

EUROPEAN UNION



Committee of the Regions

The growth potential of an integrated EU Urban Agenda

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Glossary of acronyms

3H	Triple Helix
AEBR	Association of European Border Regions
AER	Assembly of European Regions
AROP*	At Risk of Poverty
AROPE*	At Risk of Poverty and Exclusion (aggregate)
BAT	Best Available Techniques
BEMP	Best Environmental Management Practice
BREF	Best Available Techniques Reference Documents
C2C	City to City (cooperation)
CEB	Council of Europe Development Bank
CEMR	Council of European Municipalities and Regions
CLLD	Community-led local development
COP21	Paris climate conference
CoR	Committee of the Regions
CPMR	Conference of Peripheral Maritime Regions
CSF	Common Strategic Framework
CSO	Civil Society Organisations
EAFRD	European Agricultural Fund for Rural Development
EC	European Commission
ECCP	European Code of Conduct on Partnership
EFSI	European Fund for Strategic Investment
EGTC	European Grouping for Territorial Cooperation
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EIP	European Innovation Partnerships
EIPPCB	European Integrated Pollution Prevention and Control Bureau
ERDF	European Regional Development Fund
ERF	European Refugee Fund
EP	European Parliament
EPR	Extended Producer Responsibility
ERHIN	European Responsible Housing Initiative
ESF	European Social Fund
ESIF	European Structural and Investment Funds
ESPON	European Spatial Observation Network
ETC	European Territorial Cooperation
ETS	Emissions Trading System
EUKN	Europe's Urban Knowledge Platform
EUROCITIES	Network of major European cities
FUA	Functional Urban Areas

GCCA	Global Climate Change Alliance
GDP	Gross Domestic Product
GEEREF	Global Energy Efficiency and Renewable Energy Fund
GVa	Gross Value added
KET	Key Enabling Technologies
ICT	Information and Communication Technologies
IED	Industrial Emissions Directive
IMC	Inter-Municipal Cooperation
ITI	Integrated Territorial Investment
JESSICA	Joint European Support for Sustainable Investment in City Areas
LAU	Local Administrative Units
LEIT	Leadership in Enabling and Industrial Technologies
LLL	Lifelong learning
LMP	Labour Market Policy
LRA	Local and Regional Authorities
LUISA	Land Use-based Integrated Sustainability Assessment Modelling Platform
LWI*	Low Work Intensity
MS	Member States
MLG	Multi-level Governance
MTOE	Million Tonnes of Oil Equivalent
NACE	Statistical classification of economic activities in the European Community
NEET	Neither in Employment nor in Education or Training
OECD	Organisation for Economic Co-operation and Development
OP	Operational Programme
PA	Partnership Agreement
PCI	Project of Common Interest
RCE	Regional Competitiveness and Employment
PPP	Public Private Partnerships
PPS	Purchasing Power Standards
RDTI	Research, Technology Development and Innovation
RFSC	Reference Framework for European Sustainable Cities
S3	Smart Specialisation Strategies
SGEI	Service of General Economic Interest
SICAP	Social Inclusion and Community Activation Programme
SMD*	Severely Materially Deprived
SME	Small and Medium Enterprises
SSC	Smart Cities and Communities
STI	Science, Technology and Innovation
ToR	Terms of Reference

UIA
WFD
YEI

Urban Impact Assessment
Waste Framework Directive
Youth Employment Initiative

*Explanations

Term	Meaning
AROPE	<i>At Risk of Poverty and Exclusion (aggregate)</i>
AROP	<i>At Risk of Poverty: People at risk of poverty, who have an equivalised disposable income below the risk of poverty threshold, set at 60% of the national median equivalised disposable income (after social transfers)</i>
SMD	<i>Severe Material Deprivation: People who suffer from severe material deprivation and have living conditions severely constrained by a lack of resources. They experience at least four out of the following nine deprivation items. They cannot afford: a) to pay rent or utility bills, b) to keep the home sufficiently warm, c) to pay unexpected expenses, d) to eat meat, fish or a protein equivalent every second day, e) a week's holiday away from home, f) a car, g) a washing machine, h) a colour TV, or i) a telephone.</i>
LWI	<i>Low Work Intensity: People with very low work intensity are those aged 0-59 living in households where adults worked less than 20% of their total work potential during the past year.</i>

Executive Summary

The present study deals with the growth potential of an integrated EU Urban Agenda. The objective of the study is to demonstrate the growth impact of the most pressing urban policies through business cases. The key policies which have been highlighted in the study are related to the **main urban challenges** namely: climate change, demographic change and migration, resulting in a need for greater resource efficiency and energy savings, social security and health systems reforms, labour force mobility and flexible integration of migrants.

Different policies contribute to the interventions addressing those problems and needs in urban areas in response to the urban challenges experienced. When addressing urban needs it is necessary to understand that **cities are not uniform territorial areas** and do not follow a single logical path, but are instead confronted with different contextual factors shaping their character and needs. In addition to global challenges and different contextual aspects, urban management is exposed to **different political and governmental levels** where local and regional authorities have limited power to significantly change and address urban conflicts.

Local and regional authorities are confronted with **sectoral policies** defined at mostly national levels and EU level. Although there is a general agreement that integrated initiatives, including several policy areas as well as multi-level governance, are more suitable to solving social, economic and environmental problems, there is still a gap between the need to shift towards the integrated approach and the current historically driven sectoral policy reality.

At EU level, only cohesion policy explicitly addresses urban areas. The specific aspect of **cohesion policy** support is the integrated approach addressed in each Operational Programme (OP). However, cohesion policy tools seem to be over ambitious and are implemented only to a small extent. Nevertheless, cohesion policy programmes still integrate the urban aspect by using urban related investment priorities in ERDF.

One important instrument for cities and urban areas is the URBACT programme. Additional platforms serve as knowhow exchange and cooperation platforms, again overextending the resources of local administrations. The mix of different programmes and tools demonstrates the complexity of the environment in which local authorities are acting. Not only are national administrative hierarchies and the position of urban areas of importance, but also the availability of **financial resources and the need to involve all stakeholders**.

At Member State level urban policies are even less represented. A stronger focus lies in those Member States with a high proportion of urban areas. Most Member States focus on regional development and allow the regional administrations a certain degree of self-government without any specific focus on cities and urban areas.

The conclusion that emerges from the facts set out in the study is that **current administrative structures do not adequately respond to changes** caused by global challenges. The current policy nature itself does not easily support a **sustainable and integrated approach** and the need to trigger a change is indisputable. In this respect it is not enough to establish top down sectoral policies at EU level: a combination of top down and bottom up policies better serve the integrated approach.

The EU Urban Agenda therefore not only has the task of coordinating different actors and actions. It also needs to bring about change to address the most pressing urban challenges. The EU Urban Agenda has to respect the contextual differences of cities and urban areas, but at the same time needs to seek homogeneous key parameters to pressing challenges across Europe. Furthermore, it needs to empower cities and urban authorities to follow their own individual integrated approach to climate change and social and demographic change.

When it comes to the growth impact of the most pressing urban policies, the study reveals that almost all policies have a significant growth impact, but not all local authorities have the power to bring about change. Based on that four **business cases** had been developed, plus one additional horizontal case. The business cases are built around the most important policies with the highest impact at local level.

The policy areas covered by the business cases are:

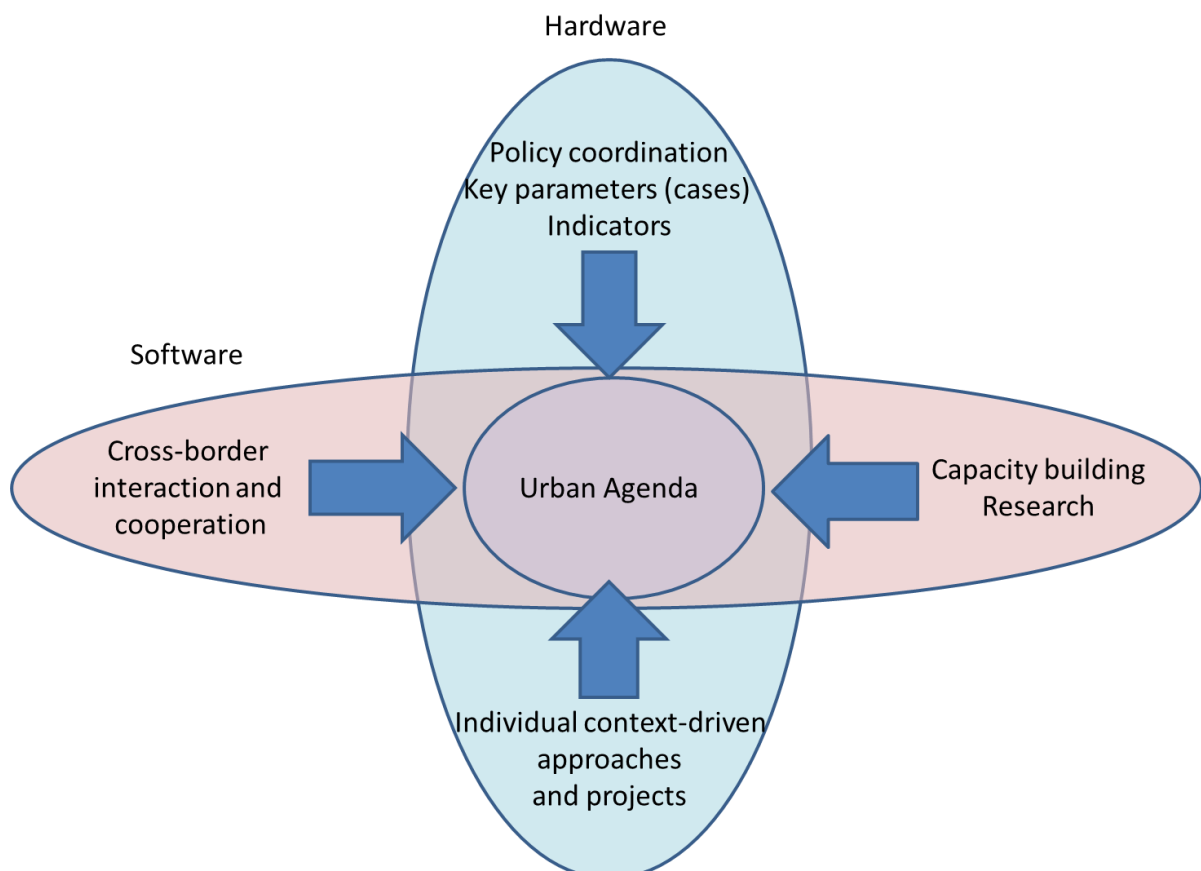
- **Urban economy** (policies: culture, public amenities, ICT networks education, RTDI, business development).
- **Resource efficiency** (policies: public procurement, zoning and land use, waste & water management, urban transport, energy efficiency, education).
- **Social fabric** (policies: education, housing, health and social care, social security).
- **Transport** is considered to be a transversal theme for urban areas.

- **Modern urban governance** is understood in a broad sense as the capacity to administer and govern the urban territory through cross-sectoral coordination implementing participatory approaches and more open forms of government in order to attract the interest of a diverse society.

The EU Urban Agenda should not serve merely as yet another strategy paper, but should already provide concrete thematic initiatives to support local and regional authorities. In this respect it is most important to acknowledge the limits and possibilities of cities in implementing new approaches.

Considering the facts of different levels of power and influence as well as scarce financial resources, the **EU Urban Agenda** needs to be a multi-dimensional vehicle. On the one hand it has to function bottom up and top down, and on the other hand it must serve as a platform for **soft infrastructure** (information networks, educational infrastructures and STI) as well as **hard infrastructure** (projects on transport, waste and water management, housing and site development).

Figure 1. Simplified EU Urban Agenda model



Source: Metis GmbH.

Within the logic of the EU Urban Agenda, including the four plus one business cases, the following recommendations are put forward:

- There is a need to establish a more **holistic and cross cutting approach to European policies**. Ideally an assessment of the urban potential in all EU policies could be the basis for adapting implementation tools for a more urban related approach.
- The EU Urban Agenda should include **key parameters** in order to enable local authorities to act for smart, sustainable and inclusive growth. In this respect, the EU Urban Agenda should provide guidelines for Member State authorities to establish regulatory parameters regarding legislation, infrastructure and financial resources.
- The current reference documents and reports on BATs (Best Available Techniques) are the basis for the **indicators**, and should be adjusted according to their use in the related business cases. The indicators and the research results should be translated into practical tools for local authorities in order to allow them to **monitor** implementation.
- The **business cases** defined in the study need further input and exchange between experts in order to provide a stable platform for integrated action at local level. The CoR could in this respect take the leading role of running the **working groups**.
- The EU Urban Agenda should be an interactive tool helping local actors to **choose the right interventions and enter new paths**. The EU Urban Agenda should therefore be more than a paper: it should be a lively interactive platform.
- The European Commission has recently published several cross sectoral agendas which have a considerable impact on urban areas and politics. These **EU agendas and strategies should be communicating vessels** rather than independent parallel initiatives. This interaction needs to be actively supported by the CoR.
- There are already numerous **networks and learning platforms**, but the sheer number of them reduces efficiency and impact. There needs to be one well-managed platform that helps to filter the most important aspects of each project and the value added for other cities. The platform could be managed or organised by the CoR.

- The EU Urban Agenda should support metropolitan regional governance across administrative borders in a non-political context. Local authorities need to understand that the future will depend on **functional leadership** rather than on political agents. The COR needs to play the role of bridge between local authorities and the EU Urban Agenda.
- The CoR could be the agent to ensure that a coherent and effective **capacity building** process is established in order to translate the complexity of integrated urban development into everyday life.

1 Introduction

The study on the growth potential of an integrated EU Urban Agenda should provide a new impetus to the work of the Committee of the Regions (CoR) and its members in the urban policy debate at European level. The concept of an integrated EU Urban Agenda should be used as a basis for further discussion.

The objective of this study is to demonstrate the potential growth impact of an urban policy at European level. The study builds a case for dedicated policy action given that:

- cities and urban agglomerations in the European Union are on the rise in terms of population numbers and economic production,¹ and
- policy developments in cities and urban agglomerations are crucial in terms of sustainable development encompassing its three dimensions: economic, environmental and social.

The perspective of local and regional authorities (LRA) and the possibility of closer involvement on the part of European cities in the future governance system are crucial elements: LRAs are the obvious target group of an EU Urban Agenda and should become its key actors.

A very brief historical perspective presents the main roots of European cities, explaining their particular importance for growth:

- Trade, handicrafts and the rise of urban citizenship.
- Industrial revolution – industrial raw materials, transport networks and mass migration from rural areas.
- Rise of the tertiary sector and the move from resource-based to information- and knowledge-based industries shape the third wave of urban development – this is now part of global development.

In addition to long-term private and public investment and location-based skills, historical circumstances often determine a city's position in global networks.² Small and medium-sized cities benefit in particular not only from solid geographical embeddedness, but also from their architectural heritage and

¹ European Commission, DG for Regional and Urban Policy 2011, Cities of Tomorrow. Challenges, visions, ways forward. Brussels, October 2011.

² European Union, Regional Policy, Cities of Tomorrow. Challenges, visions, ways forward, p. 53.

monuments that still influence the human scale and liveability of urban neighbourhoods.

A future EU Urban Agenda should meet many of the aspects that provide the basis for the conclusions of this study:³

First and foremost, an integrated EU Urban Agenda should contribute to a **better understanding of the urban context** in European policies. The focus should be just as much on small and medium-sized towns and rural areas as on large cities. Chapter 2 of the present study will therefore review and briefly outline the major urban challenges, trends and policy responses. These take into account the diversity of the type and size of cities. When it comes to strengthening cities' engagement and ownership of EU and national policymaking and implementation, instruments to better involve cities and their political leaders in EU policymaking and policy implementation will be addressed. This will be done by highlighting the cross-cutting role of LRAs in transversal challenges. An EU Urban Agenda must ensure heightened awareness of urban policies in EU development aid policies. References to and benchmarking of global development trends and challenges such as demographic change, climate change and migration will be included for this purpose.

The EU Urban Agenda should provide a framework to bring **coherence to a wide range of initiatives and policies and to mobilise stakeholders**. Addressing city challenges, mainly the gap between the growing demand for services and the lack of financial resources, requires a review of sectoral policies that also takes the role of national and sub-national governments (LRAs) into account. Main policy levers, major initiatives and their purpose are therefore analysed in Chapter 3. Examples of local challenges include the regeneration of run-down urban areas, urban rehabilitation and renovation and energy efficiency in buildings. They offer considerable potential in terms of linking public investment strategies for rehabilitation work with job growth and can be addressed through coordinated policies.

The **contribution to better coordination between policies and urban and peri-urban areas** (including cross-border urban areas) is the key question addressed in the business cases (Chapter 4). An EU Urban Agenda should explore and support new models of governance from a long-term perspective (always including cross-border areas), with local communities being directly involved in decision-making. The business cases were built on the basis of the

³ The main aspects to be addressed by an EU Urban Agenda are taken from COM(2014) 490 final, CdR 6902/2013 and CdR 650/2012.

main policy fields of an EU Urban Agenda and thus outline the context of growth in which an EU Urban Agenda should be embedded. The four key intervention areas include the relevant policy fields identified above and culminate in the presentation of a modern urban governance case. Urban governance should function as a driver for social integration and citizen empowerment, challenging people to become actively involved in a participatory society. New approaches to governance with best practice examples are reflected. The role of different actors in modern urban governance is highlighted and new approaches to strengthen awareness of holistic local development are presented. The aim is to bring EU policymaking closer to the people of Europe and adopt an integrated approach.

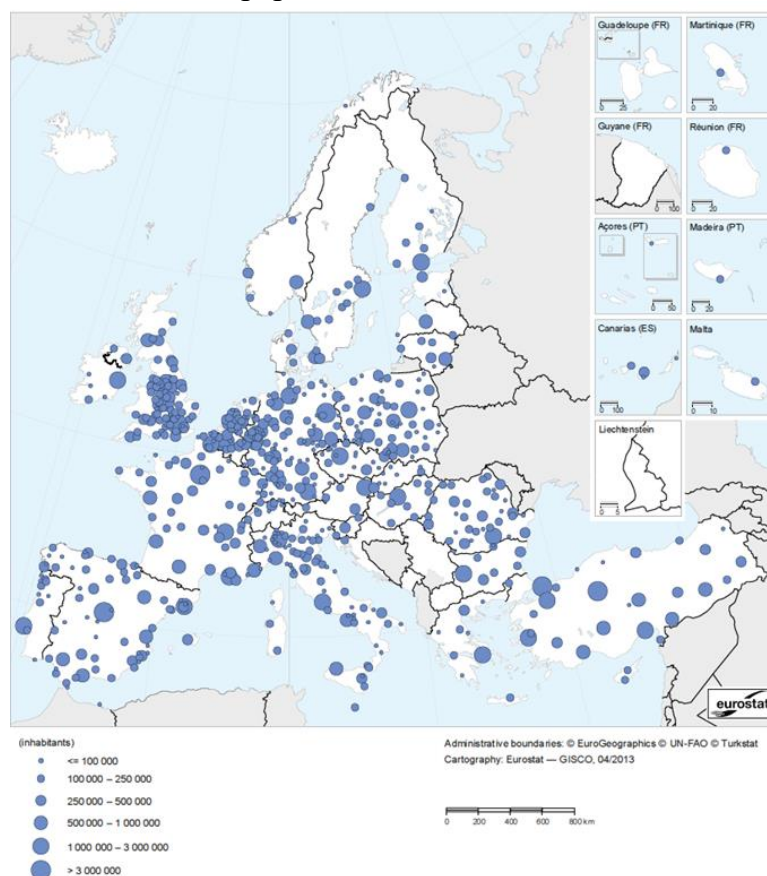
The vital question of cities' capacity for transition and structural change will be addressed by describing **best practice examples at various points throughout the study**. They show a range of approaches to tackling major challenges, e.g. energy efficiency in buildings and passive housing or the rehabilitation of industrial sites.

2 Cities and agglomerations as drivers of smart, sustainable and inclusive growth

2.1 Performance of European cities

In addition to the major metropolitan regions of London and Paris, most of **Europe consists of a polycentric urban system**. The typical European city is a city between 500 000 and four million inhabitants, a city that is large enough to justify a good range of urban amenities and to have a genuine urban environment, but without the disadvantages of the new global mega-cities that are emerging. On a smaller scale, there are also a great number of cities of below 500 000 inhabitants that generally lack a true metropolitan quality, and which are usually less significant in international terms (see Figure 2). Their importance at national level largely depends on the size of the country and its political system.⁴

Figure 2. Total resident population in the Urban Audit core cities, 2011



(*) For some cities an alternative reference period has been used, the exceptions are too lengthy to document; the information presented in the map relates to the most recent data available for each city.

Source: Eurostat (online data code: urb_city)

Source: Eurostat, 2011.

⁴ European Parliament (2014), The Role of Cities in Cohesion Policy 2014-2020, Metis, EPRC.

Companies and universities located in cities encourage residents to invest in human capital and knowledge spillovers, which in turn make cities the **main centres for research and development activities**, patent applications and venture capital. R&D expenditure has a positive influence on businesses, the public sector, higher educational institutions and the private non-profit sector. However, expenditure on research and innovation varies considerably across the EU Member States. In Finland, Germany, Sweden and the United Kingdom, as well as in the capital regions of Denmark and France, investments exceed the Europe 2020 target of 3% of GDP. Capital regions of less developed EU Member States also outperform their national levels of investment for Research and Innovation. As a longer-term process, innovation appears to have a positive effect on regional growth only after five years. Innovation is a strongly localised element, although agglomeration advantages tend to positively influence growth in neighbouring cities and regions.⁵

75% of the EU's metropolitan areas outperform the rest of the country – a trend that is specifically recognised in major central and eastern European cities. Metropolitan GDP growth in Europe between 2000 and 2010 was up to 4% with the highest values in cities in Luxemburg, Poland, the Czech Republic, Slovakia, Slovenia, Estonia and Greece, followed by metropolitan areas in northern and western European countries.⁶

Research indicates an almost linear connection between a city's population size and its average labour productivity. OECD studies suggest an increase in productivity of 2-5% for a doubling in population size that is attributed to greater competition, deeper labour markets and a high share of highly educated people in larger cities, "but also due to a faster spread of ideas and a more diverse intellectual and entrepreneurial environment".⁷ On the one hand, a dense labour market allows for better matching of workers' skills and the requirements of firms.⁸ On the other hand, incentives to acquire new skills are even greater where workers have a greater choice of prospective employers.⁹

European metropolitan regions show different patterns depending on their size and location. In general, GDP per capita in metropolitan regions is higher than

⁵ OECD 2015, *The Metropolitan Century: Understanding Urbanisation and its Consequences*, OECD Publishing, Paris.

⁶ OECD, 2012, *Redefining "Urban": A New Way to Measure Metropolitan Areas*, OECD Publishing.

⁷ OECD, 2015, *The Metropolitan Century. Understanding Urbanisation and its Consequence. Policy Highlights*. Paris: OECD Publishing, p. 1.

⁸ Helsley and Strange 1990.

⁹ Matouschek and Rober-Nicoud, 2005.

in other regions, although growth rates do not reflect this picture.¹⁰ Capital city regions in Europe grew despite the crisis because of higher productivity growth in the EU-15 and higher employment growth in the EU-13. However, between 2000 and 2008, GDP per head in second-tier metropolitan regions was equal to the national level or – in the case of smaller metropolitan regions in the EU-13 – was even below the level of non-metropolitan regions. The trend towards higher investment in capital regions and lower investment in second-tier cities contributed to these patterns and therefore should be reversed. A **tailored and place-based development policy** taking explicit account of the different territorial impact of national policies is therefore also recommended by the European Commission.¹¹

Economic winners of urbanisation can be reduced to three dominant groups worldwide¹²: “Emerging Cities (fast growing middle income cities in countries such as China and India), Global Megacities (middle and higher income cities with populations over 10 million) and Mature Cities (higher income cities where carbon emissions per capita are already high).”

With the exception of London, which also belongs to the second group, the latter group includes bigger European cities. Those cities will experience significant urban change mostly determined either by population growth and or by decline, and thus different growth rates in their major economic sectors can be expected. It must be borne in mind that mature cities make a substantial contribution to global economic growth.

Cities offer opportunities and access to cultural amenities such as a vibrant cultural life and historical sites as well as recreational facilities. A wide range of goods and services, including a **variety of high quality specialised services**, such as medical services or educational institutions, improve cities’ well-being.

According to the OECD, larger cities are in general more productive because of greater competition, deeper and better functioning labour markets (resulting in better matching of workers and jobs), faster spread of ideas and a more diverse intellectual and entrepreneurial environment. For Europe and the United States, this was proved by comparing the average labour productivity with the number

¹⁰ Between 2000 and 2011, GDP per capita grew faster in non-metropolitan regions in Germany, Austria, Sweden, Finland, Portugal and Spain. European Commission 2014a, Sixth report on economic, social and territorial cohesion).

¹¹ European Commission 2014a, Sixth report on economic, social and territorial cohesion; Parkinson et al. 2012.

¹² Floater, G. et al, 2014, Cities and the New Climate Economy: the transformative role of global urban growth. New Climates Economy Cities Paper 01. LSE Cities, p. 3.

of persons living in big metropolitan areas: **the larger the city, the higher the average labour productivity.**¹³

Non-pecuniary costs such as congestion and long commutes, air pollution from traffic and industrial production, which mostly occur in large cities, must be taken into account although they are not covered by comparable statistical analysis. The policy objective to **limit traffic flows occurring as a result of urban sprawl** does not have sound evidence and is often not efficiently implemented, e.g. through correct pricing of negative externalities of fossil fuel-based individual transport or taxes and regulatory policies.

Public transport and the road network determine the area that can be reached within a reasonable amount of travel time. **Proximity** (time-wise, not distance-wise) to other cities has a positive effect on growth. The density of European urban systems leads to broader agglomeration benefits such as positive spillovers on productivity levels, suggesting that inter-urban trade and linkages play an important role in regional growth. Moreover, a good connection to global markets facilitates the capacity to innovate. Cities perform well when local actors in a regional innovation system can communicate easily with each other.¹⁴

An ageing population and international migration have considerable implications for the demographic structure of cities. Moreover, social exclusion and segregation of certain social groups (immigrants, ethnic minorities and/or young people from low-income households) tend to be on the increase globally. **Spatial stratification along socio-economic lines**, i.e. poor and wealthy neighbourhoods with different levels of public service provision and accessibility, including unequal access to education, can lead to self-perpetuating patterns of inequality. On the other hand, the provision of infrastructure should be backed by adequate levels of human capital and innovation.

OECD analyses reveal that there is a time lag in the positive impact of infrastructure on regional growth. In addition, more developed Member States such as Austria, Belgium, France, Portugal and the United Kingdom tend to have a higher unemployment rate in cities than in the rest of the country. On the other hand, urban areas in less developed EU Member States, e.g. Latvia,

¹³ Cf. OECD 2015, *The Metropolitan Century: Understanding Urbanisation and its Consequences*, Policy Highlights, OECD Publishing, Paris, p. 1.

¹⁴ OECD 2015, *The Metropolitan Century: Understanding Urbanisation and its Consequences*, OECD Publishing, Paris.

Bulgaria, Poland and Romania, have higher employment rates and average incomes than in rural areas of small towns.¹⁵

2.2 Challenges related to urban policies

Out of a total of 90 000 local and regional authorities, 89 000 represent the local government level, i.e. municipalities, towns or cities, with the remainder representing the regional level. Roughly one third of all public expenditure in the EU is spent by local and regional authorities, accounting for EUR 2 100 billion a year. Regarding public investment in the EU the expenditure of local and regional authorities makes up as much as 70% of all public investment in the EU.¹⁶

The density of cities brings about economic changes as well as social and economic challenges. Going against the general trend of growth, some cities, which have previously experienced industrial growth in the 70s and 80s, are now facing challenges of out-migration and population decline. Older industrialised cities characterised by the former coal or steel industry experienced population decline even earlier. The so-called "shrinking cities"¹⁷ face other types of challenge requiring different approaches in governance.

Meeting all these challenges and turning them into opportunities depends on effective city governance. Moreover, challenges related to any functional and administrative area have a transversal character that includes diverse policy fields and actors.

2.2.1 Challenges for urban governance

A city's economic strength also depends on the efficiency and effectiveness of its governance structure. The important question is how governments can manage the growth of cities in a way that captures the benefits of productivity and growth but at the same time reduces economic, social and environmental costs. A poorly managed city tends to give rise to costs in terms of urban poverty, pollution and carbon emissions, i.e. traffic congestion, inefficient public transport, air pollution with its associated health impacts, depletion of natural

¹⁵ OECD 2015, *The Metropolitan Century: Understanding Urbanisation and its Consequences*, OECD Publishing, Paris.

¹⁶ City of Copenhagen, 2012, *Exhibition: Beautiful, green, smart and inclusive: colourful cities*.

¹⁷ Martinez-Fernandez, 2012.

resources and inadequate infrastructure for basic services such as energy, water and waste.¹⁸

Growing demand in industrialised countries at a time of resource constraints (including energy, water, raw materials and food commodities) has to be tackled in order to avoid further increases in economic, social and environmental costs.

Table 1. Examples of challenges and related aspects of coordination

Challenges	Policy responses and aspects of coordination
<i>Social and physical challenges</i>	
Urban poverty, social and spatial segregation resulting from demographic change and migration	<p>Strategies for deprived urban neighbourhoods based on social care, education, physical renovation of building stock, local employment initiatives.</p> <p>Strengthening local assets and resources rather than depending on support from the national government facilitates regional growth. The ability to create a well-educated population has important implications for productivity levels. The share of highly educated people tends to be larger in bigger cities. The productivity effects of the city's size and its human capital can therefore mutually reinforce each other. Investments in tertiary education take about three years to positively influence growth.</p>
Uncontrolled urban sprawl as the major challenge from an environmental perspective	<p>Strategies and regulatory policies based on zoning, housing, transport policies (infrastructure and regulation), recycling of land, new offers in terms of compact settlement areas.</p>
Shrinkage (of secondary cities with an industrial past)	<p>Strategies for maintaining basic public amenities in a cost-efficient way, local employment initiatives.</p> <p>Individuals benefit from living in well-functioning (large) cities that attract and retain well-educated and talented people. Thus the exploitation of the innovation potential in cities puts Europe's potential for innovation into practice.</p> <p>The Digital Agenda presented by the European Commission as one of the seven pillars of the Europe 2020 Strategy proposes to better exploit the potential of information and communication technologies (ICT). Innovation, economic growth and progress should be acquired by improving Europe's digital infrastructure.</p>

¹⁸ Floater, G. et al, 2014, Cities and the New Climate Economy: the transformative role of global urban growth. New Climates Economy Cities Paper 01. LSE Cities.

Challenges	Policy responses and aspects of coordination
<p>Environmental degradation including air pollution and noise emission, climate change, water and habitat loss</p>	<p>Adaptation and mitigation strategies based on recycling and rehabilitation of land, investment in environmental infrastructure combined with employment initiatives and education, empowerment and capacity building of local administrative units:</p> <ul style="list-style-type: none"> ■ key role of EU initiatives and programmes through initiating, promoting and connecting relevant approaches across Europe; ■ Europe 2020 objective of achieving sustainable growth: enhancing resource efficiency and helping the EU prosper through low-carbon economic and urban development, greater water efficiency, use of waste as a resource, promotion of renewable energies and more efficient energy supply systems. <p>The reduction of greenhouse gas emissions by promoting cleaner and more sustainable modes of public transport, including raising awareness on part of the citizens, needs to be tailored to local conditions. The main EU funds, however, focus on the infrastructure in less developed cities and regions.</p>
<p>Polarisation of the urban system (growth in certain areas of the EU, stagnation in others)</p>	<p>Investment strategies for secondary cities on a national level (e.g. UK and France). So far these policies have obviously had a national focus, but now there is growing awareness of the role of cities in a European urban geography. Cohesion policy has a limited impact given the magnitude of the challenge.</p>
<p><i>Challenges related to policy and governance</i></p>	
<p>Growing mismatch between administrative and urban structures</p>	<p>Fostering cooperation between municipalities/administrative units.</p> <p>Specific case of cross-border conurbation (e.g. Eurometropolis) – platforms in order to develop dialogue and strategy-building – instruments in ETC as incentives.</p> <p>Effective coordination between transport and land-use planning, integrated public transport provision, land-use regulations that strike a balance between protecting existing neighbourhoods and green spaces and allowing new construction and smart road transport policies to shift the power towards cities.</p> <p>Residents’ trust in public administration that leads to more cooperative behaviour that improves well-being. Well-functioning cities mean effective policies that create resilient cities and satisfied inhabitants Good urban governance, i.e. modern and adaptive administrative structures keeping local conditions in mind, help to better reflect the needs of metropolitan agglomerations.</p>

Challenges	Policy responses and aspects of coordination
Sectoral focus of policies	<p>Support for cities initiatives (raising their visibility, awareness-raising through urban flagship initiatives).</p> <p>Fostering policy models which require a certain level of horizontal coordination, such as EU cohesion policy.</p> <p>An integrated political vision of good governance seeks to make urban centres attractive by exploring the potential of architectural heritage and culture and thus facilitating a sense of identity and feeling of belonging to a city. For instance, green policies encouraging mixed-use and energy saving tend to have fewer negative effects on economic growth at local level than at national level. The way in which a city is organised influences its social, environmental and economic sustainability.</p>

Source: COM (2014) 490 Final, Toledo Declaration, OECD studies on metropolitan areas and governing the cities, Metis GmbH.

2.2.2 New transversal challenges and their role in policy formation

The most recent and important transversal challenges for urban areas are *climate change, demographic change and immigration* driven by conflicts and wars in and around Europe.

Crucial features of these transversal challenges are:

- The dynamics and impacts are characterised by their long-lasting effects which clearly exceed the time spans of political cycles, and responses are often considered unpopular by politicians at all levels.
- Their nature clearly exceeds the scope of local and regional policy approaches. However, consequences are first and foremost felt at local level, e.g. the local incidence of climate change for cities in mountainous areas or certain cities that have become gateways to Europe for unprecedented numbers of refugees.

Such challenges call for reactions, although the recent past has shown that policy formation takes a significant amount of time and diverging interests often reduce the reaction to compromises without visible effects in a short- to mid-term horizon. This is demonstrated impressively in the case of climate action and will be increasingly observed for the other two transversal challenges if policy formation continues in the same way. The urban dimension of these challenges is in most cases multifaceted:

- With regards to climate change, the role of cities is essential when striving for increased **resource efficiency**. On the other hand, resilient cities need effective **adaptation strategies**.
- Considering the effects of **demographic change**, large cities tend to be the winners in general. In many Member States there are particular areas where secondary cities have suffered from massive out-migration and thus are trapped in vicious cycles (in particular those with an industrial past that failed to transform the industrial basis successfully).
- **Migration** has always been essential for urban areas. Recent immigration, however, has had a massive local impact since large conurbations are key to recent refugee policy.¹⁹

All three recent transversal challenges are further influenced by a lack of convincing policy responses.

Role of cities when striving for resource efficiency and adaptation

Striving for resource efficiency²⁰ is an overarching policy aim. An effective and efficient policy approach calls for the integration of several traditional policy areas. However, there is not yet a clear-cut and widely acknowledged approach to it. On the contrary, manifold terms hint at the **diversity of approaches to** and understanding of concepts such as the circular economy, green economy and green growth.²¹

Targets are set most commonly for waste, energy use and efficiency as well as for the reduction of greenhouse gas emissions. Policy approaches might comprise economy-wide strategies, sectoral strategies and action plans and resource-specific or product-oriented strategies or plans.

Moreover, climate change intensifies vulnerabilities and challenges faced by European cities against the background of developments such as demographic change, technological advances and economic transitions.

¹⁹ UNHCR Global Trends, A Year of crises, annual report 2011: Refugees, displaced and asylum-seekers end up in urban areas of other countries. On a global scale, more than half of all refugees end up in individual accommodation which is mostly concentrated in urban areas. Recent newspaper articles also confirm this trend for Europe during the recent wave of immigration: <http://fortune.com/2015/09/08/europe-refugee-crisis-spain/>; <https://www.opencanada.org/features/view-from-europe-how-cities-are-key-to-refugee-policy/>.

