

POLYCE

Metropolisation and Polycentric Development in Central Europe

Targeted Analysis 2013/2/12

Executive summary 31 May 2012



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Smart Metropolitan Development

Introduction

POLYCE is analyzing five Central European capital cities and their functionally related surrounding areas: Bratislava, Budapest, Ljubljana, Praha, and Wien. The project emerged from the related city administrations' wish for researching the cities' future competitive and cooperative potentials among each other and towards other metropolises. A main goal was to conduct a comparative analysis of the five cities and their related surrounding areas in order to elaborate in-depth results on their specificities and commonalities. This was ought to draw an up-to-date picture of the preconditions for urban development in Central Europe.

Within this framework the two analytical concepts of metropolisation and polycentricity came into play, as both are seen as drivers of specific paths of metropolitan development. The approach of POLYCE took both concepts into consideration in the context of analyzing the five Central European capitals, also trying to identify their mutual relation – meaning to what extent both can support a sound and balanced metropolitan development.

Terminology

The two analytical concepts of 'metropolisation' and 'polycentricity' are the basis for defining objectives and research aims in POLYCE. Within the project the two concepts are defined as follows:

Metropolisation is a process of urban restructuring that can be defined by specific aspects:

- A spatial concentration of (new) economic functions or population – the latter often caused by immigration (Friedmann, 1986 and 2002; Geyer, 2002)
- Possession of important command and control functions and well-developed connectivity (Keeling, 1995)
- Economic restructuring due to an increase of knowledge intensive activities (Krätke, 2007)
- Specialized functions are unequally allocated within a city or in a polycentric agglomeration (Kunzmann, 1996; Leroy, 2000; Sassen, 2002; Elissade, 2004)

Polycentricity describes the existence of more than one pole or node within a certain territory. The concept has several (interlinked) aspects:

- Morphological polycentricity: hierarchies and structures of nodes according to their size and significance
- Relational polycentricity: flows and interactions between nodes
- Polycentricity in governance: mutual interests, considerations, inspiration, collaboration, complementarity in decision-making in and between the various nodes

Policy Challenge

Both concepts are inevitably connected to the politically more common concepts of competitiveness and inclusion, which are often cited not only on the level of metropolitan policy, but also in European policy documents (cf. EC, 2010). Balancing both these two paradigms is supposed to be crucial for what is called '*smart metropolitan development*'.

The term '*smart*' has become a buzz-word over the last years, although its definition is still quite unclear. While originally indicating a focus on information- and communication technology-related economic activities, it needs an extension when applied to urban development. From this broader spatial perspective (which indeed is closely linked to a policy-perspective) '*smart places*' – as defined by the European Commission in the EU 2020 Strategy (EC, 2010) – have to combine various functions, such as those related to knowledge and innovation, connectivity, or governance.

Following, becoming a ‘*smart city*’ implies the ‘[...] ambition of a city to improve its economic, social, and environmental standards and consequently its competitiveness in urban competition’ (Giffinger et al., 2010, p.304 f.). This of course stresses the importance of governance measures that integrate a variety of actors: from local inhabitants and economic actors to policy-makers.

The main challenges of metropolitan development – which are also referred to in the EU 2020 Strategy (EC, 2010) – are competitive and inclusive metropolitan development. So, ‘*smart metropolitan development*’ indicates the ability of a metropolitan agglomeration to cope with both of these challenges. But not only local facilities of endowment may be understood as potentials in this concern. Smart metropolitan development also covers the activities of self-decisive and independent citizens in terms of awareness and participation. It supports strengthening existing assets and fosters activating new potentials. Consequently, in POLYCE a ‘*smart metropolis*’ is understood as a functionally integrated metropolitan area where processes of both, competitive and inclusive development, take place – the important aspect being, that a balance between these two aspects has to be steered by related governance approaches.

