

POLYCE

Metropolisation and Polycentric Development in Central Europe

Targeted Analysis 2013/2/12

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1. Objectives of POLYCE

POLYCE focuses on the enhancement of the polycentric system in Central Europe as well as on strategies for strengthening the current position of the five major cities as metropolises. Therefore the project is aiming at revealing the driving forces of cohesive territorial development in a competitive and sustainable perspective. A main goal in POLYCE is to detect the interrelations between metropolisation and polycentric development which are assumed to be based on a metropolis' territorial capital (Camagni, 2009).

The project's main objective is to explore this mutual relation, to identify relevant challenges and to elaborate strategic advices which help strengthening polycentric development at two levels:

- At the metropolitan level of the cities Bratislava, Budapest, Ljubljana, Prague and Vienna
- At the level of the Central European - Danube global integration zone (henceforth CED-zone) that is constituted by these five European metropolises

2. Outline of the Conceptual Approach

2.1. WP2.0: Metropolitan Potentials & Territorial Assets

Work Package 2.0 serves as a guideline for the content-related part of the project and therefore has the following specific objectives:

- Elaborate a comprehensive understanding of the mutual relation between metropolisation and polycentric development
- Improve knowledge regarding the role of specific potentials and assets for metropolitan development in order to formulate strategic recommendations
- Assure comparability and transferability of information

The concept of territorial capital is central for an understanding of the process of metropolitan development.

Territorial capital consists of different endowment related factors, potentials and specific forms of cooperative efforts with strategic character. Combined they provide competitive advantages for the realization of metropolitan functions (Camagni, 2008). Polycentricity and polycentric relations are considered an outcome of metropolisation of capital cities as well as a precondition of cohesive territorial development.

According to the territorial capital approach metropolisation is driven by different hard endowment related factors and soft relational factors which in combination activate and mobilize perceived potentials and transform them into assets. These assets provide area based advantages which strengthen the competitiveness of cities and attract specific metropolitan functions. Hence, metropolisation is the outcome of the activation of relevant potentials in a highly competitive situation. It finally is driven by the process of accumulation based on agglomeration economies. The success of this process depends on the availability of metropolitan assets that have a recursive, positive and accumulating influence (Giffinger et al., 2009).

Depending on the ability and capacity of governance initiatives, polycentric relations and thereby metropolitan development can be fostered. This includes the realization of strong functional complementarities as area-bound advantages (structural/functional relations) and cooperative efforts (institutional/strategic relations) at the micro-, meso- and macro level. Thus, functional and strategic polycentric structures which create area-bound advantages are assumed to become an asset for metropolisation.

The process of metropolisation is understood as:

- The result of a mutual process of spatial concentration of (new) economic functions and population having an effect on its growth and spatial extension through immigration (Friedman, 1986 and 2002; Geyer, 2002)
- The meaning as a node of global networks of material and immaterial flows exercising command and control functions with excellent connectivity between each other (Keeling, 1995)
- Economic restructuring towards knowledge intensive economic activities in specialized branches of production or service (Krätke, 2007)
- Spatially differentiated allocation of specialized functions as driving forces of a polycentric economic and demographic development within the agglomeration (Krätke, 1995; Kunzmann, 1996)

Metropolitan development is assumed to be driven by a region's activated territorial capital. Certain components of this activated territorial capital reach far beyond city borders, in particular structural/functional and institutional/strategic relations. Hence, the process of metropolisation is shaped by (polycentric) relations across borders of cities. Simultaneously, polycentric development is driven by the process of metropolisation (Camagni, 2009, Giffinger et al., 2010).

Due to the assumed interrelations the following tasks are going to be realised:

- A conceptual framework will be elaborated regarding the spatial frame of reference (entities) dealing with metropolisation and polycentric development, as well as for the identification and assessment of metropolitan potentials and territorial assets driving these processes.
- A common terminology will be defined according to recent ESPON project results.
- Existing data sources will be used in different Work Packages and assessed regarding comparability. Also, new comparable data will be processed. Thus, transferability of findings will be ensured as far as possible.
- A common questionnaire will be defined and a group of stakeholders and relevant actors will be selected.
- A common concept for one local conference in each of the 5 cities will be elaborated.

2.2. The Analysis of Polycentricity

In WP 2.1 polycentricity is going to be analysed based on definitions made in the most recent ESPON projects. This holds in particular for the delimitation of spatial entities, which will build on the concepts used in FOCI.