²⁰ EEA 2011 p. 9. So far there is no definition of resource efficiency and a lot of terms are being used in connection with the overarching objective. Resources are in many Member States mainly understood as raw materials, with the term "sustainable use of natural resources" often being used. The most frequently mentioned focus areas are energy, waste, minerals & raw materials and water.

²¹ EEA 2011, p. 9. A fairly advanced perspective has been taken in Sweden by defining strategic objectives on the global environmental impact of national consumption patterns.

Energy imports equalling EUR 400 billion p.a. in the EU²² raise energy prices and the need to increase energy efficiency, which is labelled as the most efficient approach to reducing costs. Policies and markets guiding energy efficiency investments are relatively new and their impacts can be expected only in a long-term perspective.

ESIF 2014-2020 funding and revenues from the EU Emissions Trading System (ETS) complement but also initiate the use of national energy efficiency funds, energy efficiency obligations and the long-term strategy of national building renovation.²³

The first-ever universal and legally binding **global climate agreement** was set in December 2015 at the Paris climate conference (COP21). For diverse fields of action, such as mitigation, transparency and global stocktake, adaptation, loss and damage and national support, defined targets were set and agreed on by all 195 of the countries involved. The EU's action areas are focussed *on curbing greenhouse gas emissions in all areas of its activities, i.e. more efficient use of less polluting energy, cleaner and more balanced transport options, more environmentally-friendly land-use and agriculture, more sustainable and resilient cities, fewer emissions from all sectors of our economy, and financing for climate action.*²⁴

By dedicating **at least 20% of its entire budget from 2014-2020 to climate-related action**, the EU has demonstrated its commitment to achieving the EU's climate objectives. Projects focusing on mitigation, adaptation and better governance in the 2014-2020 period will be financed under the LIFE programme (the EU's Programme for the Environment and Climate Action), with EUR 864 million set aside for this purpose.²⁵ Moreover, international initiatives will support adaptation and mitigation in developing countries outside the EU, e.g. the Global Climate Change Alliance (GCCA), co-funded by the ERDF.

A considerable contribution is also made by the EIB, whose 2014 to 2016 Corporate Operational Plan sets an annual target of over 25% of finance directed to climate action, and by privately financed EU Regional Investment Facilities²⁶

²² Cf. EEFIG, 2015, p. 4.

²³ As requested in Directive 2012/27/EU on energy efficiency, Articles 4, 7 and 20.

²⁴ European Commission, DG Climate Action, Towards the Paris Protocol, http://ec.europa.eu/clima/policies/international/paris_protocol/index_en.htm.

²⁵ LIFE is the EU's financial instrument supporting environmental, nature conservation and climate action projects throughout the EU since 1992.

²⁶ The EU-Africa Infrastructure Trust Fund (ITF), the Neighbourhood Investment Facility (NIF), the Latin America Investment Facility (LAIF), the Investment Facility for Central Asia (IFCA), the East Asia

and Public Private Partnerships such as the Global Energy Efficiency and Renewable Energy Fund (GEEREF).²⁷

From the perspective of the EU Urban Agenda and the LRAs as key actors, the following policy fields are most important in terms of increased resource efficiency and urban adaptation to climate change:

- Infrastructure: energy, waste, water, transport, ICTs, STI;
- Soft elements: education (contents), governance, instruments to influence consumption patterns.

Infrastructure probably ranks among the most immediate and most important policy levers from the perspective of LRAs. One has to consider that in all these fields several policy levels (LRAs, national, EU) play a vital role (see Table 6). In the final analysis, policy integration is multi-faceted and will require incentives for horizontal integration of these policy fields at all levels, but also vertical integration across the policy levels.

The obvious and foremost challenge from the perspective of LRAs is the **financing of infrastructure**. Inherent challenges for infrastructure development include the following:

- Higher standards stemming from regulatory policies and directives in these fields make infrastructure more complex and expensive. Moreover they necessitate public investment in STI which leads to an increased investment need.
- Shortages in public funds increase the need for new financing models. However, most financing models in these fields require a stable framework and public support in order to attract private actors. As a consequence, environmentally sustainable solutions in these policy fields will not work without public support.

Renewable energies are rarely an alternative to traditional forms of energy production in urban areas except for small-scale pilots or facilities in innovative buildings. This is also due to the fact that current carbon prices have little effect on steering investment towards energy efficiency in industry or buildings. A combination of heat and energy production from facilities such as waste incineration plants should be the preferred option.

Investment Facility (AIF), the Caribbean Investment Facility (CIF) and the Investment Facility for the Pacific (IFP).

²⁷ European Commission DG Climate Action, Financing, http://ec.europa.eu/clima/policies/international/paris_protocol/finance/index_en.htm.

Box 1. Energy efficiency of buildings

The **efficiency of buildings** is one of the key fields of intervention for several reasons:

- The main energy-saving potential can be found in the building sector since 40% of EU's energy consumption comes from buildings.²⁸ Nevertheless, it increases by only 1.4% p.a. due to the low renovation rate of existing buildings.²⁹
- The implementation of programmes that boost the renovation rate is also a major driver for job growth since the building sector is characterised by SMEs and the renovation of buildings in particular is labour-intensive.
- For typical urban commercial building zones, such as the development of shopping malls or large-scale office areas, investment decisions are often based on short time-horizons and approaches to facility management have become increasingly diversified. Segmentation of the building market is required when developing effective approaches.

The EU's main legislation regarding the reduction of energy consumption of buildings is the 2010 Performance of Buildings Directive³⁰ and the 2012 Energy Efficiency Directive.³¹ Given the lack of available data on energy performance of buildings in urban areas, an urban impact assessment (UIA) was implemented in order to determine the environmental, social, governance and economic effects as a result of the implementation of the first Directive.³² As an example, the impact of the Directive as estimated during the experts' workshop will be presented for two significant reasons:

- About 16% of metropolitan regions could gain a very high and 79% a high positive impact on employment in the construction sector.
- The level of national implementation influences the transferability of renovation costs to tenants and therefore the number of people at risk of

²⁸ cf. COM on Energy Efficiency, 2014, p. 12. 90% of buildings are privately owned.

²⁹ An accelerated renovation rate would require a bundle of measures consisting of regulatory approaches (i.e. setting standards), massive incentives to leverage private funding and support to emerging energy service markets, e.g. by performance contracting.

³⁰ Directive 2010/31/EU on the energy performance of buildings.

³¹ Directive 2012/27/EU on energy efficiency.

³² European Commission, Committee of the Regions and ESPON, Urban Impact Assessment based on ESPON TIA Quick Scan tool, Energy Performance of Buildings Directive, draft version 04/12 provided by the CoR (4.12.2015); the report presents the views and experiences of the cities participating in the workshop held on 11.11.2015.

poverty or social exclusion. Where renovation is financed by private persons, costs will more likely to be transferred than if renovation is financed through tax incentives, public financing and other measures alleviating the financial burden on private owners.

The main outcome of the assessment was the fact that the different rates of implementation of the Directive in the Member States highly influenced its impact on urban areas. For example in some Member States, national legislation prevented the energy efficient renovation of the city's housing stock. In some cases taxes even increased as a result of an increase in the value of the building after the renovation. Another important issue is the ownership of buildings. For example a mixed ownership structure of a building (private and public) makes an agreement on renovation difficult and results in considerable delays in reconstruction.

In order to trigger developments and to shorten the return on investment, **public incentives** are needed. The key supply side instruments are standardisation, i.e. with the aid of building regulations, performance certificates and regulatory stability. For the latter, long-term national, regional or local programmes could act as a stabilising element in order to attract the interest of actors (supply and demand). Further actions comprise e.g. the development of a project rating system in order to assess projects or innovative approaches to financing, such as on-bill repayment or on-tax finance mechanisms, including energy costs in mortgage affordability calculations.³³

For 25 years Energy Cities, the **European Association of local authorities in energy transition**, has supported a locally-led energy transition. The platform includes more than 1,000 member cities in 30 European countries that share experience and learn from each other in order to replicate success. In addition, the association bundles interests and influences EU policies in the fields of energy, environmental protection and urban policy.

Soft elements that are closely linked to urban development stretch from short- to mid- and long-term impacts. Demographic change and the migration balance determine whether a region is vulnerable to or is trapped in a vicious cycle. Additionally, climate challenges resulting from flooding, heatwaves, water scarcity and coastal impacts for cities in vulnerable locations require proactive adaptation strategies that enhance urban resilience. These include:³⁴

³³ EEFIG, p. 7.

³⁴ EC, DG Climate Action 2013, Adaptation Strategies for European Cities.

- Awareness-raising of the importance of urban adaptation.
- Improving the knowledge base.
- Capacity building in cities.
- Processing an EU Adaptation Strategy.

Cities addressing demographic change

Urban regions tend to be less affected by the adverse impacts of **demographic change**, i.e. an ageing population. From a territorial perspective, capital regions and agglomeration areas tend to report population growth based on pull-factors in terms of increasing employment opportunities.

The process is expected to put a **heavy strain on social security and health care systems** and thus will also influence the future public economies in urban regions simply owing to the fact that urban population is expected to reach about 80% of the EU's population in the coming decade. Furthermore, one has to see that alongside growing regions there are also regions that decline by losing population, for instance some regions with second- and third-tier cities in Europe.

Moreover major **societal changes** are strongly interconnected with the phenomenon of demographic change. One prominent trend is the rise of single person households as a consequence of changing lifestyles, economic developments and also longevity (of women). According to Eurostat, in 2011 almost one third of all EU households were single households. The phenomenon is particularly marked in capital regions, e.g. in Berlin and Brussels (accounting for almost half of all households) and large urban regions. Another phenomenon is a high share of lone-parent families in and around major conurbations. These trends have obvious implications for the urban housing market.

The most striking aspect of demographic change is the **ageing of the population**, a process that has been ongoing for several decades. Thriving urban regions have a comparatively better situation since the job opportunities attract a younger work force (pull-factors for migration at all levels). As a result, an increasingly difficult situation can be observed for second- or third-tier cities in regions which have experienced persistent out-migration. These cities tend to be trapped in vicious cycles but are still vital as centres for declining regions. Table 2 presents needs and necessary measures at the level of Member States and LRAs.

Table 2. Needs resulting from an ageing population at MS and at LRA level

Challenges for MS	Challenges for LRAs
<ul style="list-style-type: none"> ■ Measures in favour of higher birth rates (e.g. the economic crisis has had a negative effect on fertility rates in many MS). ■ Need to restructure/rebuild social security systems in times of increasing budgetary pressure. 	<ul style="list-style-type: none"> ■ Need for incentive schemes to foster the adjustment of the housing stock (with a view to support for low-income households such as lone parents or elderly single person households). ■ Increasing need for cost-efficient care facilities for elderly citizens since tight public budgets do not allow for proportional increases of expenditure in the coming decades.

Source: Metis GmbH.

According to Eurostat,³⁵ in the period 2008-2012 the **population change** – understood as the net balance between natural growth and migration – revealed that the majority of regions with the highest growth rates were in or around urban regions.³⁶ This trend is globally set to continue until 2030, although the main urbanisation increase is occurring in developing countries. “Europe’s urban population as a percentage of the global total is likely to have shrunk considerably”³⁷. Nevertheless, a qualitative growth effect can be observed in terms of the labour force in Europe. The EU 2020 target of 40% of the cohort aged 30 to 34 completing tertiary education will probably be achieved by many EU Member States.³⁸

The regions which have suffered the most marked losses are spread in an arc from many regions in southern countries such as Romania, Bulgaria, Croatia, Greece and inland regions of Spain and Portugal, to Hungary, eastern Germany and parts of Lithuania and Latvia in the Baltic Region. These are mostly rural and peripheral regions.

The key element of population change at the regional level in the EU is migration – the regional patterns of net-benefitting and net-losing regions are almost identical to the patterns of gains and losses stemming from net migration at a regional level. Thus, the following challenges face Member States and LRAs:

³⁵ Eurostat 2014, Regional Statistical Yearbook 2014.

³⁶ Cf. Eurostat 2014: The highest increases in absolute terms have been reported for Barcelona, Madrid, Stockholm, Berlin, Brussels and Seville.

³⁷ ESPAS 2013, The Global Economy in 2030: Trends and Strategies for Europe, p. 12.

³⁸ ESPAS 2013, The Global Economy in 2030: Trends and Strategies for Europe, p. 10.

- The key factor to buffer the adverse effects of demographic change is migration that cannot be regulated within Member States or within the EU but is driven by push- and pull-factors.
- Countries with fiscal equalisation mechanisms such as Austria and Germany use population numbers as a key indicator. Therefore favouring urban regions with higher support means implicitly favouring concentration.
- It will be difficult for declining regions to reverse push factors and the impact of protracted periods of out-migration.

Labour force mobility within the EU increased gradually up until the financial and economic crisis, largely driven by income and wage differentials. At first this was to be observed between southern and northern EU Member States, but now more recently it can be seen between eastern and western EU Member States.

The effects of the crisis initially resulted in a reduction in labour mobility as employment opportunities dried up, and this has for the last couple of years been increasingly driven by growing unemployment differentials, principally between members of the euro area.

Apart from job opportunities, labour mobility is also strongly driven by the housing market – housing prices will determine migratory movements and commuter flows to and around urban regions. The following challenges face Member States and LRAs:

- Risk of crowding-out effects on regional labour markets, wage dumping.
- Housing markets with high transaction costs might impede labour mobility and can therefore act as limiting factors in growth areas or as an impeding factor in the process of out-migration (or even economic transition).

Urban in- and out-migration³⁹

Throughout history migration has been essential for the growth of cities. The major persistent element has been the move from rural to urban areas, an essential characteristic ever since the start of urbanisation in Europe. In the 19th and 20th centuries industrialisation changed the scale of the phenomenon, and in

³⁹ European Commission 2015, COM (2015) final, A European Agenda on Migration, Brussels 2015.

the second half of the 20th century colonisation, as well as rebuilding Europe in the aftermath of the war, added a new element: the increasing influx of migrants from other parts of the world.

Statistics on population change in the EU clearly reveal capital regions, agglomeration areas and first-tier cities of the Member States as the winners of the past two decades.⁴⁰ Population growth reflects the decisive pull-factors of growing job opportunities and the push-factors in declining regions.

The patterns of population change are the key indicators of the growing divide between prospering and declining regions. At the same time, they constitute a key indicator for the challenges related to EU cohesion policy.

Nevertheless, seeing urban regions as the winners would provide an incorrect picture of the developments. One can assume that the number of losers in this development process outweighs the number of winners. In the context of an EU Urban Agenda it must not be forgotten that second- and third-tier cities in declining regions are essential and become increasingly important as they might at least impede the process of decline.

Since 1985 there has been a **net inflow of migrants to the EU 28** – the first peak was reported in 2003 with a 1.8 million net increase.

In the period 2008-2012⁴¹ the **general patterns of net migration at regional level** reflect the patterns in population change which demonstrates the decisive role of net migration for population change. In this period the inflow of migrants⁴² was particularly high in southern France, northern Italy, the Benelux countries and the United Kingdom. Net out-migration was especially pronounced for the Lithuanian regions, except for the capital region, three German regions in eastern Germany and Dublin – the latter most probably due to the economic crisis.

Migration of non-EU nationals was relatively stable in the period 2010 to 2013. During these years, about 1.4 Mio. immigrants p.a. came from non-EU countries, but also reverse out-migration from EU countries occurred resulting

⁴⁰ As a consequence within the agglomeration areas the dynamics are the highest: the NUTS-III region with the highest growth rate in the period 2009-2012 was Ilfov, close to Bucarest –an obvious consequence of suburbanisation; strikingly, two urban regions rank among those with the highest losses in absolute terms in the same period: the centres of Dublin and Athens –an obvious consequence of the economic crisis (cf. Eurostat, Regional Statistical Yearbook 2014).

⁴¹ cf. Eurostat: Migration and migrant population statistics, http://ec.europa.eu/eurostat/statistics-explained/index.php/Migration_and_migrant_population_statistics.

⁴² Migration at national level, from Member States and non-Member States.

in a net-migration of about 600,000 per year in the period 2010 to 2013. The main countries of origin varied in this period.⁴³

Immigrants were much younger than the resident population in the country of destination.⁴⁴ Germany, the United Kingdom, Italy, Spain and France, with a share of 63% of the EU's population, are home to 76% of all non-EU-nationals.

In 2013, there were an estimated 1.7 million **immigrants to the EU28 from non-member countries**. In addition, 1.7 million people previously residing in one EU Member State migrated to another Member State.⁴⁵

Owing to the fact that natural population change is close to zero across wide parts of Europe, migration within the Member States means de facto that some regions clearly lose inhabitants.

The **migration policies** of Member States differ enormously, which is documented for example in diverging acceptance rates for asylum seekers. There is also a trend to encourage the skilled labour force to immigrate – this also implicitly directs the intended and controlled migration flows to urban centres.

The main countries of origin in the **recent immigration wave** 2014/2015 were Syria, Kosovo and Afghanistan.

For the first time the magnitude of the waves of refugees and asylum seekers calls for action at European level. Despite the urgency of the call, policy responses are reluctant and impeded by diverging interests.

So far the intended target of the immigrants covers only a minority of Member States and within these countries the capital regions or first-tier cities due to a range of factors (job opportunities, relatives, migrant communities). Resettlement plans within the EU have not yet become effective. At Member State level they do exist but their implementation is difficult and an overall burden for the actors involved.

Challenges resulting from migration for different policy levers are evident and presented in Table 3.

43 Cf. Eurostat, 2014, Infographic: India, China and Morocco were among the top-ranking countries in these years.

44 Eurostat: The median average age of EU citizens is 42 years, whereas that of immigrants is 28 years.

45 Eurostat website: Data on migration.

Table 3. Challenges resulting from migration at EU, Member States and LRA level

Challenges for the EU	Challenges for MS	Challenges for LRAs
Migration within, in and out of the EU		
<ul style="list-style-type: none"> ■ Lack of a consistent policy framework at the European level. ■ Global and partly EU-wide competition for desired migrants such as highly-skilled researchers. ■ Growing number of crisis areas in the neighbourhood of the EU. 	<ul style="list-style-type: none"> ■ Sensitive political issue in particular due to the persistent economic crisis in many MS and increasingly volatile developments in parts of the global economy. 	<ul style="list-style-type: none"> ■ Sensitive political issue due to the tendency of concentration and segregation in the housing market and urban quarters but also formation of critical segments in the labour market. ■ Need for ancillary measures in the education system in order to contain the risk of drop-outs and low education standards. ■ Strain on the social security systems/trade-off between the initial cost and longer-term benefits.
Recent immigration from non-EU countries		
<ul style="list-style-type: none"> ■ Formulation of a consistent policy response which seeks a more balanced redistribution of the burden. ■ Need for quick implementation of ad-hoc measures and building of infrastructure (hot spots). ■ Starting effective external action in order to reduce the magnitude of immigration waves – cooperation with partner countries in proximity to crisis areas, incentives for more effective border management by these countries. 	<ul style="list-style-type: none"> ■ Need to provide finance and organisation of shelter for refugees and to increase border controls in order to counteract trafficking for frontline, transit and target MS. 	<ul style="list-style-type: none"> ■ Concentrated occurrence in some cities such as Calais, leading to a huge need for ad-hoc aid in terms of temporary shelter, social and health care.

Source: Metis GmbH.

2.3 Smart specialisation strategies

The role of urban economies for economic growth in the EU is decisive. The most diversified economies and resources in the sense of a knowledge based economy are concentrated in urban areas. Due to comparatively high wage levels, the economic pressure for increased productivity is particularly marked in urban regions.

Urban growth will depend to a significant extent on the ability of urban economies to determine new development paths, to support the resilience and adaptability of their economic structures and to raise the profile of their STI institutions. One of the major approaches in this sense is smart specialisation.

Among thirty other action points the Innovation Union contains the implementation of ground-breaking initiatives such as the **European Innovation Partnerships (EIPs)**. The new approach to EU research and innovation is challenge-driven and focuses on societal benefits and modernisation of the associated sectors and markets. It further aims at bringing together relevant actors at EU, national and regional levels.⁴⁶

Smart urban technologies contribute to the sustainable development of European cities. The **Smart Cities and Communities EIP (SCC)** includes the areas of energy, transport and information and communication. It focuses on industry-led innovation and promotes action across the innovation cycle as well as across different sectors. It has the following objectives:⁴⁷

The European Innovation Partnership on Smart Cities and Communities (EIP-SCC) brings together cities, industry and citizens to improve urban life through more sustainable integrated solutions.

This includes applied innovation, better planning, a more participatory approach, higher energy efficiency, better transport solutions, intelligent use of Information and Communication Technologies (ICT), etc.

Smart-city strategies offer technological solutions to link urban challenges, making use of ICTs to support new urban growth activities, linking together data to enhance sustainability such as using smart-grid technology or optimising

⁴⁶ http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=eip.

⁴⁷ European Commission, 2012, Communication from the Commission, Smart Cities and Communities – European Innovation Partnership.

public transport, and meeting the needs and challenges of social exclusion through a better and more intelligent provision of public services.⁴⁸

Yet such **smart-city strategies need to be underpinned by effective and inclusive governance**, as well as by changes in societal behaviour that enable the full use of the new technologies. While cities develop more and more sustainable and smart strategies, this is not necessarily a guarantee for greener and more environmentally friendly industrial production, nor does it guarantee solutions for the urban challenges named above. There are two main reasons for this:

- However smart a city is, its level of influence is limited if it does not own a considerable building stock. The only available instruments are then incentives, which are often not even respected by its own municipal or national companies as a result of budgetary constraints.
- Industrial areas are outside the sphere of influence if they follow the trend to shift to the urban surrounding areas outside of urban administrative boundaries. Without a common smart development strategy sharing the same political interest across the border, no sustainable development can be claimed.

Box 2. Passive housing in Vienna

- The city of Vienna has firmly established its status as pioneer in passive housing standards. This has also been possible due to the fact that one in four Viennese citizens lives in municipal housing. Overall, the city of Vienna has built 220 000 municipal dwellings for half a million tenants and additionally subsidised the building of 200 000 affordable housing dwellings.⁴⁹
- Experience shows that some lessons are still to be learned. In Europe's biggest passive house settlement (information from 2013) in the centre of Vienna, the "Eurogate", housing satisfaction leaves much to be desired. This is mainly to be traced back to poor construction quality and cost savings by the developer. For instance, hot indoor temperatures in summer and winter in the upper floors and cold indoor temperatures further down

⁴⁸ European Innovation Partnership on Smart Cities and Communities, 2013.

⁴⁹ City of Vienna, Municipal Housing in Vienna. History, facts & figures, available file: <https://www.wienerwohnen.at/dms/workspace/SpacesStore/aa75756e-2836-4e77-8cfd-f37cc15e2756/1.0Wiener-Gemeindebau-engl.pdf>.

are the result of missing external blinds and a ventilation system that cannot be turned off.⁵⁰

- Here, the city should introduce stricter conditions, especially if the buildings are subsidised.

Smart Specialisation Strategies (S3) or Triple Helix⁵¹ (3H) refer to open but structured forms of strategic cooperation in order to support innovation and economic growth. The centre of gravity for S3 in the common definition and approach is knowledge of markets and businesses, their underlying trends and emerging patterns of users.

The focus of S3/3H is on the process of shared strategy development and the facilitation of interaction between the main players. The approaches are intended as a dynamic process based on mutual understanding between the actors, interdisciplinary approaches and a sound process monitoring mechanism which allows for ongoing assessment of results and adjustment of the policy mix, programmes and action plans. The strategies seek to actively involve the players and thus are often labelled as indigenous and bottom up approaches. S3 is also viewed as one of the most important approaches in the sense of place-based development, as set out in the Barca Report.

It is evident that this type of approach poses significant challenges for governance. They will therefore be defined in more detail in Section 4.5 on urban governance.

Specialisation – as a reaction to rapid economic transformation

The new strategies have to be understood as a reaction to changes in economies:

The knowledge and information embedded in products and services grows across all economic sectors and activities. It puts new demands on skills and specialisation, and leads companies into open innovation [...] Routine activities tend to leave expensive cities for cheaper locations. Yet this is not about 'manufacturing versus services', but about the types of activities that are prone or not to routinisation. Paradoxically, there is an emerging trend of manufacturing resurgence in some European cities known as re-shoring (i.e.

⁵⁰ http://www.wienerzeitung.at/nachrichten/wien/stadtleben/567089_Schwitzten-im-Passivhaus.html.

⁵¹ The term "triple helix" refers to the collaboration between governments, companies and knowledge institutions similar to the strands in the DNA, i.e. a tightly interwoven entity. The term quadruple helix also includes civil society, respectively the consumer and recipient.

*formerly off-shored production returning to Europe) and the production of small batches of specialised products.*⁵²

The rapid pace of economic development can be largely attributed to the spread of Key Enabling Technologies (KET),⁵³ in particular ICT, in all sectors:

*Among the trends that affect the economies of Europe's cities, the digital revolution is the key game changer. It deeply impacts many sectors of the economy, it fundamentally changes how companies and people work and learn, and evokes entirely new business models.*⁵⁴

There are obvious winners and losers of the rapid transformation process. For example, one has to think about the effects of e-commerce and e-services which allow for targeted services in mobility. Accommodation or travel provided at low cost due to savings on rental of premises and marketing strategies also become a challenge for established shops, car rentals and hotels. ICT as a KET has also triggered the transformation of industries such as transportation or health, retail and specialised manufacturing. The digital economy is often viewed *as a cradle of new entrepreneurship.*⁵⁵

The effects of transformation also become visible in urban areas in the form of derelict shops, temporary use of premises in offices or shopping areas and rather open office communities for certain sectors such as the creative sector, which combine cost savings with options for flexible use.

An interesting model case for ICT acting as driver for development is the city of Cluj in Romania.⁵⁶

Box 3. Cluj as a hub in IT

The nucleus of the development has been the university which had been specialised in informatics even before the changes in the 90s in the last century. When the development of IT companies started and the IT sector grew, it became obvious that entrepreneurs were not satisfied with the quality of university graduates' skills. University rectors were ready and willing to adjust the curricula but requested the fragmented local IT industry to harmonise and consolidate their proposals. Thus, a more structured

⁵² Van Winden, de Carvalho 2015, p. 7.

⁵³ KET as usually understood comprises, in addition to ICT, the following technologies: material technology, micro and nano electronics, photonics and biotechnology.

⁵⁴ Van Winden, de Carvalho 2015, p. 8.

⁵⁵ Van Winden, de Carvalho 2015, p. 21.

⁵⁶ Van Winden, de Carvalho 2015, p. 12.

cooperation developed:

Universities teamed up with the local IT industry and public organisations to create a cluster organisation, the Cluj IT Cluster. Currently, the cluster is made up of 32 companies, three regional universities and eight partner organisations (including the Regional Development Agency, the City Council of Cluj-Napoca and county-level institutions in Cluj). [...] The city played the role of facilitator and network-mediator.⁵⁷

Infrastructure in S3

The new approach implicitly shifts attention to some extent from traditional forms of RDTI infrastructure. Universities, incubators and science parks play a vital role in strategy development, but more as partners in new forms of cooperation. Examples of new types of infrastructure in the sense of S3 are:

- **Intermediaries, knowledge hubs** such as Demola⁵⁸ (Tampere, Finland), which is an organisation based on a collaborative initiative between the city, its universities⁵⁹ and other local stakeholders. Its aim is to collect research questions from companies and institutions as well as corresponding skills requirements and to publish these in order to invite students to take part in shared development activities.
- **Innovation Labs** as new forms of shared venture between universities and firms. The academic sector benefits from the more effective marketing of research results and the business sector from quicker knowledge transfer and shorter innovation cycles.

Box 4. 3H model Eindhoven

The region of Eindhoven has become a model in terms of institutionalised cooperation for 3H.⁶⁰ The innovation strategy is designed by a foundation with representatives of the three main parties to 3H, i.e. the LRAs, leaders of knowledge institutes and businesses. The current strategy is labelled as *Brainport 2020*.

The engine being implemented is an organisation named Brainport Development with a staff of 50. The organisation is owned and funded by

⁵⁷ Van Winden, de Carvalho 2015, p. 12.

⁵⁸ Cf. van Winden, de Carvalho 2015, p. 13.

⁵⁹ There are about 38 000 students in universities around Tampere.

⁶⁰ Cf. van Winden, de Carvalho 2015, p. 13.

regional LRAs – mutual trust and the broad underlying partnership have helped to strengthen an independent profile of the organisation, prevent ad-hoc political intervention and support a long-term approach. The organisation is in charge of a broad range of activities: *it runs business parks, it kickstarts promising projects, it provides support for funding and subsidies, it markets and promotes the region at home and abroad, and it supports the strategy-building process.*⁶¹

A feature common to most current successful models of S3 or 3H partnerships is the **pivotal role of universities**. Harmonious collaboration among the 3H partners is one of the foundations for success.

Examples of proactive roles of universities⁶² come for example from Aachen (Germany), where professors ‘go on tour’ to local and regional SMEs and actively seek cooperation. In Tampere (Finland), universities have established ‘problem Fridays’ where companies and institutions are invited to face-to-face meetings in order to discuss technological challenges.

As regards digital skills, Manchester is an interesting example. The city council and the city’s universities jointly organise the *Digital Skills Summit – a forum for digital and graduate hiring and training workshops*. Another initiative is *GO ON Manchester*, which intends to teach digital skills to the population at large using voluntary ‘digital champions’ as tutors.⁶³

A critical element is the **role of big companies** in the process which might represent very influential partners in economic terms. In such cases LRAs could act as facilitators in order to build trust between the partners and support the negotiation of cooperation terms at eye level.

Learning from models in Europe

Many urban regions have set up strategies of this kind, and plenty of opportunities for exchange of information across Europe exist. Important knowledge hubs in terms of S3/3H strategies are for example the Joint Research Centre (JRC), which runs the S3 platform. In an urban context, the capitalisation efforts undertaken by the URBACT programme are worth mentioning.

One of the models for a comprehensive strategy-building process is the example of the Finnish capital region, Helsinki-Uusima.

⁶¹ van Winden, de Carvalho 2015, p. 13.

⁶² van Winden, de Carvalho 2015, p. 13.

⁶³ van Winden, de Carvalho 2015, p. 23.

Box 5. Smart specialisation strategy (RIS) 3 Helsinki-Uusima

The Smart Specialisation Strategy (RIS3) 2014-2020 for the Finnish Capital Region⁶⁴ is a model of interest given the long-standing tradition and success of cooperation between universities and industries. The goals provide clear guidance on breakthroughs in (technological) innovations at international level. An accompanying strategy element is a strengthened approach to longer-term strategy setting and infrastructure development in the research sector. A stronger programme-based approach and predictability of funding should support an innovation-friendly research climate.

The priorities are labelled as *multi-disciplinary thematic entities with strong innovation and value creation potential. These will be expanded on and developed throughout the RIS3 period. Universities, universities of applied sciences and research institutes are key actors. Co-operation, especially with companies and municipalities, is vital.* The five chosen priorities are:

- Urban cleantech.
- Human health tech.
- Digitalising industry.
- Welfare city.
- Smart citizens.

The aim is to trigger development through the combination of these industries with related KET. The organisation and process design is based on shared thematic innovation platforms in order to act as a hub in the coordination of activities and to monitor progress. These platforms differ in character and the main players involved. The character of platforms ranges from large thematic platforms to cluster-type platforms to participatory functional platforms intended as open innovative milieus. Universities and intermediaries have an important role in furthering the activities of the platforms. A vital strategy element are the so-called "spearhead projects" in the five priority areas which aim to *change the operating culture*⁶⁵ and give momentum to the process from the very start.

From the perspective of LRAs, the key policy angles have been taken into account during the process of strategy-building: the municipal and metropolitan perspectives have been represented in strategy development.⁶⁶

⁶⁴ Helsinki-Uusima Regional Council 2015.

⁶⁵ Helsinki-Uusima Regional Council 2015, p. 9.

⁶⁶ Helsinki-Uusima Regional Council 2015, p. 13. The region consists of 26 municipalities. 12 municipalities in the metropolitan region have created a shared competitiveness strategy as an ancillary strategy.

3 Key elements of an integrated EU Urban Agenda

Measures for sustainable economic growth are designed to reduce poverty, social exclusion and environmental problems. Economic and social perspectives in cities differ spatially (between neighbourhoods) and socially (between different groups), which makes it more important to boost integrated sustainable development in cities most exposed to problems of social exclusion, deterioration of the environment, wastelands and urban sprawl.⁶⁷

Local and regional authorities gained increasing influence over EU policy-making through the implementation of cohesion policy but also in the frame of public procurement, state aid and the application of environmental standards.

This chapter aims to describe the main strands of a fully operational EU Urban Agenda. It contains an overview of the main EU policies, governance mechanisms and stakeholders, and therefore allows an understanding as to what one could expect from a future EU Urban Agenda.

Based on these considerations, an assessment of the current situation for implementing an integrated EU Urban Agenda will be conducted. Urban best practices will be proposed, where available, to demonstrate the impact of a possible new urban policy at EU level.

3.1 Typology of cities

Over the last decades a wide range of city rankings and city typologies have been developed. However, their use is not always clear, as the different rankings and typologies are similar even if developed for different purposes. Several typologies have also found recognition at European level, starting with the OECD typology followed by FOCI⁶⁸ and LUZ.⁶⁹ All these approaches are still too broad. City typologies in general fail to take account of the following:⁷⁰

- The different positions of cities and urban areas in different Member States – in general, in the smaller Member States, smaller cities have an

⁶⁷ European Commission, 2006, Communication from the Commission to the Council and Parliament. Cohesion Policy and cities: the urban contribution to growth and jobs in the regions.

⁶⁸ ESPON 2013a, FOCI Future Orientations for Cities, applied research.

⁶⁹ ESPON 2013b, Typology of urban development, 1990-2006, Larger Urban Zones.

⁷⁰ European Parliament (2014), The Role of Cities in Cohesion Policy 2014-2020, Metis, EPRC.

economically and socially higher ranking than in the larger Member States.

- Different typologies do not acknowledge a standardised system boundary. Cities and their hinterlands do not operate along administrative borders which, in practice, are most relevant for policy development in different Member States. Moreover, in those Member States with a federal system cities tend to function along administrative borders at the federal level.
- Comparisons between agglomerations differ in their size cut-off. Some include small towns, while others only consider larger urban areas. Furthermore, metropolitan areas encompass substantial hinterlands with some rural areas as well. Comparing metropolitan cities with the rest of the territory is more like making a comparison between very small settlements and highly rural areas on the one hand and the rest of the national territory on the other.
- Research and innovation is not always related to city size, and smaller cities do sometimes have a higher level of innovation interaction and concentration. Larger cities tend to be more concentrated on the service sector.

It goes without saying that urban typologies are useful for various purposes and should be a basis for a Europe wide urban policy debate. However, **the purpose of the typology needs to be clear** before defining indicators for any new ranking or typology system. The following aspects should be considered:

- Member State size;
- the location (peripheral or central) of cities and urban areas;
- functional alliances between cities;⁷¹
- the size of the city and the type of hinterland.

At this point, a critical remark on weak data availability at the urban level is necessary for a more detailed understanding of the impact of an integrated EU Urban Agenda:

⁷¹ Strategic alliances that have a narrow scope involving only a single functional area of the business are less complex than comprehensive alliances and therefore may not take the form of a joint venture.

Box 6. Weak indicators at urban level

The attempt to measure economic performance in urban areas causes some difficulties because of weak data availability of comparable and reliable indicators for agglomeration areas. Where quantitative information for cities is available, it only exists either at NUTS 2 or 3 level or within administrative boundaries for larger cities, which does often not mirror the actual concentration in the regionally integrated areas. As a result, the vast majority of smaller cities and towns in Europe cannot be presented using comparable indicators and therefore cannot be included in detailed quantitative analyses on economic, social and environmental growth.

Relevant literature mainly refers to the fact that smaller cities do not have a real impact either at national or, in particular, at international level. Indeed, the performance of cities differs greatly in terms of economic indicators but also with regard to social and environmental sustainability.

