (centres of transport axis, for housing, for certain economic activities such as retail, industries etc.) are in the focus, so that various notions and starting points are thinkable in particular when discussing polycentricity with spatial planners and policy makers.

This variety can be easily enlarged, since the concept of polycentricity entails (at least) four dimensions which should be carefully distinguished. At first the concept can be either understood as an analytical-descriptive tool, i.e. to describe and characterise the current state of a spatial entity (e.g. by pinpointing in how far a country or a metropolitan area is polycentric). Secondly, the concept can be understood in a normative manner with the objective for instance to re-organise the spatial configuration of such an entity (or literally to make it more polycentric), which can be labelled here 'to promote' or even 'to apply' polycentricity. Thirdly, when talking about spatial entities one needs to clarify the spatial scope of those (e.g. the city-level, the city-regional or mega/supra-regional level or even the national or transnational level). In view of metropolitan areas, one can say that they usually comprise a central city and its semi-urban or rural hinterland. There are, however, a growing number of examples which include many cities, which are partly of similar size or importance. The exact geographical scope of polycentric metropolitan areas in general can be defined based on several possible indicators (commuting patterns, spheres of planning and governance modes, catchment areas of centres/economic cores etc.). The difficulty is, however, that their exact spatial scope might differ if a metropolitan area for instance is considered from an analytical-descriptive or from a normative point of view, whereas the first can be rather seen as the base for dealing with the second. The spatial scope is on closer inspection also closely related to our understanding of centres, since it can be related to either their roles or functional ties (i.e. their inter-relations) or their specific morphological forms (i.e. the structure of

the urban fabric). This differentiation between a functional and a morphological understanding of polycentricity constitutes the fourth dimension.

Regarding the spatial scale which is relevant in our context, namely that of the metropolitan area, one can further distinguish between five different lines of research in the literature. The first one is about the relevance, perception and the potential application/feasibility and policy design of the concept to a number of selected regions (e.g. Ipenburg/Lambregts 2001, Meijers et. al. 2003 and the included case studies on the Randstad, Flemish Diamond, Central Scotland and Rhine-Ruhr in both volumes). The second line addresses specifically the issue of institutional capacity building and governance in such city-regions (e.g. Meijers/Romein 2003, Knapp et. al. 2004, Gabi et. al. 2006). The third one is about the role and function of centres, their potentials for networking with others and finally the discussion about to balance agglomeration advantages/disadvantages. In other terms, a functional understanding of polycentricity is in the centre, which is motivated by the core question if and how several centres within a metropolitan area can complement to each other (cf. exemplarily Batten 1995, Capello 2000, Meijers 2007). The fourth one is somewhat related to the third. It is about the discussion to measure (or partly just anticipate) flows within polycentric urban configurations in order to say something about their factual inter-actions (e.g. Hall/Pain 2006, Green 2007). The fifth one deals with the more morphological dimension of polycentricity. This includes the debate on the concrete shape of the urban form, which is a kind of precondition for the more functional and relational aspects just touched upon in the third and fourth strands of research (cf. Champion 2001, Mela 2008).

To sum-up, polycentricity is a multi-faceted concept and as such it means unsurprisingly different things to different people. Hence the perception what polycentricity (or polycentric development) is (or might be) is extremely fuzzy due to the many dimensions and perspectives that are associated with it (Davoudi 2003). Kloosterman/Musterd (2001, 623), for instance, argue that *“cities (or rather city-regions) as rich, multifaceted and historically contextualised spatial phenomena encompass almost every aspect of social life and this means that polycentricity can, in principle, refer to the spatial of almost any human activity. The diversity in interpretations of polycentricity is, therefore, also a reflection of this inherent complexity.”* When communicating about the concept it is thus almost impossible to clarify each time what dimension or human activity is in one’s mind and in what specific context it is referred to. This may help to maintain the many uncertainties and connotations which are related to the concept of polycentricity.

Nonetheless, the theoretical framework of understanding today’s polycentric city-regions/metropolitan areas is still not well founded, since a clear typology and taxonomy is still

lacking (Klostermann/Musterd 2001, 623). Indeed Batty (2001), Hall/Pain (2006), Green (2007) and specifically Meijers (2007) have shown different ways to explore polycentricity at the city-regional or mega/supra-regional level using different indicators and measurement methods. Most of those approaches base upon a more functional understanding and thus focus very much on the (inter-)relations and the specific profiles of the centres within a polycentric urban configuration. Significant studies on the question for instance if (and if yes, in how far) the degree of polycentricity within e.g. a metropolitan area is related to its degree (or performance) of sustainability have not been carried out so far. The main reason is that both concepts (polycentricity and sustainability) as such, are complex social constructs and thus unsurprisingly difficult to operationalise by means of robust indicators. Though, there is, according to Parr (2004:237) a strong belief at least among spatial planners and policy-makers since, “*some see the advocacy of PUR-based strategies (PUR stands here for polycentric urban region) as a distinctly European response, reflecting not simply the drive for greater competitiveness or improved economic performance, but also the desire to avoid certain of the North-American accompaniments to this, including urban sprawl, excessive dependence on the car, inner-city decline, and extreme social polarization.*” Such and other beliefs could be as well confirmed by the experts of our group of spatial planners and policy-makers (cf. chapter 4 to 6).

An important contribution to a more ‘dynamic’ understanding of polycentric urban configurations has been provided by Champion (2001). He explains the emergence of those by changing demographic regimes in the past 40 years with regard to attitudes, lifestyles, and in-migrations to urban regions and in the composition of the urban population such as ageing, racial diversity and major developments in the household structure. Based on such dynamics and the concrete morphological starting point he derives three different development-paths for emerging ‘polycentric urban configurations’. Champion (2001, 664-665) distinguishes between a so-called centrifugal mode, incorporation mode and fusion mode.

The centrifugal mode is characterized by the continuing growth of a monocentric city that imposes such severe strains (e.g. escalating land rents in the CBD and growing problems of access to the central area from the ever more distant outer residential areas) that the most affected production and service activities are squeezed out to alternative centres. In due course these centres may, in combination or indeed separately, come to rival the original centre in size. The incorporation mode relates to the case in which a large urban centre expands its urban fabric so that it incorporates smaller centres in the surrounding area that had previously been largely self-sufficient in terms of both employment and services. The other centres then form a more powerful catalyst for attracting extra non-residential activities than the centres emerging through the centrifugal mode and they

may perhaps provide an even stronger challenge to the main original centre. The fusion mode, considers the case where several previously independent centres of similar size fuse as a result of their own separate growth both in overall size and lateral extent and particularly because of the improvement of transport links between them.

