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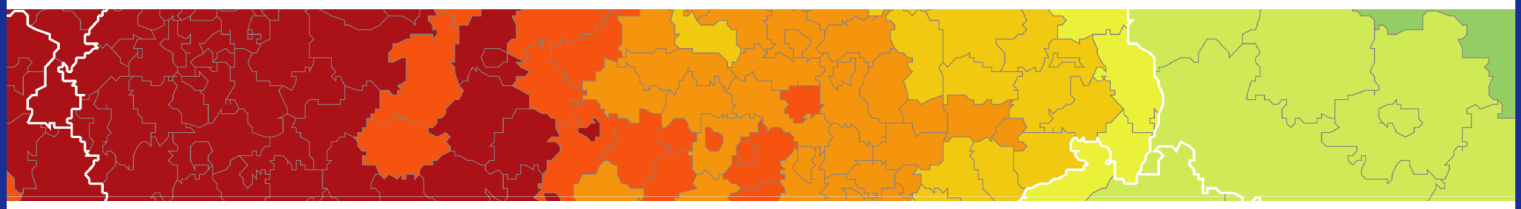

SUPER – Sustainable Urbanisation and Land Use Practices in European Regions

Applied Research

Annex 2 – Evidence on interventions

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Annex 2 – Evidence on interventions

SUPER – Sustainable Urbanisation and Land Use Practices in European Regions

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Abbreviations

AESOP	Association of European Schools of Planning
ARTS	ESPON Assessment of Regional and Territorial Sensitivity
BBSR	Bundesinstitut für Bau-, Stadt- und Raumforschung (Federal Institute for Research on Building, Urban Affairs and Spatial Development)
CEMAT	Council of Europe Conference of Ministers Responsible for Spatial/Regional Planning
CLC	Corine Land Cover
COMPASS	ESPON Comparative Analysis of Territorial Governance and Spatial Planning Systems in Europe
EC	European Commission
ECP	ESPON Contact Point
ECTP	European Council of Town Planners
EEA	European Environmental Agency
ERDF	European Regional Development Fund
ESPON	European Territorial Observatory Network
ESPON EGTC	ESPON European Grouping of Territorial Cooperation
EU-LUPA	ESPON European Land Use Patterns
EU	European Union
GVA	Gross Value Added
ISOCARP	International Society of City and Regional Planners
ITI	Integrated Territorial Investments
JRC	EU Joint Research Centre
LCC	(Corine) Land Cover Change
LUE	Land Use Efficiency
MCA	Multi-Criteria Assessment
NUTS	Nomenclature of Territorial Units for Statistics
PBL	Netherlands Environmental Assessment Agency
POLITO	Politecnico di Torino
PCG	Project Coordination Group
SCBA	Societal Cost Benefit Analysis
SDG	Sustainable Development Goal
SPIMA	ESPON Spatial Dynamics and Strategic Planning in Metropolitan Areas
SUPER	ESPON Sustainable Urbanization and Land Use Practices in European Regions
TANGO	ESPON Territorial Approaches for New Governance
TIA	Territorial Impact Assessment

1 Introduction

Suggestions abound on interventions to promote sustainable urbanisation and land use, as witnessed by myriad declarations and manifestos on good spatial planning practices. These ranges from the New Urbanism movement in North America to, in Europe, the European Spatial Development Perspective, the Territorial Agenda of the European Union, the Leipzig Charter on Sustainable Cities, the Charter of European Planning among many others. Many of these suggestions are theoretical, rather than based on actual practice.

In order to give account of the variety of ways in which territorial governance and spatial planning in Europe affect urbanisation and land use, the SUPER project carried out a survey of interventions in 39 European countries.[1] As many as 235 interventions were collected, analysed and then assessed in relation to their level of success. In addition, data was collected on the impacts of EU policies, which affect land use.

After this brief introduction, this document presents the methodology behind data collection and a preliminary classification of the collected interventions (Section 2), to then reflect on their level of success and on the main drivers that contributed to determine the latter (Section 3). A last section focuses on the EU level, and in particular on the impact of the different types of policies and documents produced at the EU level on sustainable urbanisation and land use (Section 4).

[1] The survey concerned interventions from the 28 EU Member States, the 4 Non-Member States that participate to the ESPON 2020 Programme (Iceland, Liechtenstein, Norway and Switzerland), the candidate and potential candidate Countries of the Western Balkan Region (Albania, Bosnia and Herzegovina, Kosovo, Macedonia, Montenegro and Serbia) and Turkey.

2 Methodology for the collection and classification of the interventions

Any intervention influencing the distribution of development and land-use rights potentially falls into the scope of this surveying activity. Four methods of data collection were employed (1) inputs provided directly by the SUPER consortium partners, (2) an analysis of the ESPON COMPASS project reports, (3) the development and distribution of an online questionnaire and (4) literature review and targeted searching. The third method provided the highest number of results, while the fourth one was used to fill the gaps in the obtained database. Importantly, the database underwent a quality control phase and was then fine-tuned and improved accordingly.

More in detail, the preliminary step concerned the provision of direct inputs by the SUPER consortium partners, and partially overlapped with the individuation of the project in-depth case studies. Each of the eight team composing the project consortium was required to identify between five and ten interventions that could have constituted potential case study for the project. This process allowed for the collection of 48 interventions that constituted the first entries of the database.

With respect to the analysis of the ESPON COMPASS project reports, this was carried out by searching the Phase II Country Questionnaires developed by the project experts for potential interventions affecting urbanisation or land-use using the following keywords: urban, sustainable, containment, sprawl. Because Volume 4 of the report contains examples of specific interventions, the above search method was supplemented by a reading of each 'illustrative example' to see if it was suitable for inclusion in the SUPER database of interventions. This entire exercise resulted in the identification of only 5 examples, mainly because examples cited in the ESPON COMPASS project were collected following a different rationale and, even in the cases when they could have fit the scope, they were often too recent to be appropriate for an analysis of impacts.

In order to collect more relevant examples of interventions all around Europe, the research team designed, distributed and analysed an online questionnaire. This was launched on 14 March 2019 and circulated throughout a number of channels, in order to ensure that experts from all the countries that compose the ESPON space were reached, as well as experts from the EU Candidate Countries (i.e. Albania, North Macedonia, Montenegro, Serbia and Turkey) and the other countries of the Western Balkans (i.e. Bosnia and Herzegovina and Kosovo under UN Security Council Resolution 1244). In particular, the survey reached out to the ESPON Contact points and Monitoring Committee Members, and to the members of a number of academic and professional associations: the Association of European Schools of Planning (AESOP), the European Council of Spatial Planners (ECTP-CEU); the International Society of Cities and Regional Planners (ISOCARP). Moreover, it was circulated through a number of expert channels, as ResearchGate and the ESPON and AESOP newsletter. The questionnaire has been prepared on the shareware platform Lime Survey and hosted on a

PBL server. To facilitate interviewees, the survey provided the following working definition of sustainable urbanisation:

“Sustainable land use means using and managing land assets in a way that does not compromise the livelihood of future generations. It implies a balanced consideration of social, economic, and environmental goods and services provided by the land uses in a certain region. It also implies a careful consideration of long-term attributes of resilience and robustness of the underlying ecosystem.” The survey consisted in a series of questions (general or more specific) and invited interviewees to make examples and provide additional suggestions.

The list of questions of the online survey is available in Box 1.

Box 1: Questions included in the online survey

1. In which country do you work?
2. In which sector do you (mainly) work?

On this basis, respondents were asked to answer the following questions:

3. We'd like to know if you think urbanisation and land use in your country has become more or less sustainable **(1 = much less sustainable, 5 = much more sustainable).** Please explain why.
4. We want to learn about interventions (from territorial governance and spatial planning) that affect urbanisation and land-use, for example policies, regulations, subsidies or strategies. These can be at the national or regional but also at the local level. The effects could be intentional or unintentional and could lead to sustainable or unsustainable outcomes. Could you provide some examples of these? Please include the name, the location, a short description and your assessment of its success (max. 3 examples).
5. What do you consider to be the most important impediment(s) to sustainable urbanisation and land-use in your country? Please, briefly motivate your answer. Respondents could choose between: (i) lack of political will and/or declared policy aims in this direction; (ii) scarce effectiveness of the existing territorial governance and/or spatial planning instruments; (iii) other issues (e.g. corruption, lack of resources, lack of knowledge and data etc.).

The most important part of the survey was to request examples for further research.

6. Do you have any additional suggestion for our research team? (e.g. good sources or case studies to look into, or some additional insight from your region)

This survey generated a little over 160 responses that were then compiled into a preliminary joint list with those deriving from the project partners’ experience and from the analysis of the ESPON COMPASS report. The quality of the list was checked a first time for overlaps and misfit elements, leading to a reduction of the total number of entries to 185.

The obtained list was then complemented by all members of the research team through target searching activity, that allowed to fill in the remaining gaps in countries at stake. At the same time, a thorough literature was performed, in order to screen the most relevant academic contributions on the matter and identify additional pivotal examples. The combination of these

two activities resulted in the inclusion into the list of 42 additional interventions, for a total of 227 interventions that, in one way or another, affect land use and thus influence its sustainability in one or more countries in Europe.

Each of the collected interventions was further explored by reviewing available online documentation, and all this information was systematically compiled into an intervention database. Each intervention was described using the following fields:

- **Basic information**: (1) Name of the intervention, (2) Year (or time frame), (3) Location, (4) Country, (5) Scale (on the basis of NUTS classification), (6) Type(s) of EU territory involved (Urban, Rural, Functional area, Costal area, Mountain region, Peripheral border, Cross-border, scarcely populated, Other), (7) Urban typology (if urban: Monocentric, Polycentric, Dispersed, Linear, Coastal);
- **Characteristics**: (1) Intervention inspired by the EU (Yes/No), (2) Type of intervention (Densification; Containment; Regeneration of unused/problematic sites; Governance; Sectoral Policy – Transport; Sectoral Policy – Environment; Sectoral Policy – Rural development; Side effects) (3) Type of instrument (Legal device, Land-use regulation, Strategy, Programme, Project), (4) Status (Statutory and mandatory, Statutory and non-mandatory, Non-statutory), (5) Level of coercion (Non-binding; Self-binding; Binding for public actors; Binding for all actors);
- **Effects**: (1) Side effect or direct impact, (2) Description (in terms of scope and goals), (3) Description (in terms of how it works), (4) Degree of success – according to the goal of the intervention, (5) Degree of success with respect to sustainable urbanisation (6) Temporal sustainability: does the intervention prevent economic, social or environmental costs from being passed on to future generations? (7) Thematic sustainability: does the intervention advance values in the economic, social or environmental dimension without sacrificing those in other dimensions? (8) Institutional sustainability: is the intervention financially and politically sustainable over time? (9) Implementation quality – with respect to traditional evaluation criteria (is the intervention efficient – extent to which resources are well-spent, effective - extent to which goals were achieved, and relevant - for identified needs and problems?).

The list was submitted as an annex to the project Interim report in November 2019. Following the comments received by the member of the ESPON MC and PST, three additional, complementary activities were undertaken. First, the database underwent a thorough quality control process, that allowed (i) to spot and eliminate scarcely relevant entries (for a total of 34) and (ii) to fill and/or complete the information gaps that still characterised the database. Moreover, selected members of the ESPON Monitoring Committee and Contact Point were contacted with the request to indicate additional interventions, for those countries that were underrepresented in the sample. Finally, an additional targeted screening of the literature was

performed, in relation to these countries. These two last activities allowed for the individuation of 10 and 31 new interventions respectively that, together with the additional Case study focusing on the Swiss context and commissioned in the context of the ESPON SUPER spin-off, were compiled into the quality-enhanced database, for a total of 235 interventions (See Annex 2a: Interventions' database).

The interventions' sample concerns a high heterogeneity of countries. Whereas the 235 interventions concern all the 39 countries under scrutiny, their distribution is quantitatively uneven, with a prevalence of interventions located in some of the countries where the consortium partners are located (Table 2.1). Moreover, due to the adopted methodology, it was not possible to take into account territorial site-specific development paths (i.e. urbanisation growing areas, shrinking territories etc.) in the collection of interventions.

Table 2.1: Geographical distribution of Interventions per country (source: authors).

Code	Country	Interventions	Total Interventions per country
AL	Albania		2
AT	Austria		13
BA	Bosnia Herzegovina		2
BE	Belgium		4
BG	Bulgaria		11
CH	Switzerland		12
CY	Cyprus		1
CZ	Czech Republic		6
DE	Germany		17
DK	Denmark		6
EE	Estonia		2
EL	Greece		4
ES	Spain		11
FI	Finland		5
FR	France		7
HR	Croatia		7
HU	Hungary		3
IE	Ireland		3
IS	Iceland		1
IT	Italy		23
LI	Liechtenstein		2
LT	Lithuania		2
LU	Luxembourg		6
LV	Latvia		2
ME	Montenegro		2
MK	North Macedonia		3
MT	Malta		3
NL	The Netherlands		16
NO	Norway		3
PL	Poland		12
PT	Portugal		4
RO	Romania		4
RS	Serbia		2
SE	Sweden		9
SI	Slovenia		2
SK	Slovakia		6
TR	Turkey		4
UK	United Kingdom		11
XK	Kosovo		2
Total			**235**

As shown in table 2.2 the identified sample is rather heterogeneous in relation to the different variables adopted for the analysis (i.e. scale of interests, type of territory, type of interventions and type of instrument. Finally, for each category of the chosen variable, the interventions show varying degrees of success (Table 2.3).

Table 2.2: Number of interventions per analytical category (source: authors).

Scale of interest			Type of territory			Type of intervention			Type of instrument		
Type	**n.**		**Type**	**n.**		**Type**	**n.**		**Type**	**n.**	
NUTS0	112		Urban	141		Densification	33		Legal device	75	
NUTS1	9		Rural	69		Containment	72		Land use regulation	45	
NUTS2	23		Functional	33		Regeneration	32		Strategy	58	
NUTS3	39		Coastal	16		Governance	57		Program and subsidy	23	
LAU1	39		Mountain	12		Spatial quality	25		Project	40	
LAU2	35		Peripheral	29		Transport	11				
Other	2		Cross-border	14		Environment	14		Other	1	
			Scarcely populated	17		Rural development	4				
			Other (national)	60		Other	11				
Total	**259***		**Total**	**391***		**Total**	**259***		**Total**	**242***	

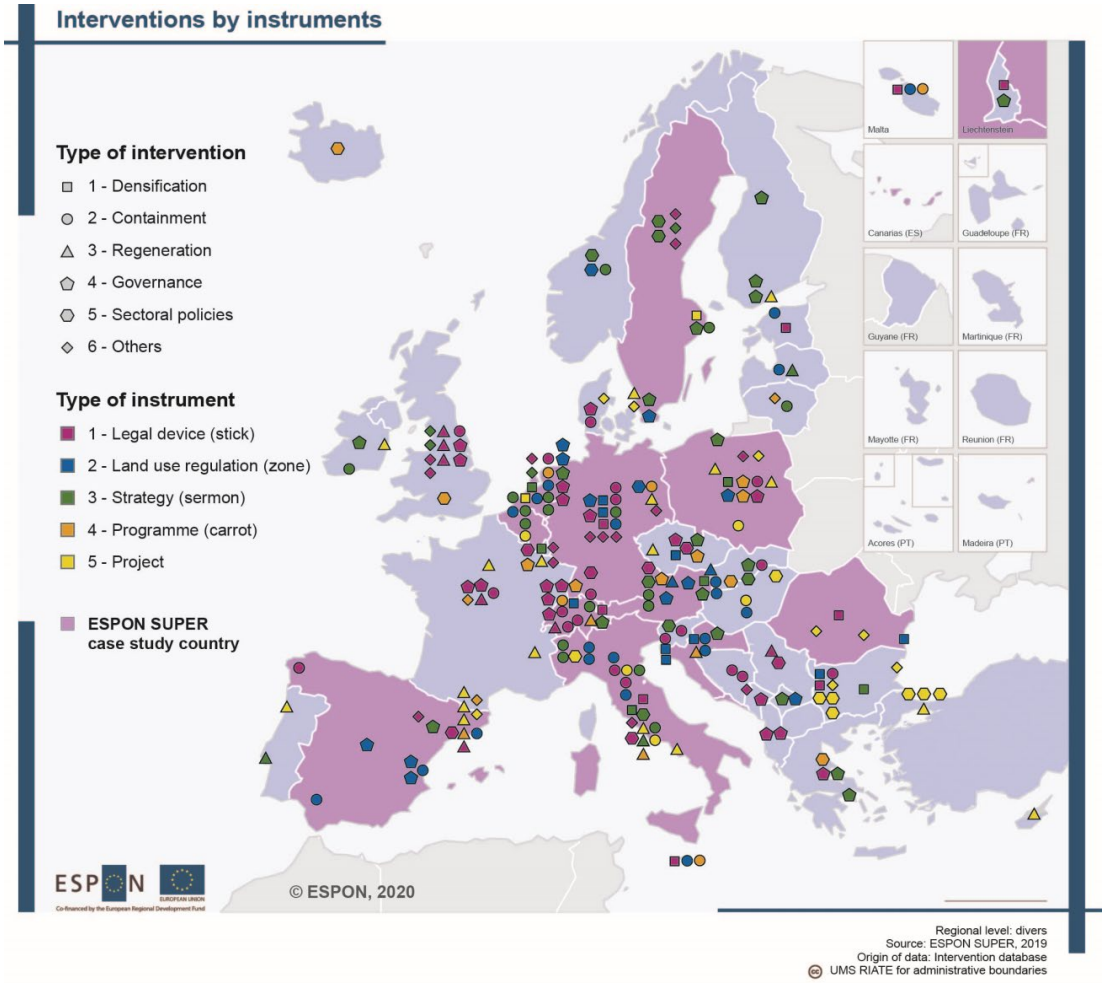
*The total interventions varies because each intervention may be classified in more than one category.

Table 2.3: Degree of success of the interventions for analytical category (source: authors).

Type		**Degree of Success**					
		1	**2**	**3**	**4**	**5**	**n.a.**
Scale of interest	NUTS0	9	6	36	29	14	18
	NUTS1	0	1	3	2	2	1
	NUTS2	3	0	9	9	1	1
	NUTS3	3	1	8	11	9	7
	LAU1	3	2	16	6	8	4
	LAU2	4	3	8	9	9	2
	Other	0	0	2	0	0	0
Type of territory	Urban	6	8	53	33	20	21
	Rural	4	3	23	25	9	5
	Functional	1	2	13	9	5	3
	Coastal	2	1	2	7	2	2
	Mountain	3	0	5	2	1	1
	Peripheral	2	4	9	9	2	3
	Cross-border	1	0	7	5	0	1
	Scarcely populated	2	2	4	6	2	1
	Other (nation/region)	8	1	18	15	12	6
Type of intervention	Densification	2	0	11	12	6	2
	Containment	4	5	20	24	12	7
	Regeneration	1	2	7	9	9	4
	Governance	2	1	29	11	5	9
	Spatial quality	4	2	7	6	1	5
	Transport	0	0	4	2	3	2
	Environment	3	0	2	6	2	1
	Rural development	0	0	0	2	2	0
	Other	5	1	3	1	1	0
Type of instrument	Legal device	7	3	27	19	9	10
	Land use regulation	4	1	18	12	5	5
	Strategy	2	1	20	19	10	6
	Programme and subsidy	1	3	5	8	4	2
	Project	6	2	9	7	9	7
	Other	0	0	0	0	0	1

Finally, the interventions have been mapped out, showing not only the geographic distribution but also the type and instrument sort. The case study regions are also indicated.

Map 2.1 Interventions collected and analysed in the SUPER project



3 Assessment of interventions

3.1 Introduction and disclaimer

The analysis of interventions focused on the identification of factors that influenced implementation and the level of success according to sustainable land use goals (SLU). The factors which finally emerged are extremely broad in scope since the analysed interventions were very diverse (using different tools and approaches) and because they were designed and implemented in various national, regional or local contexts. What should be stressed is the relative nature of the factors' impact. The same factor in different types of interventions, legal and cultural contexts, or in different types of territories (e.g. areas of different level of urbanisation) might have a completely different impact or may work in a different way. The results of the analysis should therefore not be treated as straightforward recommendations or recipes for successful sustainable land use interventions, but rather as an inspiration based on experiences elsewhere in Europe.

The analysis was based on the information contained in the SUPER intervention database. Much of this information was based on desk research and the online questionnaire, but some was derived from the SUPER case studies. The detailed analysis of the case studies enabled all or almost all factors affecting interventions' implementation and success to be identified. For the interventions that were not analysed through case study field research, it is possible that not all factors could be identified. Additionally, for newer interventions it is also possible that not all factors could be identified since some aspects (like negative side-effects) had not yet become manifest.