Nevertheless, statistical information at local level is of great importance for local policy strategies. Comparison at national or international level alone is very complex and time-consuming, which means that the local level can only be considered in the form of case studies and examples.

Two approaches endeavour to overcome this fundamental challenge, although there are still some shortcomings in comparability and transferability with regard to small towns:

- (1) The data collection exercise⁷² (formerly known as Urban Audit) is undertaken by national statistical institutes, the Directorate-General for Regional and Urban Policy and Eurostat. The indicators collected relate to the broad field of living quality in cities in the EU, Norway, Switzerland and Turkey. Since data are provided on a voluntary basis, availability differs from topic to topic. Statistical information is collected at several levels, i.e. at the level of Local Administrative Units (LAU) including urban areas of at least 50 000 inhabitants, the Functional Urban Areas (FUA, formerly known as Larger Urban Zones) that consist of a city and its commuting zone and the greater cities, calling for an approximation of the urban centre when this stretches far beyond the administrative boundaries.

For specific indicators relevant to the urban economy, the calculation at the EU level is based on a mix of these spatial levels and it includes a

⁷² cf. Eurostat Cities (Urban Audit), available at <http://ec.europa.eu/eurostat/web/cities/data/database> (accessed 17.11.2015).

number of exceptions. Moreover, definitions of indicators per country differ from each other. Nevertheless, the following key indicators could be aggregated:

- 77.4% of jobs in the EU are based in cities and greater cities.
- 53% of companies, operating at all administrative levels, are located in cities and greater cities.

(2) The Eurostat urban-rural typology consists of three types of regions - 'predominantly rural', 'intermediate' and 'predominantly urban' - for statistical analysis.⁷³ Its data availability is also limited in terms of countries and years. For the following indicators, the most comprehensive but still recent data can be aggregated for 2011:

- 44% of GDP per inhabitant was gained in predominantly urban regions and 29% in intermediate regions, totalling 73% in these two types of region in Europe overall. A wide range of GDP levels in European cities and intermediate regions must be borne in mind.
- 49% of GV_a in total for all NACE activities is generated in predominantly urban regions and 34% in intermediate regions, accounting for 83% in these two types of region in Europe overall.

Again, it must be borne in mind that this is only an average value of all predominantly urban and intermediate regions. ***General conclusions about the overall high performance of urban areas should therefore not be drawn at international scale, and literature and impact assessments must be interpreted with caution bearing in mind the different contexts of urban areas.***

To sum up, typology can only be a baseline and should be extended by contextual clustering of different cities. In order to address different urban areas in Europe, different context related aspects have to be taken into consideration. Cities are not comparable based on their size and administrative status in relation to different European policy fields where the respective context needs to be understood. For instance, Naples and Krakow do not face the same contextual situation, i.e. they vary in their industrial structures, climate conditions and

⁷³ For more information on the methodology and definition see http://ec.europa.eu/eurostat/statistics-explained/index.php/Urban-rural_typology and the Directorate for Public Governance and Territorial Development 2011, OECD Regional Typology (accessed 17.11.2015).

cultural backgrounds. A new policy will therefore be implemented differently in Naples as opposed to in Krakow.

The ESPON Territorial Scenarios and Visions for Europe project ⁷⁴ provides scenarios for metropolises, medium and small cities. The promotion of small cities and less developed regions between now and 2050 means that small and medium-sized cities, as centres of self-contained and economically resilient regions with more sustainable mobility patterns, can reduce existing imbalances in the medium and lower levels of urban hierarchy and their functions for the surrounding regions.

3.2 The urban dimension of the main EU policies

European urban development is influenced by diverse policy areas, either directly in the shape of urban programmes, initiatives and network activities or indirectly through policies that alter growth opportunities, accessibility, environmental influences or social conditions in cities. The urban dimension in European policies describes the benefits of single policies for cities as well as their impacts and the possibilities for taking part in policy implementation.⁷⁵ Likewise, the urban dimension facilitates an integrated and sustainable approach that coordinates different sectoral policies and their impact on urban areas and their inhabitants.

It is clear that – as with EU cohesion policy – urban policies must be transversal. Thus, as a starting point, it is useful to consider the main EU policies and their urban dimension. The brief review in the table below points to the fact that all the main EU policies have a marked urban dimension.

Table 4. Proposal for the grouping of the main EU policies

EU Policies	Urban Dimension	Relevance for an EU Urban Agenda	Relevance for growth potential through the implementation of the BAT
Agriculture, fisheries and food	Food industries are often concentrated in/around agglomeration areas. Cities are the main markets for food products. Urban lifestyles and habits are crucial for trends in production	Medium	High Owing to the fact that several BREFs address food industries (in particular food, drink

⁷⁴ ESPON Project 2013/1/19, Final Report 30.6.2014.

⁷⁵ COM (2006) 385.

EU Policies	Urban Dimension	Relevance for an EU Urban Agenda	Relevance for growth potential through the implementation of the BAT
	(and thus for the energy consumption of the sector).		and milk industries and intensive rearing of pigs and poultry, slaughterhouses).
Business	The service sector has been the driver for job growth. It is concentrated in urban areas.	High	Low to medium Industrial development as the major target of BAT is increasingly intertwined with development of specialised services, which is in turn a key focus of business policies.
Climate action	Cities present manifold options for economies of scale in climate action through sustainable transport and energy efficiency of buildings on the one hand and, on the other, by capacity building, awareness raising and exchanging knowledge and good practice in order to ensure effective adaptation strategies.	High	High The inherent principle for determining BATs aims to minimise waste production, to further recovery and recycling of substances and to promote energy efficiency. ⁷⁶
Cross-cutting policies – in particular EU 2020	Inherent focus on STI and through the flagship initiatives; also political momentum.	High	High Due to the implicit and explicit focus of these policies on innovation and STI.
Economy, finance and tax	The sector has been the driver for job growth and is concentrated in urban areas.	High	Medium to high The implementation of BAT depends heavily on an economic climate that favours investment. Economic policies, access to

⁷⁶ Cf. IED 2010/75/EU, Annex III as well as the BREF on Energy Efficiency (2009).

EU Policies	Urban Dimension	Relevance for an EU Urban Agenda	Relevance for growth potential through the implementation of the BAT
			finance and taxation are thus vital elements for triggering growth via BATs.
Employment and social rights	Growth of employment concentrated in urban areas Urban poverty in western Europe; most diverse social fabric in urban areas.	High	Low to medium BAT and the implicit knowhow gathered in the process of developing these could be used to develop new job profiles and corresponding qualification offers. ⁷⁷
Energy and natural resources	Cities present manifold options for economies of scale in energy and natural resource efficiency through sustainable transport and in the construction industry.	High	High See the considerations under <i>Climate Action</i> .
Environment, consumer protection and health	Health and environment protection are essential policy elements but these are also sectors that have contributed and will continue to contribute to sustained economic growth.	High	High One of the explicit aims of the use of BATs is emissions reduction.
External relations and foreign affairs	Cities are hubs in trade and major targets for migration etc. External relations are thus vital for larger conurbations. A second aspect is that the transfer of knowhow and practices of sustainable development is crucial, given the global developments in urbanisation with their numerous adverse impacts.	High	Medium BAT could be an important element in the knowhow transfer in external relations since industrial pollution is a major issue in local neighbourhoods as well as in other target countries.

⁷⁷ One example of a new job profile of this kind is in the field of energy management. In the past decade, numerous educational opportunities and qualifications have been developed in this sector.

EU Policies	Urban Dimension	Relevance for an EU Urban Agenda	Relevance for growth potential through the implementation of the BAT
Science, Technology and Innovation (STI)	Cities are the centres of tertiary education and STI infrastructure. Funding is usually concentrated in cities and in agglomeration areas respectively.	High	High H2020 can have a strong impact, which is reflected in the Work Programme for 2016/17, e.g. focusing on Leadership in Enabling and Industrial Technologies (LEIT) and on developing KET. Pilot plants will provide new (technological) impetus to BAT.
Cohesion policy	Strengthened urban dimension in ESIF period 2014-2020.	High	Medium BAT could be used to strengthen the profile of actions in accordance with several thematic objectives in cohesion policy. ⁷⁸
Transport	Urban areas are the nodes and hubs in national and European transport networks.	High	Low
Cultural policy	European capital of culture as driver of urban development and growth.	High	Low

Source: Metis GmbH.

There are scarcely any sectoral policies without an urban dimension. Thus one of the main aims of this study is to highlight those policy areas that are crucial to fostering economic and job growth and ensuring that the principles of environmental sustainability are integrated. Policy coordination, the

⁷⁸ In particular Thematic Objective 4 (supporting the shift towards a low-carbon economy in all sectors) as defined in the ERDF Regulation (cf. Regulation (EU) 1301/2013, Article 5). This Thematic Objective is also one of those which are part of the requirement for thematic concentration in accordance with Article 4 of the ERDF Regulation.

combination of incentives and regulatory approaches and inclusive governance models are cornerstones for successful urban policies.

3.2.1 ESIF, EFSI and the urban dimension at a glance

Article 8 of the **ERDF** Regulation (Regulation (EU) No 1080/2006) enables the ERDF to support sustainable urban development through a specific Operational Programme (OP) or priority axis within an OP under the Regional Competiveness and Employment (RCE) objective.

Under the **ESF**, actions with an urban dimension, e.g. expanding and improving investment in human capital and training systems, strengthening institutional capacity, increasing the adaptability of workers, enterprises and entrepreneurs and enhancing access to employment and sustainable inclusion in the labour market, as well as promoting partnerships, were undertaken during the 2007-2013 period (Regulation (EC) No 1081/2006, Article 3).

The **integrated approach** was further reinforced in the 2014-2020 period, as urban development is to be implemented through strategies setting out integrated actions (Regulation (EU) No 1301/2013, Article 7). At EU level, EUR 372 million will be dedicated to innovative urban actions that will include studies and pilot projects to identify or test new solutions addressing issues that are related to sustainable urban development and are of relevance at Union level (Regulation (EU) No 1301/2013, Article 8).

Member States are to organise **partnerships with competent regional and local authorities** and involve them in the preparation of the Partnership Agreements (PA) and OPs, as well as in the implementation, monitoring and evaluation of OPs.⁷⁹

A minimum of 5% of ERDF resources allocated is to be invested in integrated action for sustainable urban development in order to strengthen the role of cities in the programmes (Regulation (EU) No 1301/2013, Preamble and Recital 19). In the PAs, each Member State presents principles for the selection of urban areas where integrated action for sustainable urban development and integrated approaches for urban areas are defined to a different extent and degree of specificity.

The new cohesion policy provisions for urban regions acknowledge the importance of cities and towns for the future development of Europe. The policy

⁷⁹ Article 5(3) of Regulation (EU) No 1303/2013 provides the legal basis for adopting a delegated act on a European code of conduct on partnership (ECCP).

also underlines the strengthened territorial approach at country or OP/priority axis level, rather than through a common European understanding.⁸⁰

At EU level, strategic guidelines on cohesion policy propose the establishment of an urban development network ‘to promote capacity-building, networking and exchange of experience at Union level between urban authorities responsible for implementing sustainable urban development strategies and authorities responsible for innovative actions in the area of sustainable urban development’ (Regulation (EU) No 1301/2013, Article 9).

Integrated Territorial Investment (ITI) supports the thematic approach and facilitates the right mix of investments in integrated urban strategies by allowing the implementation of OPs in a cross-cutting way. The tool has its roots in model strategies for deprived urban areas combining physical investments in infrastructure from the ERDF with investments in human capital from the ESF. Thus, it again takes up the initial URBAN method that aimed to contribute to the effectiveness of urban initiatives by acting as a model and by facilitating the exchange of experience.

At the level of OPs, **Community-led local development** reverses traditional “top-down” development policy. It aims at building local partnerships that design and implement an integrated development strategy aimed at building on the community’s social, environmental and economic strengths. The partnership is funded on a long-term basis.

Both tools, which contribute to the development of specific sub-regional areas, have been implemented with reluctance in some Member States. The national level sometimes fears too much local influence in territorial development.⁸¹

ITI and CLLD both require a certain amount of additional administrative effort. Therefore one could assume that the number of OPs specifically making use of these instruments is rather small.

In the case of CLLD, information was provided at the CLLD conference in summer 2015. CLLD is predominantly used for rural development programme implementation and is only involved to a small extent in ERDF and ESF programmes. According to the European Commission's DG for Regional and Urban Policy (Regio), 17 Member States continue to deploy CLLD under the

⁸⁰ Metis 2014a, The Role of Cities in Cohesion Policy 2014-2020.

⁸¹ Metis 2015, Review of the adopted Partnership Agreements on behalf of the European Parliament, Structural and Cohesion Policies. The study provides a broad overview of the plans for ITI and CLLD implementation per Member State.

ERDF and ESF, totalling 18 OPs with an overall budget of EUR 2 billion earmarked⁸².

Nevertheless, a recent study for the EP⁸³ has shown quite a promising approach in many MS related to the uptake of CLLD and ITI under the Partnership Agreements as the overarching strategic framework for cohesion policy 2014-2020. The table below summarises the main results of the analysis of the Partnership Agreements in this regard.

Table 5. The uptake of CLLD and ITI in the Partnership Agreements

Instrument	Role in the Partnership Agreement
CLLD	<p>In addition to continuing the approach in Rural Development, several Member States have expressed the intention of implementing CLLD as a cross-funding approach combining the EAFRD with the ERDF and/or ESF. The latter option is of obvious interest in urban regions. For example, in Hungary and Romania the intention is to use the ERDF and ESF in CLLD in urban areas.</p> <p>A far-reaching approach for mainstreaming CLLD in cohesion policy has been included in the Partnership Agreement of Sweden.</p>
ITI	<p>ITI is intended mostly as an instrument for urban development (in Bulgaria, the Czech Republic, Finland, Croatia, Lithuania, Luxemburg, Latvia, the Netherlands and Poland) and in some Member States for mixed areas (e.g. France, Greece, Portugal, Romania, Sweden and the United Kingdom).</p>

Source: Metis 2015, p. 39.

The **European Fund for Strategic Investments** (EFSI) aims to overcome current market failures by addressing market gaps and mobilising private investment. Strategic investments are to be allocated to infrastructure, education, research and innovation, as well as risk finance for small businesses.⁸⁴

A quick scan on the role of EU capital cities regarding the EU Urban Agenda⁸⁵ revealed a clear urban dimension and impact for local policies in seven of the ten Juncker priorities:

- A new boost for jobs, growth and investment (priority 1).
- A connected Digital Single Market (priority 2).

⁸² Conference on CLLD implementation, Permanent Representation of the Czech Republic to the EU, 23 June 2015, <http://backend.elard.eu/uploads/clld-event-2015/presentations/judit-torokne-rozsa.pdf>.

⁸³ Metis 2015, Review of the adopted Partnership Agreements on behalf of the European Parliament, Structural and Cohesion Policies.

⁸⁴ European Commission Investment Plan 2014-2020.

⁸⁵ Platform31, EUKN, The urban dimension of the Juncker Priorities, final report 22 October 2015.

- An Energy Union and climate change policy (priority 3).
- A deeper and fairer internal market (priority 4).
- An area of justice and fundamental rights (priority 7).
- A new policy on migration (priority 8).
- A union of democratic change (priority 10).

Nevertheless, it concluded “that there is no explicit attention to their specific urban impact nor to the way citizens can contribute to the realisation of these priorities” It raises the question of whether the Commission "lacks a strategic view" of the role of cities in furthering its programme and priorities.

3.2.2 Review of thematic objectives and investment priorities

All 11 thematic objectives of the general ESIF regulation are relevant for urban areas. However, a direct link is made for particular investment priorities in the ERDF regulation (Regulation (EU) No 1301/2013, Article 5):

- Thematic objective 4, supporting the shift towards a low-carbon economy in all sectors, investment priority (e): *promoting low-carbon strategies for all types of territories in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaptation measures*. This investment priority has been addressed in 11 Member States (Austria, the Czech Republic, Germany, Denmark, Greece, Spain, Finland, France, the Netherlands, Sweden and the United Kingdom) in 25 mono- and multi-funded ERDF OPs.⁸⁶
- Thematic objective 6, preserving and protecting the environment and promoting resource efficiency, investment priority (e): *taking action to improve the urban environment, to revitalise cities, regenerate and decontaminate brownfield sites (including conversion areas), reduce air pollution and promote noise-reduction measures*. This investment priority has been addressed in 18 Member States (Austria, Belgium, Bulgaria, Cyprus, Germany, Greece, Spain, France, Croatia, Hungary, Ireland, Italy, Latvia, Poland, Portugal, Romania, Slovenia and Slovakia) in 87 mono- and multi-funded ERDF Ops.⁸⁷
- Thematic objective 8, promoting sustainable and quality employment and supporting labour mobility, investment priority (b): *supporting employment-friendly growth through the development of endogenous potential as part of a territorial strategy for specific areas, including the*

⁸⁶ Data taken from 216 mono and multi-funded ERDF OPs.

⁸⁷ *Ibid.*

conversion of declining industrial regions and enhancement of accessibility to, and development of, specific and cultural resources. This investment priority has been addressed in 11 Member States (Austria, Estonia, France, Hungary, Lithuania, the Netherlands, Poland, Portugal, Romania, Slovakia and the United Kingdom) in 24 mono- and multi-funded ERDF Ops.⁸⁸

- Thematic objective 9, promoting social inclusion, combating poverty and any discrimination, investment priority (b): *providing support for physical, economic and social regeneration of deprived communities in urban and rural areas.* This investment priority has been addressed in 18 Member States (Austria, Belgium, Cyprus, Germany, Estonia, Greece, Spain, France, Croatia, Hungary, Italy, Lithuania, Malta, the Netherlands, Poland, Portugal, Romania and Slovakia) in 103 mono- and multi-funded ERDF OPs⁸⁹.

3.2.3 European Territorial Cooperation:⁹⁰ new European initiatives and investment tools for urban areas

In 2003, the URBAN Community Initiative addressed urban needs in an integrated and coordinated fashion by reinforcing competitiveness, and tackling social problems and physical and environmental regeneration. Its method of implementation included local economic development, social exclusion and physical and environmental regeneration in an integrated approach by acting as a testing ground.⁹¹

Together with the reform of cohesion policy in 2007, the principles underpinning this initiative were mainstreamed under the European Territorial Cooperation Programme URBACT II, thereby creating a legal basis for the continuation of support for integrated urban development. It aims at fostering sustainable integrated urban development in cities across Europe.

The **URBACT III programme** (2014-2020) has a total budget of EUR 96.3 million, which means an increase of approximately 20%. It intends to use three

⁸⁸ *Ibid.*

⁸⁹ *Ibid.*

⁹⁰ http://ec.europa.eu/regional_policy/en/policy/cooperation/european-territorial/; in 2015, ETC, better known as Interreg, celebrated 25 years of implementing joint actions and policy exchanges between national, regional and local actors from different Member States.

⁹¹ European Commission, DG for Regional and Urban Policy, Partnership with the Cities. The URBAN Community Initiative, 2003.

types of intervention in order to ‘promote sustainable integrated urban development and contribute to the delivery of the Europe 2020 strategy’.⁹²

- Transnational exchange.
- Capacity-building.
- Capitalisation & dissemination.

For the current programming period, stronger linkage with new instruments and thematic networks for the exchange of experience is targeted by the URBACT programme. It should complement the urban development network.

In January 2013, the **Reference Framework for European Sustainable Cities** (RFSC) came into being as a follow-up to the Leipzig Charter on Sustainable European Cities in 2007. It aims at translating the common sustainability goals and recommendations in the Leipzig Charter into practice by supporting cities through the improvement of disadvantaged neighbourhoods or districts and introducing processes of evaluation.

The financial instruments **supported by the JESSICA policy initiative** aim to mobilise private sector funding and expertise for integrated urban regeneration strategies. The Joint European Support for Sustainable Investment in City Areas supports sustainable urban development and regeneration through financial resources engineering mechanisms. It allows ERDF funding to be allocated to Urban Development Funds (UDFs), which in turn provide equity, loans and/or guarantees to public-private partnerships or other projects in the context of an integrated plan for sustainable urban development.

The initiative of the European Commission was developed in cooperation with the European Investment Bank (EIB) and the Council of Europe Development Bank (CEB) and promotes sustainable urban development by supporting projects in the following areas:⁹³

- Urban infrastructure - including transport, water/waste water and energy;
- Heritage or cultural sites - for tourism or other sustainable uses;
- Redevelopment of brownfield sites - including site clearance and decontamination;

⁹² <http://urbact.eu/>.

⁹³ JESSICA: Joint European Support for Sustainable Investment in City Areas, http://ec.europa.eu/regional_policy/en/funding/special-support-instruments/jessica/#2.

- Creation of new commercial floor space for SMEs, IT and/or R&D sectors;
- University buildings - medical, biotech and other specialised facilities;
- Energy efficiency improvements.

Finally, **Europe's Urban Knowledge Platform (EUKN)** shares expert urban knowledge and best policy practice between national governments and knowledge institutes. Since 2013, the EUKN has had the status of European Grouping for Territorial Cooperation (EGTC) and thus can directly act in cross-border cooperation and activities and also offer its members opportunities to apply jointly for project funding.⁹⁴

3.2.4 Stakeholders for a new urban policy at Member State and EU level

Promoting urban policies requires dedicated lobbying. At the EU and Member State level, there are associations or national initiatives that represent the needs and interests of the cities and their inhabitants. These associations frequently participate in the process and monitoring of EU Structural Fund programmes instead of the member cities themselves. An important task is the facilitation of knowhow transfer and exchange of experience with regard to sustainable urban development:

The **National Association of Municipalities of the Republic of Bulgaria (NAMRB)** represents all 264 Bulgarian municipalities before the central government, supports them in exercising their powers and participates and lobbies in Bulgarian and international fora. It also takes part in the work of the CoR and the Council of Europe.⁹⁵

In **Germany**, the **National Urban Development Policy** serves as a communication platform on urban issues between actors and interested parties within the country. In addition, several **municipal associations** represent the interests of cities and communities in German urban policies, among others the Association of German Cities and Towns (*Deutscher Städtetag*) or the German Cities and Communities Association (*Deutscher Verband für Wohnungswesen, Städtebau und Raumordnung*). These networking and coordination platforms bring urban interests to national and supranational policy levels and are

⁹⁴ <http://www.eukn.eu/about-the-eukn/>.

⁹⁵ Metis 2014a, The Role of Cities in Cohesion Policy 2014-2020. Annex A.2 Case study – Bulgaria with a special focus on Sofia city.

considered even more effective than the actual financial benefit obtained through Structural Funds.⁹⁶

The **German Austrian URBAN Network** represents the first cross-border URBAN network including the Austrian cities of Graz and Vienna. It supports horizontal exchange between cities through knowhow transfer, support for integrated urban development measures, information and publicity and political awareness building for integrated urban development. The platform is co-financed by financial contributions from participating cities and the German Association of Savings Banks.⁹⁷

The highly devolved multi-level governance system of **Spain**, encompassing a number of plans on land-use and regulatory guidelines (including at regional and sub-regional level), focuses mainly on housing policy, land zoning and the expansion of settlements and infrastructure. Integrated sustainable urban development approaches that transform environmental, economic and industrial trends into urban growth strategies are less well developed. One effort made in this respect is the establishment of information-sharing platforms, such as the **Urban Information System** (*Sistema de Información Urbana, SIU*). Moreover, a domestic continuation of the URBAN and URBAN II Community Initiative, URBANA (also referred to as the Urban Initiative) supports urban development projects in Spain. The **Federation of Spanish Municipalities and Provinces** (*Federación Española de Municipios y Provincias, FEMP*) represents the interests and opinions of urban areas in cohesion policy programming consultations. As a result of the devolved governance system, autonomous communities such as the **Andalusian Federation of Municipalities and Provinces** (*Federación Andaluza de Municipios y Provincias, FAMP*) provide input into the design and management of Structural Funds programmes from the perspective of cities. Finally, the **Network of Urban Initiatives** facilitates the urban dimension in Structural Funds management and programming as a sectoral network. Knowledge transfer and the dissemination of experience in urban-oriented Structural Funds projects constitute its major tasks.⁹⁸

In **Italy**, EU Structural Funds 2007-2013 provided funding for **urban development plans**, based on experience gained under URBAN II. As a result of delays in the approval of these plans, the Italian Ministry for Territorial

⁹⁶ Metis 2014a, The Role of Cities in Cohesion Policy 2014-2020. Annex A.3 Case study – Germany with a special focus on Berlin/Brandenburg.

⁹⁷ Deutscher Verband für Wohnungswesen, Städtebau und Raumordnung e.V.: <http://www.deutscher-verband.org/aktivitaeten/netzwerke/urban-netzwerk.html> (October 2015).

⁹⁸ Metis 2014a, The Role of Cities in Cohesion Policy 2014-2020. Annex A.4 Case study – Andalucía, with a special focus on Seville city.

Cohesion developed a national **OP for Metropolitan Cities** for the 2014-2020 period, which includes 14 cities and will work in parallel to the regional OPs.⁹⁹

A mechanism for municipalities to come together at sub-regional level to design a programme for their local area in **Poland** was only established for the Silesian *Voivodship*, the **Sub-regional Development Programmes** (SDPs). As a result of the large population in Silesia, attracting the largest financial allocation from the EU Structural Funds in Poland, a Regional Territorial Forum was established on the basis of preparations for the 2014-2020 period. This forum served as an advisory body for the development of the Silesian OP 2014-2020 and included representatives from Silesian cities.¹⁰⁰

Nevertheless, Poland – a supporter of territorial instruments for years – decided to implement sustainable urban area development programmes entirely through ITIs. As a result, ITIs will be implemented in all regional capital cities and their functional areas, as well as in cities of regional or sub-regional importance and in their functional areas, depending on the Regional Government's decision in a given Voivodship.¹⁰¹

EU Structural Funds OPs in the **UK** do not have a particular urban focus and cities do not have a strong presence in programming or consultation except in England. The 39 voluntary **Local Enterprise Partnerships** (LEPs) between local authorities and the private sector that exist in England are responsible for economic development at sub-national level. The **Localism Act 2011** changed the powers of local government in England by facilitating the devolution of decision-making powers from central government control to individuals and communities. A series of "City Deals" were negotiated by the government in 2012 between the core cities, the Cabinet Office and the Department for Communities and Local Government. Enhanced powers and the opportunity to develop new combined authorities to manage some services at the city-region level have been made available for cities.¹⁰²

At European level, different city networks exist that mainly involve local and municipal governments of major European cities such as EUROCITIES and METREX.

⁹⁹ Metis 2014a, The Role of Cities in Cohesion Policy 2014-2020. Annex A.5 Case study – Italy, with a special focus on Torino.

¹⁰⁰ Metis 2014a, The Role of Cities in Cohesion Policy 2014-2020. Annex A.6 Case study – Poland, with a special focus on Katowice.

¹⁰¹ Ministerstwo Infrastruktury i Rozwoju, 2015 Integrated Territorial Investments in Poland. New solutions for cities in Cohesion Policy 2014-2020.

¹⁰² Metis 2014a, The Role of Cities in Cohesion Policy 2014-2020. Annex A.7 Case study – UK, with a special focus on Leeds city.

Similar to national associations or initiatives, **EUROCITIES** sets out to provide the 130 member cities and 40 partner cities with the possibility of sharing knowledge and exchanging ideas by offering moderated working groups, projects, diverse activities and events. Moreover, it lobbies at EU institutions to improve the role of LRAs in the multi-level governance structure.¹⁰³

METREX, in its Futures Group, plans for prospective change at global, European and metropolitan level and provides a basis for informed and integrated decision making at metropolitan level. The European Network seeks to present the metropolitan dimension to European affairs by demonstrating its significance.¹⁰⁴

European Regional Organisations such as the Association of European Border regions (AEBR), the Assembly of European Regions (AER), the Council of European Municipalities and Regions (CEMR) and the Conference of Peripheral Maritime Regions (CPMR) have been active in European networking for decades.¹⁰⁵

3.3 The role of an EU Urban Agenda

The Riga Declaration of 10 June 2015 recognised the need to work towards an EU Urban Agenda that incorporates the urban dimension in European and national policies. It aims at close cooperation among Member States, the European Commission, cities and other stakeholders.

The European Commission and the Dutch Presidency of 2016 are jointly developing an EU Urban Agenda. It aims to improve and coordinate existing initiatives within the Commission and to promote closer cooperation on urban issues in the Member States aligned with all government levels and in accordance with the principles of proportionality and subsidiarity. Moreover, better collection and monitoring of data is intended in all European policy fields, including on the urban impact of and challenges to the effectiveness of EU initiatives.¹⁰⁶

In July 2014, the European Commission launched a public consultation on an EU Urban Agenda that aimed to widen the debate to all relevant stakeholders.

¹⁰³ <http://www.eurocities.eu>.

¹⁰⁴ <http://www.eurometrex.org/>; METREX, 2014, Metropolitan Dimension. Position Statement.

¹⁰⁵ http://www.aebr.eu/en/activities/regional_organisations.php.

¹⁰⁶ Platform31, EUKN 2015.

The high level of participation and broad range of opinions voiced can be summed up as follows:¹⁰⁷

The main message emerging from the consultation is that Europe can help cities to address common challenges and, in turn, cities can contribute to achieve the priorities of the Union.

Most respondents are of the opinion that no new legislation is needed, but rather better legislation which reflects urban realities. No new instruments or funding sources are requested, but better coordination among the existing ones. No new competences should be transferred to the European level, but a more structured, regular dialogue in full respect of subsidiarity and respective responsibilities should be put in place to ensure that what Europe already does is good for cities.

The main focus in the EU Urban Agenda was then defined by the Commission regarding the following strands that need to be further developed:¹⁰⁸

- Result orientation – focus on a limited number of priority areas.
- Effective application of better regulation tools.
- Improve coherence and coordination of EU policies with an impact on cities, align existing EU instruments with priority areas.
- Improve urban intelligence, benchmarking and monitoring.

Compared to this, the European Parliament plenary on the urban dimension of EU policies reflected the CoR position in terms of:¹⁰⁹

- *The need for multi-level governance.*
- *The importance of input from decentralised levels of government when drawing up impact assessments and new policies (“bottom up approach”).*

¹⁰⁷ Commission SWD(2015) 109 final/2. In total, 225 responses from 29 European countries, in addition to Canada and the USA, were received. Many of them were local authorities, associations, trade and industry federations and civil society organisations. Some Member States also carried out national consultations with local authorities.

¹⁰⁸ *Ibid.*

¹⁰⁹ <http://web.cor.europa.eu/alde/what-we-do/Pages/Vote-in-EP-plenary-on-the-urban-dimension-of-EU-policies-reflects-ALDE-CoR-positions.aspx>.

- *Being able to assess urban areas more accurately than just on the basis of the GDP indicator – sufficient data must be made available.*
- *Following the European Code of Conduct on Partnership when implementing programmes and projects supported by EU funding.*
- *The need for greater involvement of towns and cities in the new Structural Funds Programmes.*
- *The usefulness of other programmes in addition to URBACT and the like for knowledge-sharing between cities for the engagement of local and regional actors*

Against the background of EU initiatives related to urban issues and the identification of relevant stakeholders covered in section 3.2 of this chapter, the following section will reflect on the main policy levers in an integrated EU Urban Agenda and its interdependencies.

3.3.1 Main policy levers in an integrated EU Urban Agenda

A strong business case for an integrated EU Urban Agenda is subject to interdependencies between policy areas and their policy levers as well as their positive impact on growth and jobs. The main underlying mechanisms will be presented in order to raise awareness of more holistic approaches to urban policy and at the same time highlight the need for coordination.

Most policy areas are still dominated by a sectoral approach. Administrative structures have grown over decades and structures tend to persist. **Traditional sectoral approaches** are therefore still the main point of reference.

Holistic or cross-cutting policy approaches tend to be less tangible for LRAs. They are often perceived as top down development, which can be partly attributed to a lack of capacity.

When developing business cases for urban policies, it is important to be aware of the different policy levers in policy areas. The differentiation of levels and governance mechanisms is an important step to preparing the ground for the discussion of an integrated EU Urban Agenda.

Table 6 provides a tentative overview that should raise awareness of:

- the main points of interaction between LRAs, the national level and the EU;

- the weight, i.e. the capacity and competences, of LRAs in comparison to national and international policy levers;
- the relevance of the different aspects of growth.

On the one hand, the overview should raise awareness of the broad range of issues that are essential for urban development. On the other hand, it is useful to identify areas where efficiency gains through better coordination can be achieved within a policy area (vertical coordination) as well as across sectoral policies (horizontal coordination). The following aspects should be taken into consideration when going through Table 6:

- It is obvious that the scope of action and the competences of LRAs vary to a significant extent across the EU. In particular, self-government at regional level is restricted to a small number of Member States.¹¹⁰
- One aspect that is not reflected in the table but deserves attention is the issue of maintenance costs for infrastructures; costs increase with expansion, outmoded infrastructures might have higher maintenance costs etc.

¹¹⁰ Generally speaking, most of the EU Member States are unitary states, i.e. most of the competencies lie with the central state. In the EU-15, three Member States are federations, i.e. having states or regions with equal competencies (Austria, Belgium and Germany), whereas six other states have either devolved certain competencies to regions or are federacies (or both). Devolved states are Spain, Italy and the UK, and federacies (mostly related to territories distant to the mainland) are Denmark, Finland, France and UK. In the EU-15, decentralisation is an ongoing process in several Member States, in particular the Czech Republic, Poland and Slovakia.