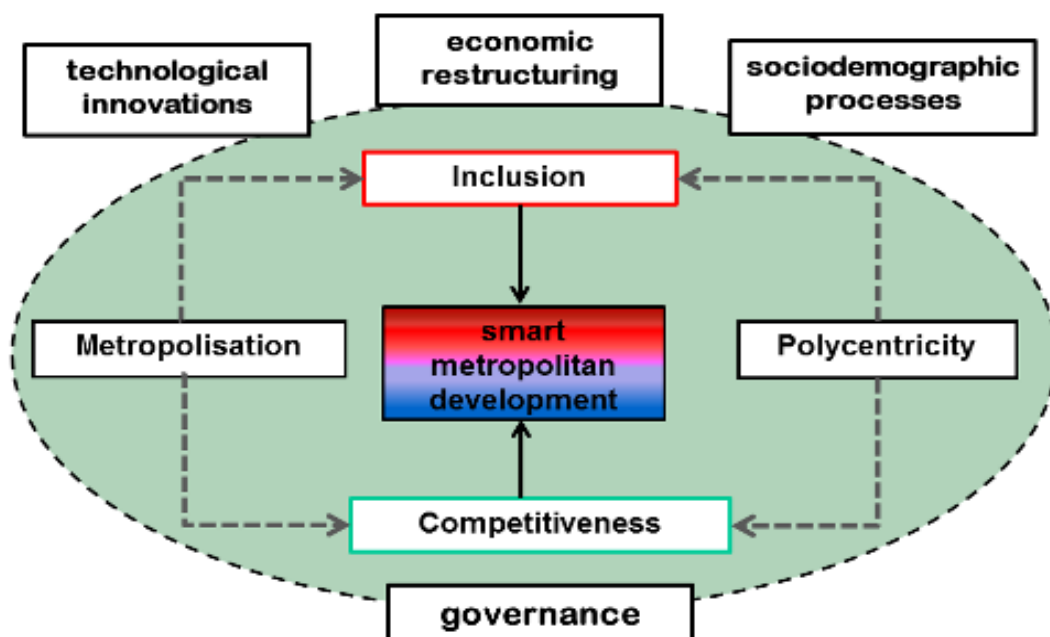


Figure 1: Understanding smart metropolitan development

Recommendations for Smart Central European Metropolises

In the following section potential future activities of each metropolis are sketched in what is called ‘metropolitan agendas’. General development paths are proposed for each metropolitan area first, while current challenges of the respective metropolises are shortly outlined afterwards. The agendas are meant as suggestions for promising future activities for the five Central European metropolises. Rather than as comprehensive metropolitan strategies, they thus represent a structured collection of possible activities. They were developed in close collaboration with a set of relevant local and regional stakeholders in the five metropolises. Above all, the agendas build upon interactive discussions of the empirical project results with a number of selected stakeholders. Therefore, the presented ideas inevitably represent a selective perspective. However, they originate from

stakeholder discussions based on empirical project results, and therefore reflect the empirical analyses conducted in the course of the project.

Bratislava's Metropolitan Agenda

Vision

Metropolitan Bratislava should increase its competitiveness through a clear positioning based on knowledge intensive activities in research and development clusters. At the same time, it needs improved cross-border governance approaches to realize a set of strategic activities supporting an inclusive metropolitan development.

Activities

Bratislava should focus on strengthening the position and competitiveness of the metropolitan area by more intensely pushing knowledge-based activities, concentrating on relevant services and research and development clusters.

Challenges and barriers

The central geographic position of the Bratislava metropolitan area within the Danube region is an important potential, which still has to be exploited. Planning approaches and related forms of governance are needed to strengthen the metropolitan competitiveness, which have to involve the whole setting of urban and regional management. Involved actors must focus cross-border management, coordination of activities, common decision-making and other initiatives supporting permanent exchange of information.

Smart metropolitan development

Infrastructural and institutional development have a tendency towards being inclusive, while economic specialization and image strategies are strongly fostering the metropolitan competitiveness. Suggested environmental and governance activities must be understood as having an inclusive tendency only in the first run, while having the ability of improving the competitive performance of metropolitan Bratislava in the long run.

Budapest's Metropolitan Agenda

Vision

Budapest's competitiveness should be enhanced by positioning the metropolitan area as a Danube Region metropolis. At the same time it must not forget tackling a more balanced distribution of economic functions in the metropolitan area as a means to achieve territorial cohesion.

Activities

The underlying potentials to this approach are well seen by stakeholders and cover several fields of action. The activities suggested cover a broad variety of measures, ranging from image-related, infrastructural and governance activities to environmental issues.

Challenges and barriers

Challenges are the administrative capital city's predominance in a rather monocentric metropolitan region with only few subcenters and a heavy concentration of metropolitan functions in the core city. Infrastructural and governance measures softening this dominant situation stand on top of the list, as they could guide metropolitan Budapest to a more inclusive development.

