



## The ESPON 2013 Programme

# FOCI Future Orientations for Cities Applied Research Project 2013/1/1

Draft final Report

Executive Summary

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## Introduction to the project

This is the second version of the draft final report of the project. We now think that we have a coherent structure allowing to distinguish the general work based on the literature, the very specific empirical contributions and the foresight work in the form of scenarios.

From the outset, the project has had two, complementary, but not always easily reconcilable orientations: it is supposed to provide a broad overview of the current and future issues relevant to urban development in all of Europe. At the same time, our desire was to advance scientifically beyond the established and well-known data and analyses and provide innovative research. However, the latter, although providing new and interesting insights, generally does not have the temporal, and sometimes not even the spatial, breadth necessary for a general policy-oriented review of the state of affairs. As this report was elaborated in parallel to the new State of European Cities report to be published by DG Regio, we also aimed at complementarity with that report, not wanting to repeat the same analyses based on the same data.

In this project, we, therefore, worked in three parallel strands. First, all teams went through the current literature to extract the knowledge about trends, perspectives and, most importantly, driving forces for urban development in their thematic fields. Second, each of the teams focused on one or two innovative empirical research questions, generally tapping new data sources. Finally, our scenario team has taken the work of the other teams, and substantially augmented it through additional literature review, aiming at covering an even larger horizon and to provide a complete knowledge base on urban development, necessary for integrated prospective thinking. On this basis the scenarios were developed. The structure of the main report reflects these three strands, adding a fourth, new strand, which consists in an assessment of the current national policy visions on urban issues across Europe. Details of all the literature reviews and analyses are presented in the scientific report.

We use this executive summary to focus on a selection of key policy messages that have crystallized out of our empirical work and the review of the literature. These key messages come from diverse analyses across the different challenges identified in the main report. This summary is, therefore, not a shorter version of the main report, but rather a policy-oriented selection of what we rate as important findings relevant for current policy debates. Whenever possible, we present for each of these findings one key table or map supporting the affirmation, but we also include the results of the extensive literature reviews.

At the end of this summary, we briefly present the two scenarios which allow to explore the fate of Europe's cities in two possible evolutions of the macro-economic and political context of Europe and the world. These scenarios should allow to derive policy options that can feed into the current debates about the regional (and urban) dimension of the Europe 2020 strategy, the further implementation of the Territorial Agenda, and the more practical debate about the types of urban policies that could be included in the future structural funds programmes.

## Cities and economic performance

### *Metropolitanisation seems to have slowed down in Western, but not in Eastern Europe in the 2000s.*

#### **Key table: Differences between economic growth of the main European national cities and European or national average, 1995-2006**

		1995-2006	1995-2001	2001-2006
Difference with international average	EU27+2	0.7	1.0	0.4
	NMS	2.1	2.4	1.8
	EU15+2	0.6	0.9	0.3
Difference with national averages*	EU27+2	0.9	1.2	0.6
	NMS	1.9	2.0	1.8
	EU15+2	0.5	0.8	0.1

**Explanation of key table:** The table shows the average differences between the economic growth of the largest European national cities and the European or respective national average growth during the time period 1995-2006. The results clearly show that bigger cities have performed better than average since 1995. This highlights in general a process of concentration of wealth in the biggest cities, mainly the first national cities and especially in Eastern Europe. However this metropolitanization is mainly to be observed during the nineties and is slowing down in the years 2000, at least in Western Europe.

### *The economic growth of cities is embedded in contexts of national regulation and growth and although some room of manoeuvre exists for cities, national / regional policies play an important role in determining their economic paths*

According to the literature, the most promising general factors of competitiveness that cities can influence (except possibly for those that are also NUTS1 or 2 regions with higher levels of competencies) seem to be implementation capability and quality of life (including internal mobility), followed by connectivity / accessibility and the creation or mediation of a common strategy including many different actors. See the section "Cities as focal points of economic growth" in the main report for more details. However, it also seems quite obvious from many studies that the economic development of cities is deeply embedded in national economic regulation systems leading to a high dependency of city GDP growth on the national context.

