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The ESPON 2013 Programme

FOCI
Future Orientations for CIties

Applied Research Project 2013/1/1

Inception report

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Chapter 1: Introduction

The major objectives of project FOCI are to analyse

- The functionality, trends and opportunities of European cities in terms of competitiveness, social cohesion and environment
- The relation of cities to their hinterland, especially their role as growth poles / motors
- The existing and potential « polycentric » inter-city cooperation for increasing competitiveness and service provision

and

- to use the results of these analyses to develop scenarios of the possible future development paths of cities in order to provide input to the policy making process.

The structure of the project follows the logic of these four objectives (see annex I for a schematic overview), the three major fields of work feeding into the scenario elaboration process.

As DG Regio has launched a project elaborating the second edition of the State of European Cities report, FOCI intends to provide complementary information and thus to avoid overladvanced producer services. Contact has been made both with the lead partner of the DG Regio project and with the responsible persons at DG Regio itself in order to coordinate the work.

This report provides the first results concerning data availability analysis, scenario preparation work and the further elaboration of hypotheses and methodologies. It follows the structure of the work packages of the project.

Chapter 2 : WP 1 Project Database

2.1   Introduction

The main source of data for this project will be the Urban Audit. We are in direct contact with the responsible persons at Eurostat. Unfortunately, the latest round of data is not yet ready for "production" use, as Eurostat is still working on the correction of errors in the data. We have, therefore, not been able to assess the quality and usability of the data for our purposes, notably for cities which are in the Urban Audit for the first time. The previous rounds can be easily used for most of the basic indicators (e.g. demographics), but more complex indicators often present significant levels of missing data. Once Eurostat has finished with the latest round, we will provide a global assessment, in collaboration with the ESPON Database project.

NUTS3 data is more readily accessible. However, time series are generally not available for the NUTS 2006 delimitations. We are waiting for the meeting with Eurostat foreseen at the end of the month of November and follow-up decisions by the ESPON Database project and the ESPON MC, before taking a final decision concerning this problem.

2.2   The Urban Audit database and the problem of city delimitation

From a review of the literature of the last twenty years (following the first report by Pumain et al., 1991 until the recent UMZ and LUSI programmes and ongoing research from the Espon data base group), we have extracted the main principles for the best use of all available data bases and delineation of urban areas for comparative purposes at European scale. They are following:

In the case of *static comparisons* (no evolution in time), the core city areas or cities defined from political boundaries are better suited when policy aspects are considered (evaluation of local involvement and capacities). When *interurban comparisons of economic weights* are needed, there is not too much difference between measuring them within the limits of urban agglomerations (morphological zones, i.e. MUAs or UMZ) and functional urban areas (or commuting zones, as FUAs), because in European cities the largest part of employment is still concentrated in the main urban cores and their oldest close suburbs. When trying to *measure and compare evolution,* indicators of growth (either demographic or economic) are not very significant when measured on short time intervals (from one year to one decade), because of the many temporary fluctuations in the process of adjustment between national or global context and local advances or delays in adopting the changes linked to innovation cycles. For becoming highly significant, inflexions in evolutionary trajectories have to be measured on periods of at least a few decades (from twenty or thirty to fifty years). That is why it is important to measure these changes for urban entities that are allowed to grow not only in density within the same spatial limits, but as well to expand over space.

Methodology

We shall take from the ESPON Database project information about the comparability and complementarity of available data bases in terms of consistency of urban definitions and delineation. We shall assess the relevance of each definition for FOCI studies (by cross-checking data bases) for all indicators that are needed (indicators of competitiveness

defined in relative terms at world or European level, social cohesion or environmental sustainability defined comparatively to national standards and at regional levels). A first exercise of comparison is listed in Annex II : the comparison of total population of UA LUZ with ESPON 1.4.3 FUAs. This already gives an interesting indication concerning the differences in definition which will be very helpful in the interpretation of our results based on UA data."

2.3   Analysis of the availability and quality of data on Western Balkans and Turkey

The part of the WP 1.2 concerning the Candidate Countries (CC) aims to extend the pool of UA data on CC cities as well as to ensure that the relevant data be harmonized with the data on current UA cities. CC are the Western Balkans countries -Albania, Bosnia and Herzegovina, Croatia, FYROM, Serbia, Montenegro and Kosovo- and Turkey. Since the situation in the CC varies considerably from country to country, it was necessary to make an in depth assessment per country using primarily data provided by the Statistical Offices of the CC as well as data from a wide range of other sources.

For the Inception Report, we had to accomplish two different but complementary tasks:
(1) To assess as long as it is worthwhile to include the cities of each of the CC in the FOCI / Urban Audit (UA) sample, (2) To describe the methodology to be used for the selection of cities in the particular conditions of each one of the CC.

The question of inclusion of CC cities in the FOCI / UA sample

Our first attempt here is to check whether the FUA as well as the UA Larger Urban Zone ("LUZ") definitions could be reliably implemented in the CC.

e first had to assess **the conformity of the CC spatial administrative divisions to the EU NUTS / LAU classification criteria**.
Turkey, Croatia and FYROM have already adopted this classification. The rest of the CC are currently in the procedure of adopting it. According to the assessment, in the majority of these last the existing administrative divisions (regions, districts, municipalities etc) could be associated to the EU NUTS, LAU definitions without considerable problems.

Second, we examined the **availability / quality of existing data (for the FOCI / UA needs) at NUTS3 and LAU1,2 levels** in the CC (including data allowing us to make diachronic comparisons).
In the current UA, most of these data are given by the national / local authorities, directly or after specific processing, from *already don*e official national censuses and inventories (population, buildings) or official national surveys. Therefore, we paid particular attention in finding out if there exist in each of the CC, at NUTS3 and LAU1,2 levels, at least a number of "basic" data / indicators -from censuses, inventories and surveys *already done and comparable with those realized in the EU-27 countries.*
According to the assessment we have made, for the majority of categories and countries "basic" data for FOCI/UA exist at the appropriate for the country spatial level: "similar NUTS3" or LAU. In addition: all CC except Turkey and Kosovo are included in CORINE Land Cover and other land based EU programs providing useful environmental data.

 Modalities of selection of the CC cities to be studied by FOCI / UA

The total of urban regions in the CC
The cities of the CC which will be included in the sample will be selected from the *total of the CC Urban regions with population more than 50.000 inhabitants* (very few exceptions from this rule in specific situations will be allowed). According to the assessment we have made, the number of such urban regions exceeds 120.

Two of the CC: Turkey and Croatia, participate in the current UA. Therefore, for these countries, we should complete the sample with some small and medium-sized cities.

