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Inspire Policy Making with Territorial Evidence

POLICY BRIEF

# Reuse of spaces and buildings

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Many cities in Europe experience population growth, generating increased pressure on urban land uses in and around their cities, often leading to uncontrolled urban sprawl. Evidence showed that during the 2000–2018 period, land take in Europe exceeded the assumed need (population growth). Urban sprawl, generally considered unsustainable, has existed for a long time. However, nowadays policy discourse centres on the concept of sustainability and politicians are looking to spatial planning to manage urban growth.

Reusing spaces and buildings can be seen as an effective way to reduce urban sprawl and its environmental impacts and to keep neighbourhoods occupied and vital. It is considered an attractive alternative to the construction of new buildings or using non-sealed soil. In the spirit of a circular economy, industrial areas in transition and deindustrialisation deserve particular attention.

Sustainable urbanisation can be steered by territorial governance and spatial planning interventions. Various instruments and tools for the reuse of spaces and buildings exist, such as (spatial) strategies and coordinative, structural, procedural, financial and collaborative tools. Many of these tools have already been used and this policy brief aims to share evidence and experience to help European, national, regional and urban authorities to ensure a more sustainable urbanisation.

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## KEY POLICY MESSAGES

- Between 2000 and 2018, artificial land cover increased by 13 % from 19.2 million to 22.6 million hectares. Urbanisation is the outcome of numerous collective and individual decisions. Identifying the main relevant cause–effect relationships governing these decisions is key to understanding urbanisation and land-use change.
- Urban form can be sustainable and unsustainable in different ways. Compact urbanisation is considered sustainable in terms of land-use efficiency and mobility; however, it is considered unsustainable due to the concentration of pollution and climate change impacts. Diffuse urbanisation is considered unsustainable due to maintaining costly public services and amenities; however, it is considered sustainable in terms of housing affordability, the reduced heat island effect and the benefits of living close to nature.
- A large number of port cities have been experimenting with reusing their port areas and integrating them back into the city structure. One of their challenges is to manage the multiple interests of all stakeholders involved. Strategic, collaborative and coordinative tools could support in this process. In addition, moving beyond formal structures using a functional approach could help to address the challenges in a more holistic and inclusive way.
- Access to regional, national and European financial flows related to Regional Innovation Strategies for Smart Specialisation (RIS3) could be obtained by integrating the circular economy into urban regeneration projects.

# 1.

## Introduction

In many cities, population growth puts pressure on scarce urban land and affects relationships between core cities, suburban areas and rural areas. If this results in uncontrolled urban development (sprawl), it could exacerbate soil sealing, cause habitat fragmentation and squander highly productive agricultural soils. Urban sprawl is generally considered unsustainable because it increases travel times and transport costs, causes pollution and environmental degradation, intensifies segregation and undermines the vitality of existing urban areas.

**Reusing spaces and buildings** can be seen as an effective way to counteract urban sprawl and keep neighbourhoods occupied and vital. It is therefore considered an attractive alternative to the construction of new buildings on greenfields. In the spirit of a circular economy, **industrial areas in transition** and deindustrialisation deserve our attention; abandoned industrial installations could be dismantled and either sold for reuse or recycled and industrial sites could be reused. Vacant buildings could be either adapted to new circular industrial and non-industrial uses or transformed into public spaces, thereby contributing to regenerative spatial and urban planning. In the process towards sustainable urbanisation, **green infrastructure**, i.e. incorporating green (and blue) spaces and other physical features into terrestrial and marine areas, can be a useful tool. Green infrastructure contributes to the environmental vitality of urban areas and can reduce energy use for heating and cooling buildings by providing shade in summer and shelter in winter.

Member and Partner States have **distinctive territorial development strategies and spatial planning systems** in place. There are considerable differences regarding the size and spatial distribution of urban development functions, varying from the formation of more compact cities where new urban development generally takes place through densification to a more diffuse pattern with scattered urban development in the countryside. The Leipzig Charter on Sustainable European Cities, followed by the Thematic Strategy on the Urban Environment, enlarged the role of cities in territorial development strategies and spatial planning systems. Research has also shown that the European Union (EU) Urban Agenda has had tangible local impacts through the inspiration of integrated urban regeneration plans, intermunicipal partnerships or sustainable urban strategies. Cohesion policy can be a facilitator of sustainable urbanisation and land use. Given the principle of subsidiarity, it is up to individual authorities to choose the best delivery mechanisms to implement their plans.

This ESPON policy brief aims to inform European, national, regional and urban authorities about how to reuse spaces and buildings to help achieve sustainable urbanisation. It addresses and illustrates various ways of using instruments and tools, including circular economy models, for the reuse of spaces and buildings. This policy brief aims to support discussions surrounding the reuse of spaces and buildings as a means to facilitate the transition towards a circular economy at the intergovernmental level during the Croatian Presidency of the Council of the EU's first semester of 2020.

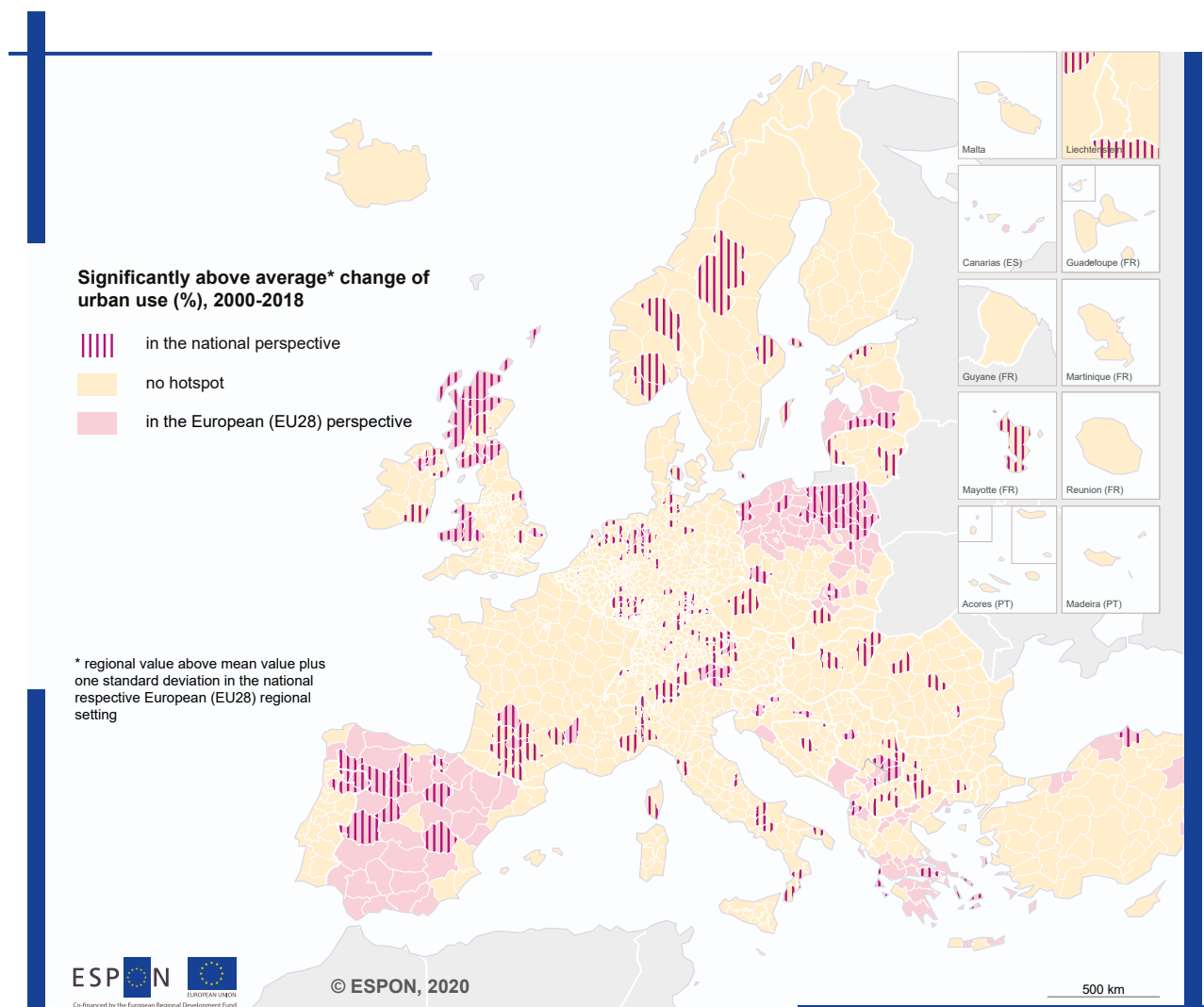
## 2. The situation today

In order to reduce the loss of soil functions and ecosystem services, the European Commission (2011) proposed within the 7th Environment Action Programme putting policies in place by 2020 to achieve “**no net land take**” by 2050.

Corine data show that over the 2000–2018 period, approximately 1 263 000 ha of land was converted to urban use, approximately 44 % of all land-use changes. Artificial land cover increased from 19.2 million to 22.6 million hectares, an increase of 13 %. Map 1 shows the “hotspots” of urbanisation in Europe; it identifies those

NUTS3 regions that converted the most land to urban use with respect to the European average, the national average or both. Many regions in Greece, Latvia, Poland, Spain and the United Kingdom can be identified where great swathes of land were urbanised in the 2000–2018 period. New urban land mostly came from agricultural land (78 %), although in Scandinavian countries (except Denmark) and in Croatia, Greece, Iceland and Portugal it more often came from nature. Only in Romania (–0.8 %) and Bulgaria (–0.1 %) did the proportion of urban land decrease.