#### **Key table: Share (%) of the total variance in total GDP (pps) growth between cities**

	1995-2006	1995-2001	2001-2006
<b>Share of inter-national variance (i.e. of variance of per country means of urban growth rates)</b>	74%	59%	82%
<b>Share of sum of intra-national variances</b>	26%	41%	18%

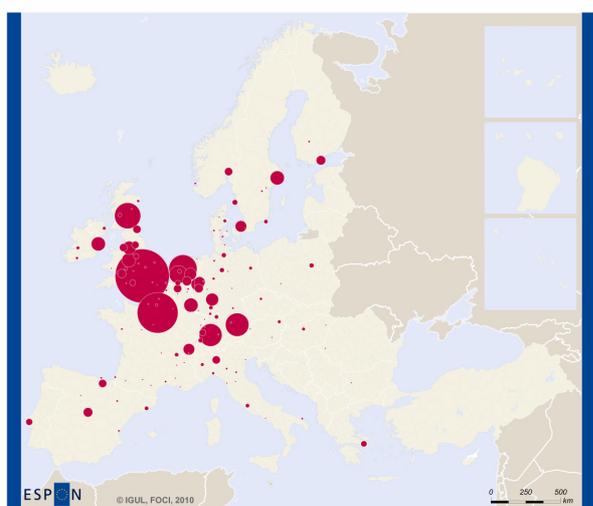
**Explanation of the key table:** The table shows the decomposition of the variance in GDP growth between EU25 European cities, decomposed as the share in total variance of the variance between all cities within each country and the share of variance between countries based on the average growth of each countries' cities' growth. It shows that between 1995 and 2006 most of the variance of the GDP growth of the cities is due to inter-national differences, while the growth differential between cities inside the countries only accounts for 26% of the total variance. The same logic can also be observed in other fields such as unemployment rates, health indicators such as infant mortality rates or in city-hinterland and polycentric relationships, often highly determined by national specificities. See the section "Economic differentiation of cities in national and European contexts" in the main report for more details.

## Large (capitals) cities play an important role as gateways between the economies of Europe and the rest of the world

Multinational firm networks play an increasing role in regulating the global economy and in influencing local economic development. Command and control functions within these networks become an asset for a city's economy. A particular role that some cities play is that of gateways between the global and European economy.

### Key maps: Continental gatekeepers and representatives for worldwide networks of multinational firms

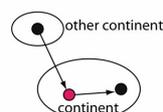
**Continental FUA Gatekeepers for Worldwide networks of multinational firms**



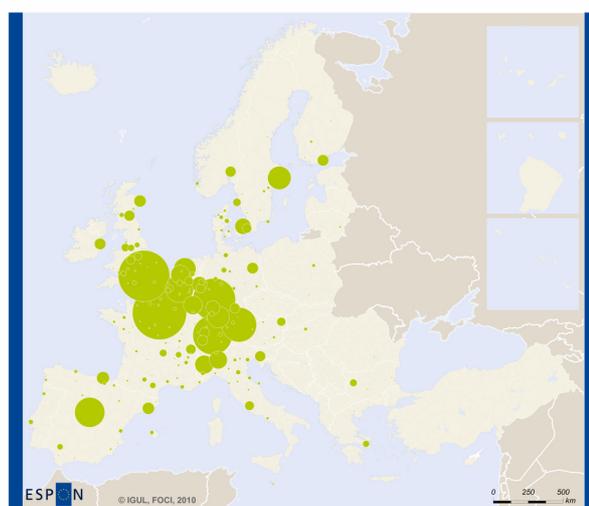
Total number of Intercontinental subsidiary links passing by the FUA to another European city:



\* in the sample of the 600.000 direct or indirect subsidiaries in the world of the first 3.000 first worldwide multinational firms



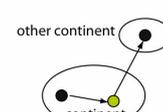
**Continental FUA Representatives for Worldwide networks of multinational firms**



Total number of continental subsidiary links passing by the FUA to another city outside Europe:



\* in the sample of the 600.000 direct or indirect subsidiaries in the world of the first 3.000 first worldwide multinational firms