Method of selection of cities to be included in the FOCI / UA sample:

1st step: We begun, for each country, from the most suitable work level: in case the required data exist only at NUTS3 level we worked at this level; in case the required data exist at LAU level -usually, the municipality level for most of the CC- we worked at this level.

2nd step: We examined whether each "city" located ins a respective "surrounding" administrative unit (SAU) -NUTS3 or LAU- for which necessary basic data exist could be reliably "represented" by this last.

We used for this purpose two criteria, at first: (α) the *ratio of the population of the "city" to the population of the SAU.* In case this ratio comes close to 1 the approximation of the city to the SAU is satisfactory. (β) The *population density of the SAU*: in case this density is low, indicatively: lower than 150 inhabit. /Km2, the SAU is not "urban", thus it could not "represent" the "city"

3rd step: We examined, in addition, *the shape, the area and the population of the UMZ / Urban Morphological Zones,* located into the SAU. In case there is only one UMZ much bigger -in extent and population- compared to the remainder scattered zones into the SAU, the approximation of the city to the surrounding unit is satisfactory.

According to the assessment, satisfactory NUTS3 / LAU approximations to LUZ can be used in the large majority of the CC urban regions.

Per country analysis

Albania is divided into 12 prefectures, 37 districts (similar to NUTS3) and 351 municipalities (LAU). Tirana, three cities with more than 100.000 inhabitants and one or two cities with less than 100.000 inhabitants could be included in the sample in order the whole national urban system to be well represented.

Bosnia and Herzegovina is divided into three entities: Federation of Bosnia and Herzegovina (FBiH), Republic of Srpska (RS), and Brčko District. FBiH is divided in 10 cantons (similar to NUTS3) and 79 municipalities (LAU); RS has 62 municipalities (LAU). There are 9 urban regions with more than 50.000 inhabitants. Sarajevo, 2 cities with more than 100.000 inhabitants and 2 cities with less than 100.000 inhabitants could be included in the sample.

Five (5) cities of **Croatia** participate in the current UA (4 with more than 100.000 inh. and one with more than 50.000 inhab.). Therefore, we should complete the relevant sample with one or two small and medium-sized cities (with less than 100.000 inhab.).

FYROM is divided in 8 NUTS3 units and 85 municipalities (LAU). Necessary basic data are provided by the 2002 census at municipality level which is therefore appropriate for our work. Around 5 to 6 cities could be selected. Taking into account, among others, the existence of two major ethnic groups, the following cities could be selected: Skopje, Kumanovo -with more than 100.000 inhab.-, Tetovo and Gostivar -with 50.000-100.000 inhab.- and one or 2 other cities with 50.000-100.000 inhab..

Serbia is divided into two parts: Central Serbia and Vojvodina and further into 25 districts (similar to NUTS3) and 157 municipalities (LAU). Necessary basic data are provided by the 2006 official population estimate at municipality level which is therefore appropriate for our work. Around 8 to 10 cities should be selected: Belgrade and Nis, 2 or 3 of the remaining cities with population more than 100.000 inhabitants and 4 or 5 cities with population less than 100.000 inhab.

Montenegro is divided into 21 municipalities. Podgorica and two other cities could be included in the sample.

Kosovo is divided into 7 districts (similar NUTS3) and 30 municipalities. Pristine and 2 or 3 other cities could be included in the sample

Twenty-six (26) cities of *Turkey* participate in the current UA. Therefore, we should complete the relevant sample with some small and medium-sized cities.

Concluding: Taking into account that necessary reliable data at the appropriate NUTS / LAU level exist for all CC except Kosovo, we advice to include cities from all CC except Kosovo in FOCI / UA. The decision for Kosovo is basically political, since missing data could be (even difficultly) provided by respective local authorities. A very detailed working paper on the situation in each country is forthcoming.

2.4   Selection of additional cities in Urban Audit countries

Introduction

In some cases, the selection of cities of the Urban Audit is seen as insufficient as it leaves out some territories just because local cities are below the population size threshold, even though they play an important role for their respective regions. We, therefore, propose to add a few cities to the existing Urban Audit data, in order to « fill » some of the « holes ».

Criteria of selection

We decided to limit the selection to cities whose functional urban area (not only the city itself, so the criteria includes clusters of smaller cities forming a FUA) has at least 50,000 inhabitants in order to only take FUAs which have a true regional impact. As a second criteria we only took those cities which are at least 150km away from the nearest Urban Audit city. Finally, we had to limit the number in order not to make data collection and harmonisation a too heavy task which would take away time and resources from the actual analysis. We, therefore, focused on cities which have a regional importance beyond their own FUA, based on assessments by local experts.

Proposal of cities to add

Iceland: Reykjavik should have been included in the latest UA round, but was not, so it will have to be covered by the project. In addition to Reykjavik (or Capital Region), Akureyri (or Northeast Region) could possibly also be included."
Sweden: Kalmar, Östersund, Luleå, Sundsvall
Finland: Rovaniemi, Kuopio, Vaasa,
Possibly Kajaani as a representative of a "regional engine" (Eskelinen and Fritsch, 2009) in very poor, sparsely populated NUTS3 regions
Norway: Ålesund
Greece: Rhodos, as an example of an island region
In **France**: Brest is within the criteria and is covered as an additional city in the existing UA

Data situation

Generally, common statistical indicators are available, however, many of the more specific Urban Audit indicators might not be as easily accessed. Data seems to fairly easily available at LAU2 level for the Nordic countries. Data availability also seems sufficient for Greece and France. In Iceland, very limited (demographic) data is available at municipality level, but the other regionalised data is only available at Region level, so all depends on the availability of Urban Audit data. In Liechtenstein, data is easily available at very local level.

Chapter 3 : WP 2 State of European cities

3.1   WP 2.1 Typologies of economic profiles

State of the art

In the prospective literature review we will focus on two elements. First of all, we will bring together the vast literature of existing knowledge concerning the notion of city "competitiveness". Available comparative studies of European cities at UE scale provide a few insights on the economic specialisation, and spatial range of the urban economies in Europe (Pumain, Saint-Julien, 1996, Cattan et al., 1999, Rozenblat, Cicille, 2004, Cattan 2007, SPESP, 1999 and previous Espon reports). Second of all, we will focus more thoroughly on the role of cities in global and European economic networks. As far as networks are concerned, the study of "global" flows will become the primary approach to understanding the structure of urban systems. The complexity of these interactions is not only spread out through financial activities (Sassen, 1991, Taylor, 2006). It is mainly deployed through all types of industrial activity. The most important actors in the process that configure these activities in networks are still multinational companies. These networks affect, directly or indirectly, the development of local economic environments (Markusen, 1995; Dicken, Malmberg, 2001; Scott, 2001; Crevoisier, Quinquerez, 2005) and we will extract the most important cause and effect relationships from the literature.
Approaching cities simultaneously as both reticular nodes and developmental spaces has been little attempted in a genuinely integrated manner. This may be due in part—as Hall and Pain (2006) suggest—to the fact that the relevant data, as well as appropriate tools for the treatment of the data, have been lacking. But it also results from the multiple organizational levels that have to be considered in the "structural duality" of urban dynamics (Giddens, 1984). In these dynamics, networks on the one hand transform cities, while cities on the other hand structure networks. Both "sides of the coin" will be dealt with in the literature review.