**Map 1**  
Hotspots of urban use development, 2000–2018



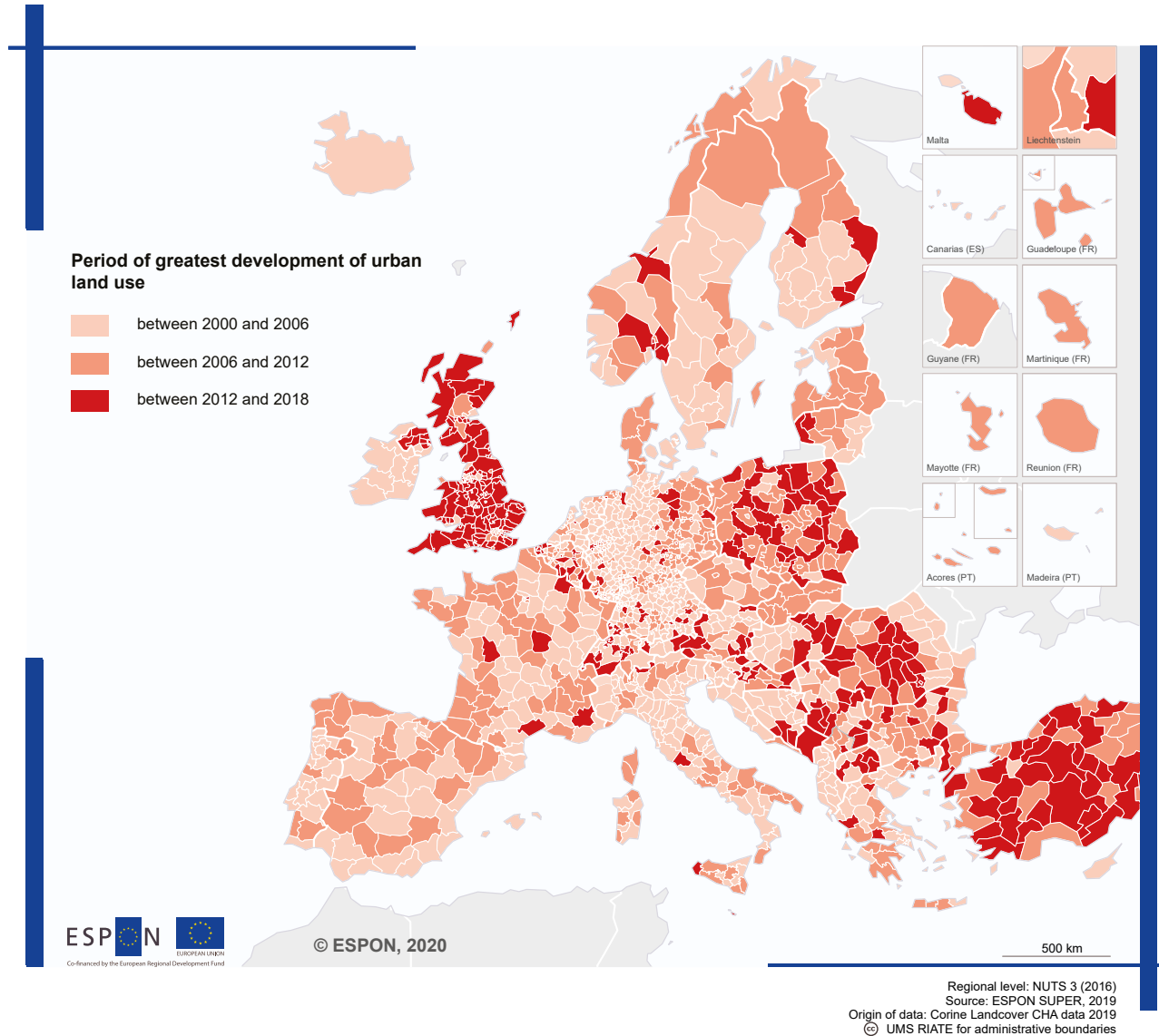
Source: ESPON SUPER, 2020.

Over the 2000–2018 period, the rate of urbanisation decelerated somewhat (see Map 2). This can partly be explained by the EU expansion in 2004 and the 2008 economic crisis; 44 % of all land conversions to urban use took place in the 2000–2006 period, 35 % in the 2006–

2012 period and 21 % in the 2012–2018 period. Some countries were exceptions to this rule: in the United Kingdom and Malta and in large parts of Poland and Romania new urbanisation predominantly took place after 2012.

## Map 2

### Period of the greatest development of urban use, 2000–2018



Source: ESPON SUPER, 2019.

**Urban sprawl** has existed for a long time, but nowadays policy discourse centres on the concept of sustainability and politicians are looking to spatial planning to manage urban growth sustainably. There is a palpable concern that current planning decisions and practices are negatively affecting future generations and undermining long-term economic prosperity, social cohesion and ecological vitality. To escape the binary world of “no net land take” versus “urban sprawl” and avoid the normative and pejorative meanings of these two terms, the ESPON SUPER project (2020) discerned three archetypical urbanisation types:

- **Compact urbanisation** (i.e. high-density concentrated development) is linked to restricting urban growth to

already built land, usually in large urban areas, and encouraging infill development and brownfield redevelopment.

- **Polycentric urbanisation** (i.e. medium-density clustered development) is linked to smart growth ideals, a concept that seeks to integrate economic, environmental and social aspects of planning and development and encourages mixed land-use patterns and transit-oriented development.
- **Diffuse urbanisation** (i.e. low-density scattered urban development) is linked to ideals of individualism and self-sufficiency, where private transport, home ownership and self-built homes are promoted.

**Figure 1**

**(a) Compact urbanisation (Valencia), (b) polycentric urbanisation (Leidschenveen), (c) diffuse urbanisation (near Zagreb)**



Source: (a) ESPON SUPER, 2020; (b) and (c) Google street view, 2020.

One way to measure urbanisation processes is to compare the development of urban use with the assumed need (population growth). Map 3 shows that during the 2000–2018 period the development of urban use areas exceeded population growth in most regions in Europe (regions in purple and red). Even areas experiencing depopulation usually still show increases in artificial surfaces (regions in purple). Regions with a value around one experienced a balanced development in which settlement developments more or less followed the development of population.

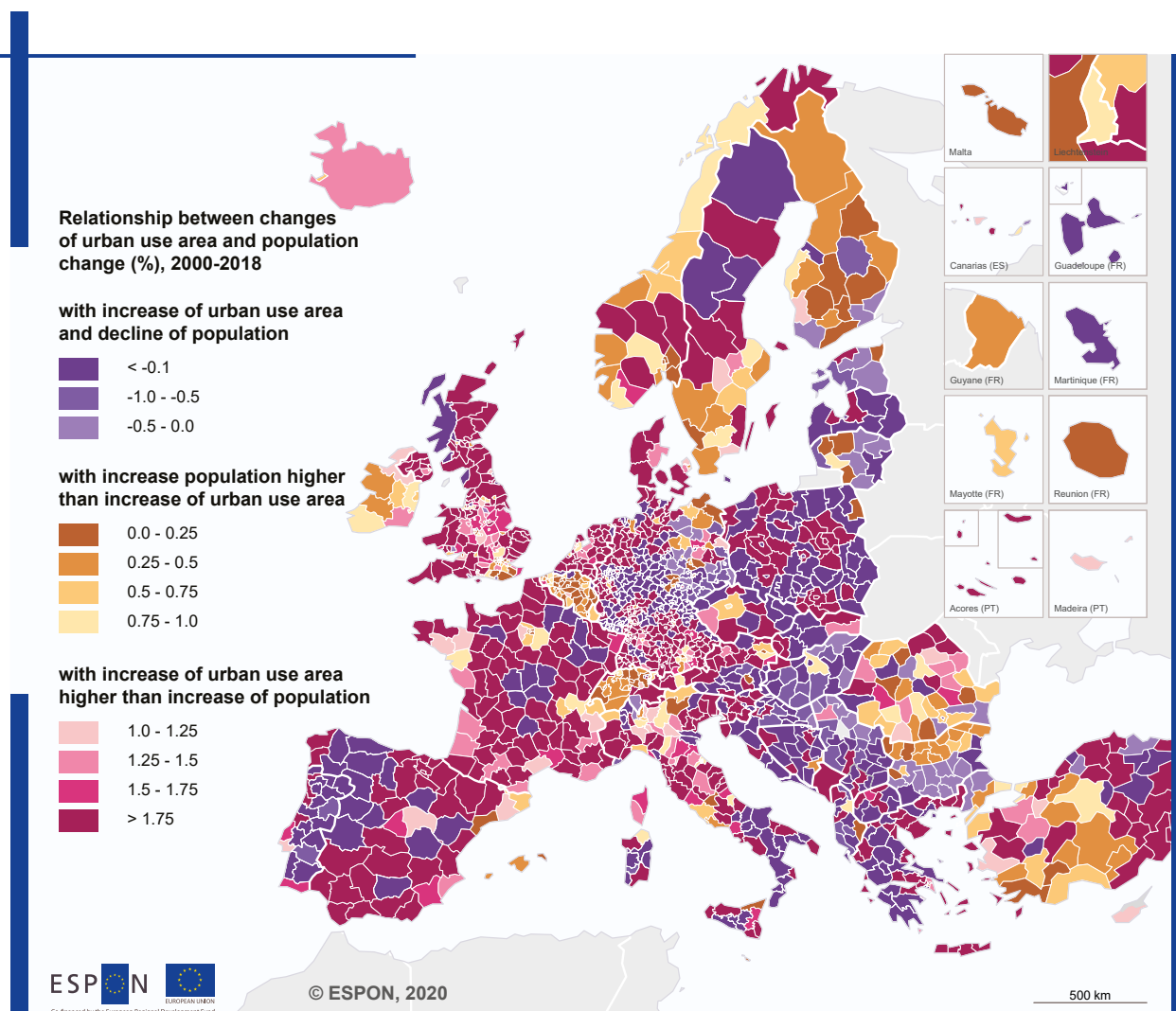
As expected, high pressure can be found in and around main urban centres, but not everywhere in Europe.