Smart metropolitan development

Metropolitan planning approaches have to take regional potentials of surrounding areas into account even more, as they might support both the city's competitiveness within the Danube Region and a more inclusive metropolitan development at the same time.

Ljubljana's Metropolitan Agenda

Vision

Metropolitan Ljubljana should steer its development through specific activities in the economic sphere and promote its image as an attractive center of education and research. Polycentric development has to be strengthened in order to guarantee a more territorially cohesive development.

Activities

Measures should be taken to improve the functional relations within the metropolitan area. This also includes activities to achieve a more equal distribution of metropolitan functions on a regional level. Ljubljana's importance as European middle-sized city led to a concentration of specific functions in the core city inducing negative side-effects, which must be on the agenda of policy-makers to prevent the city from losing its high living standards. Furthermore, Ljubljana should strive for a more integrated sustainable transport system as well as an improvement of metropolitan embeddedness in the international context. Additionally, the peripheral location within the Central European Danube region has to be compensated by improving transport connections to the other Central European Danube metropolises.

Challenges and barriers

A main challenge for the city lies in its peripheral location within the Central European Danube zone. Consequently, the strategic orientation of the Ljubljana metropolitan region focuses both on the Alpine and Mediterranean macro-regions as well as on the Danubian and Central European territory.

Smart metropolitan development

Metropolitan governance approaches are needed that foster the participation of local population in decision-making processes, potentially leading to more social cohesion. At the same time, the variety of economic activities might help strengthening Ljubljana's competitive position. Governance efforts like institutionalized cooperation and harmonized funding are thus very important for a smart development that balances inclusive and competitive development.

Praha's Metropolitan Agenda

Vision

'Knowledge' is a key term in Praha's metropolitan development, which can foster competitiveness and inclusion at the same time. Further developing metropolitan Praha's cultural image is an objective, as it can serve as both a driver of economic prosperity and social cohesion.

Activities

Knowledge exchange is an important goal for metropolitan Praha on several levels. Cooperation must be intensified on the regional and Central European scale to learn from others, share own experiences, and to get insights into those fields, where metropolitan policy is amendable. Knowledge exchange should also be fostered between relevant actors on a regional level. In this context, Central Bohemia's common cultural values could be actively integrated as a basis for developing a metropolitan image for the city of Prague. These values must be openly discussed to ensure the inclusive character by strengthening a common metropolitan identity.

Challenges and barriers

The greatest challenge for Prague lies in the lack of existing cooperation on a regional level. This will require innovative ways to overcome existing, inherited institutional barriers to cooperation, specifically between the city and the regional level.

Smart metropolitan development

An explicit strategy to foster knowledge exchange on several levels can be expected to enhance not only metropolitan competitiveness, but might have inclusive effects as well. Eliminating inefficiencies and supporting innovative approaches in metropolitan planning will leave space for integrating a broader group of actors.

Wien's Metropolitan Agenda

Vision

Metropolitan Wien is challenged to find the right mixture of strategic activities securing its European competitiveness and its attractiveness for residents at the same time. This approach also includes territorial cohesion on the regional level. Based on a participatory approach, the position and the function of the city within the Danube Region should be defined very clearly.

Activities

The improvement of transport accessibility on a regional level should be a core focus of planning activities in Vienna, specifically with regard to the improvement of regional public transport infrastructure. Wien's vanguard position in terms of environmental development comes into play as a supporter of both economic competitiveness and sustainable metropolitan development. The city should further strive to strengthen its image as a green city (e.g. by expanding the focus on environmental technologies). Governance approaches explicitly integrating social groups who are questioning this future development path must be initiated. Learning processes, implying common decision-making about the allocation of specific metropolitan functions play a decisive role in this concern. Knowledge exchange at common events should be organized periodically to enhance relationships between the core city and smaller centers and to clarify the role of Wien in an urban network within the Danube Region.

Challenges and barriers

A main challenge lies in the existing lack of an integrated urban region in institutional and transport-related regards, but also with respect to the allocation of metropolitan functions in the region. Here, measures should be taken to overcome these barriers for ensuring a territorially cohesive development.