Methodology

From the several existing approaches for measuring the network participation, we will make hypotheses on 2 dimensions of cities positions: on the one hand, in the dimension of the spatial division of labour; on the other hand, in another independent dimension of the power inside these networks. One is the approach developed by the team of the Globalization and World Cities (GaWC) research network which retraces the interaction potential, but only of advanced producer service firms (Taylor, Hoyler, 2000; Taylor, 2001). We will extend it to all economic sectors. Another approach focuses more on the organisation of power within economic networks (Rozenblat, Pumain, 1993; Alderson and Beckfield, 2004). We will use results of both approaches, which are complementary. The first one focuses on the most connected cities through multinational firms' network spread (in a maximal way): here are measured what we call the "connectivity" of the cities in the spatial division of labour. The second analyses the hierarchical organization of power taking into account the shape and the length of subsidiaries networks. Cities control activities in other cities and at the same time are controlled by others. The relative position of each city in this kind of complex networks will be measured according to qualitative properties as symmetry, triad groups, clusters of cities and equivalent positions in sub-networks or in the total network. Specialized integration of cities into these networks will be underline as well as the diversity.

These approaches will be developed on a database built by Céline Rozenblat about the networks of cities locations of the worldwide largest 4000 companies and their 700 000 branches in the world urban areas. A research agreement was signed in May 2006 with the Bureau van Dijck Paris to allow us access to global networks of subsidiaries 4 000 largest companies in the world by their turnover. The database was completed in spring 2008 and is available for the FOCI project. Data will be updated in 2009/10 in order to have a diachronic database.

Of 4,000 leading global firms admitting reciprocal affiliations, the final sample considered consists of 1,572 firms. The base established, bringing together approximately 700,000 worldwide subsidiaries. Annex III details the information contained for each subsidiary.

The results will be developed in 3 directions.

First, at the inter urban scale, different rankings and typologies of cities will be established according to the hierarchical level inside the cities networks (attractiveness, centrality at the inter-urban level) and the types of networks in which cities are embedded (airflows, networks of the companies, scientific networks).

Second, at the intra urban scale, economic structure of the cities will be synthesized according to the economic specialization of the cities (urban level). In the economic and network indicators, we will be able to distinguish for European cities their specialized integration into globalization and the diversity by economic branches. Taking into account the hierarchical subsidiaries organization, different geographical scales could also be underlined as privileged levels of integration: these levels may not be defined a priori but output as the cohesion measures of the network (Auber et al., 2003; Amiel et al., 2005). Some cities serve as relays of globalization and can be defined as territorial, functional or sectoral relays in the multi-dimensional space of globalization. Some prospective measures will be output according to hypothesis on level of synergy between networks based on sector technology proximity matrices (Duranton, Puga, 2000).

The two levels — intra and inter urban — are totally interlinked, the one inexistent without the other.

	Static (2007)	Prospectives
Cities in the global firm networks by activity sector	– Weight – Relative position – Sector diversity	Different hypothesis on interlinks between networks inside each city
Cities in the power firm networks by activity sector	- Power concentrations and their spatial and economic spread - balanced between in and out links of power	Different hypothesis on interlinks between networks inside each city

Table 2. Proposed Economy and networks indicators

Third, factors of competitiveness related to human and territorial resources (human capital, cultural background…) will also be synthesized by principal component analysis.

All typologies and synthetic indicators described here above will be put in relation with economic performances (evolution of GDP and employment) through multivariate analysis, including performances in relation to regional or national averages.

A survey by Marie-Noëlle Comin about research networks defined by the FRP since 1995 on converging technologies (NBIC) will assess the situation of each European urban area within these cutting edges innovative sectors.

3.2   WP. 2.2 Social cohesion

Overview of the literature and identification of the main driving forces

To identify the driving forces, we will refer to three types of literature: institutional (or official) literature includes the reports and documents treating of social cohesion inside EU; the grey literature includes scientific reports produced for the political bodies with clear political objectives; finally, scientific literature is useful in order not to be restricted to the more or less official political agenda.

Institutional literature includes mainly reports from the DG REGIO of the European Commission and from the OECD: "State of the European cities" and "Reports on economic and social cohesion" are the main sources dealing with the question of social cohesion inside EU; The OECD report on "Competitive Cities in the Global Economy is an important document which synthesizes in a remarkable way the ideological conception of the major international institutions on the role of the cities to sustain competitiveness and the social implications of it.

From the grey literature, we point two important documents: the Musterd-Kesteloot report in the fourth framework program allows identifying some of the main driving forces of social exclusion in the city; Atkinson production, and specifically its report on social indicators of 2004 for the EU, proposes feasible indicators of social cohesion in the EU.

Finally, scientific literature is of course nearly unlimited when it comes to the question of social cohesion in the cities. We identify several major perspectives in the scientific literature (but this is not an exhaustive list) : the relation between economic growth and social cohesion (Sassen ; Hamnett; Wilson; numerous monographic studies); the consequences of socio-demographic evolutions (composition of the household for example) on social cohesion; the impact of the real estate market which is strongly related to the precedent factor through the paradigm of gentrification (Madanipour et al., 1998; Mingione, 1998). On a more political perspective, we would like to point out two important themes: the mode of regulation of the cities (Urban regimes) is a major aspect, the entrepreneurial being the dominant paradigm (Van Criekingen and Decroly, Harvey, Swyngedouw, Moelaert,….); the question of place-based politics is also a central issue, related to the existence or not of neighbourhood effect in the social exclusion process and to the question of social mix (Murie and Musterd, 2004).

From the literature, it certainly appears that social cohesion is a multidimensional concept. However, the literature allows identifying some of the major driving forces behind social cohesion:
- socio-demographic, especially through the composition of households (single mothers…) and immigration;
- economic, through the types (in terms of qualification) of jobs which are created in the recent periods;
- spatial, especially the impact of neighbourhood effect and social mix on the market insertion of the unqualified population;
- real estate market, including the question of social housing;
- political: Providence-state, Urban regimes, place-based politics, social housing.