FOCI distinguishes four analytical levels: European (macro level), the inter-regional (meso level), the intra-regional (micro level) and the intra-urban level (ESPOF FOCI Interim Report Annex p. 169). POLYCE will concentrate on the first three levels.

Also, FOCI defined three spatial entities to empirically analyse polycentricity. A Core City (CC) which corresponds to the administrative city, a Metropolitan Area (MA)

corresponding to LUZ/FUA and a Metropolitan Region (MR). As in POLYCE functional relations are of main interest “metropolitan areas” will be renamed into “Functional Metropolitan Areas (FMAs)”. The operationalization of FMAs will be conducted in the several Work Packages based on the posed question.

The micro level: Polycentricity within the metropolitan region

In the POLYCE approach the Metropolitan Region (MR) consists of a Core City (CC), a Functional Metropolitan Area (FMA) and a surrounding Outer Metropolitan Ring (OMR). Polycentricity at the micro-level will be analysed regarding all three entities. Empirical analysis does not only concentrate on empirical results of the aggregated entities as such but will in particular analyse interconnected elements within the Metropolitan Region (MR). These could be elements such as cities and municipalities, cross-border networks, infrastructural networks, etc.

The meso level: Polycentricity between metropolitan regions

Relations interlinking metropolitan regions will be identified and described. Polycentricity will be analysed for all MRs which are member of the CED-zone. Interrelations will be elaborated as far as indicators are not available from other ESPON projects.

The macro level: Large scale polycentricity

Relations of the five metropolises in the CED-zone will be analysed and compared to other metropolises as well as groups of metropolises in other European macro-regions. Quality and intensity of the inner polycentric structure can be assessed through the comparison with its outside relations.

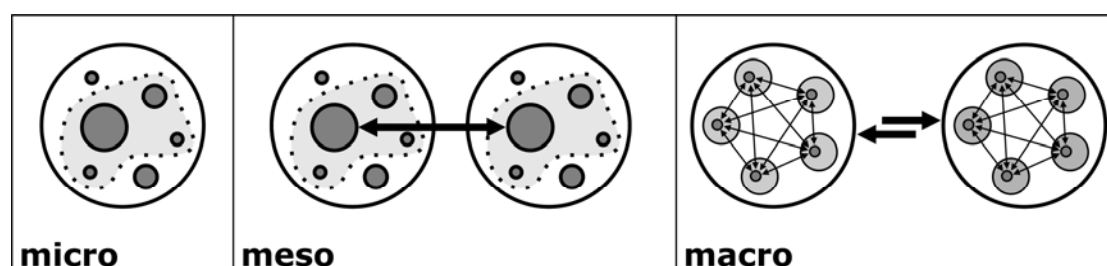


Figure 1: Scales of Polycentricity

2.3. Metropolisation & Metropolitan Profiles

In an econometric approach WP2.2 deals with the counter-intuitive trend occurring in most EU cities, showing a continuous population increase notwithstanding the high and unquestionable costs associated to large urban scales. The growth of city size beyond inefficiency thresholds is not only counterintuitive from the theoretical point of view of standard urban economic theory. Also, it seems to hinge on a-rational behaviour of people. Therefore WP2.2 will provide a conceptual and empirical explanation to this stylized fact by theoretically clarifying why cities grow even if their size is apparently beyond the decreasing return threshold and by empirically testing the conceptual explanations - in particular considering the impacts of polycentric factors as determinants. Building on a urban growth model a specific discussion of relevant influencing factors of urban growth through the interpretative lenses of the paradigms of urban rank and urban network is realised.

In WP2.3 a bundle of relevant characteristics of metropolises will be identified. Based on these characteristics metropolitan profiles for the five cities as part of a larger group of European metropolises will be developed. The analysis of a sample of European metropolises including the five POLYCE cities allows for:

- The identification of the city's metropolitan profile regarding several key development characteristics on the level of indicators (e.g. economy, environment, human capital, governance, mobility, relational capital)
- The benchmarking of characteristics and factors between capital cities
- A comparison of polycentric structures particularly for the five metropolises.

2.4. Perception of Potentials and Assets

WP2.4 will complement the quantitative analysis conducted in WP2.1, 2.2 and 2.3 with an analysis of the perceived potentials and assets of the five metropolises. The transformation of potentials and resources into assets at the metropolitan level is only possible if they are consciously perceived by relevant groups of actors and activated through corresponding initiatives of governance. Thus, metropolitan governance is very often confronted with the challenge to improve the perception and to strengthen cooperative efforts.