Even though his typology of such evolutionary modes sound quite theoretical at a first glance, the main message is of central importance for the understanding what 'intra-metropolitan polycentricity' (IMP) is. Namely Champion draws attention to the fact that today's polycentric urban regions have developed from different morphological points of departure. *"It makes clear that polycentricism at the city-regional level not only refers to the outward diffusion from larger cities to smaller centres within their spheres of influence, but also to the kind of development in which the spheres of influence of several smaller or medium sized cities start to interfere"* (Lambregts 2006, 116-117).

Champion's dynamic model is thus helpful not only to understand the different starting points, but also the various development paths and finally different 'stages' of polycentric development of the respective metropolitan areas that are represented by the group (cf. chapter 3). In addition it can provide a useful context for comprehending how planners and policy-makers in different polycentric urban regions do reflect the concept and in how far they consider it as a potential tool to cope with e.g. maintaining open space, congestion, economic imbalances or to combat urban sprawl.

Another strand of research has dealt with analysing the required governance capacity within polycentric metropolitan areas (cf. for instance Meijers/Romein 2003, Schmitt 2007, Eggermann 2009). Here the basic argument is that this is a much more multifaceted and contested issue compared to rather monocentric urban configurations. A central reason is the rather complex power-geography, which consists of more institutions/actors with different agendas and interests and thus 'more' key players such as (e.g. a handful of strong municipalities) that have to agree upon specific policies, programmes or projects compared to monocentric metropolitan areas with a rather clear hierarchy (i.e. distribution of power).

3 Polycentricity within metropolitan areas: varying characteristics and contexts

Besides the fact that within this international expert group various planning and policy systems and cultures from eight European countries have been represented, a major challenge has been to get a mutual understanding of the specific and highly context sensitive polycentric setting of each of the twelve metropolitan areas. Based on our discussions and investigations we had within this group we can identify the following five basic characteristics for differentiating intra-metropolitan polycentricity (IMP):

- a) The overall socio-economic dynamic: growth \leftrightarrow steady dev. \leftrightarrow decline/shrinkage
- b) The general policy response: ‘creating’ or ‘maintaining’ polycentricity
- c) The concrete territorial layout: the morphological pattern of the existing urban fabric and the functional inter-relations within the respective metropolitan area
- d) The spatial scale (i.e. the area that is in the focus for the application of IMP): city-regional \leftrightarrow mega/supra-regional
- e) The different points of departure in terms of the existing governance systems

To understand the overall socio-economic dynamic of a particular metropolitan area (A) is very critical for the application or even for the meaningfulness of the concept of polycentricity within metropolitan areas. It is naturally very much coupled with the policy response (B), since it is more likely that in a ‘growing metropolitan area’ the normative agenda is rather directed towards creating polycentricity (e.g. in terms of making centres more diverse or even to form new ones within a decentralisation strategy for instance), whereas within a more steady or even shrinking environment the focus is more likely on maintaining or making better use of the existing polycentric structure. This is, however, dependent on the current degree of polycentricity (i.e. the concrete territorial layout), which is, of course, a result of historical urbanisation processes and functional specialisation. Hence one needs to keep in mind that each metropolitan area illustrates at the current state a distinct territorial layout. At closer inspection we can due to its morphological pattern of the existing urban fabric and its functional geography (based on inter-relations between centres) derive different types of polycentricity (C). To make things even more complicated, the spatial scale for which a polycentric development strategy is being discussed in the respective metropolitan area is very different too. Here we can distinguish quite vaguely between a more city-regional perspective, i.e. a rather, geographically speaking, narrow defined metropolitan area (e.g. a central city with its commuter-hinterland) and, what we might call, a mega- or supra-regional perspective (D). The latter describes a larger area consisting of historically distinct cities/centres that shall be bundled together in form of a network. A few of the participating metropolitan areas do even work with the concept of polycentricity at both spatial scales. A last characteristic which

is at a first glance only indirectly linked to IMP is that of the by far very different existing territorial governance systems (E). Here we can distinguish roughly between ‘Metro Governing Body with Considerable Powers’, ‘Metro Governing Body with Limited Powers’ and finally ‘Negotiated Alliances that are characterized by non-Binding Agreements (for further characterization of the three different systems, cf. Fig 1.). Here we neglect the fact that those governance systems are constituted and partly even bridged by several modes of governance in the respective metropolitan area. A mode of governance can be understood as a concrete and intended form of interaction between different kinds of actors/institutions. The array of such modes which make-up the existing governance-system at hand can vary enormously in terms of available instruments/tools and different forms of power (e.g. statutory, communicative), the inclusion and exclusion of other stakeholders, the nature of decision-making processes, and finally formal and informal obligations and responsibilities.

The above discussed characteristics of IMP allow us to develop the following three rather simple typologies for the respective metropolitan areas that are represented by the Expert Group. These typologies are of course ‘extreme’ generalisations. One needs to stress here in particular the assumptions made for characterising the functional territorial layout (the morphological patterns of the existing urban fabric have been neglected here).

Fig. 1: Socio Economic Dynamics and Policy Response

<i>Policy Response</i>	Creating polycentricity	Maintaining polycentricity
<i>Socio-Economic Dynamics</i>		
Growth	Stockholm Helsinki Sofia Warsaw/Mazovia	Rotterdam-The Hague Emilia-Romagna
Steady	Naples Veneto	Metropolitan Region Central Germany Frankfurt/Rhein-Main
Shrinkage		Tri-City

Fig. 2: Functional Territorial Layout and Spatial Scope

<i>Spatial Scope</i>	City-regional	Mega/Supra-regional
<i>Functional Territorial Layout</i>		
one dominant core with a strong hierarchy: → predominately radial relations	Paris/Ile-de-France Stockholm Helsinki Sofia	Warsaw/Mazovia Stockholm Helsinki
one dominant core with a moderate hierarchy: → criss-cross relations of different scope and intensity	Naples Veneto	Frankfurt/Rhein-Main Emilia-Romagna
high degree of balanced polycentricity between the main (two or more) cores: → weak hierarchy, larger in between areas without strong centres, almost balanced criss cross relations	Rotterdam-The Hague Tri-City	Metropolitan Region Central Germany

Fig. 3: Three different types of operating ‘Governance Systems’