Smart metropolitan development

Strategies to foster knowledge exchange can be expected to have predominantly inclusive effects, while the strengthening of Vienna's image as a green, environmentally-friendly city should also contribute to urban competitiveness by sharpening the image of the city.

Central European Agenda

In the following section potential future activities in the Central European Danube zone are sketched. They are meant as suggestions for promising future activities for the five Central European metropolises. Rather than as comprehensive strategies, they thus represent a structured collection of possible activities. Like the 'metropolitan agendas' above, they were developed in close collaboration with a set of relevant local and regional stakeholders in the five metropolises. Above all, the agenda builds upon interactive discussions of the empirical project results with a number of selected stakeholders. Therefore, the presented ideas inevitably represent a selective perspective. However, they originate from stakeholder discussions based on empirical project results, and therefore reflect the empirical analyses conducted in the course of the project.

Common strategic activities of the five POLYCE metropolises should strengthen the position of each metropolis and improve different forms of polycentric relations of the central European Danube zone. Common strategic endeavors of the POLYCE metropolises have to focus on aspects of territorial cohesion within the Central European Danube zone explicitly. Enhancing polycentric relations might help managing processes of metropolisation and related metropolitan growth.

- Cooperative potentials and assets among the POLYCE metropolises are particularly strong in the fields of knowledge economy, transport management and metropolitan governance.
- Relational capital (e.g. language skills, new administrative and strategic capacity) needs to be improved among Central European stakeholders. This includes (1) improving contacts, and accessibility to information, (2) transforming information into valuable knowledge about partner metropolises as output of continuous and systematic contact facilities, (3) improving common lobbying for interests of central European Danube zone partners within the EU.
- Discussions show that all five metropolises try to position themselves as hubs in their own geographical context towards outside neighboring regions and countries. Therefore, a territorially cohesive development within the central European Danube zone needs new common strategic endeavors, which not only promote activities improving accessibility through infrastructure investments.
- Historical, social and economic ties of the five metropolises should be a proper base for further cooperation between public institutions, civil society and private businesses. These relations can be extended and deepened by different cross-border networking projects, which can well be subsidized within existing EU-Regional Policy Programmes: Programmes under the objective “European Territorial Cooperation” (ETC), the interregional co-operation programme aiming at fostering all kinds of city networks; the URBACT II-programme which is especially directed at the information exchange of cities; the transnational co-operation programme “Central-Europe” covering not only the five cities but also their hinterlands.
- Since this programme area also includes Poland, Eastern and Southern parts of Germany and the North of Italy, this programme places the POLYCE metropolises in a wider spatial context, connecting them to cities as Berlin, Warsaw, Munich and Milano, which are highly relevant partners for the region.
- Cooperative strategic activities should take the European Strategy for the Danube Region into account. Together, the five metropolises can play an important role in steering the further development paths of this strategy. Promising attitudes to act as initiators and important drivers of specific issues in the Danube region already exist, but have to be well coordinated between all five.

Considering polycentricity, all five POLYCE metropolises stand out in a way, making each an important actor in the Central European urban network. Nevertheless, some still have to improve their inner polycentric structure, strengthen their ties in European economic or research networks, or improve their connectivity. Different kinds of flows, networks and co-operations between cities might stimulate and strengthen each other. Consequently, enhancing political, economic and social networks via related governance measures will definitely improve the conditions for all kinds of interaction between the POLYCE metropolises.

- The urban system of Vienna is by far the most functionally integrated among the five metropolises. The city of Bratislava is best integrated in the balanced system of small and medium-sized neighboring towns, while Ljubljana dominates the urban system of its wider metropolitan region. Budapest, Wien and Praha play a far more dominant role in their metropolitan regions.
- Commuting data clearly demonstrate the difference between the functionally integrated urban system of Wien and urban systems in former communist countries, which are

dominated by capital cities through unidirectional commuting to the core city and hierarchical subordination of smaller centers in the surrounding metropolitan area.

- Strong (economic) ties can be recognized between Budapest, Praha and Wien – all three metropolises also being highly integrated in wider European and global networks.
- Although central control functions are to be found in Budapest, Praha and Wien, Wien stands out as hosting more high-ranked firm locations and participating in more European research co-operations than the other cities in the region. Prague, however, ranks first concerning the number of FIRE (finance, insurance, real estate) company relations within the region and also shows strong links to other European or global cities.
- Considering the different city sizes, Bratislava performs quite well in firm networks within the Central European Danube region as well as on the global scale. Ljubljana plays a stronger role in European research networks.
- Inter-city relations in terms of firm and research networks are significantly influenced by travel times and ethnic ties, pointing to the ongoing influence of transport accessibility and historical relations on economic activities.