For analysing metropolitan governance empirically both the territorial capital and the social production of space approach need to be integrated systematically (Davoudi et al., 2008). They will help revealing the key factors for creating conditions of collective action and turning relational capital into assets.

The structural background, respective policies and processes of metropolitan governance will be analysed. Thus, vertical and horizontal coordination, inclusion of non-state actors, participation, the definition of strategies, strategic efforts and (flagship) projects will be the focus of research. At the same time the most relevant factors influencing perception and capability to cooperate will be discussed.

WP2.4 will be aiming at the identification and assessment of new potentials, existing assets and most relevant challenges of the metropolises by organizing interviews with relevant stakeholders and actors in the five cities.

2.5. Distilling Strategic Advice from the Empirical Research

WP2.5 will address polycentric development at two levels:

- At the micro level of the five metropolises with its regions
- At the macro level of the CED-zone based on this group of metropolises as part of the Danube Region.

Based on the findings of former Work Packages WP2.5 will provide evidence-based conclusions and recommendations. This will include recommendations regarding:

- Specific assets driving polycentric development
- The meaning of polycentric relations for metropolitan development at different scalar levels
- The meaning of metropolisation for polycentricity.

Recommendations will be elaborated enhancing the polycentric development under the aspects of competition and cooperation. Specific strategies will be defined to steer polycentricity and metropolitan development.

3. Methodology, tasks and outcomes of the several Work Packages

3.1. WP2.1: Polycentric System in Central Europe

3.1.1. Objectives

WP2.1 will evaluate the polycentric development in urban systems of the CED-zone on three spatial levels:

- 1) Polycentricity within the Metropolitan Region (micro)
- 2) Polycentricity in the CED-zone (meso)
- 3) Position of the CED-zone within the polycentric structure of Europe (macro)

The empirical analysis will focus on core cities, their FMAs and MRs as major growth poles and engines of regional development. Using a set of indicators, the analysis will reveal the degree of polycentricity at the three examined territorial levels.

3.1.2. Methodology

The analysis will focus on morphological and relational polycentricity in the fields of technical conditions (e.g. transport linkages), people and economic activities (e.g. commuting) and ideas (e.g. sharing common goals, agendas and policies).

Polycentricity within the MR will be analysed through the location of main employment nodes within the FMA and its mutual relations and linkages to residential areas (decentralization, suburbanization). The identification of employment nodes (concentrations) at LAU2 (municipal) level within FMAs and MRs will therefore be a starting point. Population size and number of jobs, in particular in the tertiary and quaternary sectors will be used to construct indicators of morphological polycentricity for FMAs and MRs. The analysis will cover the period from 1980 to 2010 depending on data availability. A general overview of centralization and decentralization trends within the FMAs and MRs will also be presented. Secondly, using commuting data (matrix of flows between employment centres) hierarchical and reciprocal relations between employment centres will be investigated. Based on that, indicators showing the level of relational polycentricity for 1990 and 2000 will be computed. Besides, polycentric relations defined in strategic and planning approaches (common ideas defining political and planning priorities in FMAs and MRs) will be described.

The analysis of polycentricity in the CED-zone will first investigate size and significance of the five cities, their FMAs and MRs with a special emphasis on the development of the most competitive functions. A focus will be put on the position of the investigated cities within the EU urban hierarchy. Secondly, relational aspects of polycentricity will be captured using data about transportation flows, key destinations and the position of the five cities within the global matrix of flows. Thirdly, information about the location of firms in the advanced producer service sector will allow tracking relations within the region and its position within Europe. Finally, the relational polycentricity on the political and decision-making levels of governance will be analysed. This is done in order to detect existing and potential fields of cooperation between key decision-makers in the five metropolises.

These analyses will allow the assessment of the position of the CED-zone and the five metropolises within Europe through the relations with EU macro-regions as well as with capital cities of states neighbouring the area under investigation. The latter also include capital cities of states situated outside the EU core (e.g. Berlin,

Bucharest, Sofia, Warsaw) as well as non-EU states (e.g. Belgrade, Kiev, Sarajevo, Zagreb).

3.1.3. Data sources

Various data sources on European level will be used, such as data on commuters from FOCI or Urban Audit. The analyses of polycentricity within the MRs will require specific datasets from national statistical offices. The study of relational polycentricity within the CED-zone will be based on data gathered from transport operators and data provided by the GaWC network. Information about strategic policies and actual governance practices at both the micro- and the meso level will be gathered in WP2.4.