<p>Metro Governing Body – “Considerable” Powers</p> <p>Frankfurt/Rhein-Main</p> <p>Paris/Ile de France</p> <p><i>Key characteristics:</i></p> <ul style="list-style-type: none"> • municipalities are important players in spatial planning • but the regional plan and corresponding regional institutions are ‘powerful’ tools in promoting and creating intra-metropolitan polycentricity 	<p>Metro Governing Body – “Limited” Powers</p> <p>Stockholm</p> <p>Naples</p> <p>Veneto</p> <p>Sofia</p> <p>Emilia Romagna</p> <p>Mazovia/Warsaw</p> <p><i>Key characteristics:</i></p> <ul style="list-style-type: none"> • i.e. regional plan existing, but rather of indicative and advisory function • municipalities remain to be the ‘only’ strong player 	<p>Negotiated Alliances – not Binding</p> <p>Greater Helsinki</p> <p>Metropolitan Region Central Germany</p> <p>Tri-City</p> <p>Rotterdam/The Hague</p> <p><i>Key characteristics:</i></p> <ul style="list-style-type: none"> • voluntary collaboration • forming strategic alliances to activate synergies between centres
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As mentioned before in the next three chapters the viewpoints of the members of this Expert Group, all well experienced spatial planners will be reflected in form of a synthesis report. In other words, the focus is on the normative dimension, and the related practices, experiences and expectations by these experts, which are inevitably, as depicted above, closely related to the other dimensions and characteristics of polycentricity within metropolitan areas.

4. Managing intra-metropolitan polycentricity: On governance and the implementation of plans and policies

In this chapter we try to focus on the more fundamental aspects of the existing governance systems and their capacity (e.g. in terms of implementing plans and policies) and need for adaptation in view of promoting intra-metropolitan polycentricity (IMP). In the other chapters (5 and 6) we will however turn back to such issues more concretely when discussing different thematic aspects that are linked to IMP.

4.1 Major challenges and expectations

From a more general perspective one can structure the different challenges and expectations as follows:

- a) the need for multi-level coordination and to cope with occurring conflicts
- b) the need to develop a mode of governance that matches the spatial scale that is needed to promote polycentricity
- c) the question of organisational capacities and available instruments/tools to promote polycentricity

Regarding the first point one can distinguish between different kinds of conflicts caused by the multi-level interplay between different kinds of actors/institutions. We want to label them as challenges for coordination ‘upwards’, ‘downwards’ and also ‘sideways’. A vital example for the first case is that a strategy to enforce a polycentric metropolitan area can challenge any superior formal Government system (e.g. that of Federal State or even the National State). In case a polycentric metropolitan area is about to develop a specific governance system and thus try to coordinate common issues of interest it is often characterised as well by an enlargement of its spatial scale. In any case the political weight becomes stronger and is as such perceived from the superior level as an ‘emerging competitor’. The dilemma of the National/Federal State is to have (normally) an interest in strong metropolitan areas. The problem is, however, that if their political influence becomes too strong, e.g. by developing a governance system for a larger polycentric metropolitan area, it is feared that these metropolitan areas would then claim for more political support or even try to undermine some of the National/Federal State’s responsibilities. This problem is even stronger within National States with a Federal structure as it is the case in Germany, since a metropolitan area can be of the same socio-economic (and thus even political) weight as one Federal State (Bundesland). Further examples for occurring conflicts ‘upwards’ are of very different character. It has been criticised that the National State is too passive in supporting the development of the required governance system in order to make polycentric metropolitan areas capable for acting. Another point that has been raised touches upon the other extreme

concerning centralistic National States. Here it has been deplored that the National State has a very different view compared to the responsible stakeholders on site how the particular metropolitan area should develop and thus how it should cope with polycentricity.

A central challenge for coordination ‘downwards’ is for instance if local economic interests overrule defined objectives in regional land plans that shall promote polycentricity. More in general it has been argued that the application of the concept of polycentricity within metropolitan areas demands in any case intensive negotiations. The more centres are concerned, the more coordination is needed, since many other authorities, ‘quangos’ (quasi-autonomous non-governmental organisation) or in some cases also private actors are involved. This has a tremendous impact on transactions costs in general and demands enormous organisational and institutional capacities (see below) in particular. It also makes any kinds of activities (e.g. development of plans, programmes or projects) very time-consuming. In case a certain mode of governance has been established to coordinate and negotiate policies, programmes and projects that shall help to promote IMP (either to develop or maintain) for instance, a possible major challenge is then to identify trade-offs between overlapping interests and competences of other actors/institutions.

Besides the challenge of identifying the right balance of power, and to coordinate between different interests and agendas, another dispute is to develop a mode of governance that corresponds to the functional geography of the polycentric metropolitan area (cf. point b). Indeed, in many cases the concept of polycentricity implies an enlargement of the mental map of spatial planners and policy-makers as they do offer a new scale for territorial governance in this respect. In other words, what makes it difficult to establish a specific mode (or many modes) of governance for the scale of the polycentric metropolitan area is the fact that normally the rationale for defining this area is following a functional logic (economic integration, relation between different centres, labour markets etc.). The relevant political stakeholders are, however, bounded to their territorial logics (i.e. the politico-administrative scope of municipalities, provinces, counties, districts etc.) and their inherent institutional restrictions. That means it has to be established a powerful discourse which suggests to overcome these territorial and institutional limitations by promoting some convincing rationales to motivate a bundle of stakeholders to invest their resources and capacities to bargain a new or better mode of governance for the scale of the polycentric metropolitan area.

Besides these rather fundamental issues, a bunch of other challenges could be identified that touches upon the question of organisational capacities and the available instruments/tools to

promote polycentricity. Here in particular the role of the municipalities within metropolitan areas seems to be critical. They are in general very sensitive on changing political agendas, which makes it insofar problematic as to promote polycentricity for a metropolitan area demands a long-term commitment of all actors/institutions involved. From the municipalities point of view this means that their engagement requires extra capabilities and resources and finally a good stamina. These requirements are different (*“there are drivers, free-riders and trouble-makers”*), which makes it relatively complicated to implement policies, programmes or projects.

As touched upon above, in most of the metropolitan areas represented by the group there is only a weak (or partly even none) established mode of governance which corresponds quite nicely to their ‘polycentric geography’. To compensate for this lack of power challenges the organisational capacity of those actors/institutions having an interest in promoting IMP for this particular area. The only available tool is often that of ‘communicative power’, which is for instance about framing certain debates/discourses, trying to moderate between different stakeholders or using suggestive images in order to make aware of certain problems/issues.