Hypotheses and methodologies

Our analysis will focus on one major aspect of social cohesion in the city. We can observe that social problems are particularly acute in cities, particularly in the biggest ones, where we find at the same time very educated wealthy people employed in the most globalized sectors of the economy and lowly qualified people, including foreigners, weakened by recent economic evolutions towards globalization and knowledge-based economy (e.g. Marcuse

and van Kempen, 2000; Moelaert et al., 2003; Kazepov, 2004). In this context, our objective is not only to evaluate average social indicators at the urban scale, but also to estimate internal inequalities between social categories and between districts. In this perspective, **our main objective is to test the hypothesis that the new forms of growth in the globalized and knowledge-based economy**, **social cohesion is more and more decoupled from economic performances**, or even more, **that economic growth produces growing social inequalities (Sassen, 1998**; **Hamnett, 1996)**. Analysis of social and territorial cohesion will be then carried out in two perspectives. First, we will try to synthesize social cohesion indicators in its different dimensions using indicators related to labour market, incomes inequalities and housing. In addition, we will explore the possibility of producing synthetic indicator of the quality of services to the population. Second, we will evaluate the relation between economic and social performances. This will be achieved by regression of synthetic social indicators on economic performances for all urban zones for which data are available.

Other policy relevant aspects will be studied mainly, but not only, through literature and existing studies. In this perspective, we would like to focus on the questions of policies on social inclusion (or against social exclusion), and particularly the evaluation of place-based and social mix policies. The study of districts inequalities is particularly important in this context since they could reinforce mechanisms of social inequalities and social exclusion (neighbourhood effect).

Data issue

As far as social and territorial cohesion are concerned, it is first necessary to precise two different types of social indicators: the first refers to social cohesion as a basis of competitivity; the second refers to social cohesion itself. In this WP, we will only consider the second.

Another important aspect concerning data on social cohesion is the question of scale. We distinguish three types of indicators according to scale: average indicator of social cohesion at the urban level; social inequality at the urban level, which is also an indicator for the whole city but which highlights the differences between social groups; average indicator for the different parts of the city (centre/periphery; districts). If we take life expectancy as an example, the three types of indicators are the following: average life expectancy in the urban zone; life expectancy by graduation level (or profession) for the whole urban zone; life expectancy by district. In practice, the second type of indicators is the least available: the only global available indicator of social inequalities is the income distribution (Gini coefficient for example). This constitutes probably the main weakness of the Urban audit in terms of indicators of social cohesion.

The table in annex IV gives the available indicators of social cohesion in the actual urban audit at the district and urban zone level.

3.3   WP. 2.2bis Demography

This work package was added to the structure in the original proposal as demographic evolutions were deemed important enough to justify an approach of their on.

- **Overview of the literature and identification of the main driving forces**

Demographic trends are well documented in the institutional literature: the state of the cities and cohesion reports give a relatively clear idea of demographic trends in the European cities and regions. In this literature, the accent is put on global trends for the

European cities: the ageing process, immigration processes, evolutions of the household compositions and declining fertility are the most common themes.

This official literature treats in a more marginal way major trends of the internal evolutions of the cities. On this aspect of intra-urban dynamics, a huge scientific literature is structured around two major concepts, strongly related to the social and territorial cohesion: suburbanisation (Harvey, 1990; Donzelot, 2004) and gentrification (e.g. Smith, 2000; Lees et al., 2007; Van Criekingen, 2008).

Demographic aspects will not be studied in detail in the framework of this study. Indeed, demographic evolutions in the cities are generally well documented and understood. In the same time, on most of the demographic aspects, policies have little impact: fertility, household's composition, age structure or life expectancy have long term structural evolutions. Even, migratory policies have a moderate impact on migratory flows which concentrate in the major cities. This is why the demographic trends will mainly be tackled as driving forces for the main themes of the project: competitivity, social cohesion, environmental aspects.

- **Hypotheses and methodologies**

From the literature, we can draw that demographic trends have an impact on the different fields of urban evolutions we are dealing with. Several hypotheses can be explored concerning theses impacts:
  – The competitivity is very much dependent on dependency ratio and activity rates (see Cohesion report or State of the cities);
  – social cohesion depends among others on three interrelated major demographic evolutions: the concentration of poor immigrants in the big cities where they generally occupy the low qualified segments of production (Sassen, 2001; van Kempen, 1994; Cox and Watt, 2002), the evolution of the household composition (state of the cities, 2006; Van Criekingen, 2008) and the gentrification process (e.g. Smith, 2000; Lees et al., 2007);
  – as far as sustainable development is concerned, demographic trends are of major importance: the population growth, the household (de)composition and the suburbanization process are factors producing urban sprawl.

First, we will briefly make an overview of the global demographic trends of the European cities since the beginning of the nineties. Internal differences will not be examined in detail, except by the distinction between central city and peripheries.
Second, we intend to test above hypotheses. A systematic evaluation of the relationship between demographic trends and the three mentioned aspects will be tackled in this WP by the way of simple and multiple regression analysis.

- **Data**

In the Urban Audit, demographic data are available for numerous indicators since the beginning of the nineties. The table in Annex V puts in relation the main demographic indicators with the main themes we are dealing with in this project.

All indicators will be mainly analyzed in dynamic perspective from the beginning of the 90's to the mid 2000's for all cities for which we have data for the whole period covered by the Urban Audit. For nearly 150 urban zones, basic demographic indicators are available for the whole period. From the 1999-2002 period, nearly all of the 350 urban zones are considered for at least the basic demographic indicators.

3.4   WP 2.3 Environment ("sustainability")

- **Literature review**

Urban systems emerge as distinct entities from the complex interactions among social, economic and cultural attributes, and information, energy and material stocks and flows that operate on different temporal and spatial scales. Such complexity poses a challenge to identify the causes of urban environmental problems and how to address them without causing greater deterioration.

Drivers of unsustainable process have very often been approached by expert knowledge, resulting in conceptual models that fit to fragmented data but lack the appropriate testing of the complete hypothesis (Zellner et al., 2008). Modelling tools have partly overcome these problems providing a more integrated approach (Pijanowski, 2002; Zellner et al., 2008). From the comprehensive reviews on drivers (Johnson, 2001; EEA and JRC, 2006), the following clustering of factors emerge considering the scale and similarity in the way they act (EEA and JRC, 2006): macro-economic factors, micro-economic factors, demographic factors, housing preferences, inner city problems, transportation, and regulatory frameworks.

Beyond the environmental impact in the city (Ambiente Italia, 2003), there is a challenge to correctly identify the extent and intensity of unsustainable process in the outskirts and hinterland of urban areas in other to have a full understanding of the problem, and to identify the appropriate levels of governance to manage this threat (EEA and JRC, 2006).