3.1.4. Outcome

The main outcome will be the assessment of polycentricity within the Metropolitan Regions, polycentricity in the CED-zone and the position of the CED-zone within the polycentric structure of Europe based on interpretation, synthetic indicators and maps.

3.2. WP2.2: Modelling Urban Growth and Metropolisation

3.2.1. Objectives

The process of metropolisation implies, from an economic point of view, the concentration of high-skilled industries, labour force and functions along with the increasing polarization of economic performance in and around large urban agglomerations. "Compared to the classical concentration process represented by cities in general, metropolisation is characterized by an increase of weight of the largest cities in the distribution of some functions, as well as by concentration of population in metropolitan areas. Contradicting some "forecasts" about decline of big cities, the metropolitan process relies on a networking of the main agglomerations in which phenomena of connectivity tend to prevail over proximity relations" (Elissalde, 2004).

The metropolisation process contradicts some well-known predictions in the urban economics literature. In particular, figures on urban crime, traffic, and housing costs - among others - show that large cities bear a higher than average cost of living to citizens.

Despite these problems inherent to city dwelling CED-zone metropolises are not dying. On the contrary, the share of citizens living in these metropolises over total country residents is not declining over time, and in some countries it is even growing.

The European urban landscape is therefore subject to a new and massive wave of urbanization, mainly due to an increased relevance of human capital, knowledge assets and international accessibility and to the pervasive globalization process affecting consumption patterns. For theoretical urban economists this implies a resurgence of supply-oriented approaches (Camagni, 2009).

Two main preliminary interpretations to metropolisation can be provided at this stage: on the one hand, cities are different in terms of functions and territorial capital they are endowed with. A high-value added service city reaches the decreasing return threshold for a size different than that of a manufacturing city. On the other hand, the way in which a city organizes its activities within the general urban system - setting up relations with other cities - allows the city to overcome some of its physical limits.

Large urban agglomerations are expected to generate wealth by centralizing high-rank functions. Medium and small cities can instead focus on sharing responsibilities and focusing on specific functions, creating an urban network, which facilitates cities in reaching critical thresholds in production and consumption without incurring in the high costs associated with large agglomerations.

Interpretative paradigm	Pattern of urban performance	Urban benefits	Urban costs
City hierarchy	Centralizing high-level functions	Large dynamic (learning) externalities; creativity; centralization of R&D functions.	High rent; pervasive crime; complicated logistics (e.g. waste management); consistent pollution.
City networks	Sharing responsibilities and specializing in specific functions	Better life quality; easier city management and strategic planning	Risk of losing ground in a knowledge-based economy; potential for skilled out-migration.

Figure 2: Interpretative paradigms of urban systems: benefits and costs

WP2.2 aims at pinpointing the main trends in urban development with particular attention to the process of metropolisation. It focuses on an econometric analysis aiming at estimating urban location cost and benefit functions - elements, both material and non-material, of the territorial capital matrix (Camagni, 2008) influencing the benefit function.

3.2.2. Methodology

This WP will be carried out through multivariate analyses. A model of urban growth (through benefit and cost functions) will be employed in order to measure the above mentioned concepts. It will therefore encompass:

- Elements in the territorial capital matrix, in particular proxies for relational capital and agglomeration economies
- Dummy and categorical variables for the identification of city ranks and urban networks, in order to test the validity of the interpretative paradigms above described in the process of urban wealth generation.

The main task is, therefore, to provide an interpretative tool for subsequent Work Packages in order to stress the main determinants of urban performance. Moreover, the WP will allow providing some general policy guidelines for urban performance in Europe.

3.2.3. Data sources

Empirical analyses will be based on municipality-level data, mainly from Urban Audit and possibly FOCI (if made fully available), including measures of human and social capital, accessibility, urban density and urban amenities, possibly urban capital stock/investments and in general all variables labelled as “urban territorial capital”.