However, the scope of these activities is rather restricted as it is difficult to organise binding consensus and concerted actions. Hence, in order to develop a ‘cooperative institutional network’ beyond the formal planning/administrative structure the central challenge would be to activate interest and to unfold trust among the participating actors/institutions as well as to identify win-win situations. This can be insofar tricky since, as a general rule, there are different perceptions regarding the potential synergies within a polycentric metropolitan area. In addition it has been noted that any projects/incentives etc. do normally benefit only a few centres (and not all of them). Apparently there is also the risk that a mode of governance that integrates the polycentric geography causes unfruitful rivalries, which can impede any kind of collaboration. Another point that has been mentioned here is the quest to define a manageable agenda for creating a polycentric metropolitan area and to identify the stakeholders that are critical for its successful implementation.

4.2 Reflecting current practices

Having discussed the most eye-catching challenges that have been highlighted by the expert Group, it is interesting to shed some light on how they try to compensate for the identified shortcomings and problems in this respect. The points raised here have been relatively diversified. Hence it is impossible to make any kind of grouping.

A current reaction in two of the participating metropolitan areas on the above described dilemma of multi-level coordination is for instance to add a new, rather informal, mode of governance to the existing system in order to debate metropolitan development issues and to respond to unwanted national initiatives. This shall help to overcome the complexity of the existing institutional system and to develop specific alliances between e.g. provinces and municipalities and other public organisations, landowners and private stakeholders. Another expected side-effect is to institutionalise agreements ‘downwards’ and ‘upwards’ to follow-up/maintain the intra-metropolitan strategy in form of contracts with the respective institutions/actors. Another related approach to raise the awareness regarding the polycentric metropolitan area and its challenges is to establish a permanent dialogue and visioning between national, regional and local stakeholders plus neighbouring regions.

As regards the need for coordination downwards one example is that of ‘assisting’ municipalities to develop certain ‘growth centres’ (e.g. by involving all relevant stakeholders, or to help to launch specific development agencies for this purpose) in order to strengthen the polycentric shape of the metropolitan area. Other practices are rather focused on to facilitate a learning process by for instance taking part in a ‘project’ initiated by the National State in which the existing governance system is being reviewed or by making a risk analysis on the potential problems stemming from non-cooperation between centres. Another response is focussing on ‘enlarging local mental maps’ in order to raise awareness of the planning issues at the scale of the polycentric metropolitan area. This shall pave the way to elaborate strategic spatial plans for the city-regional level and to open up debates on future modes of governance at this level.

4.3 Lessons learnt

The lessons that will be depicted here range from conceptual to organisational and coordination and, finally, to implementation issues.

Conceptual issues

A rather general point touches upon the difficulty to work with intra-metropolitan polycentricity per se, since the concept requires reflection and analysis as it challenges our systemic understanding of metropolitan areas and their dynamics. In other words, an approved understanding, well defined policy goals and political commitment for cooperation are the key ingredients for promoting IMP. It necessitates also clear strategies and instruments to manage the different (diverse) interests of partners. A tricky question for instance is what is the potential role of the one or other centre/municipality in such a (new) polycentric network? In addition it has been

stated that a sound and consented model of strategic centres and development axis is needed before tackling the planning goals that are connected to IMP.

Besides a superb understanding ('analytical dimension of IMP') and a profound strategy ('normative dimension of IMP'), it has been pointed out that the communication about the two is not an easy task either. At this point planners need convincing tools to transmit their analysis and their intended messages - in particular sketches, drawings or more designed representations seem to be much more useful than classical technical maps. It has even suggested in this context that planners need to work with communication experts, since such planning concepts (on IMP) are difficult to share with politicians and the local population.

Organisational and coordinative issues

Since IMP is a multifaceted concept it requires strong coordination among the many actors/institutions involved. Due to its nature of bringing together various issues/sectors and territories/levels (i.e. the many actors and institutions and their different territorial logics as being responsible for a particular municipality, district etc.) 'IMP' entails diverse rationales and interests. The multi-level and cross-sectoral interplay can only be managed by communication, involvement and participation and through fine adjustment of programmes/plans and instruments for implementation – only in this way spatial planning could leave its footprint in promoting IMP.

More concretely the role of the municipalities has been highlighted by a handful of experts. Their commitment as well as a thorough understanding of their complex problems and their various interests is a central pre-condition to deliver better results. Also the need for bottom-up initiatives has been put forward to fill-up some vacuums in the existing governance systems that appear once dealing with IMP. On the other hand, it has been pointed out that the current governance system is already very complex. Instead of adding more in particular informal modes of governance to the system, it would be better to get more clarity within the existing system about tasks, responsibilities and scopes of actions. A strong message in this respect has been: "*Avoid too many layers and modes of governance – you need a clear division of power*".

Implementation issues:

Here some pre-conditions and the more general role of spatial planning today have been raised in the first place. One issue that goes in this direction is the claim to make spatial plans also relevant when it comes to their implementation – and not to sit back once the plan is approved. In other words it has been claimed that a metropolitan planning organisation/agency needs to involve itself

more directly in the implementation process and should follow-up and assess very carefully the application of plans and strategies.

In view of the application of IMP, the problem has been raised that it is rather difficult to realise win-win situations for all actors involved. Consequently it has been noted that an agreement to implement projects, policies or programmes becomes more likely if instruments are available that anticipate and manage an unequally distributed benefit among such actors. However, as a pre-condition for this, the criteria and expected impacts of projects, policies or programmes are critical here in order to identify ‘what’ such instruments need to balance and ‘how’ they should do it.

Another even more far reaching proposal picks up again the role of the municipalities. Inter-municipal co-operation is certainly the key to make IMP work, but if the intention is to develop certain complementarities among the centres of a polycentric urban configuration, one needs even to think about specific financial schemes such as to share the inflow of business tax among municipalities within a metropolitan area. Only then the required support can be secured to implement IMP as a planning concept. Some even claim – in respect of their experiences with the current practices – the need of a more formalised (powerful) planning authority for the entire metropolitan area (*“only then a polycentric agenda can be implemented in the long run”*).

5 Intra-metropolitan polycentricity as a concept to respond to climate change and to combat urban sprawl

This chapter reflects the discussions on two themes that are apparently very much interrelated in view of the concept of polycentricity. One might get even the impression that planning for polycentricity can be a driver in order to conceal two of the most prominent strategic goals in metropolitan spatial planning today, namely ‘to respond to climate change’ *and* ‘to combat urban sprawl’.

5.1 Major challenges and expectations

The expectations and rationales within the Expert Group have been quite similar here. As a common baseline one can say that IMP can play an essential role in terms of aiming for a zero carbon society, since ecological solutions through environmental determinism are widely considered as being insufficient within the group. The major expectation is that IMP can help to integrate this ambitious goal with other planning issues such as to make cities more compact and dense and to develop high quality public transport systems. Within this context it has been also emphasised by the group that IMP is a mean to enlarge the mental maps of our metropolitan areas.