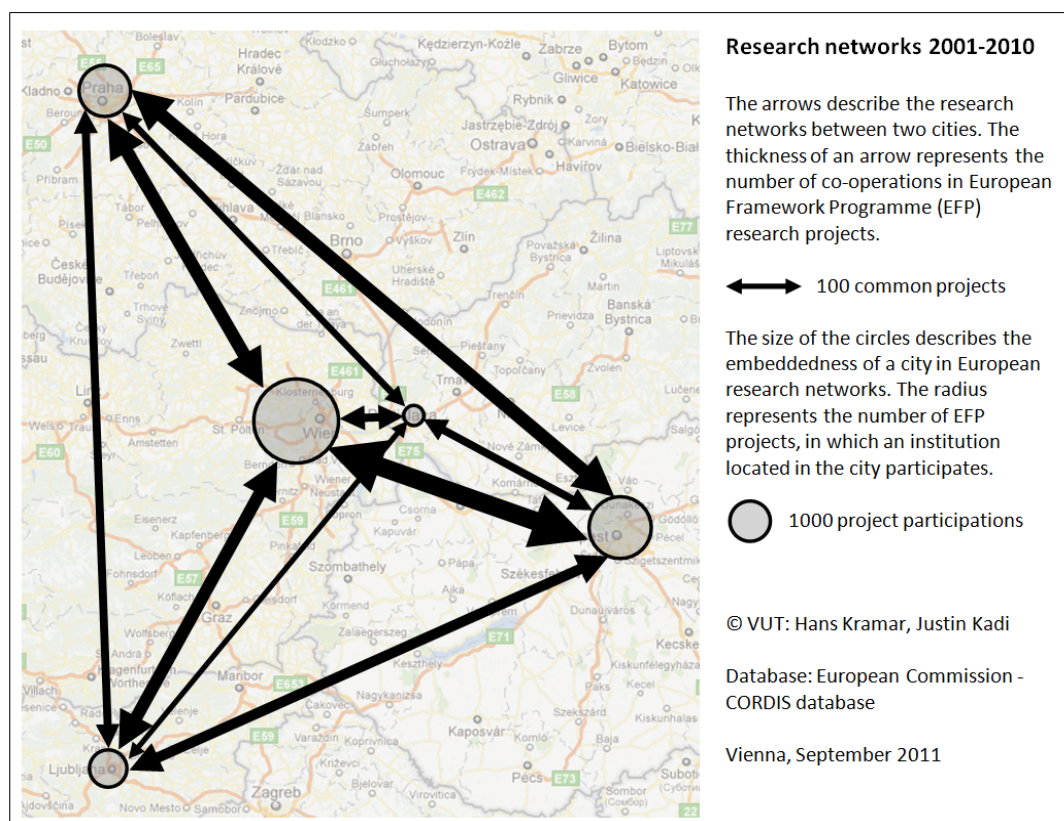


Figure 2: Research networks between POLYCE metropolises (2001-2010)

The Central European metropolises analyzed have one outstanding commonality: they altogether provide exceptional living conditions. Common initiatives must take this aspect into account, particularly if processes of metropolisation imply aspects of growth that might threaten these remarkable preconditions. Furthermore, it gets clear that each of the five can play a different, maybe decisive role as generator of competitiveness of the Central European urban system in a wider spatial context.

- The analysis shows that the five investigated metropolitan areas all perform well in terms of living conditions. Significantly, it is the only metropolitan characteristic where all score above average of the sample of all 50 compared European cities.

- Overall, only Praha and Wien do better than the average of the selected cities. Among the five POLYCE metropolitan areas they do best in economic development terms. Still they profit more from another well-performing characteristic, which are high-rated living conditions. At the same time both suffer from weaknesses in demography, education, and low ethnic diversity – all subsumed under the category People.
- Bratislava and Ljubljana instead perform notably well in the field of People – a fact, which puts these two metropolises in an important position within the five POLYCE cities, concerning particularly those approaches fostering education and ethnic diversity.
- Wien's profile shows its important position as a role model for environmental concerns. Although other Northern and Western European cities outperform Wien in this respect, the metropolitan area obviously shows some valuable conditions among its Central European partners. The same is true for Mobility (subsuming public transport, accessibility and the like), where Wien's position is at least of the same importance.