Territorial capital square	Variable	Obs	Mean	Std. Dev.	Min	Max
Social capital	Interest in politics	156	2.55	0.47	1.00	4.00
	Trust	156	0.38	0.09	0.15	0.69
Agglomeration economies	Population density	218	2398.38	2807.16	44.90	21060.40
Human capital	Highest level of education achieved	218	18.35	2.69	11.00	30.00
	Highest level of education achieved (recoded)	218	4.82	1.45	1.00	8.00
	Average years of schooling (1990)	156	12.34	1.86	8.80	17.50
	Average years of schooling (2000)	212	12.41	2.70	5.00	24.00
<i>Relational capital*</i>	<i>*Statistics for this vector are not available at the date of release of the Inception Report of this project.</i>					

Figure 3: Exemplary list of indicators

3.2.4. Outcome

This WP sets the context for local urban analyses as in other WPs with special regard to results expected in WPs 2.1 and 2.3. The WP will highlight in particular the main urban growth determinants as seen through the lens of the concept of territorial capital as well as some relevant policy guidelines for European cities.

Analyses will be run at the European level and will offer a complementary view with respect to other WPs. Empirical outcomes will include:

- Multivariate and econometric analyses on urban growth determinants
- Maps representing the geographical distribution of such determinants of urban performance.

3.3. WP2.3: Profiles of Capital City Metropolitan Areas

3.3.1. Objectives

The key objective of WP2.3 is to identify the similarities and differences between the five capital cities and other metropolises in Central Europe. This differentiation is assumed to be an outcome of metropolisation based on the specialization in metropolitan functions (Krätke, 2007; Friedman, 2002).

The Work Package will analyse the profiles of metropolises in two ways: a group of European cities including the five Central European metropolises will be described by a set of characteristics. Additional factors regarding the characteristics of polycentricity (input from WP2.1) will provide a more specific analysis of the five metropolises.

3.3.2. Methodology

The metropolitan profiles will be defined by a set of characteristics. The latter will be composed of a bundle of factors describing territorial capital in a multidimensional way. Empirically each metropolis will finally be defined through a set of indicators

describing specific properties of human, economic (private and public) and social capital as they are assumed to be relevant for the process of metropolisation.

In a hierarchical approach a corresponding method - already applied in the 'European Smart-City project' (Giffinger et al., 2007) - will be implemented. This will allow for the identification of metropolitan profiles derived from indicators, factors and key development characteristics (e.g. economy, environment, human capital, governance, mobility, quality of life). Also, the morphological and relational polycentric structure of the five POLYCE cities will be described on the level of indicators.

The collected data will allow for a comparison between capital cities and will provide the basis for an improved positioning of the five metropolises within the European urban system (Giffinger et al., 2007; or Giffinger et al, 2009).

Data will be collected from publicly available data sources and gathered from WP2.1. Hence, empirical analysis will focus on:

- Description of metropolises on different spatial levels: based on comparable data, analysis and results from national/local research projects and statistical offices in the five Central European capital cities
- Collecting and processing comparable data from publicly available data bases (such as ESPON, EUROSTAT, URBAN AUDIT)
- Updating and collecting new data describing resources, potentials and assets of metropolitan and polycentric development of the POLYCE cities
- Elaboration of a hierarchical approach describing metropolitan and polycentric characteristics through factors and elements which are defined by a bundle of relevant indicators
- Comparing the five POLYCE cities vis-à-vis other metropolises and macro-regions in Europe building on findings from WP2.1.

3.3.3. Data sources

The selection of indicators will be based on data availability for specific time frames taken from European data sources and identified spatial levels of European capital cities and their metropolitan areas or regions. Most of the data are quantitative but also some qualitative secondary data will be used (e.g. public surveys) to add on missing data/values from statistical data sources. This implies that in the first run a review of existing data sources needs to be done. A factor of complexity comes from the international dimension of the European data sources and from the large number of different urban data bases that have been built in the past 10 to 20 years at different scales and according to different approaches.

The analysis of POLYCE cities must be based on several territorial concepts which refer to the above mentioned definitions of Metropolitan Region (MR), Core City (CC), Functional Metropolitan Area (FMA) and Outer Metropolitan Ring (OMR). The CC will be defined by administrative areas (in relation to LAU 1-2). The FMA and OMR will be based on the definitions of Larger Urban Zones (LUZ) or by regional classifications of NUTS3 and NUTS2. Polycentric characteristics of the five metropolises in the CED-zone will be comprehensively described by indicators processed in WP2.1.

The attempt of WP2.3 is to check whether metropolitan profiles can be elaborated in a comparative way. POLYCE will provide a critical comparison of the typologies and harmonize information about the types of Central European capital cities. This harmonization will be made with the help of a sample of relevant indicators extracted from the publicly available database. City profiles will be based on these analyses with additional sources from other comparative city projects, local data sources,

spatial development assessments and plans. Finally, specific assessments will be derived from the results of WP2.2 and from interviews and Local Conferences with experts and stakeholders realized in WP2.4.