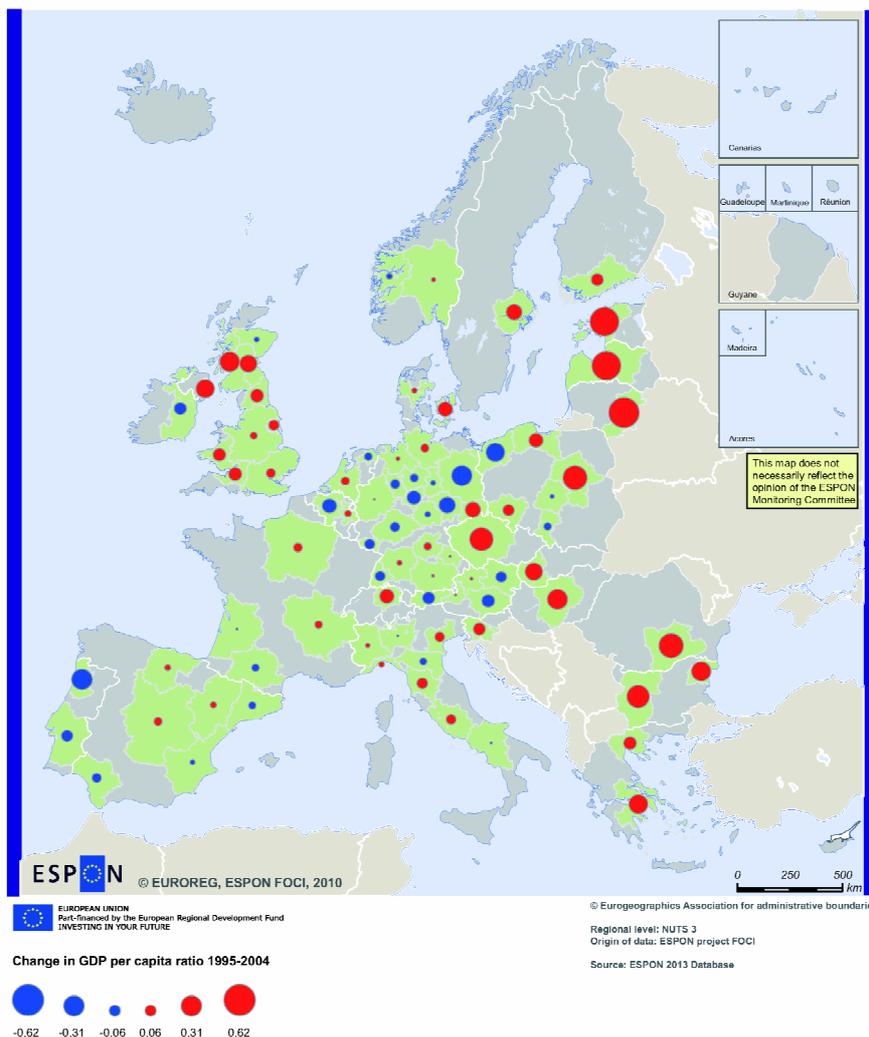
**Explanation of the key maps:** Multinational firms networks use gateways for internationalization. In particular for overseas investments arriving in Europe, “continental gatekeeper places” are privileged to receive the investment, spreading it in a second step to the continent: they represent. In the other direction, “continental representative places” offer to multinational firms the means to reach places outside Europe. The maps show for each city the number of links between European cities and extra-European cities that pass through that city. On the left, the links are incoming and on the right they are outgoing. One can see the dominant role of London and Paris as gatekeepers for incoming investments and, more generally, the importance of national capitals in many countries. For outgoing links the hierarchy is a bit flatter, but still national capitals dominate. For more details see the section “Intermediate cities at the inter-continental level” of the main report.

***A general trend to increase of disparities between cities and their hinterland, but individual situations are varied and complex and dependent on regional and national context***

An important issue in the current policy debates is the question to what extent cities play a role of motor of economic development for their wider hinterland. A first step to understand this issue is to compare the evolution of cities and their hinterland.

**Key map: Change of disparities in the development level between the metropolis and its regional hinterland in 1995-2004**

Change in disparities in the development level between the metropolis and its region



**Explanation of the key map:** The map shows the ratio between the GDP growth in the larger urban zone (approximated by NUTS3) and the GDP growth in the wider hinterland during the period 1995-2004. The general trend seems to be an increase of development disparities between the metropolis and the surrounding region. This can be viewed as a consequence of the metropolitanisation processes. Those areas where this ratio decreased either showed very high intraregional disparities at the beginning of the period or a lower rate of respective national economic growth during the period. Major factors of linkages, and thus convergence, between cities and their hinterland were similarities of socio-economic structures, transport accessibility and (linked to the latter) polycentric structure of the metropolitan area. See the section "City-hinterland relationships" of the main report for more details.