3.2 Methodology

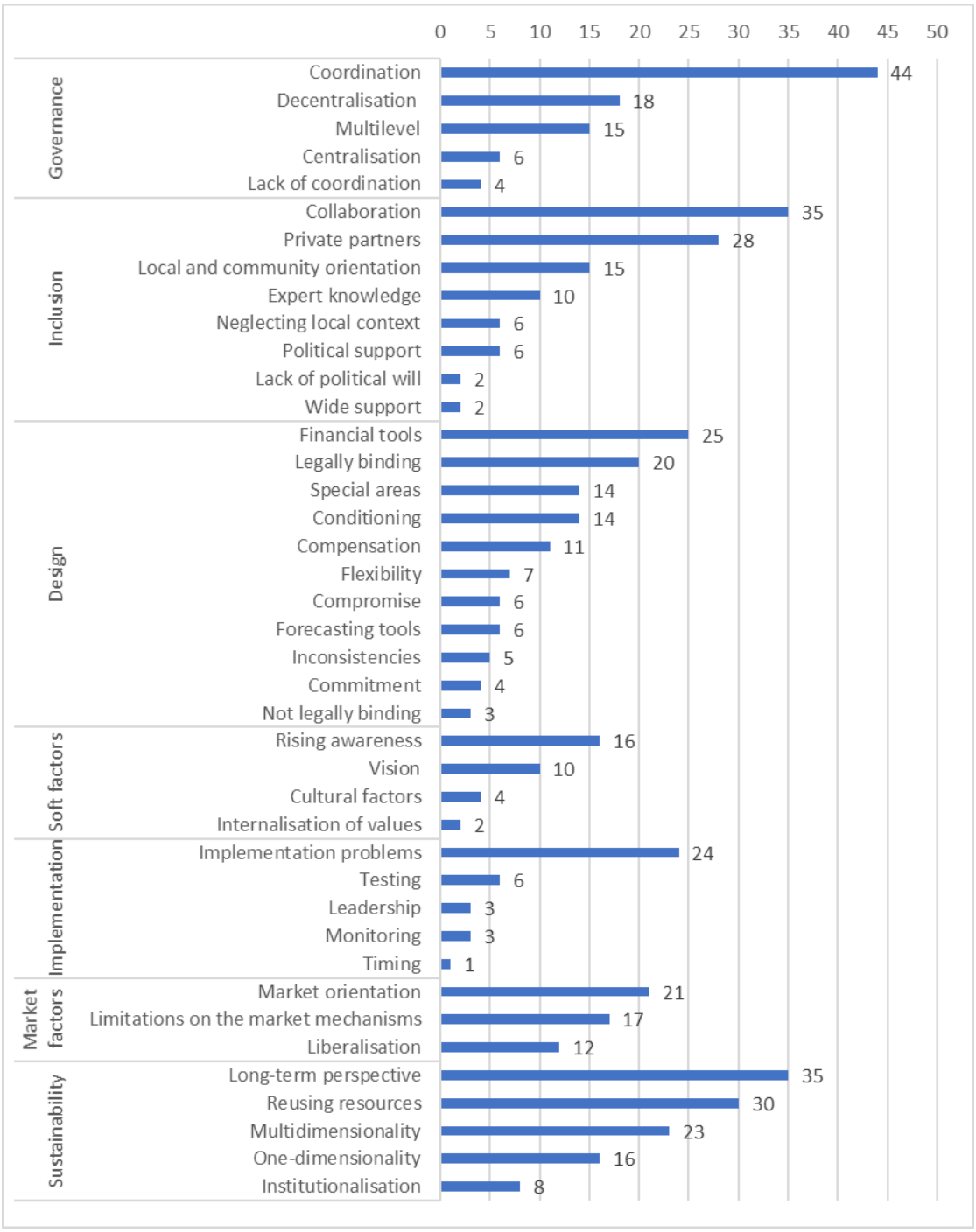
The analysis was performed using qualitative analysis software, which allows codes to be applied to text, which can then be analysed using more quantitative methods. The approach adopted in the process of identification of factors was a bottom-up inductive method in which, based on the information gathered in the database, factors important for the success and implementation of each intervention were identified and subsequently grouped into broader categories. The analysis was therefore not based on any preliminary assumptions about success but directly drawn from the gathered data.

As a result of the analysis, 41 factors were identified. They were grouped in seven broader categories (Table 3.1). Five factors can be described as the opposites of other factors (shown in italics in Table 3.4). In the descriptive part of the analysis, these pairs of factors were described together but in the quantitative analysis they were treated separately since they influenced the success of interventions in the opposite direction (i.e. one increases and the other decreases success). Factors varied in terms of the number of interventions in which they were identified – ranging from one (timing) to 44 (coordination) (Figure 3.1).

Table 3.4: List of factors of interventions' success and failure (source: authors).

Factor group	Factor
Governance	Centralisation
	Coordination
	Lack of coordination
	Decentralisation
	Multilevel
Inclusion	Collaboration
	Expert knowledge
	Local context and community
	Neglecting local context
	Political will / support
	Lack of political will
	Private partners
	Wide support
Design	Commitment
	Compensation
	Compromise
	Conditioning
	Financial tools
	Flexibility
	Forecasting tools
	Inconsistencies
	Legally binding
	Not legally binding
	Special areas
Soft factors	Cultural factors
	Values
	Rising awareness
	Vision
Implementation	Implementation problems
	Leadership
	Monitoring
	Testing
	Timing
Market factors	Liberalisation
	Limitations on the market
	Market orientation
Sustainability	Institutionalisation Long-term perspective
	Multidimensionality
	One-dimensionality
	Reusing resources

Figure 3.1: Number of interventions by factor (source: authors).



3.3 Description of factors

This section contains descriptions of all the factors as well as the co-occurrence regularities (the degree to which the appearance of one factor coincided with the appearance of another). It also notes the interventions for which a specific factor was identified (i.e. as a success/failure factor or important for implementation). The number of interventions in which a specific factor was identified is provided in brackets. Interventions indicated as positive examples and warnings are those which have an unambiguous assessment of success according to SLU goals, that is all but those identified as mixed successes.

3.3.1 Governance

Centralisation (5)

- When there is a risk that decentralised system may lead to neglecting one of the SLU aspects (most probably environmental) a common solution is to centralise some of the decisions, usually in the area of spatial planning. Centralisation also inhibits diversification in terms of following the SLU principles depending on the awareness, wealth, and political goals of particular regions/municipalities. This approach may have also negative consequences when local needs and circumstances are neglected by central authorities. In some cases, especially in countries with less experience in SLU interventions, a centralised approach may be related with market orientation thus supporting economic development at the expense of social and environmental aspects.
- The factor occurred more often with: neglecting local context, market orientation
- Positive example: Urban growth boundaries in the Netherlands (NL)
- Warning: "Lex specialis" on the Belgrade waterfront project (RS)

Coordination (44) / Lack of coordination (4)

- Coordination of actions related to achieving SLU goals is in many cases crucial since natural resources and processes do not follow administrative boundaries, both in vertical and territorial terms. Coordination is usually introduced among local authorities of the same level or in the multilevel approach when it is directly related with collaboration and political will. It is especially important in the suburban zone (as a way of limiting urban sprawl and land consumption) and in the area of spatial planning. This factor can also be identified as a coordination of various policies, not necessarily directly related with SLU, in order to avoid situation when SLU goals are supported by some policies and, at the same time, are hindered by others. A formal type of coordination may be institutionalisation, when actions of various actors are coordinated by a special institution or person.
- The factor occurred more often with: coordination – culture, expert knowledge, institutionalisation, multilevel, political will, timing, not legally binding, collaboration; lack

of coordination – institutionalisation, leadership, multilevel, political will, lack of political will, wide support, commitment.

- Positive examples: Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT), Kooperationsplattform Stadtregion (Cooperation platform of an urban region) (AT), Vision Rheintal (Vorarlberg) (AT), Swiss Agglomeration Programmes (CH), 22@Barcelona (SP), Physical Enviroment Special Plan Protection (Andalucia Region) (SP), Galician Coastal Managment Plan (SP), Government - municipality urban agreements on land use, housing and transport (FI), Caserne de Bonne (FR), Afforestation project (HU), The Environmental Code (no. 152/2006) (IT), Revitalisation of areas in Latvia (LV), The zero-growth goal for car traffic (NO), Agreements for Sustainable Transport (and Land Use in Urban Areas) (NO), Tri-City metropolitan area planning (PL), Miasteczko Wilanów (PL), Regeneration policies of urban renaissance in the 2000s (UK), Zones de développement éolien ingevoerd (ZDE) (FR), Urban growth boundaries in the Netherlands (NL), Urban transformations and modalities of integrated planning (SE), Integrated policy planning in Antwerp & Flemish decree on spatial planning (BE), Stockholm Urban Containment Strategy (SE), Integrated Territorial Investments (ITI) (PL)
- Warnings (Factor: Lack of coordination): Conventions of territorial cooperation between the State and municipalities (LU), Flood management system along the Tisza River (HU), Pat Huerta De Valencia (SP), 30 Ha Goal (DE)

Decentralisation (18)

- Although decentralisation allows one to take into consideration the local context, circumstances and needs and to flexibly adjust to them, as well as increase a local sense of responsibility for achieving SLU goals, it can result in loosening development standards and thus become a form of deregulation/liberalisation. In specific political cultures, where SLU goals do not have political support among local authorities or aren't reflected in internal values, it may lead to corruption and scarifying environmental and social goals for economic aims and profits. In some cases, if the solutions are not mandatory for the local governments, not all municipalities may introduce a specific tool.
- The factor occurred more often with: flexibility, liberalisation, lack of political will, values, not legally binding, culture
- Positive examples: Dezoning urban functions via imposed land-use plan (NL), Red for green: 'contour policy', Central government policy guidelines for Coordinated Land Use and Transport Planning, Planning doctrine in Sweden, Building Law from 2009, Gestaltungs- und Überbauungspläne (Art. 21 – Art. 31), Integrated policy planning in Antwerp & Flemish decree on spatial planning (BE), Land readjustment (Perequação) (PT), Integrated Territorial Investments (ITI) (PL)

- Warnings: Deregulation of the Planning Act (DK), Law of Solidarity and Urban Renewal (NL), Agglomerations Programm Werdenberg-Liechtenstein (LI), Abolition of buffer zone in the Netherlands (NL), Compact city policy (Vinex) in polycentric region (NL), Spatial planning act from 2003 (PL), Sustainable Urban Mobility Plans (SUMP) (SI), Local ecological system of territorial stability (ÚZES) (SK).

Engagement of multiple levels (15)

- The contradiction between centralisation and decentralisation may be to some extent overcome by multilevel approach in which public authorities from different spatial levels (national, regional, and local) collaborate and coordinate their actions. The higher level provides usually more strategic approach, aimed at environmental goals, while lower level brings more operational and community oriented perspective.
- The factor occurred more often with: collaboration, commitment, compromise, (lack of) coordination, culture, expert knowledge, political will, timing, institutionalisation.
- Positive examples: Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT), Kooperationsplattform Stadtregion (Cooperation platform of an urban region) (AT), City-regional cooperations in Austria (AT), Galician Coastal Managment Plan (SP), Government - municipality urban agreements on land use, housing and transport (FI), Vision Rheintal (Vorarlberg) (AT), Land readjustment ("remembrement urbain") (LU), Urban growth boundaries in the Netherlands (NL), Urban transformations and modalities of integrated planning (SE), Stockholm Urban Containment Strategy (SE).
- Warning: Conventions of territorial cooperation between the State and municipalities (LU).

3.3.2 Inclusion

Collaboration (35)

- Collaboration relates to various combinations of actors – between private and public organisations and institutions, between public authorities at various spatial and administrative levels (multilevel approach), between public organisations and citizens (in the form of public participation) as well as with experts. In general, collaboration provides: wider support for specific actions and strategies, sense of responsibility for achieving SLU goals among various actors (based on their involvement and commitment), taking into consideration wider range of circumstances and factors delivered to the project by various actors, easier coordination of actions and achieving SLU goals that usually require activities crossing administrative borders. On the other hand, joint work in order to achieve SLU goals may support collaboration between actors that previously did not cooperate and it might be seen as a side effect of SLU projects and programmes. In the collaboration process, especially when it takes the form of public participation, an important factor is the appropriate and professional management of the

process so that no one feels excluded or neglected and participants understand the data, their role and the process itself. It has to be stressed that broad collaboration (and participation) is not suitable in the implementation phase when narrower and more task-oriented are called for. Collaboration is especially valuable for defining visions/goals.

- The factor occurred more often with: commitment, coordination, institutionalisation, long-term perspective, multilevel, political will, private partners, timing, vision, not legally binding.
- Positive examples: Kooperationsplattform Stadtregion (Cooperation platform of an urban region) (AT), Plan STEP 2005 in Vienna (AT), City-regional cooperations in Austria (AT), Vision Rheintal (Vorarlberg) (AT), A Bicycle-Rollerblading Line. A Factor of a Healthy and Clean Environment (BG), Swiss Agglomeration Programmes (CH), Government - municipality urban agreements on land use, housing and transport (FIN), Bjelovar-Bilogora County's Development Strategy (HR), ALPARC strategic plan (IT), The 2015 National Strategy for Climate change adaptation (IT), Tri-City metropolitan area planning (PL), 30 Ha Goal (DE), Land readjustment ("remembrement urbain") (LU), Urban transformations and modalities of integrated planning (SE), South Harbour (Sydhavn), Copenhagen waterfront/brown field urban re-development (DK), Revitalisation of areas in Latvia (LV), Sustainable urbanisation procedure (NL), Physical Environment Special Plan Protection (Andalucia Region) (SP), Integrated policy planning in Antwerp & Flemish decree on spatial planning (BE), Land readjustment (Perequação) (PT), Stockholm Urban Containment Strategy (SE), Integrated Territorial Investments (ITI) (PL).
- Warning: not identified.

Expert knowledge (10)

- Related to collaboration, experts are involved in designing policies and interventions. They may be experts in planning, environment protections, engineering, flood prevention and so on. Expert knowledge can also take the form of data used in the intervention design phase. Lack of proper data or their inappropriate usage may result in ineffective and inconsistent interventions.
- The factor occurred more often with: inconsistencies, local context and community, long-term perspective, multilevel, timing, vision, commitment, coordination.
- Positive examples: Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT), Vision Rheintal (Vorarlberg) (AT), Galician Coastal Management Plan (SP), The 2015 National Strategy for Climate change adaptation (IT), Bologna BLUE AP 2015 (IT), Gründachstadt Linz (roof greening of the city of Linz) (AT), Protected Coastal Area within the Physical Planning Act (HR), Stockholm Urban Containment Strategy (SE).
- Warning: not identified.

Local context and community (14) / Neglecting local context (6)

- Usually this approach is visible in collaborative projects where local communities are involved in project design and implementation. It allows to increase their awareness of the importance of the SLU goals as well as create sense of responsibility for their local environment. Since it also allows local needs to be incorporated into the project/policy design, this also address the social component of SLU. This orientation is in line with the 'tailor-made' and 'place-based' approaches. It is also suitable for pilot interventions where involvement of the local community may be an opportunity to identify weaknesses in the intervention. Excessive centralisation may lead to a situation when local circumstances and factors are neglected. This may be the case when the intervention is in line with SLU goals (economic and environmental) but is trying to achieve them without taking the local context into consideration.
- The factor occurred more often with: local context and community – not legally binding, expert knowledge, testing; neglecting local context – centralisation, market orientation, one-dimensional, lack of political will.
- Positive examples: ParckFarm (BE), Spatial Planning Act in Denmark (DK), Quality Management in Sheep Farming (IS), Community-led regeneration in Casoria (IT), Bologna BLUE AP 2015 (IT), Peripheral retail (PDV) policy (NL), PPG6 (UK), The Urban Mobility Plan of Barcelona (SP), Building Law from 2009, Gestaltungs- und Überbauungspläne (Art. 21 – Art. 31) (LI), Galician Coastal Management Plan (SP), *Piano Periferie 1 and 2* (IT).
- Warnings: Nessebar and Sunny beach seaside development (BG), Bansko ski development (BG), "Lex specialis" on the Belgrade waterfront project (RS) Quantitative housing targets in UK (UK), Lower Austrian spatial planning ordinance for wind energy utilisation (SekROP Wind) (AT).

Political will, support (6) / Lack of political will (2)

- Political support is a desired factor at all levels of designing, planning, and implementing the intervention. Due to a long-term timeframe of the SLU interventions, in the context of changing political configurations, it is necessary to create the support for the intervention and its idea not only among the ruling party/ties but also opposition, preferably at all administrative levels. Political will is also an important factor of building and promoting strategic, long-term partnerships and commitments as well as vision implemented by the intervention. When interventions are implemented in a decentralised approach, lack of political will or support may appear only in some territories/regions.
- The factor occurred more often with: political will – collaboration, commitment, compromise, coordination, lack of coordination, wide support, institutionalisation, leadership, multilevel; lack of political will – lack of coordination, decentralisation, wide support, leadership, neglecting local context.

- Positive examples: Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT), Regeneration of part of the Taht-el-Kale Quarter (CY), Sustainable urbanisation procedure (NL), Pat Huerta De Valencia (SP).
- Warnings: Sustainable Urban Mobility Plans (SUMP) (SI).

Private partners (28)

- Inclusion of private partners in projects is a form of multi-sectoral collaboration. It may take a form of a partnership in which public and private partners are responsible for different aspects of the project. In this situation, the public partner usually ensures compliance with SLU goals while the private partner is responsible for the implementation/operational part of the project. This is a relatively popular model in revitalisation projects. Collaboration with private partners can also be seen in interventions aimed at the protection or restoration of agriculture as a form of economic activity. Inclusion of private partners may increase implementation effectiveness and build support for the intervention's aims among private actors. By their inclusion in the project, private parties may feel that their voice is heard, which can make them feel they have a stake in the intervention's success. On the other hand, since private partners are usually focused primarily (or exclusively) on profits, their inclusion may lead to neglecting environmental and social aims.
- The factor occurred more often with: collaboration, reusing resources.
- Positive examples: Plan STEP 2005 in Vienna (AT), South Harbour (Sydhavn), Copenhagen waterfront/brown field urban re-development (DK), Quality Management in Sheep Farming (IS), Community-led regeneration in Casoria (IT), Municipal Operative Plan (IT), Revitalisation of areas in Latvia (LV), Integrated Coastal Zone Management in Malta (MT) Áreas de Reabilitação Urbana – ARU (PT), Planning new eco-district (Royal Seaport) in Stockholm and its relation to municipal planning in general (SE), Land readjustment in Germany (DE), Land readjustment ("remembrement urbain") (LU), Urban transformations and modalities of integrated planning (SE), 22@Barcelona (AT), Land readjustment (Perequação) (PT).
- Warnings: Urban Development Project of Hyllie (SE), Buy House, buy Apartment (MK), Compact city policy (Vinex) in polycentric region (NL), Lex specialis on the Belgrade waterfront project (RS).

Wide support (2)

- Despite the important role of the leadership, an individual cannot act effectively in such a complex and broad area as SLU goals. Broad support, not only from public institutions but also private actors and civic-society organisations and the public can be essential in overcoming difficulties, obstacles, and delays in the intervention's implementation. On the other hand, lack of or insufficient participation process may reduce stakeholder

involvement, support, and sense of responsibility and thus limit the intervention's success.

- The factor occurred more often with: lack of coordination, institutionalisation, leadership, political will, lack of political will.
- Examples (Interventions of mixed success in terms of SLU goals): Municipal Structural Plan of the Union of Municipalities of Bassa Romagna (IT), Pat Huerta De Valencia (SP).

3.3.3 Design

Commitment (4)

- Due to the multidimensional character of SLU goals as well as their long-term time perspective, some form of commitment (e.g. municipalities commit to achieve a specific value of an indicator) can be necessary. If the intervention does not use legally binding tools it is important to promote a vision related to the intervention's goals and seek political support at various administrative levels.
- The factor occurred more often with: expert knowledge, institutionalisation, multilevel, political will, timing, vision, collaboration.
- Positive example: "Vision Rheintal" (Vorarlberg) (AT).
- Warning: Land readjustment in the Netherlands (NL).

Compensation (11)

- Compensation often seek to build a sense of responsibility among those who want to consume natural resources and, on the other hand, discourage such consumption. There are broadly two compensation types: through financial compensation if consumed natural resources are monetised, and through compensation in kind such as investments in green areas or green infrastructure. Sometimes compensation is too simplistically applied such as when the quality of the new green areas/infrastructure is neglected (Green Area Factor in Sweden). Constant monitoring can help avoid such a situation.
- The factor occurred more often with: monitoring.
- Positive examples: Referendum to limit land take in Switzerland (CH), Eco-account system (National Nature Conservation Act) (DE), Ecopoints compensation system (Ökopunkte System) (LU), Kooperationsplattform Stadtregion (Cooperation platform of an urban region) (AT), Dezoning urban functions via imposed land-use plan (NL).
- Warnings: Maintenance if biological activity value (HU), Green Area Factor in Sweden (SE), Ecological compensation in the Netherlands (NL).

Compromise (6)

- Compromise is usually present when the intervention tries to limit market forces but falls short of its environmental or social aims to accommodate private parties. This approach

may be related with compensation mechanisms and building consensus among different stakeholders.

- The factor occurred more often with: multilevel, multidimensional, political will.
- Positive examples: Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT), Kooperationsplattform Stadtregion (Cooperation platform of an urban region) (AT), General Development Plan of the City of Stara Zagora and its Adjacent Territories (BG).
- Warnings: not identified.

Conditioning (13)

- Conditioning can be seen as a form of compromise when development is not banned but limited and subject to conditions (usually to be met by private developers) via legal obligations. The conditions may relate to, for example, which land can be developed, what forms of development are allowed, what kind of compensation mechanisms must be applied and providing appropriate justification for the need of new development.
- The factor occurred more often with: market burden, special areas, legally binding.
- Positive examples: Referendum to limit land take in Switzerland (CH), The Weber Law in Switzerland (CH), Formal nature protections law and areas in Germany (DE), Physical Planning Act in Croatia (HR), Fiscal taxation in Italy (IT), Sustainable urbanisation procedure (NL), Building Law from 2009, Gestaltungs- und Überbauungspläne (Art. 21 – Art. 31) (LI), Construction fee in Emilia Romagna Region (IT).
- Warnings: not identified.

Financial tools (24)

- Financial tools may take two main forms: charges and fees - discouraging from specific activities or limiting their scale (also in the form of compensation), and incentives - in the form of subsidies. The latter can be funded for a specific environmental programme or subsidies aimed at e.g. increasing the purchasing power of vulnerable households on the housing market.
- Positive examples: Swiss Agglomeration Programmes (CH), EU structural funds in Czech Republic (CZ), Reference land values in Germany (DE), Zero Net Artificialisation in France (FR), Reference land values in Sweden (SE), Gründachstadt Linz (roof greening of the city of Linz) (AT), Land readjustment (Perequação) (PT), Integrated Territorial Investments (ITI) (PL), Construction fee in Emilia Romagna Region (IT).
- Warnings: Land Value Tax in Estonia (EE), Fiscal taxation in Italy (IT), Support for young families for housing outside metropolitan cities (LT), Buy House, buy Apartment (MK).