3.3.4. Outcome

City profiles of the five POLYCE cities will be prepared taking into consideration the assessments undertaken in the WPs 2.1, 2.2 and 2.3. These city profiles will serve as an input for interviews of stakeholders (WP2.4.). In a feedback loop the results of the qualitative assessments from WP2.4 will help refining the city profiles and will as well serve as a basis for the policy analysis and future strategies to be elaborated in WP2.5.

3.4. WP2.4: Perception and Assessment of Metropolitan Characteristics

3.4.1. Objectives

WP2.4 will focus on the perceived spatial characteristics of the five cities with regard to environmental, economic and social aspects. It will serve to qualitatively assess strengths, weaknesses, potentials, assets and challenges of the POLYCE cities. The Work Package will complement the quantitative assessment of spatial characteristics in other Work Packages, in particular WP2.3. Methods and tools used will be developed in close coordination with other WPs. The main focus lies on the interplay of quantitatively assessed and individually perceived characteristics. The three main objectives of WP2.4 are:

- Identification of most relevant potentials, factors and assets of the five cities
- Widening the perception of important assets and potentials among the stakeholders and local actors
- Assessment of assets for future positioning of the five cities as metropolises on the macro level

Main tasks within this WP will be the following:

- Prepare a methodological framework for the implementation of interviews and Local Conferences
- Implement a methodology for participative assessment of perceived strengths, weaknesses, potentials, assets and challenges for each city
- Compare major strengths and weaknesses of each city
- Analyse and compare the profiles of the five cities at different spatial level
- Detect relevant synergy effects of the five cities

3.4.2. Methodology

The methodology will consist of desk research as well as field research.

Desk research:

- synthesis of data about spatial qualities provided by other WPs
- analysis of relevant documents regarding the prevailing planning approaches, recent spatial development models, visions and cooperative initiatives.

Field Research I: Interviews

Interviews will serve as a tool to identify and assess perceived spatial characteristics of each city. The target group are the stakeholders and local actors in each of the five metropolises. Approximately 20 to 30 interviews will be conducted. The interviews

will include open, as well as semi-open and closed questions. The following techniques will be used to structure the interviews:

- a) Likert scales (measuring the degree of agreement with the proposed statement). We will use 1-5 rating scale.
- b) Semantic differential (measuring the perception of certain city characteristics, e.g. the perceived potentials of the city). Respondents will be asked to express their personal evaluation of the examined characteristic of the city on a bipolar scale.
- c) Open questions - due to the limited sample of interviewees, the majority of the items will be examined in the form of semi-open and open questions. This method enables to concentrate on unique, specific and peculiar features of the cities under investigation.

The interviewees will be the leading personalities and opinion-makers of the five cities. The interviews will help identify the perceived potentials, assets, challenges, strengths and weaknesses. The interpretation of interviews will be based on statistical and content analysis.

Field Research II: Local Conferences

The main objective of the Conferences is to get feedback from stakeholders and actors on the (perceived) spatial quality of the five cities. Based on all relevant information the conferences try to identify and describe the most relevant strategic (flagship) projects strengthening assets for metropolitan development - in particular projects strengthening polycentricity on the meso- and macro level.

3.4.3. Data sources

- Data based on desk research
- Statements of the interview participants
- Statements of the Conference participants

WP2.4. will make use of both the data collected within this Work Package as well as the data received from other Work Packages.

3.4.4. Outcome

The outcome will consist of city profiles that deal with the perceived spatial characteristics of the five cities and the identification of relevant assets and challenges. Outcomes will be coordinated with the results from other Work Packages, in particular WP2.3.

3.5. WP2.5: Strategies for Strengthening the Polycentric System

3.5.1. Objectives

The Central European metropolises are increasingly exposed to the challenges of globalization. Their coordinated approach in development strategies and policies could improve their position in the CED-zone as well as in other respects of global competition and European integration.

The strategic recommendations should reflect priorities of sustainable development perspectives understood as the balance and mutual enhancement of social cohesion, economic prosperity and environmental quality. The project will explore the application of a governance concept in the context of the CED-zone with different political and administrative cultures but shared cultural tradition.

3.5.2. Methodology

The proposed strategic recommendations will be based on identified factors influencing metropolitan development and providing future development opportunities. They will be derived from the findings of previous analyses of characteristics, potentials and assets.