Regions that experienced a population growth 4 times higher (or more) than urban use area growth are metropolitan regions like large parts of Belgium, Malta, South East England and Switzerland (regions in dark orange). This indicates an increasing density and could be interpreted as compact urbanisation. The opposite trend is common in more non-metropolitan regions where urban use areas in the surroundings of city regions like in Poland and Spain show larger growth compared to their population growth (regions in dark red). Regions with bigger cities like in France or Mid-England show this trend as well. This indicates a decreasing density and could be interpreted as diffuse urbanisation.



## Map 3

## Urban land-use development in relation to population development, 2000–2018



Source: ESPON SUPER, 2020.

An important driver of urbanisation is economic development. Many European port cities are experiencing the relocation of their port-related activities from central areas to other locations. This process can result in deteriorating inner city areas. These cities often face major challenges in re-integrating these areas into the city structure. The ESPON ENSURE project (2019) analysed 144 port cities (focusing on small and medium-sized cities) and learned that 96 of these cities experimented with some form of port city regeneration. The following three types of regeneration implementation were identified:

1. **Unified vision** (54 cities): an overarching strategic line of development based on a coherent vision, master plan or other strategic document.
2. **Incremental approach** (16 cities): either on a project-by-project basis or in separate phases over significant periods of time.
3. **Emergent/nascent pattern** (26 cities): plans or policies are in place but concerted implementation has not yet got under way.

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**CASE 1****Port city regeneration following  
a unified vision in Split (HR)**

The Split City Council decided to regenerate the brown-field sites along the Riva seafront promenade, located close to the port and overlooked by Diocletian's Palace, a UNESCO World Heritage site. In 2005, Split City Council created a **vision for the waterfront generation** to create liveable and vibrant spaces by regenerating spaces around existing port functions. The city council launched a competition for redeveloping the waterfront following precise stipulations with regard to respecting its historic and cultural value.

The catalysts for redevelopment were the city council's vision for waterfront regeneration and the commitment of both the city and the state through funding.

The Riva promenade project is now complete and includes a public square that acts as a space for social events, sports events, religious processions, festivals and celebrations. It also re-integrated the port and the city and strengthened the traffic infrastructure and identity of the city.

Source: ESPON ENSURE, 2019.

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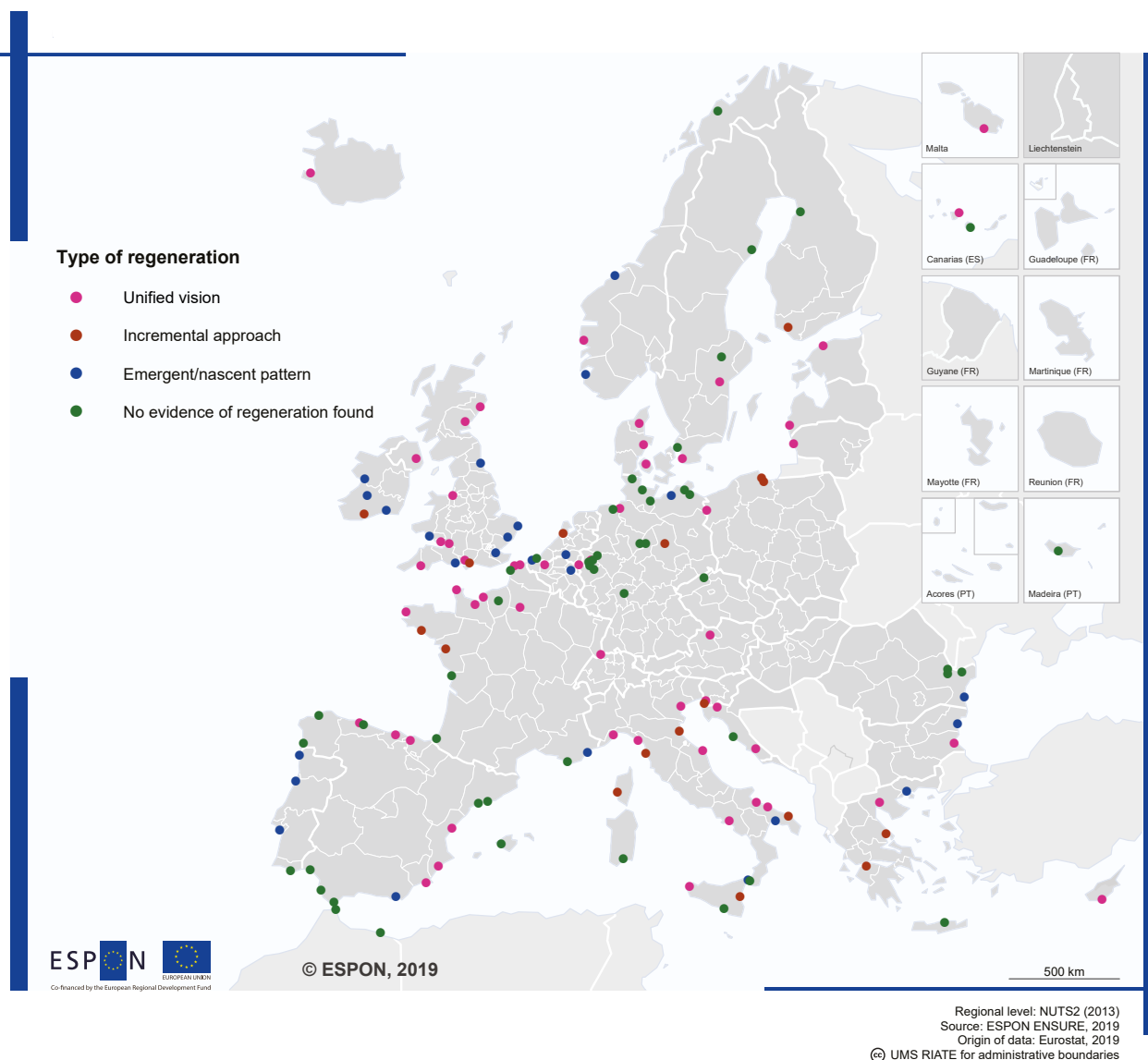
Map 4 shows the spatial distribution of this implementation typology. Each of the three typologies has its own challenges including (1) managing the tensions between master-planning and more flexible planning; (2) the bene-

fits of a "Big Bang" regeneration impact versus a more organic evolution; and (3) how to progress from effective planning to efficient implementation.



## Map 4

## Small and medium-sized port cities showing evidence of regeneration



Source: ESPON ENSURE, 2019.

Regeneration can provide an opportunity to enhance the volume and role of green infrastructure in the urban environment. More and more it is being realised that the presence of green spaces and natural and semi-natural areas contributes positively to sustainable urbanisation in cities. **Urban green spaces** deliver a variety of ecosystem services to improve mental health and well-being, mitigate urban heat island effects and provide sustainable transport options (e.g. walking and cycling lanes). A good example is Thessaloniki (EL), which has added 2 353

new trees, 118 432 new plants and 58.75 acres of green space to the urban environment to support the development of a greener and more sustainable city profile. However, the ESPON GRETA project (2019) showed that during the 2006–2012 period for 99.5 % of the European cities studied (around 500) the proportion of urban green spaces was stable or decreasing. In fact, only three cities showed an increase in urban green spaces over that period, i.e. Faro (PT; 3.3 %), Nice (FR; 2.3 %) and Capelle aan den IJssel (NL; 0.7 %).

## 3

## Factors supporting or hindering sustainable urbanisation

Urbanisation is the outcome of a myriad of collective and individual decisions made by humans about where and how they want to live, work and play. Therefore, to understand urbanisation and land-use change, it is important to identify the main relevant cause–effect relationships governing these decisions. Which factors drive urbanisation? What factors hinder sustainable urbanisation? And how can we measure sustainable urbanisation?

## 3.1

### Driving factors

Urbanisation is influenced by many drivers. The key drivers are demographic, i.e. people migrating from rural areas to cities and people using more residential space per capita (e.g. larger houses, fewer people per family). Economic and societal drivers should also be considered. The ESPON SUPER project developed an overview of drivers, distinguishing the following two groups:

#### 1. Demand-based drivers:

- **demographic:** population change, household size and migration dynamics;
- **economic:** gross domestic product (GDP)/gross value added (GVA) growth (especially regarding commercial space), macroeconomic trends, access to credit and level of household savings, welfare state regimes, vitality, and agricultural sector consolidation and accessibility;
- **societal and technological:** housing type preferences (apartment versus detached), tenure preferences, transport preferences (car ownership), social norms regarding cohabitation and second homes.

#### 2. Supply-based drivers:

- **land characteristics:** suitability, land price, profitability of land-use conversion, strategic land owner-

ship, legal rights to develop, designated area (floodplain, natural habitat or industrial zone);

- **physical barriers:** mountains and water bodies.

It should be noted that these drivers are interlinked and intersected between demand and supply of urbanisation; therefore, it is not straightforward to consider them separately. In addition, each driver has a different effect on sustainable urbanisation, which can be positive or negative.