## Cities in polycentric cooperation

***We don't have much objective information about the actual contents and successes of inter-urban polycentric cooperations, but preliminary results of case studies at least allow identifying some of the factors hindering or favouring cooperation***

The following very preliminary conclusions on factors supporting or hindering cooperation can be seen at this stage:

- Hindering factors linked to the institutional framework
  - heterogeneity of competences
  - limits of competencies
  - inadequacy of administrative boundaries in relation to the issues on the ground
  - limitations in financial resources of the respective administrative levels of the partnership
- Hindering factors linked to the relationship between partners
  - competition between partners of similar weight
  - mistrust of small vs. bigger partners
  - inadequacy between city links and firm links
- Limits of coherence
  - lack of coherence between multiple partnerships of a given city
  - lack of coherence between interests of partnership and interests at higher hierarchical levels, or between interests of one partnership that creates negative impacts for others cities or partnerships
- Favourable factors (besides the negation of above hindering factors)
  - Identification of concrete and reasonable objectives that are attractive for all partners
  - Identification of objectives requiring the joint intervention of all partners
  - Cross-border networks because of the particularly strong incoherences across borders, in fields such as transport, infrastructure provision, etc
  - Others: small distance, a common history or tradition, levels of education, etc.

The project has also attempted to go beyond the common morphological approach to polycentricity and cooperation potentials and to go one step further in the direction of more functional analyses of urban relations. While results are interesting in a methodological sense and should allow future projects to go even further, they do not, at this stage, allow to draw clear policy conclusions, generally because of the lack of detail in the data. See the section "Cooperation" of the main report for more details.

## Cities and social cohesion

### ***Social polarisation in cities is increasing and above a certain threshold of wealth, the latter is not linked to social cohesion indicators***

Although coherent pan-European data is lacking at city level for this subject, an extensive review of existing case studies in the literature has allowed to establish that the increase of social polarisation seems to be a general phenomenon across Europe. Main factors explaining this evolution are, amongst others, the professionalisation process of the demand for labour, the reorganisation from a fordist to a flexible regime of regulation inducing higher fragilisation of at least parts of the work force, socio-demographic trends such as decomposition of households, the concentration of immigration in cities, general state-level reforms of welfare regimes and labour markets and increasing real estate prices. See the section “A growing social polarization” of the main report for more details.

#### **Key table: Correlation (R Pearson) between economic wealth (GDP/head) and some social indicators, in the years 2000.**

	LUZ according to NUTS2 or NUTS3 proxy	N	all available Urban audit cities	N	excluding New Member States cities	N
Infant mortality rate	-,494(**)	45	-,426(**)	139	-0.041	97
Share of higher diploma	0.279	45	,399(**)	102	-0.012	68
Share of students leaving without diploma	-	-	-0.017	84	0.114	70
General level of satisfaction (1)	.431(**)	62			.387(**)	44
District gaps in unemployment (1)			-0.074	188	-0.090	146

Significant \*\* at 0.01; \* at 0.05

#### **Table 1. Correlation (R Pearson) between economic wealth (GDP/head) and some social indicators, in the years 2000**