In view of climate change response for instance it can help to understand them as ‘regional’ urban configurations, since only the regional scale is the appropriate one for addressing efficient adaptation/mitigation policies.

What is also remarkable here is that almost all expectations and rationales can be rather grouped under the headline ‘mitigation’ (i.e. issues touching upon ‘adaptation’ have been hardly raised). The only one regarding adaption policies, is that in a case of emergency (such as floods) a polycentric structure of ‘First Aid’ centres is more efficient than a rather monocentric one. Concerning those issues that touch upon mitigation policies, it seems that the sound interplay between a compact and dense urban fabric in the different centers that form a polycentric territorial layout and an efficient public transport system connecting these centers is the key issue here.

This is expected to reduce the overall energy consumption in particular because of two main rationales: IMP can help to develop dense and compact centres in order to form a critical mass with numerous functions to reduce (at least to some extent) travelling to other parts of the metropolitan area. In this sense it has been argued that IMP is a useful concept since it supports a ‘joint regional’ strategy for densification in some particular centres and can – at least in some metropolitan areas - lead as well to a slight reduced domination of the central core. In any case a sound regional commitment is required. Secondly a system of such centres can help to bundle the otherwise spread mobility patterns which we can see today. This kind of bundling is only possible if these high-density centres are well integrated in the Public Transport System at the level of the entire (!) metropolitan area (i.e. including all major centres). In other words, the, at a first glance, disadvantages of a polycentric structure, since it causes more criss-cross/tangential travelling, shall be compensated by Public Transport System that corresponds to this particular structure and turn it consequently in an advantage. Such a system, however, can only be a sustainable solution (also in terms of its economic resilience) if a certain critical mass of potential users can be achieved. This critical mass in terms of users shall be provided by these high-density centres/cores, which should form ideally the physical focal points of such a Public Transport System at the scale of the entire metropolitan area. If such a polycentric structure is established, IMP can in this way also help to promote alternative transport modes (e.g. bicycles, electric cars) at least for the mobility within such centers.

Besides high densities and a critical mass for feeding a Public Transport System for the whole metropolitan area other prerequisites are urban amenities and local services, which will in return attract further facilities/services. In other words, such centres (or urban cores) need to become

distinct multi-functional focal points fed by a corresponding Public Transport System of the metropolitan area, only then its carbon footprint can be reduced.

In addition a rather uncertain point has been raised here too, since in many metropolitan areas an open question is how many centres of which size and function shall be developed: A few big ones or rather a micro-polycentric structure with many smaller centres? The latter would be by far more expensive and difficult to organise. It has been also argued by a number of experts in the group that such strategic objectives are of course desirable, but hardly to achieve, due to the fact that extending metropolitan areas still does cost less than densifying some specific parts of it. Consequently the above sketched image of an ideal and functioning case of IMP contradicts the reality of current urban development processes since those are still following the ever existing land price gradients from the centre to the hinterland. Hence some voices in the group have argued that to promote IMP in this sense is only meaningful in those metropolitan areas that can afford to steer against ‘this logic’.

5.2 Reflecting current practices

Regarding current practices one can easily identify a commonly shared rationale and objective within the group. The concrete approaches are, however, very different. The aforementioned strategic objective of maintaining or even creating a polycentric structure linked up by a regional Public Transport System is about to be supported by numerous accompanying measures. To be mentioned here are those targeted to better accessibility, quality and reliability of the Public Transport System as well as to upgrade the cycling network in particular within the centres. Both incentives shall help to reduce the use of cars. Other projects or policies are focussing for instance on improving the regional logistics systems and to preserve high housing densities also in the central core.

In line with what have been framed under the rubric ‘expectations and rationales’ (cf. chapter 5.1), some experts have reported on approaches to further densify (some) centres and to upgrade them in terms of new local services coupled with better Public Transport access and modern district heating/cooling systems. Here again it has been highlighted by various members of the group that though the densification approach is labelled as an explicit goal in the respective plans and programmes they are fully aware of the fact that this planning approach is against the logic of market actors, since “*capitalism (so far) has just worked by spatial expansion of the city*”.

What have to be reflected here with certain care are (again) the question of scale and the respective current interventions, which are treated very differently in the metropolitan areas that have been

represented by the group. Some have emphasised that a regional fast train system shall help to maintain a polycentric structure at the level of the ‘mega-region’ or that new centres are to be created within the next 30 years in order to achieve a better land-use balance within the ‘city-region’. Others have stressed present incentives at a more local scale, such as to intensify land-use within existing cores (i.e. rather maintaining IMP) or to reinforce IMP around small centres by new settlements along railway axes. Other practices that have been indicated by the group in this respect are for instance the concentration of industrial development in a few specific and well accessible areas or to reuse brown fields and post-industrial/post-military areas in order to reduce the overall land consumption.

Some of the reported current practices are of rather ‘preparatory character’ such as identifying and then zoning the most valuable natural areas in spatial development plans or to assign protected green belts/open spaces to preserve some distinct urban areas. Other practices are also targeted at using green belts as means to structure the polycentric landscape as well as to restrict detrimental activities of their climatic and cooling effects.

5.3 Lessons learnt

Since in a literal sense the question how to respond to climate change is still rather new on the agenda of metropolitan areas in Europe – in particular in connection with IMP – unsurprisingly the lessons learnt that have been raised here are rather focussed on how IMP can help to combat urban sprawl. However, as mentioned above, these two challenges and their respective reflexes in terms of concrete initiatives and interventions can cross-fertilize each other. In other words, most of those targeted on using IMP to combat urban sprawl, can – that is at least expected – also help to respond to climate change. In addition, it became clear that most of the recommendations that are shared by the group are at least implicitly included in the ‘expectations and rationales’ (cf. chapter 5.1). Hence we can read out between the lines some opinions about ‘what is good and what should be done’, which are, however not only based on long standing experiences. As mentioned above, another observation is that in view of ‘IMP and climate’ change the discussion within the group was much more focused on mitigation than on adaptation strategies. Apparently this lies in the nature of the concept of polycentricity, which, at least in its application, rather focussed on changing/maintaining physical structures (urban fabric, transport networks) than on changing/maintaining processes or institutional reflexes.