Flexibility (7)

- Since SLU goals are long-term in their nature it is important to keep them feasible and acceptable for decades rather than years. Flexibility and optionality is one of the ways of allowing these goals to be combined with individual goals of companies, organisations, and citizens in various territories.
- The factor occurred more often with: decentralisation
- Positive examples: Municipal Operative Plan in Italy (IT), Central government policy guidelines for Coordinated Land Use and Transport Planning (NO), Green points system in Sweden (SE), Berlin Biotope Area Factor (BAF) (DE), Land readjustment (Perequação) (PT).
- Warning: Compact city policy (Vinex) in polycentric region (NL).

Forecasting tools (5)

- Th long-term character of SLU goals favours future-oriented tools by using different forms of predictions, usually in the form of demographic forecasts, but also development prognosis. Forecasting allows to adjust scale of the development to future, and not only present, needs and to incorporate evidence-based approach.
- The factor occurred more often with: implementation problems.
- Positive example: Spatial Plan of Primorje-Gorski Kotar County (year 2000) (HR).

Inconsistencies (5)

- Inconsistencies may be visible between the means and ends of interventions and in the exclusions of some geographical areas. In some cases, different policies or programmes can have contradictory goals, which is related to the problem of a lack of coordination. Inconsistencies may also mean a legally binding regulation combined with vagueness, which can result in excessive litigation and need for case law.
- The factor occurred more often with: expert knowledge, vision, implementation problems.
- Positive examples: not identified.
- Warnings: General urban plan in Sofia (BG), Support for young families for housing outside metropolitan cities (LT), Sustainable urbanisation procedure (NL), Protected Coastal Area within the Physical Planning Act (CR), Integrated Territorial Investments (ITI) (PL).

Legally binding (18) / Not legally binding (3)

- Although excessive strictness and rigidity often impede success, in some cases a legally binding status is needed in order to be effective. This is especially the case of insufficient awareness of SLU goals and their importance at the lower/implementation level. It may be visible when environmental and economic goals conflict and where for many actors the natural choice is to sacrifice the environment. Even if the goal is widely accepted and

assessed as positive and desired, if not 'equipped' with legally binding tools it might be difficult to achieve.

- The factor occurred more often with: conditioning.
- Positive examples: General Development Plan of the City of Stara Zagora and its Adjacent Territories (BG), Law for Sofia (BG), Referendum to limit land take (CH), The Weber Law (CH), Municipal Industrial Park Borská Pole (Bory Air Fields; MIP BP); City of Plzeň, West Bohemia (CZ), Formal nature protections law and areas in Germany (DE), Gründachstadt Linz (roof greening of the city of Linz) (AT), Expropriation for urban development purposes in Germany (DE), Building Law from 2009, Gestaltungs- und Überbauungspläne (Art. 21 – Art. 31) (LI), Construction fee in Emilia Romagna Region (IT).
- Warnings related to legally binding tools: Nationalisation of land in Greece (EL), Sustainable urbanisation procedure (NL), 30 Ha Goal (DE), Examples of intervention that is not successful because it is not legally binding: Local ecological system of territorial stability (ÚZES) (SK).

Special areas (14)

- SLU interventions are sometimes addressed to specific areas or types of territories. This may allow to design interventions specifically aimed at – sometimes unique – requirements of those territories and using their – sometimes unique – resources. This approach may also have negative aspects when SLU goals are fostered only in some areas while neglected in others. Lack of spatial continuity might also be the problem in this case.
- The factor occurred more often with: conditioning, institutionalisation.
- Positive examples: Plan STEP 2005 in Vienna (AT), BOKS - Soil Protection Concept (DE), Berlin Program on Sustainable Development (BENE) (DE), Re-creation of Lake Karla (EL), Coastal Director Plan of Catalonia (SP), Physical Planning Act in Croatia (HR), Dublin Docklands (IE), Building restriction (LV), Integrated Coastal Zone Management in Malta (MT).
- Warning: Support for young families for housing outside metropolitan cities (LT).

3.3.4 Soft factors

Culture (4)

- This factor relates to culture in its broad definition, that is as values and norms recognised and practiced in a particular society. In this sense, culture impacts not only on behaviours of individuals and groups but also organisations and institutions, including those responsible for designing and implementing SLU interventions at different administrative levels. Neglecting the diversity and meaning of the national/regional/local

cultures may be an important factor hindering the effectiveness of a specific intervention, especially when it is designed and imposed by external institutions.

- The factor occurred more often with: decentralisation, multilevel, values, coordination.
- Positive example: Planning doctrine in Sweden (SE).
- Warning: Integrated Territorial Investments (ITI) (PL).

Values (2)

- This is probably the most effective and the most difficult and time-demanding type of approach based on long-term awareness building and value promotion. When broadly achieved (at various administrative levels), it enables to resign from various, often costly and time consuming procedures that need to be adopted when there is a real threat that actors involved in the intervention will not act in accordance with the SLU goals.
- The factor occurred more often with: culture, decentralisation, multidimensional.
- Positive example: Positive example: Planning doctrine in Sweden (SE).
- Warnings: not identified.

Rising awareness (16)

- Some SLU interventions include as a goal raising citizens' awareness of the importance of the SLU goals. Although in the short-term perspective effectiveness of such interventions' may be limited, in the long-time frame, and when broadly adopted, they may bring a real change in attitudes and behaviours. Rising awareness may also refer to public authorities and officials who, through guidelines or legal requirements, may be sensitised to sustainable development goals.
- The factor occurred more often with: long-term perspective, monitoring.
- Positive examples: Sustainable urbanisation procedure (NL), Green cross-border area – investment in nature (BG), ParckFarm (BE), Referendum to limit land take in Switzerland (CH), Physical Environment Special Plan Protection (Andalusia Region) (SP), Community-led regeneration in Casoria (IT), High density urban expansion (NL), Mini-Holland / Enjoy Waltham Forest (NL), Gründachstadt Linz (roof greening of the city of Linz) (AT).
- Warnings: not identified.

Vision (10)

- A clear vision, developed in a wide participatory and collaborative process, enables to keep stakeholders on the right track during the implementation and increases actors' involvement and sense of responsibility. It is also a way to reach wide political support for the aim of the intervention, even if the specific tools to achieve the aims will change.

- The factor occurred more often with: collaboration, commitment, expert knowledge, inconsistencies, long-term perspective, timing.
- Positive examples: Vision Rheintal (Vorarlberg) (AT), The 2015 National Strategy for Climate change adaptation (IT), Corona Verde (green crown) (IT), Plan STEP 2005 in Vienna (AT), Transforming vacant urban areas (DE), Protected Coastal Area within the Physical Planning Act (HR), Stockholm Urban Containment Strategy (SE).
- Warnings: not identified.

3.3.5 Implementation

Implementation problems (24)

- Implementation problems are often manifested when the design of the intervention is correct, its assumptions are sound and justified, but the final execution is not satisfactory. It may also be combined with poorly designed, inconsistent interventions when implementation problems reduce intervention's effectiveness even more. The issue may be related to incorrect implementation of the intervention in all or some part of implementing units, usually local governments. This factor might be related to decentralisation or legal weakness of the tools (when it is not legally binding).
- The factor occurred more often with: forecasting, inconsistencies.
- Positive example: not identified.
- Warnings: Protected Coastal Area within the Physical Planning Act (HR), Law on agricultural land (BA), Soil Enhancement Plans (AT), Ecological compensation (NL), Integrated Territorial Investments (ITI) (PL), Sustainable Urban Mobility Plans (SUMP) (SI), Spatial Plan of Zone Chalupkova (SK).

Leadership (3)

- Leadership can take an institutional or informal form. The former usually is more effective but the latter may be also valuable when there is low trust of private and public actors towards public authorities. In order to increase chances for the intervention's success the leader has to have appropriate personality traits, be effective and conciliatory as well as has possess authority and trust among other stakeholders. On the other hand, as shown in the Italian case study, strong leadership can be perceived as very top-down which does not facilitate stakeholders' involvement and support.
- The factor occurred more often with: lack of coordination, political will, lack of political will, wide support, institutionalisation.
- Positive examples: Sustainable urbanisation procedure (NL), Pat Huerta De Valencia (SP), Municipal Structural Plan of the Union of Municipalities of Bassa Romagna (IT), Stockholm Urban Containment Strategy (SE).
- Warning: not identified.

Monitoring (3)

- Monitoring is a part of the evidence-based approach in designing and implementing interventions. For SLU interventions this kind of control is especially important since these policies usually affect several different aspects (optimally – environment, society, and economy) in a long-time perspective. It is very easy to focus on progress in only one aspect and thus neglect the other or even omit the negative outcomes in some areas, especially when they appear with a delay. The incredible dynamism and unpredictability of contemporary world means that the long-term perspective should take into account the possibility or even necessity of changes and alternations in the intervention's design or implementation as a response to changing circumstances. This should be based on constant monitoring of the intervention's outcomes and an environment in which it operates.
- The factor occurred more often with: rising awareness, compensation, long-term perspective.
- Positive examples: Protected Coastal Area within the Physical Planning Act (HR), Eco-account system (National Nature Conservation Act) (DE), Stockholm Urban Containment Strategy (SE).
- Warning: not identified.

Testing (6)

- SLU interventions can be very innovative and may use completely new tools or already known tools but in new configurations. It might be very difficult to assess ex ante these solutions' effectiveness, drawbacks or possible side effects. Testing (as a form of a pilot study e.g. in a specific territory) might reduce possible negative consequences of introduction a completely new type of intervention on the large (e.g. national) scale.
- The factor occurred more often with: not legally binding, local context and community.
- Positive examples: ParckFarm (BE), 30 Ha Goal (DE), Remediation of Solec Kujawski's brownfield (PL).
- Warning: Pilot projects in coastal Denmark (DK).

Timing (2)

- Timing is always crucial, but in the case of the SLU interventions it is especially important to prevent negative processes from starting. Many changes in the natural environment are irreparable thus proactive rather than reactive approach in some cases is the only option that can effectively protect the environment. Additionally, due to complexity of the SLU-related problems, it is important to mitigate undesired activities as

soon as they appear (or reveal their negative consequences) since it is much more difficult to change people's behaviours they have already got used to it.

- The factor occurred more often with: collaboration, commitment, coordination, expert knowledge, long-term perspective, multilevel, vision.
- Positive example: Vision Rheintal (Vorarlberg) (AT).
- Warning: Protected Coastal Area within the Physical Planning Act (HR).

3.3.6 Market factors

Liberalisation (12)

- Liberalisation usually leads to uncontrolled development and excessive land consumption. In some cases, it also has negative social consequences when new development is not equipped with appropriate infrastructure and transport facilities. When conditions of development are loosened, it is the economic development and profits that usually win with social and environmental goals.
- The factor occurred more often with: decentralisation, market oriented.
- Positive example: Red for green: 'contour policy' (NL).
- Warnings: Protected Coastal Area within the Physical Planning Act (HR), Land use in outdoor areas without planning permission (DE), Pilot projects in coastal Denmark (DK), Abolition of buffer zone (NL), Spatial planning act from 2003 in Poland (PL), Land take in small municipalities around the capital city Bratislava (SK), Housing renewal projects (speculative flagship project) (TR).

Limitations on the market (15)

- The restrictions on the market usually aim at limiting greenfield development; they can take various forms: from special norms, standards and conditioning to total bans on new land take. The aim is usually to strengthen the environmental aspect of sustainable land use at the expense of the economic one.
- The factor occurred more often with: conditioning.
- Positive examples: Regulation of touristic apartments (ES), Retail sales control is regulated by the Land Use and Building Act (LUBA) (FI), Spatial Planning Act in Denmark (DK), Peripheral retail (PDV) policy (NL), Green Belt Policy (UK), The Weber Law in Switzerland (CH), Construction fee in Emilia Romagna Region (IT).
- Warnings: Act on large scale retailing from 2005 (PL), Rule on agricultural land purchase in Austria (AT).

Market orientation (21)

- Market orientation, usually in the case of liberalisation interventions, is unsuccessful in terms of the SLU goals. Market-only orientation often leads to excessive land

consumption and environmental damage and neglecting local contexts. On the other hand, limited and careful introduction of market-oriented tools and mechanisms into interventions aimed at SLU goals increases the chances of success since the market forces in the area of real estate development are in most cases too strong to be eliminated.

- The factor occurred more often with: centralisation, one-dimensional, liberalisation, neglecting local context.
- Positive examples: Planning new eco-district (Royal Seaport) in Stockholm and its relation to municipal planning in general (SE), Reference land values in Germany (DE), Reference land values in Sweden (SE).
- Warnings: Cork Area Strategic Plan 2001-2020 (IE), Buy House, buy Apartment (MK), Spatial planning act from 2003 (PL), Resort Rânca (RO), Confort City (RO), Densification along the Black Sea littoral area - Mamaia Resort (RO), Street standards for cars (RO), Lex specialis on the Belgrade waterfront project (RS), Urban Development Project of Hyllie (SE), Land take in small municipalities around the capital city Bratislava (SK), Housing renewal projects (speculative flagship project) (TR), Bansko ski development (BG).

3.3.7 Sustainability

Institutionalisation (8)

- In some cases, institutionalisation, through establishment of a special entity, organisation, institution or position, stabilises SLU goals and increases the chances of the intervention's success. It supports especially institutional sustainability since interventions linked to an institution is more difficult to abolish, for example, when the political climate changes. Institutionalisation, to some extent, makes the intervention independent from current political processes. It also provides a kind of 'host' of the specific intervention, thus addressing issues of coordination, responsibility and accountability for specific tasks as well as financial issues (e.g. when there is a budget assigned to the institution).
- The factor occurred more often with: collaboration, commitment, coordination, lack of coordination, leadership, multilevel, political will, reusing resources, special areas, wide support.
- Positive examples: Municipal Industrial Park Borská Pole (Bory Air Fields; MIP BP); City of Plzeň, West Bohemia (CZ), Transforming vacant urban areas (DE), Coastal Director Plan of Catalonia (SP), Sustainable urbanisation procedure (NL), Integrated Coastal Zone Management in Malta (MT).
- Warnings: not identified.

Long-term perspective (32)

- Long-term perspective in designing and implementing SLU interventions can be related with two issues. First, long-term temporal sustainability is one of the aspects of sustainable development. A long-term perspective is essential if the intervention is supposed to be sustainable. Secondly, in most of the case study results, the interventions can be fully visible only in the long-term perspective. It is thus especially important in assessing the level of intervention's progress and success (through monitoring) and, possibly, introducing some changes and modifications. Both, negative and positive consequences can appear years or even decades after the intervention was introduced.
- The factor occurred more often with: rising awareness, collaboration, expert knowledge, monitoring, reusing resources, timing, vision.
- Positive examples: Plan STEP 2005 in Vienna (AT), Vision Rheintal (Vorarlberg) (AT), Gründachstadt Linz (roof greening of the city of Linz) (AT), Referendum to limit land take in Switzerland (CH), BOKS - Soil Protection Concept (DE), Eco-account system (National Nature Conservation Act) (DE), Physical Enviroment Special Plan Protection (Andalucia Region) (SP), Galician Coastal Management Plan (SP), Caserne de Bonne (FR), Bjelovar-Bilogora County's Development Strategy (HR), Community-led regeneration in Casoria (IT), The 2015 National Strategy for Climate change adaptation (IT), The Environmental Code (no. 152/2006) (IT), High density urban expansion (NL), The zero-growth goal for car traffic (NO), Agreements for Sustainable Transport (and Land Use in Urban Areas) (NO), Vila d'Este (PT), Integrated policy planning in Antwerp & Flemish decree on spatial planning (BE), Stockholm Urban Containment Strategy (SE), Integrated Territorial Investments (ITI) (PL), Construction fee in Emilia Romagna Region (IT), Piano Periferie 1 and 2 (IT).
- Warnings: not identified.

Multidimensional (22) / One-dimensional (16)

- Thematic multidimensionality is the key and defining aspect of sustainability. A model sustainable intervention should address environmental, economic and social issues at the same time. This is also, however, the most difficult aim to achieve since in many cases goals related with all three areas are contradictory. It is thus crucial that the SLU intervention intentionally address all three aspects and limits the possibility of 'trade-offs' – when one dimension is being sacrificed on behalf of the other dimension(s). In general, in most of the cases, the economic aspect does not need any extra protection. Environment is the most obvious area of intervention aimed at sustainable development. Multidimensionality is thus most often related with these two factors. Much less common are interventions addressing social aspects.

  The opposite to the multidimensionality is one-dimensionality. Usually in one-dimensional interventions the dimension that is addressed is the economy. One-

dimensionality may be the result of inappropriate design (e.g. Bansko ski development) or when implementation focuses only on one dimension. The latter may result from intentional actions (e.g. Land take in small municipalities around the capital city Bratislava) or appear as an unintended side effect (e.g. Strictly regulated rental market in Sweden).

- The factor occurred more often with: compromise, values.
- Positive examples: Gründachstadt Linz (roof greening of the city of Linz) (AT), Municipal Industrial Park Borská Pole (Bory Air Fields; MIP BP); City of Plzeň, West Bohemia (CZ), Berlin Program on Sustainable Development (BENE) (DE), Spatial Planning (DK), Act Eco-Viikki (FI), Caserne de Bonne (FR), Corona Verde (green crown) (IT), National inner area strategy (SNAI) (IT), The zero-growth goal for car traffic (NO), PPG6 (UK), Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT), General Development Plan of the City of Stara Zagora and its Adjacent Territories (BG), Land readjustment in Germany (DE), Integrated Territorial Investments (ITI) (PL), Piano Periferie 1 and 2 (IT).
- Warnings (one-dimensional): Laws on building legalisation (no. 21/03, 3/04, 19/07, 29/04) (BA), Nessebar and Sunny beach seaside development (BG), Bansko ski development (BG), Support for young families for housing outside metropolitan cities (LT), Buy House, buy Apartment (MK), Resort Rânca (RO), Strictly regulated rental market in Sweden (SE), Land take in small municipalities around the capital city Bratislava (SK), Housing renewal projects (speculative flagship project) (TR).

Reusing resources (28)

- This approach is in line with SLU goals and usually regards regeneration and revitalisation which often involve private partners. It addresses especially the environmental aspect of SLU by reducing land consumption.
- The factor occurred more often with: private partners, institutionalisation, long-term perspective.
- Positive examples: Dublin Docklands (IE), BOKS - Soil Protection Concept (DE), 22@Barcelona (SP), Community-led regeneration in Casoria (IT), Municipal Operative Plan (AT), Revitalisation of areas in Latvia (LV), Dezoning urban functions via imposed land-use plan (NL), High density urban expansion (NL), Remediation of Solec Kujawski's brownfield (PL), Vila d'Este (PT), Áreas de Reabilitação Urbana – ARU (PT), Planning new eco-district (Royal Seaport) in Stockholm and its relation to municipal planning in general (SE), Brownfield targets (UK), Regeneration policies of urban renaissance in the 2000s (UK), Municipal Industrial Park Borská Pole (Bory Air Fields; MIP BP); City of Plzeň, West Bohemia (CZ), Transforming vacant urban areas (DE), South Harbour (Sydhavn), Copenhagen waterfront/brown field urban re-development (DK), Construction fee in Emilia Romagna Region (IT), Piano Periferie 1 and 2 (IT).

- Warnings: not identified.

3.4 Synthetic analysis of factors

3.4.1 Characteristics of interventions

Some factors occurred more often in conjunction with interventions with specific characteristics. The available data do not allow us to determine if there was a direct causal relationship, for example, if a specific factor increased the effectiveness or relevance of an intervention. The analysis does show the frequency of occurrence: for some types of interventions, a specific factor was identified as occurring, in a statistically significant way, more often in one intervention than in others. The results of this analysis are displayed in Table 3.5. It should also be stressed that in most (if not all) of the cases numerous factors influenced the implementation and success of interventions simultaneously and in some cases these factors might have been interrelated.

Table 3.5: Frequency regularities between factors and characteristics of interventions

Factor		Significantly more often in interventions	Significantly less often in interventions
Governance	Centralisation	• Non-EU countries	• Effective[2] • Efficient • Relevant
	Decentralisation	• EU inspired	• Urban areas • Binding
	Coordination	• Cross-border areas • Urban areas • Temporal sustainability • Efficient • Relevant	
	Lack of coordination	• EU inspired • Cross-border areas	
	Multilevel	• EU 15 • Urban areas	• Mandatory • Binding
Inclusion	Collaboration	• EU inspired • Success according to SLU goals • Effective • Efficient • Relevant • Environmental sustainability	• Mandatory • Binding
	Neglecting local context	• EU 3 • Mountain areas	• Temporal sustainability • Effective • Efficient • Relevant
	Lack of political will	• Rural areas • Mountain areas	• Effective • Efficient • Relevant • Institutional sustainability
	Private partners	• Urban areas • Success according to the scope of intervention	• Mandatory • Statutory

[2] Effectiveness is defined as the extent to which goals were achieved. Efficiency is defined as the extent to which resources were well-spent. Relevance relates to identified needs and problems.

Design	Commitment	•	• Effective
	Conditioning	• Statutory • Binding	
	Financial tools	• Statutory	• Environmental sustainability
	Inconsistencies	• EU 3 • Mandatory • Peripheral border areas	
	Special areas	• Sparsely populated areas	
Soft factors	Culture	• Cross-border areas • EU inspired	
	Vision		• Statutory • Binding
Implementation	Implementation problems	• Cross-border areas • Mountain areas	• Success according to SLU goals • Effective • Efficient • Relevant • Success according to the scope of intervention
	Testing	• Sparsely populated areas	• Institutional sustainability • Relevant
Market factors	Liberalisation		• Institutional sustainability • Temporal sustainability • Success according to SLU goals • Effective • Efficient
	Limitations on the market	• Mandatory • Statutory • Binding	
	Market orientation	• EU 3	• Institutional sustainability • Temporal sustainability • Environmental sustainability • Social sustainability • Economic sustainability • Effective • Efficient • Relevant • Success according to SLU goals
Sustainability	Institutionalisation	• Coastal areas • EU inspired	
	Long-term perspective	• EU 15	• EU 10
	Multidimensionality	• EU 15 • Success according to SLU goals • Success according to the scope of intervention • Side effect	• Direct impact
	One-dimensionality	• Coastal areas • Mountain areas	• EU 15 • Success according to SLU goals • Institutional sustainability • Temporal sustainability • Environmental sustainability • Social sustainability • Economic sustainability • Effective • Efficient
	Reusing resources	• Success according to SLU • Social sustainability • Economic sustainability	• Mandatory • Statutory

This table allows us to make some observations and draw some conclusions. In the area of governance, for example, centralisation was a more popular factor in interventions implemented in non-EU countries, where local authorities might not have sufficient competencies or willingness to implement SLU goals. These areas were also associated with interventions showing low impact (not effective, not efficient and not relevant), which may be related with using centralised tools that may not consider local circumstances and which may result in reducing positive impact of the intervention. On the other hand, decentralisation was more frequently seen in interventions inspired by the EU and less often for interventions implemented in urban areas and those which were binding for public authorities. What might be surprising, lack of coordination was often identified in the EU inspired interventions as well as in the cross-border context. This may suggest that cross-border initiatives are especially difficult for joint actions. Coordination appeared more often in interventions implemented in complex spatial settings, such as urban and cross-border areas, as well as interventions that were assessed as temporally sustainable, efficient and relevant. A multilevel approach was more frequently seen in interventions implemented in the EU 15 which may be explained by their longer tradition of multilevel governance. It was also a more popular factor among interventions implemented in complex urban settings, where often numerous authorities of various levels have to be involved. The multilevel approach was less common for interventions with a strong legal aspect (i.e. were compulsory for each territorial unit and legally binding.