Table 6. Considerations on main policy levers in an integrated EU Urban Agenda

Policy areas	Local dimension / policy lever	Regional dimension / policy lever	Weight of LRAs	National dimension / policy lever	EU dimension	Relevance or aspect of growth
Infrastructure						
Transport	<u>Investment:</u> Public transport including metro Infrastructures for alternative fuels Local roads Cycling infrastructure Airports Ports <u>Regulatory:</u> Transport plan, ticketing Parking regulations	<u>Investment:</u> Public transport including railways Infrastructures for alternative fuels Regional roads Airports Ports <u>Regulatory:</u> Transport policy / plan, ticketing	High	<u>Investment:</u> Trunk network and investment in railway and road network <u>Regulatory:</u> Planning of trunk network and its expansion – thus defining the hubs and nodes Ownership of network, ticketing Emission laws ICT	<u>Investment:</u> TEN-T, CEF cohesion policy (sustainable transport) <u>Regulatory:</u> Governance and legislation (Fourth railway package – interoperability etc.)	Key relevance for smart and sustainable growth; one of the key drivers in energy consumption
Energy	<u>Investment:</u> District heating Power plants Combined facilities Incentives for renovation Public buildings	<u>Investment:</u> Similar to local <u>Regulatory:</u> Building standards	Medium to high	<u>Investment:</u> Investment support for power plants, main grids <u>Regulatory policies:</u> Emission standards National energy policy (energy mix) Building norms	<u>Investment:</u> TEN-E Projects of Common Interest (PCIs) Cohesion policy (renewables) <u>Regulatory policies:</u> Creation of a single	Key element for smart and sustainable growth

Policy areas	Local dimension / policy lever	Regional dimension / policy lever	Weight of LRAs	National dimension / policy lever	EU dimension	Relevance or aspect of growth
					competitive internal energy market	
Water and Waste management	<u>Investment:</u> Local facilities <u>Regulatory:</u> Recycling and rehabilitation of land	<u>Investment:</u> Support for investment at local level Regional facilities <u>Regulatory:</u> Laws on waste management	Medium to high	<u>Investment:</u> Investment support for local and regional level <u>Regulatory policies:</u> Legal frameworks or laws governing water and waste management	<u>Investment:</u> Cohesion Fund ERDF <u>Regulatory policies:</u> Directives	Sustainable and smart growth
Information networks	<u>Investment:</u> Enabling initiatives <u>Regulatory:</u> Building laws		Low to medium	<u>Investment:</u> Leading companies in many MS partly state-owned; shared definition of investment strategies <u>Regulatory policies:</u> Legal framework for investment support and operation, PPPs	<u>Investment:</u> TEN-D <u>Policy:</u> Digital Agenda <u>Regulatory policies:</u> Regimes for network investment models	Smart growth
Education	<u>Investment:</u> Kindergarten, pre-school, primary schools,	<u>Investment:</u> Tertiary education/ universities	Medium	<u>Investment:</u> Investment strategy for education system (secondary schools, tertiary	Key role of MS, EU supports mobility, education programmes,	Smart growth

Policy areas	Local dimension / policy lever	Regional dimension / policy lever	Weight of LRAs	National dimension / policy lever	EU dimension	Relevance or aspect of growth
	secondary schools, daycare facilities	<u>Regulatory:</u> Curricula, education standards		education, etc.) <u>Regulatory:</u> Education system and curricula Standards in teacher training	cooperation between MS	
RDTI (STI)	<u>Investment:</u> STI infrastructure as shared venture (local / national / regional)		Low to medium	<u>Investment:</u> Major funds for RDTI-support Universities, STI infrastructure <u>Regulatory policies:</u> National strategies Tax incentives for RDTI	Horizon 2020 Juncker Plan (EFSI)	Smart growth
Housing	<u>Investment:</u> Social housing PPP Urban renewal <u>Regulatory policies:</u> Zoning	<u>Investment:</u> Support for housing	High	<u>Investment:</u> Funds for social housing <u>Regulatory policies:</u> Building standards (prices) Laws on housing market Tax incentives	Key role of MS, minor role in cohesion policy	Inclusive growth
Health and social infrastructure	<u>Investment:</u> Hospitals, care centres, homes for disadvantaged	Programmes to ensure health care for disadvantaged persons	Low to medium	<u>Investment:</u> Strategic investment (support) plans for social and health care Health as focus in STI	Investment: Support under cohesion policy Strategy development	Inclusive and smart growth

Policy areas	Local dimension / policy lever	Regional dimension / policy lever	Weight of LRAs	National dimension / policy lever	EU dimension	Relevance or aspect of growth
				<u>Regulatory policies:</u> Health and social insurance with partly dominant or exclusively public ownership	Regulatory policies: key role of MS, complementary role of EU	
Economic growth and labour market						
Business development / SME policy	<u>Investment:</u> Business centres, incubators / labs <u>Regulatory policies:</u> Taxation	<u>Investment:</u> SME-support Public procurement	Low to medium	<u>Investment:</u> SME-support Financing instruments Public procurement Entrepreneurial education <u>Regulatory policies:</u> Taxation	<u>Investment:</u> Element of EU cohesion policy (ERDF) <u>Policy initiative:</u> Small Business Act Single Market Act	Smart growth
Labour Market Policy	Local employment initiatives		Low	Guiding role in active labour market policies	<u>Investment:</u> ESF <u>Policy:</u> Flagship initiative Youth Guarantee	Inclusive growth
Migration and external policies						
Migration/ Immigration	<u>Investment:</u> Local integration initiatives	<u>Investment:</u> Support programmes for the local level	High	<u>Investment:</u> Major funds for the local and regional level	<u>Investment:</u> ERF	Inclusive growth

Policy areas	Local dimension / policy lever	Regional dimension / policy lever	Weight of LRAs	National dimension / policy lever	EU dimension	Relevance or aspect of growth
		<u>Regulatory policies:</u> Recent distribution policies		<u>Regulatory policies:</u> Recent distribution policies	<u>Regulatory policies:</u> Distribution policies and compensation mechanisms	
External policies			Low	<u>Investment:</u> Development aid funds	<u>Investment:</u> EU External Action	
Culture and Tourism						
Cultural and recreational amenities	<u>Investment:</u> Support to heritage protection Public amenities such as pools Sponsoring of festivals	<u>Investment:</u> Support programmes for the local level Regional festivals	Medium	<u>Investment:</u> Major funds for heritage protection Support programmes for the local level <u>Regulatory policies:</u> Laws and register for heritage protection	<u>Investment:</u> Element of EU cohesion policy (ERDF) Policy / investment: Several programmes (Heritage, Culture Capital and Media)	Inclusive growth

Note: the tentative assessment of the weight of LRAs needs to be seen in a context where their role is compared to that of the national level in policy-making.

Source: Metis GmbH.

Some specifications regarding a business case for an integrated EU Urban Agenda are evident: cities are undergoing permanent change and part of their infrastructure is built and used for periods which clearly outlast most of the conventional production facilities. This brings several points to mind:

- Administrative structures and practices did not often respond to the phenomena of change in a way that resulted in adverse consequences.
- Due to the long-lasting effects of decisions in terms of environmental sustainability, policy makers should act responsibly – in many fields the linear economic perspective should be replaced with circular approaches taking resource efficiency as one of the lead targets.
- Due to long-established practices and a built-in reluctance to alter business practices, any business case for an integrated EU Urban Agenda will need a particularly convincing narrative and coherence in order to achieve a contribution to change.

3.3.2 Interrelationships and coordination between policy fields

The interrelationships between policy fields are in part dense. A brief qualitative analysis of these interrelationships can be found in Table 7.

The analysis confirms the transversal role of information networks, educational infrastructures and STI for an EU Urban Agenda. These infrastructures' respective policy fields reveal the highest requirements in terms of policy coordination since their influence on a large number of policy fields is significant: one could say that this is the **software of an EU Urban Agenda**, acting as enabler and driver of development in combination with societal changes such as demographic change and migration.

High-investment infrastructures in an urban context are transport, waste and water management, energy supply and site development (for housing, business and recreation). Policy coordination in these fields is essential because a lack of coordination has a significant financial impact in the long run. These fields could be considered as the **hardware of an EU Urban Agenda**.

Table 7. Interrelationships and need for coordination between policy fields

Policy field	Transport	Energy	Waste & Water	Information networks (broadband)	Education infrastructures	STI	Housing & buildings	Health and social infrastructure	Cultural and recreational amenities	Business development	Labour market and social policy
Transport		New vehicle technologies				Infrastructure development	Accessibility			Accessibility	
Energy	Energy consumption		Waste incineration			Smart grids	Alternative forms of supply				
Waste & Water		Waste incineration					Basic infrastructure			Basic infrastructure	
Information networks (broadband)	Information and security systems	Smart grids	Smart grids		Enabling technology	Enabling technology	Enabling technology	Enabling technology		Enabling technology	
Education infrastructures	Mobility behaviour	Consumption patterns	Consumption patterns	Acceptance and use of technology		Basis for STI		Life style and income	Interest and actual use		
STI	Technologies for infrastructure and vehicles, information and control systems	Technologies for use of infrastructure, energy efficiency			Approach and interest for STI		Energy efficiency	Health as ubiquitous key field in STI		Driver for industry 4.0 (merge of services and production)	
Housing & buildings		Energy consumption	Expansion of infrastructure	Expansion of infrastructure				Expansion of infrastructure	Expansion of infrastructure		
Health and social infrastructure					Determines access to education for marginalised groups		Quality of life			Quality of business location	Policy efficiency and effectiveness
Cultural and recreational amenities							Quality of life			Quality of business location	
Business development	Driver of traffic volumes	Driver of consumption	Expansion of infrastructure	Expansion of infrastructure	Development of specialised offers	Development of specialised offers	Competitive edge of business locations Competing forms of urban land-use	Competitive edge of business locations	Competitive edge of business locations		Job generation
Labour market and social policies	Active driving role in terms of an EU Urban				Key element of active LMP	Support to social innovations	Housing support as major element of social policies	Expansion of infrastructure			
	Reactive role in terms of an EU Urban Agenda										

Source: Metis GmbH.

3.4 Steps towards the Circular Economy

One key element of the EU policy agenda for 2016 is the recently proposed legislative Circular Economy Package. Given its strong local dimension, it is a good opportunity for looking more deeply at the interlinkages between an EU Urban Agenda and this important policy field.

Bearing in mind the high resource-dependency of Europe's economy, which has hardly any significant quantities of the key exhaustible raw materials needed as input for industrial production, accessible materials and energy will reach their physical limits. Thus, certain policy fields that strongly influence urban areas, such as waste recycling and energy efficiency, are of vital importance for any sustainable development scenario when considering periods spanning several decades. For EU businesses, a more efficient use of resources can bring considerable net savings. For this reason the European Commission adopted an **Action Plan for the Circular Economy**.¹¹¹

This recently adopted package does not explicitly mention the specific urban impact or for the way in which EU cities can contribute to the realisation of its main objectives. The potential urban impact will therefore be addressed in the following section when analysing the overall impact of a new EU circular economy.

3.4.1 Policy background to the EU Circular Economy

The greening of industries has become a core determinant of economic competitiveness and sustainable growth, i.e. the promotion of sustainable patterns of production and consumption. **Sustainable industrial development** aims not only at resource and energy efficiency, low-carbon and low-waste production, non-polluting and safe production. It also impacts poverty alleviation through the promotion of energy security, health and safety, jobs, and reducing costs through increased productivity.¹¹²

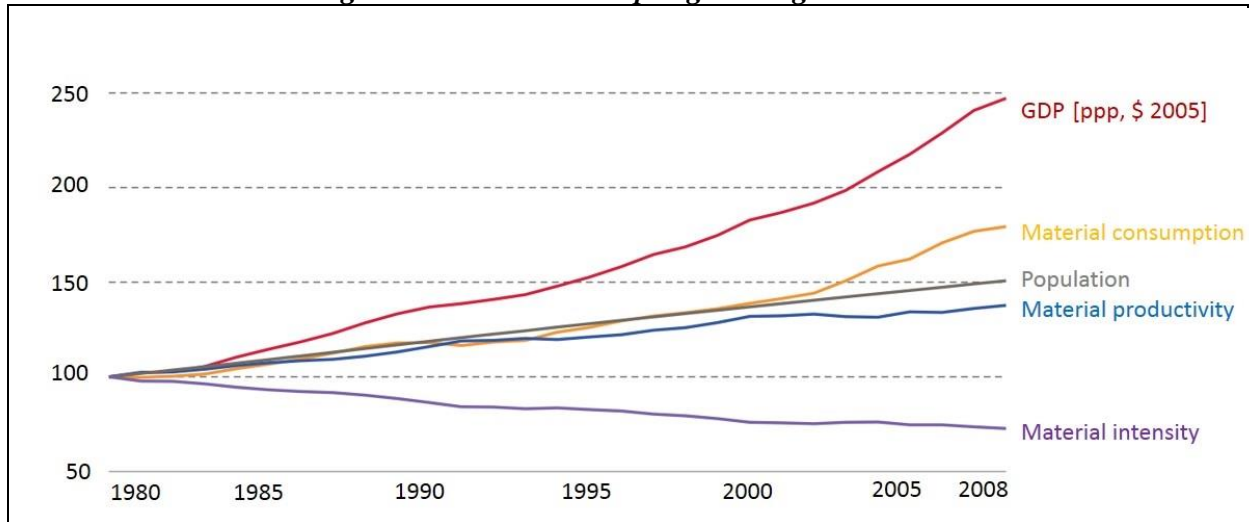
It can be achieved “by decoupling economic growth from the use of natural resources and by increasing efficiency through producing more economic value with fewer environmental impacts”.¹¹³

¹¹¹ Press Release of 2 December 2015: http://europa.eu/rapid/press-release_IP-15-6203_en.htm.

¹¹² UNIDO 2011, UNIDO Green Industry, Policies for supporting Green Industry.

¹¹³ SERI 2013, Green growth. From labour to resource productivity, p. 29. Decoupling is a core concept of the United Nations Industrial Development Organisations (UNIDO) Green Industry initiative.

Figure 3. Relative decoupling at the global level



Source: Dittrich et al. 2012, p 34.

Figure 3 shows that – despite the fact that material intensity of the world economy decreased by about one third – efficiency gains have been overcompensated by economic growth since 1980. This can be explained by an increase in material consumption of 79% against an increase in GDP of 147%, resulting in an increase in material productivity of *only* 37%.

At this point, it is useful to have a look at best practices in urban industrial reconversion policy supported by cohesion policy instruments.

Box 7. Cohesion policy and urban industrial reconversion policy¹¹⁴

Urban areas are often confronted with industrial restructuring because most businesses are located in major agglomeration areas for the purpose of better serving their markets, closer links to suppliers and the possibility of drawing on labour and knowledge sources. In particular, second tier cities are therefore most in need of public investment in the form of cohesion policy support for industrial reconversion. Main metropolitan centres instead tend to be characterised by more advanced service sectors.

Cohesion policy support for industrial reconversion has different dimensions explained by the following examples:

- (1) Examples of business innovation and investment in the 2007-2013 period is similar to the ‘smart specialisation’ strategies in the 2014-2020 period:

¹¹⁴ Metis 2013a, Regional Strategies for industrial areas, Metis 2015a, Evaluation der städtischen Dimension in den Europäischen Strukturfonds Sachsen-Anhalt 2007-2013 [Evaluation of the urban dimension in the European Structural Funds].

- The approach was seen in the NUTS-2 sub-region of Keski-Suomi and its main city of Jyväskylä in western Finland, where the ERDF and ESF supported the key clusters of mechanical engineering, bio-energy and housing through investment in R&D, innovation, education and training and business development. The support was seen as important for the regions' future economic development as it responded to its main challenges, the restructuring of major industries and relatively high unemployment rates.

(2) Examples of social inclusion as a result of high levels of unemployment, and social dislocation:

- A more strategic use of resources as well as more effective local cooperation and services delivery was achieved in the Lowlands and Uplands of Scotland (UK). Entrepreneurship and physical regeneration in disadvantaged urban areas was supported by the ERDF during the 2007-2013 period. At the same time, the ESF funded vocational training, advice for job-seekers, assistance with childcare and initiatives to encourage employers to understand the needs of vulnerable groups entering the workforce.

(3) Examples of the integration of different types of intervention:

- In Saxony-Anhalt (Germany), the urban dimension was a horizontal theme for the ERDF and ESF 2007-2013 OPs. Thus, integrated approaches to urban development addressing RDTI, education, physical regeneration, land reclamation but also urban transport, water and waste infrastructure were implemented by involving different kinds of actors (i.e. firms, universities, local and regional authorities). Whereas the two main cities of Magdeburg and Halle were able to profit from the support of the knowledge based economy, smaller cities benefited from long-term investment drawing on citizens' participation and high visibility.

The flagship initiative for a resource-efficient Europe under the Europe 2020 strategy aims to support the shift towards a resource-efficient, low-carbon economy to achieve sustainable growth. This is to be reached by means of a circular economy turning 'waste' into a new resource through re-using, repairing, refurbishing and recycling existing materials and products. Consequently, the linear economic perspective of "take-make-consume and dispose" based on the assumption that resources are abundant, available and

cheap to dispose of, should be replaced with circular approaches taking resource efficiency as one of the lead targets.

The concept of the circular economy goes beyond economic growth to embrace, for instance, ecological factors such as the reduced use of resources and fossil energy. It describes a positive development cycle that preserves and enhances natural capital, optimises resource yields, fosters system effectiveness and minimises system risks by revealing negative externalities.¹¹⁵

3.4.2 Circular Economy Package adopted by the Commission

Recently, the European Commission adopted a **Circular Economy Package** aiming to stimulate Europe's transition towards a circular economy, which will boost global competitiveness, foster sustainable economic growth and generate new jobs. According to Vice-President Frans Timmermans, responsible for sustainable development, a “mix of smart regulation and incentives at EU level will help businesses and consumers, as well as national and local authorities, to drive [the] transformation.”¹¹⁶

Against the background of sustainable (urban) development, the EU action plan will mainly contribute to green growth as well as towards a resilient energy union with a forward-looking climate change policy. Its overall approach focuses on “closing the loop” of product lifecycles through greater recycling and re-use. By extracting the maximum value and use of all raw materials, products and waste energy, savings and the reduction in greenhouse gas emissions will be ensured.

Waste management and its related key aspects in the value chain creates synergies with other policies such as product policies or the development of well-functioning markets for secondary raw materials. It further aims at country specific approaches by improving the implementation of waste policy on the ground.¹¹⁷

Required action and improvements in terms of resource and energy efficiency are to be taken “at all stages of the life cycle of products: from the extraction of raw materials, through material and product design, production, distribution and consumption of goods, repair, remanufacturing and re-use schemes, to waste management and recycling.”¹¹⁸

¹¹⁵ Ellen Macarthur Foundation, 2015, Delivering the circular economy. A toolkit for policymakers.

¹¹⁶ Press Release of 2 December 2015: http://europa.eu/rapid/press-release_IP-15-6203_en.htm.

¹¹⁷ European Commission, 2015, indicative roadmap on Circular Economy Strategy.

¹¹⁸ *ibid*, p. 3.

Despite the fact that subsidiarity is considered a key guiding principle, **some action has to be taken at EU level:**

- The legislative proposals on waste have already been revised, setting clear targets for reduction of waste and establishing a long-term path for waste management and recycling.¹¹⁹
- A further review of EU product and substance legislation¹²⁰ and recycling legislation will harmonise national measures on circular economy and thus provide signals and legal certainty to new economic operators.¹²¹

The following considerations with respect to all **European companies, especially SMEs**, should be taken into account in order to not unnecessarily hinder business, innovation and competitiveness:¹²²

- EU regulations with the objective of supporting measures on the circular economy may not always reflect products and sectoral circumstances of European companies that could result in a breakthrough in innovation and investment and thus in economic growth.
- Municipal waste represents only 10% of all waste generated in Europe. However, when considering the packaging of products, not only is the end of their life phase to be recognised, but also all other demands along the supply chain, i.e. product protection, shelf-life, food waste prevention and the demands of distribution, as well as consumer expectations for safety, convenience and security. The considerations on waste management (see below) should be taken into account here.
- Extended Producer Responsibility (EPR) for goods in the post-consumer stage of the product's life cycle is able to shape the future circular economy. Binding minimum requirements would help Member States meet their recycling and recovery targets.¹²³

The transition towards the circular economy is to be financed by ESIF, with EUR 650 million from Horizon 2020, EUR 5.5 billion from structural funds for waste management, and investments by the Member States. Sectoral measures and quality standards for secondary raw materials that increase the confidence of

¹¹⁹ Press Release of 2 December 2015: http://europa.eu/rapid/press-release_IP-15-6203_en.htm.

¹²⁰ REACH Regulation (EC) No 1907/2006.

¹²¹ European Commission, 2015, Indicative roadmap on Circular Economy Strategy.

¹²² Khawaja, Saleem, The Circular Economy Strategy: What goes around, comes around, 22. August 2015.

¹²³ Cf. also Deloitte 2014, Development of Guidance on Extended Producer Responsibility (EPR), Final Report.

operators in the single market will help to contribute to the action plan, which includes:¹²⁴

- action to reduce food waste, including a common measurement methodology and tools to meet the global Sustainable Development Goal to halve food waste by 2030;
- measures in the Ecodesign working plan for 2015-2017 to promote reparability, durability and recyclability of products, in addition to energy efficiency;
- a revised regulation on fertilisers;
- a strategy on plastics;
- action on water reuse.

These activities at EU level will drive investments, create a level playing field and remove obstacles to the single market. The efficiency gains are estimated by the European Commission as follows:¹²⁵

- savings of €600 billion for EU businesses, equivalent to 8% of their annual turnover;
- creation of 580 000 jobs;
- reduction of EU carbon emissions by 450 million tonnes per year.

3.4.3 Efficiency gains of BAT applied to the circular economy

Research and innovation to take these opportunities forward is undertaken by the Joint Research Centre, the Commission's in-house science service. They manage the European Integrated Pollution Prevention and Control Bureau (EIPPCB) that produces the BAT Reference Documents (BREFs)¹²⁶ for a given sector. According to Article 14(3) of the Industrial Emissions Directive¹²⁷, **BAT conclusions** shall be the reference for setting the permit conditions for large industrial installations.

¹²⁴ Press Release of 2 December 2015: http://europa.eu/rapid/press-release_IP-15-6203_en.htm.

¹²⁵ EC General Factsheet: Closing the Loop: An Ambitious EU Circular Economy Package, available at http://ec.europa.eu/priorities/jobs-growth-investment/circular-economy/docs/circular-economy-factsheet-general_en.pdf.

¹²⁶ Commission Implementing Decision 2012/119/EU.

¹²⁷ 2010/75/EU (IED).

The BREFs provide information about technically and economically available possibilities in industries to improve their environmental performance. BREFs, and consequently the BAT conclusions, are the result of an exchange of information and the pursuant negotiation process between Member States, the industries concerned, environmental NGOs and the Commission. The negotiations are framed in so-called Technical Work Groups (TWG), involving significant numbers of stakeholders. Reaching an agreement, the so-called BAT conclusions, can take a considerable amount of time.¹²⁸

In practice the BREFs address, first of all, quite sector-specific approaches for major industrial productions, such as food, organic chemicals production, iron and steel production, glass manufacturing, etc.

In addition to these documents setting standards for specific industries, a number of BREFs address broader policy fields that are of vital interest in the context of urban policies. The most relevant BREFs of a cross-cutting character are:

- Waste treatment.
- Waste incineration.
- Energy efficiency.

As a result of the intra-disciplinary negotiation process, they serve as a basis for the EU authorities to develop permits for industrial installations.¹²⁹

The EU should be in a strong position based on policy levers such as the prioritisation of key action areas through targeted regulatory policies and incentives. However, in reality, more resource-efficient technologies are not being used or their market introduction is being delayed, mainly for economic reasons.

The technical and scientific support for EU policies aiming at the most efficient use of resources, waste management and BAT for production can start to be applied here by significantly supporting the growing market of green technologies.

¹²⁸ Cf. <http://eippcb.jrc.ec.europa.eu/reference>. In total 31 BREFs have so far been developed, for which seven the BAT conclusions are available, i.e. for the majority, either the negotiation or the review process (in two cases) is ongoing. As regards the numbers of stakeholders involved, one has to note the considerable size of the Technical Work Groups (TWGs) in charge of the negotiations. For example, the TWG on waste incineration is made up of more than 200 experts (cf. JRC 2014 - the report on the meeting of the TWG in November 2013 in Seville, ES).

¹²⁹ JRC, Sustainable production: best available techniques, <https://ec.europa.eu/jrc/en/research-topic/sustainable-production-best-available-techniques>.

It is important to note that in part these BREFs directly address LRAs, particularly given that LRAs or urban regions might be contractors or even owners and operators of waste treatment and waste incineration plants. Since waste management is one of the cornerstones of the approach to a circular economy, some considerations on the quantitative and qualitative scope of the issue in an urban context might be useful.

The case of waste management and the role of BAT

Waste management dominates government expenditure on environmental protection:¹³⁰ according to Eurostat data,¹³¹ EU-28 expenditure on environmental protection amounted to 0.8% of GDP in 2013. Of this, an average of 50%, i.e. 0.4% of GDP, was spent on waste management. In terms of costs and public spending, waste management outweighs other environmental protection tasks such as waste water management, pollution reduction or protection of biodiversity and landscape (expenditure for each of these items accounts for 0.1% of GDP). In economic terms this share indicates that waste management is one of the market segments of particular interest for technology and service development.

Moreover, the challenge is also a local one, since municipal waste represents one of the most challenging aspects of waste management due to the dispersed sources, the challenge of efficient prevention and control as well as the considerable resources required for efficient collection, separation and processing for re-use. In order to outline the quantitative scope from the perspective of LRAs, one has to bear in mind that currently about 65% of the EU's population inhabits urban regions.

According to Eurostat data,¹³² the total waste generated by economic activities and households amounted to 4.9 tons per capita in 2012 in the EU. Of this, 63% or about 3.2 tons per capita was comprised of mineral waste.¹³³ Of the remaining approximately 1.7 tons, municipal waste accounted for about 25%. The table below outlines the key data on treatment of household waste:

¹³⁰ Definition according to government expenditure by function (COFOG).

¹³¹ Government expenditure on environmental protection, http://ec.europa.eu/eurostat/statistics-explained/index.php/Government_expenditure_on_environmental_protection.

¹³² Sustainable Development Indicator (SDI) on municipal waste and waste statistics, <http://ec.europa.eu/eurostat/web/waste/transboundary-waste-shipments/key-waste-streams/municipal-waste> and http://ec.europa.eu/eurostat/statistics-explained/index.php/Waste_statistics.

¹³³ In terms of weight by far the dominant proportion of waste. This is a result of mining and quarrying (important in Member States such as Bulgaria, Finland, Estonia and Romania), which accounts for almost 29% of all waste generated, and construction, accounting for about 33% of waste.

Table 8. Municipal waste in the EU-28 in 2013

Treatment	Kg per capita, p.a.
Total municipal waste EU 28 on average	481
Of which treated	471
comprising:	
Landfill disposal	147
Incineration	122
Material recycling	131
Composting and digestion	71

Source: Eurostat waste and municipal waste statistics.

Waste management itself has become an increasing concern: waste generated from waste treatment and waste water treatment has risen sharply - by 61% - in the period 2004 to 2012. In terms of the sharpest increases, construction ranks second with an increase of 45% in the same period. It is clear that these increases have to be considered to a significant extent as an urban phenomenon, since for obvious reasons these are the regions which require large-scale facilities for waste and waste water treatment. Cities therefore produce residual waste in considerable quantities and have with most significant building activities.

As has been outlined, municipal waste is a major challenge in quantitative terms. For some Member States, such as Belgium, Bulgaria, the Czech Republic, Germany and France, data at NUTS-II level¹³⁴ are also available. Data for some of the capital regions reveal widely diverging trends:

- data for Prague show a marked increase, from 307 000 tons in 2004 to 377 000 tons in 2013;
- other regions were stable or even declined in the same period e.g. Berlin, from 1 465 000 tons in 2004 to 1 389 600 tons in 2013, or Brussels, which reported a decline from 459 000 tons to 448 000 tons.

In terms of EU legislation, waste management is the subject of several directives. With regard to municipal (household) waste, the most important aspects are covered by:¹³⁵

¹³⁴ Cf. Pilot data collection of Eurostat: <http://appsso.eurostat.ec.europa.eu/nui/show.do>.

¹³⁵ Cf. Ecologic Institute, UBA, RIMAS, 2013.

- the Waste Framework Directive (WFD) as the overarching guidance document;
- the Landfill Directive (mainly relevant for biodegradable waste);
- the Packaging and Packaging Waste Directive.

The WFD¹³⁶ sets also targets for 2020 such as a minimum rate of recycling for metal, glass, paper amounting to 50% or preparation for re-use, recycling and backfilling of at least 70% of waste from construction and demolition.¹³⁷ Further reduction targets are set in the Landfill Directive for biodegradable waste as well as in the Packaging and Packaging Waste Directive.¹³⁸

Given the target values in the Directives and the current statistical facts, the enormous need for investment in order to improve performance in waste management becomes obvious.

Alongside the important question of the choice of technologies for waste treatment and the resulting longer-term budgetary impacts and resulting path dependencies, LRAs face a host of other challenges in waste management. These challenges stem from the comparatively high value of land in urban areas and their immediate surroundings, as well as from high population densities and the often dynamic process of suburbanisation. For cities, it is often challenging to maintain or even enlarge existing areas for treatment plants or to gain local acceptance in the event of the need to build new plants. Another obvious challenge is the rehabilitation and upgrade of landfills in the proximity of cities (landfills have to be considered as the least sustainable form of waste deposits, but still accounted for 31% of waste disposal, hence the highest share in the treatment of municipal waste in 2013).

BATs and BEMPs

The role of the relevant BAT on waste treatment and waste incineration is quite specific and targets certain aspects: the BAT seek to cover technological aspects which are none the less of key importance in urban waste management. The fact that currently almost 25% of household waste is subject to incineration makes the role of BAT on waste incineration obvious: the BAT on waste treatment

¹³⁶ Cf. Ecologic Institute, UBA, RIMAS., 2013 p. 5.

¹³⁷ This is not part of household or municipal waste, but is nevertheless an obvious and growing concern in urban regions.

¹³⁸ Landfill Directive – target on biodegradable waste: reduction to 35% of levels attained in 1995 for landfill disposal – to be met in 2016 and 2020 respectively; Packaging and Packaging Waste Directive- recycling rates of 55% to 80%.

covers inter alia large-scale installations for the disposal of non-hazardous waste. But in many cities, facilities for the treatment and incineration of hazardous waste are also owned and operated by municipalities. By including the processing of waste to be used as fuel, the BREF on waste treatment covers the treatments that can be applied to make different types of waste suitable for the fuel quality required by different combustion processes.

It is important to note that together with the BAT, the JRC also issues guidance documents on Best Environmental Management Practice (BEMP). Generally speaking, BEMP is intended to provide information on frontrunner approaches in priority areas: waste management has been selected as one of these priority areas, and the study is expected to be commissioned in the near future. It will, amongst other things, focus explicitly on solid municipal waste and on construction and demolition waste.¹³⁹

In comparison to BAT, BEMP sets out to cover all steps of waste management from prevention through to collection, re-use and treatment. In terms of treatment, the distinct aspects of recycling, energy recovery and disposal should be the subject of consideration. This BEMP could also become a valuable source of information for LRAs, since it will also provide explicit links to legislation and the respective BATs (on waste treatment and waste incineration).

Summary: the role of BATs and BEMPs in an integrated EU Urban Agenda

The key significance of BATs stems from the fact that these documents represent a viable compromise on emission limits between the major parties concerned, i.e. the Member States, the industries concerned, the environmental NGOs and the Commission. BATs also represent the tested results of state-of-the-art large-scale facilities. However, given the lengthy drafting procedures, the limits and approaches set in BREFs might require re-consideration during the negotiation process in order to act as drivers for technology development. Setting legal norms in favour of environmental protection has to be understood as an ongoing, dynamic process. In addition, the need for highly qualified staff in the public sector in order to act as competent authorities in the process is obvious.

It is important to note that the majority of BREFs are directed at specific industries, but in the context of the EU Urban Agenda, three BREFs with potential relevance have been identified. Two of them refer to waste management and one to energy efficiency. The latter represents a horizontal

¹³⁹ Working paper on the scope of the future BEMP on Waste Management provided on the JRC website.

approach in the series of BREFs. Waste management is the largest single public investment item in environmental protection and should thus be included in the approaches of an EU Urban Agenda. Moreover, the perspective of LRAs has also been subject of a CoR Study.

Since BATs in general do not prescribe any specific technology but point to environmental standards for large-scale industrial facilities, it is difficult to establish a direct link to the implications for growth and jobs. In terms of mobilisation of LRAs as promoters of advanced technologies, the future BEMP on waste management could have an important role as a resource and point of departure to foster LRA activities in the sector.

4 “Business case” for an integrated EU Urban Agenda

The business case was built along the main policy fields of an EU Urban Agenda as defined in Table 6. It mainly serves the purpose of raising awareness for important growth areas and their explicit or implicit urban dimension. It should help to outline the context of growth in which an EU Urban Agenda should be embedded.

Looking at the quantitative dimension, the weight of urban policies is evident: in 2020 about 389 million people (75.9% of the population) will live in urban areas in the EU and the trend will continue. In 2050 it is estimated that about 417 million will be living in urban areas, accounting for 82.9% of the EU population.¹⁴⁰

It is also obvious that LRAs governing towns, cities and metropolises are facing multi-faceted challenges since urban areas consist of dense networks of respective layers of infrastructure, representing significant public assets and requiring permanent maintenance and often expansion.

On the one hand, business activities and lifestyles are marked by enormous diversity and at the same time the best places for education and STI are concentrated in cities. On the other hand, social inequalities are concentrated in cities.

Dense construction and sealed urban areas are the most sensitive to the impact of climate change. The heat island effect influences people’s health and well-being and thus the living quality of urban inhabitants.

Cities are not homogeneous and differences in their building structure, green areas and vegetation provide diverse possibilities for adaptation mechanisms that make them more or less resilient to climate change.

Density and close social interactions in the *urban fabric* make it more obvious that any action affecting one element will have repercussions on others.

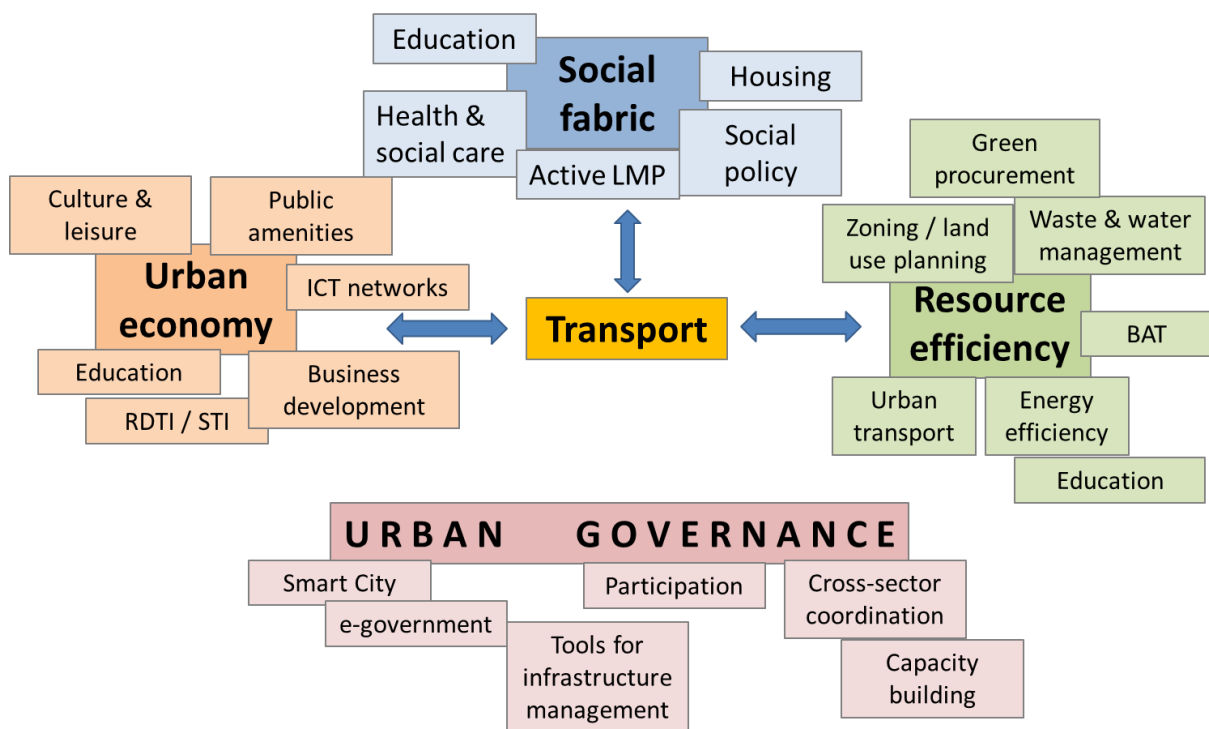
Nearly all policy fields at the level of the EU or at the level of the Member States (and often sub-national levels) matter for the development of cities and urban areas. Nevertheless, in total four key cases and five intervention areas are

¹⁴⁰ World DataBank, Health Nutrition and Population Statistics: Population estimates and projections, <http://databank.worldbank.org/data/home.aspx> (06.11.2015).

highlighted that are vital for the coming decades and include all relevant policy fields detected earlier (cf. Figure 1):

- **Urban economy, resource efficiency and social fabric**¹⁴¹ – the three areas can also be understood as thematic clusters, each cluster comprising several policy elements understood in the sense of more traditional sectoral policies.
- **Transport** is considered as a transversal theme for urban areas.
- **Modern urban governance** is understood in a broad sense as the capacity to administer and govern urban territory through cross-sectoral coordination implementing participatory approaches and more open forms of government in order to attract the interest of a diverse society.

Figure 4. Key cases vital for the coming decades



Source: Metis GmbH.

A closer look at the five intervention areas outlined below also reveals the challenges in terms of feasibility, since in many fields, policy interventions are seen as quite a sensitive issue. One has to keep in mind that:

¹⁴¹ The term social fabric means the composite demographics of a defined area. It consists of its ethnic composition, wealth, education level, employment rate and regional values (cf. www.businessdictionary.com). For the present study, the term is considered as most suitable for the respective business case.

- feasible policy responses are always the fruit of compromise, and
- national and EU-wide frameworks matter or are even decisive to further the implementation of crucial interventions at the level of LRAs. For example, stand-alone ground-breaking initiatives on the part of LRAs might be expected in certain fields of resource efficiency. Nevertheless, in some of these fields, effective policy responses will only be possible with the ‘backing’ of national and EU policies.