A driving factor that has a negative effect on sustainable urbanisation is the **low price of undeveloped greenfield** land compared with the **high cost of redeveloping land** (e.g. regeneration of brownfields). This discourages the revitalisation or recycling of built space, generating derelict land. It also has a strong impact on flat areas of fertile land where accessibility generates a conflict of uses, leading to a marginalisation of agriculture. However, in the end, redeveloping urbanised areas and containing new development is the most sustainable approach. To increase the competitiveness of redeveloping already urbanised land, there is a need for the implementation of a package of measures, including economic, legal and fiscal incentives.

**Industrial areas in transition** and deindustrialisation deserve particular attention in the spirit of a circular economy. Vacant buildings could be adapted for new circular industrial uses (waste treatment and separation, composting, etc.) and non-industrial uses (residential, agricultural, etc.), or be transformed into public spaces (art galleries, co-working spaces, community centres, repair markets, etc.), thereby contributing to regenerative spatial and urban planning. A hindering factor for reusing abandoned industrial sites, however, could be that these sites have, in most cases, serious problems of **contamination**, leading to high costs for remediating these sites.

## CASE 2

## Economic development as a driver to regenerate deindustrialised sites in Dunkerque (FR)



Dunkerque (FR) is a key economic asset for France in terms of renewable energies. It has become home to Europe's largest energy platforms, accommodating nine different forms of energy-generating companies, including wind farms, a nuclear power plant, subsea gas lines and coal. The city has used the energy platform to rebrand

and market the city for foreign direct investment. To attract workers and companies, the regeneration of deindustrialised sites into mixed uses of housing, amenities and open spaces is required.

Source: ESPON ENSURE, 2019.

## 3.2

## Hindering factors

In addition to understanding the drivers of urbanisation, it is also important to understand the risks and challenges that could be encountered when redeveloping an already built-up area.

The ESPON ENSURE project investigated multiple port city regeneration programmes and one of the most significant challenges identified was **governance arrangements**. The cities reported diverse experiences in relation to multi-level governance frameworks, ownership structures in terms of land and port functions, and the role of private sector actors. They showed clear trends towards public-private partnerships or other forms of joint arrangement. In general, regeneration requires the involvement of an array of stakeholders and managing multiple interests is challenging.

Challenges for redeveloping an already built-up area, each illustrated with an example, are the following:

- **Competing economic functions:** during the early phase of regeneration in Calais (FR), the model proposed was to infill urban regeneration around existing port functions. Key challenges included how to co-locate residential and leisure functions in proximity to noisy, and sometimes polluting, industrial functions.
- **Environmental change:** regeneration involves the transformation of industrial, often polluted or contaminated, land-to-land uses, such as residential, tourism or leisure use. Le Havre (FR) is an example of the successful remediation of Seveso sites from former industrial uses. Remediating contaminated sites also presents financial risks or challenges in terms of who will fund the necessary works. In Cork (IR), it is anticipated that the private sector will fund remediation, which can result in significant development delays. In Brest (FR),

on the other hand, the industrial and military ports were remediated by public agencies and the military itself.

- **Land ownership:** in general terms, coordinating a coherent plan of urban regeneration was easiest for those cities where the port and waterfront lands were under public ownership. However, areas can have a “fuzzy” tenure or can be owned by government but not occupied by a legitimate government function, preventing a timely regeneration. Bilbao (ES) is an example of entrepreneurial urban regeneration. Here, the state intervened through a development agency to take control of vacant land and then used public and speculative private investments in the waterfront to transform the use, function and economy of the city.
- **Infrastructure provision:** when striving towards sustainability, investments in public transport will be a key challenge to achieving successful regeneration projects. Dunkerque (FR) based its regeneration plans on the new urban areas being as car free as possible.
- **Changing urban identity and functional use:** to stimulate different kinds of uses and attract new users to what were often “no-go areas”, broader cultural shifts in the identity of these areas are necessary. Such cultural transitions have been facilitated by rebranding initiatives and the development of flagship or landmark facilities, e.g. the Guggenheim museum in Bilbao (ES), La Carène concert hall in Brest (FR) and the proposal to build a cable car and aquarium in Tallinn (EE).
- **Speculative urban development:** urban regeneration projects in general have a speculative nature. In cities such as Cork (IE) and Norrköping (SE) the implementation of port city regeneration was negatively affected by the 2008 global financial crisis, while in Reykjavik (IS) the new regeneration plan is seen as one of the first signs of economic recovery after that country's crisis.

- **Governance:** port city regeneration entails an array of stakeholders, and managing multiple interests appears to be challenging. More top-down governance models were found in Bilbao (ES), where a development agency, “Bilbao Ría 2000”, has been created to oversee project delivery. In Malta (MT), high-level support for the development of a new cruise terminal was an economic success but it led to the erosion of local resources. A more bottom-up approach was used by Aarhus (DK), which has been experimenting with new forms of cooperation between public and private players to ensure a mix of functions and types of residents.
- **Funding models:** regeneration can be costly and identifying the appropriate funding model is a challenge, as the combination of public and private is key. In Brest (FR), the availability of EU structural funding has been critical and the combination of supranational, national and regional funding has been a key catalyst to attracting private investment.
- **Interface within the wider metropolitan, regional and transnational context:** when the urban regeneration project is of disproportionate importance to the wider region and national scale, the nature of the regeneration project can be driven by national or regional determinants rather than by the needs of the immediate, local area. The regeneration of the Belfast (UK) waterfront, for example, was an important element in the development of a post-conflict discourse about the city. The top-down approach taken, however, had significant exclusionary effects on the surrounding neighbourhoods and districts.
- **Public participation, engagement and cohesion:** in Reykjavik (IS) and Aarhus (DK), the public was engaged at the earliest stages to generate ideas. However, even where the public is involved and supports an idea, success is not guaranteed. In Turku (FI), a test project to co-locate urban and port activities is under way, but, while broadly supported, it appears challenging to convince citizens to relocate to the area.

### CASE 3

## Private investments leading to diffuse urbanisation in Valencia (ES)



Huerta de Valencia experienced great development pressures between 1996 and 2008, manifested by rapidly expanding urban centres, industrial areas and scattered housing. Land developers, generally private businesses, bought cheap rural land from farmers or other owners.

Flexible development procedures were created for “projects of economic regional interest”, resulting in scattered and diffuse urbanisation, often leapfrogging over more suitable sites.

Source: ESPON SUPER, 2019.

### 3.3

## Measuring sustainable urbanisation

The ESPON SUPER project gathered approximately 200 interventions that, in one way or another, affect land use and thus influence its sustainability. Because some interventions were not targeted at sustainability but could still be deemed successful (and efficient, effective and relevant) in achieving their goals, a **framework using two perspectives** was developed to assess the success of these interventions: (1) success according to the scope of the intervention itself (i.e. its own aims and goals) and (2) success from the point of view of sustainable land use. Regarding the latter, the following four gradations of success can be distinguished:

1.intervention meets sustainability goals in all three dimensions (i.e. economic, ecological and social);

2.intervention meets sustainability goals in one or two dimension(s) and is neutral in the other(s);

3.intervention meets sustainability goals in one or two dimension(s) and has adverse impact on the other(s);

4.intervention does not meet sustainability goals in any of the three dimensions.

From a sustainable land-use perspective, the intervention described in the first situation should be considered successful, even if the amount of progress is not equal between dimensions. The second situation requires more consideration because stagnation in one dimension and progress in others could be problematic. The third situation should be considered unsuccessful because it entails a trade-off or decline, and the last situation is obviously unsuccessful.

Not only interventions but also urban form can be evaluated according to its sustainability. The SUPER project reviewed scientific literature to estimate how the three urbanisation modes (compact, polycentric and diffuse) score on sustainability. Table 1 presents the findings in a synthetic way, whereas the project itself includes a table that cites the relevant literature. In summary, one could say that many of the outcomes confirmed suspicions; containment was seen as being ecologically sustainable in terms of land-use efficiency and mobility (travel dis-

tance and mode), and diffusion contributed to fragmentation and was unsustainable in terms of maintaining costly public services and amenities. However, there were also counterintuitive results, such as the socio-ecological unsustainability of containment owing to the concentration of pollution and climate change impacts, as well as the social sustainability of diffusion due to housing affordability, the reduced heat island effect and the benefits of living close to nature.

**Table 1**  
**Modes of urbanisation and aspects of sustainability\***

	Compact	Polycentric	Diffuse
<b>Economic sustainability</b>			
GDP, wealth	+/-	++	+
Public finance	++	+	-
Jobs	++	++	+/-
Accessibility	+/-	++	+/-
Business areas	++	++	+/-
Housing demand	-	+	+
Transport costs	+/-	+	--
Energy consumption	+	+	--
<b>Ecological sustainability</b>			
Reducing mobility (by car)	++	++	--
Reducing pollution, including CO <sub>2</sub>	++	+	--
Green urban areas	-	+	+/-
Biodiversity	+/-	+/-	--
Land consumption	+	+	--
Natural hazards	-	+	+/-
Climate change	+/-	+	+/-
Consumption of resources	+/-		-
Renewable energy	+/-	+/-	+/-
Space for future water retention	+	+	+
Circular economy	+	+	-
<b>Social sustainability</b>			
Health	+/-	+/-	+/-
Affordable housing	+/-	+/-	++
Equity/inclusion	+/-	+	--
Public and recreational space	+/-	+	+/-
Variety (high-rise, suburban, etc.)	+	+	+
Mixed-use areas	+	++	-
Satisfaction with home environment	-	+	++

Source: SUPER, 2019. \*Legend: Studies indicated “++: strong positive impact”; “+: positive impact”; “-: negative impact”; “--: strong negative impact” for the indicator. “+/-: conflicting findings between studies were found”.