The extended literature review will focus on:

1. Emerging patterns of urban sprawl in the past;
2. The impact of changing economies: focus on new member states;
3. Identification of priority issues that need better knowledge (where we are weaker);
4. Existing concepts and indicators for sustainability;
5. What the emerging technologies can tell us.

- **Data needs, data availability and data quality**

The analysis will be based on the following data:

- Urban Audit (focus on energy, transport and environment indicators) already available. The critical point is the completeness of the data among the cities. For air quality the data can be complemented with AirBase database...Energy information is a more critical one since it is very difficult to find additional information sources apart of UA. If the available data is below the 60% of the cities, then the analysis will be done selecting cities that have certain representativity (dynamics, geographic coverage, size) or identifying extreme case in order to avoid biassed results.
- Land cover data. For the European context **CLC** will be used (available for 1990, 2000 and 2006 coming on September of 2009); for regional assessment **Urban Atlas** which has a higher resolution will be considered (some cities will start to be available in 2009 and only one time shot will be available). If the availability of Urban Atlas is not complete during the project, CLC will be used as a proxy. The test performed on available Urban Audit data will be useful, at least, to define the methodology that can be later on extended to the complete database.

- **Working hypotheses and methodologies**

Urban sprawl is an unsustainable process happening in most of the European cities which requires different levels of governance to be halted.

- Literature review to have a time line of 50 years of the urban dynamics in Europe – urban sprawl and shrinking. Identification of the political and economic context (macro) to provide storylines to scenarios. Kasanko et al. (2006) already provide a

good overview within this time frame based on the MOLAND project.

- Assessing the impact of policy/economic changes. Land cover changes will be analysed in the cities of the new member states with CLC with the time frame of 1990 (partial), 2000, 2006. This will indicate which changes (dense/low density urban areas, commercial, reuse of built up land), its intensity and when it happened. Existing literature will be used as a supporting material (van Kempen et al., 2005; EEA and JRC, 2006; Couch et al., 2008). CLC is the data base that currently provides the wider geographic coverage in 15 years frame (1990 to 2006). However, given its resolution it poses the question about the validity of the results. A specific test will be done to check the sensitivity, thresholds and level of significance of CLC compared with the higher resolution of Urban Atlas in selected cities representing different degree of changes. This will provide an estimation of the accuracy of the results.
- Sustainability. Development of the indicator land take per capita. A similar indicator was developed in ESPON project 2.4.1 taking into account NUTS 3 regions. CLC will provide land cover changes within a certain time frame (1990-2000 not for all cities, 2000-2006 for all cities), these changes will be related to changes in population. A sustainable system will be that one that optimises the land taken (urbanised) per capita –or it keeps stable. The same issue on resolution of CLC described in the previous bullet applies here.
- Drivers. Meta-analysis on extensive literature review. Part of the literature review will provide a clear overview on the current evidence of degree of influence of different driving factors and its environmental impacts. Identified driving factors will be ordered in a hierarchical structure according to scale of impact and degree.

Compact cities facilitate public transport, reduce emissions and the quality of the air.
- Cities will be grouped by its degree of compacity. Compacity will be defined by a combination of population density and land cover trends in the past 10 years (degree of growth).
- ANOVA will be performed on energy use, share of modal transport and air quality variables to identify to what extent the hypothesis is correct or to what degree other factors are also relevant. The linearity of the interaction between compacity and efficiency on energy use will also be checked. The main constrain may be data availability on energy, as explained before. In that case the analysis will be performed in selected cities.

Urban sprawl has an influence on the hinterland
It will be tested how far the urban dynamics have an impact on the land, beyond the city boundaries.
- 1 km buffers will be delineated around the cities (taking Urban Audit delineations as a basis).
- Land cover changes will be analysed within each buffer area for the existing periods in CLC (1990, 2000, 2006). Land cover changes profiles will be developed for each city and anlysed by compering the corresponding distributions.
- Cluster analysis will be performed to identify cities with similar trends. Later on discriminant analysis will identify the most relevant parameters of the city (compacity, population density,..) that relates to the impact of the city to the hinterland.

3.5   WP 2.4. Accessibility developments

- **Overview of the literature which will be consulted for and of the main questions researched in the literature review**

Accessibility, or the possibility to reach places, is widely recognised as a key issue in urban development. Accessibility and the development of transport systems is seen as a factor

favouring or supporting or even causing urban development be it locally in the neighbourhood of entry points and globally concerning the entire urban entity. In the domains of spatial planning accessibility is utilised in three types of analysis:

Transport and economic development: accessibility, seen as a synthetic measure of the production of the transport system, is often linked to economic development of cities (cf. ESPON report 1.2.1 chapter 4.1.2, ESPON report 2.2.1, Yamaguchi 2006), despite fundamental and recurring criticism over the mechanical role assigned to transport in favouring economic development (Offner, 1993).

Long-distance transport and metropolitanization: secondly, in a different view, accessibility is seen by some authors as simply the possibility to reach places, referring in the broad sense to the potential for interaction and more recently as supporting a key character of the metropolis, the faculty to communicate with other equivalent urban entities at the global scale (Rozenblat, 2003, cf. Urban Audit 2008).

Transport and polycentrism: thirdly, when considering the polycentric option, the existence and development of distinct centres can not be envisaged without efficient communication and transport between those centres; this is another way to use accessibility indicators (cf. ESPON report 1.2.1 chapter 3.3, L'Hostis 2006).

- **Review of data situation: Needs, Availability, Quality, Accessibility, including ESPON data**

Accessibility measures can be found in all territorial and urban databases: GISCO, Urban Audit, ESPON database all include accessibility measures
   - Urban Audit:
     o   modal and multimodal accessibility normalised indicator (2004)
   - ESPON:
     o   modal and multimodal accessibility normalised indicator (2007)
This accessibility indicator was produced in the 1.2.1 project of the ESPON in 2005 and was updated at the occasion of a specific project. Accessibility is measured through an impedance function based on travel times by modes and an a weight function based on populations to be reached.

These indicators are considered as basic in the ESPON community because they provide a comparable measure for all NUTS areas and /or urban settlements and refer directly to the idea of a potential for interaction, seen as a necessary condition for urban development.
Several critics have been established on these indicators. Among them the idea that they provide a global measure that do not indicated which particular relations are made more easy by the transport systems. In response to this critic an alternative type of indicators has been demonstrated in the 1.2.1 report with analysis of the couples of relations between MEGAs around the possibility to realise return trips. Another critic is the use of the ESPON space itself as a reference in the computation of these indicators, with no reference to external large cities or global development foyers.