Nevertheless as a common ground one can easily detect that the concept of IMP is here coupled with the goal to densify certain centres together with the development and protection of some green belts in order to structure the polycentric urban landscape. This has to be considered in line

with developing transport axes/nodes and a reliable and efficient transport system. The two plainest lessons in this respect that have been raised by the group are the following: In view of shaping the urban fabric one has to keep in mind that higher densities must be linked to increase higher centralities and better urban amenities, which, however demands powerful planning instruments. In terms of preserving open space and thus contributing to limit urban sprawl it has been argued that green corridors/belts and the idea to link them together to so-called regional parks are successful instruments in this respect.

Other ‘lessons learnt’ rather emphasized organisational issues and how specific modes of governance should be re-shaped in this respect. At first it has been pointed out that cooperation with various actors/institutions are needed (e.g. transport companies/providers, landowners of brownfields) once one tries to apply the IMP concept to combat urban sprawl and to respond to climate change as it was described in the chapter about ‘expectation and rationales’. In order to maintain or even create IMP in a morphological and functional manner a strong ‘regional’ self-government system is required that is also able to facilitate an intra-regional dialogue. This is needed in order to raise a better awareness and understanding of the issues at hand here. In addition a consistency of planning activities at all levels is central, since to promote/apply IMP in view of responding to the challenges discussed above a ‘long-term’ strategic approach is essential.

6 Intra-metropolitan polycentricity as a concept to promote economic competitiveness and functional labour divisions between centres

In this chapter we reflect the concept of IMP in the light of enhancing economic competitiveness which brought us closer in our discussion on its general pros and cons. Also the chapter reflects another fundamental characteristic of IMP, namely that of inter-relations and labour divisions between centres and how this can be tackled by strategic spatial planning.

6.1 Major challenges and expectations

First to be mentioned is that some members of the group are rather doubtful in general if a polycentric metropolitan area offers better pre-conditions for regional competitiveness or economic restructuring capacity compared to a monocentric one. One exemplary argument has been for instance that to strive for more polycentricity would worsen the possibilities to exploit the available critical mass in terms of agglomeration advantages. What has been admitted, however, is that a polycentric metropolitan area might be advantageous in economic crises if the responsible actors and institutions have managed to develop a diverse economic structure (that a monocentric metropolitan area can develop too, of course).

Better spatial balance

Others have argued that IMP can be indeed helpful to decrease agglomeration disadvantages in the central city as well as to divert its concentric expansion to some specific centres outside. In case of metropolitan areas with a rather monocentric territorial layout, it is expected that IMP can be even the key to create a better spatial balance between the major centre and the rest of the metropolitan area, whilst recognising and protecting the economic and cultural special roles that the centre provides. In this context it has also been noted by some experts that urban functions such as jobs, health centres, social services, leisure and culture can all be decentralised successfully without undermining the role of the centre.

Others have stressed that to develop attractive growth centres can strengthen the overall regional competitiveness and thus can support the ever ongoing restructuring processes. Their concern is also that by developing 'distinct' centres firms can more easily tap into the metropolitan area's agglomeration advantages (such as a larger potential labour force and a better match between supply and demand, a more diversified economy/cultural attractions/residential and business environments and, finally, better amenities and transportation facilities). Consequently it is expected to make "*the existing 'economic DNA' of the different centres more visible and robust*". In that sense IMP could help to promote regional competitiveness as well as territorial cohesion within a metropolitan area.

Diversified economic structure

In general there is a strong belief among most of the experts in the group that IMP offers the opportunity to promote a diversified and innovative economic structure that can strengthen the metropolitan area's capacity to compete against others. A few even stated that a 'polycentric economic system' composed by different sectors/clusters can better resist in economic crisis and is more flexible regarding changes. Another fundamental expectation is that IMP can trigger positively the competition between regional institutions and therefore leads to an efficient use of infrastructure capacities. Especially at times of downturn in the economy inter-municipal cooperation (e.g. for providing/maintaining infrastructures) can be a vital tool to save money. If a good level of intra-metropolitan co-operation is achieved (i.e. between centres/municipalities) IMP could help to generate a higher critical mass to become attractive for huge transport infrastructures (High-Speed-Trains, airports) or other flagship-projects (international museums, culture/sports events).

There are however, some further specific challenges in this respect: One example is that the share of benefits and costs has to be clarified within the metropolitan area – in particular if the medium size level is missing, since small centres are afraid to be just subordinated by decisions taken in the ‘central city’. Another point raised here is that either to empower the existing multi-functional centers or to develop new ones demands a complex multi-sectoral policy approach and thus a broad commitment from a bunch of numerous stakeholders within and partly even beyond the metropolitan area (e.g. at the national level).

IMP a useful concept at all?

If IMP at all is a useful concept to promote functional labour divisions between centers has been discussed controversially within the group. Some of the experts think that IMP offers a broader choice of locations for economic activities and thus responding better to investors’ needs. In that sense it can stimulate competition, specialisation and finally a clustering of economic activities, which makes the entire metropolitan area more competitive. One further positive expectation is that IMP can help to strengthen distinct centres, i.e. to widen their functional profile and to make them more attractive for investments/households in order to become more competitive in comparison to the uncontested regional centre, the central city in this case.

Regarding the latter a rather unconvinced voice has stressed that to assume to develop voluntarily ‘binding agreements’ on special profiles/functions for each centre and that public stakeholder are able ‘to influence market forces’ in that way is rather unlikely. Among the sceptical members of the group are in particular those whose agenda is rather focused on maintaining IMP. “*A functional division of labour is nothing we explicitly strive for – it is reality and we do not try to enforce it even more – rather we want to emphasise the differences within our metropolitan area such as diverse business and residential environments.*” Hence it is felt to be more appropriate just to advertise existing economic profiles or clusters of different centres as ‘the metropolitan area’s’ competitive assets.

6.2 Reflecting current practices

In view of considering IMP as a useful concept to promote economic competitiveness there are several current approaches that have been highlighted by the expert group. In particular numerous differences can be identified among those metropolitan areas that seek to ‘to create IMP’. For instance one expert has stressed that the new action programme being developed in cooperation with the municipalities aims at increasing the general attractiveness of the urban growth centres that are to be developed in ‘their territories’. This includes also developing those functions that for instance only exist in the ‘uncontested central city’ today. A further approach from another

metropolitan area that is motivated by the new strategic spatial plan there is targeted to use the IMP concept to promote a more spatially cohesive development corridor ‘east-west’ to act as a balance to the strong northern territory investment corridor at present. A rather different current reflex by local actors and land lords is to bundle activities in some specific centres by making efforts to improve public transport and services, and by promoting a better mix of housing and economic activities. This is necessary due to the spatial re-location of more and more back office activities (and partly also headquarters) to the outskirts.