##### **Explanation of the key table:**

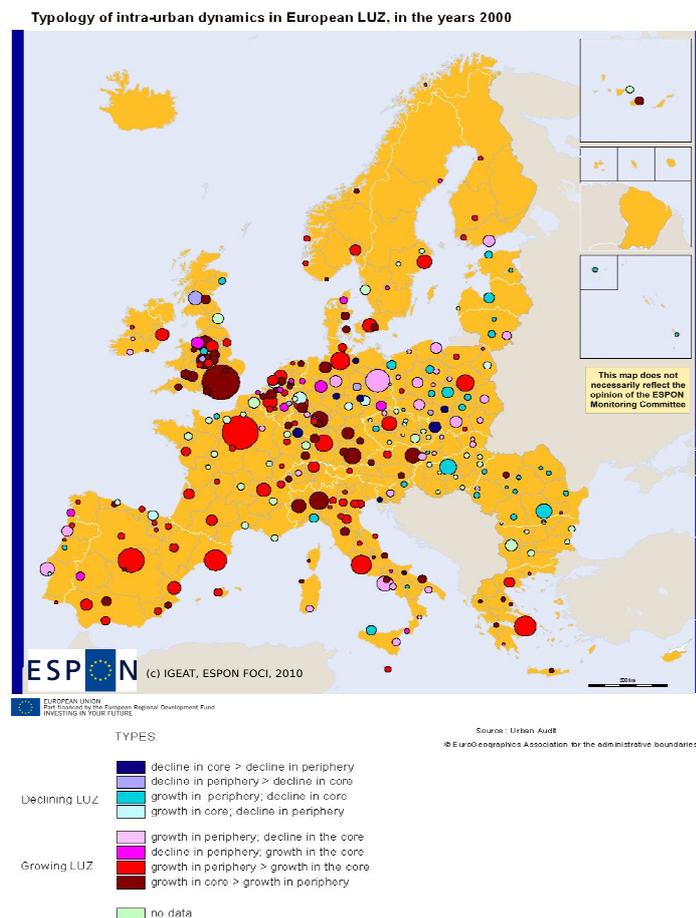
An important question for urban (and regional) policies in Europe is whether social cohesion still depends on economic wealth in European cities and thus whether we can expect competitiveness policies to improve social cohesion, notably through trickle down effects. The table shows correlation indices between economic wealth (expressed as GDP/capita) and a series of social indicators. Infant mortality rate, an indicator reflecting fairly well the general level of health in a society, is correlated with GDP/head, but not at the intensity we might expect. This means that beyond a certain level of GDP/head, social or health indicators are not related to national income. Indeed, when Eastern countries are excluded, the observed correlation disappears, meaning that the correlation between GDP/head and infant mortality rate is only due to the gap between Eastern and Western Europe in both GDP/head and infant mortality rate. When we turn to education indicators, we reach similar conclusions: correlation is weak and inexistent if we focus only on West European cities. See the section “Social cohesion” in the main report for more details.

## Cities and environmentally sustainable development

***The evolution of urban forms and the relation between the urban core and its hinterland are very dependent on the stage of the urbanisation process, generally linked to general economic development***

Cities in Europe go through an urbanisation cycle composed of urbanisation, sub-urbanisation, counter-urbanisation and finally re-urbanisation, linked with different patterns of urban spatial development. Different cities are in different phases of this cycle.

### Key map: Typology of intra-urban dynamics in European LUZ, in the years 2000



**Explanation of the key map:** The map shows a typology distinguishing first between larger urban zones (LUZ) LUZ with growing and declining populations, and then taking into account the population dynamics in the core cities as opposed to the rest of the LUZ. This leads to several major types of evolution. In the dense urban and central parts of Europe, many cities are characterized by population growth in both core and peripheries, often faster in the former than in the latter. In Eastern Europe, most of the cities are characterized by the decline of their population with an intense process of suburbanization, while in Mediterranean cities, we observe population growth with an intense process of suburbanization. See the sections “A typology of population development between core cities and LUZ” and “A typology of urban spatial development based on Corine Land Cover” of the main report for more details.

## ***Some relationship exists between urban form and environmental performance of cities***

A major debate in regional and urban development in Europe is the question of whether compact cities would lead to a more efficient use of resources and to better environmental “performances” of cities.

**Table 2. Relationship between typologies of city compactness and transport mode to work, and air quality parameters. Data source: Urban Audit**

Compact class	Percentage of journeys to work by car and motorcycle	Percentage of journeys to work by foot or cycling	Percentage of journeys to work by public transport	Annual average concentration of PM10	Annual average concentration of NO2
1. Large irregular cities	64	12	24	34	32
2. Large irregular cities with intensive land use	62	10	28	31	27
3. Intermediate compact cities	57	11	32	30	26
4. Compact cities	56	10	34	25	22