- **Detailed description of working hypotheses and methodologies for the analyses, including possible difficulties and solutions (or unsolvable issues)**

The work to be performed in this project will be organised around a series of three hypotheses linking transport and urban development, followed by a series of more specific investigations regarding organisation (low-cost) or modal (high-speed rail and air, intermodality) trends that affect the transport sector and that have territorial implications.
Under the hypothesis that transport is a factor of economic development, the method of analysis consists in a crossing of measure of urban GDP and measures of accessibility. The severe limitation of this kind of analysis, beyond the theoretical issue of lack of causal link

between the two factors, lies in the difficulty to build relevant measures of urban or local GDP, an indicator which has a strong national basis.

Under the hypothesis that metropolitanization is supported by a certain level of accessibility, a series of measures of accessibility have been developed. A correct approach of metropolitanization, seen as the urban counterpart of globalisation, would require a global analysis; in this respect we will have to develop accessibility indicators at the global scale and not limited to the ESPON space. Cities global accessibility will consider in priority the contribution of the air mode.

The third hypothesis states that polycentrism can only be made possible if exchanges are possible between centres and between centres and their hinterlands (see WP4),. The method of analysis here lies on a series of measures of the level of accessibility between pairs of cities. A major objective will, therefore, be to identify those links that already permit the development of cooperation between cities and those links that lack the minimum service provision to support polycentric development. Polycentric patterns can be identified through the study of networks and flows, and can be supported through the development of transport corridors between urban centres.

In complement to the three main issues developed before, the indicators developed in our project will focus on some recent trends in the transport sectors that are of major importance to the development of communications and cities in Europe: high-speed rail and air interaction and the development of low cost airlines.

Most of the recent and dramatic development of the air mode in Europe has to be credited to the rise of the low-cost airline model. Recent literature shows that the low cost airline model seems to benefit to medium or small size airports serving intermediate cities. This hypothesis will be investigated through the analysis of the contribution of the low-cost airlines to the present accessibility of cities.

The analysis of transport services across Europe will give much importance to the interplay between the air as the privileged long distance mean to link cities and high-speed rail for connecting close urban areas. This analysis will consider transport modes alone and the juxtaposition of transport modes (multimodality and intermodality i.e. high-speed train plus plane in a single trip).

New accessibility indicators will require new data sets especially regarding time-tables of air and rail all across Europe, and air relations to the world. Depending on the typology of links (local, proximity inter-city, long distance) specific accessibility indicators will be built around the possibility of return trips on specific time frames (half-day, one day, two days). Indicators of the number of other cities reachable in a fixed amount of time, or the GDP or population accessible in a fixed amount of time will also be mobilised, taken from existing databases (ESPON) and confronted to measures based on time-tables. These indicators, completed with other indicators already developed in previous ESPON projects (especially the project 1.2.1), will assess the speed and the capacity of transport systems and the spatial extent given to the openness of European urban centres.

Concerning WP3 on cities-hinterland relations the previous ESPON study on urban-rural relations (1.1.2) used accessibility measured as connectivity to transport terminals crossed with urban-rural typology; we will examine the opportunity to develop local accessibility indicators to deepen the analysis.

3.6   WP 2.5 Multi-criteria analysis and urban trajectories

We will provide fairly simple multicriteria analyses building additive indicators combining several factors (economic, environmental, cohesion) with varying weights for each factor.

In addition, a full methodology of multi-criteria analysis of urban data and the trajectories of urban entities is given in the literature that we have produced during the last ten years (Paulus et al., 2000, Paulus, 2004, Bretagnolle et al., 2000, Pumain 2006).

The objective is to explore how the hierarchies of cities change when policy objectives change and to characterise groups of cities which seem to follow similar development paths. Thus we can feed into the scenarios by assessing probabilities of future trajectories in the European urban system, relying on collected data, a few scenarios (on demography, immigration policies and major economic trends) and our experience in simulation (from Eurosim and SIMPOP2 models, see http://www.simpop.parisgeo.cnrs.fr/).

Chapter 4 : WP 3. CITIES AND THEIR HINTERLAND

4.1   Analysis will be focused on large cities, so cities with broad regional hinterland i.e. metropolitan macroregions

The part of study will mainly focus on the largest cities owing to the fact that they play the role of key development centers in contemporary informational economy. This is because metropolises concentrate the management and leadership functions in the global economy as seats of multinational corporations and companies providing advanced producer services on the global scale (Castells 1998; Friedmann 1986; Sassen 1991; Taylor 2007; Hall, Pain 2007). Important aspect of such metropolisation process, not so well researched so far, refers to the changed relationships between big metropolises and their regional surroundings (hinterland). The planned research intends mainly to describe the current situation and changes in the linkages between metropolis (functional urban area) and outward regional surrounding (the macroregion) vis-à-vis other types of relations. The analyse will be focused on different aspects of such relationships (Table 1 in Annex).

The further review of literature will be focused on empirical research related to internationalisation of economic activity, changes in migration and commuting patterns, polarisation processes within the metropolitan regions, regional and metropolitan governance structures and changes in land use pattern (including urban sprawl).

4.2   Core hypothesis is that ties between metropolis and its regional hinterland are becoming relatively weaker

Our main hypothesis is that relationships between the metropolis and the rest of its macroregion are becoming relatively weaker. This hypothesis is supported by some empirical studies based on selected case studies conducted both in Europe (eg. Simmie, Wood 2002; Smętkowski, Gorzelak 2008) and the USA (eg. Esparza, Kremenec 1994). Nevertheless, some differences between these cases might be observed depending on city size and its function as well as economic potential of regional hinterland. This calls for further comprehensive and dynamic research focused on different types of regions.

4.3   Typology of differences between metropolis and its region will be based on basic indicators

The exploration of metropolis-region relations at the European level is very limited by lack of relevant detailed indicators on flows that constitute city-region ties (see also ESPON 1.4.4; 2007). Therefore in the first stage of analysis the typology will be based on basic indicators, but comparable in long-term. In the next stage this exercise will be expanded by examination of difference between distinguished types of regions in light of other available data.

In details the following procedure will be applied to the whole ESPON space:

- Metropolitan areas (metropolises) approximated by NUTS3 will be selected on the basis of LUZ (based on DG Regio approximations).
- Metropolitan regions for such metropolises will be delineated using surrounding NUTS 2 or NUTS 3 combination approximations, depending on the local NUTS delimitations and the settlement pattern (see also ESPON 1.4.3, 2006).
- Indicators on population size and GDP per capita will be used to provide a typology of relations between metropolis and region reflecting current differences in population density and level of development and its change over time (Figure 1 in Annex).