## 4

## Instruments and tools for sustainable urbanisation

Urbanisation can be guided in more sustainable directions by territorial governance and spatial planning interventions, such as (spatial) strategies, instruments and mechanisms (financial, fiscal and economic) from the European to the local level. The Urban Agenda Partnerships on the Circular Economy and on the Sustainable Use of Land and Nature-based Solutions developed a handbook that provides a broad review and analysis of good practices of urban land reuse (UAP, 2020). It lays the foundations for an overall strategy looking at a new model of urban reuse management following the principles of a circular economy.

As noted, the ESPON SUPER project also gathered over 200 interventions that, in one way or another, affect land use and thus influence its sustainability. Each of the collected interventions was described according to a number of basic features, e.g. the aim and instrument type. Not surprisingly, regeneration interventions, 13 % of the total, were more frequently used in urban and monocentric urban areas and less often in rural areas. More interestingly, the preliminary assessment found these to be the most successful according to sustainable goals and dimensions.

Metropolitan areas are characterised by close economic and social linkages between their urban and suburban parts, which involve a number of local governments. This implies that no local government has the tools to address

all challenges and opportunities within a metropolitan area on its own. Therefore, to address these complex challenges by implementing a metropolitan planning approach, a mix of policy tools is needed.

There is no one single and systematic framework of policy tools for effective implementation of an integrated urban planning approach. Based on a comprehensive literature analysis and the experiences of 10 metropolitan areas, the ESPON SPIMA (2018) project distinguished the following six key categories of policy tools: **(1) strategic, (2) coordinative, (3) structural, (4) procedural, (5) financial and (6) collaborative**. For the 10 metropolitan areas investigated in the SPIMA project, the most important categories of policy tools are the coordinative and collaborative policy tools. Both categories aim to foster a shared-governance process at the metropolitan scale, allowing better integration of responsibilities and competences between horizontal and vertical levels of urban governance. The procedural/financial policy tools were the least widely applicable and the strategic and structural policy tools took an intermediate position.

Table 2 presents the policy tools that were considered most suitable to address some specific challenges identified. The next sections provide more details and examples for the applicability of the different types of policy tools.



**Table 2**  
**Policy tools for metropolitan areas to potentially address identified challenges**

Challenges	Strategic	Coordi- native	Structural	Procedural/ financial	Collabo- rative
<b>Spatial structure and development</b>					
Need for multifunctional land-use planning		X	X		X
Regeneration of post-industrial areas	X				X
Pressure on land	X			X	X
Ensuring an efficient transport infrastructure, mobility and accessibility	X	X	X		X
Suburbanisation (urban sprawl)	X	X		X	X
Pressure from developers for urban sprawl		X		X	X
<b>Institutional</b>					
Need for multi-level collaboration		X	X		X
Lack of funding for metropolitan development		X		X	X
Deal with intermunicipal/regional competition		X	X		X
Achieving shared vision on strategic plans	X	X			X

Source: ESPON SPIMA, 2018.

## 4.1 Strategic tools

Strategic tools aim to develop joint strategies for the future development of areas. The common principle of strategic tools is that one can use them to devise and employ a set of multiple policy objectives and long-term measures in such a way that these reinforce each other in different policy issues and administrative levels of planning. This can be done by raising political awareness and achieving commitment between different groups of decision-makers via strategic visioning of metropolitan development. Strategic tools will, in general, result in integrated policy documents such as strategic plans for metropolitan development or strategic territorial cohesion plans at regional and local levels. When using strategic tools, one has to pay particular attention to link strategic plans to problem-driven governance and translate them into a set of specific actions and outcomes in the planning processes.

Benefits of strategic policy tools:

- ensuring institutional support at a higher level of government by developing joint strategies and visions regarding metropolitan territorial development;
- mobilising various actors that have a high impact on the pursuit of metropolitan collaboration, i.e. the strongest “pressure groups”, including the EU and the national state;

- developing policy frameworks, including policy agendas for urban sustainability, formation of joint strategies and plans;
- supporting strategic decisions of national importance in addition to the decentralisation process and development of economies of scale;
- dealing with competing claims in land-use planning at the local level; relieving the tension between municipal land-use planning and higher level land-use planning by strategic planning; and gaining political support in addressing trade-offs and facilitating negotiation between land owners, businesses and local governments to maximise the public benefits of urban developments.

**Strategic planning** underpins a holistic, inclusive, participatory and integrated planning approach. In the presence of complex governance systems and with many stakeholders it is preferable to use a strategic approach. This will structure the interaction between subjects in the decision-making process, harmonise various plans and integrate transformation. The challenge is to not only set up a strategic plan for the area integrating the three major issues of sustainability, i.e. economic (for profit), social (for people) and ecological (for planet), but also manage a long-standing development. A strategic plan has to find concrete answers to current problems in people's lives, which in turn becomes the best certification of the effectiveness of its procedures. It is proposed to be incremen-

tal and adaptive when following five converging and interacting domains:

1. the **spatial domain** to, for example, establish urban quality as growth engine, develop connectors for rural areas or contribute to conserving cultural and landscape resources;
2. the **management domain** to define processes and tools for agreements between actors, aiming at co-planning and achieving and implementing the objectives, as well as identifying assessment systems;
3. the **economic domain** to identify the necessary capital ensuring feasibility and to create added value from the interaction of different capitals (financial, human, social and territorial);
4. the **regulatory domain** to define rules aimed at protecting choices over time or in the case of leadership changes;
5. the **communicative domain** to promote the covenant of community among the various subjects for a collective empowerment towards the future.

#### CASE 4

### Strategic development for harbour conversion in Copenhagen (DK)



The Council of the South Harbour (Sydhavn) of Copenhagen wanted to transform a former industrial harbour area into a modern urban neighbourhood with offices and new housing that would attract new residents to this ageing city.

In the mid-1990s, when Copenhagen was under economic duress, Sydhavn was designated as a focus housing area in a municipal plan. The project was conceived as **part of a larger strategy to reinvent the city** and utilise the quay sides and former harbour areas to create attractive urban environments. The main rationale behind the project was economic but included social aspects (i.e. attractive housing for the middle class and some social housing) and, to a lesser extent, environmental as well. In this case, the municipality was not a land owner (however, the development corporation was a main land owner) and had to depend on **private organisations** to

develop the land and provide public facilities, which was secured through different arrangements under the Planning Law. In addition to the statutory planning instruments, a comprehensive plan was developed by the major land owners and the municipality, which formed the basis for subsequent local plans. This intervention can be considered a soft governance tool, which does not have any formal power but symbolic, representative and communicative power.

The transformation was considered a mixed success in relation to scope of the intervention because of the lack of cultural institutions and recreational spaces. This can partly be explained by the institutional design and market-led approach. The sustainable land-use goals were considered quite successful because the project produced a dense urban area on a brownfield.

Source: ESPON SUPER, 2019.

The reuse of spaces and buildings can be considered one of the **strategies for circularity**. It belongs to the group of circular strategies that are less radical but help to reduce raw materials' and resource consumption and thus positively impact our environment by extending the lifespan of products and their parts. The ESPON CIRCTER project (2019) indicated that it is key to connect such a strategy with clear policy actions and funding means ownership of the strategy and gathering political

buy-in. Involving the leadership of public administrations, such as regional governors, mayors or prefects, would give more weight to the priority-setting process. Of course, depending on the regional context, the outcomes of this stage can be further subjected to the regional or local political legislative processes in city councils, or regional councils, which can provide the final endorsement of the strategy.



## CASE 5

# Regeneration as part of the Circular Economy Strategy of Maribor (SI)

The city of Maribor aims to carry out urban regeneration by public and private investments in public and complementary spaces to raise the quality of life for the citizens. In addition, they aim to activate local social and economic potential by setting up projects involving circular business models and local food production. Finally, they aim to further develop sustainable urban mobility by developing an urban cycling infrastructure and multimodal public transport.

In June 2018, the Council of Maribor approved its Circular Economy Strategy. The basic idea of this strategy is a modular system for managing all the resources available in the municipality and wider urban environment. One of the seven pillars of the strategy is related to urban regeneration.

Source: ESPON CIRCTER, 2019.

## 4.2

### Coordinative tools

Coordinative tools refer to the establishment of dedicated coordination bodies for the joint preparation of plans and strategies. The common principle of coordinative tools is that one can use them to establish bodies to coordinate metropolitan developments across political and administrative layers of government. This can be done by implementing coordinated decision-making: centralised/decentralised or multi-level coordination. Coordinative tools will, in general, result in supervision authorities, e.g. a metropolitan body, interorganisational committees or management bodies. When using coordinative tools, one has to pay particular attention to achieve efficient coordination between institutions, leading to shared planning practices between specialised departments and levels of government.

Benefits of coordinative policy tools include:

- the establishment of coordinating bodies to guide the process of metropolitan development by mobilisation of various levels of governance to coordinate actions or strategies;
- the transfer of functions that require a certain expertise and collaboration not available at the local level to a coordinating body, with local leaders represented, while at the same time municipalities remain independent with their own mayors;
- by means of coordination mobilising and organising relevant actors' in the development of land-use plans, initiating negotiation between land owners, businesses and local governments.

Multi-level and multi-agency governance turns out to be a key feature in the city regeneration projects. For this, both horizontal (intermunicipal) and vertical (multi-level) coordination is needed. To achieve sustained and enhanced metropolitan planning over time, both a collaborative environment among the local governments and well-aligned policies and initiatives between levels of governments are needed. This tends to have both a political and a technical dimension in spatial planning and decision-making. It requires well-established and accepted communication channels to synchronise different strategies and spatial plans. Higher-level government plans need to be consistent with local government plans and metropolitan decisions should also be reflected in local spatial plans, based on close and iterative consultations and a shared governance process.

