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1 Introduction to the project

Interest in cities is growing again in Europe. Theories of “growth poles” forgotten since the 1960s re-emerge, although in different form, without the idea of building new cities in the desert. Metropolitanisation, although sometimes difficult to grasp empirically, is recognized as a post-fordist phenomena, with a gain of the importance of large cities, linked to the increasing need for size-based agglomeration effect in the global, networked knowledge economy. And European policy makers are once again discussing the need of and the form for new urban policies at European (as witnessed by the above quote), but also at national scale.

From the outset, this project has had two, complementary, but not always easily reconcilable orientations: provide a broad overview of the current and future issues relevant to urban development in all of Europe, advance scientifically beyond the established and well-known data and analyses, provide innovative research. 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 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 some 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.
2 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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Difference with international average</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU27+2</td>
<td>0.7</td>
<td>1.0</td>
<td>0.4</td>
</tr>
<tr>
<td>NMS</td>
<td>2.1</td>
<td>2.4</td>
<td>1.8</td>
</tr>
<tr>
<td>EU15+2</td>
<td>0.6</td>
<td>0.9</td>
<td>0.3</td>
</tr>
<tr>
<td>Difference with national averages*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EU27+2</td>
<td>0.9</td>
<td>1.2</td>
<td>0.6</td>
</tr>
<tr>
<td>NMS</td>
<td>1.9</td>
<td>2.0</td>
<td>1.8</td>
</tr>
<tr>
<td>EU15+2</td>
<td>0.5</td>
<td>0.8</td>
<td>0.1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of inter-national variance (i.e. of variance of per country means of urban growth rates)</td>
<td>74%</td>
<td>59%</td>
<td>82%</td>
</tr>
<tr>
<td>Share of sum of intra-national variances</td>
<td>25%</td>
<td>41%</td>
<td>18%</td>
</tr>
</tbody>
</table>

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. The information about the role each city plays should allow targeting policies, for example in terms of different types of capital needed, but also in terms of assessing vulnerability to global competition (notably for platform cities).

Key maps: Continental FUA gatekeepers, representatives and platforms for worldwide networks of 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. In the other direction, “continental representative places” offer to European multinational firms the means to reach places outside Europe. Finally, “international platforms” play the role of intermediary between other continents, in general for financial or organizational function. 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. Platforms are very specific cities such as Amsterdam, Zurich or Munich. 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 in disparities in the development level between the metropolis and its region

Explanation of the key map: The map shows the ratio between GDP growth in the larger urban zone (approximated by NUTS3) and GDP growth in the wider hinterland during the period 1995-2004. The general trend seems to be an increase of disparities between the metropolis and the surrounding region. This can be viewed as a consequence of the metropolitanisation processes, although such growing disparities do not preclude that in a number of macroregions a fast development of the metropolitan area was accompanied by a speedy development of its surroundings, even if the former was greater than the latter, thus indicating that metropolitanisation can also bring benefits to the surroundings if these are sufficiently linked to the metropolitan area's growth processes. 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.
3 Cities in polycentric cooperation

We don’t have much objective information about the actual contents and successes of inter-urban polycentric cooperations, but case studies indicate that very focused and concrete projects of cooperation seem to have higher chances of success than those aiming at a general increase of “critical mass”

A careful reading of our case studies seems to indicate that a first distinction that has to be made concerning the types of cooperation. Cooperation around basic infrastructures or services such as transport, road construction, green spaces, waste collection, etc constitutes a first level of cooperation. The added value at this level is not to be disputed and many such cooperations seem to function, although many hindering factors do exist (see below).

A second type cooperation is cooperation around spatial planning issues encompassing a wider territory than single administrative units. When these issues are of the concrete level as in the previous type, they seem to allow some success, but as soon as the issues are more general and more multifaceted, cooperation seems to become much more difficult.