Promoting functional labour divisions

Regarding the issue of promoting functional labour divisions between centers there are very different realities, contexts and stages of application to be found in the twelve metropolitan areas that constitute our expert group. Indeed a few just clarified that although IMP is not an explicit objective in the current strategic spatial plan for the metropolitan area a sectoral clustering of firms is recognisable that indeed form a polycentric pattern. Others have stated here that strategic spatial plans at the municipal and at the city-regional level have just been launched to promote IMP. Therefore it is rather difficult to reflect here any current practices. A more specific characteristic has been put forward by another expert. The regional plan there does not point out ‘special and distinctive profiles’ for the eight urban growth centres outside the central city that are to be further developed in the next two decades or so, it rather seeks to stimulate a ‘wider functional mix’ in each of them.

At this point the group has debated quite intensively in how far IMP is ‘just’ market driven or (also) a result of strategic spatial planning. Here it was agreed on to distinguish between those initiatives (such as cluster activities, new business parks or industrial zones) that are initiated through public incentives and those that are almost solely market driven. *“In our daily work we are keen on supporting clustering activities that appear to be market driven”*.

Two further rather concrete examples to utilise the polycentric assets of a metropolitan area are the cooperation between airports (e.g. to bring the two existing city-regional airports within one holding) or to strive for more distinguishable profiles between the metropolitan area’s Higher Education Institutions (HEIs).

6.3 Lessons learnt

Concerning the question if IMP is a useful concept to promote economic competitiveness at first a rather fundamental statement shall be reflected, which brings us again back to the question of the pros and cons of polycentric metropolitan areas compared to monocentric ones. Here one expert

has drawn upon some recent research findings that have shown that polycentric metropolitan areas seem to be less able to exploit their critical mass compared to monocentric ones. On the other hand, the balance between agglomeration advantages and disadvantages appears to be better in polycentric metropolitan areas. If we feel that IMP should be considered as something to be strived after, then more research is needed to show that it is advantageous, since we still know too little about it.

Bundling of different interests, a tightrope walk (!)

An almost mutually shared one is that “*the more polycentric a metropolitan area is, the more different interests exist*”. Hence cooperation cannot be imposed, but need incentives and support (carrots). In addition coordination is needed to make sure that the entire metropolitan area develops consistently according to ‘one concept for IMP’: “*The most successful experiences in creating new centres in our metropolitan area are those of the ‘new towns’ due to the comprehensive long-term strategy that have been applied then*”. Others have mentioned that strong coordination is in particular needed in view of land-use policies. Otherwise there is the risk of a ‘race to the bottom’ by offering dumping prices (low taxes and/or land prices), which would not be of any benefit in the long run for the entire metropolitan area.

A lack of coordination has also been framed in a quite similar situation where a more ‘mature’ model of IMP is being promoted. Here the different municipalities invite companies to locate their businesses in specific zones (i.e. centres in our terminology here). Unfortunately so far the experiences are rather negative due to the competition on the same clusters/firms. More specifically in terms of ‘economic transformation’ the development of local growth centres (that are not only retail centres) has been highlighted, which requires a consequent spatial strategy of business development covering the entire metropolitan area with a corresponding mode of governance. Here it has been also added that in those cases the centres’ profiles should not be defined too narrow, since restructuring processes in the economy can happen very fast and then such well defined policies become easily redundant.

On the limited power and scope of spatial planning

The further discussion within the group brought us again to the question of the power and scope of strategic spatial planning. The dilemma in view of promoting IMP can be described as follows: Although ‘markets’ are the uncontested main determining factor, strategic spatial planning - at least in a broader understanding and with certainly strong variations in different countries and metropolitan areas - still has four key tools, namely to regulate or at least influence land-use, levels

of taxation and other inducements, land-markets and public transport. Another expert has emphasised here the need to try to play and plan with market forces and not against them.

More consensus could be found in the group regarding another statement, namely that spatial planning lacks any tools to avoid for instance the current re-location of headquarters of multi-national firms from the centre to the outskirts of the metropolitan area. In this context it has also been argued that public investments in the transport sector to balance regional development have only a minor effect on the locations strategies of firms: *“they rather tend to exploit potential synergies with other firms in more prestigious locations”*.

One expert has also reminded that the question of polycentricity and labour divisions between centres is first of all a result of historically distinct urbanisation and industrialisation processes (*and thus different kinds of markets*), and not necessarily that of strategic spatial planning. In particular voices from those metropolitan areas that are – more or less – still in the transformation phase from a ‘plan’ to a ‘market’ economy have described the difficulty to balance the planners’ interests and the interests of pure market actors.

Here it has also to be taken into consideration that market forces can change the centres’ profiles within a polycentric urban configuration, which has an effect as well on the labour division among them. At times of economic crises, however, the majority of the group has argued that existing strong labour division and specialisation of centres is valuable, but disadvantageous to react on economic changes.

Further viewpoints

Other voices have stated that the most important issue is to develop a structure with attractive growth centres that can attract new investments and can thus adapt to changing market needs – here a good urban environment, good public transport and regional/sub-regional accessibility are key ingredients.

In a fairly comparable context the interplay with a efficient public transport system has been taken up again as the experience shows that the re-location of firms to non-integrated, but well accessible locations by private car can only be avoided if policies focus solely on promoting centres with a good level of public transport - *“only then a polycentric metropolitan area becomes reality”*. Some other lessons and experiences emphasised the role of ‘transport corridors’, since they can impede a bundling of functions (i.e. creation of centres) in case they are not linked by

those. It has also been experienced in this context that market-driven clustering often occurs in location with poor Public Transport accessibility.

Another rather negative point is that applying IMP has not avoided a general re-hierarchisation within the metropolitan area in favour of the central city, since the old pattern still prevails with prestigious knowledge-intensive business services (KIBS) there and rather back-office-functions in the ‘new towns’/‘second or third-tier centres’. It has been also reported that former attempts to develop more complementarities within the metropolitan area have failed, but now the different municipalities (with their centres) have made their lessons and try to avoid duplicating each other. This might lead to a more functional division of labour in the long run anyhow.

Unsurprisingly in this context the question of the appropriate governance-style has been taken up again, due to some rather negative experiences such as describing the current division of labour as a ‘win-lost situation’ with only little hope that there will be any voluntary cooperation in the future. Here it has been argued that recent research (*interviews with lord mayors*) reveals that functional labour divisions are desirable but hardly to achieve. Other experiences show that striving for complementarities need also top-down incentives (‘carrots and sticks’) to put this issue on the ‘metropolitan area’s agenda’. Otherwise, i.e. if political and organisational coordination is lacking, IMP can lead to increasing transaction costs and to a duplicating of institutions with the same purpose (e.g. for economic development, cultural affairs).