Independently of whether the process is mainly bottom-up or top-down, it is the local constituents who will be most affected by any **new metropolitan institutional structure**. Cooperation among local governments may be encouraged by incentives or even demanded by a regional or national government through intergovernmental systems, legal frameworks or specific financial incentives. However, cities' experiences show that no governance arrangements become effective and sustainable unless the local governments involved are actively supporting the arrangements.

## CASE 6

## Planning by coordinating municipal agglomerations in France (FR)



The French model for planning by coordinating municipal agglomerations is an innovative example that combines top-down and bottom-up elements: the national level creates the legal framework for strategic intermunicipal

cooperation. Joining such bodies remains a voluntary decision by municipalities.

Source: ESPON SPIMA, 2018.

Shared metropolitan governance is seen as the way forward in coping with the fact that decision-making processes and democratic power may not reflect the reality of current actual spatial developments. “Real life” may already have gone beyond the formal spatial planning governmental structures. There is a need to move from these formal structures alone to shared governance modes, which allow collaboration about the actual urban functional developments in the metropolitan areas. Currently, administrative jurisdictions across Europe do not correspond to functional geographies, leading to a splintering of public policies and a mismatch between political geographies and the geographies of the networks of interrelations between people and businesses, from local to global scales. A **functional approach** to urban governance avoids this distortion and implies a greater emphasis on political institutions attached to territories with “soft” borders, or no borders, delineated according to a given policy field, and overlapping with other functional areas and at different scales.

ESPON has always been a strong advocate of a functional approach in planning. This approach allows development processes to be captured and steered at geographical scales that are not bound by administrative borders but which reflect the realities of increasing interconnections among places based on mobility of people, goods and services. The functional approach requires a stronger cooperation among places and, in turn, stimulates their development perspectives in at least two ways:

- allowing them to increase the resource base that is needed to serve people’s well-being needs;
- ensuring the efficiency of investment through their coordinated use and avoiding wasteful/overlapping investment.

Therefore, the functional approach in planning, governance and investment policies helps to promote the development potential of places, including coping with and adapting to the outward labour mobility and brain drain, through more efficient, multi-level governance that responds to development challenges in a more holistic and inclusive way.



## CASE 7

# Strategic and functional approach for regeneration in Turin (IT)

The Council of Turin aims for the city to be transformed and rebalanced from an industrial area to a touristic and attractive one. Their key challenge is to introduce a regeneration strategy that is based on a flattening of hierarchies, cross-sector collaboration and coordination of efforts between all 316 municipalities.

In 2014, the National Act formulated 10 metropolitan cities in Italy. The Metropolitan City of Turin (MCT) is one of these. The new MCT area is envisaged to have a clear subdivision of spatial areas based on functionality, leading to reduced local fragmentation, a more coherent spatial structure of functions and flows and a more democratic representation of the different spatial areas within the large territory of the MCT. A complex analytical process considering many different boundaries and existing

structures led to a formal division of the MCT into 11 **homogeneous zones** (not complying with the OECD/EC typology of functional urban areas).

The MCT authority has a strategic planning role and a coordination function across the municipalities within the MCT and is responsible for the overall strategic development of the territory. In November 2015 they started the process for the preparation of the Metropolitan Strategic Plan (MSP), addressing the fundamental needs of the metropolitan community and providing solutions to key problems. The MSP is expected to grow as a comprehensive and integrated approach to metropolitan planning and development.

Source: ESPON SPIMA, 2018.

## 4.3

### Structural tools

Structural policy tools imply enhancing collaboration between competent authorities, by restructuring planning departments to be able to coordinate efforts more effectively with other departments. The common principle of structural tools is that one can use them to formalise relationships, competences and responsibilities across sectoral governmental structures. This can be done by adapting new organisational structures (departments, expert teams) to address metropolitan development in the administrative practices of the regional and local governments. Structural tools will, in general, result in merged organisational structures and/or effective distribution of responsibilities among various organisations/units of regional and local authorities and other relevant institutions. When using structural tools, one has to pay particular attention to choosing suitable and effective structural change in the regional and local administrations that can provide the capacities needed for metropolitan planning.

Benefits of structural policy tools include:

- the establishment of an adequate institutional structure that will support the shift from a rigid (hierarchical) governmental system to a horizontal shared governance;
- the establishment of clear institutional structures, such as consolidated bodies (departments, councils, etc.), for metropolitan governance may allow for better coordination, collaboration and communication among relevant institutions and players.

A **new metropolitan institution** or institutional structure will become effective if it has clearly defined responsibilities (i.e. not overlapping, easy to understand, etc.). The role of a metropolitan institution should be clearly linked to the activities of other local players and levels of government. New metropolitan institutions, particularly if appointed by a higher level of government rather than elected by local communities, may create a “distance” between the government and the citizens. With a second-tier metropolitan government, it is critical to ensure that the public is well informed and can easily identify what their local government and their metropolitan level government are responsible for, in order to keep them accountable.

Any new institutional arrangement at the metropolitan level needs to be supported by agreed **financial arrangements**. This may, for example, include formula-based sharing of service expenditures, coordinated revenue mobilisation (through user charges, property taxes, earmarked taxes, etc.), or joint funding (or joint mobilisation of the funding) for investments. This process may require significant analysis and negotiation, as the strengths of the revenue sources – available to each local government – may differ significantly. In the case of a new regional authority or metropolitan-level government, it is critical that they have access to sufficient and reliable sources of financing to fulfil its mandates on a sustainable basis.

## CASE 8

## New institutional structures for airfield conversion in Plzeň (CZ)



The City Council of Plzeň wanted to redevelop a former airfield (technically a brownfield), stretching from the border of the city towards its centre, into an industrial base for the city and the region.

The former airfield was identified as a potential development area in the early 1990s. In 1995, a new local plan was approved by the City Council of Plzeň. In order to extend the plan to the whole area, a **strategic development plan** had to be prepared. This process was new for the city of Plzeň. At the beginning, the strategy was infor-

mal (tacit strategy) but it was soon transformed into official city policies, programming and planning documents (statutory local plan). In addition, **new institutional structures were established**, e.g. City Planning and Development Office and Pilsen Holding, JSC.

The redevelopment was considered successful, as the initial objectives were achieved. The industrial zone has become a location for more than 40 companies, creating between 11 000 and 15 000 jobs.

Source: ESPON SUPER, 2019.

## 4.4

## Procedural tools

The procedural tools have a top-down restrictive and controlling function for urban growth (land allocation and zoning regulations, land acquisition, land expropriation, etc.). The common principle of procedural tools is that one can use them to set legal, mandatory mechanisms for metropolitan planning (regulations for the establishment of metropolitan areas, statutory land-use regulations, etc.). This can be done by enforcing specific legal procedures by the regional and local governments based on top-down regulations and a compliance process. Procedural tools will, in general, result in environmental assessment and strategic impact assessment. When using procedural tools, one has to pay particular attention to developing an effective regulatory framework that can ensure compliance between the different spatial (land-use) plans of different authorities and support the decision-making process.

Benefits of procedural policy tools include:

- The development of legislation or regulatory mechanisms by the national or regional government dedicated to metropolitan planning can serve as the basis for

legitimation of the status of the metropolitan areas. In some cases a top-down legislative approach may be the necessary precondition for setting up clear competences in metropolitan planning.

- Even if there are visionary spatial plans or strategies at the metropolitan level, the implementation of these plans can be weak. Specific regulatory mechanisms can be used to enhance the implementation process at the local level. These include different categories of spatial plans, specific land-use arrangements, land acquisition tools, tax-sharing mechanisms, fiscal bonus systems, funding for major infrastructure investment and pilot projects (cross-border).

Regulatory or procedural measures are one of the most important policy instruments that can be very effective in achieving specific targets or results. The transition towards a circular economy, for example, addresses environmental challenges that require strong state intervention. Regulatory instruments, such as **setting limits or targets**, can be instrumental in promoting this transition. Setting targets for developing brownfields over greenfields, banning unsustainable products or materials, etc., can be applied both on local and national levels.





## CASE 9

## Brownfield development target in the United Kingdom

The UK Government has set a target that by 2008 at least 60 % of all new housing should be built on brownfield land. By 2008, housing development on brownfields across the English regions was closer to 80 %. Despite

this immense quantitative success, it was noted that the patterns and extent of brownfield land reuse for housing development vary greatly across the English regions.

Source: SUPER, 2019.

Reusing spaces and buildings also involves handling construction and demolition waste that could potentially be reused. **Reusing construction and demolition waste** (C&DW) is only economically and environmentally viable on a very local level because of its high volume and high transportation costs, leading to potentially negative environmental impacts. However, the quality of reused,

recycled, remanufactured and repaired products is of growing concern. Regulatory measures seek to ensure the quality of these products, their processes, content, etc., in order to better promote products made of secondary materials. A well-established and successful case for this comes from the Netherlands and concerns the reuse of C&DW materials in road-building projects.

## CASE 10

## Regulating quality of the recycled construction waste in the Netherlands



The main driver of recycling in the Netherlands is the solid framework of legislation that bans the landfilling of many waste streams, including C&DW. The safe use of recycled materials in road construction (and other applications in or on soil) is regulated by the **Soil Quality Decree**, which sets limit values for leaching. Furthermore, several pieces of legislation (e.g. concerning asbestos) assure that only non-hazardous inert waste arrives at recycling facilities. During the acceptance process at the gate of the recycling facility, a final check is performed to monitor incoming waste.