Among inclusion factors, collaboration was more often identified in interventions inspired by the EU and those that were sustainable according to SLU goals as well as effective, efficient and relevant. Collaboration was also more frequently seen in environmentally sustainable interventions. On the other hand, this factor was less common among interventions that were using more strict legal tools (were legally binding and mandatory) which may suggest that rigid legal instrumentation does not create a favourable environment for collaboration. Interventions where design and/or implementation neglected local context were more common in the new EU member states (Romania, Bulgaria and Croatia), which have less experience and probably also capacities for implementing SLU interventions, and in mountain areas which are usually very attractive for tourists and have gained the attention of ski resort developers that may neglect local needs and circumstances. Neglecting the local context was also negatively associated with interventions' temporal sustainability, effectiveness, efficiency and relevance. Lack of political will was also more frequent in interventions that were not effective, efficient and relevant. Since institutional sustainability depends on political support it is not surprising that lack of political will was more often identified in interventions that were institutionally unsustainable. This factor was also more frequent in interventions implemented in rural and mountain areas. Inclusion of private partners was positively associated with urban and regeneration interventions, which are often based on the private-public partnership or at least close collaboration. Private partners' presence was also more often identified in

interventions successful according to the scope of intervention, although not necessary SLU goals. This factor was less common in mandatory and statutory interventions which are usually addressed to public authorities.

In the area of design, 'commitment' was more often present in ineffective interventions which may suggest that this kind of less rigid approach was less effective. Conditioning was positively associated with more legally strict interventions i.e. statutory and binding. Also the factor 'financial tools' were more frequent amongst statutory interventions but at the same time less frequent among interventions deemed environmentally sustainable. Negative factors related with inconsistencies in design was more often seen in interventions implemented in Romania, Bulgaria and Croatia thus countries less experienced in SLU initiatives. Inconsistencies were also more frequently present in mandatory interventions as well as those implemented in peripheral border areas. Intervention design based on addressing specific solutions towards selected, special areas was more popular amongst interventions implemented in sparsely populated territories which may require a specific approach.

Among the soft factors, culture as a factor of success was more often seen in interventions implemented in cross-border areas and EU inspired initiatives. The former might be explained by the particularly complex cultural context of the international interventions, which have to take into account not only cultural environment on both sides of the border, but also differences between them and how they can affect the implementation of success of the intervention. The EU-inspired interventions are, to some extent at least, top-down initiatives that are designed in a rather territorially blind way and thus during the implementation cultural factors in different countries might appear relevant. As one would expect, 'vision' factors were less often met in strict interventions classified as statutory and legally binding.

Prevalence of the 'implementation problems' factor can suggest which types of interventions might be especially difficult in application. The analysis revealed such interventions were related with mountain and cross-border areas. On the other hand, lower frequency of this factor indicated interventions' characteristics on which implementation problems may have the largest impact. These characteristics were related primarily with impact. Implementation problems were less common amongst interventions that were successful from the SLU goals perspective, effective, efficient and relevant as well as those that were successful according to intervention's scope. Interventions that included or take form of a pilot or test projects were more often in sparsely populated areas (possible explanation was described above), but less often among interventions that were institutionally sustainable. The latter might be explained by the character of the approach based on testing i.e. in such initiatives usually institutional framework is not fixed and is assumed to be temporary and subject to change. Quite surprisingly interventions that included monitoring was less frequently assessed as relevant. One of the possible explanations might be that since the intervention was not fully relevant to the context, monitoring may be used as a tool of control if it is implemented in the planned way.

Amongst market-related factors, liberalisation was negatively associated with interventions' temporal and institutional sustainability, success according to SLU goals as well as effectiveness and efficiency which suggests that more liberal approach in interventions aimed at sustainable land use was not the most appropriate. Limitations on the market mechanisms were more frequently implemented through interventions that had stronger legal empowerment i.e. were mandatory, statutory and legally binding. The factor labelled as 'market orientation' was usually associated with interventions focused on economy and often those aimed at gaining profits, thus it is not surprising that this factor was more often identified in interventions classified as environmentally, socially, temporally and institutionally unsustainable as well as those that were assessed as inefficient, ineffective and not relevant. Surprisingly, this factor was also associated with interventions that were unsustainable from the economic point of view which suggest that market orientation not only neglect environmental and social aspects, but is also not favourable for the economic sustainability. In general, market orientation was negatively associated with interventions successful according to SLU goals. However, this type of initiatives was more often met in new EU member states (Romania, Bulgaria and Croatia) in which, as already mentioned, also other negative factors revealed (neglecting local context and inconsistencies).

The analysis of the last group of factors – sustainability – revealed large number of frequency patterns. Institutionalisation, which can positively influence on interventions' institutional sustainability, was more often in initiatives implemented in coastal areas and EU inspired interventions. Temporal sustainability, supported by the factor labelled as 'long-term perspective', was more frequently met in interventions implemented in old EU member states (EU 15) but less often in EU 10 (10 countries that accessed EU in 2004). This suggest that in countries with longer experience in implementing sustainability policies and probably also with developed planning culture interventions are design with time perspective going beyond short political or budget cycle. Multidimensionality, which is a very positive factor, was also positively associated with EU 15 label and not only with interventions' success according with SLU goals (which is quite obvious) but also with success according to scope of the intervention. This factor thus supports success of the interventions in broader sense, not only related with SLU. A very interesting association of multidimensionality is the one related with the way of interventions' impact. Multidimensionality was positively related with interventions that operated through side effect and negatively related with those that were categorised as direct impact. It is possible that in some cases the intervention is designed as not multidimensional and multidimensionality is achieved when other aspects are addressed through side effects. On the other hand, one-dimensionality was more frequent in interventions implemented in coastal and mountain areas and less often in interventions implemented in EU15 countries and those initiatives that were assessed as successful in terms of SLU goals, temporally, institutionally, environmentally, economically and socially sustainable, as well as efficient and effective. Legally binding interventions i.e. mandatory and statutory, was less often associated with the factor categorised as 'reusing resources'. This

factor was, however, positively related with interventions successful according to SLU goals as well as those that were sustainable in the economic and social area.

3.5 Level of success

Since each intervention was assessed in terms of the level of its success according to SLU goals, it was possible to analyse the relations between SLU success and the factors described above. Figure 3.2 presents the number of interventions in which a specific factor was identified broken into two groups: successful (success according to SLU goals rated 4 or 5) and unsuccessful interventions (success according to SLU goals rated 1 or 2).

The factor most often identified in interventions assessed as successful according to SLU goals (successful and almost successful) was coordination. Other important success factors were 'long-term perspective', 'reusing resources', 'collaboration', inclusion of 'private partners' and 'multidimensionality'. Success-associated factors were thus those related with inclusion and sustainability. Conversely, those factors least associated with success were 'market orientation' and 'liberalisation' as well as 'one-dimensionality'.

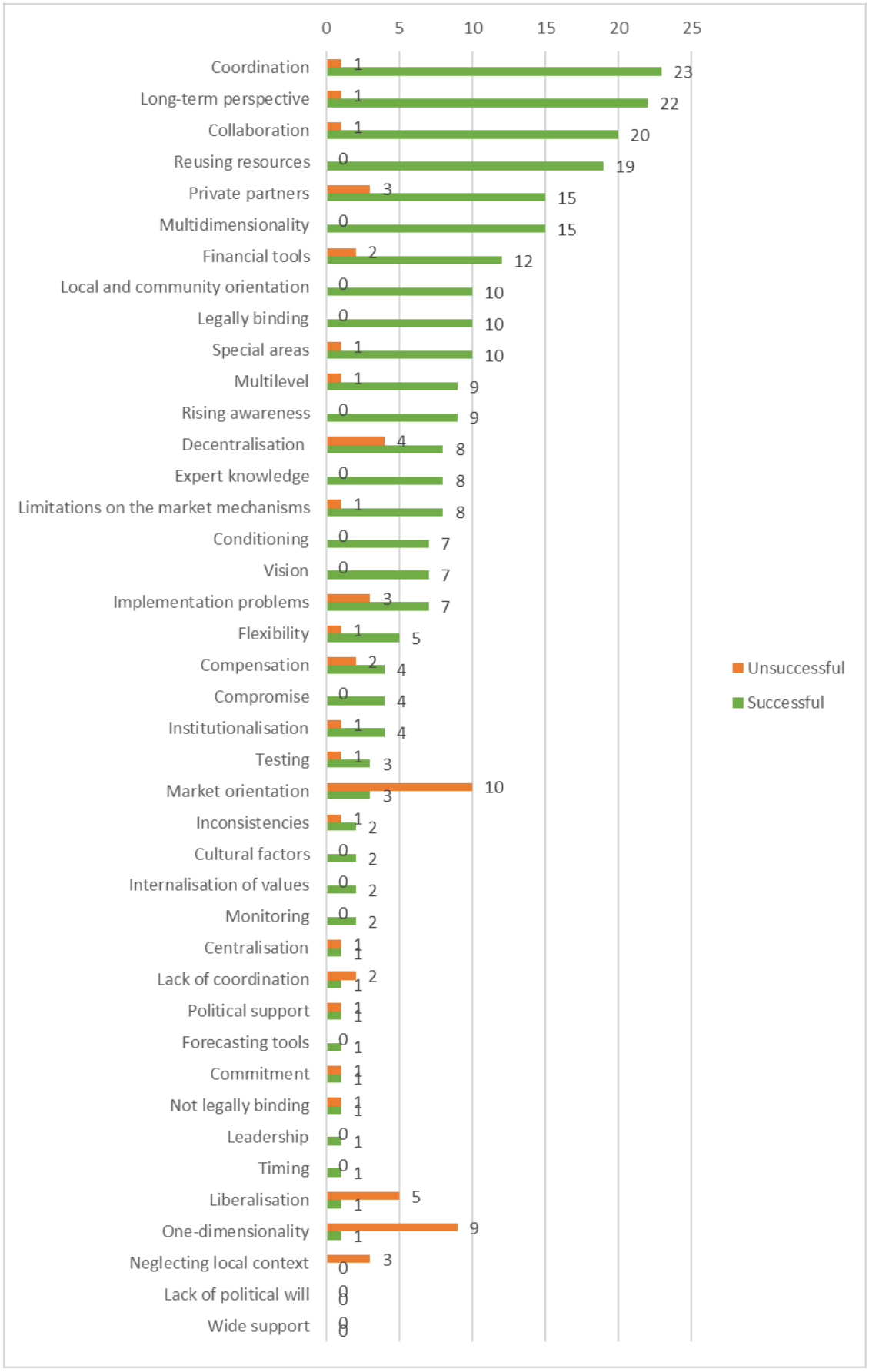
In order to identify which factors were important for specific types of interventions, the frequencies of factors in successful and unsuccessful interventions were analysed, taking into account the type of intervention its choice of instrument.

3.5.1 Type of intervention

In general, the interventions fell into three main types: (1) those encouraging densification of cities (up-zoning, financial incentives, information), (2) those seeking to regenerate problematic areas (brownfields, deprived neighbourhoods) and (3) those seeking to contain urban expansion (growth boundaries, restrictions on out-of-town development). As with other categories, it was not always easy to distinguish in which category a particular intervention fell, especially when it concerned a plan with many objectives and measures. This section provides an overview of the analysis for each of these groups of interventions in terms of their relative success along with a sampling of interventions deemed particularly interesting or where more information was available.

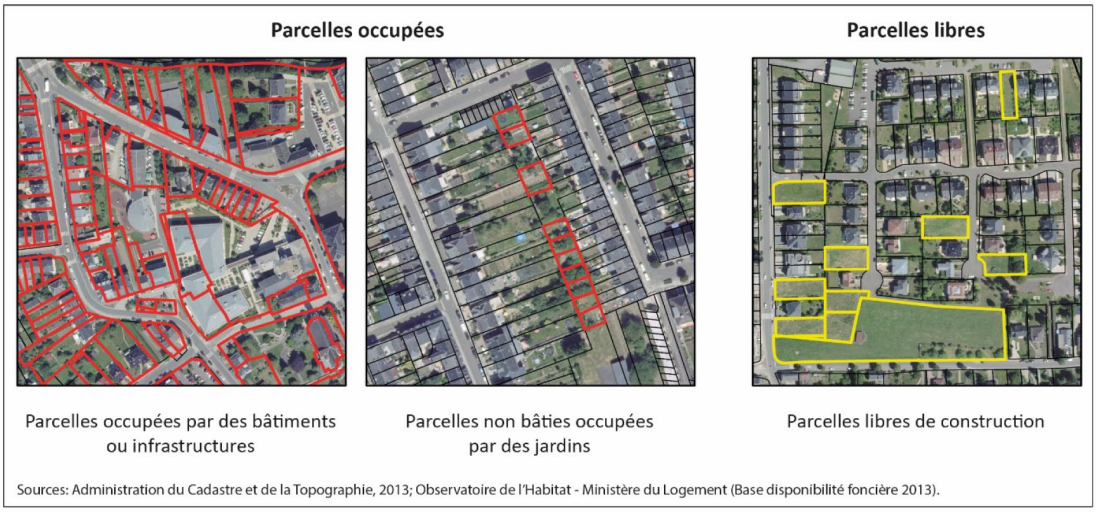
The most frequent factor in successful **densification** interventions (16) was 'legally binding' (5 interventions), while factor 'reusing resources' was identified in 5 successful densification interventions. Important success factors for this type of interventions were also inclusion of 'private partners' (4), 'multidimensionality' (4), and conditioning (3) (Tab. 3.3). Especially important appeared to be factors from the category 'design'.

Figure 3.2: Number of successful and unsuccessful interventions by factor



A variety of interventions support densification. One simple example is the 2018 decision in Malta to allow the construction of additional floors at second and third floor levels, overriding local plan rules. Although it is too recent to see the concrete results, the expectation is that this will be a mixed success in terms of sustainability. While conceivably reducing demand for greenfield sites, it could overheat the urban property market and create oversupply (negative economic sustainability), and inconvenience residents and motorists (social sustainability), as more areas are turned into building sites (DeBono, 2016). A more ambitious initiative is Luxemburg's National Infill Programme (*Nationales Baulückenprogramm*) adopted in 2014. This seeks to identify suitable lots and to make landowners aware of how their lots could contribute in satisfying the demand for housing (Ministère du Logement, 2016). About 995 hectares of vacant building land (as identified in 2013) were found to be unused, 94% of these plots are privately owned. There are however no financial incentives or legal requirements, it is purely communication, so effectiveness and impact on sustainability remains to be seen (Fig. 3.3). The instrumentation is weak since it is not equipped with financial incentives. The implementation of the strategy depends thus on the will of the private landowners.

Figure 3.3: Identification of land use from aerial photography



Source: (Ministère du Logement, 2018)

Similarly, in 2009, Lichtenstein enacted its Building Law, which contains a planning instrument supporting densification. Specifically, it gives private and public landowners the right to build higher (mostly 20% more) than the zoning plan indicates, provided that the architecture, the urban development and the public interests on open spaces, public pathways or any other benefit for the public can be realised. It has been reported as successful, but there have been some complaints of long term-duration of the planning process and the possibility of complaints of neighbours some communities do not use it often (*Lilex—Gesetzesdatenbank des Fürstentum Liechtenstein, 2009.044*, 2009). In the city of Reggio Emilia, the municipal operative plan was employed to reduce the number of areas which had been once zoned for urban uses, but remained unbuilt. Since landowners pay taxes based on the value of the

zoned land, stripping development rights also yields a financial benefit. The cooperation between municipalities and landowners succeeded in downzoning over 135ha of potential urban land to rural functions since 2015. A second phase has so far removed an additional 70ha from potential urbanisation. This intervention is regarded as a success by all parties and is also seen as a boon for sustainability.

Sometimes the intervention regards the deployment of well-established instruments. For example, the German mandatory land readjustment rule has existed for over 100 years and is a standard instrument in planning. It allows for the officially conducted exchange of plots for the development of towns and villages and ensures the rights of the parties involved. A land readjustment procedure allows for a prudent use of the limited resource of land from an ecological point of view, while ensuring an economic and socially appropriate land use (Kötter, 2018). The same rule (*Perequação*) was introduced in Portugal in 1999 to allow for the same kinds of success as in Germany, and with the intent to overcome land speculation. So far, experience has shown that it is an effective instrument but not very efficient given the lengthy procedures as compared to the usual form of development. In all, it can be considered as a relevant tool for sustainable urbanisation, and one that has not been sufficiently taken advantage of (Condessa et al., 2018).

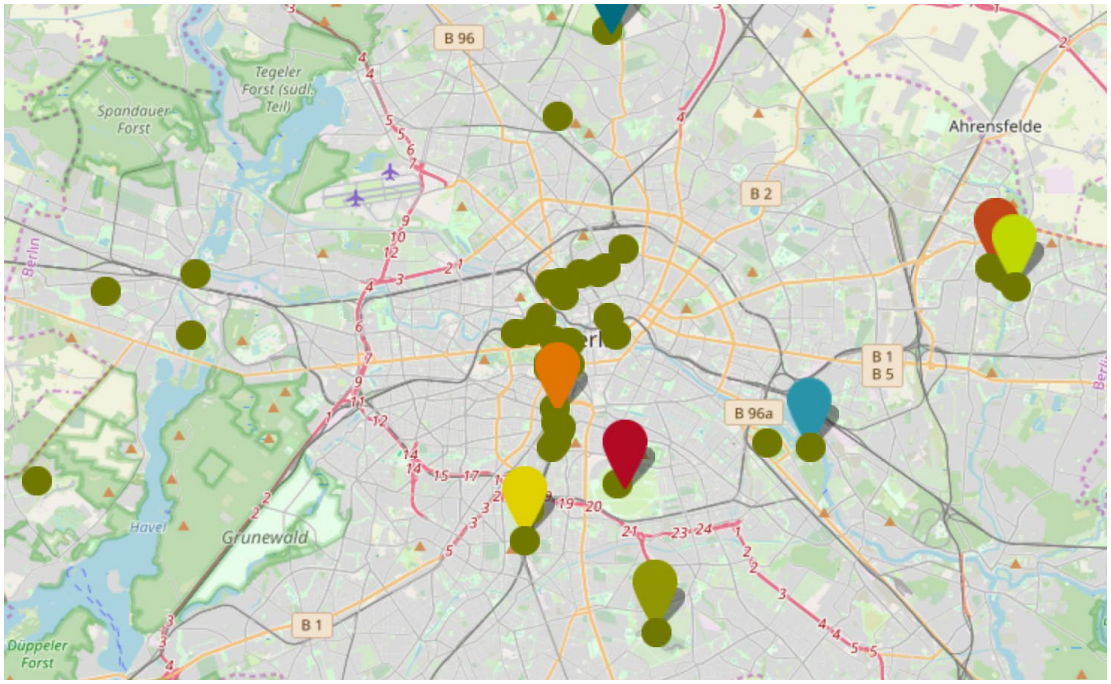
Success can also happen by accident. In Italy, for instance, fiscal rules helped to promote densification. Paragraph 669 of Article 1 of Law 147/2013 (*Legge di stabilità 2014*) levies a real-estate tax on buildings or construction areas, with the exception of agricultural land. This led to a reduction of development pressure, as developers became more wary of taking risks (and allowing construction sites to remain fallow) or constructing buildings that would not be completely occupied. As farmers were exempt, there was less incentive for them to sell their land. There have however been some efforts to sidestep this rule by registering construction areas as agricultural (Croci, 2013). On the other hand, Estonia explicitly decided to foster densification using fiscal rules. The 1993 Land Value Tax shifted the base of taxation from the value of buildings to the value of the land plot, encouraging landowners to maximise the use of their land (within the scope of planning regulations), such as building at higher densities or extra floors (Thiel & Wenner, 2018). The success seems mixed: it did not seem to halt urban diffusion.

As could be expected, ‘reusing resources’ was the most frequent factor for successful interventions classified as **regeneration** (13). In this type also important were factors related to ‘coordination’ (5), ‘multidimensionality’ (6), ‘private partners’ (5) as well as ‘long-term perspective’ (4). Quite surprisingly, factors in the category ‘governance’ was not frequently identified in interventions labelled assigned to the type governance. The most frequent factor in this group was ‘collaboration’ (6). For successful spatial quality interventions an especially important factor appeared to be ‘financial tools’ (4), while for interventions labelled Sectoral policy: environment – ‘long-term perspective’ (3). The number of interventions categorised as

Sectoral policy: transport and Sectoral policy: rural areas was very small (respectively, 5 and 2) and thus it was impossible to identify specific factor-related patterns in these cases.