A final type of cooperation is a more integrated form of cooperation, attempting to build a new level of government / governance in order to regroup the different territories into a larger unit with bigger clout in (inter)national comparisons. This type of cooperation seems to be the least successful, apparently due to some of the following reasons:

- Such cooperation touches upon many different issues and thus many different prerogatives and competences, making consensus and motivation much harder than for cooperations based on very focused and concrete issues.
- The complexity of the issues treated in such cooperations implies the participation of very many different levels of government, thus also complexifying the institutional settings.

The issues raised in such cooperations also seem to go quite far in terms of the necessity for common policy, thus actually raising the question of fundamental territorial reform which then hits important inertia. In this context, cooperation is thus only a weak substitute (the case of the Randstag regio in the Netherlands seems to be an example of this) and thus not entirely satisfactory.

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

- Hindering factors linked to the institutional framework, such as heterogeneity and limits of competences, inadequacy of administrative boundaries and limitations in financial resources
- Hindering factors linked to the relationship between partners, such as competition and mistrust between partners, inadequacy between city (political) links and functional links, absence of any clear added value of the cooperation
- Limits of coherence such as the lack of coherence between multiple partnerships of a given city and the lack of coherence between interests of partnership and interests at higher hierarchical levels
- Favourable factors include the identification of concrete objectives requiring the joint intervention of all partners, the specific motivation linked to cross-border situations, etc.

See the section “Cooperation” of the main report for more details.
4 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.

<table>
<thead>
<tr>
<th></th>
<th>LUZ according to NUTS2 or NUTS3 proxy</th>
<th>N</th>
<th>all available Urban audit cities</th>
<th>N</th>
<th>excluding New Member States cities</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infant mortality rate</td>
<td>-.494(**)</td>
<td>4</td>
<td>5</td>
<td>-.426(**) 13</td>
<td>9</td>
<td>-.041</td>
</tr>
<tr>
<td>Share of higher diploma</td>
<td>0.279</td>
<td>4</td>
<td>5</td>
<td>.399(**) 10</td>
<td>2</td>
<td>-.012</td>
</tr>
<tr>
<td>Share of students leaving without diploma</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-.017 84</td>
<td>0.114</td>
<td>70</td>
</tr>
<tr>
<td>General level of satisfaction (1)</td>
<td>.431(**)</td>
<td>6</td>
<td>2</td>
<td>.387(**) 44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>District gaps in unemployment (1)</td>
<td></td>
<td></td>
<td></td>
<td>-.074 18</td>
<td>8</td>
<td>-.090</td>
</tr>
</tbody>
</table>

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. However, beyond a certain level of GDP/head, social or health indicators are not related to national income anymore. 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.
5 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

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

Explanation of the key table: To analyse this question we used a compacity 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 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.
6 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 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. 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. See the section “The future of cities: Scenarios to assess the upcoming challenges for cities” in the main report for more details about the content and the territorial impacts of each scenario.

The following main conclusions can be drawn out of these two scenarios:

- The future of European cities is closely linked to changes in the global context, including global policies.
- Coherence is necessary between policies at various scales. For example, the introduction of carbon taxes may have strong impacts at local scale and may strengthen the profitability of public transport systems implemented by local authorities, but it is not realistic at the scale of a single country. Coordination of policies in this respect is required at least at European scale. Place-based policies and thematic/sectoral policies should not be in contradiction with each other.
- Regional/local policies related to cities and metropolitan areas have to be tailor-made with respect to the specific characteristics of each regional or local settlement system, amongst others their different positions in the urbanisation cycle.

Other selected key policy-related conclusions of the project include (see the section “Policy conclusions” of the main report for more details):

- Cities show a high degree of path dependency, reinforcing agglomeration effects.
- Higher levels of governance have to ensure the coherence of their policy objectives with the implementation of policies at city level in order to avoid zero-sum games and levelling effects.
- Institutional capacity is typically a limitation on the development of effective policy development and implementation at the local level.
- Cross-border inter-city linkages (firm ownerships, contactability, etc.) seem particularly weak in Eastern Europe.
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The ESPON 2013 Programme is part-financed by the European Regional Development Fund, the EU Member States and the Partner States Iceland, Liechtenstein, Norway and Switzerland. It shall support policy development in relation to the aim of territorial cohesion and a harmonious development of the European territory.