The requirements for use of materials in road construction are laid down in a **national guideline** – the Standard

RAW Provisions. Recycled aggregates meet all requirements for safe application in road construction because the processing of good-quality recycled materials starts well before demolition. Furthermore, by requiring the use of mainly recycled C&DW instead of virgin materials from riverbeds or quarries in public road construction tenders, a large and steady market has been created. Today, close to 100 % of C&DW is recycled in the Netherlands.

Lessons: ensuring quality of the secondary material is important in building consumer trust in the circular economy.

Source: ESPON CIRCTER, 2019.

The EU Directive on the energy performance of buildings (European Commission, 2010) aims to reduce the environmental impact caused by public sector energy consumption via **Green Public Procurement (GPP)**. GPP can boost demand for circular materials, products and services, during both the construction phase of a project, e.g. buildings and roads, and the project life, e.g. renovation and consumables. Construction is one of the key sectors targeted by GPP, with criteria for covering raw materials, e.g. wood, aluminium, steel, concrete and glass, as well as construction products, e.g. windows, wall and floor coverings, heating and cooling equipment,

operational and end-of-life aspects of buildings, maintenance services, and on-site performance of works contracts. The EU GPP criteria can be used to facilitate the inclusion of green requirements in public tender documents. Using GPP criteria in the process of reusing spaces and buildings can promote ecodesign and design for recyclability, extended producer responsibility, waste prevention, reuse and refurbishment. The EC GPP platform<sup>1)</sup> offers many insightful resources, good practices and guidance on how to innovate towards circular procurements.

## CASE 11

### GPP for urban regeneration in Turin (IT)



In 2011, the City of Turin developed an ambitious and detailed set of environmental guidelines for the regeneration of the Barriera di Milano district. This integrated programme for urban development covered 15 construction projects, with a total investment cost of EUR 35 million.

For all procurement activities related to the regeneration programme, two types of environmental criteria were developed. The first type of criteria was related to the improvement of the local environment and significantly influencing the design in order to improve the usability of the final space, affecting overall environmental comfort and improving the habitability of the area and covered aspects such as the management of surface stormwater, use of local trees, green roofs and facades and the durability of the materials used for surface coating. The sec-

ond type of criteria was related to the life cycle impacts of construction elements and covered aspects such as the use of recycled materials and the energy requirements of heating and lighting systems. These criteria were included in the tendering processes to promote the choice of products, techniques and technologies that are as innovative and environmentally friendly as possible.

One of the construction projects was the development of the new urban park of Spina4, on an area of 43 000 m<sup>2</sup> formerly occupied by car industry buildings. Many sustainable features were included in the design based on the set of environmental guidelines, such as photovoltaic panels, photocatalytic paving, light-emitting diode (LED) lighting and the use of recycled materials.

Source: SCI-Network, 2012.

## 4.5

### Financial tools

The financial tools regulate developments through taxation, fiscal or subsidy systems, such as property or land-use tax and compensation measures for land owners. The common principle of financial tools is that one can use them to steer legal, mandatory mechanisms for metropolitan planning (tax-based regulations, etc.). Financial tools will in general result in economic interventions, such as charges and taxes for use of natural resources and land. When using financial tools, one has to pay particular attention to developing an effective regulatory framework that can ensure compliance between the different spatial

(land-use) plans of different authorities and support the decision-making process.

Benefits of financial policy tools include:

- dedicated funding for metropolitan cooperation, with the conditionality that regional and local authorities can play a crucial role in initiating the metropolitan spatial planning approach;
- establishing win-win economic stimuli for initiating a metropolitan planning approach;
- acquiring sufficient financing to support more extensive negotiations and consultation processes;

<sup>1</sup> See: <http://ec.europa.eu/environment/gpp/>

- introducing a balanced taxation system to reduce tax competition.

The redevelopment of brownfields is often marginally or not economically viable compared with greenfield development. To increase its competitiveness, there is a need

for the implementation of a complete package of measures, including economic, legal and fiscal incentives. In the 2000–2006 period, the **Structural Funds** expended for the EU25 were EUR 2.25 billion for the rehabilitation of industrial sites and about EUR 2 billion for the rehabilitation of urban areas.

## CASE 12

### Using EU funds for urban regeneration in Łódź (PL)



The city of Łódź went a long time without local spatial plans, a fact which was considered a major problem for the city centre in particular. Motivated by the possibility of EU funding for revitalisation, local authorities sought to initiate local spatial planning. The Revitalisation Committee, consisting of different stakeholders (non-governmental

organisations (NGOs), residents, entrepreneurs, etc.), was set up and the Local Programme of Revitalisation was adopted. The result was a successful implementation of several major EU-funded investments.

Source: ESPON COMPASS, 2018.

By integrating the circular economy in the urban regeneration projects, access to regional, national and European financial flows related to the Regional Strategy for

Research and Innovation for Smart Specialisation (RIS3) could be obtained. In addition, stakeholder buy-in into innovative actions and projects could be enlarged.

## CASE 13

### Using Interreg funding to support communication for brownfield redevelopment in Norrköping (SE)



The municipality of Norrköping, a medium-sized city in the region of Östergötland, aimed to redevelop its inner harbour area close to the railway station into an attractive urban neighbourhood with good rail accessibility. This brownfield transit-oriented redevelopment project required remediation of the contaminated soil in the area.

To make underground pollution visible, a new tool was created using **Interreg funding**. This tool enables three-

dimensional (3D) visualisations below ground level. Testing the tool with over 400 participants gave good results. The tool can be used in planning and decision-making processes as a platform for communication between different stakeholders (citizens, planners, developers, politicians).

Source: ESPON COMPASS, 2018.

Regeneration can involve significant costs and without public funding sources cities can become reliant on the private sector. On the one hand, this risks relying on speculative forms of development that may or may not be successful. On the other hand, an overreliance on private sector funding can result in risks related to inclusivity of uses and citizen buy-in.

Direct funding, including loans, subsidies and grants for projects, business and infrastructure, is a commonly used instrument across countries applied by governments of all levels. Regions and cities can adapt funding instruments to support the development of brownfields or urban regeneration projects. Most regeneration projects studied by the ESPON ENSURE project appear to have a **combination of public and private funding** underpinning their regeneration.

## CASE 14

## Combining public and private funding for regeneration in Brest (FR)



In Brest the closing of some navy activities gave room for a valuable regeneration in areas close to the city centre. Planning documents have been prepared for the regeneration and the flexibility of the plans and a broad consensus among stakeholders has contributed to setting the basis for a positive implementation.

Brest Métropole has been able to attract funding from higher administrative levels by dedicating personnel to positioning the city towards **various funding programmes** at national and European levels in particular. Furthermore, the status of concerted planning zone in the commercial port area has meant that land owners had to pay a “**planning tax**” on their real estate projects, which allowed the public sector to raise money for regeneration of the area's public infrastructure (roads, pavements, etc.). In addition, project financing often involved a diversity of public actors at different levels, driven by Brest

Métropole's ability to market these opportunities to attract **private funding from real estate investors and developers**. Although public funding was the driver, private funding was necessary to develop private real estate and activities including offices, housing and shops. **This combination of supranational, national and regional funding appeared to be a key catalyst.**

The more general, overall goals and intended outcomes have been achieved, e.g. the regeneration of brownfields, the creation of new urban functions along the waterfront and the maintenance of selected marine port activities. However, not all plans have been established, such as the planned green areas in the commercial port and all free views planned between the city and the sea and port because of the erection of higher buildings than planned.

Source: ESPON ENSURE, 2019.

The ESPON ENSURE project recommends the enhancement of an efficient, innovative and complex financial model to support port city regeneration. For regeneration projects in general it is important to balance public and private sector funding when putting in place an efficient, innovative and complex financial model. This leads to remembering that timing in attracting different types of funding is fundamental and that the availability of funding is always temporally contingent and dependent on economic cycles and the health of the public purse. Effectively combining supranational, national and regional funding and managing the overall coherence and sustained implementation of the project is key for a successful regeneration project.

Using **fiscal incentives** or promoting specific types of businesses or investment in economic activities is rather popular in many countries. Governments have started to explore the use of these instruments to support green

economic activities; for example, fiscal incentives to incorporate clean technologies in the production process are now available in the Basque Country, the Netherlands, the United Kingdom, etc. Regions and cities, within their local taxation system, can apply fiscal incentives to promote investment in circular businesses and technologies.

The ESPON SPIMA project discovered that encouragement only at the national or regional level is often not sufficient to achieve concrete change in unsustainable areas. Often it is necessary to **design incentives** for metropolitan governance advances and the strongest incentives tend to be linked to financing. Any changes or enhancements to the current policies or frameworks for spatial planning and/or financing of the local government level need to be (or should be) considered at the same time to ensure that such policies are well aligned across the government levels.



## CASE 15

### Incentives to increase roof greening in Linz (AT)

During the 1960s and 1970s, Linz experienced an economic boom with high environmental degradation, leading to a dramatic loss of green spaces and loss of quality of life.

The municipal 1984 Green Space Plan included, among other things, **incentives** to increase greening in built-up areas in order to reduce air pollution. It was based on the following four pillars: (1) sound basic research, (2) legally binding development plans, (3) financial support and (4)

information and advertising. The plan was strongly based on statutory instruments, while at the regional level more informal planning was pursued in the form of regional forums.

With the help of this plan and the incentives the city of Linz transformed into a post-industrial city and since 2008 has been officially recognised as the leading green roof city in Austria.