Regeneration can take on various forms. In Rotterdam, houses in deprived neighbourhoods were simply bought up by the municipality and given away for free to anyone willing to invest a certain amount in renovation and promising to live there for at least 5 years (Snel et al., 2011). This state-led gentrification was seen as a success in economic and ecological terms, as it brought in residents who may otherwise had opted for suburban housing, and in some ways, was seen as improving the social sustainability of the area as well given the improved liveability and services. Also Berlin sought to regenerate problematic sites in the core city. To do this, a state-owned company Grün Berlin GmbH, is responsible for the reconversion of areas in attractive parks and vibrant public spaces and was successful in transforming several abandoned areas in the city (Fig. 3.4) (*Grün Berlin, About us*, 2020; Oppla, 2019).

Figure 3.4: Overview of Grün Berlin GmbH projects



In the 1990s, the United Kingdom also has focused on regeneration and densification under the banner of an 'urban renaissance' (Shaw & Robinson, 2010). In particular, it set a national target of 60% of new housing to be built on brownfield sites by 2008. This was implemented as a legal requirement and has been widely successful. The outcomes have exceeded the goals (approximately 80%), although regional differences exist. The regeneration can be seen as ecologically and economically sustainable as it revitalised existing urban areas instead of building outside (Schulze Bäing & Wong, 2012). However, the social sustainability was questioned as much of the improvement in the socio-economic position of residents was largely due to gentrification rather than upward mobility, which had negative effects on housing affordability (ibid., pp. 3004-3005).

The United Kingdom is far from alone. In the early 1990s, for example, the City of Plzeň (Czech Republic) embarked on regenerating an industrial area in the city (and consequently the region) Industrial Park Borská Pole. New plans were drawn up and new institutional structures (e.g. City Planning and Development Office and Pilsen Holding, JSC) established to carry this out. The strategy was informal at the beginning (tacit strategy) but was soon transformed into official city policies, programme and planning documents (statutory local Plan). The outcome was deemed successful as its objectives were fully achieved: the industrial zone became a location for more than 40 companies creating between 11-15 thousand jobs and became a flagship of economic recovery. It also can be considered ecologically successful in that no greenfield land was used for this. Also Latvia has sought to revitalise areas via its regional development programme using EU funds. The support prioritises projects which aim at the promotion of revitalisation of urban environment, renewal of brownfield sites and other degraded territories. Support is given to costs associated with construction/ renovation of buildings and equipment (Procedures for the Implementation, Assessment and Financing of Regional Development Support Measures, 2015). This has been deemed relatively successful in both its own aims (creation of jobs in these areas) as well as sustainability.

For the successful **containment** interventions (30) the most often success was accompanied by the governance factor 'coordination' (10 interventions), and, subsequently, 'long-term perspective' (7), 'expert knowledge (5), 'local and community orientation' (5), 'multidimensionality' (5), 'limitations on the market mechanisms' (6), 'collaboration' (5), as well as 'special areas' (4), 'multilevel' (4), 'legally binding' (4), 'conditioning' (4), 'rising awareness' (3), 'compromise' (3) and vision (3). Thus, for this type of successful intervention especially important seemed to be factors related with inclusion as well as governance, soft factors, sustainability and market factors.

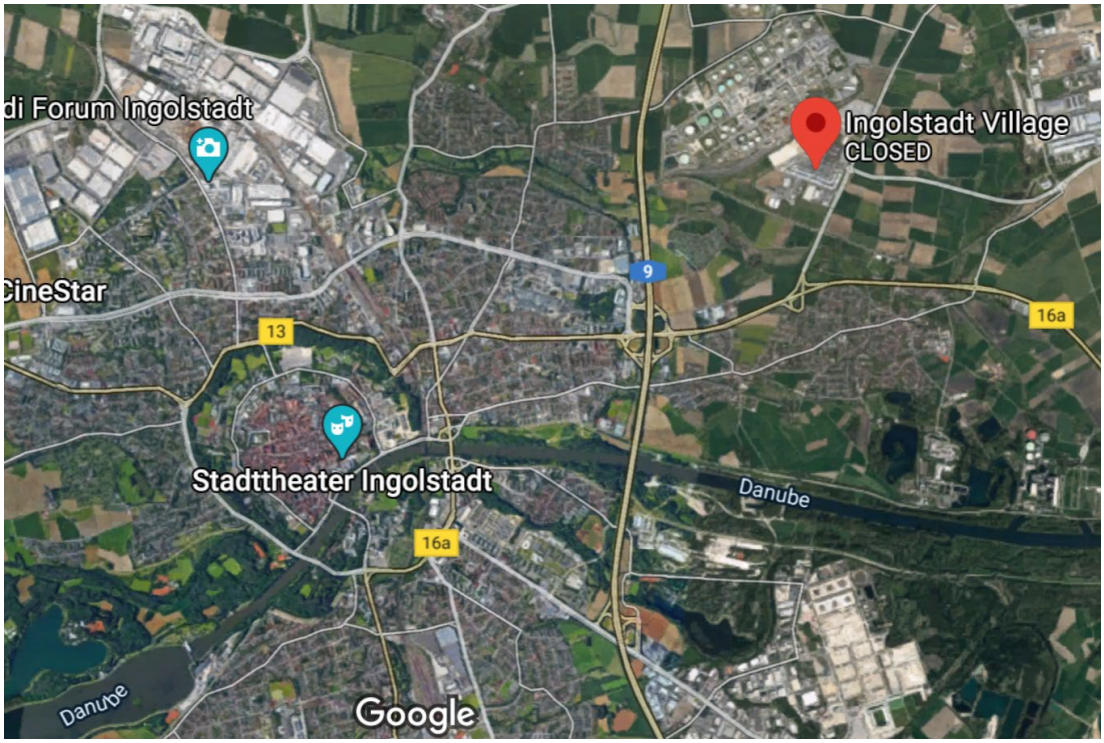
The 2000 French Law of Solidarity and Urban Renewal contains provisions, among over things to counter urban diffusion by coordinating public-transport infrastructure and promoting social housing (with a 20% minimum target). It is seen as a mixed success regarding containment (Aubert, 2007; Guet, 2005). Another law at the national level was the 2014 Physical Planning Act of Croatia. It contains restrictions on building outside of settlement borders, regulates terms and conditions of further spreading of the settlements, protects sensitive areas (Vidan, 2014). It is considered relatively successful in its aims, which are generally aligned to sustainability.

The Czech Republic has also raised the bar on greenfield building by requiring a proof-of-need. When zoning for new urban development, the need for new land (and, formerly, the impossibility of using currently zoned urban land) needs to be approved according to the Building Act. More recently, it has been integrated into the EIA process. This is seen as a mixed success; it is aligned to sustainability but has been criticised for burdening the planning process. Already in 1980, the Andalusia region in Spain introduced quantitative urbanisation

caps for medium and large municipalities (40% of the previously existing urban land or 30% of the previously existing population within eight years) as well as the coordination of management systems for protected natural areas. It was singled out a European best practice to limit, mitigate or compensate soil sealing (European Commission, 2012).

Austria has introduced a very non-coercive containment measure, based on information. The Infrastructural Cost Calculator, introduced in 2012, was offered by the federal planning authority of Lower Austria to their municipalities, allows them to pre-assess municipal infrastructural costs and tax revenues that would come with certain population increase and therefore should result in more informed decisions (Figures 3.5 and 3.6). Given that diffuse development generally requires more infrastructural public investment per capita than compact development, this tool could potentially affect local decision making (Humer et al., 2019).

Figure 3.5: Factory outlet centres or 'villages' are often located out-of-town



Source: Google

Figure 3.6: Inglostadt village replicates a town centre on a greenfield

Source: hammerson.com

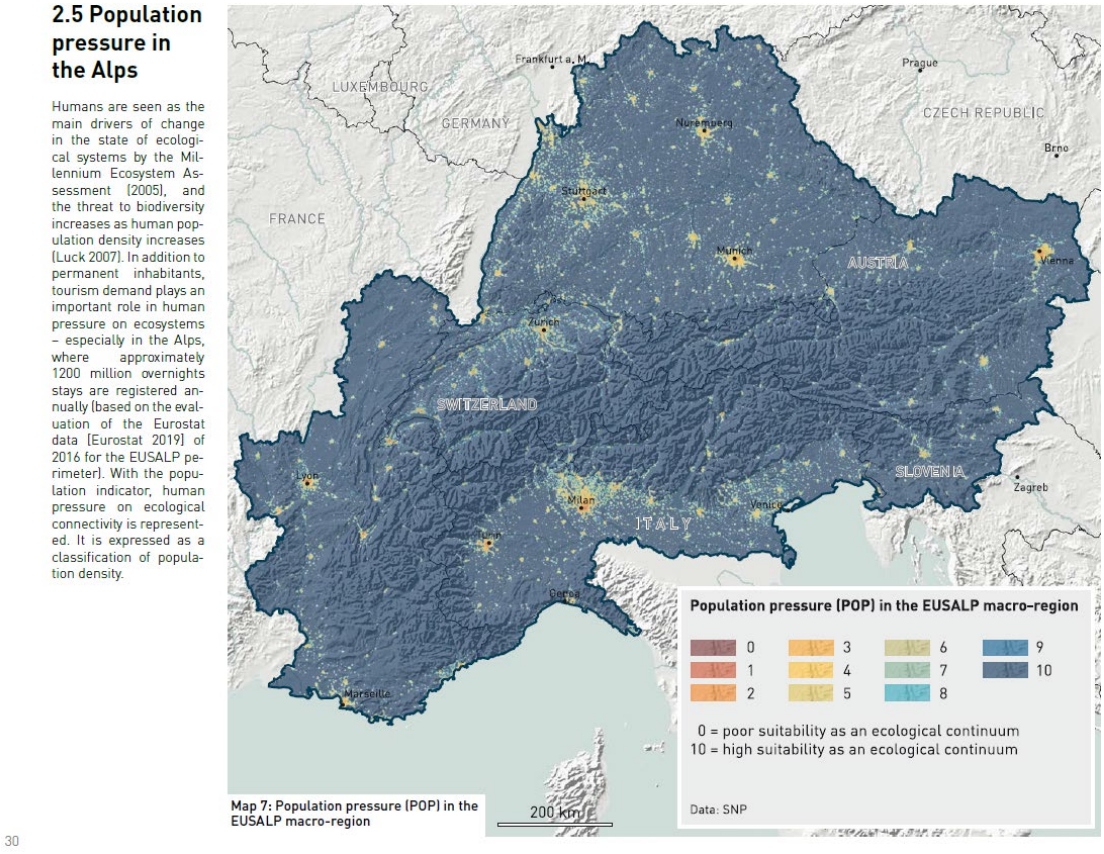
Retail is a common target of containment policies because it determines to a large degree the vitality of city centres. Various nations across Europe have implemented policies to restrict out-of-town retail development, such as suburban shopping malls, retail parks and hypermarkets (Davies, 1995; Evers, 2008).

One example is the central government ‘planning policy guidance’ PPG6 on town centres in the United Kingdom. This policy aimed to focus retail development in areas which were not car-dependent (generally existing town and city centres), providing instructions to local planners to bear this in mind when making decisions on planning permission (Department of the Environment, 1993). This was made concrete by introducing the introduced the concept of "sequential approach". Adopting a sequential approach means that first preference should be for town centre sites, where suitable sites or buildings suitable for conversion are available, followed by edge of-centre sites, district and local centres and only then out-of-centre sites in locations that are accessible by a choice of means of transport. In general, it was seen as relatively successful: PPG6 has certainly been effective in changing attitudes to retail development and keep retailers in city centres. On the other hand, despite the clear focus in the guidance on the need for positive planning to promote town centre development, it has largely been interpreted as a development control tool (Hillier Parker & Cardiff University, 2004). Likewise, in the Netherlands, the government imposed nationwide restrictions on ‘peripheral’ retail developments (shops outside existing centres) in the 1973-2006 period. This policy only allowed shops selling certain ‘bulky’ goods at out-of-town locations, such as car showrooms, furniture warehouses, DIY and home improvement and garden centres. Like in the UK, this policy was seen as highly effective in steering development and preserving the vitality of city centres, but also viewed as regulatory (Evers, 2002, 2008; OECD, 2006; van der Krabben, 2009). Since 1997, via an amendment to its Planning Act, Denmark also placed restrictions on the construction of large shops and shopping centres on greenfield sites outside the largest cities and promotes small retailers in small and medium-sized towns in order to counteract diffuse urbanisation in regions with a shrinking population, an intervention

that was identified a best practice (European Commission, 2012). The intervention was not uncontroversial: it was supported by the association of small shopkeepers and consumer organisations but opposed by municipalities and big retail chains. In the end, “the minister had the power and the will to implement the very detailed top-down regulation of municipal retail planning” (Reimer, 2014). The Act stipulates that new shops should be located in town centres and even limits the size of shops within these centres: “3500 m2 for general shops and – usually – 2000 m2 for specialty shops, in town centres, centres of city districts and secondary centres. In small local centres, the maximum shop size is 1000 m2” (Danish Ministry of the Environment, 2012).

Although containment strategies rarely transcend national borders, the Alpine Network of Protected Areas (ALPARC), founded in 1994, brings together hundreds of protected areas of all kinds in the Alps, from France to Slovenia. The ALPARC association promotes the exchange of expertise, techniques and methods among the managers of Alpine protected areas (Fig. 3.7). Moreover, it initiates and facilitates common projects and helps to pool resources. So far, ALPARC is considered a success story both in terms of its own goals and sustainability. The official website (https://alparc.org) contains an extensive resource library on its activities, including a spatial analysis of its activities (ALPBIONET2030, 2019). In the view of SLU, the ALPARC guarantees a pro-sustainable land use development by promoting measures that reduce landscape fragmentation, as well as support an efficient use of natural resources (land, biodiversity etc.). In so doing, ALPARC acts in favour of ecological networks instead of developing additional anthropological initiatives like new infrastructures, expanding urban settlements which are instead contained. Another European policy that can deployed as a containment intervention is Life+ which provides funding for nature-related projects. In 2012, Bologna (Italy) created its Bologna Local Urban Environment Adaptation Plan for a Resilient City (BLUE AP) to provide the city with a climate change adaptation plan, which includes important measures for optimizing land use like: flood protection measures; de-sealing parking areas (i.e. building permeable parking lots); supporting roof gardens; rainwater harvesting and many other initiatives. These interventions aim to improve the containment and rationalisation of land use by adopting a very sustainable perspective.

Figure 3.7: spatial analyses of urbanisation pressure in a macroregion.



Source: ALPBIONET2030, 2019

Another recent example of European influence is how EU Integrated Coastal Zone Management (ICZM) requirements are taking effect in Malta. The policy obliges Malta to prepare a national ICZM strategy, and in 2019, Malta has opted to fulfil this requirement through the land-use planning system, and following ICZM's advice, it will fight land consumption and uncontrolled development along the coast (Ministry of Foreign Affairs and Trade Promotion, 2019). Another example of ICZM implementation can be found in Catalonia, which prepared a coastal plan in 2007 under the umbrella of Spanish Strategy for Coastal Sustainability (SCS) enacted a couple years earlier. The aim was to deal with development pressures and environmental sensitivities along the coast, which was deemed successful. One evaluation concludes that the SCS was instrumental for the construction of a base of knowledge to improve coastal management practices, but its implementation was undermined by complex distributions of competences (Sanò et al., 2010).

Quite surprisingly, factors in the category **governance** were not frequently identified in interventions assigned to the type governance. The most frequent factor in this group was 'collaboration' (6). Governance related interventions aim at improving the ways and mechanisms through which governmental stakeholders decide to manage urban areas, for example through cross-sectoral integration policies, as well as urban and regional plans. Despite the relevance of the topic, governance interventions seem to have produced results that are varied.

Interventions that promote a long-term sustainable development perspective and adopt an integrated approach are generally more effective. In Stockholm, the *urban transformations and modalities of integrated planning* are considered successful cases of integrated land use, housing, and transport planning. Nevertheless, multi-level collaboration in Stockholm's urban transformations have had to face challenges, as the intervention of the central government, while aiming at favouring the integration of local actors, after a decade of success ended up with a disintegration of the established partnership that persists until now[1]. In Helsinki, *the agreements on land use, housing, and transport (MAL)* for the 2016–2019 period are also widely perceived as successful. In fact, the intervention promotes a more effective land use management and future sustainable development, as well as cooperation between the municipalities.

As regards the adoption and implementation of urban plans, governance interventions seem to have had different impacts in a city or another. In particular, multilevel collaboration seems to improve the effectiveness of these types of interventions. In Poland, the 2016 *planning law and housing policy of the Warsaw metropolitan area* is a positive intervention, which has contributed to improving the spatial structure of both the city and its surrounding area, in the light of long-term sustainable development (e.g., green corridors, protecting green areas, reducing sprawl). Similarly, the *Tri-City metropolitan area planning* (Poland) aims to promote a harmonious development of the functional costal area of Gdansk-Gdynia-Sopot, enhancing public transport. The intervention is generally perceived as successful due to the integrated governance structure it set up; however, despite its good potential, some time is still needed to fully assess its success. In contrast, in the functional area of Poznań (Poland) the attempt to promote bottom-up, integrated metropolitan planning led to the approval of the *Poznań metropolitan area planning law* that, despite identifying the areas that are important for environmental protection and cultural landscape, providing indications for degraded areas that require urgent revitalisation activities, failed to achieve the expected results in terms of municipal coordination.

In a slightly different context, the city of Ghent's integrated spatial plan shows that while flexibilisation and de-regulation are positively related with political decentralisation mechanisms, this can hinder coordination and institutional public leadership.

There were less pertinent examples for the types **spatial quality and sectoral policies**, so these will be discussed together. For successful spatial quality interventions, an especially important factor appeared to be 'financial tools' (4), while for interventions labelled as 'sectoral policy: environment this was 'long-term perspective' (3). The number of interventions categorised as 'sectoral policy: transport' and 'sectoral policy: rural areas' was very small (respectively, 5 and 2) and thus it was impossible to identify specific factor-related patterns in these cases.

Sectoral policies refer to transport (e.g. transport on demand, cycle paths), environment (e.g. air, soil, and water quality), and rural development (e.g. agriculture, landscape) policies, and

are here taken into account in relation to the impact they potentially produce on sustainable land-use and urbanisation. Overall, a number of interventions show that the adoption of a more integrated policy approach leads to a more sustainable development. The *Urban Mobility Plan of Barcelona*, for instance, aims to reduce motorised transport and promote active mobility, introducing 'the superblock model[2]', an intervention that is considered to be very successful since it reduced air pollution and road injuries. In the United Kingdom, the *Mini-Holland in Waltham Forest* (London) is another successful intervention that supports urban mobility. Over the last five years, more than 20 km of segregated cycle lanes[3] have been built on the model of Dutch-style infrastructure. According to the interviewee, the intervention has raised public awareness and promoted eco-friendly transport solutions. The results of the Slovenian *Sustainable Urban Mobility Plans*[4] (SUMP) are more mixed. The country decided to adopt the 'EU Sustainable mobility for a prosperous future' strategy in order to manage urban mobility more effectively. However, only one third of the municipalities adopted them and their poor acceptance by local political leaders remains one of the main challenges. Since SUMPs are not an obligatory instrument under the Slovenian law, providing financial support appeared to be the best way to encourage their development and implementation. Another questionable intervention is the City of *Sofia's underground metro*, that appears unable to integrate its mobility aims with achieving a more integrated land use approach. The *Lyon-Torino high-speed railway and tunnel project*[5] (a cross-border intervention) also represents a less successful story due to the continuous delays and contrasts it has generated through time. This project aims to connect the TEN-T branch between France and Italy with a high-speed railway, which would also reduce transport pollution. Nevertheless, the project has been contested by environmental associations for its potential impacts on the environment (e.g. consumption of land, exploitation of natural resources).

In Germany, the *BOKS – Soil Protection Concept*[6] is a successful example of sectoral intervention, which promotes a higher level of environmental quality and aims to reduce soil consumption. To do this it promotes two main approaches: i) 'inner urban development', which focuses on brownfield redevelopment; ii) 'degressive rationing' which aims at a yearly minimisation of soil consumption until all planning activities are inner urban development. On the contrary, in Austria, the *Soil Enhancement Plan*[7] seeks to retain high-quality soil, and therefore has the potential to support sustainable urbanisation and land-use, but is rarely applied.

An interesting intersection of sustainable land use and sustainable energy production can be found in the *Lower Austrian spatial planning ordinance for wind energy utilisation*[8], which sets up a framework to manage wind-park development until 2030. It identifies wind energy zones where wind turbines are allowed (referred to as 'positive zoning') as well as areas where development is severely restricted. From a social and environmental perspective, the intervention has succeeded in safeguarding valued nature and wildlife assets yet has neglected other goals of sustainable land-use. One main social/environmental cost is that it

steers wind turbines into green areas. Development in these areas, especially in forestry areas, is highly controversial in Austria. The main shortcoming is that it excludes land-use combinations that might be more desirable from a sustainability point of view, e.g. the combination with industry and infrastructure. The *flood management system along the Tisza River in Hungary*[9], aiming to reduce risk flow in the region through mitigation procedures, is considered unsuccessful due to a lack of coordination between authorities and financial mechanisms. In fact, the interviewee points out that even though the plan was financed by EU Cohesion Policy, there has been 'no coordination with domestic incentives or subsidy policies'.

It is also worth mentioning the 2007–2013 cross-border project *Green cross-border area-Investment in nature*, in the cross-border region of Kyustendil–Surdulica (between Bulgaria and Serbia). The latter is perceived as a positive intervention, since its introduction has progressively enhanced sustainable cross-border development, environmental awareness, as well as an increasing mutual understanding and exchange of knowledge and good practices. Finally, the introduction of the Protected Coastal Area in Croatia has been welcomed by the majority of the stakeholders. These feel that it is contributing to limit land take/soil sealing impacts in the coastal zone by prescribing clear regulations on the construction activity.

Table 3.6: The most frequent success factors according to the type of intervention (source: authors).