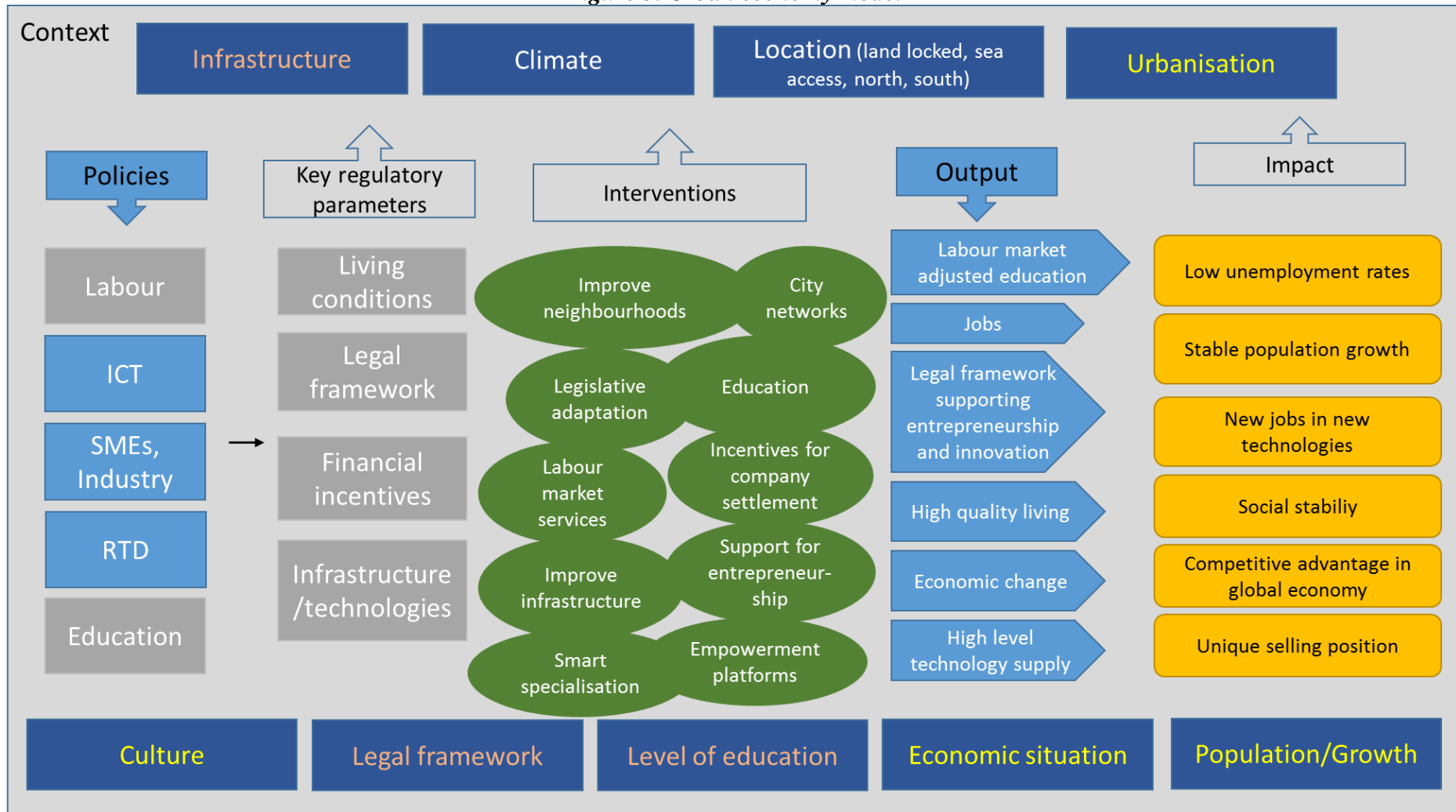
4.1 Business case: urban economy

Urban areas are the economic drivers of regions and Member States. They host resources and provide the critical mass of knowhow and technology in order to serve the whole value chain of market products. The key to urban economy is the availability of labour force, knowhow and a market. Urban areas take on the role of centres of gravitation, attracting companies as well as people. In Europe, urbanisation started with industrialisation. Nowadays, with the dramatic decline of production in Europe¹⁴² some cities, especially in eastern Europe, which have been industry dominated are losing their gravitation power and are starting to shrink. This phenomenon, first defined in the USA, calls for new concepts in city management.

Consequently, European cities are today defined by lower industrial influence and are dominated by the service sector. The service sector, for example, depends heavily on ICT networks. With the urban wide supply of high speed ICT networks, cities have a distinct advantage over rural areas and smaller towns. Several different parameters influence urban economy today. A model framework of urban economy including selected policy fields is provided below. The light blue fields are those where any EU Urban Agenda could provide impetus.

¹⁴² LSE 2006, Transforming cities across Europe.

Figure 5. Urban economy model



Source: Metis GmbH.

Urban economy can be seen as an economic laboratory where different parameters are available to develop urban living conditions. Over and above the environmental aspects, which are covered in a specific case, there are a range of policies that are directly linked to urban economy. They are mainly dominated by national and regional responsibilities, with some horizontal directives from the European Commission. EU strategies and legislative acts include:

- Europe 2020 objectives.
- Poverty reduction and inclusion strategy.
- Non-discrimination and equal treatment directive.
- Stability and Growth Pact.
- Small business act.
- Public procurement.
- State aid.

The European Commission has numerous programmes that should operate as initiatives to boost education, the labour market, research and ICT development in the following areas:

- The ERDF and ESF support ICT infrastructure, and labour market.
- In the field of education there are several different funding opportunities provided by the European Commission (ERDF, ESF, ERASMUS).
- In the field of research and development, the main programme is HORIZON 2020 and COSME for SMEs.
- Regarding the improvement of ICT networks in Europe, the Connecting Europe Facility has been established, co-funded by the ERDF and ESF.

There are no urban specific strategies, legal acts or programmes other than the thematic area of integrated urban development, which forms a small part of the ESI Funds 2014-2020.

The main actors regarding urban economy are those who govern the area together with active economic stakeholders. These include private and public organisations as well as all people involved in the labour market. Local governments are therefore required to support the best possible interaction between all actors and need to ensure that the urban area provides an adequate basis. In this respect, local authorities face the following challenges:¹⁴³

¹⁴³ Local Government Association of Tasmania (LGAT), The role of local government - Exploring the Roles of Local Government, Discussion paper, May 2013.

- Understand the local economic drivers.
- Understand the weaknesses, vulnerabilities and opportunities.
- Spend budget the best possible way to support economy.
- Seek to broaden the economic base.
- Establish strategic alliances.
- Create networks.

Local governments are directly involved in the success and failure of economic aspects. The pressure of economic situations and financial shortages are the first to recognise. There are two key parameters available for local authorities to address:

- provide an economy friendly environment with positive living conditions, and
- support business development.

In both cases, the local authorities need to be flexible and open to unorthodox concepts. The nature of legislation and political competition often thwart long-term decisions. The key elements hampering long-term initiatives, which might not be popular, are political elections and political competition. Especially in federal states these seem to put a brake on improvements and developments.

4.1.1 Living conditions

Urban areas and cities are in worldwide competition when it comes to company headquarters, a high quality labour force and economic and living attractiveness. The latter, in particular, has recently become the subject of several rankings, such as the smart city ranking. The concept of a liveable city is seen to be strongly related to attractiveness for high quality labour forces, headquarters and researchers. According to several sources, ‘liveability’ should express the ‘*city's ability to be responsive to the needs of its inhabitants around certain key areas*’.¹⁴⁴

- Infrastructure and natural environment.
- Social stability.
- Low criminalisation.
- Recreational opportunities.
- Educational opportunities.
- Support for mental health and marginalised populations.

http://www.dpac.tas.gov.au/_data/assets/pdf_file/0005/195728/FINAL_discussion_paper_role_of_local_government_phase_2.pdf.

¹⁴⁴ <http://www.citiesforpeople.ca/en/projects/livability>.

These are major factors, which fall within the responsibility of local authorities, with the exception of education and health. The liveability of a city requires financial resources, which are scarce.

There are several interventions possible, e.g. investments in security, integration, buildings and open space as well as other infrastructure. Another approach is the integrated development of urban areas and neighbourhoods, which represents a cross-sectoral approach involving different stakeholders, from citizens to companies. Integrated urban development is difficult to measure but can be long lasting. Thus integrated projects are often used to improve neighbourhoods in order to attract economic stakeholders.

One major source of improvement for city areas that are not attractive to business development is again the ERDF, with its budget for integrated urban development. The budget, however, is very small and can only serve as an incentive. In times of scarce public budgets, proactive public initiatives on the part of citizens are sometimes the only stimulus for change. The key responsibility of urban and local administration is to support those initiatives rather than hamper them with legal barriers. Small budgeted projects for integrated urban development are instruments for triggering such initiatives.

Evidence for sound local policies that improve living conditions needs information on social aspects such as welfare, the individual housing situation, health conditions and social benefits, but also negative influences on wellbeing, such as the local concentration of traffic accidents and criminal offences. On the basis of a European survey, *Statistics on Income and Living Conditions* (EU-SILC), welfare indicators are compiled containing data on these aspects.¹⁴⁵

Providing the framework for self-responsibility of citizens helps to empower neighbourhoods and improve their attractiveness. Such developments become independent and soon reach a level where private investment is attracted. The easiest and fastest way to reach citizens is via ICT platforms, which are able to provide a powerful tool for triggering activities amongst city actors (see for example the Amsterdam Smart City platform presented in the next box).

¹⁴⁵ [http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:EU_statistics_on_income_and_living_conditions_\(EU-SILC\)](http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:EU_statistics_on_income_and_living_conditions_(EU-SILC)).

Box 8. Dutch smart neighbourhood projects¹⁴⁶

The Amsterdam Smart City platform serves as an ideation platform to develop a better city. It is promoted as a partnership between companies, governments, knowledge institutions and the people of Amsterdam. The platform is open for ideas which can be submitted by everyone.

One of the projects generated on the platform is the ‘Almere Smart Society’ project, where local companies, together with the Almere Economic Development Board, develop a facility which, amongst other things, will promote more efficient urban management, innovation and economic growth, strong social cohesion and sustainable development. According to the project description, the smart connections can also generate substantial cost savings in running the city. For example, the local urban management processes will be supported by an intelligent digital infrastructure for the exchange of information, services and applications between all municipal departments in areas such as public safety, traffic and mobility, waste management and the coordination of relief efforts in the event of disruptions, incidents or disasters in the city.

4.1.2 Business development

Business development and, most of all, support for entrepreneurship is a key element in urban economy. However, the European economic environment does not provide an adequate framework for easy entrepreneurship. Highly over-bureaucratic and risk-averse European Member States do not provide sufficient support to innovative people willing to start a business. The European Commission provides several different tools in order to motivate Member States to improve the legal and administrative framework. However, one key element hampering entrepreneurship is the bank conditions defined in the Basel Accords. The result is limited access to credit and venture capital for micro enterprises and SMEs, and almost no capital for entrepreneurs. The European Commission and Member States fill this gap by offering grants through intermediaries.

Several other different solutions are emerging in Europe, starting with crowd funding, peer-to-peer lending, angel investors, etc.¹⁴⁷ These methods of financing require new forms of business support, which also calls for involvement on the part of the public authorities. A number of projects in the UK have supported multi-use business facilities for micro enterprises and

¹⁴⁶ <http://amsterdamsmartcity.com/projects/detail/id/30/slug/almere-smart-society>.

¹⁴⁷ <http://www.businesszone.co.uk/community-voice/blogs/marketinvoice/5-alternatives-to-traditional-bank-finance>.

entrepreneurs (see Box 9 below). The public administration has successfully involved private companies in supporting the projects.

The general character of interventions supporting business development are:

- the provision of facilities for start-ups and entrepreneurs,
- networking with innovation centres and universities, and
- establishing partnerships across the administrative borders with other public authorities and with private actors.

Box 9. Example of local authorities' role in economic growth in the UK¹⁴⁸

Economic development has become a major local government activity in the UK. Radical changes in the economy have left many areas with little alternative but to act to regenerate their economies. A range of policies has been adopted in relation to land clearance, retail development, public transport, roads, housing and marketing. As the government reduces capital grants and access to traditional banks, finance becomes harder for the private sector to raise. Councils are therefore exploring opportunities to find new ways of leveraging investment to support growth, including from pension funds, and being more flexible so that they can be active in the bond markets. Pro-growth policies are the norm in many areas, particularly where unemployment is high.

Wychavon Council, for example, took part in a joint venture with Waitrose to acquire land and build a supermarket in a previously run-down high street with an out-of-date 1970s precinct. Waitrose had been having problems with land acquisition. The joint venture allowed the project to be completed and improve trading conditions within the town centre.

Calderdale has been working to diversify the local economy away from a traditional reliance on financial services and manufacturing. An Economic Task Force managed a GBP 2.8 million fund for small projects to stimulate the economy. The Task Force has commissioned over 60 projects from the private, public and voluntary sectors, encouraging start-ups, social enterprises, Community Asset Transfers and innovative projects such as Business Growth Calderdale, Totally Locally, Creative Calderdale and Silver Entrepreneurs. So far, this activity has created more than 150 businesses and supported 900 other new-starts, creating over 500 jobs and drawing in private sector investment of over GBP 2.9 million. **Halton** is a member of the Halton Employment Partnership (HEP), which brings together expertise from various employment, learning and skills development agencies to support inward investors and local

¹⁴⁸ Local Government Association 2012, Local government's role in promoting economic growth - Removing unnecessary barriers to success.

businesses with a ‘complete employment offer’. The HEP was approached in May 2011 to meet with the Regeneration Partnership Manager of Tesco Stores Limited and the local Job Centre Plus to discuss the recruitment of staff and identify the support HEP could offer to this recruitment drive. The partners of HEP established and managed a hotline through which applicants could apply for places to join interview skills workshops. Attendees received a numeracy and literacy assessment, a session on interview skills and techniques and training on the completion of application forms. As a direct consequence, Tesco invited 100 candidates to join their workforce.

4.2 Business case: urban resource efficiency

Inherent differences in urban contexts allow and require targeted approaches to solve urban challenges. Any EU Urban Agenda needs to acknowledge the differences in a city's structure, location, temperature zone, culture, economic situation, etc. Some of these contextual parameters can be influenced, others not. Nevertheless, a toolbox which allows for different urban types to develop tailor-made solutions should be developed.

Urban resource efficiency comprises a vast range of different aspects. The main resources involved in a city's consumption are land, water and energy. For all three thematic fields, specific contextual aspects have to be considered. Urban areas are responsible for the bulk of resource consumption due to the concentration of households and industries combined with transport concentration. Almost 80% of energy consumption is linked to urban activities.¹⁴⁹ Improvements can be made to the energy mix by making changes to the way municipalities use resources for power production combined with a more efficient use of resources.

Resources are managed by key parameters covering technical infrastructure, economically driven supply chains and legal frameworks. These three parameters apply to all types of urban areas, but solutions to adjust those parameters should be individually developed according to the regional and local context. Instruments for local and regional actors are interventions in various fields addressing aspects related to resource efficiency. Interventions address education as well as technical and legal adjustments in order to reach the required outputs. Those outputs can be predefined in the EU Urban Agenda. The way of achieving them needs to be context driven and individual. Outputs need to be measurable and based on easily available data. The need to compare

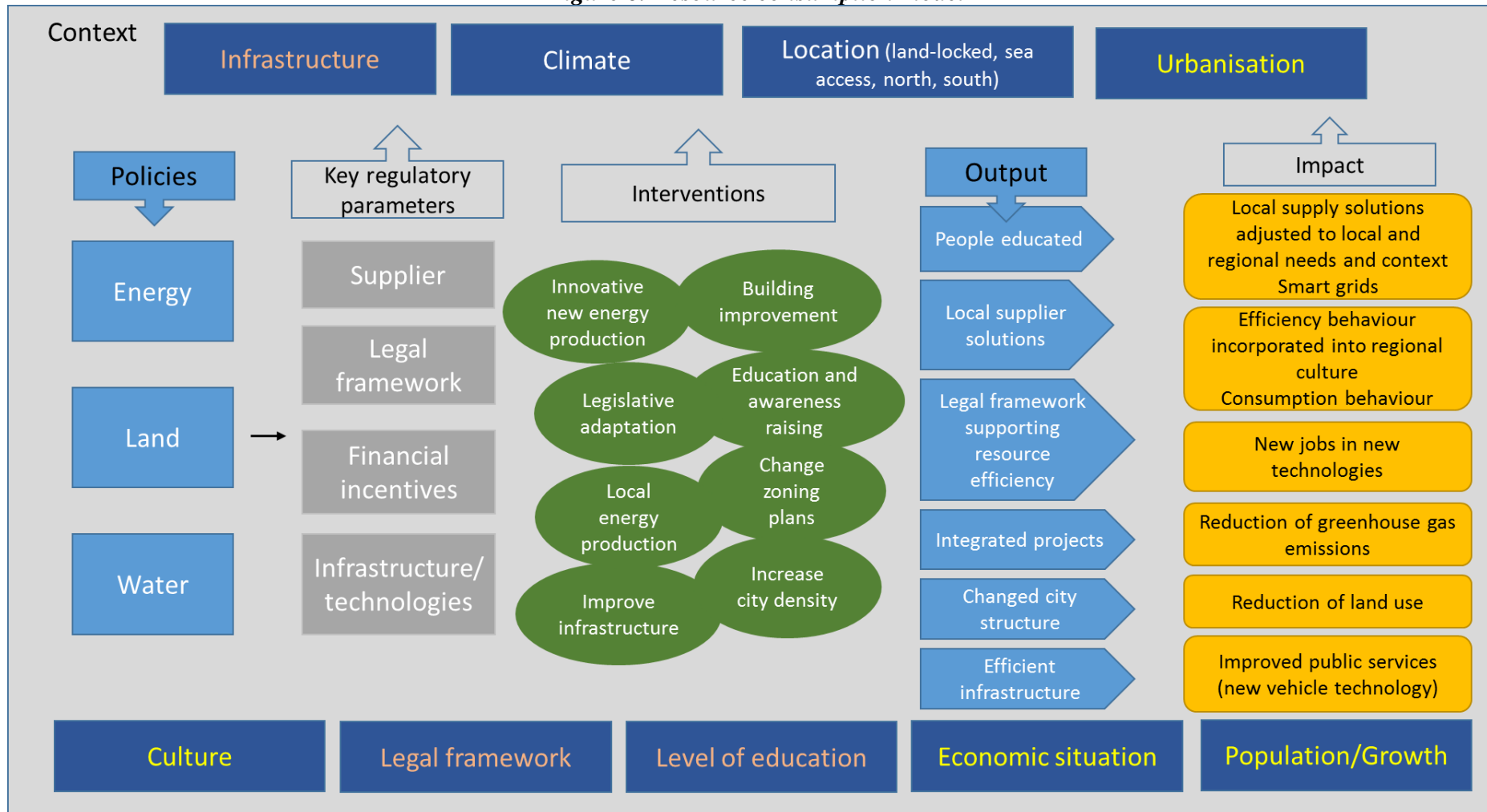
¹⁴⁹ Covenant of Mayors 2014, Reducing Energy Dependence in European Cities.

different cities is only secondary. Example of outputs are changes in the legal framework as well as local and regional supplier projects improving efficiency and the use of renewable resources.

Resulting impacts are not easy to measure. The EU Urban Agenda can lead and indicate different types of impacts that are desirable. A general aim should be to improve local and regional supply chains that address local conditions or to encourage behaviour fostering a circular use of resources.

The following model shows the principle logic of urban resource efficiency and where a potential EU Urban Agenda can provide support. As an example, it includes a choice of three key policies. The light blue fields are those where an EU Urban Agenda could provide an impetus.

Figure 6. Resource consumption model



Source: Metis GmbH.

Obviously some regulatory parameters have a higher impact on resource efficiency than others and, more importantly, cities do not always have the same influence on these parameters. Therefore, it is important to highlight those parameters which first have a high impact on resource efficiency and second, those where local administrations are able to play an active role and make a difference with a set of interventions.

The following key elements for change can be extrapolated from the model above:

- Transport (see case below).
- Building efficiency.
- Land use.

Nevertheless, it must be borne in mind that inherent challenges, such as cities competing for national investment in large-scale infrastructures (such as STI facilities) and strict environmental standards, which when applied to business buildings might deter investors or lead to delocalisation of businesses.

4.2.1 Building efficiency

According to recent studies, in Europe buildings account for 40% of total energy use and 36% of CO₂ emissions¹⁵⁰. This includes all kinds of buildings, with energy consumption fluctuating according to the type and age of the building. There are several measures in place to how to reduce energy consumption, such as:

- adequate insulation,
- double glazing,
- green facades,
- energy generation in buildings, such as solar power.

Again, the way to retrofit a building needs to be adjusted to the context of the area. A number of aspects, such as the location of the building, the urban climate and the age of the building, need to be considered. 35% of buildings in the European Union are older than 50 years. According to the Commission, energy consumption could be improved by 5%-6% by targeting those buildings.¹⁵¹ In addition to retrofitting buildings, which would address the majority of all buildings in the European Union, standards need to be set and implemented for new buildings. Notwithstanding the necessity of retrofitting old residential

¹⁵⁰ Covenant of Mayors 2014, Reducing Energy Dependence in European Cities.

¹⁵¹ European Commission DG Energy, <https://ec.europa.eu/energy/en/topics/energy-efficiency/buildings>.

buildings, the construction of new office buildings still fails to tap the full energy efficiency potential. In most cases, office buildings are built to the lowest possible budget, eliminating additional costs to the detriment of potential energy savings.

Retrofitting buildings has a major impact on resource efficiency. There are different levels of influence for local and regional authorities regarding the regulatory parameters. First of all, there are differences between public and private buildings. Renovating public buildings is a question of financial resources and can be conducted within the administrative framework of public authorities. Public buildings may be owned by different levels of public authorities, for example the state owned or the municipality.

Different levels of administrations have access to different financial resources. More difficult to regulate are renovations of private buildings, such as housing and business and industry. In the first case, financial incentives and the increase of energy costs based on legal adjustments are the only two instruments available for local authorities. In terms of commerce and industry, incentives are also one form of instrument, together with regulatory instruments requiring companies to adapt buildings and follow specific regulations for new buildings. Again, different administrative levels are responsible for enforcement. And in most cases, local authorities have the least influence due to the fact that the legal framework and the financial resources fall under the responsibility of the EU and/or national level.

The **legal framework** regarding building renovation is heavily dominated by EU laws and strategies, including:

- Directive 2010/31/EU on the energy performance of buildings.
- Directive 2012/27/EU on energy efficiency.
- Guidelines accompanying the Delegated Regulation 2012/244/EU.
- European Strategic Energy Technology Plan (SET-Plan).
- Investment in the Technologies of the European Strategic Energy Technology Plan.
- COM(2010) 639 final, Energy 2020 A Strategy for competitive, sustainable and secure energy, Brussels, 21.12.2010.

- COM(2015) 80 final, A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy, Brussels, 25.2.2015.
- COM (2010) 265, Analysis of options to move beyond 20% greenhouse gas emission reductions and assessing the risk of carbon leakage.

The European Union is also active in the areas of energy research, development and promotion via initiatives such as CEPHEUS (ultra-low energy housing), and programmes under the umbrella titles of SAVE (energy saving) ALTENER (new and renewable energy sources) and STEER (transport).

Member States are obliged to implement the legal directives with only limited scope for individual adjustments. The implementation of the legal framework at national level puts significant financial pressure on regional and local authorities. To implement the energy efficiency directive means that from 1 January 2014, 3% of the total floor area of heated and/or cooled buildings owned by central governments must be renovated each year. The need to retrofit buildings is a drain on the financial resources of local communities and municipalities. The idea of private financing has not been successful so far. Therefore the implementation of the building efficiency directive requires far more in the way of financial resources and effort than is currently the case.

Funding opportunities for urban areas regarding energy efficiency in buildings are mainly concentrated on cohesion policy instruments and the ‘Intelligent Energy’ programme. Moreover, the ERDF plays a powerful role, with EUR 11.5 billion dedicated to energy.¹⁵² Nevertheless, compared to the need of building renovation, it is still just an incentive and Member States have to shoulder most of the burden.

Private financing has so far not been very successfully implemented. Yet Public Private Partnership models have been started and are supported by financial investors. The involvement of the private sector needs to be enhanced in order to support public authorities in their efforts.

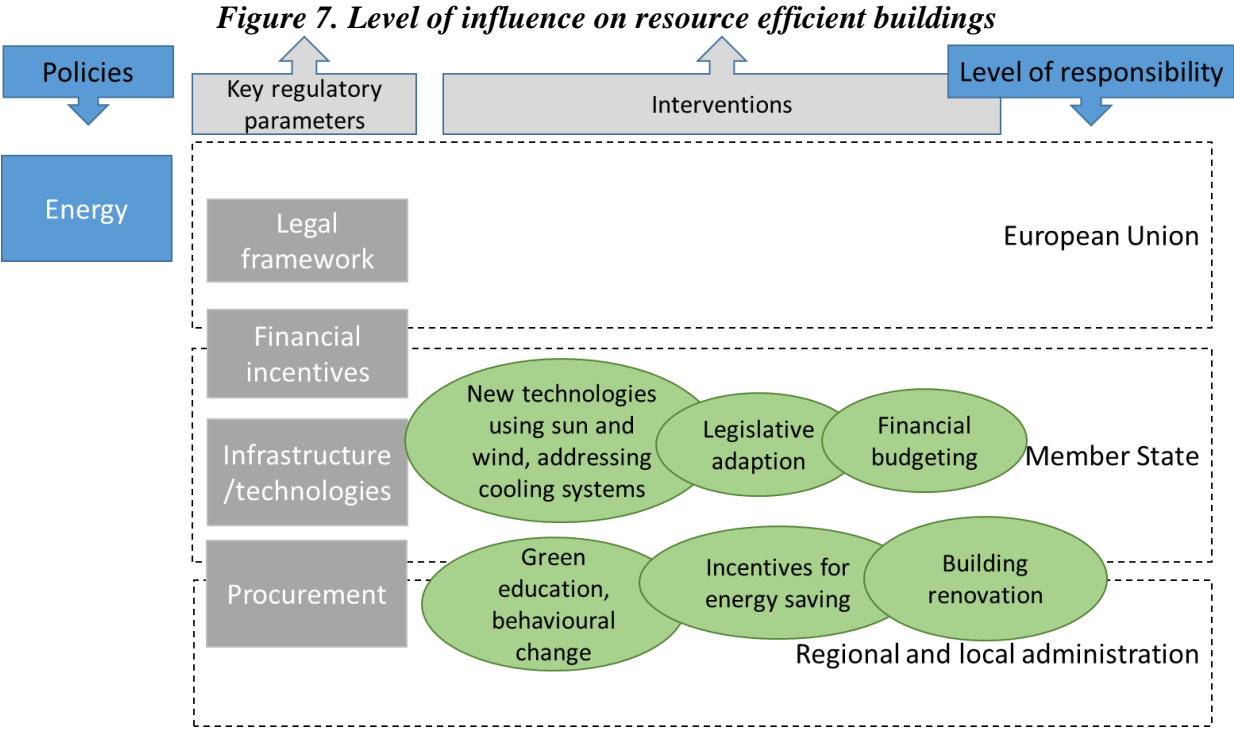
To involve private financial partners, different instruments– depending on the specific building sector – are necessary.¹⁵³ The main drivers are public procurement, incentives, legal requirements and standardisation. For example, public authorities are able to influence the building sector at least in terms of public buildings through **green public procurement**, which offers a significant

¹⁵² European Commission, DG for Regional and Urban Policy, cohesion policy data, <https://cohesiondata.ec.europa.eu/>.

¹⁵³ Energy Efficiency Financial Institutions Group 2014, Energy Efficiency - the first fuel for the EU economy. How to drive new finance for energy efficiency investments.

opportunity for local authorities to improve their overall energy consumption performance. These instruments are situated at different administrative levels.

Finally local administrations are able to reach communities more directly and address behavioural changes through **awareness raising**. These soft measures are sometimes the only instrument available to local administrations.



Source: Metis GmbH.

Box 10. Examples of awareness raising in Latvia and Lithuania¹⁵⁴

Energy maps for smart residents

In additions to leading major refurbishment projects, municipalities can also encourage residents to improve their own homes. **Riga, for example**, has made available online the annual heat consumption of over 2,500 heated residential buildings in the various districts. Similarly, **Vilnius** has developed an online interactive building energy consumption map, which evaluates and compares the heat consumption of buildings with regard to the previous year.

The aim is to encourage residential building renovation and investment in the city, as all owners and tenants can find out how much their building costs them per year and how it compares to similar properties in their

¹⁵⁴ Covenant of Mayors 2014, Reducing Energy Dependence in European Cities.

neighbourhood. So far, 492 blocks of flats have been renovated. Moreover, this online tool allows people looking for a new home to choose the most energy efficient option.

4.2.2 Land use

Urban areas can only improve their efficiency when using their agglomeration advantages. A city's density and structure plays an important role in this context. European cities have grown since 1950, and have seen an increase in wealth and in demand for homes. As a result, air pollution in city centres and urban sprawl are now a common phenomenon throughout Europe, with no sign of any slow-down in this trend. Southern, eastern and central parts of Europe are particularly at risk.¹⁵⁵

Land use and urban sprawls are the second thematic area where local and regional authorities are able to make a real change. Land use and urban sprawl are key sources of resource consumption, with natural resources at the forefront. Suburbs require a lot more in terms of links to the city centre, infrastructure and energy networks.

The general causes of urban sprawl are:

- Lower land rates.
- Demand for open space.
- Lack of urban planning.
- Lower house tax rates.
- Rise in population growth.
- Consumer preferences.

All of the above listed causes are either directly or indirectly influenceable. Even consumer preferences can be changed, as can be seen from a number of areas in the USA that have tried to establish smart growth initiatives.¹⁵⁶ Urban sprawl can be directly managed through land use plans and cooperation across administrative borders, for example in order to adjust tax levels.

Unlike energy, there is no legislative framework related to land use at European Union level. The legislative framework lies mostly at national level or below, at regional level. Responsibility and potential seem to be unused or poorly used. The main instruments at local level are zoning plans and building permits. The

¹⁵⁵ JRC and EEA 2006, Urban sprawl in Europe. The ignored challenge, EEA Report No 10/2006.

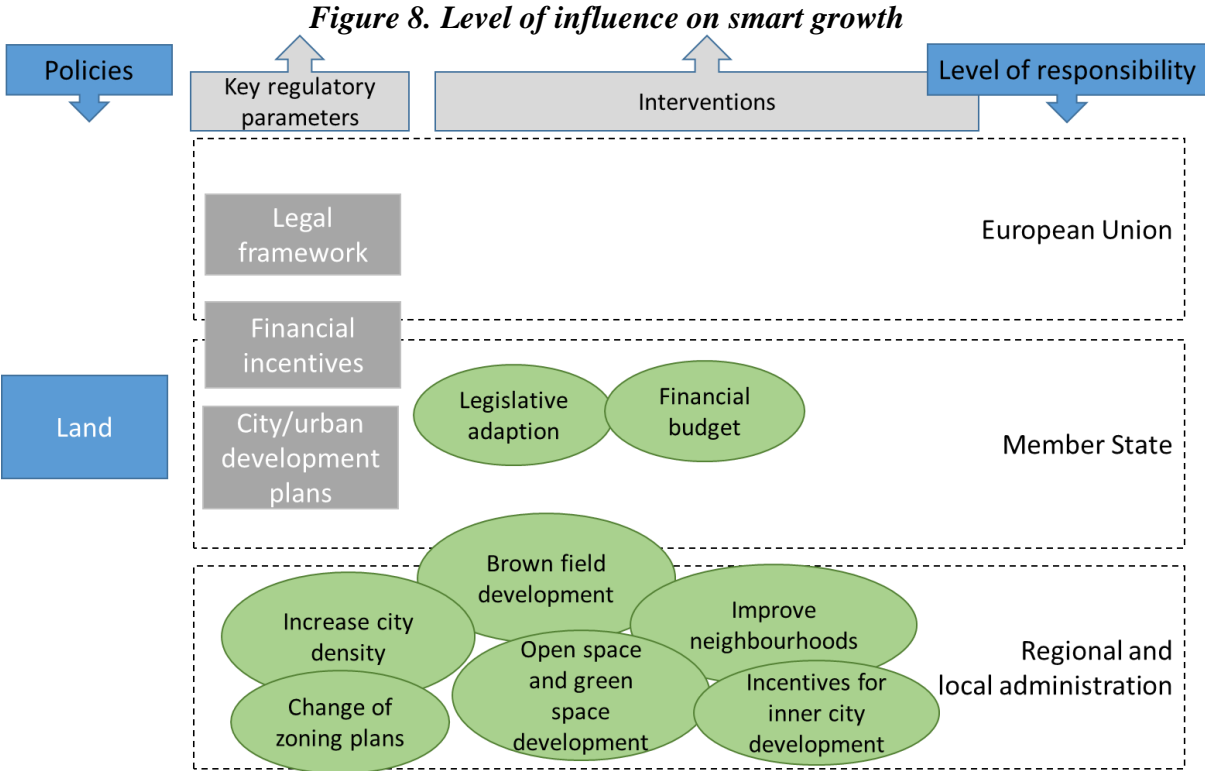
¹⁵⁶ <http://www.smartgrowthamerica.org>.

latter are in many cases issued either without a zoning plan or without due diligence in considering sustainable urban development. The main incentives for issuing new building permits are economic. Municipalities are often in competition for tax revenue and fiscal policies, which are based on population and households. Environmental and resource efficiency do not play a significant role here.

The main regulatory instruments are either legislative change, changes in responsibility and incentives for municipalities to improve their urban development by reducing land use and urban sprawl.

Incentives for administrations to reduce urban sprawl could, for example, take the shape of specific funding schemes with certain conditions attached (e.g. a requirement that zoning planning should include a strategic environmental assessment).

The main drivers for citizens to reduce demand for suburban dwellings are the improvement of inner city neighbourhoods and the expansion of open and green space in cities, incentives for inner city investments and legislative change in order to reduce the possibility of urban sprawl.



Source: Metis GmbH.

Several studies have already investigated linkages between urban forms, population lifestyle patterns and associated energy consumption within selected neighbourhoods.¹⁵⁷

A major trend emerging in European cities is the movement of major industry away from cities and the availability of significant land areas within cities. Existing industrial sites and transport hubs are either being transferred outside cities or reduced and combined. The areas left behind are high-value urban land, opening up an opportunity for cities and urban areas to increase density and reduce barriers. The new developments are based on master plans acknowledging the principle of shorter distances and better work-life balance. In places where urban sprawl has already taken hold, another approach needs to be adopted which provides 100% residential suburban areas with plenty of commuter transport to the city centre. These areas should be treated as separate suburban areas with their own development plan, including the change of the area structure to encourage a broader mix of uses.

Box 11. Example of smart city development to prevent urban sprawl in Vienna¹⁵⁸

The city of **Vienna** has developed a compact urban area in which to working and living, providing homes for around 20,000 inhabitants and 20,000. Aspern's Vienna Urban Lakeside¹⁵⁹ was a former airport covering 240 hectares of land situated within the administrative borders of Vienna. The project allows for controlled inner city development providing housing for different kinds of demands in different price brackets, including social housing. The concept includes a high level of public transport access and a high-quality supply of open and green space.

The city of Vienna itself has the advantage of being the biggest residential property owner in the city. The city is thus able to influence the property markets as well as respond to and control demand for sites.

Box 12. Reshaping "bedroom" communities in the Netherlands¹⁶⁰

Another answer to urban sprawl is to change settlements that are dominated by housing into compact functional urban areas and a certain degree of self-development. For this purpose Dutch administrations started to develop suburban development plans for urban areas which have the reputation of

¹⁵⁷ The CANMET Energy Technology Centre developed its Canadian Urban Archetypes Project in 2004.

¹⁵⁸ He, D. et al. 2015, Being a smart city: the case of Vienna and Seestadt Aspern.

¹⁵⁹ <http://www.aspern-seestadt.at/>.

¹⁶⁰ Kroon, H.J.J. 1999, ESPESP Urban-Rural Partnership. Case Study Groningen, The Netherlands.

being "bedroom" communities. The redevelopment of such communities into compact urban areas takes time and patience.