Source: ESPON SUPER, 2019.

## 4.6

### Collaborative tools

Collaborative tools aim to establish specific collaboration efforts with equal participation of all affected stakeholders that lead to agreements about a specific plan.

The common principle of collaborative tools is that one can use them to establish collaborative processes between a wide range of actors with the ultimate aim to meet metropolitan development challenges. This can be done by involving multiple players in a metropolitan planning process (across levels of government and policy sectors) via consultation, communication and negotiation between players. Collaborative tools will, in general, result in collaborative establishments with participation of multiple players. When using collaborative tools, one has to pay particular attention to ensure effective and continuous communication and consensus-building between multiple players in ever-changing institutional settings and in decision-making processes.

Benefits of collaborative policy tools include:

- supporting the involvement, participation and communication between actors across fragmented administrative structures of governance, to strengthen actors' interaction and their empowerment to engage in shared-governance networks for strategic envisaging, planning and implementing of metropolitan developments;
- mobilising existing collaboration efforts, such as transportation issues scaled beyond the city borders, to initiate cooperation in other policy issues;
- creating top-down and bottom-up impetus for collaboration either by a formal recognition, financial support

or collaborative agreements set by the governmental actors':

- Top-down: if there are complex conflicts of interest that may have an impact on larger territories, the role of the national government in initiating collaboration is important.
- Bottom-up: groups of smaller municipalities, including communities and businesses, can be mobilised in a bottom-up approach around a policy issue or an area, which can also be scaled up to other actors' and governmental levels.

Involving all relevant actors in the process is key to ensuring a successful regeneration activity. A first step is to understand who the main actors, partners and stakeholders to work with are and why; what are their relationships and their views on metropolitan challenges and opportunities? One has to consider not only governmental actors across various levels and policy sectors but also resident groups, businesses, NGOs, environmental groups, research entities, etc. A second step is to determine how the stakeholders can be mobilised for the regeneration project; what is in it for them. Stakeholder involvement should start as early as possible, e.g. through opinion polls and dialogues on the design of the process itself. There may be particular situations when more concerted efforts should be made in seeking views and feedback from the local stakeholders, through various vehicles and media. It is particularly important that any costs or benefits are communicated in clear terms and that any impact on residents is explained (e.g. as public service users, as tax payers, as voters) and also how the public will have access to any proposed new metropolitan governance process.

Citizen engagement has become a fundamental component of most planning and regeneration activities. For example, Norrköping (SE) engaged people through unique visuals called “Earth Autopsy” as well as holding several community meetings and consultations throughout the process. Reykjavik (IS) held community meetings

in every city quarter and ensured that the citizen’s requests were heard and adopted in plans where possible. Basel (CH) has developed a monitoring group including citizens as well as other organisations. Their feedback is not binding but the administration is still obliged to examine and evaluate it.

## CASE 16

### Policy design labs for temporary spaces in Lille (FR)



The European Metropole of Lille (MEL) counted more than 5000 vacant spaces, such as industrial wasteland, unused offices and unoccupied dwellings, and wanted to make temporary use possible, either by internal management or through a third party.

A working group on temporary use consisting of 20 civil servants and 4 designers looked for an operational organisation on this issue. They started an “**action-research**” process by pretending that a public policy

design lab was already operational and conducted several pilot projects as experiments, leading to the gradual design of an actual public policy lab structure.

During this process the working group also benefited from the experience of the URBACT REFILL network. The 10 cities included in this network developed a roadmap to temporary use. This roadmap has been used to establish a practice of temporary use in the city.

Source: URBACT, 2020.

The cities involved in the ESPON ENSURE project showed clear trends towards **public-private partnerships** or other forms of joint arrangement. One of the main reasons for this is the size, cost and complexity of waterfront and port city regeneration projects. The public-private partnerships in these projects are, for a large part, linked to land ownership. However, the role of private sector players differ from country to country and occur within different governance systems – centralised and decentralised. Another factor for public-private part-

nership are innovative private initiatives. **Start-up movements** have proved to be an important source of innovation, economic opportunities and potential for prosperity and competitiveness in a region or city. Following this trend, it can be promising to promote sustainability and circular economy innovations by supporting innovation incubators and accelerators that focus on sustainable solutions and businesses. Existing practices can offer examples to follow and lessons to the regions and cities that are planning their own start-up support programmes.



## CASE 17

## Public–private partnership in brownfield conversion in Plovdiv (BG)



In 2019, an idea was launched to harness the scientific potential of the city to replace decommissioned military production bases with a high-tech industrial park. This was done via a **public–private partnership** between the municipality, the state and the business sector.

The aim of the project is to rejuvenate the close ties between education, high tech and business by promoting culture as a driving force and creative industry, by initialising effective public–private partnerships for successful management of cultural resources and by creating conditions for ongoing education. In addition, the plan included

additional qualification of tourist and cultural managers and the use of best-practice strategies and models for applying for the European Capital of Culture. The technology park “Gladno Pole” seeks to provide a space for state-of-the-art achievements in agricultural technology and education.

The project promotes a sustainable (economic, environmental and social) transformation of an underdeveloped area of the city by fostering cultural entrepreneurship to tackle unemployment.

Source: ESPON SUPER, 2019.

**Voluntary agreements** between governments and industry actors can be an efficient way to complement the policy legislation in driving progress towards a circular economy. Voluntary agreements and initiatives are widely used in a number of Member States and are considered an excellent tool to involve different stakeholders. They go beyond legal obligations and address regulatory barriers

to projects/investments towards sustainability and encompasses energy-saving techniques, efficient water use, sustainable transport, alternative building materials and sustainable production systems in agriculture. Voluntary agreements can also be applied at a local or regional level.

## CASE 18

## Voluntary agreement and target in urban renewal in France (FR)



At the beginning of the 2000s, there was the need to rethink the French spatial planning system in view of new needs and economic circumstances. The French law on Urban Solidarity and Renewal (SRU) introduced in 2000 was based on planning coherence, urban solidarity, sustainable development and a better integration between land use and transport.

The law decentralised planning to local authorities. Each municipality was completely free to organise its urban development and create its own building rules. They were supported by local state services. Moreover, the law

established that **at least 20 % of all new dwellings** should be dedicated to social housing. Finally, to reduce the use of private transport and combat urban sprawl, the **law stimulated the coordination** of infrastructure planning and public transport.

The law was considered less successful in terms of public transport and decentralisation, but was considered useful for the development of social housing.

Source: ESPON SUPER, 2019.

Engagement of cities and **city networks** is an important tool to establish benchmarking practices and identify where individual cities stand in dealing with metropolitan development, the challenges they face and the best approaches to meet these challenges. Local authorities need to be effectively informed about the future opportunities to adapt successful examples of sustainable devel-

opment, service improvements or cost-effective practices. Sufficient resources, time and capacity are needed to conduct benchmarking reviews and develop comprehensive data and indices to measure the course of action of metropolitan development and the effectiveness of metropolitan governance.

## CASE 19

### URBACT network used as inspiration for urban regeneration in Heerlen (NL)



Heerlen was once a thriving centre for the coal mining industry, but suffered economically after the mines closed. In the last few decades, however, Heerlen has been proactive in promoting urban revitalisation, bringing various stakeholders together to work on improving the city's attractiveness.

Heerlen joined the **URBACT CityCentreDoctor Network** to transform ambition into action and stimulate greater civic participation. In 2016, the city set up an URBACT Local Group and conducted a thorough place analysis and resident survey, identifying the city's main challenges and aspirations. The municipality, together with local

stakeholders, developed 26 ambitions for change, including transforming vacant real estate for creative industries, redesigning city squares, enhancing greenery, restoring building facades, supporting street art, enabling year-round public events and investing in a "city lab". The URBACT Local Group was involved in executing the 26 ambitions.

Evaluations show that Heerlen's city centre has become greener and that more people are using public spaces.

Source: URBACT, 2019.

## 5 Policy recommendations

To increase the reuse of spaces and buildings and create a more sustainable urbanisation, the following considerations are recommended:

- Identify the most important public and private stakeholders and **involve citizens and relevant stakeholders** in a focused idea-generation process at an early stage. **Develop a long list of ideas** and set priorities on the background of a clear picture of the planning context.
- **Define opportunities, risks and constraints** to the future development and take a decision early on in the process to either keep industrial and urban functions separated or to mix them. **Map the land owners**, identify their specific interests in the regeneration and assess the implications for the timing of the regeneration.
- Involve architects and planners and ask for **alternative land-use plans**. Spend the necessary time and resources on the discussions and further improvements. Keep citizens and other stakeholders, including land owners and potential investors, actively involved in this phase.
- After drafting an integrated development vision and selecting a strategic plan, prepare an **outline time plan**.
- Decide what the roles and responsibilities are in the process of the various public and private stakeholders. Make it clear **who is managing and coordinating the process** and make sure that this role is placed at a sufficiently high organisational level with a certain access to the financial resources.
- Break down the overall plan and **define the individual projects of the plan**. Involve technical and economic specialists for a further design and for the assessment of the economic and financial viability of individual projects and for the whole plan.
- Make sure that the necessary **land and financial budgets** are available. Find out what the necessary contributions from other public bodies are and what may still be required from private investors. **Consider potential public-private partnership models** for the implementation and decide how the projects may be shared between public and private actors while keeping satisfactory economic as well as financial rates of return.
- **Monitor and evaluate regularly** the implementation on the background of visions and goals, if possible as an integrated part of existing planning processes. Adjust the plan when needed for an improved outcome, but keep an eye on the financial and economic viability of adjustments that might be negotiated and decided.

## 6

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