FACTOR	NUMBER OF INTERVEN-TIONS	EXAMPLES
Densification		
Legally binding	5	• Law for Sofia (BG) • Building Law from 2009, Gestaltungs- und Überbauungspläne (Art. 21 – Art. 31) (LI) • Expropriation for urban development purposes in Germany (DE) • General Development Plan of the City of Stara Zagora and its Adjacent Territories (BG) • Municipal Industrial Park Borská Pole (Bory Air Fields; MIP BP); City of Plzeň, West Bohemia (CZ)
Reusing resources	5	• Planning new eco-district (Royal Seaport) in Stockholm and its relation to municipal planning in general (SE) • Brownfield targets (UK) • High density urban expansion (NL) • Municipal Industrial Park Borská Pole (Bory Air Fields; MIP BP); City of Plzeň, West Bohemia (CZ) • South Harbour (Sydhavn), Copenhagen waterfront/brown field urban re-development (DK)
Private partners	4	• South Harbour (Sydhavn), Copenhagen waterfront/brown field urban re-development (DK) • Planning new eco-district (Royal Seaport) in Stockholm and its relation to municipal planning in general (SE) • Land readjustment in Germany (DE) • National Infill Programme ("Nationales Baulückenprogramm") (LU)
Multi-dimensionality	4	• South Harbour (Sydhavn), Copenhagen waterfront/brown field urban re-development (DK) • Land readjustment in Germany (DE) • General Development Plan of the City of Stara Zagora and its Adjacent Territories (BG)

		• Municipal Industrial Park Borská Pole (Bory Air Fields; MIP BP); City of Plzeň, West Bohemia (CZ)
Conditioning	3	• Building Law from 2009, Gestaltungs- und Überbauungspläne (Art. 21 – Art. 31) (LI) • Fiscal taxation (IT) • Physical Planning Act (HR)
Containment		
Coordination	11	• Urban growth boundaries in the Netherlands (NL) • Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT) • Kooperationsplattform Stadtregion (Cooperation platform of an urban region) (AT) • Galician Coastal Managment Plan (SP) • Physical Environment Special Plan Protection (Andalucia Region) (SP) • Agreements for Sustainable Transport (and Land Use in Urban Areas) (NO) • Vision Rheintal (Vorarlberg) (AT) • The zero-growth goal for car traffic (NO) • Afforestation project (HU) • Integrated policy planning in Antwerp & Flemish decree on spatial planning (BE) • Stockholm Urban Containment Strategy (SE)
Long-term perspective	9	• Referendum to limit land take (CH) • Galician Coastal Managment Plan (SP) • Physical Environment Special Plan Protection (Andalucia Region) (SP) • Agreements for Sustainable Transport (and Land Use in Urban Areas) (NO) • Vision Rheintal (Vorarlberg) (AT) • The zero-growth goal for car traffic (NO) • Integrated policy planning in Antwerp & Flemish decree on spatial planning (BE) • Stockholm Urban Containment Strategy (SE) • Construction fee in Emilia Romagna Region (IT)
Collaboration	7	• 30 Ha Goal (DE) • Physical Environment Special Plan Protection (Andalucia Region) (SP) • Kooperationsplattform Stadtregion (Cooperation platform of an urban region) (AT) • Vision Rheintal (Vorarlberg) (AT) • ALPARC strategic plan (IT) • Integrated policy planning in Antwerp & Flemish decree on spatial planning (BE) • Stockholm Urban Containment Strategy (SE)
Expert knowledge	6	• Galician Coastal Management Plan (SP) • Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT) • Protected Coastal Area within the Physical Planning Act (HR) • Vision Rheintal (Vorarlberg) (AT) • Bologna BLUE AP 2015 (IT) • Stockholm Urban Containment Strategy (SE)
Multi-dimensionality	6	• Land readjustment in Germany (DE) • Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT) • Spatial Planning Act (DK) • Corona Verde (green crown) (IT) • The zero-growth goal for car traffic (NO) • Berlin Program on Sustainable Development (BENE) (DE)
Limitations on the market mechanisms	6	• The Weber Law (CH) • Spatial Planning Act (DK) • Green Belt Policy (UK) • Zero Net Artificialisation (FR) • Peripheral retail (PDV) policy (NL)

		• Construction fee in Emilia Romagna Region (IT)
Local and community orientation	5	• Spatial Planning Act (DK) • Galician Coastal Management Plan (SP) • Peripheral retail (PDV) policy (NL) • ParckFarm (BE) • Bologna BLUE AP 2015 (IT)
Multilevel	5	• Galician Coastal Management Plan (AT) • Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT) • Urban growth boundaries in the Netherlands (NL) • Kooperationsplattform Stadtregion (Cooperation platform of an urban region) (AT) • Vision Rheintal (Vorarlberg) (AT) • Stockholm Urban Containment Strategy (SE)
Special areas	4	• Coastal Director Plan of Catalonia (SP) • Building restriction (LV) • Berlin Program on Sustainable Development (BENE) (DE) • Integrated Coastal Zone Management (MT)
Vision	4	• Protected Coastal Area within the Physical Planning Act (HR) • Vision Rheintal (Vorarlberg) (AT) • Corona Verde (green crown) (IT) • Stockholm Urban Containment Strategy (SE)
Conditioning	4	• Referendum to limit land take (CH) • The Weber Law (CH) • Formal nature protections law and areas (DE) • Construction fee in Emilia Romagna Region (IT)
Legally binding	4	• Referendum to limit land take (CH) • The Weber Law (CH) • Formal nature protections law and areas (DE) • Construction fee in Emilia Romagna Region (IT)
Compromise	3	• Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT) • Kooperationsplattform Stadtregion (Cooperation platform of an urban region) (AT) • Dezoning urban functions via imposed land-use plan (NL)
Rising awareness	3	• Referendum to limit land take (CH) • Physical Environment Special Plan Protection (Andalucia Region) (SP) • ParckFarm (BE)
Regeneration		
Reusing resources	13	• Community-led regeneration in Casoria (IT) • Áreas de Reabilitação Urbana – ARU (PT) • Brownfield targets (UK) • Regeneration policies of urban renaissance in the 2000s (UK) • Revitalisation of areas (LV) • 22@Barcelona (SP) • Municipal Industrial Park Borská Pole (Bory Air Fields; MIP BP); City of Plzeň, West Bohemia (CZ) • South Harbour (Sydhavn), Copenhagen waterfront/brown field urban re-development (DK) • Transforming vacant urban areas (DE) • Dublin Docklands (IE) • Remediation of Solec Kujawski's brownfield (PL) • Vila d'Este (PT) • Piano Preiferie 1 and 2 (IT)
Multi-dimensionality	6	• South Harbour (Sydhavn), Copenhagen waterfront/brown field urban re-development (DK) • PPG6 (UK) • Gründachstadt Linz (roof greening of the city of Linz) (AT) • Municipal Industrial Park Borská Pole (Bory Air Fields; MIP BP); City of Plzeň, West Bohemia (CZ) • Caserne de Bonne (FR) • Piano Preiferie 1 and 2 (IT)

Private partners	5	• Revitalisation of areas in Latvia (LV) • Áreas de Reabilitação Urbana – ARU (PT) • 22@Barcelona (SP) • South Harbour (Sydhavn), Copenhagen waterfront/brown field urban re-development (DK) • Community-led regeneration in Casoria (IT)
Coordination	5	• Regeneration policies of urban renaissance in the 2000s (UK) • Revitalisation of areas (LV) • 22@Barcelona (SP) • Caserne de Bonne (FR) • Miasteczko Wilanów (PL)
Long-term perspective	5	• Community-led regeneration in Casoria (IT) • Gründachstadt Linz (roof greening of the city of Linz) (AT) • Caserne de Bonne (FR) • Vila d'Este (PT) • Piano Preiferie 1 and 2 (IT)
Governance		
Collaboration	7	• Plan STEP 2005 in Vienna (AT) • Urban transformations and modalities of integrated planning (SE) • Government - municipality urban agreements on land use, housing and transport (FIN) • Bjelovar-Bilogora County's Development Strategy (HR) • Tri-City metropolitan area planning (PL) • Swiss Agglomeration Programmes (CH) • Integrated Territorial Investments (ITI) (PL)
Spatial quality		
Financial tools	4	• Land readjustment ("remembrement urbain") (LU) • Reference land values in Germany (DE) • Reference land values in Sweden (SE) • Land readjustment (Perequação) (PT)
SP Environment		
Long-term perspective	3	• BOKS - Soil Protection Concept (DE) • The Environmental Code (no. 152/2006) (IT) • The 2015 National Strategy for Climate change adaptation (IT)

The number of unsuccessful interventions was much smaller than successful ones, thus it was considered justified to simplify the analysis and identify the most frequent factors without focusing on specific types of intervention. For unsuccessful interventions the highest frequencies noted 'one-dimensionality' (3) 'decentralisation' (2) and 'liberalisation' (2) in the case of containment interventions as well as 'one-dimensionality' (3) and 'market orientation' (2) for spatial quality interventions. An example could be land take in small municipalities around Bratislava where local spatial plans, instead of ensure environmental protection and sustainable development, facilitated large-scale development in the suburban ring (including large-scale retail), development in the natural and agriculture areas as well as second home developments on the Danube riverside. Another example can be found in Turkey where enormous immigration pressure on the large cities, including Istanbul, resulted in unsustainable housing renewal projects. Market-oriented and liberal approach lead to the development of the high rise housing on the peripheral areas, without social infrastructure and transport facilities. In the majority of cases these kinds of projects have been driven by speculation.

3.5.2 Type of instrument

In order to implement interventions public authorities may use one or several types of instruments. Based on the classification applied in the interventions database five main types of tools can be distinguished: those aimed at regulating actors' behaviours in the form of general laws (legal devices), those limiting the possible ways of land development on specific sites (land use regulations), those defining rules and guidelines in the form of strategies and programmes, and specific projects varied in terms of scope, scale, as well as territorial and time range. In the following paragraphs examples of interventions using each of the instrument types are provided.

Successful interventions using **legal device (26)** instruments were most often related with factors classified as 'design': 'financial tools' (8), 'legally binding' (7), 'conditioning' (6) and 'compensation' (3), as well as 'long-term perspective' (6), 'limitations on market mechanisms' (6), 'local and community oriented' (5), 'reusing resources' (4) and 'coordination' (3) (Tab. 3.4).

An example of legal device intervention could be extended compensation mechanisms based on eco-points systems in Germany and Luxembourg. German Eco-account system has been introduced in 2002 and allows developers in a relatively easy way to acquire eco-points from the compensation agencies. The system is assessed as more fair and transparent and it allows to control the quality of measures better. However, compensation measures are not focused on soil sealing or land take but on nature in general, and there is no limitation to land take thus the positive impact of SLU goals might be limited. Developers who consume more simply pay larger amounts of money which are relatively low (1-5% of the direct costs of a development per m²) (Mazza & Schiller, 2014). Slightly different approach was adopted in 2018 in Luxembourg where Ökopunkte System differentiates the 'value' of the land use depending of scarcity and restoration potential. Similarly, the monetary value of eco-points is determined. Additionally, a national register enables the allocation of measures to the respective projects with compensation requirements as well as ecopoints trading. Compensation measures are focused mostly on the environmental aspect of SLU, however, due to their transparency they are also beneficial for developers. On the other hand, as the Dutch example of ecological compensation mechanism shows, not all compensation mechanisms are successful. In The Netherlands only half of the land which was classified as to be compensated was actually compensated, largely due to lack of sanction when compensation is not carried out (Coperus et al., 2001).

Another type of legal device instruments are reference land values systems examples of which can be found in Sweden and in Germany. These tools have a long history, dating back to 1960 in Germany and 1980s in Sweden. They are focused on economic and social dimension of SLU but, through indirect effect, may also have a positive impact on the environment through reduction of land speculation. In Germany the system was established to support market transparency and to avoid speculations with land. Reference land values

are available for each neighbourhood and are evaluated and published periodically (Winrich Voß & Jörn Bannert, 2018). A slightly different approach has been adopted in Sweden where reference land values are determined by using the sales comparison approach. The values are related to the property taxation system but are used for a number of purposes. Unlike Germany, the Swedish system has no intention of influencing the land market (Kalbro & Norell 2018).

Tourism is a type of activity that might have a negative impact on sustainable land use (Fig. 3.8). It is thus not surprising that various countries adopt special legal instruments to mitigate these negative consequences. The Weber Law adopted in Switzerland in 2013 aims to fight land consumption by limiting the construction of second homes. Under the law no more than 20% of a municipality's housing can be second homes. Those with percentages above 20% run into building restrictions. The tool was extremely successful – since its introduction no new building permits for second homes have been granted as almost all Swiss ski resorts had already passed the 20% limit. The tool is addressing mostly environmental aspects of SLU at the expense of economy.

The regulation of touristic apartments in Barcelona (2015) was, on the other hand, focused on social and economic dimension. The aim was to control and manage the mass touristic apartment rental in the city. The registry of tourist apartments was created, as well as a neighbourhood map assessing the maximum allowed allocation of tourist rentals. Additionally, owners and managers of unlicensed apartments have been prosecuted. The tool was relatively successful, especially in the social dimension related with housing supply. Since the number of irregular apartments in Barcelona has dropped, properties could be offered for long-term rental, moderating the rise of rental prices and allowing low and middle income households to rent a flat in the city. Through that the pressure on new suburban estates declined thus the intervention addressed also the environmental aspect.

Figure 3.8: "Point of saturation": The Valais ski resort of Verbier boasts some 2,160 individual chalets.

Source: Keystone: https://www.swissinfo.ch/eng/rethinking-the-chalet_a-plan-to-save-swiss-ski-resorts-from-sprawl/42715672

For successful interventions that were using instruments from the **land use regulation** spectrum (17), the most frequent factors were those related with sustainability i.e. 'long-term perspective' (5) and 'multidimensionality' (3), and, from other factors categories, 'coordination' (4), 'expert knowledge' (3) and 'special areas' (3).

Several examples of successful interventions using land use regulation instruments can be found in Austria. In Linz "Gründachstadt Linz" (roof greening of the city of Linz) from 1984 introduced incentives to increase greening in built-up areas in order to reduce air pollution. The intervention was an answer to the dramatic loss of green spaces and decline in quality of life related to economic boom in the 1960s and 1970s causing high environmental degradation. The policy was based on sound research and introduced through legally binding development plans, financial support, and information and advertising (Hansen, 2015; Schroepfer & Hee, 2008). The intervention was one of the factors transforming Linz into a post-industrial city. On the other hand, in Lower Austria with initiative of 20 communities of Mödling the "Regionaler Leitplan - Bezirk Mödling" (Regional Master Plan) was adopted. The plan was prepared in collaboration with experts and representatives of local communities and was based on three straightforward principles: growth yes, but controlled and steered (for urban development), protect, use, connect, design (for green and open space), and modal split in favour of sustainable transport modes (for mobility). One of the factors of the intervention's success is its coordinative function allowing to act across administrative borders (Zech, 2016).

Berlin Biotope Area Factor introduced in 1994 aims at setting a benchmark in terms of improving ecosystem functions and developing biotopes and biodiversity in the inner-city areas. Plans for the development of new buildings fall under a regulation requiring a proportion of the area to be left as green space. The intervention contributes to a number of urban environment quality goals, as well as provides clear but flexible guidelines for developers. The tool also takes a qualitative approach, assuming that different types of green spaces weighted differently according to "ecological value". The success of this intervention might have been limited, since BAF is compulsory only in areas where legally binding Landscape Plans are present (16% of Berlin), while outside these areas the BAF is voluntary. However, due to its simplicity property owners and designers tend to use the BAF even if it is not obligatory.

Land use regulation tools seem to be especially appropriate for SLU intervention addressed for special areas, such as coastal zones. A successful example could be building restrictions adopted in 1997 in Riga, according to which building activities in rural areas are prohibited or limited within the first 300 m from the sea and in settlement areas within the first 150 m. Along river beds and around lakes, zones vary depending on the length and size of water bodies (from 10 m to 500 m) (European Commission, 2012). In Spain, the Coastal Director Plan of Catalonia from 2007 has been prepared within the framework of Spanish Strategy for Coastal Sustainability in order to deal with the particular development pressures and environmental sensitivities along the coast. It adopted principles of Integrated Coastal Zone Management (ICZM) and allowed to fight with uncontrolled development along the coast that is especially attractive for developers (Sanò, 2010).

Factors classified as governance, inclusion and sustainability were the most often associated with successful interventions using **strategies (26)**. The most frequent factors were 'collaboration' (11), 'coordination' (10), 'long-term perspective' (7), 'private partners' (6), 'multilevel' (6), 'multidimensionality' (4), 'reusing resources' (3) and 'vision' (5), as well as 'decentralisation' (3).

Interventions using strategies are usually, but not always, adopted at the national level. A positive example might be the Italian 2015 National Strategy for Climate change adaptation aimed at providing a policy framework dealing with the impacts of climate change on both the natural systems and the socio-economic sectors. The Strategy also addresses the issue of soil degradation and desertification related to climate change that is strictly related with SLU. It provides a national vision to address climate change adaptation, actions and guidelines to build adaptive capacity, and concrete proposals about cost-effective adaptation measures and priorities. For example, it provides adaptation measures to tackle the issues of soil protection and hydrogeological instability (e.g. landslides, floods and coastal erosion). Apart from supporting SLU and climate adaptation, the strategy has also strengthened collaboration between scientists, stakeholders, and decision-makers that can be perceived as a factor of institutional sustainability. On the hand, an example of Climate Adaptation Programme from

Portugal or Sustainable Urban Mobility Plans in Slovenia show, that success of this type of intervention might be reduced by lack of political will at the local level resulting from disregarding the problem of climate change (Campos et al., 2017).

An example of clearly successful strategy could be the zero-growth goal for car traffic applied in Norway since 2018. The strategy assumes that all growth in travel over the next decades is to be accounted for by transit and non-motorised modes. The goal is confirmed in the National Transport Plans which means that the strategy is a tool of coherent and complex transport policy. The target of zero-growth should be achieved by promoting public transport, cycling and walking in cities which means reduction of land consumption for transport infrastructure as well as air pollution in cities. In the long term perspective, reduction in car travels should also contribute to urban sprawl reduction.

For successful **project** interventions (16) especially important factors appeared to be 'reusing resources' (8), 'rising awareness' (3), 'coordination' (3) and inclusion of 'private partners' (3), while for interventions labelled as programme – 'special areas' (3).

Projects are very diversified group of interventions, but relatively large group of them are related with revitalisation and housing districts developments. An example could be Eco-Viikki in Helsinki (1999-2020) that is a reference project in Europe for new living standards successfully combined with minimal impact on the environment. The average 'sealed surface per capita' is much lower compared to standard single-family houses, likewise the average energy consumption per household is extremely low European Commission, 2012). Also successful was Caserne de Bonne in Grenoble, the first eco-district in France (2003-2009). The development addressed several problems of urban living and growing cities, such as solar heating systems fulfilling hot water needs or solar panels providing electricity for the commercial and residential buildings. From the SLU perspective the crucial factor is that the shapes of the buildings were compact to reduce land consumption and urban sprawl. Despite land consumption related with realisation of such projects, the main focus was on the environment, however, without neglecting other aspects of sustainable development.

Slightly different approach was adopted in community-led regeneration in Casoria (2013-2018) in Italy aimed at rehabilitation of abandoned areas and enhancing public-participation. The project was thus more socially oriented through implementing a series of small interventions in line with the broader urban strategy. From the offset, for example, owners of key brownfield sites were asked to provide temporary public paths on their land to connect future regeneration sites directly with the city centre. Community oriented was also the ParckFarm project implemented in 2014 in Belgium (Fig. 3.9). Former rail paths were transformed into a sustainable public park with community activities that created a new type of public space combining park with local micro farming. The aim was to sensitise the citizen to agricultural practices in the city. It also promotes public meetings with neighbours, farmers, designers and politicians.

Figure 3.9: ParckFarm

Source: https://visit.brussels/en/place/ParckFarm-T-T

An example of large-scale rehabilitation project could be Dublin Docklands regeneration (started in 1997). Its transformation can be seen as densification policy based on reusing urban resources, resulting from shifting dynamics of port facilities, de-industrialisation, and the subsequent emergence of the services-based economy (Lawton, 2015). Harbour transformation was also the aim of the Copenhagen project Sydhavn (started in 1995). Former industrial harbour area has been transformed into a modern urban neighbourhood with offices and new housing as a way to attract new residents to dangerously ageing city. The main rationale behind the project has been economical but it included also social aspects (i.e. the production of attractive housing for the middle class but also to a certain degree production of social housing) and to a lesser extent environmental. Apart from direct results the project induced institutional learning that may be useful for designing and implementation of similar projects in the future. However, the area lacks cultural institutions and recreational spaces, which can partly be explained by the institutional design and market-led approach. Similar problem (lack of social infrastructure), accompanied additionally by the land speculation, appeared in the Housing renewal project in Istanbul (2000) while Skopje 2014 project revealed domination of market orientation and using rehabilitation projects for political purposes.

The number of interventions categorised as **subsidy** was very small (4) and thus it was impossible to identify specific factor-related patterns in this case.

Table 3.7: The most frequent factors according to the type of instrument (source: authors).