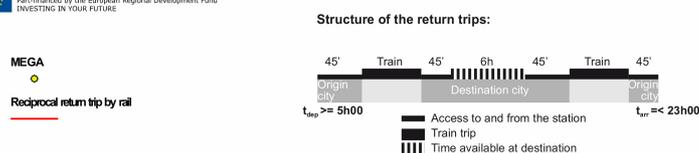
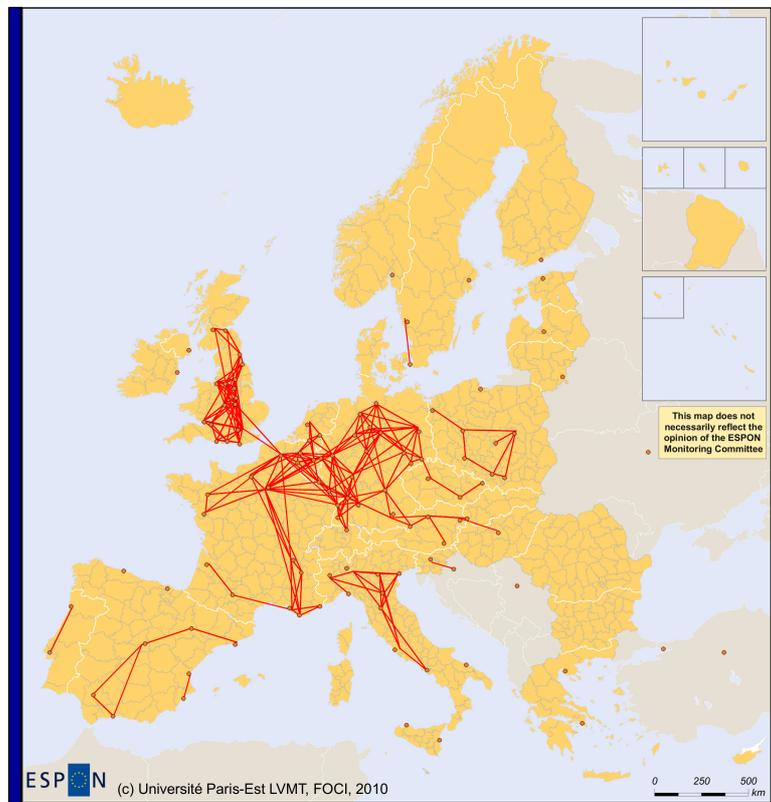
**Explanation of the key table:** To analyse this question we used a compactness index for the subset of cities available in Urban Atlas and compared it to a series of environmental sustainability indicators. Comparison of transport patterns and air quality between the different types of city compactness reveals that differences are only relevant between the extreme groups (dispersed – compact). Most significant differences are encountered in percentage of people using public transport and in PM10 and NO2 concentrations. See the section “The impact of urban form on urban “performance”” of the main report for more details.

**New transborder rail links would allow to significantly increase sustainable contactability by rail for many European cities**

Transport, being an indispensable support for economic and social interaction, has a major role to play in the structuring of urban regions all over Europe. Accessibility is one of the basic factors of competitiveness, but also of access to services, while at the same time it is one of the major sources of pollution and of energy consumption. Generally, accessibility indicators are limited to theoretical, network based accessibility, not taking into account the actual supply. We develop here indicators which allow considering the real supply of transport between pairs of cities in Europe by air, by rail and combining air and rail, and based on actual time-tables.

**Key map: City network daily accessibility by rail between a selected list of metropolitan areas between 5h and 23h**

City network contactability by rail between MEGAs  
Return trips between 5h and 23h



**Explanation of the key map:** This map shows an indicator counting the number of links possible between a series of large European cities in one day return trips using rail only. The main message coming out of this map is that several present missing links can be identified. Many state borders remain visible on the map hinting at the fact that the main missing links are mostly international. Rail is present in intra national inter-metropolises daily relations, but is much less present in international relations. This thus offers an insight into the contribution of cross-border rail links for both competitiveness and sustainability. See the section “Cities in networks of contactability” in the main report for more details.