Such approximations especially concerning metropolitan macro-regions delineation is obviously a large simplification as a result of using NUTS 3 units as building blocks. Among

the weakness of this approach the following might be indicated: significant differences between adjusted metropolitan macroregions depending on statistical divisions in individual countries, neglecting of functional ties between territories, necessity of raw estimations in case of densely populated area with polycentric settlement pattern. Unfortunately, other possible solutions based on NUTS 5 are affected by insufficient availability of socio-economic data at this level. Furthermore, in order to obtain long-term data series NUTS 3 delimitation from 2003 instead on new NUTS 2006 will probably have to be used.

In the next stage the analysis will be enhanced by including other aspect of relations between the metropolis and its region. The list of possible indicators (whenever possible the existing EUROSTAT data will either be supplemented or updated with information which is available in the national statistics systems), that will be the subject of ANOVA analysis for selected types of city-regions, is the following:
- settlement pattern (urbanization rate, primacy rate),
- population (natural change, migration),
- economic structure (GVA, employment, productivity),
- labour market (employment, unemployment rates),
- enterprises sector (investment outlays, natural persons conducting economic activity),
- innovativeness (R&D expenditures and employment),
- human resources (educational attainment, number of students),
- technical infrastructure (road and railways, water-lines and sewage systems),
- attractiveness (accommodated tourists).

Such exploration should allow to formulate more detailed hypothesises how the city and hinterland influence each other and which type of cities pulling their regional surrounding forward. These will be examined in details on the basis of selected case studies.

4.4   City-regions relations are very complex and strongly depend on regional context

In general city-region relations are very complex (Figure 2 in Annex; SPESP 2000, ESPON 1.1.2; 2004) and strongly depend on regional context. For this reason, it is planned to carry out at least five case studies which will be identified on the basis of the analyses of available statistics.

The planned case studies should help to provide answers to the following questions:
- What factors determine the strength of various linkages between the metropolis and the region and how does this affect the competitiveness of these territorial systems?
- What is the extent of metropolitan spread effect and what affects it? What is the degree of backwashing development resources from the region into the metropolis and how does it affect the coherence of the city's macroregion?
- What measures should be adopted to reinforce the positive effects and to counteract the negative effects of metropolisation processes, while taking into account the development of transport infrastructure, human resources, accessibility of public services and land use policy?
- Which forms of governance enhance or impede on city-hinterland linkages?

With these questions in mind on the one hand questionnaire surveys of representative samples of enterprises focused on organisational structure, supply and sales market, location factors and level of innovativeness will be conducted. On the other hand in-depth interviews with representatives of public authorities at the regional and local levels, business organisations and other relevant institutions focused on impact of transport accessibility, spatial behaviours of inhabitants, change in land use patterns will be carried-out. Such case studies allow also collecting additional detailed data on NUTS5 level on location of economic activity, commuting, transport networks and changing in land use pattern.

Chapter 5 : WP 4 Opportunities through "polycentric" cooperation

5.1   Overview of the literature which will be consulted for and of the main questions researched in the literature review

The literature review will focus on the following questions:
- Analysis of the hypotheses on polycentricity for different polycentric regions in the polycentricity discourse, theoretic definition of typologies and indicators needed for analysing polycentric structures
- Current policy concerning polycentric cooperation and prospective analysis of future of inter-city cooperation and new governance forms.
Often to a large extent, it is not easy to define polycentricity policies according to the conclusions of the polycentricity analyses as both (analyses and policies) are to a large extend dependent on the scale / territorial level, the functional content as well as the morphology of different polycentric / monocentric spatial patterns and the overall economic and social context in which they are embedded. A recent widespread literature (in ESPON and outside) has examined in many ways contradictions of polycentrism policies which are restrained to the support of more morphological polycentricity.
Most of these critical reviews as well as literature focused on the **analytical aspect** of polycentricity tried to examine which indicators, criteria and types of analyses give a better picture not only of the hierarchies but also of the networking (of activities and of cities) at different territorial scales (see, indicatively in: Hall & Pain 2006, Halbert et al 2008). In this framework, the issue of **service provision** in "polycentric" entities at different spatial scales / levels is very important.
Also, further deepening is needed through the literature review on the issue of **territorial governance / cooperation** in relation to the polycentric urban systems policies. We will emphasise on the prospective analysis of the future of this cooperation /governance (see indicatively, in: Hall - Pfeiffer 2000).
Main deliverable of this literature analysis exercise will be systematic conclusions concerning "sets of driving forces - trends" operating over the entire ESPON space **polycentricity contexts, scales and patterns**, in order to help ourselves in defining data needs, in outlining hypothesis, in selecting the appropriate case studies and defining the research methodology for the selected case studies and support the elaboration of scenarios.

5.2   Review of data situation: Needs, Availability, Quality, Accessibility, including ESPON data

In this WP we need three groups of datasets:

City characterisation: UA and selected ESPON 2006 projects data on the distribution of indicators such as population, economic command, services etc, useful for the characterisation of cities.
Network data: data on firm networks, transport / accessibility, links / flows among urban nodes. Most of this data will come from WP2 while others will be produced in the framework of WP4.
Indicators resulting of specific analyses: those concerning territorial cooperation at different levels. A first sub-group of these data / indicators will be collected directly from the relevant documents while for the rest specific process / analyses are needed.

A reorganization of the data is needed according to the shape / limits of the polycentric entities that are wider than the LUZs. In the framework of this WP "polycentric entities" or

"Potential mega-city regions" or "enlarging city-regions" could be defined as networks of urban nodes with reinforcing linkages of economic, cultural and social functions.

Possible difficulties and solutions (or unsolvable issues):
For the parts of "polycentric entities" (wider metropolitan regions, MEGA-CITY REGIONSs etc) situated beyond the limits of LUZs there are only data at NUTS2/NUTS3 levels (mainly) as well as (for a few data/indicators) at FUA (aggregate of LAU units) level; therefore we can not use a great number of UA datasets (as they are) at the level of these entities.
We will proceed as following:
(i) We will collect additional data for a number of basic indicators of UA for the parts of "polycentric entities" outside the LUZs at NUTS3 level.
(ii) The relevant analyses for which necessary data will still be missing will be conducted only in case studies.

5.3   Detailed description of working hypotheses and methodologies for the analyses, including possible difficulties and solutions (or unsolvable issues)

Major hypotheses / questions: Although polycentricity has been agreed upon as a major policy goal within European territorial policies, we still lack sufficient evidence about the actual "reality" of polycentricity. Polycentricity-oriented policies and policy discourses thus often appear more as "wishful thinking" (Vandermotten et al, 2008) which do not reflect the actual relationships on the ground.
The Basic aim of this WP is to analyse the actual "reality" of polycentric / network relations between cities in order to allow policies to stick close to this reality. Obviously, data, but also conceptual limitations will only allow a limited view of this "reality", but the project will hopefully be an important step in that direction.