FACTOR	NUMBER OF INTERVEN-TIONS	EXAMPLES
Legal device		
Financial tools	8	• Fiscal taxation (IT) • 30 Ha Goal (DE) • Zero Net Artificialisation (FR) • Land readjustment ("remembrement urbain") (LU) • Reference land values in Germany (DE) • Reference land values in Sweden (SE) • Land readjustment (Perequação) (PT) • Construction fee in Emilia Romagna Region (IT)
Legally binding	7	• Law for Sofia (BG) • Building Law from 2009, Gestaltungs- und Überbauungspläne (Art. 21 – Art. 31) (LI) • Expropriation for urban development purposes in Germany (DE) • Referendum to limit land take (CH) • The Weber Law (CH) • Formal nature protections law and areas (DE) • Construction fee in Emilia Romagna Region (IT)
Conditioning	6	• Fiscal taxation (IT) • Building Law from 2009, Gestaltungs- und Überbauungspläne (Art. 21 – Art. 31) (LI) • Referendum to limit land take (CH) • The Weber Law (CH) • Formal nature protections law and areas (DE) • Construction fee in Emilia Romagna Region (IT)
Long-term perspective	6	• Referendum to limit land take (CH) • Galician Coastal Managment Plan (SP) • Eco-account system (National Nature Conservation Act) (DE) • BOKS - Soil Protection Concept (DE) • The Environmental Code (no. 152/2006) (IT) • Construction fee in Emilia Romagna Region (IT)
Local and community oriented	5	• Building Law from 2009, Gestaltungs- und Überbauungspläne (Art. 21 – Art. 31) (LI) • Spatial Planning Act (DK) • Galician Coastal Managment Plan (SP) • PPG6 (UK) • The Urban Mobility Plan of Barcelona (SP)
Reusing resources	4	• Brownfield targets (UK) • Regeneration policies of urban renaissance in the 2000s (UK) • BOKS - Soil Protection Concept (DE) • Construction fee in Emilia Romagna Region (IT)
Coordination	3	• Galician Coastal Managment Plan (SP) • Regeneration policies of urban renaissance in the 2000s (UK) • The Environmental Code (no. 152/2006) (IT)
Compensation	3	• Referendum to limit land take (CH) • Eco-account system (National Nature Conservation Act) (DE) • Ecopoints compensation system (Ökopunkte System) (LU)
Land use regulation		
Long-term perspective	5	• Physical Environment Special Plan Protection (Andalucia Region) (SP) • Gründachstadt Linz (roof greening of the city of Linz) (AT) • Agreements for Sustainable Transport (and Land Use in Urban Areas) (NO) • Integrated policy planning in Antwerp & Flemish decree on spatial planning (BE)
Coordination	4	• Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT) • Physical Environment Special Plan Protection (Andalucia Region) (SP)

		• Agreements for Sustainable Transport (and Land Use in Urban Areas) (NO) • Integrated policy planning in Antwerp & Flemish decree on spatial planning (BE)
Multi-dimensionality	3	• Land readjustment in Germany (DE) • Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT) • Gründachstadt Linz (roof greening of the city of Linz) (AT)
Special areas	3	• Physical Planning Act (HR) • Coastal Director Plan of Catalonia (SP) • Building restriction (LV)
Expert knowledge	3	• Regionaler Leitplan - Bezirk Mödling (Regional Master Plan of 20 communities of Mödling) (AT) • Protected Coastal Area within the Physical Planning Act (HR) • Gründachstadt Linz (roof greening of the city of Linz) (AT)
Strategy		
Collaboration	11	• Kooperationsplattform Stadtregion (Cooperation platform of an urban region) (AT) • Vision Rheintal (Vorarlberg) (AT) • ALPARC strategic plan (IT) • Revitalisation of areas (LV) • Plan STEP 2005 in Vienna (AT) • Government - municipality urban agreements on land use, housing and transport (FI) • Bjelovar-Bilogora County's Development Strategy (HR) • Tri-City metropolitan area planning (PL) • Urban transformations and modalities of integrated planning (SE) • The 2015 National Strategy for Climate change adaptation (IT) • Stockholm Urban Containment Strategy (SE)
Coordination	10	• Agreements for Sustainable Transport (and Land Use in Urban Areas) (NO) • Urban growth boundaries in the Netherlands (NL) • Kooperationsplattform Stadtregion (Cooperation platform of an urban region) (AT) • Vision Rheintal (Vorarlberg) (AT) • The zero-growth goal for car traffic (NO) • Revitalisation of areas (LV) • Government - municipality urban agreements on land use, housing and transport. (FI) • Tri-City metropolitan area planning (PL) • Urban transformations modalities of integrated planning (SE) • Stockholm Urban Containment Strategy (SE)
Long-term perspective	8	• Agreements for Sustainable Transport (and Land Use in Urban Areas) (NO) • High density urban expansion (NL) • Vision Rheintal (Vorarlberg) (AT) • The zero-growth goal for car traffic (NO) • Plan STEP 2005 in Vienna (AT) • Bjelovar-Bilogora County's Development Strategy (HR) • The 2015 National Strategy for Climate change adaptation (IT) • Stockholm Urban Containment Strategy (SE)
Private partners	6	• Land readjustment in Germany (DE) • National Infill Programme (“Nationales Baulückenprogramm”) (LU) • Revitalisation of areas (LV) • Áreas de Reabilitação Urbana – ARU (PT) • Plan STEP 2005 in Vienna (AT) • Urban transformations and modalities of integrated planning (SE)
Multilevel	6	• Urban growth boundaries in the Netherlands (NL) • Kooperationsplattform Stadtregion (Cooperation platform of an urban region) (AT) • Vision Rheintal (Vorarlberg) (AT)

		• Government - municipality urban agreements on land use, housing and transport (FIN) • Urban transformations and modalities of integrated planning (SE) • Stockholm Urban Containment Strategy (SE)
Vision	5	• Vision Rheintal (Vorarlberg) (AT) • Corona Verde (green crown) (IT) • Plan STEP 2005 in Vienna (AT) • The 2015 National Strategy for Climate change adaptation (IT) • Stockholm Urban Containment Strategy (SE)
Multi-dimensionality	4	• Land readjustment in Germany (DE) • General Development Plan of the City of Stara Zagora and its Adjacent Territories (BG) • Corona Verde (green crown) (IT) • The zero-growth goal for car traffic (NO)
Reusing resources	3	• High density urban expansion (NL) • Revitalisation of areas (LV) • Áreas de Reabilitação Urbana – ARU (PT)
Decentralisation	3	• Central government policy guidelines for Coordinated Land Use and Transport Planning (NO) • Red for green: 'contour policy' (NL) • Planning doctrine (SE)
Programme		
Special areas	3	• Berlin Program on Sustainable Development (BENE) (DE) • Integrated Coastal Zone Management (MT) • Re-creation of Lake Karla (EE)
Project		
Reusing resources	8	• Municipal Industrial Park Borská Pole (Bory Air Fields; MIP BP); City of Plzeň, West Bohemia (CZ) • South Harbour (Sydhavn), Copenhagen waterfront/brown field urban re-development (DK) • Planning new eco-district (Royal Seaport) in Stockholm and its relation to municipal planning in general (SE) • Transforming vacant urban areas (DE) • Dublin Docklands (IE) • Community-led regeneration in Casoria (IT) • Remediation of Solec Kujawski's brownfield (PL) • Vila d'Este (PT)
Multi-dimensionality	4	• Municipal Industrial Park Borská Pole (Bory Air Fields; MIP BP); City of Plzeň, West Bohemia (CZ) • South Harbour (Sydhavn), Copenhagen waterfront/brown field urban re-development (DK) • Caserne de Bonne (FR) • Eco-Viikki (FI)
Long-term perspective	3	• Caserne de Bonne (FR) • Vila d'Este (PT) • Community-led regeneration in Casoria (IT)
Coordination	3	• Afforestation project (HU) • Caserne de Bonne (FR) • Miasteczko Wilanów (PL)
Rising awareness	3	• ParckFarm (BE) • Community-led regeneration in Casoria (IT) • Green cross-border area – investment in nature (BG)
Private partners	3	• South Harbour (Sydhavn), Copenhagen waterfront/brown field urban re-development (DK) • Planning new eco-district (Royal Seaport) in Stockholm and its relation to municipal planning in general (SE) • Community-led regeneration in Casoria (IT)

As for the type of intervention categorisation, also the number of unsuccessful interventions by type of instrument was much smaller than successful, thus it was justified to simplify the

analysis and identify the most frequent factors without focusing on specific types of instrument. The most frequent factors were: ‘market orientation’ for interventions categorised as projects (4), legal device (2) and land use regulation (2); ‘one-dimensionality’ for categories project (4) and legal device (2); ‘liberalisation’ for land use regulation (3) and project (2); ‘implementation problems’ for legal device (3); and ‘decentralisation’ for land use regulation (2).

4 Impact of EU policies on land-use

4.1 Introduction

Even if the EU has no explicit competences in promoting sustainable land use, it is by no means without influence with regard to urbanisation and land use development. This has been recognised by policymakers, international organisations, the scientific community and various stakeholders in the field of urban and spatial planning, geography, traffic planning, ecology, society science – just to name a few. A number of important reports have examined this issue explicitly, particularly the report *The direct and indirect impact of EU policies on land* (EEA, 2016) which provides a brief review of the direct and indirect impact of key EU policies on land in Europe and the report on *Spatial planning and governance within EU policies and legislation and their relevance to the New Urban Agenda* (CoR, 2018), which describes examples of main EU legislation and policies influencing spatial planning. Building on these sources, the project team contributed its knowledge regarding specific sectoral policies, agreements and other EU activities that impacts urbanisation and land use either directly or indirectly in their own countries or in Europe as a whole.

This data collection activity resulted in the identification of 59 EU policies of varying legal status, sectors and levels of impact. This Annex provides a description of the methodology, of the data collection and analysis as well as a presentation of conclusions and policy recommendations. It closes with a presentation of the 59 EU policies in the form of factsheets.

4.2 Methodology and data collection

This Annex explores the impact of EU policies on urbanisation and land-use. To this end, we first collected and reviewed EU policies across relevant sectors. Next, we transferred the information into a comprehensive data matrix. Finally, we created factsheets for each identified EU policy with a standard layout. The information in the factsheets was analysed further in order to identify patterns and to craft recommendations.

Table 4.8 below shows the structure of the EU-policy impact matrix with explanations of the data in each column. The overall approach to organising information was to extract the general description of each policy and its objective and to categorise it by policy area/topic and its status. In order to analyse the content and to determine the direct and indirect effects on urbanisation and land use, evidence was supplied in the form of quotations from supporting documentation. In addition, impacts were assessed according to whether they are negative or positive (i.e. whether they promote or impede sustainable urbanisation and the associated efficient land use). The categorisation of the information was based on a number of relevant reports and sources dealing with EU policies and land use. Specifically, the categorisation of EU policies was drawn from the classifications suggested in the report “Spatial planning and governance within EU policies and legislation and their relevance to the New Urban Agenda” Commission for Territorial Cohesion Policy and EU Budget (European

Union, 2018)[3] and the EEA Report No 8/2016 "*The direct and indirect impacts of EU policies on land*"[4]. As such, it does not aim to advance the theory on EU policy impacts or refine existing frameworks, but rather seeks build on these to accomplish the task at hand.

The official EC website was used as a basis to identify and classify policy areas. The website contains 34 categories, many of which were excluded due to their weak relevance for urbanisation and land use. After narrowing down the number of policy areas, these were grouped into 10 thematic areas to facilitate analysis.

In order to help contextualise the effects of EU policies, the matrix also features an additional table presenting examples at the national and subnational level. This supports the main analysis by showing concrete evidence of impact. These examples can be further explored in subsequent territorial impact assessments.

Table 4.8: Structure of EU-data collection matrix (source: authors).

Variable	Description	Values
Policy Area	Please choose the EU policy area which corresponds to the selected EU policy from the list. *The list is following the division of EU policies by topics as taken from EC web-site: https://ec.europa.eu/info/strategy_en and includes 34 categories*	Select from the list in drop-down menu (Energy, Environment, Transport, Business and Industry, Rural Development, Competition, Food safety, R&I etc.)
Name of EU Policy	Indicate full official name and year of the EU policy implementation (or adoption if it has an indefinite period), which impacts urbanisation and related land-use practices	*open answer*
EU Competences and Activities which impact urbanisation and related land use practices	Please select one of the following options: • Legislation (directives, regulations) (e.g. SEA Directive, Birds Directive, Landfill Directive, SEVESO III Directive) • Binding Strategic Documents and Policy Guidelines (Strategic documents, such as the *EU Biodiversity strategy to 2020*; Guidelines and best practices for land-related policy implementation, such as the guidelines on the *Integration of Natura 2000 into Cohesion Policy*) • Funding Instruments and Corresponding Programmes (e.g. European Structural Investment Funds: European Regional Development Fund (ERDF), European Social Fund (ESF), Cohesion Fund (CF), European Agricultural Fund for Rural Development (EAFRD) and European Maritime & Fisheries Fund (EMFF) and Guidance on European Structural and Investment Funds 2014-2020, e.g. Guidance for Member States on Integrated Sustainable Urban Development, other instruments: ITI, LEADER/ CLLD) • Non-binding Agreements, Agenda and Discourse: (Ministerial agreements – e.g. Territorial Agenda	Tick the corresponding column *open answer* for "Other"

[3] https://cor.europa.eu/en/engage/studies/Documents/Spatial-planning-new-urban-agenda.pdf

[4] https://www.eea.europa.eu/publications/impacts-of-eu-policies-on-land

	for EU 2020, EU publications, benchmarking, awards – e.g. Reports on Urban Europe, Urban Audit, State of cities report; Cohesion report etc.) • Other (please specify)	
Policy Description and Objective (s)	Briefly describe the EU policy and its objective (s). Please refer to a document or other source of information, if other than indicated in the section **"Name of EU Policy"**	*open answer*
Impact on urbanisation and related land use practices	Direct**:** (targeted at and directly referring to urbanisation, land use, land distribution etc. e.g. no-land-take target, conservation of natural habitat areas etc.) Indirect**:** (targeted at other areas which might have considerable implications on urbanisation and related land-use practices, e.g. EU funding support for roads that provide a "seed" for urban sprawl etc.)	Tick the corresponding column and provide an explanation in brackets *multiple selection is possible (e.g. policy has both direct and indirect impact)
Evidences of impact on urbanisation and related land-use practices	For direct impact: please quote the relevant parts of the text in the EU document concerning urbanisation and related land-use practices. Please highlight the key words in bold and clearly indicate the source of information, if other than indicated in the section "Name of EU Policy". For indirect impact: please provide evidences (if any) of the indirect impact of the EU policy on urbanisation and related land-use practices or quote a document or source (report, study, survey, statistical data, etc.) describing it. Please indicate clearly the source of information and page number. E.g.: *"Transport infrastructure has direct as well as indirect impacts, including land take, soil sealing and landscape fragmentation" (EEA, 2016: The direct and indirect impact of EU policies on land, p.53).*	*open answer*
Evaluation of impact in relation to sustainability of urbanisation and related land use practices	Positive (promoting sustainability)**:** (e.g. the focus on completing the missing links of the core transport network and the upgrade of current infrastructure are preventing additional land take that would take place in the absence of a coordinated approach) Negative (impeding sustainability): (e.g. it enhances land take, soil sealing and land fragmentation)	Tick the corresponding column and provide an explanation in brackets *multiple selection is possible
Additional Comments	Add any other relevant information	*open answer*
URLs	Please indicate all cited URLs	*open answer*
Case study examples **A case study example should provide information on the direct and indirect impact of EU policies on urbanisation and related land use practices on national, regional or local level**		
Country	Provide the country code from the case study example (e.g. AT, ES, IT, etc.)	*open answer*
Level	Select the scale on which the case study focuses (i.e. national, regional, local level)	national, regional, local
Short Description of the Case Study	Briefly describe the context of the Case study. Please also indicate clearly the source of information.	*open answer*
Impact on urbanisation and related land use practices	Briefly describe the impact of the EU policy on urbanisation and related land use practices in the selected case study. Please also indicate clearly the source of information.	*open answer*
URLs (Case Study)	Please indicate all cited URLs	*open answer*

Once contributions from all partners had been integrated into the matrix, 59 EU policies were identified of different legal status, representing various sectors and levels of impact. To analyze the results and build the whole picture obtained from the matrix, the format of factsheets was decided to be employed. Factsheets would present the analysis of policies' impact in a concise and readable manner for each of the EU policies covered in the matrix.

Each factsheet contains basic descriptive information on each policy (such as title, status, area). As not all of 34 areas of EU policy had been represented in the matrix, due to the fact that policies were selected based on their possible closeness and ability to impact or influence land take in a considerable manner, the policy areas used in the factsheets have been narrowed down to ten (as presented in table 4.9).

Table 4.9: Policy areas used in the factsheets (source: authors).

Nr.	Policy Area	Nr	Policy Area
1	Sustainable Land Use / Soil Protection	6	Environment / Climate Action
2	Urban Development	7	Transport
3	Regional Development / Sustainability	8	Energy
4	Cohesion Policy / Funding	9	Procurement
5	Agriculture / Rural Development	10	Maritime

The core section of the factsheet is "Impact on urbanisation and related land-use practices". It contains summarised information from the matrix on direct and indirect impact, evaluation of impact in relation to sustainability of urbanisation and related land-use practices. Further, the factsheets are added with the section "Policy gaps / weaknesses / negative effects", which contains an explanation for any omissions, gaps, lack of regulations, etc. leading to possible negative consequences for sustainable urban development. All together the type and direction (positive/negative) of impact is also represented in a color-coded bar at the top of each factsheet to provide an instant visual impression for each policy in regard to their role in sustainable urbanisation (Table 4.10).

Table 4.10: Impact and direction on urbanisation and related land-use practices (source: authors).

Legend: impact types and flagging

- A **strong direct positive impact** is attributed to policies with provisions directly targeting land use / soil, having sustainable urbanisation as its objective or directly supporting projects aimed at one of these topics.
- A **strong indirect positive impact** is attributed to policies from closely related sectors such as transport, environment, agriculture/rural development, which promote sustainable development in their own fields.
- A **weak direct positive impact** is attributed to policies containing few provisions or general statements regarding land use / soil / sustainable urbanisation or limited territorial impact.
- A **weak indirect positive impact** is attributed to policies from other sectors targeting other aspects of sustainable development, such as social development, social integration, etc.

Finally, potential negative effects may occur for each policy regardless of its direct or indirect character, so this is set as a flag in addition to the 4 categories above.

4.3 Analysis of collected EU Policies

This section provides an analysis of a comprehensive collection of EU policies. The selected EU policies can be classified into different EU activities and policy areas that impact urbanisation and land-use. European legislation (directives, regulations) can either restrict or stimulate the development of certain initiatives. Funding instruments can provide a wide range of incentives (mostly financial support) that can boost the development prospects of certain areas. Binding strategies define objectives that can have an effect on urbanisation and non-binding intergovernmental agreements can provide guiding documents for European and national policies.

As shown in the Table 4.11 and Fig. 4.10 below, the vast majority of European legislation identified belong to environmental policies (*e.g. Water Framework Directive, Environmental Impact Assessment (EIA) Directive, Floods Directive*), followed by energy policies (*Renewable Energy Directive, Energy Efficiency Directive or TEN-E strategy*) and procurement policies (*e.g. the Public procurement for a better environment*). The most commonly identified funding instruments are summarised under cohesion policies (*e.g. different INTERREG programmes*). Binding strategies and policy guidelines are represented in the areas of regional development (*e.g. the Roadmap to a Resource Efficient Europe*), transport (*e.g. Roadmap to a Single European Transport Area*), energy (*Energy 2020*), and environment policies (*EU Biodiversity strategy to 2020*). The identified Non-binding agreements are covered by areas referring to regional development (*like the European Spatial Development Perspective (ESDP)* or *the Territorial Agenda of the European Union 2020 (TA2020)*), urban development (*e.g. Urban Agenda for the EU, the Toledo or Basque Declaration*), sustainable land use and soil protection (*like the Soil Thematic Strategy or European Landscape Convention*), and environment or climate action policies (*e.g. EU Adaptation Strategy*).

Fig. 4.11 shows the number of identified EU policies by policy area with either a strong direct/indirect or weak direct/indirect positive impact on urbanisation and related land-use practice[5]. Whereas identified policies in the area of sustainable land use / soil protection, urban development and regional development have in almost all cases a strong positive effect, this phenomenon can be observed in about two-thirds of policies in the area of environment /climate action and in half of policies covered by areas of cohesion funding and agriculture / rural development. Policies under the area of energy, procurement or maritime are characterised by a weak positive impact.

Fig. 4.12 highlights the effects of the different European instruments and whether they affect urbanisation directly or indirectly positively. The barplot shows that all identified binding and most of the non-binding documents have a strong positive impact on sustainable urban

[5] The assessment is based on expert judgement working in the field of urban development and planning, spatial planning, regional development, and European regional policy.

development, whereas identified legislation and funding instruments were judged as having more often a weak impact. Further, European legislation and funding instruments were judged as leading more often to potential negative consequences for sustainable urban development (e.g. in terms of land take, soil sealing, land fragmentation) - illustrated in fig. 4.13.

Table 4.11: Overview of the identified policy measures at European level by different policy areas (source: authors).

Legislation (directives, regulations)	Funding Instruments and Corresponding Programmes	Binding Strategies, Documents and Policy Guidelines	Non-binding Agreements, Agenda and Discourse
Environment / Climate Action Water Framework Directive (#2) EIA Directive (#12) SEA Directive (#13) Natura 2000 (#14) Birds Directive (#15) Floods Directive (#16) Landfill Directive (#17) Waste Framework Directive (#18) Environmental Noise Directive (#32) Air Quality Directive (#33) Seveso III Directive (#34) **Agriculture and Rural Development** Rural Development Plans (#47) **Energy** Renewable Energy Directive (#35) Energy Efficiency Directive (#36) TEN-E strategy (#37) **Procurement** Public procurement for a better environment (#31) Public Procurement Directive (#38) Directive on procurement by entities operating in the water, energy, transport and postal services sectors (#39) **Maritime** Marine Spatial Planning Directive (#40) Marine strategy framework Directive (#41)	**Transport** TEN-T Guidelines (#1) **Cohesion Policy / Funding** ESI - Fund (#5) ERDF (#6) Cohesion Fund (CF) (#7) ESF (#8) URBACT III (#26) INTERREG (A) (#43) INTERREG (B) (#44) INTERREG (C) (#45) Macro-regional strategies (#46) Integrated territorial investment (#55) ESPON (#59) **Agriculture / Rural Development** EAFRD (#19) CAP (#20 / #56) **Urban Development** Urban Innovative Actions Initiative (#30) **Maritime** European Maritime and Fisheries Fund (EMFF) (#42)	**Regional Development / Sustainability** Roadmap to a Resource Efficient Europe (#11) EUROPE 2020 (#28) **Transport** WHITE PAPER - Roadmap to a Single European Transport Area (#25) **Energy** Energy 2020 (#29) **Environment** EU Biodiversity strategy to 2020 (#57)	**Regional Development / Sustainability** European Spatial Development Perspective (ESDP) (#3) Territorial Agenda of the European Union 2020 (TA2020) (#4) **Urban Development** Urban Agenda for the EU (#9) SUL_NBS Partnership (#10) Toledo Declaration (#27) Basque Declaration (#48) Aalborg Charter (#49) Aalborg Commitments (#50) The European Sustainable Cities and Towns conferences (ESCT) (#51) **Sustainable Land Use/ Soil Protection** The Soil Thematic Strategy (#23) European Landscape Convention (#58) **Environment / Climate Action** A new EU Forest Strategy (#21) Environment Action Programme to 2020 (#22) Soil Sealing Guidelines (#24) EU Adaptation Strategy (#52) Covenant of Mayors (#53) **Cohesion Policy** Seventh Cohesion Report (#54)

#number – refers to the factsheet number under chapter 4.4 *Collection of Factsheets*

Figure 4.10: Number of EU competences and activities influencing urban development by different policy areas (source: authors).