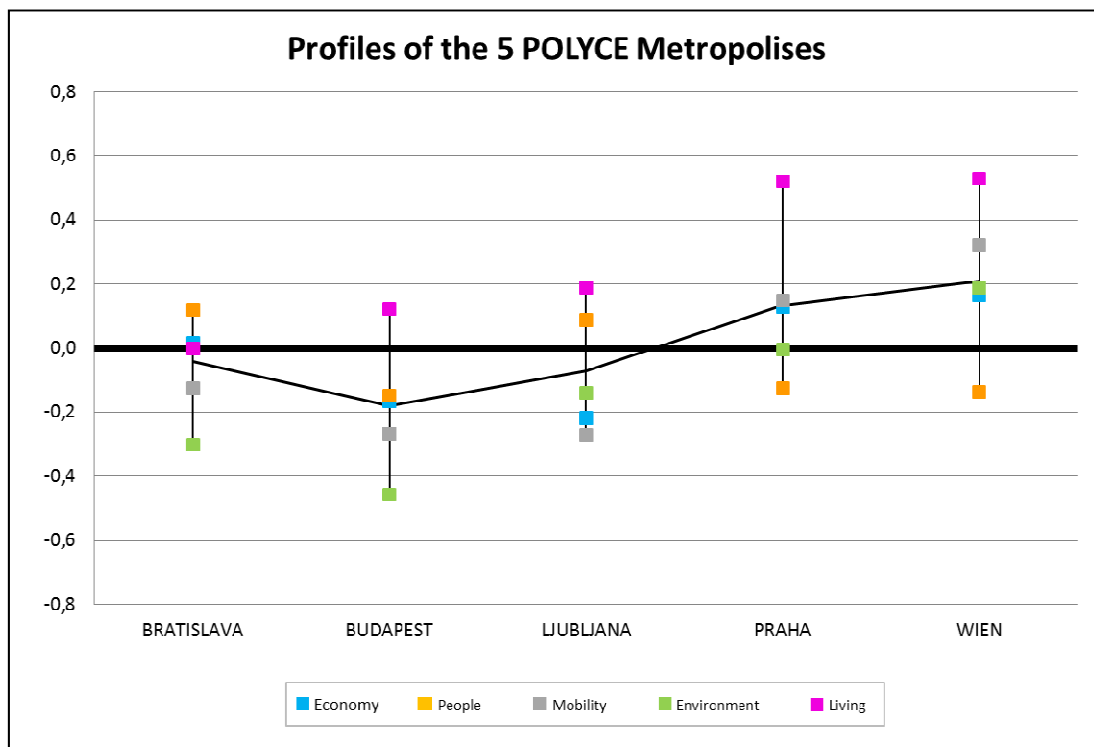


Figure 3: Profiles of the five POLYCE metropolises (The Zero-line indicates the sample's average; the small line connects the cities' overall performance measures summing up all indicators) Available data for this analysis reach to the year 2008. Developments after 2008 are not reflected and could alter the results in respect to specific indicators to some extent.)

All five metropolises face different challenges concerning population growth when recent preconditions of the metropolitan areas are taken into account. Praha, and to a lesser degree Wien and Budapest, should elaborate strategies and specific measures for providing a sound spatial structure in the functional metropolitan area. Contrary, Bratislava, and to a lesser degree Ljubljana, show a potential in their preconditions for population growth. Underlying empirical results depict those factors having positive and negative impacts on coping with urban growth and stress the importance of a sound metropolitan planning strategy:

- Land rent, social distress associated to urban life, as well as urban sprawl indicate the most important urban costs and, thus, negatively influence population growth. Hence, these factors are crucial for urban development in the future.
- Urban amenities indicating metropolitan attractiveness, industrial diversity, relational polycentricity in knowledge intensive activities (research networks), and metropolitan

functions (power functions in the political, economic and cultural sphere) all have a clear positive impact on the size of urban agglomerations.