The proposed perspectives and strategies for the metropolises will be elaborated by each national group and national stakeholders under coordination of the responsible TPG partner. They will be based on the identification and assessment of relevant factors (potentials and resources, assets).

Against the background of the recommendations for each city an overall strategy for the entire CED-zone will be developed in a bottom-up way.

3.5.3. Data sources

WP2.5 will mainly be based on the results of the WPs 2.1, 2.2, 2.3 and 2.4 but will make use of key planning documents of the five capital cities as well.

3.5.4. Outcome

The outcome will consist of perspectives and strategies for strengthening the polycentric urban system in the CED-zone. The overall approach will be made applicable also to other potential polycentric macro-regions in Europe. The strategy for strengthening polycentricity will be based on four pillars:

- Polycentric metropolitan growth management regarding the allocation of new metropolitan functions under consideration of land recycling
- Metropolitan positioning through the strengthening and enhancement of relevant driving forces
- Efficient and sustainable transport linkages within and between the five metropolises as well as in the entire CED-zone including linkages to wider Europe
- Cooperative and integrated territorial governance on the level of metropolitan regions strengthening the mutual relation between metropolitan development of cities and polycentric development within the CED-zone.

Strategic recommendations will be elaborated for two territorial levels of polycentric development:

A) Strategies on the micro level (Metropolitan Regions of each city)

- Vision of the role of a metropolis in the Central European polycentric metropolitan system
- Concept of sustainable development of the metropolitan territory with an emphasis on polycentric development focusing on cooperative initiatives between all partners
- Key strategic issues to be tackled in order to support smart metropolitan growth and sustainable territorial development
- Actions designed in cooperation with the involved stakeholders framed within key themes of metropolitan and regional governance

B) Strategies on the meso and macro level (CED-zone and wider Europe)

- Key strategic issues of European significance are tackled to enhance and strengthen the position of the CED-zone (infrastructure, governance)
- General vision for the CED-zone
- Possible areas of cooperation among national metropolises of the CED-zone

Finally, POLYCE will explore potentials for development of cooperative structures between metropolitan regions in order to enhance polycentricity in structural/functional as well as in institutional/strategic terms.

4. Project orientation towards the Interim Report

As defined in the project specification the procedures of POLYCE have to include the delivery of results in a series of reports during the project lifetime. The present Inception Report is one of these. The TPG of POLYCE will as well compile an Interim Report (29 August 2011), a Draft Final Report (27 February 2012) and a Final Report (30 May 2012).

To provide a clear view of the project orientation the activities foreseen in the period until the delivery of the Interim Report are outlined. Also an overview of Work Package responsibilities by partner will be given. The further procedure of POLYCE until the delivery of the Interim Report encompasses several steps.

- Work Packages 2.1 and 2.2 will be finalizing their main empirical work before the delivery of the Interim Report.
- WP2.3 will have finished a draft version of city profiles regarding a sample of European metropolises and regarding the five metropolises.
- In WP2.4 the TPG will have conducted the interviews with local actors
- WP2.5 will give a first view of perspectives and strategies for strengthening the polycentric urban system in the CED-zone.

The following table outlines the distribution of Work Packages and responsibilities among the project partners in POLYCE:

		Project Partners							
		VUT	LJU	STUBA	SZ	CVUT	CUNI	CEPS	PM
Workpackages	WP1	●	○	○	○	○	○	○	○
	WP2.0	●	○	○	○	○	○	○	○
	WP2.1	○	○	○	○	○	●	-	-
	WP2.2	○	○	○	○	○	○	-	●
	WP2.3	○	●	○	○	○	○	-	-
	WP2.4	○	○	●	○	○	○	-	-
	WP2.5	○	○	○	○	●	○	○	○
	WP3	●	○	○	○	○	○	-	-

● Coordinator with main responsibility for the Work Package

○ Participator in executing the tasks of the Work Package

Figure 4: Distribution of Work Packages among Partners

All Project Partners except the University of Szeged (SZ) and the Centre of Populations, Poverty and Public Policy Studies (CEPS) hold main responsibility for one Work Package. This includes defining the approach to be applied within each of the WPs. Furthermore all partners are responsible for providing the other project partners that hold main responsibility for a Work Package with data on “their” city.

More detailed information on the partners' responsibilities can be found in the POLYCE Partnership Agreement, PART B, §28, containing a list of Project Partners and their responsibilities.