7 Planning for Polycentricity in European Metropolitan Areas: Some major observations and conclusions

When trying to link theory (here the brief analysis of the literature on polycentricity within metropolitan areas, cf. chapter 2) and the expectations, rationales and practices by spatial planners one can easily detect some common arguments. At first to be mentioned is that the latter group partly puts forward more questions than answers. Hence they have claimed many times that more ‘evidence and knowledge’ is needed in order to get their expectations and strategies on a better ground. Another overlap between the two communities that could be observed here is the fact that polycentricity is indeed a multi-faceted notion since it entails very different dimensions and characteristics, but also views, expectations and experiences and unsurprisingly also pros and cons.

Comparing the expectations, rationales and practices/experiences among the members of the Expert Group the very different starting points became obvious due to different existing polycentric structures and growth dynamics on the one hand, and the specific path-dependency

because of the existing institutional, political or even cultural environment in the respective metropolitan areas on the other.

Even though the focus has been here on the normative dimension, and the related practices, experiences and expectations by these experts, the discussions within this group have clearly highlighted that this dimension is anchored very much in the other dimensions and characteristics as depicted above. However it has been very helpful to reduce the realities of the metropolitan areas that were represented by this group to the three typologies (cf. Fig 1 to 3) in order to understand these polycentric metropolitan areas as dynamic systems and to ease the communication about them.

Another interesting observation is that the discussion on IMP brought us several times to the controversially discussed question of the scope and power of spatial planning. Is it today just reactive or even an appendix of market forces or can the strategic concept of IMP be of help to (re-)constitute its regulative, organisational and shaping power?

Comparing the level of reflection between the three themes that have been depicted above (chapter 4 to 6) it has to be noted that regarding the first two themes (governance and urban sprawl/climate change response) the experts seem to be able to give very distinct and well-grounded responses. Rather the last theme seems to be more difficult to discuss. At first it brought us more to the underlying question of the pros and cons of IMP in general and as an objective for spatial planning in particular. More specifically, it has been apparently very tricky for the experts to grasp relations between centres and identifying promising complementarities/synergies. In doing so, certainly a rather systemic understanding of the functional dimension of polycentric metropolitan areas is required that is however backed-up by meaningful and robust theories, key terms and empirical data. This can be as well understood as a claim that is directed to the research community to provide here better and more comprehensible support (see also below).

Finally, in the following the all in all 20 commonly shared *conclusions* by the Expert Group shall be highlighted in bullet points:

Preconditions for the application of IMP

- IMP is only successful if the stakeholders are not impatient – it is a long-term strategy – particularly at the municipal level there is partly a lack of long-term thinking, to develop the organisational capacity and to activate required resources.
- Spatial Planners and policy-maker should try to understand market mechanisms better and their potential territorial impacts
- Spatial planners need convincing tools to transmit their analysis and their intended messages, since IMP means different things to different people. Hence a mutually perceived mindset is a central starting point for working with IMP. In particular images, sketches or more designed representations seem to be much more useful than classical technical maps and cryptic spatial planning phrases to get the messages communicated.

The capacity of the governance regime matters:

- IMP can be a meaningful concept if it is supported by an institutional framework that is able to adopt adequate and well-timed strategies in different fields of policies, since IMP is not only a spatial concept, it entails also a specific governance capacity and response.
- IMP claims cooperation and mutual understanding between local authorities (neighboring municipalities) and between local and regional authorities as well as strong support from powerful sectoral stakeholders. It demands coordination at different levels with various stakeholder to make sure that the entire metropolitan area develops consistently according to ‘one concept for IMP’
- IMP necessitates clear strategies and instruments to manage the different (diverse) interests of actors/institutions. Central are the interactions and integration of various stakeholders (private and public, civil society) with their different interests, agendas and territorial logics at different spatial scales.
- Agreements to implement projects, policies or programmes become more likely if instruments are available that anticipate and manage an unequally distributed benefit among such actors. As a pre-condition for this, the criteria and expected impacts of projects, policies or programmes are critical here in order to identify ‘what’ such instruments need to balance and ‘how’ they should do it.
- Inter-municipal co-operation is certainly the key to make IMP work, but if the intention is to develop certain complementarities among the centres of a polycentric urban configuration, one needs even to think about specific financial schemes such as to share the inflow of business tax among municipalities within a metropolitan area.

IMP can help to combat urban sprawl and thus to respond to climate change in a positive manner

- The concept of IMP is in particular meaningful for the purpose of densifying certain centres in accordance with the development and protection of some green belts to structure the polycentric urban landscape.
- It can be also helpful for developing transport axes/nodes and a reliable and efficient transport system.
- In view of shaping the urban fabric one has to keep in mind that higher densities must be linked to increase higher centralities and better urban amenities, which, however demands powerful planning instruments.

IMP can help to promote economic competitiveness and a target-oriented labour divisions between centres

- IMP can be helpful to reconcile competitiveness and territorial cohesion within metropolitan areas. Hence: it should address not only economic aspects, but also social issues and to improve the quality of life of the metropolitan area's inhabitants
- IMP can help to minimise agglomeration disadvantages (*congestion, pressure on land-use, high land prices etc.*) by spreading urban amenities/services to distinct centres *and* by preserving the open space in-between.
- The development of local growth centres (that are not only retail centres) requires a consequent spatial strategy of business development covering the entire metropolitan area with a corresponding mode of governance. The centres' profiles should not be defined too narrow, since restructuring processes in the economy can happen very fast and then such well defined policies become easily redundant.
- The re-location of firms to non-integrated, but well accessible locations by private car can only be avoided if policies focus solely on promoting centres with a good level of public transport - "*only then a polycentric metropolitan area becomes reality*".
- Striving for complementarities among centres need 'also' top-down incentives ('carrots and sticks') to put this issue on the 'metropolitan area's agenda'. If political and organisational coordination is lacking, IMP can lead to increasing transaction costs and to a duplicating of institutions with the same purpose (e.g. for economic development, cultural affairs).

What we need to know for the future:

- In order to estimate whether IMP is better than a more monocentric approach one needs to evaluate many decisions in planning and policy (*e.g. are three small theatres better than one big one?*)
- To fully explore the added-value of IMP one needs to go deeper into a systemic understanding of the character of urban configurations today and the logics and inherent processes of spatial planning
- We need to seek for evidence with regard to the 'necessary components', and how to identify the balance between 'self regulation' and 'external steering'.
- If we feel that IMP should be considered as something to be strived after, then more research is needed to show that it is advantageous, since we still know too little about it.

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