4.3 Business case: urban social fabric

The **governance challenge related to the urban social fabric**¹⁶¹ – or in other words combating social exclusion and marginalisation in urban regions – probably ranks among the key factors for public finance in the coming decades. If public efforts – in terms of spending efficiency and effectiveness – in areas such as education, social affairs and education fail, far-reaching implications for policy-making, social welfare and societal developments will be inevitable. As will be seen, the European welfare state is based to a significant extent on public spending for the key policy levers in education, social affairs and health.

According to data from 2013 these three items of *general government expenditure* together account for the **dominant proportion of public spending** across the EU. In addition to the quantitative weight of these sectors as a proportion of public spending, several long-term trends and more recent developments point to the fact that overall spending will have to increase in order to maintain the current status. In other words, stagnation would mean a rising challenge for policy delivery. A decrease in spending on these items – if not coupled with significant efficiency gains - will have adverse impacts on the social fabric in a short- to mid-term perspective.

Table 9. GDP shares of key areas of public expenditure

Budget item	% of GDP in EU-28 in 2013 ¹⁶²	Sub-items included according to COFOG ¹⁶³	Trends & recent impacts on spending needs
Social protection	19.6	Sickness and disability, old age, family and children, unemployment, housing, R&D, social exclusion.	Trend towards ageing and longevity. Rising unemployment and stagnation where unemployment levels are high, in particular in

¹⁶¹ With about 70% of the population expected to live in urban areas in 2020, the most pressing need for targeted public spending on key issues related to the social fabric is and will clearly be dominated by urban regions.

¹⁶² Estimated at EUR 12.7 trillion according to the International Monetary Fund (IMF).

¹⁶³ Classification of the Functions of Government.

Budget item	% of GDP in EU-28 in 2013 ¹⁶²	Sub-items included according to COFOG ¹⁶³	Trends & recent impacts on spending needs
			<p>Spain, Greece, southern Italy, rising number of NEETS¹⁶⁴.</p> <p>Rising poverty levels, increasing numbers of people at higher risk of poverty (in particular single parent households, migrants).</p> <p>Rising number of single person and single parent households.</p>
Health	7.2	Medical products, appliances and equipment, outpatient, hospital and public health service, R&D related to health.	<p>Trend towards ageing and longevity.</p> <p>The health and pharmaceutical sector is a strong factor in public RDTI.</p> <p>Rising costs due to new treatments.</p> <p>Concentration in the production of pharmaceuticals thus a rising challenge for public health systems in terms of negotiating prices.</p>
Education	5.0	Pre-primary, primary, secondary and tertiary education, post-secondary non-tertiary education, education non-definable by level, subsidiary services to education, R&D.	<p>Rising expenditure per pupil.</p> <p>Additional requirements imposed by immigration (in particular acquisition of language skills).</p>
Total	31.8		

Source: Eurostat, Metis GmbH.

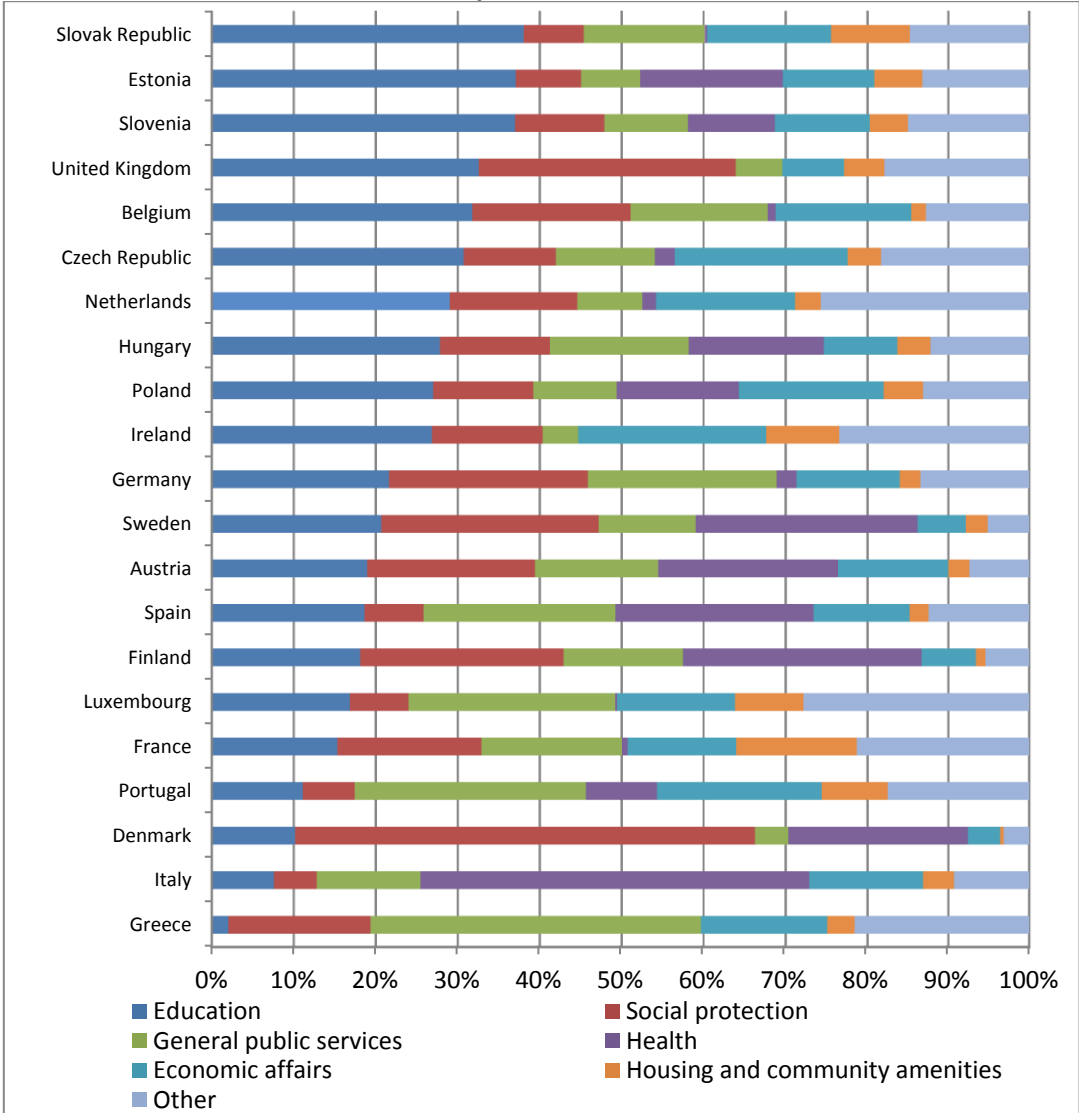
Almost one third of the GDP of the EU-28 is spent on these key policy levers for the social fabric.

Public expenditure at the level of LRAs is also dominated by social policy. In the framework of the EU Urban Agenda, it is important to highlight the

¹⁶⁴ The term "NEET" refers to adolescents (aged 18 to 24) and stands for Neither in Employment nor in Education or Training.

importance of subnational governments or LRAs.¹⁶⁵ It is obvious that these budgetary items are highly dependent on demographics and political pressures. A closer look at public spending on education, social affairs and health shows that these spending areas also dominate public finance at LRA level. As can be seen in the figure below, at least one of the three government functions and respective policy areas accounts for the highest proportion of subnational public spending.

Figure 9. Breakdown of subnational government spending according to economic functions



Source: OECD, *Regions at a Glance 2013*, Figure 3.2.

¹⁶⁵ Throughout the EU, subnational governments (SNG) account for a conspicuous share of public spending in most Member States. In 2012, SNG expenditure accounted on average for 17% of GDP and 40% of public spending in the OECD. Within the EU, the differences between Member States are remarkable, with Denmark in leading position with almost 38% of GDP spent by SNGs. A number of federal countries have percentages ranging from 15% (in Italy and Austria), to 20% (Germany) and 23% (Belgium). The lowest percentage is in Greece (3%). The EU-12 countries, which are mostly unitary, have values ranging from 6% (Slovakia) to 10% (Czech Republic, Hungary) and up to 13% in Poland, with its marked trend towards decentralisation. (OECD Statistics, published at http://www.oecd-ilibrary.org/sites/reg_glance-2013-en).

A recent review of the National Reform Programmes (NRP) 2015¹⁶⁶ also highlights the prominent role of LRAs in labour, employment and social inclusion policies in the national run-up to EU 2020. These policy fields are also among those most frequently referred to regarding the role of LRAs in the NRP.

The trend towards an increasing role of LRAs in the social agenda is ambivalent, however:

- on the one hand this is an understandable approach, since LRAs, from the perspective of subsidiarity, are close to those in need of support and most probably policies developed at this level will be more efficient and targeted, but
- on the other hand, it is clear that budget allocations must be adequate in order to cope with the tasks at hand. The incidence and social consequences of a budget shortfall will first be felt at the local level, particularly in deprived urban areas with high concentrations of poverty. A second point is that a strong role for LRAs in social protection, health and education is particularly challenging for stagnating or shrinking cities due to the tendency towards vicious cycles, exacerbated by declining levels of public services in health, housing and education.

In terms of policy levers it is obvious that the major role in the policies mentioned is in the hands of Member States in terms of competencies and financial and policy levers.

Characteristics of the urban social fabric

*Cities have always been a combination of centres of opportunities and concentrations of social problems. This combination confronts cities with important challenges [...].*¹⁶⁷

The social fabric of cities is marked by sharp contrasts:

- Cities provide the broadest range of **education offers** at all levels, and urban areas have the widest range of schools in terms of quality, as they host private schools that are mostly expensive as well as state schools with high numbers of children from migrant backgrounds in less wealthy neighbourhoods.

¹⁶⁶ Metis 2015a, The Role of Local and Regional Authorities in the Implementation of Europe 2020.

¹⁶⁷ Cf. EUKN 2014, The Inclusive City. Approaches to Combat Social Exclusion in Europe.

- Cities provide the broadest range of **job offers**, from top skill requirements in company headquarters and the tertiary sector, for example, to an enormous range of precarious jobs in low-wage sectors.
- Urban labour markets show the sharpest **income and wage** gradients. For example, one of the effects of rising costs of living and stagnating wage incomes is a dwindling middle class and the rise of an urban precariat, alarming trends for social cohesion in urban areas.¹⁶⁸
- Urban regions, in particular those in western Europe, contain both the most expensive **residential districts** and areas marked by deprivation, out-migration of wealthier inhabitants and an influx of migrants.
- In general, the urban social fabric is marked by **changes in demography and life style**, i.e. decreasing numbers of traditional families and numerous phenomena with strong implications for social protection. This means rising numbers of elderly persons and single pensioner households, childless households and a trend towards less predictable family and partnership arrangements (divorced parents, recomposed families, one-parent families, same sex partnerships, etc.).
- **The pace of economic and societal change** in urban regions is accelerating, a trend which provides constantly new economic opportunities but presents a growing risk of poverty for vulnerable groups.

The urban economic fabric is determined to a large degree by the urban social fabric. This is most visibly reflected in spatial segregation within urban regions, leading to degradation of areas with a high concentration of low-income households. This can be attributed to selection processes in the housing market but also to causation processes, since a concentration of poverty will tend to exacerbate the effects of poverty.¹⁶⁹

Throughout Europe there are numerous examples of cities that have managed to revitalise such areas, although such strategies do not always include flanking measures for social inclusion. Such developments are often driven by trends in urban real estate markets. The nucleus and key momentum in many urban development projects is the availability of larger development zones due to the presence of former industrial estates and the corresponding public investment, such as upgrading public transport connections (e.g. the expansion of the

¹⁶⁸ Cf. EUKN, 2014, p. 19.

¹⁶⁹ Cf. EUKN, 2014, p. 5.

underground network). Strategies without flanking measures will tend to shift urban poverty within the metropolitan area but will not reduce it: counteracting social inclusion calls for integrated approaches.

Urban poverty – a marked phenomenon in the EU-15

In general, the risk of poverty and social exclusion has risen in the past years.¹⁷⁰ In 2012, one in four, i.e. 124 million, EU citizens were at risk of poverty (AROP), an increase of 10 million compared to 2009.¹⁷¹ The groups most prone to risk are similar throughout the Member States.¹⁷²

A marked territorial characteristic in the EU is the difference in urban poverty between the EU-15 and the EU-12.

*In 2011, people living in cities in the EU-15 were at greater risk of poverty or social exclusion than those living outside cities, while the opposite is true in the EU-12. The AROPE-rate increased between 2008 and 2011 by 1 percentage point in European cities, compared to an increase of 0.5 percentage points outside of cities. Due to the impact of global processes of structural economic shifts, the retreating welfare state, demographic changes and sub-urbanisation in the EU countries and cities, the labour market structure has become unfavourable to lower skilled workers, jobs have become more precarious, wages keep declining and social protection schemes are being hollowed out.*¹⁷³

This trend is particularly marked in northwestern Europe, where towns, suburbs and rural areas reveal higher employment rates and lower unemployment rates than cities. Recent Eurostat data have investigated the correlation between the degree of urbanisation and unemployment rates. It confirms the tendencies mentioned above. In 14 Member States, the unemployment rate in urban regions is higher than in rural regions.¹⁷⁴

The following table gives an overview of the sharp differences between the EU-15 and the EU-12 countries.

¹⁷⁰ Cf. EUKN 2014, p. 4. According to the EU 2020 Strategy, the risk should be measured by the so-called "AROPE" rate, referring to three decisive criteria: at risk of poverty (AROP), describing the income poverty line (below 60% of the median income at national level), severely materially deprived (SMD) and/or living in a household with low work intensity (LWI). Further explanations can be found in the glossary.

¹⁷¹ The EU 2020 target anticipates a decrease to 96.4 million AROP in 2020.

¹⁷² Cf. EUKN 2014, p. 4. Women, young adults, single parent families, people with at most lower secondary education qualifications, the unemployed, foreign nationals and other vulnerable groups such as the Roma.

¹⁷³ EUKN 2014, p. 5.

¹⁷⁴ Cf. Eurostat 2015, Regional Statistical Yearbook, p. 112. The difference is particularly pronounced in Belgium (7.5 percentage points), Austria (6), Greece (5), France and Portugal (4).

Table 10. Comparing the risk of poverty and social exclusion in cities, 2011

EU27	AROPE	AROP	LWI	SMD
Cities	23.3	15.7	11.0	8.4
Other Areas	25.0	18.0	9.1	9.2
EU-15				
Cities	23.1	16.8	12.0	6.8
Other Areas	21.9	16.6	9.2	5.3
EU-12				
Cities	24.1	9.9	6.5	16.5
Other Areas	34.5	22.2	8.9	20.8

Source: Eurostat in EUKN 2014, p. 18.

In general, the regions hit hardest by **declining employment rates** and rising unemployment have been in Greece, Spain and Portugal. With regard to the urban dimension, the economic crisis in these countries did not exclude agglomerations. The capital regions of Greece, Bulgaria, Croatia and Cyprus¹⁷⁵ recorded contractions in employment rates of more than 5% in the period 2009-2014.¹⁷⁶

Youth unemployment¹⁷⁷ peaks in the regions of Spain (53.2%), Greece (52.4%), Croatia (45.5%) and Italy (42.7%) although a slight decline in the rates in these Member States over the period 2012-2014 can be observed. A major concern in this context is the rising number of NEETs, accounting for 16.3% of young people in the EU28 in 2014.¹⁷⁸

Long-term unemployment¹⁷⁹ points to structural challenges in the labour market. Generally speaking, these rates are lowest in the Nordic countries, i.e. Finland, Sweden and Denmark. The statistics point to wide discrepancies among MS and capital regions.¹⁸⁰ In general, the highest rates were recorded in those MS which were hit hardest by the crisis. Among the capital regions, the highest rates were recorded for Greece, Croatia and Belgium.¹⁸¹

Another characteristic of the social fabric of deprived urban neighbourhoods is **in-work-poverty** or, in more technical terms, the occurrence of very low-income households.¹⁸² The phenomenon is most common in single person households with dependent children.¹⁸³

¹⁷⁵ One region including the capital.

¹⁷⁶ Cf. Eurostat 2015, p. 103.

¹⁷⁷ Unemployment among people aged 15 to 24.

¹⁷⁸ Cf. Eurostat, 2015, p. 115.

¹⁷⁹ Persons remaining unemployed for more than 12 months.

¹⁸⁰ Cf. Eurostat, 2015, p. 117.

¹⁸¹ Cf. Eurostat 2014, p. 112. Athens 15.1%, Zagreb 10.7% and Brussels 9.6%.

¹⁸² Households where on average adults worked less than 20% of the time.

¹⁸³ Cf. EUKN 2014, p. 28.

Major policy levers for an inclusive EU Urban Agenda

The most important EU policy levers and instruments in this context are:

- **Cohesion policy**, with the objective of social cohesion, in particular through the European Social Fund (ESF) with a global budget of EUR 84 billion for the period 2014-2020. Of this, a minimum of 20% has to be allocated to the thematic objective of social inclusion. In the period 2007-2013, the ESF funding priorities were:¹⁸⁴ preventive measures within the labour market; developing pathways for integration and re-entry into employment for disadvantaged people; and providing support for self-employment and business start-ups. In this context, important ancillary measures in deprived urban neighbourhoods can be funded from ERDF.
- The **Youth Employment Initiative (YEI)**, with an allocation of around EUR 6 billion¹⁸⁵ for the period 2014-2020, is intended to support young NEETs.¹⁸⁶ The initiative is open to all regions with a youth unemployment rate of above 25%. This financial instrument is related to the Youth Employment Package and the Youth Guarantee.¹⁸⁷

Policy instruments at EU level are of crucial importance, since they have to be additional and complementary to national measures and must be considered as investment policies. A significant proportion of spending on social protection at Member State level goes on old-age pensions and unemployment benefits.

In the context of an EU Urban Agenda, two main policy levers for social inclusion and combating urban poverty will be highlighted in the following section:

- Education.
- Housing.

Another major policy lever is the provision of health services, but in the view of the authors of this study, the urban dimension and the role of LRAs in the provision of health services is less prominent compared to the areas of education

¹⁸⁴ Cf. Eurostat, Regional Statistical Yearbook 2014, p. 95.

¹⁸⁵ Comprising EUR 3 billion from a specific budget line and EUR 3 billion from the ESF.

¹⁸⁶ Aged 15 to 24 years.¹⁸⁷ Council Recommendation of April 2013 aiming to ensure that all young people under 25 years should receive a good-quality offer within four months of them leaving formal education (job, apprenticeship, traineeship or continued education).

¹⁸⁷ Council Recommendation of April 2013 aiming to ensure that all young people under 25 years should receive a good-quality offer within four months of them leaving formal education (job, apprenticeship, traineeship or continued education).

and housing. In any case, the scope of the study allows only for a brief reflection on major urban policy aspects concerning education and housing.

For a number of reasons there is a strong tendency to focus such policies on urban areas:

- **The quantitative aspect:** The fact that the population lives predominantly in urban areas and that there is an even more marked concentration of poverty in these areas in the EU-15 confirms the magnitude of the challenge - it is true to say that the majority of Member States are highly affected.
- **Youth as the economic future:** Urban societies will in the long run become the younger European population and thus be the decisive economic asset. Given the current situation, access to the labour market is crucial to allowing participation in future economic pathways – a key requirement in order to contain inherent social risks.
- **Cities offer diverse opportunities:** Cities are a strong basis for such policies due to their relative economic strength, their constant search for innovation, and the concentration and broad range of institutions and Civil Society Organisations (CSOs) in fields such as education, training and qualification. Thus, cities offer significant potential for socially upward mobility and self-realisation.

4.3.1 Education

The role of education in containing and reducing the poverty risk is virtually undisputed. In conjunction with enhanced labour market opportunities, education also triggers positive ‘spill-overs’ and is, for example, one of the levers for a healthier and more active population. It is an element that is crucial for urban societies and the urban economy, which rests largely on the knowledge base of its citizens. Schooling can be the lever to break intergenerational cycles of disadvantage provided that this is acknowledged as a guiding principle in national school systems.

The previous considerations on the urban social fabric, and in particular on the manifold aspects of urban poverty constitute a challenging environment for educational institutions in an urban context. The challenge is heightened in deprived urban neighbourhoods with concentrations of inhabitants at risk of poverty.

In education as a measure to contain poverty risk, the LRAs are pivotal since it is the local and regional levels that in most Member States are responsible for

the first steps in institutional education. In short, the role of primary and secondary schools is crucial in terms of integration and prevention of marginalisation and exclusion.

Education – together with social housing – is one of the most effective public investments in containing poverty risks. In economic terms it is marked by the rising cost per pupil,¹⁸⁸ which is mainly due to the increasing cost of staff. The trend towards a cost increase is thwarted by demographics, i.e. declining birth rates, and by cutbacks in public budgets. At the same time education as an active inclusion measure usually requires additional efforts which, in turn, will in most cases require additional public incentives even if such efforts are community-based.

A clear challenge is also to attract skilled people to the education sector. In many countries the wage levels for teachers are quite low, despite the rising skill requirements in order to cope with an increasingly diverse urban community.¹⁸⁹

There is widespread consensus that formal schooling has to be started at an early stage of childhood in order to prove effective in containing poverty risks:¹⁹⁰ *A crucial feature when designing programmes focused on the learning experiences of individuals is their timing. Over the years, a substantial body of evidence has accumulated that testifies to the importance of programmes targeted at pre-school children from disadvantaged backgrounds.*

Primary and secondary schooling is usually provided free of charge but schooling nevertheless involves costs and in reality there are also other barriers for disadvantaged groups:¹⁹¹ *Yet many children and young people are faced with a multitude of difficulties, deriving either from intergenerational poverty and socioeconomic status, or from discrimination based on other grounds, such as gender, race, ethnicity, disability etc., as well as changes in the accessibility and fairness of school systems. Inequalities at school are a growing reality across Europe, mirroring overall inequalities in our societies.*

One way out of these challenges is to encourage support for so-called **community-based approaches** that stress the importance of education as a shared responsibility between parents, teachers and pupils. These approaches have been developed and used in many deprived urban neighbourhoods.

¹⁸⁸ 6,800 Purchasing Power Standards (PPS) per pupil in 2011, which represents a rise of 15% compared to 2006; cf. http://ec.europa.eu/eurostat/statistics-explained/index.php/Educational_expenditure_statistics.

¹⁸⁹ This is a fact in many EU-12 countries; but Austria, for example, is also currently facing a lack of teaching staff which has resulted in re-training offers.

¹⁹⁰ Machin, S. 2006, p. 5.

¹⁹¹ EAPN 2013, Youth Poverty and Social Exclusion in Europe, p. 13.

One aspect of such approaches is their dedicated support for the integration of young migrants, which comprises a range of actions. The following table provides examples illustrating the broad range of options available here.

Table 11. Approaches to migrant education and community inclusion

Step	Examples of actions
Comprehensive Guidance	Pupil Guidance Centres in the Flemish part of Belgium: these centres offer guidance through a multidisciplinary approach related to spheres of education, career, preventive health care, social and psychological functioning. The centres collaborate with families.
Bringing parents and communities into schools	Inspire workshops in Birmingham: during one class each child brings an appointed adult to participate in subjects alongside the teacher (more than 40 000 persons cooperate p.a. including parents with migrant background). Cf. http://www.cliftonprimary.bham.sch.uk/family.htm
Bringing formal education into migrant homes	Home Interaction Programme for Parents and Youngsters (HIPPY) : developed in Israel in the early Seventies is also applied in Germany and Denmark. Regular home visits by tutors from the community show parents how to promote their children's development. More information (in German): www.hippy-deutschland.de (Germany) or www.hippy.at (Austria).
Promoting diversity and awareness among school staff	The Programa Escolhas (Portugal) is a government strategy and one of the important points in projects is the community facilitator, a trained worker from a migrant or vulnerable background acting as bridge between the community and school, mediating in conflicts. More information on the programme (in Portuguese): http://www.programaescolhas.pt/projectos .
Helping students form balanced multicultural identities	Flex-ID (Norway): two-year course promoted and delivered by the municipality that aims at a balanced, flexible identity within a multicultural context. More information (in Norwegian): http://www.flexid.no .

Source: Berger-Sacramento R., 2015.

The author underlines the need for approaches that are close to the everyday reality of education. The main challenge, but also the key to success, is to

establish and maintain dialogue between the programme institutions and migrant communities.

With the rising poverty risk, many Member States have developed **integrated programmes that aim at social inclusion** and seek to join forces across all tiers of the political-administrative system, thereby focusing on local, community based approaches.

Box 13. Social Inclusion and Community Activation Programme (SICAP), Ireland

An example of a community-based approach on a large scale has been developed with the Social Inclusion and Community Activation Programme (SICAP) in Ireland for the period 2015-2017.¹⁹² The programme is part-financed by the ESF, including a special allocation from the YEI, and it will be implemented for example in parts of the capital city, Dublin. It is an area-based approach focusing on three main goals, namely: empowering disadvantaged communities, Life Long Learning (LLL) and t employment.

The delivery mechanism provides for close interaction between the contracting authority (Department of the Environment, Community and Local Development at national level) and the Local Community Development Committees, comprising participation a broad range of actors at the local level. The programme implementer (CSOs, consortia, etc. plus the local authority) concludes the contract and is responsible for delivery to the authority.

The programme is based on a dual approach, i.e. the programme targets both communities in need (area-based) and individuals in need (issue-based). Communities living in disadvantaged areas are a particular focus and for this reason it is a requirement that at least 50% of the SICAP caseload, for individuals and local community groups, must reside in disadvantaged areas.¹⁹³ Target groups are explicitly stated, and the selection of areas is to be based on maps and the HP deprivation index provided by Pobal.¹⁹⁴

Community groups working with the target groups are an important element in programme delivery. The programme is launched as a call and potential programme implementers may apply.

¹⁹² Department of the Environment, Community and Local Government of Ireland, SICAP Programme requirements, Guide published in 2015.

¹⁹³ *Ibid*, p. 10.

¹⁹⁴ Pobal stands for the Irish Department named *Government supporting Communities*; the HP Deprivation Index (HP stemming from its authors Haase and Pratschke, developed in 2012) is a method of measuring the relative affluence or disadvantage of a particular geographical area using data compiled from various censuses. For more information please see <https://www.pobal.ie/Pages/New-Measures.aspx>.

4.3.2 Housing

The most important societal challenge is that of coping with housing costs, as it is here that the impact of poverty is most directly felt. It is widely acknowledged that provision of housing ranks among the most effective measures to improve the conditions of the poor.¹⁹⁵ The most common characteristics of **social housing** are:

- **Tenure:** mostly let at low prices over the long-term; rents and prices are regulated.
- **Beneficiaries:** given to those who are in need of it.
- **Providers:** owned and managed by registered providers such as local authorities or not-for-profit entities, also labelled as ‘social landlords’ – these entities might even enjoy a specific legal status (in particular with regard to taxation).
- **Funding arrangements:** mostly cooperative efforts involving providers, the public sector, banks, etc.

In many cases this is a direct policy lever of LRAs.¹⁹⁶ Generally speaking, social housing has to be understood as an important policy lever that is characteristic of urban regions. The role of LRAs is clearly determined by the degree of local or regional self-government and corresponding budgetary allocations. In most Member States, effective policies will call for joint efforts at all government levels. The major instruments that have developed over time in social housing are:¹⁹⁷

1. *the provision of revenue subsidies, including in particular interest rate subsidies, which reduce the annual cost of provision and therefore rents;*
2. *upfront capital grants, which reduce the need to borrow or otherwise fund the capital costs of investment – thus reducing outgoings and rents; and*
3. *the provision of subsidies in kind, normally in the form of free or cheap land, which again reduces the need for funding and reduces costs and outgoings.*

¹⁹⁵ Cf. EUKN 2014, p. 37.

¹⁹⁶ Cf. Box 2. Passive Housing in Vienna. The city of Vienna owns about 220 000 apartments, representing about one fifth of all housing units in Vienna (<https://www.wien.gv.at/wohnen/wienerwohnen/>). This explains also the prominent role of the city in the European Responsible Housing Initiative (ERHIN).

¹⁹⁷ PwC, ARUP, LSE 2013, Housing in JESSICA Operations, p. 22.

The detailed provisions and mechanisms governing social housing differ across the Member States. In most countries it has been a reaction to poor housing conditions resulting from the massive inflow of migrants from rural areas in the period of industrialisation around the turn of the last century. A second massive wave of social housing started in the aftermath of the Second World War, due to the scale of destruction in some countries, and the immigration waves in the Sixties and Seventies of the last century in others (e.g. the UK).

These historical waves of massive building activities are important since in many cities vast complexes, i.e. massive spatial concentrations of social housing in certain parts of the city, have emerged. Nowadays, in many countries these are a major source of concern for the local authorities due to the concentration of low-income households and the need for repair, especially for large-scale building complexes.

Differences across the EU are quite marked.¹⁹⁸ Public sector housing organisations operating at local or regional level are widespread e.g. in Belgium, Finland, France, Italy, Poland and Sweden. There are also examples of organisations at national level.¹⁹⁹ It is also important to understand that the structure of the housing market differs hugely across the EU.²⁰⁰

When defining the social purpose, three basic policy models seem to exist:

Table 12. Models for social housing

Policy Model ²⁰¹	Rationale	MS
Universal approach	Open for everybody	Denmark, Netherlands, Sweden
Generalist approach	Setting income ceilings and priority criteria for access to social housing	Austria, Belgium, Czech Republic, Germany, Spain, Finland, France, Greece, Italy, Luxemburg, Poland, Slovenia
Targeted approach	For the neediest	Bulgaria, Cyprus, Estonia, Hungary, Ireland, Latvia, Lithuania, Malta, Romania, United Kingdom, Slovakia

Source: Petitjean, S. in *Europolitics*, Dec. 2011, p. 4.

The economic dimension becomes obvious when looking at the proportion of social rental housing as a share of all housing stock. The EU average is about 8%.²⁰² The share peaks in countries such as the Netherlands (32%), Austria (23%) and Denmark (19%). In southern EU Member States and the EU-12, the

¹⁹⁸ Cf. Petitjean, S. in *Europolitics*, Dec. 2011, p. 4.
¹⁹⁹ E.g. Luxemburg, Northern Ireland, Portugal.
²⁰⁰ In Spain more than 80% of the population own their homes. Greece has no social rental housing, but opts for cheap housing for sale. In other Member States, renting in the cities is quite widespread.
²⁰¹ Typology according to CECODHAS Housing Europe, the European federation of social, cooperative and public housing.
²⁰² Cf. IZA et al., 2013, p. 9.

share is below 5%. Of the rental stock in EU-12 countries, social housing represents a significant percentage, but one has to be aware of the fact that the rental market represents only a small segment.²⁰³

Given the market levels of real estate prices and rents in urban areas it is obvious that social housing has been the subject of a lively political debate throughout history. A policy debate has started on the issue of perceiving social housing as a Service of General Economic Interest (SGEI).²⁰⁴ In this debate, the Commission took up a position in favour of schemes targeting certain social groups, thus implicitly questioning the other policy models presented in the table above. This has given further momentum to initiatives and interest groupings that are active in social housing development.

Another perspective on the assets of social housing is that of a fairly risk-free investment for lenders, albeit with low but stable interest rates.

Social housing is an important example of a public investment policy which is also often mentioned in the context of public incentives for job creation. Thus it could be perceived as a countercyclical investment in times of **economic crisis**.

The economic crisis in 2008 has led to significant cutbacks in public spending in many Member States.²⁰⁵ At the same time – for obvious reasons – the need for this type of public intervention has risen in the aftermath of the crisis.

Major developments in the European social housing sector in the previous decade were summarised in a study conducted for the European Parliament (EP):²⁰⁶

- an increasing delegation to local government,
- a special focus on fragile populations,
- a downward trend in the share of social housing over the total housing stock.

In particular the first trend points to an increasing financial challenge for LRAs in the coming decade. A clear consequence in most countries might be the shift to policy models that are more closely targeted more to the neediest.

The **role of ERDF as an incentive instrument** to support local efforts related to housing in cohesion policy was introduced in the period 2007-2013. The role

²⁰³ Cf. Petitjean, S. in *Europolitics*, Dec. 2011, p. 4.

²⁰⁴ Cf. Meyer, M. in *Europolitics*, Dec. 2011, p. 3.

²⁰⁵ Such as in Portugal and United Kingdom, cf. Petitjean, S., p. 5.

²⁰⁶ IZA et al. 2013, p. 14.

will be continued in the period 2014-2020. De facto measures will concentrate on energy-efficiency refurbishment of housing areas and the rehabilitation of public areas. For this period the limit to ERDF support to housing has been lifted.

One example of the role of ERDF in upgrading social housing in the period 2007-2013 was the REECH project in UK:²⁰⁷

The project was intended to stimulate demand for installing low carbon technologies by working with Registered Social Landlords (RSLs) on 2 000 homes in North West England. By creating demand for new green technologies, the project aims to reduce fuel poverty while stimulating a new growing market for local businesses.

Energy efficiency refurbishment projects have also been reported in France (e.g. 446 units in La Forêt Cambrais), Lithuania (part-financed by the JESSICA holding fund), Latvia, Italy and Hungary. The study also outlined significant governance challenges²⁰⁸ related to the implementation of the projects, such as:

- difficulties leveraging sufficient match-funding;
- difficulties in setting up realistic administrative schedules throughout the project delivery;
- finally, in some cases projects did not have the desired socio-economic effect, i.e. they did not result in increased affordability for households.²⁰⁹

Thus it becomes apparent that for such projects – alongside the financial challenge – the administrative capacities of LRAs are essential for successful implementation.

4.3.3 Evidence for urban migrant policies²¹⁰

The **recent wave of refugees targeting the EU**, and primarily cities²¹¹ in some Member States in the EU-15, poses a considerable challenge for the coming

²⁰⁷ Dodd J. et al., 2013.

²⁰⁸ *Ibid.*, p. V.

²⁰⁹ When calculating the resident's payments against the energy savings.

²¹⁰ Most up-to-date facts and trends on refugee flows and migrants to Europe should be taken from the most recent ESPON Policy Brief on territorial and urban aspects of migration and refugee inflow. For the present study, the authors are very reluctant to provide recent data because of the dynamics and the short-term changes in the situation.

²¹¹ Asylum seekers who have obtained a residence permit and are therefore able to migrate within countries or regions tend to move to urban areas because of their infrastructure and cultural diversity.

decade. The risk of poverty among foreign nationals, particularly those from outside the EU, is significantly higher than for immigrants or native citizens.²¹² One main characteristic of the latest migration waves is the significant gap between the educational qualifications of the migrants and the jobs they actually hold.

A few statistics²¹³ might help to illustrate the quantitative scope of the challenge:

- In London, the largest city in the EU, less than two thirds (63.3% in 2011) of the population is native-born.
- Examples of cities with more than 500 000 inhabitants where more than 25% of the population was born in another country are Berlin, Frankfurt/Main, Munich, Nuremberg and Stuttgart in Germany, as well as Brussels and Antwerp in Belgium and finally Amsterdam in the Netherlands.
- On the other hand there were only three cities in the EU with more than 500 000 inhabitants where more than 95% of inhabitants are native-born.²¹⁴

Therefore, inclusion policies should be an important element of an integrated EU Urban Agenda and also should be addressed by regional and local policy strategies.

Challenges and opportunities for Europe and its cities and regions

The growing number of migrants and asylum applications in western Europe currently result in the implementation of more restrictive policies and thus shift the pressure towards the EU's borders with southern European countries.

Considering the complexity of the situation, a European response is still being debated while the territorial and urban impacts of the refugee crisis are increasing from day to day. The main challenges, opportunities and risks of the current migration and refugee inflow to Europe are presented in the following table.

²¹² Cf. Eurostat quoted in EUKN 2014, p. 15. 38.3% foreign citizens compared to 23.9% immigrants from other EU Countries and 23.1% native citizens.

²¹³ Cf. http://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_European_cities. Please also compare with IOM, World Migration Report, p. 39.

²¹⁴ Sofia (capital of Bulgaria), Łódź and Poznań (both in Poland).