4.1. Dissemination Activities

The dissemination of project progress and results to a wider audience is one of the crucial demands of ESPON-Projects under Priority 2. As already broadly elaborated in the project application POLYCE foresees several activities to meet those expectations of which some have already been implemented. The following chapter gives a short overview of dissemination activities foreseen until the delivery of the Interim Report.

- **Web Launch (already implemented):** The TPG of POLYCE provides a wide interested audience with general information on the project as well as with its progress and results. This will be achieved by launching a website providing its visitors with all necessary information on the project, in particular general information and summaries of results in all national languages of the five involved cities. The intention is to provide all interest groups with easy-to-access information. The POLYCE website can be accessed under the following address: <http://www.polyce.eu>
- **Project Leaflet (February 2011):** The Lead Partner of POLYCE will prepare a project leaflet containing general project-related information. The leaflet shall publicly offer basic information on the project grasping at the attention of a potentially interested audience both on the local level of the 5 cities and on the level of a wider (scientific) network involved with the partner institutions.
- **1st Newsletter (March 2011):** Within the timeframe of the project the TPG will send 3 Newsletters informing about the project progress and forthcoming events via E-Mail. Those interested in receiving up-to-date information on POLYCE can subscribe the Newsletter via the POLYCE website.
- **Interviews with local Stakeholders (15 April - 31 May 2011):** The interviews to be implemented in the course of WP2.4 have to be seen as a project dissemination activity as well as the TPG of POLYCE in this stage tries to activate local actors and to introduce them to the project. This is meant to have a spreading effect leading to a higher prominence of POLYCE.

4.2. Stakeholder Dialogue

The project is structured in a way as to maximize the dialogue between project partners and stakeholders in the POLYCE cities. At several points in the project, the communication with the stakeholders will be critical in order to guarantee a smooth implementation of the proposed project structure. The dialogue with stakeholders comprises several dimensions: First, stakeholders will be consulted for the selection of interviewees for WP 2.4. Second, the project draws on the communication with stakeholders for the identification of useful data sources as well as for the actual provision of data. Third, there are several events organized within the project that will draw on and foster the dialogue with stakeholders. This includes the local conferences that will be organized in October 2011, the political body event in March 2012, as well as the final conference at the beginning of June 2012. For all these events, the expertise of stakeholders will be used for the selection of relevant participants. Furthermore, the stakeholders themselves will play a key role in the preparation and realization of the events.

4.3. Likely Barriers for the Project Implementation

Risks & Barriers	Probability <i>(5 = high, 1 = low)</i>	Impact <i>(5 = high, 1 = low)</i>	Possible response
Risks Related To The Inputs			
Quality of data is below expectations and cannot generate required results	2	4	Assumptions, proxies, alternative data sets will be used on the base of local documents and experiences
Availability of data is limited or the access is only possible with great delay	3	4	As above, development of robust models that can be upgraded should better data become available later and that consider missing values explicitly
Contributions from stakeholders are limited or of poor quality	2	4	All partners have frequent interaction with stakeholders. In case of problems they will be detected early. Relevant planning documents will provide more detailed information.
Political, legislative and/or administrative changes with significant implications for project implementation.	3	2	Limited risk, there is adequate involvement from the municipal administration level to ensure continuity.
Risks related to the Methodology and Work Plan			
Distribution of tasks among partners might lead to a fragmentation of results and limited compatibility.	2	4	Apart from the tasks of the Project Coordinator guaranteeing for harmonised implementation, the work plan foresees under WP2.0 an additional quality control level and additionally the definition of Terms of Reference for each WP.
Data sources are not comparable	3	3	A clear definition of the spatial concept (with relevant spatial entities) allows for assessment of existing data and their modification.
Insufficient identification and assessment of perceived potentials and assets	2	4	Combination of multivariate statistical analysis and benchmarking as well as the results of the interviews and conferences provide different possibilities for assessment and conclusions.
Risks related to Outputs			
Dissemination issues, failure to indicate and reach the proper target groups	3	3	A wide spectrum of target groups is already indicated. According to this list and the addresses provided the partners will compare and update the final list of the target groups.
Risks related to Project Management			
Communication and coordination with the partners	3	2	A common website, quality control, frequent bilateral and multilateral meetings will ensure smooth communication.
Problems in reporting	1	4	A fixed schedule, templates and regular meetings will ensure in-time deliveries.
Delays in FLC	2	4	Templates, "standardised" payment claims in order to speed up FLC procedures, subcontracting of FLC at LP level to a dedicated service provider.

Figure 5: Likely barriers for the project implementation

5. Literature

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