## Imagining the future of European cities

The destiny of European cities is much too dependent upon the global context and upon macro-policies to envisage credible alternative scenarios of urban development, which are derived only from different urban development policies. This is why the two scenarios proposed by the project have each its own logic in terms of global background and of macro-policy mix. The territorial development policies defined at each level pursue in each scenario specific objectives, but have to cope with the respective impacts of global factors and more general policies. The scenarios take account of the Europe 2020 Strategy, but consider that it may be accentuated or even revised, according to changes in the international environment. The hypotheses chosen for the two scenarios differ mainly through the characteristics of the global context and the nature of policy responses to the most significant challenges. There are however common elements of reference in the two scenarios (demographic evolution, regionalization of the globalization process, growing disparities in the productivity of main economic sectors, emergence of a number of new technologies etc.). Both scenarios have a time horizon of 15 to 20 years, divided into two periods, the first being of 7 to 10 years.

The “Green Economy” scenario is based on the assumption that the decisions adopted at international level aiming at curbing down the speed of climate change are efficiently used as an opportunity to generate significant economic growth throughout Europe. In the “Enhancing the European potential” scenario, the recovery from the economic/financial crisis is not sustainable at world scale. The global context being highly unstable and risky for trade and investments, Europe chooses the strategy of enhancing its own potential and to concentrate external cooperation on neighbouring countries and on few others, non problematic ones.

The following table gives an overview of the impact of each of these scenarios on urban development in Europe. The most important policy implication to take out of these scenarios is that any policy for cities has to take into account the external context and that depending on which path Europe will take in leaving the crisis behind, policy makers will have to prepare for different impacts and thus different policy needs. See the section “The future of cities: Scenarios to assess the upcoming challenges for cities” in the main report for more details.

On the basis of the work in all parts of the project, we have developed a first selection of policy conclusions which can be found in the section “Policy conclusions” of the main report.

	Scenario “Green economy”	Scenario “Enhancing the European potential”
<b>Macro-territorial aspects</b>	Growth is first concentrated in the pentagon and in a few others large cities, while neo-fordist regions are negatively affected, then it expands towards eastern Europe and peripheral regions of western Europe	First, no significant evolution of the settlement pattern (low economic growth; protection of manufacturing employment). Then, rather balanced development of urban systems, thanks to the promotion of regional potentials.
<b>Metropolitan areas</b>	Metropolitan areas benefit from the development of R&D activities, services and advanced manufacturing activities. International gateway cities benefit from further globalisation	The centres of national trade networks (mainly capital cities) are favoured + large cities along trans-European corridors.
<b>Hinterlands of metropolitan areas</b>	In industrial regions of western Europe, urban settlements in the hinterlands of metropolitan areas are involved in the development process. In the second phase, this happens also in a few cases in the eastern European countries.	The hinterlands of metropolitan areas change according to the level and mobilisation of regional potentials. Existence of very different situations. Weak overspill from metropolitan areas towards their hinterlands in central and eastern Europe.
<b>Medium-sized and small towns outside metropolitan regions</b>	Medium-sized and small towns with an industrial basis are generally negatively affected during the first phase, but some much less in the second phase.	Thanks to the pro-active promotion of regional endogenous potentials, numerous small and medium-sized towns benefit from development opportunities
<b>Networks of cities Cooperation/ Competition</b>	Emergence of large-scale, specialised cooperation networks, also with large cities outside Europe. Growing competition at global scale.	Progress of intra-European networking, especially within transnational macro-regions (clusters, R&D institutions, businesses) benefitting also to medium-sized towns. Growing competition at intra-European scale.
<b>Sustainability</b>	Priority to more compact urban forms and public transport. Decrease of air pollution, greening and regeneration in cities. Stronger environmental challenges in southern and eastern Europe (suburbanisation; motorisation)	Economic growth limited because of global conditions. The balanced evolution of the settlement pattern ensures sustainability. No significant environmental improvement in congested areas.
<b>Social polarisation and tensions</b>	Tensions related to unemployment in the first phase, especially in industrial cities. Improvement in the second phase. Possible increase of social segregation in large cities.	Growing purchase power reduces social polarisation. Social policies in cities (housing, regeneration of problematic neighbourhoods) reduce social segregation and tensions.
<b>Competitiveness of the settlement systems</b>	Compact development in and around metropolitan areas and efficient networking between metropolitan areas and the surrounding medium-sized and small cities ensure higher competitiveness	More polycentric urban systems within and outside metropolitan regions. Efficient networking of cities in most regions (generation of network economies)