Table 13. Challenges, opportunities and risks of the refugee crisis for cities and regions in a short- and long-term perspective

	Challenges	Opportunities	Risks
Short-term perspective	Immediate provision of shelter, food and medical aid for asylum seekers – front-line and transit cities need to offer larger numbers of asylum seekers temporary accommodation until a decision about their status has been taken.	Key to improving the local responses and limiting efforts and burdens are better coordination, more knowledge and exchange of practice. Local NGO initiatives and citizens’ support should be seen as a huge opportunity on the one hand to empower and involve society and on the other to support local authorities in their short-term duties.	Reluctance of public authorities to finance the necessary short-term integration measures, such as language courses and access to primary and secondary education.
Short- and long-term perspective	Systematic and coordinated efforts at local level involving a range of stakeholders when ensuring housing and starting the integration process for asylum seekers who obtained status as refugees or as person receiving humanitarian protection.	The refugee crisis coupled with current international instability calls for a change in terms of governance in partnerships. The way governments plan and implement actions and public services can be effectively influenced by LRAs.	Potential residential segregation, concentrating inhabitants with a certain ethnicity, nationality and/or socio-economic status, especially in cities and metropolitan areas.
Long-term perspective	Comprehensive tailor-made integration policies bearing in mind the high number of countries of origin and different educational, language and cultural backgrounds.	Well managed integration can be seen as an investment that will pay off in the future: <ul style="list-style-type: none"> ■ Economically active groups can support the economy and reduce labour shortages, particularly in countries strongly affected by the demographic change. ■ Migrants who bring 	Increased financial pressure and consequent social pressure in southern European countries that still suffer from the impacts of the economic crisis, such as Greece, Italy and Hungary, but also Turkey. This could result from the lack of financial assistance and coordinated approaches to support municipalities, cities and towns in arrival,

	Challenges	Opportunities	Risks
		diversified skills may contribute to innovation and to smart, sustainable and inclusive growth, thus contributing to the development of cities and regions and enhancing their resilience.	transit and destination countries.

Source: ESPON Policy Brief on territorial and urban aspects of migration and refugee inflow, 2015, CEMR, EUROCITIES, EUKN, Metis GmbH.

Main aspects for policy consideration

The impact of the high inflow of migrants, including refugees²¹⁵, in the EU on different regions and cities is very diverse.

Member States that serve as entry points to Europe such as Italy, Greece and Hungary, but also Turkey, have to provide a number of services on behalf of other EU countries. This must be considered in the light of the fact that they have already been severely affected by the economic crisis. In addition, they serve as the main transit routes to western and northern European countries. Cities and municipalities in the Czech Republic, Serbia and Croatia, as well as the northern Norwegian border municipality of Sør-Varanger (Kirkenes), are in particular affected by the transit of people. The migration flows are mostly directed to countries in a good economic situation with robust job markets and attractive and inclusive integration policies.²¹⁶

The social, humanitarian and financial efforts to be taken in arrival cities require considerable financial assistance and a coordinated approach from the European Union. Policy measures, such as the redistribution of regional funds and a fair transfer system, should figure more prominently in the EU policy debate.

Whereas small islands and cities in border regions face challenges regarding the provision of services and care for a large influx of migrants in relation to the local population, larger cities have to deal with housing challenges, school access and ethnic segregation. In this respect, a balanced distribution of new

²¹⁵ 720 000 migrants and refugees have entered the EU since January 2015. One million refugees in 2015, as estimated by the United Nations, is the equivalent of approximately 0.2% of the entire population of the EU (Eurostat in ESPON Policy Brief).

²¹⁶ ESPON Policy Brief 2015.

inhabitants in all European cities needs to be discussed. However, most eastern Member States are strongly opposed to a coordinated approach.

The large diversity of migrants in terms of education, skills, culture and language is important when considering any integration policy.

The exchange of local best practices across Europe – especially in depopulated, demographically challenged areas²¹⁷ – can support the stabilisation of local labour markets and help reduce economic imbalances. The new situation might therefore contribute to a balanced and polycentric development of the European territory. The distribution of accepted refugees within countries should take into account the need of local labour markets, but also the living conditions for refugees.²¹⁸

4.4 Business case: transport

The transport sector as a whole **employs 11 million people** in the EU-28, representing about 5.1% of the total workforce (2013). It contributes 4.9% to the Gross Value added (GVA) at basic prices of the EU-28, totalling EUR 562 billion (2012).²¹⁹

At the same time, it has the highest final **energy consumption** in comparison to all other sectors accounting for 31.6% in the EU (2013)²²⁰; 25.8% accounts for road transport alone. During the last decade, the transport sector has overtaken industry as the main energy consumer (see table below).

Table 14. Final energy consumption per sector

Final energy consumption per sector	1995		2013	
	MTOE	%	MTOE	%
Transport	306.8	28.4	348.5	31.6
Industry	329.5	30.5	276.6	25.1
Living	283.6	26.3	295.9	26.8
Total	1,078.8	100.0	1,103.8	100.0

Source: EU Energy in Figures, Statistical Pocketbook 2014, pp. 21-22.

²¹⁷ Northern Norway is currently very open to receiving migrants in order to halt depopulation and shrinking costs in terms of social and technical infrastructure.

²¹⁸ ESPON Policy Brief 2015. *Ibid.*

²¹⁹ EU Transport in Figures – Statistical Pocketbook 2014, p.19.

²²⁰ EU Energy in Figures – Statistical Pocketbook 2015, pp. 21-22.

In the same period, EU energy import dependency rose from 43% in 1995 to 53.2% in 2013, which clearly underlines the need for integrated, circular policy approaches taking resource efficiency as one of the lead targets.

Moreover, the external costs of transport have to be considered, particularly in cities. According to the EU White Paper on a competitive and resource efficient transport system,²²¹ “urban transport is responsible for about a quarter of CO₂-emissions from transport, and 69% of road accidents occur in cities.”

External costs arise mainly from congestion and accidents, followed by noise and air pollution caused by urban transport. They are estimated at around EUR 230 billion p.a. (see table below).

Table 15. Estimated annual external costs of current transport system in the EU-27

Indicator	Estimated external cost of the EU-27 transport system (2013; billion EUR)	Estimated share of urban transport (billion EUR)
Congestion	130	80
Air quality	50 (road transport)	20
Accidents	200	80
Noise	40	40
CO ₂		7
Total		230

Source: COWI, Study to support an impact assessment of the Urban Mobility Package – Activity 31 Sustainable Urban Mobility Plans (on behalf of European Commission, DG MOVE), Kongens Lyngby October 2013, p. 7.

Sustainable urban transport includes environmental, economic, social and financial dimensions and thus aims at minimising air and noise pollution, reduction of CO₂ emissions, economic development of the city, enabling good levels of mobility for people and goods as well as affordability of transport for users and taxpayers.²²² Its basic requirements include:

- Reliability.
- Low emissions.
- Safety.
- Traffic flow and efficiency.
- Investment, maintenance (cost of infrastructure) and operations.

²²¹ European Commission, COM (2011) 144 final, p.8.

²²² Cf. Booz & Company, Study on the financing needs in the area of sustainable urban mobility, p. 1.

Table 16. Influences and trends affecting sustainable urban mobility in Europe

	Influences	Trends
Costs	Capital costs: costs of land, labour and geographical factors	Forecast increase in urban population of 5% by 2050
	Operating costs: costs of labour, topography, demand patterns and the structure/ governance of the transport sector in different cities	Ageing populations and higher incomes change demand patterns: more accessible public transport with better quality and increased safety, concessionary fares, rising car ownership
	Costs arising from ageing capital intensive infrastructure in need of renewal, changing demand patterns affected by seasonal factors, car ownership levels and growing incomes	Urban sprawl and increased car ownership (particularly in eastern Europe and the Iberian peninsula)
		European and national policies to reduce GHG emissions require investment in measures to reduce energy consumption, private car use, new technologies; to improve use of existing infrastructure
Revenue	Public transport fare levels typically below operational costs	Increased efficiency through privatisation of services of economic interest
	Lack of authority and political power and will to introduce direct pricing of road use, increased fares and parking charges and higher local taxation to address funding gaps	Changing demand patterns: more and better pedestrian and cycling facilities increase population health and physical well-being

Source: Booz & Company, *Study on the financing needs in the area of sustainable urban mobility*, p. 1; Metis GmbH.

Two key parameters should be addressed by local authorities in terms of sustainable urban mobility:

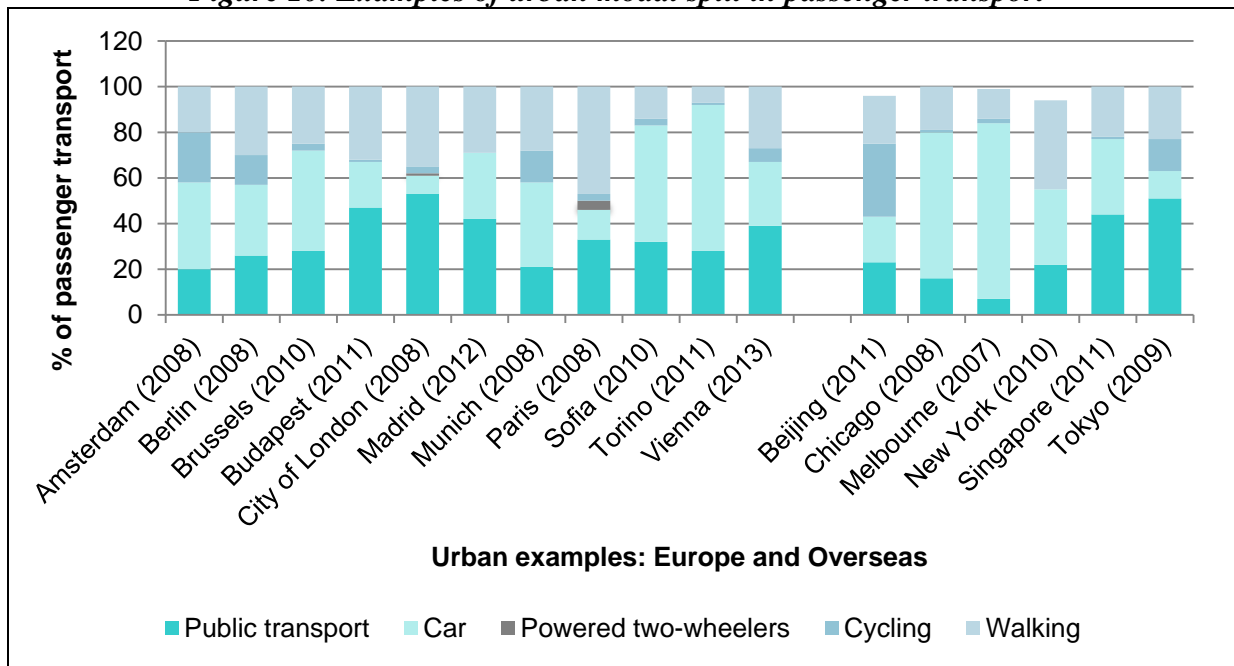
- the shift of the urban modal split to more environmental friendly transport modes, and
- the implementation of smart technologies for urban mobility.

4.4.1 Urban modal split

The modal split is often conducted by local governments using different methodologies. Diverse definitions and samplings as well as differences in the size of geographical areas make it difficult to compare cities. Typical surveys refer to the main mode of transport used during trips to the workplace. In general, the amount of travel per means of transport is counted instead of the

length of the journey. A selection of European and international cities shows huge differences in the modal split in different urban areas (see figure below).

Figure 10. Examples of urban modal split in passenger transport



Source: own calculation based on Europe: TEMS - The EPOMM (European Platform on Mobility Management) Modal Split Tool²²³; Overseas: Land Transport Authority of Singapore (LTA)²²⁴.

The actual share of different transport modes results not only from political will, transport lobbying and local, regional and national traditions (e.g. cycling in Amsterdam), but also from the structural characteristics of cities, including:

- Population density.
- Size of the city.
- Density of supply of services and infrastructure.

Moreover, the ownership of a driving license differs in different types of areas.²²⁵ In Germany, older people and in particular women are less likely to own a drivers licence. In areas with a high level of urbanity, people are less likely to have a driver's licence than in small towns.

Another trend that young people no longer tend to see a car as a status symbol, and the combination of different transport modes is growing in importance.

²²³ <http://www.epomm.eu/tems/>.

²²⁴ <http://www.lta.gov.sg/ltaacademy/doc/J11Nov-p60PassengerTransportModeShares.pdf>.

²²⁵ TRAMP 2006, Szenarien der Mobilitätsentwicklung unter Berücksichtigung von Siedlungsstrukturen bis 2050 [Scenarios for mobility trends in view of settlement patterns by 2050].

Urban-wide mobility cards combining public transport, bike and car sharing offers are becoming increasingly popular in European cities.

Areas where local authorities could potentially wield some influence in reducing motorised private transport are, on the one hand, **alternative public transport offerings** and, on the other regulations on **regulated parking management**. Nevertheless, it must be borne in mind that any intervention in the urban transport system presents challenges in the form of feasibility and possible conflict between different stakeholders. A strict regulatory approach to motorised traffic and land-use planning, enforcing compact settlement areas, might meet strong resistance from interest groups. Moreover, any beneficial effects could be outweighed by massive urban sprawl and non-cooperation across administrative boundaries.

4.4.2 Urban sprawl

The Land Use-based Integrated Sustainability Assessment (LUISA) Modelling Platform produces simulated land use maps that can be used for assessing European spatial developments and for evaluating the impacts of climate change.²²⁶

A comparison of two different scenarios, the first including a policy in favour of more compact cities and the second with no specific urban land use policy in place, demonstrates the following: by promoting compact cities, national and local policies positively influence the location and land use intensity of new developments. Policies that support compact city development result in a *reduction of land use, less urban fragmentation, more infill development and the emergence of large city centres*.²²⁷

Detailed information on **land take intensity** per inhabitant in square meters including its variation in dependence on the different degrees of urbanisation will be published by the JRC during the first half of 2016.²²⁸ It is recommended that the indicators to be provided by the JRC in this factsheet be incorporated in order to allow the local authorities to monitor the implementation of this business case.

²²⁶ European Commission, European Climate Adaptation Platform, http://climate-adapt.eea.europa.eu/viewaceitem?aceitem_id=114.

²²⁷ European Commission 2014a, Sixth report on economic, social and territorial cohesion.

²²⁸ JRC Factsheet on Land Use and Urban Development.

Another factsheet²²⁹ provides detailed information on **population in functional urban areas (FUA)** within the EU-28, accounting for 65% of the population, as well as projected changes in the FUA population.

The **opportunity for interaction that transport infrastructure provides** will be presented by the JRC with the aid of *potential accessibility measures*.²³⁰ The forthcoming JRC technical report will present a new indicator for motorised road transport dependencies.

In addition, an ‘**urban efficiency**’ factsheet will be presented by the JRC, but was not available at the time of finalising the present study.

4.5 Modern urban governance

*Urban governance is the software that enables the urban hardware to function. Urban governance can be defined as the many ways that institutions and individuals organize the day-to-day management of a city, and the processes used for effectively realising the short-term and long-term agenda of a city’s development. Governance is the enabling environment that requires adequate legal frameworks, efficient political, managerial and administrative processes, as well as mechanisms, guidelines and tools to enable the local government response to the needs of citizens.*²³¹

According to OECD-EC definition 828, cities of more than 50 000 inhabitants exist in Europe.²³² However, most European cities are between 500 000 and four million inhabitants in size. The local governments of these cities are in fact the nucleus and one of the key assets to ensuring sustained growth, increased resource efficiency and an inclusive European society.

Governance is the key issue for growing as well as stagnating or even shrinking cities – depending on their size, the economic performance and the national political-administrative system the range of policy options at hand will differ enormously across Europe. Growing cities might have to place more emphasis on regulatory policies, whereas for stagnating or shrinking cities, incentive policies at all levels are important for developing new perspectives.

²²⁹ JRC Factsheet on Population.

²³⁰ JRC Factsheet on Accessibility.

²³¹ Definition from: <http://unhabitat.org/urban-themes/governance/>.

²³² EC 2012, p.2.

The effectiveness and efficiency of all major steps furthering the EU Urban Agenda will depend on setting up enabling frameworks and developing policy levers that support sound urban governance.

The first obvious observation is that urban governance is directly linked to the issue of political and financial decentralisation and to the **local self-governing capacity**.

The management of urban infrastructure, approaches to resource-efficient cities as outlined in section 4.2 and coping with the challenges of the urban social fabric have a common policy feature: from the perspective of urban governments, forward-looking, long-term planning and steering is required in order to provide policy responses with lasting effects.

The key lever is local tax revenues or at least stable, long-term frameworks for the redistribution of tax revenues between the layers of state administration. Stable local budgets are a pre-condition for encouraging longer-term planning and sound financial management, and are thus an implicit lever for improved governance and the willingness to venture into new forms of governance, according to the principles of multi-level governance.

On the other hand, dependency on irregular transfers from the national level or – even worse – transferring responsibilities from the national to the local level without adequate financial resources will clearly restrict any urban government to less or least efficient forms of crisis management and ad-hoc decisions. This can even trigger a vicious policy-cycle: forward-looking perspectives will be avoided in order to not create expectations that cannot be met.

In addition to the role of local self-governing capacities, **interaction between the policy levels** is decisive. In some policy areas, the policy levers at the local level are limited, e.g. taxation as major lever in SME policy or standards in waste management.

In other areas, the role of the local level is crucial. A prime example is land-use planning in order to contain urban sprawl.

The table below outlines basic ideas on this point, along with the building blocks for an EU Urban Agenda identified in the previous sections.

Table 17. Exemplary considerations on the interaction between policy levels

Building-blocks of the EU Urban Agenda	Exemplary considerations on policy levers
Urban economy	<p><u>EU</u>: framework programmes in STI, Juncker-Plan (EFSI).</p> <p><u>MS</u>: taxation, national RDTI and centres of excellence (linked to tertiary education and often state-owned research facilities), ICT-grids, broadband networks.</p> <p><u>Local</u>: primary and secondary education, decisive role for the ‘soft’ profile of the city as an attractive place to live and work.</p>
Transport	<p><u>EU</u>: TEN-T is a decisive framework in terms of accessibility:²³³ e.g. 84 urban nodes,²³⁴ corresponding to about 1% of the 828 cities of more than 50 000 inhabitants, have defined a network with significant impact since it represents a long-term commitment for a significant part of public budgets.</p> <p><u>MS</u>: national plans and programmes related to the network.</p> <p><u>Local</u>: urban public transport and choices related to interconnectivity with national transport system, role in hub development.</p>
Resource-efficiency	<p>Key role of standards at <u>EU and national level</u> in the following fields: waste and water management, energy efficiency of buildings.</p> <p>Key role of the local/regional level in land-use planning, building regulations and zoning.</p>
Social fabric	<p><u>EU</u>: e.g. Youth Employment Initiative.</p> <p><u>MS</u>: national programmes in active labour market policy, approach to social policies, health infrastructure.</p> <p><u>Local</u>: decisive for access to basic facilities, basic education, community-based approaches to poverty reduction.</p>

Source: Metis GmbH.

From this perspective of the layers of policy-making it is also obvious that efficient and effective urban policy depends on vertical coordination of policy actors.

²³³ Understood in the sense of one of the territorial keys in accordance with the work of Spatial Foresight – cf. Böhme, K. et al. 2011, How to Strengthen the Territorial Dimension of EU 2020 and the EU Cohesion Policy.

²³⁴ Cf. EC, DG for Regional and Urban Policy 2013a, pp. 123-125.

It is clear that for the majority of policy areas concerned, the national political-administrative system is key for the quality and the incentive function of legal frameworks, and the depth and detail of consultative processes between the policy levels, etc. In short, the scope and room for manoeuvre for cities and towns is defined to a large extent at the national level.

Urban Governance is a multi-faceted topic that touches on all elements, from local democracy and community-building to fair and transparent legal frameworks and tax systems, participatory approaches in planning, and advanced management of infrastructure. Given the enormous range of issues at hand, it is important to be selective and draw attention to fields where major need for action has been identified in the previous sections of the report. The following governance issues will be discussed in more depth:

- **Infrastructure:** Proper governance of the major public urban assets is essential.
- **Functional areas – territorial governance:** Containing urban sprawl and land consumption in the process, urbanisation requires incentives for inter-municipal cooperation. Planning restricted to the administrative boundaries of cities will fail to provide convincing results.
- **Public-private partnerships:** Given the limits of public budgets and the increasing pressure on local governments, new forms of partnerships have to be introduced, ranging from real estate development to service delivery.
- **Governance of Smart Specialisation Strategies or Triple Helix:** The future growth path of urban regions will depend to a significant extent on the capability of economic and institutional actors to innovate, and to develop skills and strategies which foster adaptability and thereby the resilience of urban economic structures.
- **Presentation of participatory approaches:** Venturing into participatory processes is a major learning process for governments at all levels. In some cases there is no way out and urban governments are forced to act, e.g. given the legal norms on large scale-infrastructures²³⁵ and public resistance to projects such as the expansion of airports or urban railway transport. Fortunately, in a growing number of cities the value of participatory approaches has been recognised and has contributed to innovative and more effective approaches with a higher degree of local acceptance.

²³⁵ Such as the need to conduct e.g. an Environmental Impact Assessment (EIA).

4.5.1 Governance of urban infrastructure

Efficient and affordable provision of infrastructure is vital constituent for a well-functioning city. Compared to other global regions, the EU is characterised by dense networks and comparatively old urban structures. Thus the dominant share of spending on infrastructure (70%)²³⁶ is dedicated to the maintenance of existing infrastructure.

Table 18. Challenges related to the governance of urban infrastructure

Stage	Challenges
<u>Planning and decision-making:</u> Needs assessment Prioritisation	Tools to support decision-making which takes multiple project dimensions such as preference of stakeholders, options for PPPs, risks of path-dependencies and life-cycle cost into account.
<u>Implementation:</u> Project preparation Procurement Construction	Skills to assess/perform technical designs. Efficient system to ensure transparent procurement – annual losses in the EU related to mismanagement of construction and corruption are estimated at EUR 120 billion p.a.. ²³⁷
Maintenance and expansion	Tools to monitor asset performance and maintenance.

Source: OECD 2015, pp. 6-7, Metis GmbH.

Sound urban governance of infrastructure is essentially linked to the following factors:

- **Skilled employees in the public sector:** *Infrastructure investment requires a multiplicity of skills to assess, procure, manage and regulate [...] ²³⁸.*
- **The targeted interaction between policy levels** in order to ensure effective and efficient infrastructure delivery: *There are important challenges at both the national and sub-national level to catalyse sufficient regulatory capacity to oversee the performance of infrastructure service delivery. Regulatory delivery (the downstream of the regulatory policy cycle) is in particular perceived as the weak link. ²³⁹*

²³⁶ Cf. OECD 2015c, Towards a Framework for the Governance of Infrastructure.

²³⁷ EC 2014b, EU Anti-Corruption Report.

²³⁸ OECD, 2015c, p. 10.

²³⁹ *Ibid.*

- **Sound tariff regulation** which is fair, transparent and also induces cost-efficiency is a basis for the long-term sustainability of the investments.
- **Overcoming the limits imposed by administrative boundaries:** *Investing at the relevant “functional” socio-economic scale requires coordination across jurisdictions to increase efficiency through economies of scale and affordability of the asset for users and government [...] The small scale of public investment projects in countries with high levels of administrative fragmentation can result in lower returns on that public investment, and ultimately poor service delivery to citizens²⁴⁰* – as demonstrated in the case of fragmented public transport providers. For further considerations on this point, please see the following section.
- **Public budgeting:** one of the key points related to infrastructure is that the public budgeting system takes the state of maintenance of the public assets into account.
- **Long-term programmes for investment, maintenance and extension:** political cycles have a visible effect on local investment cycles.²⁴¹ The economic crisis has also made a sharp dent in public investment. The implications for the quality of delivery are obvious and moreover a lack of maintenance bears the risk of a high, unprecedented financial burden on public households. The main levers counteracting such risks are shared long-term programmes for investment, maintenance and extension.

Two examples are introduced in order to illustrate practical approaches to advanced urban infrastructure management.

Box 14. City-to-city cooperation to prevent water loss (Bratislava and Vienna)

deWaLoP – Developing Water Loss Prevention²⁴²

deWaLoP is the cooperation between the cities **Bratislava** and **Vienna** on the mitigation of water losses in urban water supply systems. Key points have been the introduction of a new monitoring system in a pilot area in Bratislava to spot leakages more quickly and an ample series of tests to enable a robot to take over part of the maintenance work in the water-supply networks of Vienna and Bratislava. The project demonstrates the added value of city-to-city cooperation as well as the obvious interface with the development of

²⁴⁰ Ibid, p. 11.

²⁴¹ Ibid, p. 15.

²⁴² The project was co-funded by the ERDF under the Slovakia-Austria cross-border cooperation programme.

innovative technologies. In addition to the development of the robot, various sealing materials have also been tested, since the urban supply systems of the two cities use different materials.

4.5.2 Functional areas - territorial governance

Cities do not end at their administrative boundaries - on the contrary. The process of suburbanisation or urban sprawl is a large-scale one that tends to significantly lower the potential of urban areas to contribute to more resource-efficient ways of living.

One of the keys is to provide incentives to further develop Inter-Municipal Cooperation (IMC) and the emergence of functional regions. Most government systems include elements that tend to encourage competition among municipalities instead of cooperation, for instance, systems of fiscal equalisation depending on population numbers or subsidies for infrastructures from the central to the local level without models for sharing tax revenues. There is also a lack of trust and perceived loss of control, which might act as impediments to cooperation among local entities. The most common forms of IMC:

- must be backed up by a clear rationale which points to the economic advantages of cooperation, and
- depend on a regulatory or incentive framework from the national or regional level which fosters cooperation.

The major initial rationale for IMC is the increased efficiency and effectiveness of public services (closely interlinked with infrastructure management). This is for obvious reasons not only an issue for growth regions, but also for urban areas adversely affected by demographic change where provision of public services is increasingly challenging.

A report by the Council of Europe distinguishes between three main forms:²⁴³

- A highly integrated, mainly public law model used mostly for basic services, such as water supply and waste water treatment. State supervision and the legal framework are laid down in detail (e.g. France, Spain and Portugal).²⁴⁴

²⁴³ Council of Europe 2007, p. 7.

²⁴⁴ In Portugal, intermunicipal cooperation is anchored in the 1976 constitution which allows for local autonomy related to IMC in major urban areas – cf. Council of Europe, 2007, p. 13.

- A more flexible model based on the freedom of lower-tier governments to opt for cooperation in certain areas. The framework is laid down in statutes (e.g. Bulgaria, Czech Republic and the United Kingdom).
- Intermediate models – based on a combination of features of the above two models (common in most of the other Member States).

In centralised Member States, the rules are set at national level whereas in federal states it is usually the regions that provide a legal frame. One Member State with a long tradition of IMC is France.

Box 15. IMCs in France

In France, IMCs are set up as legal entities governed by public law. There are different types of such entities with their own tax system. The law distinguishes between agglomeration communities²⁴⁵ and urban communities.²⁴⁶ One of the main purposes is to engage in urban and spatial development.

Functional regions have also been labelled as one of the territorial keys,²⁴⁷ i.e. these are considered as key policy levers in order to step up the impact of the Territorial Agenda in the EU. The following interlinked issues have been highlighted:

- Enlargement of local labour markets.
- Critical mass of financial means through territorial cooperation.
- Accessibility of secondary growth poles and regional centres.
- Public transport connections to regional centres.
- Compact cities.

Functional regions and their executive bodies have to be considered as prime examples of multi-level governance. Two examples should help to illustrate the potential scope of actions of such bodies in governing functional areas.

Box 16. The Hanover Region functional urban area

The **Hanover Region** has been labelled as a unique model in Germany since it is the result of a merger of an intermediate layer of administration (Landkreis) with an association of municipalities²⁴⁸ and several competencies of the city of

²⁴⁵ In 2007 there were in total 164 agglomeration communities in France. The legal threshold is more than 50 000 inhabitants, including a core city with a minimum of 15 000 inhabitants.

²⁴⁶ In 2007 there were in total 14 urban communities, with a legal threshold of more than 500 000 inhabitants.

²⁴⁷ Cf. Böhme, K. et al., 2011, p. 7.

²⁴⁸ Kommunalverband, www.region-hannover.de.

Hanover. The region has about 1.2 million inhabitants and consists of 17 cities and four municipalities. Its core tasks, according to the Act,²⁴⁹ are:

- Shared policy for growth and jobs (e.g. support to start-ups and SMEs).
- Shared environmental policy.
- Urban-regional public transport (as one of the major organisational tasks).

Major internal objectives of the reform have been to make the administration more efficient and bring it closer to the citizens. The reform project was initiated by local and intermediate actors and was backed by the region (Land), Niedersachsen: the discussion process lasted several years, but led to a new act which acknowledges the Hanover Region as a legal territorial entity.

A second example is based on a comparable situation: a dense network of cities and towns in a highly integrated economic area. It is a cross-border area situated between France and Belgium.

Box 17. The Eurométropole Lille-Kortrijk-Tournai

In organisational terms, the **Eurométropole**²⁵⁰ is an EGTC consisting of 14 founding members, four from France²⁵¹ and ten from Belgium.²⁵² The total population of the cross-border conurbation is 2.1 million. The added value is the commitment to long-term, sustainable cooperation based on a clear framework provided by the EGTC and its implicit and explicit coordinating role related to many areas of urban development. Decisions are taken by an Assembly of Mayors; the EGTC has established an agency as its executive body. Currently, the Eurométropole focuses on the following areas:

- economic development,
- cultural amenities and tourism development,
- mobility and accessibility,
- public services,
- territorial strategy.

²⁴⁹ Since 2011 the legal framework governing the agenda of the Region is the Act on Local Constitution of the Land Niedersachsen (Niedersächsisches Kommunalverfassungsgesetz).

²⁵⁰ Cf. <http://www.eurometropolis.eu> and Metis, 2013b, pp. 54-55.

²⁵¹ State, Region Nord-Pas de Calais, Département du Nord, Communauté urbaine (intermunicipal public entity including city of Lille and 84 municipalities).

²⁵² Federal State; Flemish Region and Community; the Province of West-Flanders; Leiedal Intercommunality; Intercommunality wvi (WVI); Walloon Region; French Community of Belgium; Province of Hainaut; Ideta Intercommunality; IEG Intercommunality.

The initiative represents a combination of setting the longer-term development agenda and providing new services for the public.

4.5.3 Public Private Partnerships

Urban areas across the EU encounter a broad range of challenges depending on variables such as national legal frameworks, geographical location and development paths shaped by history and global trends. However, there is one challenge that affects practically all urban self-governments: the scarcity of financial resources at the same time as an increasing portfolio of tasks to be carried out. This is one of the major reasons for the increasing role of Public Private Partnerships (PPP) in urban development issues: (scarce) public funds embedded in stable long-term regulatory and contractual frameworks should act as a lever for private investment.

Generally speaking, the advantages and risks of PPP in urban development can be summarised as follows:²⁵³

Table 19. Major benefits and risks related to PPPs in urban development

Advantages	Risks
<p>Cost savings: drive for economic gains yields is incentive to improve performance.</p> <p>Whole of life-cycle: efficiency and return on investment in the long-term as incentive.</p> <p>Output-based contracts: a major incentive for innovation in the quality of delivery is ensured in the contract.</p> <p>Risk-sharing: passing on the risk to the partner which is capable of managing it best.</p> <p>Delivery on time: e.g. due to incentives to maximise return on investment and minimise financing risks.</p> <p>Enhanced public management capacities: through direct interaction with private investors but also in best case freeing capacities to perform regulatory duties, monitor performance and deliver services.</p>	<p>Additional cost: e.g. compared to traditional procurement tendering procedure – if not run properly – depending on the number of bidders, evaluation and selection might turn into a significant cost factor. Secondly, expertise needed to provide for and react to future contingencies might consume resources.</p> <p>Reduced control of public assets: shared decisions on tariffing and quality and level of service means loss of control for the public sector.</p> <p>Loss of accountability: if not clearly defined, contracts can lead to overlap in roles and responsibilities.</p> <p>Rigidity of long-term contracts: restricts the room for manoeuvre in the event of significant changes in the economic situation.</p>

²⁵³ UN Habitat, 2011, pp. 6-8.

Advantages	Risks
<p>Increased availability of infrastructure funds: cost savings, spread of payments over longer periods.</p>	

Source: UN, Habitat, 2011, pp. 6-8.

From the above presented tentative list of advantages and risks, it becomes obvious that governing PPPs is a major challenge which requires highly skilled staff in the administration in order to contain the risks related to tendering and contracting and shared control.

The United Kingdom has ample experience of actively including the private sector in major regeneration operations.

Box 18. Strategic Regeneration Framework for East Manchester

The Strategic Regeneration Framework for **East Manchester** is a massive regeneration programme including the construction of 5,000 new homes, refurbishment of 6 700 homes, creation of family neighbourhoods including shopping malls and parks, 200 000 m² of new floor space, and recruitment and training of 1,000 residents.

The vehicle for the framework was the New East Manchester Ltd. (NEM) company, which was set up as an Urban Regeneration Company (URC), *a partnership between Manchester City Council, the Homes and Communities Agency (the national social housing funding agency), the North West Development Agency and the communities of East Manchester. NEM's activities are funded primarily through grants from the three partners and their associated expenditure covers their operational activities.*²⁵⁴

The financial estimate for the framework amounts to GDP 3 965 million over the period 2000 to 2018, of which 70% is expected to come from the private sector and 30% from public budgets. The total list of funding sources is impressive: alongside the private sector²⁵⁵ a total of 22 public and private entities are listed. The scheme includes also the ERDF as a funding source. As is apparent from the structure of the public funding partners, the investment in social housing is provided by the Homes and Communities Agency.

Parts of the funding framework have been the result of a tender procedure in order to identify the most advantageous project for the development of the area.

²⁵⁴ European Commission, 2013b, p. 72.

²⁵⁵ Mentioned as aggregate since these private funding partners are expected to invest at a later stage.

4.5.4 Governance of S3/H3 from the perspective of LRAs

For LRAs, the strategic setting of S3 and H3 requires the adoption of governance approaches which in part differ considerably from established administrative routines. Inducing or supporting dynamics of the helix requires new approaches in the sense of process facilitation, collaborative goal development and new types of cross-sectoral and cross-institutional cooperation and coordination.

The role of LRAs can basically be interpreted as follows: to provide essential public goods, in particular education, training offers and to some extent also facilities, and to create incentives in order to overcome bottlenecks in collaboration. The start-up phase is the critical part where prudent intervention by public institutions is probably most urgently required. It is also a very sensitive type of intervention.

*The role of government institutions in this phase is to provide the adequate incentives for the development of effective collaboration among all stakeholders in the innovation system, that is, to set the conditions for an “inclusive” approach to the identification of policy priorities. However, the risk is that vested interests from the most powerful regional stakeholders and lobbies may condition decision-makers [...] The presence of a functioning system of checks and balances ensures the transparent definition of priority objectives in cooperation with all relevant actors.*²⁵⁶

The desired result of the process is the genuine prioritisation of investment options and the implicit resistance to dominance of politically-driven criteria in the allocation of funds.²⁵⁷

The experimental nature of the process²⁵⁸ calls for benchmarking and assessment as central elements. The inherent element of discovery involves the risk of mistakes and failure. Thus one of the key points in prudent strategy development should be constant assessment in order to contain the cost of mistakes. This must not be confused with risk-averse action.

²⁵⁶ Rodríguez-Pose, di Cataldo, Rainoldi, 2014, p. 4.

²⁵⁷ Nauwelaers, Periañez Forte, Midtkandal, 2014, p. 11.

²⁵⁸ Foray, Rainboldi 2013, p. 5.

Strategic centrepiece of S3: priority setting

At the core of S3 strategies is the setting of priorities in order to trigger shared development processes in prospective areas. In the scientific debate, different models of approaches exist with distinct points of departure:

- Open models based on **entrepreneurial discovery**: In its ideal form, an inclusive, interactive process centred on the integration of empirical but often fragmented entrepreneurial knowledge of the market, thus forming partnerships. The discovery as such refers to the opening of new domains of opportunities. Public institutions act as facilitators and provide the frame for a successful process design.
- More strategy-based models, which progress through analytical steps to prospective fields with a higher likelihood of innovation. Future potential is explored through facilitated processes with closer involvement of the public institutions as a driving force. The approach has been labelled as **related diversification**,²⁵⁹ where relatedness between actors in regional economies and regional innovation systems becomes the subject of close scrutiny and forms the basis for setting priorities.