We will use a combination of quantitative and qualitative analyses. In both of these analyses we will focus on the regional scale approached according to the realities of urban networking in the different contexts of the European (ESPON) space, with insights into the internal networking of polycentric entities (at metropolitan level, intra – regional level etc).

The quantitative part will focus mostly on the analysis of redundancy in networks between cities. For each type of connection (transport, economic, research and political cooperation), we will create a city-by-city matrix indicating the level of connection in a standardised way. This will allow us to compare the "real" networks (identified in collaboration with WP2) with the "desired" networks (political cooperation). This will allow identifying actual and potential cooperation among networking centres. Also, existing politico-administrative cooperation networks with focus on "polycentric" cooperation through cities will be analysed.

The qualitative part, in the form of *case studies will address* several groups of cases: existing and strong polycentric structures, potential polycentric structures, polycentric structures in regions with low or declining population densities. For each one we will elaborate a homogeneous research methodology which will integrate the most relevant questions for the respective type of (potential) polycentric network. A major question will be the qualitative issues such as governance, regional identity, etc. A second issue that can only be dealt with via the case studies concerns the services provided to the enterprises and to the population by the different cities in a network, for which statistical data is not available at a European level. Third will be the evaluation of concordance between morphological, political and functional polycentricity. Wherever available we will complement the qualitative, expert-based, analysis of the case studies with local quantitative data.

Chapter 6: WP5 Scenarios and Policy Options

The work package has the major role of interfacing the scientific work in the other work packages with policy making. The WP5 scenarios and visions deliver valuable information for the structuring of WP 2 to 4, and it is essential that WP 2 to 4 can be used as a "knowledge base" for the FOCI scenarios. The focus here is upon the workflow of WP5 with a focus on the requirements for other partners, in order to assist all team members to gain a clear idea of the ways in which they can best support the scenarios, as well as the timescales in which inputs are required. In this way the criticalities of interconnections between WPs and deliverables and timescales may be defined.

6.1   Review of existing territorial scenarios relevant for cities

Future-oriented territorial issues relevant for cities can be partly derived from already existing scenarios, such as integrated territorial scenarios or more thematic-oriented scenarios. This WP will review existing territorial scenarios relevant for cities, comprising integrated territorial scenarios (ESPON 3.2., Austrian, Swiss, Dutch scenarios) and more thematic-oriented scenarios (economy/technology, energy, demography, mobility). In addition it is essential that WP 2 to 4 deliver substantial information on situations and evolutions in the various geographical contexts (city types; macro-regions) in relation to the above-mentioned, future-oriented issues. Scenarios will therefore have to be territorialised, i.e. reflecting the diversity of types of cities and city contexts. Territorial typologies have to be elaborated for this purpose (existing typologies like that of Urban Audit can be considered in this respect). All scenarios will be studied for the information they provide concerning futures challenges and opportunities for European cities, but also for the evaluation of the scenario techniques used.

Annex VI provides first results of such an analysis in the form of a first list of relevant drivers in different thematic fields. Each thematic WP will elaborate upon this first list through a literature review on their thematic field as a whole, paying particular attention to
  - driving forces
  - processes
  - dynamic aspects
  - geographical specificities
  - existing policies and their impacts.

6.2   Synthesis of main trends and driving forces relevant for the future development of European cities

The information collected in WP 5.1 will then be summarized and classified according to the following structure:
  - Thematic evolutions
  - Territorial evolutions (general + territorially differentiated)
  - Possible wild cards
  - Potential policy impacts for various policies

The hypotheses to be proposed for the scenarios will permit the elaboration of different types of scenarios, with specific attention on exploratory scenarios.

6.3   Elaboration of simple scenarios

This WP will concentrate on the elaboration of simple scenarios (exploratory, qualitative and relatively general, pushing to the extremes certain drivers to see possible impacts. A stakeholder meeting will be organized in Brussels to validate the synthesis of trends and driving forces and to discuss relevant hypotheses and scenarios. The final choice of scenarios will be made by the project team in cooperation with the ESPON bodies. The main objective should be to investigate which can be the impacts on cities and settlement systems of a number of drivers (traditional and emerging), acting in isolation or in combination.
As a first step, we will elaborate a proposition concerning the types and forms of scenarios (roll-forward, roll-backward, external or internal to the urban policy system, etc). This proposal will be submitted to the ESPON CU for approval.

6.4   Policy options

This WP will produce policy options out of the scenarios, but taking also into account the typologies of cities (WP 2 to 4), geographical macro-regions, as well as EU policy orientations. The main purpose regarding the policy options is the elaboration of proposals for the guidelines on Structural Policies for the period after 2013 and for the possible updating of the Leipzig Urban Charter and of the Territorial Agenda. To this end, the outcomes of scenarios should be confronted to existing policy documents (Cohesion Report, Guidelines for the 2006-2013 period). Recommendations will be elaborated regarding the necessary adaptation and improvement of existing policy options to ensure that future policies (especially EU policies) will meet the problems, challenges and issues of cities and settlement systems in the coming decade.

• **Provisional time plan of the scenario elaboration process**

November 2008: Guidelines (1 page) for all the other teams on how to best support the scenario elaboration process and what to look out for in the literature review.

December 2008: Final list of relevant elements from WP5.1, comprising:
- relevant drivers to analyse - empirically or in the literature review
- relevant policies to study
- possible break points in trends to identify

February 2009: Results of literature review from partners to WP5

April 2009: Interim report with:
- draft synthesis of main driving forces and trends
- proposal of scenario techniques
- first proposal concerning hypotheses

June 2009: Stakeholder meeting + discussion at ESPON seminar

Autumn 2009: First drafts of scenarios, possibly submitted to discussion at ESPON seminar

April 2010: Final drafts of scenarios, integrating results of analyses of other Wps

Chapter 7 : Overview of time plan, detailed deliveries and outputs envisaged by the project

The work programme between now and the interim report of April 2009 is as follows:

- Dec 1: Project database should be ready
- Dec. 10-11: ESPON seminar
- Feb 28: working papers with results of literature review to IGEAT / scenario team
- mid-March: Team meeting
- April 10: Working papers that will make up the annexes of the report to IGEAT
- April 17: Short chapter contributions for the report to IGEAT
- April 24: Final draft of interim report to all for comment
- April 29: deadline for comments
- April 30: interim report to ESPON CU

Annex VI gives a detailed overview of expected outcomes by work package and by report. In general, the idea is to structure outcomes into stand-alone working papers (ideally publishable as such as scientific articles). These working papers will then by summarised in the main body of the reports. All working papers will be made publicly available on the FOCI website: http://geog-pc40.ulb.ac.be:8081/foci.