- The identification of the effects of these factors demonstrates the relevance of a sound spatial structure of metropolises in the form of external networking and the reduction of sprawl.
- These factors – linked to a sound metropolitan and planning strategy with corresponding projects – generate higher urban benefits and efficiency, while at the same time reducing the costs associated to physical size. Developing urban quality, urban amenities and attracting human capital-rich professionals is due to generate enhanced attractiveness and competitiveness, once again supporting a wider, more diversified urban realm.

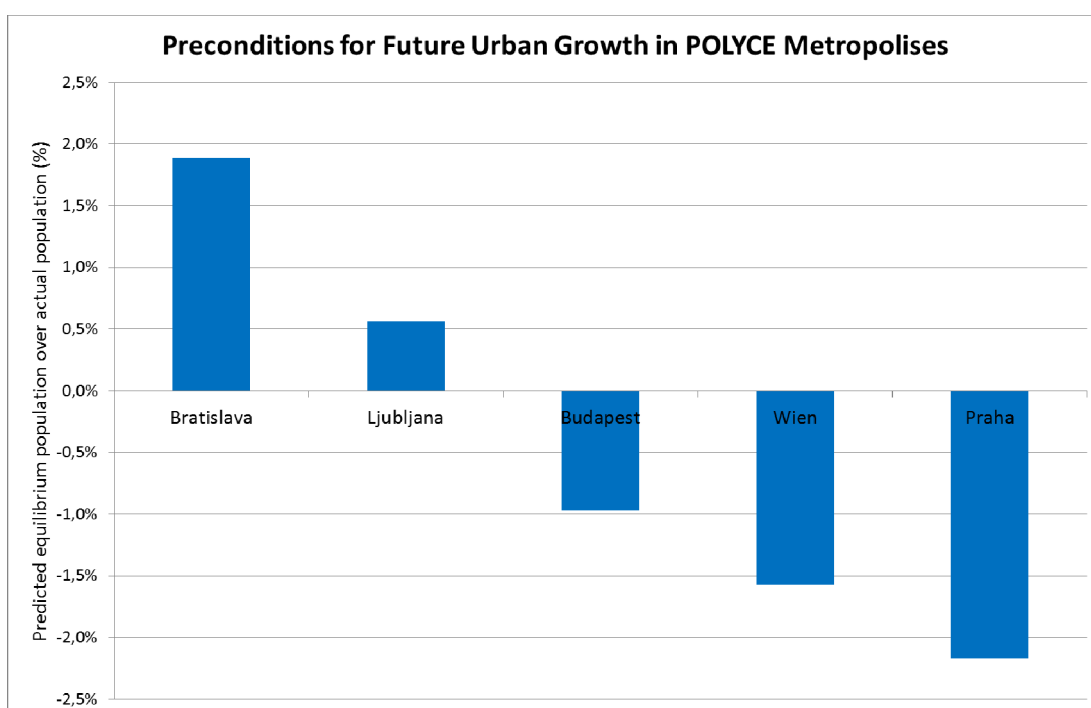


Figure 4: Preconditions for further urban growth in POLYCE metropolises

Need for Further Research

Investigating relational polycentricity: Research can be deepened on the level of Central European functional interrelations. Cooperations and networks between the five POLYCE metropolises and with other European or global urban nodes needs extended exploration, particularly concerning economic and social ties.

The role of medium-sized cities for cohesive development: As this research was based on an investigation of five big Central European metropolises, questions regarding the importance of medium-sized urban agglomerations were not touched. Researching their role in polycentric networks of the major metropolises seems to be of importance, as they presumably have a decisive stake in polycentric and, consequently, cohesive development.

Delimiting metropolitan areas: Spatial distribution of population and commuter relations is only a starting point in defining functionally integrated metropolitan areas. As the need for such definitions

was urged several times by different stakeholders, agreeing on a common approach to delimit metropolitan areas should be an instant task.

Governance debates in targeted analyses: The integration of local and regional experts in ESPON's targeted analyses is taking account of the importance attributed to communicative approaches in planning. This recognition is highly valued, although the approach is in some respects too limited. The role of city administrations as project partners is not always clear enough, and while the general claim for integrating other stakeholders is welcome, the time-frame for implementing such methodological approaches is not sufficient. Consequently, governance debates should be conducted, discussing the trade-off between short-term results and in-depth analyses.

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