In practice, the strengths of the two models could of course be blended and turned into a process design which:

- on the one hand, reassures the actors involved in the decision-making process due to familiar patterns of interaction, such as running the process of a shared regional analysis with established mechanisms for the involvement of stakeholders, and
- on the other hand invites new actors to participate in response to new and open formats, open-minded approaches to facilitation and a visible element of experimentation.

Position and role of LRAs from a process perspective

As regards the position and role of LRAs in the process, two aspects should be considered in particular:

- In case of a genuine indigenous local or regional strategy, it is evident that one of the key responsibilities of the LRA is the political legitimization of the goals of the process.

²⁵⁹ Cf. Boschma , Gianelle 2014, p. 14.

- An essential role of LRAs – in particular in urban regions which are less dynamic – is to broaden the resource-base through actively searching for partners in other tiers of the government, i.e. the active search for a broader partnership in the sense of MLG.

It is evident that the **size of the city, urban or metropolitan region is decisive**: the larger it is, the more institutions and Civil Society Organisations (CSOs) there will be as potential partners. This opens up a broad range of options for diversification of activities, but places greater emphasis on the process design and the selection of priorities. It is obvious that in areas where LRAs have a pivotal role in initiating and running the strategy-building process and in larger urban areas, the process design and organisation might require considerable resources.

There are many examples in Europe where the involvement of intermediaries is subject to a sound system of checks and balances between the partners involved. They may, for example, step in and act as engines in the strategy-building and implementation process.

The smaller the urban region, the more the success of the process is likely to depend on the LRA. It is obvious that in smaller urban areas, the capacity for setting up intermediaries will also be more limited. Success will depend all the more on people, rather than institutions.

A **cross-cutting challenge** covering all steps, from the initiation of the process to strategy-building and implementation, is the fact that S3/H3 requires **skilled staff in LRAs**:

*Smart specialisation strategies will not succeed in Europe if the policy making capability at regional level does not reach high levels of competence and commitment [...] smart specialisation is part of the family of the so-called 'new industrial policy' that aims at designing and deploying sophisticated instruments to make compatible vertical choices for concentrating resources and market dynamics. The policy challenge is enormous.*²⁶⁰

The table below outlines the main aspects of an S3/3H process and the underlying challenges for LRAs.

²⁶⁰ Foray, Rainboldi 2013, p. 9.

Table 20. Role of, and challenges for, LRAs in S3/3H processes

Aspects	Possible role of LRA or intermediary	Challenge for LRAs
<p>Strategy development e.g. in the sense of related diversification</p>	<ul style="list-style-type: none"> ■ Sharing knowledge in order to set the scene for the urban economy and its characteristics and to support an analytical basis for drawing up goals. 	<ul style="list-style-type: none"> ■ Contribution to realistic stock-taking and acknowledgment of the benefits inherent in benchmarking, cooperation with other regions and use of assessment tools. ■ Support to an inclusive strategy involving all players (even those which might tend to challenge established ‘comfort zones’). ■ Checking match between policy instruments and goals; definition of policy mixes according to specialisation areas
<p>Activation and mobilisation of actors</p>	<ul style="list-style-type: none"> ■ Activation of the local university or colleges in favour of local development issues. ■ Initiation and support to intermediaries such as development agencies. 	<p>Establish mutual trust through meetings ‘at eye level’; might eventually seek to overcome mutual prejudices (e.g. perception of city administration as rigid and bureaucratic).</p>
<p>Setting priorities and entrepreneurial discovery (ED)</p>	<ul style="list-style-type: none"> ■ Facilitation, assessment. ■ Support access to financing (e.g. venture capital). ■ Open data policy in order to encourage the local IT branch to contribute to urban issues – cf. the models of Helsinki or Dublin, where a major feature is supportive action for proactive involvement of end-users and entrepreneurial actors. 	<p><u>In general:</u></p> <ul style="list-style-type: none"> ■ Skilled staff in order to become an enabling partner. ■ Support to the right choice (from the perspective of the urban economy) in a wide range of options in order to distil and support those ideas which reach a ‘critical mass’, but avoiding deadweight effects of ready-made commercial ideas. <p><u>Open data economy:</u></p> <p>Willingness and mind-set to make data public (despite risks and uncertainties) and to overcome</p>

Aspects	Possible role of LRA or intermediary	Challenge for LRAs
		hurdles in terms of regulatory policies (e.g. venturing into an open data policy). ²⁶¹
Support for infrastructure, institution building	<ul style="list-style-type: none"> ■ Generally speaking, support for an attractive research environment. ■ In many cases cities are shareholders or owners of infrastructure such as science parks or incubators where business and academia already collaborate. ■ Support to found new infrastructures such as FabLabs (for prototyping and testing). For example, the Manchester Digital Development Agency (MDDA) supports the Mad Lab. 	<ul style="list-style-type: none"> ■ Support in fund-raising; match-funding to establish and maintain knowledge hubs (such as incubators, science parks etc.) as active entities. ■ Skilled and digital-oriented staff in order to support viable business models of intermediaries on a mid- to longer-term basis. ■ Establishment of cooperation in form of lasting partnerships as basis to set up or enable intermediaries.
Support in the area of education and qualifications	<ul style="list-style-type: none"> ■ The basis for 3H is education, and it is also a vital part of entrepreneurship policy. ■ Education for entrepreneurship should include all types of education facilities (including those operated by LRAs). ■ Labour market intermediaries can also become important partners when matching qualification offers and skills requirements. 	<ul style="list-style-type: none"> ■ To motivate educational institutions to reconsider and adjust curricula (despite the often tight regulations and obligations). ■ To motivate labour market intermediaries to strengthen ties to the local/regional economy.
Living Labs	Municipalities can support initiatives towards ‘living labs’ in	Examples in practice have shown that the set-up of living labs is a

²⁶¹ Cf. van Winden, de Carvalho 2015, p. 12. Hurdles of this type have been experienced by the Dublinked (Dublin, Ireland) initiative, but may be overcome. The early results of the open data policy are promising - the app *Mypp.ie*, one of the early outcomes of the Dublinked initiative, fuels a new public approach to urban planning issues.

Aspects	Possible role of LRA or intermediary	Challenge for LRAs
	city areas where researchers and/or companies can try out new technologies, products and services, in collaboration with citizens.	difficult venture in terms of overcoming hurdles posed by rules and regulations. Testing new concepts in real life poses obvious challenges in this regard.

Source: ED - JRC S3 platform, van Winden, de Carvalho, 2015, p. 12, Foray, Rainboldi, 2013, p. 6, Metis GmbH.

Generally speaking, it is important to note that – despite the prevalence of economic aspects – the term "innovation" should not be restricted to technologies leading to new or improved marketable products and services. It should also **include a wider concept of innovation comprising social innovation**. The aim is to include a perspective which is useful in particular in an urban context with its diverse social fabric. The potential relevance of social innovation processes becomes obvious in the following definition:

*Social innovation seeks new answers to social problems by: identifying and delivering new services that improve the quality of life of individuals and communities; identifying and implementing new labour market integration processes, new competencies, new jobs, and new forms of participation, as diverse elements that each contribute to improving the position of individuals in the workforce.*²⁶²

An important repository of information has been built up with the S3-Platform initiated and powered by the JRC. In addition to a wealth of publications, a **mapping process at regional level has also been started**.

Preliminary outcomes²⁶³ point to a concentration of strategies with regard to the categories of *STI capabilities* as well as *business and target markets* in manufacturing as general key area of specialisation. The main, and most frequently mentioned, subcategories are food, power generation and renewable energy, biotechnology, health and the automotive industries. When mapping the correspondence with EU objectives, the leading ranks by far are the following ones: sustainable innovation, KET, public health and the Digital Agenda.

²⁶² Cf. OECD LEED Forum on Social Innovations, www.oecd.org/cfe/leed/forum/socialinnovations.

²⁶³ Sörvik, Kleibrink 2015, pp. 7-8.

4.5.5 Participatory approaches

Generally speaking *'participatory approaches are flexible, process-oriented methodologies. They combine guiding principles, core concepts and sets of interactive techniques which have been developed to better realize high levels of community participation [...].'*²⁶⁴

The nature of the approaches differs to a huge extent, as do the underlying rationales and the motivation to participate: there is an obvious and sharp contrast between consultative mechanisms laid down by regulatory frameworks and initiatives encouraging new approaches to urban renewal or local action in deprived neighbourhoods.

The following table lists exemplary urban contexts where participatory approaches have been applied:

Table 21. Examples for the application of participatory approaches

Context	Annotation
Local acceptance of projects	
Development or expansion of large-scale infrastructure	The construction of large-scale projects is to some extent subject to a consultative process as part of the legislation governing EIA. Recent examples have shown that public resistance leads to a more intense dialogue between policy-makers and the public. One example is the expansion of airports, which are usually located in the proximity of larger cities – e.g. in the case of the expansion of the airports at Frankfurt or Vienna, mediation was used.
Involvement in land-use planning	
Participation in land-use planning	The legal frameworks for participatory approaches in land-use planning differ enormously across Europe. The LUMASEC project ²⁶⁵ has provided a wealth of experience in comparative studies for the Member States involved (Germany, France, United Kingdom, Greece, Poland, Romania, and Slovenia). Conclusions from the project point out benefits and risks: ²⁶⁶ <ul style="list-style-type: none"> ▪ Local Agenda 21 processes might provide a new lever and interest in these questions.

²⁶⁴ Mitlin, D; Thompson, J. 1995, p. 235.

²⁶⁵ Supported in the framework of URBACT.

²⁶⁶ LUMASEC, Thematic Report 2, 2009.

Context	Annotation
	<ul style="list-style-type: none"> ▪ Prevention of conflict through involvement at an early stage. ▪ Better quality of planning through exposure, challenges and support from an early stage. ▪ Such processes might be frustrating and might be considered as an impediment by potential developers. ▪ Processes being put at risk due to visible partisan interests.
Urban design	
Collective modelling of housing designs and settlement areas	<p>Housing projects of various kinds, including participatory approaches, have been an important element in urban renewal movements (such as in Austria and Germany), but also in the process of expansion of cities: the future inhabitants are included in the process of planning and designing their houses and the neighbourhood.</p>
Urban renewal	
Neighbourhood initiatives	<p>Citizen participation is seen as a must in the revitalisation of deprived neighbourhoods. This is a widely accepted principle. Nevertheless, a critical appraisal is required in order to ensure that such methods are not understood as an easy-to-implement ancillary element of urban development. The CoNet project ²⁶⁷ has provided valuable insight into such questions:</p> <p><i>With citizen participation, a huge chasm between wish and reality exists. Doubts mainly concern three questions:</i></p> <ul style="list-style-type: none"> ▪ <i>Do people have enough knowledge and understanding of the complexities involved? Topics are even more complex.</i> ▪ <i>Are people interested enough? Do they really want to actively participate?</i> ▪ <i>Does open public participation have enough democratic legitimacy, when participants do not represent the population as a whole and might only bring in their own interests?</i>²⁶⁸ <p>The success of the process depends to a large extent on the quality</p>

²⁶⁷ Supported in the framework of URBACT.

²⁶⁸ CoNet, Final Report 2012, p. 35.

Context	Annotation
	and management of the leadership and the management of the process. Success in mobilisation is also directly related to this point. The most challenging issue is to set up accepted and appreciated working structures and forms of participation where the objectives are based on consensus and motivation and the benefit of participation is mutually acknowledged.

Source: *CoNet Final Report, LUMASEC Thematic Report 2, OECD 2015, Metis GmbH.*

Participation processes in diverse urban societies is a challenge for urban governance, and urban policy-makers and administrations have to develop a wider perspective on the methodological options and more structured integration in administrative routines.

Box 19. Master plan for participatory urban development

The city of **Vienna** has issued a master plan for participatory urban development which mainly addresses the department that is in charge of urban building and zoning plans. The plan provides clear rules as to which ‘informal’ process (as opposed to the routines stipulated in the building regulation) should be launched and which methods should be applied.

The long-standing experience of many of the older Member States in urban rehabilitation projects has been used in many EU-12 projects. An integrated approach has been developed in Budapest.

Box 20. The Magdolna Quarter Programme, Budapest

In 2005 the municipality of **Budapest** targeted efforts towards the rehabilitation of deprived urban areas. Magdolna in the 8th district is a district in Budapest with a high share of Roma residents where physical and social deprivation are manifest.²⁶⁹ The rehabilitation programme is an example of multi-level governance which involved actors from the city, district and local levels cooperating with the private sector and NGOs. The programme consisted of two phases, including rehabilitation of buildings and public areas, education, employment and entrepreneurship programmes, community development and crime prevention. The programme was facilitated through a local office (Rév8) which acted as interlocutor between the over 140 partners involved in the process.

Phase 1 included a strong participatory element in the form of a community development programme where inter alia a community house and a park were

²⁶⁹ Costa, E. in Grisel M., van de Waart F., 2011, pp. 58-68.

made available and rehabilitated. Throughout all phases of the programme, feedback from the residents was monitored.

This type of urban rehabilitation programme was unprecedented in Hungary and encouraged other smaller cities to develop similar programmes aimed at social inclusion. After the pilot phase from 2005 to 2009, the programme was suspended, but could be continued in the frame of the National Development Programme (based on EU funds).

5 Conclusions and recommendations

5.1 Conclusions and specific recommendations

There is ample evidence that cities and urban areas are the key drivers of growth in the EU. Prudent policy action at all levels, i.e. EU, Member States, regional and local, will be essential to reinvigorate, maintain and sustain growth paths in these regions. An integrated EU Urban Agenda should contribute to a better understanding of the urban issue in European policies and it should provide a framework to bring coherence to a diversity of initiatives and policies and to mobilise stakeholders. The implementation of an integrated EU Urban Agenda would boost growth and create jobs. Furthermore, the three territorial scenarios for Europe developed by ESPON in the run-up to 2030 and 2050 (the promotion of and networking in European metropolises, medium ranking cities and small cities) would imply an expansion of growth in terms of GDP from 1.8% to 2.3%.²⁷⁰ There seems to be a consensus that what is required is not new instruments or funding sources, but better coordination among the existing ones. No new competences should be transferred to the European level, but rather the EU Urban Agenda should foster a more structured, regular dialogue.

Cities and urban areas across the world as well as in Europe are confronted with enormous **transversal challenges**. Those challenges are not new and there is already a wide-ranging ongoing debate about the role of cities in European economic growth. Urban areas and cities do not follow a single path of logic and not every generalisation or typology can capture the diverse character of European cities. There is not a single typology and approach to urban areas and cities. Types of cities and their consequent approaches depend on contextual aspects such as Member State size, administrative structures, political systems, geographical location and size of the urban area. However, all of them face the same transversal challenges: climate change, demographic change and immigration. These transversal challenges lead to urban social change, structural change, and environmental pressures that urban administrations must be prepared to tackle adequately.

Local and regional governments are not always empowered to manage change in urban areas due to a mismatch between administrative and urban structures and a persistent sectoral focus on policies. New challenges however call for integrated approaches which are increasingly supported by European Commission policies, and above all cohesion policy.

²⁷⁰ ESPON Project 2013/1/19, Final Report 30.06.2014
http://www.espon.eu/export/sites/default/Documents/Projects/AppliedResearch/ET2050/FR/ET2050_FR-02_Main_Report.pdf.

Notwithstanding the efforts made, **sectoral policies** still dominate the European Union as well as its Member States. These policies do not adequately respond to the pressing needs caused by changes in social, environmental and economic matters. The most pressing need for coordinated action is in fields such as resource efficiency and energy savings, social security and health systems reforms, labour force mobility and flexible integration of migrants. The pitfalls related to these areas are:

- Policy frameworks are shaped at national level, responses to new challenges calling for integrated action tend to be slow, whereas local reality often requires quick and targeted action (plus the availability of budgets and competences).
- There are no unified systems across Europe, which is as such hampering efficient change.

The consequences directly influence urban systems. Local administrations are therefore asked to respond within inadequate policy frameworks, thus increasing political uncertainty. Almost all cities and urban areas in Europe are facing this paradox.

At **European level** there are hardly any policy areas with an explicit urban dimension: only cohesion policy explicitly addresses urban areas. Cohesion policy provides several levers which are important to strengthen an integrated perspective and there deserve particular attention in urban policies.

Recommendation:

Smart Specialisation Strategies (S3), Integrated Territorial Investment (ITI) and Community Led Local Development (CLLD) are major levers for an integrated and place-based approach. These approaches have significant potential for LRAs, both implicit and explicit.

In the context of an Urban Agenda it is important to support and disseminate guidance on these instruments and to encourage the exchange of experiences. The initial results in an urban context could thus become the subject of a comprehensive review in the mid-term perspective, i.e. 2019).

However, the implementation of the cohesion Integrated Territorial Investments (ITI) and Community-Led Local Development (CLLD) policy tools continues to be questioned. The main reason for reluctance at regional and local level is the additional administration which is required for implementing ITIs and CLLDs.

Nevertheless, in the Partnership Agreements, several Member States have expressed their intention of implementing CLLD as a cross-funds approach combining EAFRD with ERDF and/or ESF. This is particularly interesting for urban regions in Hungary and Romania, for example. ITIs as a new instrument for this period are mostly intended for urban development.

In addition, OPs continue to integrate the urban aspect by using urban related investment priorities in the ERDF.

In addition to cohesion policy, there are numerous programmes and elements of EU policies which are of vital importance for cities and urban regions including, to name just a few: Trans-European Networks for Transport (TEN-T) and the Connecting Europe Facility (CEF), Horizon 2020 for Science, Technology and Innovation or JESSICA for urban regeneration.

From the perspective of **local authorities**, the range of programmes and tools offers on the one hand valuable financial incentives, but on the other hand it poses a veritable challenge in terms of knowledge-building. Manifold different platforms, networks and interactions would offer benefits and would in turn benefit from a strong commitment by local authorities, but capacity constraints are a serious impediment to involving stakeholders at local level. And clear urban policies at national level are not (yet) in place in many Member States. The European Commission sees the improvement of urban intelligence, benchmarking and monitoring as one of the major goals of the Agenda.

Recommendation:

The wealth of information generated at European level by platforms, interest groups and programmes is enormous, but from the local perspective it is only accessible and useful if it is well-structured and has ‘entry gates’ which are easily accessible.

Several think-tanks on the urban issue at European level exist, The major ones are: the URBACT programme and its investment in capitalisation, the European Urban Knowledge Network (EUKN) and the Joint Research Centre (JRC). These institutions are a key resource in the process of collecting and structuring information and turning it into knowledge-driven strategies.

A structured repository of information on good practices fuelled by these institutions could become a valuable asset in promoting the Urban Agenda.

At **Member State** level, urban policies are even less strongly represented in those Member States where urbanisation is quite advanced, such as the

Netherlands. Most Member States focus on rather general approaches to regional development without any specific focus on cities and urban areas. But even without an explicit urban dimension, regional development constitutes a major policy area of interest for cities and urban regions since it comprises the management of economic development as well as the management of settlements and infrastructure: these aspects strongly influence urban areas.

To summarise the current situation, one has to state that administrative structures at all levels have difficulty in responding adequately to changes and challenges calling for integrated policy responses. It is evident that established structures and routines in administration and politics are hard to change, but the dominant approach based on mostly linear action tends to reduce efficiency, effectiveness and sustainability of results.

It is evident that efforts for an EU Urban Agenda have to start at EU level. Concerted awareness-raising and initiatives across sectors at European level can provide a substantial impetus for national policies. In light of this, the establishment of an EU Urban Agenda is even more important in order to provide a model of coordination across different actors and actions in order to address the most pressing challenges.

The European debate on the EU Urban Agenda has already been ongoing for several years. The European Commission has already defined the main focus of an EU Urban Agenda to include better regulation and result orientation as well as improvements in coherence and coordination. The European Parliament has stressed ancillary elements, in particular multi-level governance, decentralisation and the involvement of local authorities in the process.

Notwithstanding the relevance of the aspects listed above, this is still quite abstract and will as such fail to mobilise local and regional authorities. One of the major issues at European level is the sustained focus on incentives which guide action in terms of addressing the key themes but also in terms of governance, i.e. strengthening integrated policy approaches.

One of the major challenges for an EU Urban Agenda which goes beyond overarching guidance on streamlining of tools and approaches is achieving a balance between the following positions:

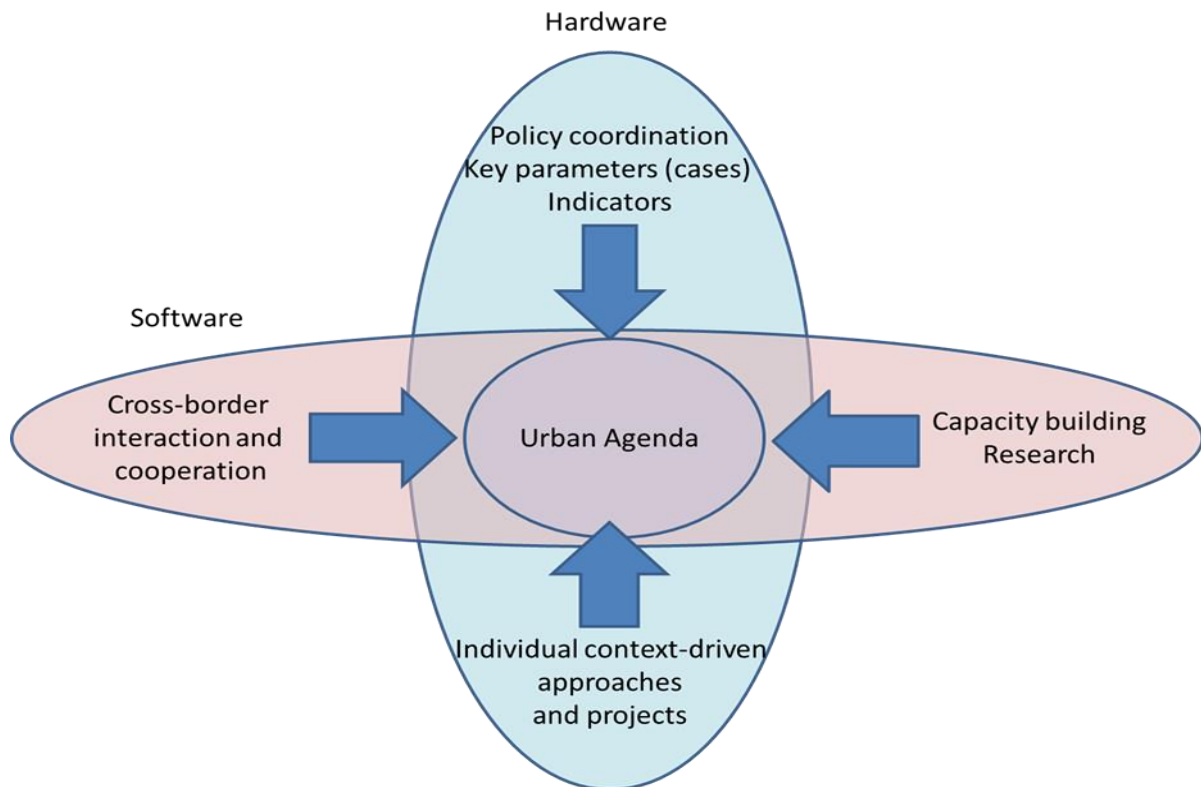
- Encouragement for targeted place-based approaches in order to strengthen and enable local authorities and to support actions tailored to the specific context of their city or urban region.

- Definition of key levers, parameters and indicators to effectively cope with the most pressing challenges from a European perspective.

For the main elements of the Agenda, it is important to take a closer look at the role of key infrastructures and policy areas which represent the major tasks and concerns of local authorities. Generally speaking, cities and urban regions are characterised by density and thus interrelations between infrastructures and policies are vital in an urban context. There are clearly a number of key areas which deserve particular attention. There are several elements with a cross-cutting role, i.e. they influence manifold other policy elements: the analysis confirms the transversal role of information networks, educational infrastructures and STI. These infrastructures' respective policy fields reveal significant potential but also pose the highest requirements in terms of (horizontal and vertical) policy coordination in order to exploit this potential effectively. One could say that this is the **software of an EU Urban Agenda**, acting as enabler and driver of development in combination with societal changes such as demographic change and migration.

Investment-intensive infrastructures in an urban context are transport, waste and water management, energy supply and site development (for housing, business and recreation). Policy coordination in these fields is essential because a lack of coordination will have a significant financial impact in the long run. However, in contrast to the aforementioned "software", coordination requirements here are more focused on vertical coordination (i.e. with the regional and national level) in order to cope with the financial implications of maintenance and operation or expansion. These fields could be considered as the **hardware of an EU Urban Agenda**.

Figure 11. Simplified EU Urban Agenda model



Source: Metis GmbH.

Furthermore, the EU Urban Agenda has to acknowledge the possibilities of cities for implementing new approaches and which kind of aspects tend to be national or globally driven with low influence at local level.

One of the most important and obvious functions of the Urban Agenda is to raise awareness for those themes and policy fields with the most weight in terms of impact and future development paths: resource efficiency, social issues and transport deserve particular attention in this regard.

This study proposes to focus on four broad clusters of themes, each of which consists of several (sectoral) policies with dense interlinkages. Common to all of the theme clusters is the fact that the potential role of LRAs in key intervention areas is high. The theme clusters are:

- Social fabric.
- Resource efficiency.
- Urban economy.
- Urban governance

One cross-cutting aspect which is also at least partly in the hands of local authorities is transport.

Transport is a genuine transversal element: it is vital in making cities function; public transport has major potential in terms of resource efficiency, with a city's accessibility and market size determining its economy to as significant extent; and finally transport and logistics are a growing economic sector with a strong STI and ICT element.

Urban Economy

77.4% of jobs in the EU are based in European cities and greater cities.

53% of companies are located in European cities and greater cities.

Many global factors as well as contextual aspects are important for a prosperous **urban economy**. Several key parameters are shaped by EU and national legislation and financial instruments. In particular, taxation and access to finance are decisive elements of an attractive and investment-friendly climate which fosters entrepreneurship.

In this field a limited number of direct levers for LRAs exist, with education but also business infrastructure foremost among them. Faced with the diversity of urban economies, the focus of LRAs should be on setting up well-functioning core infrastructure and public amenities to make the city first and foremost an attractive place to live and work. This is a complex and wide-ranging subject including sustainable urbanism based on smart settlement strategies, an open atmosphere for young and innovative industries, social inclusion and intelligent and forward-looking use of lighthouse projects. Projects that trigger innovation deserve special focus. Cities in this respect do at least have the possibility to establish facilities and partnerships by making use of the structural funds. Best practice interventions and the exchange of experience are important for local authorities. The CoR's role could be to bridge different types and sizes of urban areas and translate projects from one type to another.

Resource efficiency

Urban keys for resource-efficient development are:

- Transport – accounting for 30% of primary energy consumption.
- Energy efficiency of buildings – buildings account for 40% of primary energy consumption; programmes and tax incentives to promote an increased renovation rate would unleash an enormous potential lever for jobs.

- Land use – land consumption per person has risen considerably and urban sprawl acts as a brake on the major potential of cities in terms of greater resource efficiency.
- Waste management – the dominant item in public spending for environment protection and the centrepiece of approaches to achieving a circular economy.

Resource efficiency and energy production is only to a limited extent a matter for urban authorities. The potential for change lies mainly in resource efficiency. In this respect, cities can act as a role model as well as initiating new, innovative solutions. The focus on resource efficiency includes not only the renovation and isolation of buildings, but also the implementation of green public procurement and local awareness raising campaigns.

Local authorities need to be motivated to engage in this area through policy approaches that go beyond EU funding. The CoR could help to enhance understanding of the need to become engaged in sustainable development across policies and political parties.

In different Member States, legal regulations have different levels of actors. Land use, for example, can fall within the remit of the local authorities, with results that are often devastating. A clear regulation and incentives to reduce grassland reallocations are the main levers for reducing urban sprawl.

Social Fabric

Public spending on social protection, health and education accounts for almost 32% of the EU's GDP. Unemployment – in particular youth unemployment – and rising poverty are the key challenges for Europe, with far-reaching implications for politics and policy at all levels. Urban keys related to the social fabric are:

- Education – as the key means to reduce the unemployment and poverty risk but also to integrate the migrant population.
- Housing – as the second key means to reduce poverty risk.
- Health – challenged by rising costs and an ageing population.

In the context of the EU Urban Agenda it is important to highlight the importance of local governance regarding the **social fabric**. It is obvious that social and societal developments are highly dependent on demographics and

political pressures. When taking a closer look at public spending on education, social and health affairs, it becomes clear that these spending areas also dominate public finances at LRA level. In terms of competencies as well as financial and policy levers, it is obvious that the major role in the policies mentioned is in the hands of Member States.

Policy instruments at the EU level are of crucial importance since they have to be additional and complementary to national measures. Moreover, they have to be considered as investment policies. A significant proportion of public spending for social protection at Member State level goes on old-age pensions and unemployment benefit.

In the context of an EU Urban Agenda two main policy levers for social inclusion and combating urban poverty have been highlighted: education and (social) housing. A further important policy lever is the provision of health services.

Social housing is an important example of a public investment policy which is also often mentioned in the context of public incentives to create jobs. Thus it could be understood as a countercyclical investment in times of the economic crisis. Although its actual influence on the social fabric is limited for local authorities, it becomes apparent that for projects addressing social housing the administrative capacity of local authorities is essential for successful implementation. It is therefore essential to empower LRAs and to enrich their capacity in this respect.

Finally, the question of migration, which only recently showed how unprepared the EU and Member States are for the side-effects, needs to be settled at EU level. Local authorities are the ones directly absorbing the impact of unplanned migration flows, and successfully handling social acceptance and logistics depends heavily on the local authority's experience and leadership competences.

Overall, there should be a better balance between those absorbing migration and those refusing. The agreement can only be reached at EU level and the CoR's role in this respect should be to help to understand the needs of local authorities in tackling future migration in all Member States.

Urban governance

Given the challenges outlined in the analysis and related to the priority areas described above, the importance of urban governance is evident. Sound governance has an obvious economic dimension due to the significant role of public spending in the EU: roughly one third of all public expenditure in the EU is spent by local and regional authorities, which accounts for EUR 2 100 billion

a year. Regarding public investment in the EU, the expenditures of local and regional authorities make up as much as 70% of all public investment in the EU.

Urban governance also has an obvious role in ensuring smart, inclusive growth. Most urban growth strategies demand rather complex and integrated strategies and policy approaches in order to become effective. A resulting cross-cutting challenge for modern urban governance is the need for skilled staff and knowledge management in urban administration. As exemplary elements of modern urban governance, aspects such as Life Cycle Analysis in infrastructure management, set-up and management of Public Private Partnerships or participatory approaches in the rehabilitation of deprived neighbourhoods as well as the governance of Smart Specialisation Strategies (S3) have been highlighted. These have to be considered as examples, since there are numerous other ones, such as the implementation of Green Public Procurement or the governance of SGEI, which pose considerable requirements in terms of governance and administrative capacity.

5.2 General recommendations

The study's main recommendation is the incorporation of the business cases into the EU Urban Agenda. The business cases would enrich the currently broad draft agenda and lead towards content driven actions. The detailed recommendations below therefore address the different aspects of the EU Urban Agenda and the process of its implementation.

A holistic and cross cutting approach of European policies is necessary. With the exception of some parts of cohesion policy, EU policies are neither integrated nor urban related. Most EU policies are as sectoral as Member State policies. The integrated approach should start at EU level. An assessment of the urban relation of EU policies in all DGs of the European Commission should help to understand the relevance of EU policies for cities. The results should be incorporated as urban policies in the EU Urban Agenda and should be incorporated in the next review of the EU 2020 Strategy.

The same exercise should be conducted at national level with the aim of incorporating the most relevant urban related policies into the agenda. The assessment should follow the business case logic and should help a better contribution of EU policies to the cases.

Definition of key parameters for each of the business cases: The EU Urban Agenda should include key parameters in order to enable local authorities to act to promote smart, sustainable and inclusive growth. In this respect, the EU

Urban Agenda should provide guidelines for Member State authorities to establish regulatory parameters regarding legislation, infrastructure and financial resources.

Based on the policy assessment, the cases developed in the present study should be the leading laboratories for the EU Urban Agenda. They are based on the assessment of the most relevant policies and the influence of local authorities in key areas, namely:

- Business.
- Climate action.
- Economy, finance and tax.
- Employment and social rights.
- Energy and natural resources.
- Environment, consumer protection, health.
- External relations and foreign affairs.
- Science, Technology and Innovation (STI).
- Cohesion policy.
- Transport.
- Cultural policy.

The CoR can serve as a platform to conduct the capacity enhancement and knowhow exchange. Local authorities should be able to address CoR representatives with questions related to the practical use of BAT.

Monitoring and evaluation of the business cases: In order to allow local authorities to monitor the implementation of business cases, indicators developed by the JRC should be incorporated into the agenda and adapted where necessary. Only with a well-developed system of indicators will the EU Urban Agenda become binding.

Support local authorities in defining the most suitable actions based on individual urban areas: Most important for addressing specific urban needs is to understand the respective urban context. This can only be done by the local actors. The EU Urban Agenda should support the bottom-up approach of addressing specific needs. It should provide an interactive tool to help local actors to choose the right tools and enter new paths.

The Agenda should therefore be more than a paper, but should rather take the form of an interactive platform. In this respect, existing platforms should be used rather than creating additional ones. The CoR should act as a moderator as well as a mediator between the different levels of authority.

Understand and acknowledge the context of urban areas and cities: Current policies at EU level are strongly unified without acknowledging the different contextual elements. This sometimes results in inefficient use of sources and frustration.

Implementation of other EU strategies and agendas: The European Commission has recently published several cross-sectoral agendas which have a considerable impact on urban areas and politics. These include, for example, the European Agenda on Migration, the Circular Economy Package, climate change mitigation and adaptation strategies and the Europe 2020 strategy.

Use learning platforms for best practice: There are already several networks and learning platforms, but the mere number reduces efficiency and impact. One well managed platform needs to be developed to filter the most important aspects of each project and the value added for other cities. The filter should follow the path of the business cases describing the key parameters, interventions, output and indicators as well as the most important contextual influences. The results would enable cities to select best practices. It is important to establish an understanding of which context parameters influence which intervention in order to enable local authorities to choose the right interventions.

Support the empowerment of urban local authorities in Member States: Local authorities are engaged in a wide range of different sectoral as well as process aspects. Local authorities need to understand the changes in local governance and, with their increasing responsibilities, local authorities will have to meet additional challenges in the future. LRAs need to understand that functional leadership is going to be the future role rather than political agents. New democratic models should be the subject of wider debate at EU level as well as at regional and local level.

LRAs should be given the possibility to decide in a non-political context. Exchange and discussion should be possible between urban areas and cities and between different levels of public authorities. Local authorities should be able to act across administrative borders in order to improve efficiency and sustainability, rather than competing with neighbouring administrative regions. For this purpose, the EU Urban Agenda should support metropolitan regional governance across administrative borders.

Capacity building of local administrations for integrated urban development: Modern urban governance requires skilled staff in administration, a new approach to knowledge management and tools as well as the acceptance of new perceptions and attitudes in politics and administration.

Set up working groups for better implementing business cases: The business cases defined in the study need further input and exchange between experts in order to provide a stable platform for integrated action at local level.

In light of the mandate conferred on it by the Treaties, the CoR should lead and conduct the working groups. It is essential to better integrate experts in the respective fields as well as representatives of different types of urban area. On the basis of the business cases and in the frame of the EU Urban Agenda, far-reaching initiatives should be established. Existing initiatives, such as the European Innovation Partnerships or urban networks and projects, should be involved. In order to establish these initiatives, the following steps are proposed:

- Stakeholder and policy mapping.
- Data mapping in a more detailed way than was possible in the study.
- Best practice mapping based on the above recommendations.
- Strategy development for each business case.
- Organisational structure.
- Definition of objective and work plan.

With these basic features in place, it will be possible to launch all five business cases.

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