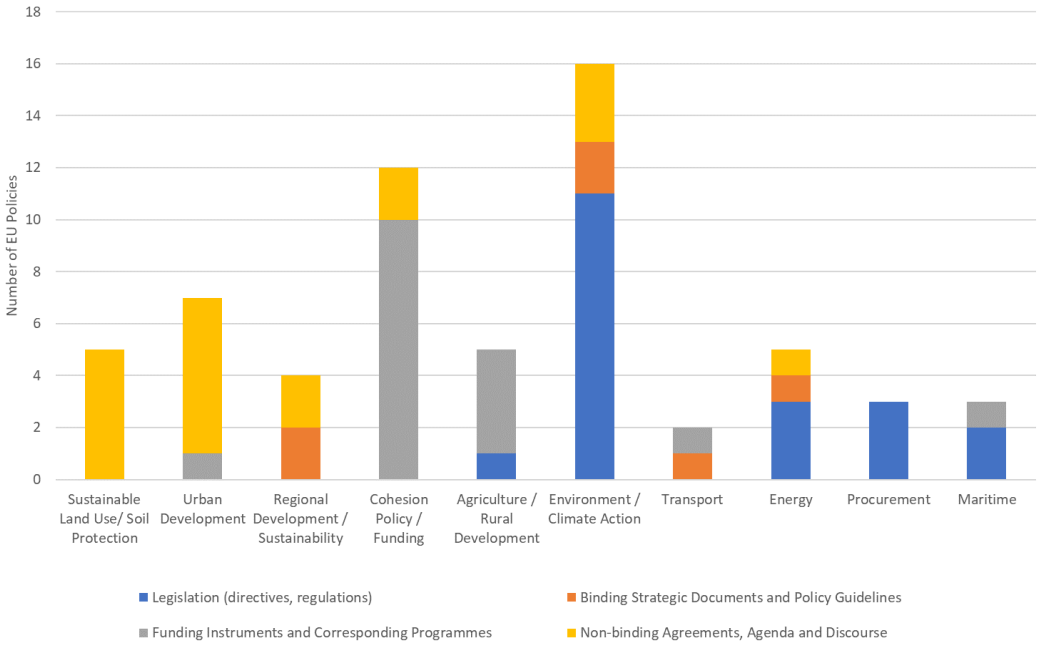


Figure 4.21: Strength and direction of positive EU policy's impacts on sustainable urban development by different policy areas (N = 59) (source: authors).

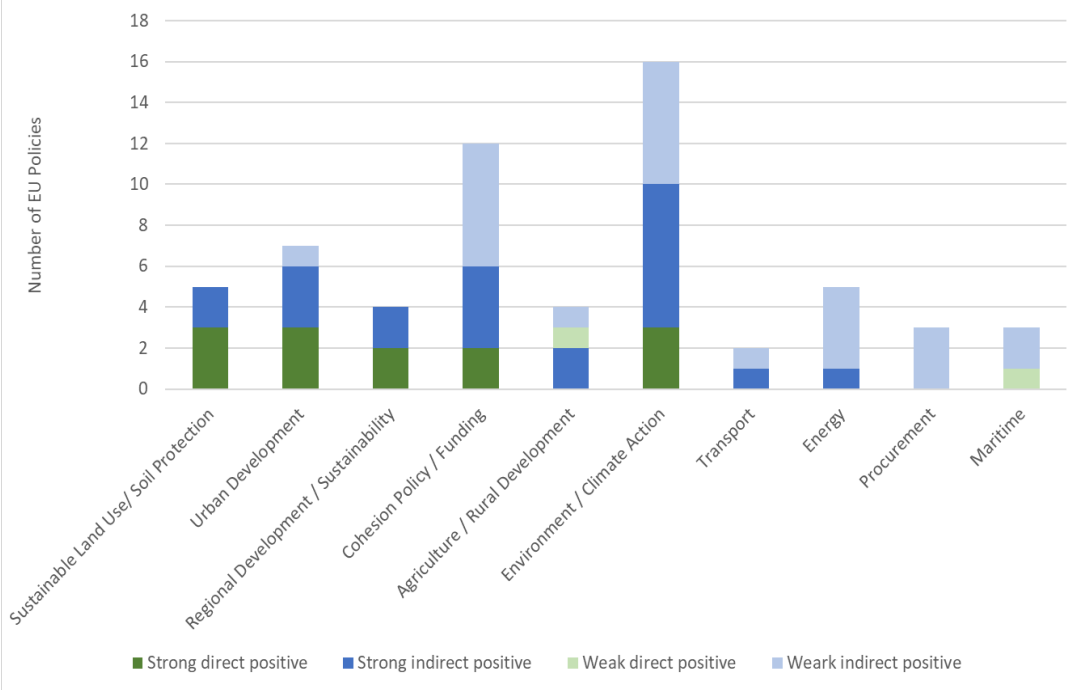


Figure 4.32: Strength and direction of positive EU policy's impacts on sustainable urban development by different European instruments (N = 59) (source: authors).

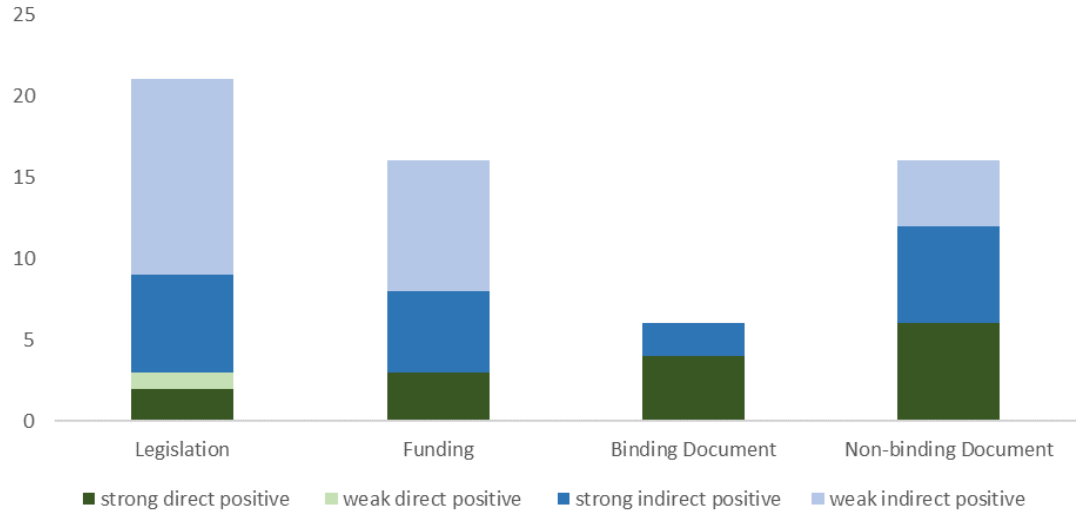
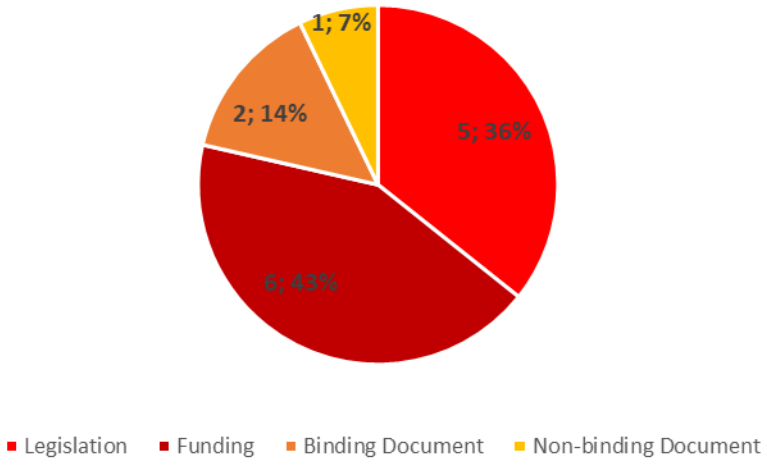


Figure 4.43: Distribution of policy instruments with potentially negative consequences for sustainable development (N = 14) (source: authors).



Combining a policy's area European mix of instruments influencing urbanisation with the expert judgment on the strength of these instruments in influencing urban development leads to the following observations:

- Policy areas where binding strategies and policy guidelines and non-binding agreements are established on the EU level were mainly judged as impacting urban development and land use with a strong direct or indirect effect. This holds particularly true for the policy areas "sustainable land use / soil protection", "urban development" and "regional development / sustainability". These policy areas are directly addressing core fields of urbanisation.
- Policy areas focusing on funding instruments ("cohesion policy / funding", "agriculture / rural development") were judged as impacting urban development and land use either weakly or strongly positive. This clearly mirrors the funding policies, where some are

quite directly targeting urban development, whereas other funding activities are just indirectly affecting land use.

- The policy areas addressed mainly by European legislation documents (energy, procurement, maritime) are judges as affecting urbanisation developments weakly. European legislation restricting land take in certain protected areas were judged as impacting urban development with a strong indirect effect.
- The policy area "environment" is addressed by a combination of European legislation documents as well as binding strategies and policy guidelines and non-binding agreements. According to the expert judgment, some of them have a strong, others a weak direct or indirect effect on urbanisation.
- The European legislation and funding instruments were judged as leading more often to potential negative consequences for sustainable urban development (e.g. in terms of land take, soil sealing, land fragmentation).

The influence of EU policies on urban development is rather complex and in many cases not even intended but a by-product of different actions. The results of the produced factsheets are further discussed in more detail in the following sub-sections. They contain more detailed examples of European legislation, funding instruments and binding and non-binding strategic documents and agreements that have a rather strong positive impact on sustainable land use. Furthermore, potential gaps, weaknesses and negative effects will be highlighted. In addition, this analysis supplies concrete examples of reports and scientific papers discussing the impact of European instruments on urbanisation and related land use practice in Member States.

Thorough presentation and categorisation help to get a good overview of the very different policies that affect sustainable urbanisation and land take in Europe. Policymakers therefore not only receive a collection of various EU policies, but they also receive them in a clear and analysed way. In addition, the sum of this analysis provides the ground for the formulation of policy recommendations at the European level.

4.3.1 European legislation

The most relevant legislations are regulations that apply automatically and uniformly to all EU countries and directives that are transposed into national or subnational legislation (generally within 2 years) by member states. A total of 21 pieces of legislation on the European level were identified with either a strong or weak direct or indirect impact on urbanisation and related land-use practice (Table 4.11). These concerned the areas of environment, energy, procurement, maritime, and agriculture and rural development. The impact of legislation on sustainable land use is illustrated by the following examples.

The **Environmental Impact Assessment (EIA)** directive 2011/92/EU establishes a requirement that Member States ensure that certain types of public and private projects which are likely to have significant direct and indirect effects on the environment undergo an obligatory assessment of the potential environmental impacts on (a) human beings, fauna and flora; (b) soil, water, air, climate and the landscape; (c) material assets and the cultural heritage; and (d) interactions between the (a-c) factors. All projects listed in the directive for the obligatory EIA procedure involve urbanisation. Sometimes these regard agriculture,

industry or waste treatment, but the most relevant projects are those for infrastructure development, as they include direct land take, but also have the potential to spur further urbanisation along the newly constructed infrastructure lines. By bringing such impacts into view prior to decision-making, the obligatory EIA should promote environmentally sustainable land use. It should also promote active actions toward compensation of adverse effects of urbanisation such as undue soil sealing. Although not directly restricting urban development, it still might improve the situation by highlighting the negative effects.

The **Strategic Environmental Assessment (SEA)** Directive 2001/42/EC sets the requirements for Member States to establish the procedure of an environmental assessment for plans and programmes that are likely to have significant effects on the environment. The obligatory SEA is required for plans and programmes for transport, telecommunications, energy, waste treatments, industry, tourism, each of which would have implications for possible urbanisation processes associated with or engendered by actions in these fields. More specifically, the Directive sets a number of criteria related to the characteristics of potentially affected areas, including the irreversibility of effects, intensive land-use, the effects on areas or landscapes with protection status. The incorporation of consideration of sustainable development into spatial and land use planning documents should lead to positive effects regarding sustainability, including constraining extensive urbanisation.

The **Natura 2000** directive 92/43/EC aims to contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States. The Directive operates in the field of environmental protection and does not concern land or soil per se. Nevertheless, it affects urbanisation both directly (by prohibiting development in protected areas) and indirectly (by restricting developments elsewhere which could undermine habitats). Hence, the impact of the Directive on urbanisation and related land use practices is considerable. The Directive by means of establishment of the network of protected areas sets limitations for land development within the network, hence restricting land take in certain protected areas. In general, determining protected areas important for flora and fauna habitat restricts land take which would be detrimental for the environment. Further, such measures as obligatory compensation or mitigation measures, as well as a general guiding requirement to avoid deterioration of natural habitats will also serve as constraining unsustainable land development. Further, one more channel of indirect impact exerted by the Directive is through its requirements as regards planning and policies. Thus, it calls for land use planning and development policies to recognise and respect environmental considerations with regards to fauna and flora habitats. Once these issues are incorporated in direct land use and planning policies, it would have a more direct effect.

The **Birds Directive** 2009/147/EC covers the protection, management, and control of all species of naturally occurring birds in the EU. The Directive sets an obligation to reserve certain areas for protected bird habitats, thus closing off these areas for any possible development. Further, it sets an obligation to create biotopes, thus determining certain land

use for designated areas, again precluding any other land developments there. Hence, it would exert an impact on urbanisation by imposing competing land uses and imposing restrictions on urban development in certain areas. The impact of Directive goes along with the overall policy under the umbrella of Natura2000 network. Hence, Member States are required to incorporate considerations and provisions of the Birds Directive's requirements into land use and planning policies.

The **Floods Directive** 2007/60/EC applies to all kinds of floods on all of the EU territory. The Directive calls for the introduction of flood risk concerns into planning and land-use policies. It also calls for the promotion of sustainable land-use practices and soil management. The Directive points at increasing human settlements, soil sealing, land cover and intensive land use among possible causes aggravating flood risks, therefore calling to address these issues. Further, it establishes a framework affecting land use in flood-prone areas, including possible restrictions of certain land uses for development. Measures put in place for flood risk prevention will result in more sustainable land use in flood-prone areas, including by restricting extensive land cover/ soil sealing. Certain flood-prone areas might be closed off for development in general, and as such, they will serve for preserving natural areas.

The **Water Framework Directive** (WFD) 2000/60/EC aims for a coordinated approach to protect and restore clean water within the EU and covers all freshwater bodies, as well as estuaries and coastal waters up to one nautical mile from the shoreline. The policy targets specific land uses, which are directly impacting waters (including pollutant inputs and anthropogenic alterations such as run-off diversion through land sealing). The WFD contains planning requirements, namely the preparation of RMBPs (River basin management plans) and FRAMPs (Flood risk management plans). Planning under the WFD, e.g. restore river morphology and flood plains may contribute to reducing land take and land degradation. In order to improve the ecological status of rivers, Member States have undertaken measures in their RBMPs and PoMs (Programme of measure) to restore wetlands and other natural features, by, for example, reversing morphological modifications that have changed river courses. These measures can influence land use by restricting areas for land take and may also improve soil quality.

The **Landfill Directive** 1999/31/EC aims to ensure a progressive reduction of landfilling of waste and to establish measures, procedures and guidance to prevent or reduce as far as possible negative effects on the environment and the resulting risks to human health by imposing strict operational and technical requirements on waste and landfills. As the Directive sets the requirements to the location of landfills it creates limitations on certain planning decisions in regards to land allocation for landfills. It, in turn, impact urban planning decisions and create competing land use for urban development at certain sites and around them (within buffer zones). Further, by setting strict requirements and measures to protect soils, groundwaters and minimise negative environmental impact, it promotes more sustainable land management of this particular kind (landfill lands). The strict requirements to the site and

conditions of landfills ensure the amelioration of negative environmental impact of such land use. More important positive impact is seen in setting targets to reduce landfill waste, so that with decreasing volumes of such waste less and less land will be taken for landfill sites. However, as more and more waste shall be undergoing recycling, additional land might be taken for waste recycling facilities.

Besides the positive direct or indirect impacts, many sectoral legislations may have on sustainable land use and urbanisation also weaknesses and even (un)intended negative effects may occur due to various reasons. The **EIA Directive** outlines, for instance, only general requirements towards the establishment of EIA procedure, and does not say anything regarding the criteria of granting or refusal of development consent based on EIA results, which might limit the positive impact of EIA. A similar situation applies to the **SEA Directive,** which expresses only general requirement of setting SEA procedures, while the detailed procedures, including criteria of acceptable or unacceptable levels of environmental impacts, are left to Member States. Hence, the actual impact of the Directive varies across Member States and is difficult to estimate. Further, also the **Environmental Noise Directive** does not define common target values and the measures that need to be included in the action plans, leaving the choice to each Member State. Other legislations with the need to respect protected areas (like the **Natura 2000**, the **Birds Directive** or the **Floods Directive**) might impede compact development and may lead to a so-called leapfrog development with patches of natural areas intermingled with sprawling developments in between. As it would serve environmental goals, it could also increase dependence on transport and the need for more extensive infrastructure as opposed to compact urban development mode. Further sustainable land use issues could have a more central position in various Directive´s scope of interest. This aspect could be improved to enhance the spatial effectiveness of e.g. the **Seveso III Directive**, the **Energy Efficiency Directive**, the **Renewable Energy Directive**, the **Marine Strategy Framework Directive** – just to name a few.

Below a list of scientific contributions discussing the impact of legislations on urbanisation in EU Member States (see Table 4.12).

[1] Paulsson A. (2020). The city that the metro system built: Urban transformations and modalities of integrated planning in Stockholm, *Urban Studies,* 1-20.

[2] Mueller et al. (2020). Changing the urban design of cities for health: The superblock model, *Environment International*, 134, 1-13.

[3] Waltham Forest Council (2019). Celebrating five years of Mini-Holland in Waltham Forest.

[4] Tinga, R. (2018). SUMP development in Slovenia.

[5] Tunnal Euralpin Lyon-Turin.

[6] Landeshauptstadt Stuttgart (2003). *Nachhaltiges Bauflächenmanagement Stuttgart (NBS)*, Beiträge zur Stadtentwicklung, Stuttgart, 34.

Huber S. & Kurzweil A. (2012). *Guide Municipal Soil Management*.

[7] Umweltbundesamt (2012). URBAN Soil Management Strategy SWOT analysis policy instruments.

[8] Nabielek P. (2020). *Wind power deployment in urbanised regions, an institutional analysis of planning and implementation*, Vienna: TU Vienna Academic Press.

[9] Péter, B. (2010). Flood and Drought Strategy of the Tisza River Basin.

Table 4.12: Concrete examples of reports and scientific papers discussing the impact of legislations on urbanisation and related land use practice in European Member States

Legislation	Country	Level	Short description of the example	Potential impact on MS	Source
EIA	SE	Local	Analysis of environmental impact statements (EISs) for Swedish biofuelled energy plants.	Environmental aspects of sustainable development at the local level are only partially met by the EIA. The analysis of Bruhn-Tysk and Eklund (2001) shows that the effects on the management of natural resources are not assessed. Aspects that may affect future generations are excluded. The authors conclude that EIA practice in Sweden may not serve as a tool to promote sustainable development.	Bruhn-Tysk, S. & Eklund, M. (2001): Environmental impact assessment - a tool for sustainable development?: A case study of biofuelled energy plants in Sweden. Environmental Impact Assessment Review, Volume 22, Issue 2 (2001)
SEA	IT	Regional	Analysis of eight SEAs for transport and mobility plans of regional and provincial administrations in Italy.	The results of the analysis show that the overall quality level of SEA reports is fairly low. The determination of 'impact significance' was considered the worst. Administrations showed strong differences in their evaluations. Whereas Abruzzo, Apulia, Friuli Venezia Giulia, and Lombardy developed adequate SEA reports, Piedmont and Trento were much worse.	De Montis, A., Caschili, S., Ganciu, A., Ledda, A., Paoli, F., Puddu, F., & Barra, M. (2016): Strategic Environmental Assessment Implementation of Transport and Mobility Plans. The Case of Italian Regions and Provinces. Journal of Agricultural Engineering, Vol 47, No 2 (2016)
Natura2000	IT & NL	National	Analysis and comparison of the implementation of Natura 2000 in the Netherlands and Italy.	The analysis reveals that both Italy and the Netherlands experienced problems in their implementation of Natura 2000. Problems occur during different phases (like in the site designation or the management phase) and are strongly related to the required institutional transitions in the conservation management (including the translating and interpreting of legislative texts, the introduction of new policy instruments, the involvement and role of different stakeholders). In particular, local authorities were given new responsibilities both in the management of Natura 2000 sites and in assessing the impact of social and economic activities on conservation objectives. The lack of education and training of local authorities was described as one of the main causes of the implementation problems. This issue should, according to the authors, receive more attention when new environmental directives are formulated.	Ferranti, F., Beunen, R., & Speranza, M. (2010): Natura 2000 Network: A Comparison of the Italian and Dutch Implementation Experiences. Journal of Environmental Policy & Planning, Volume 12, Issue 3 (2010)

Floods Directive	PL	National	The analysis describes the spatial and temporal characteristics of flood risk, as well as observations and projections of changes in flood hazard in Poland. Further, it examines flood defences and flood preparedness systems, with particular reference to the EU Floods Directive.	Poland is striving to meet the obligations resulting from the directive. In the light of floods in 2010, there was broader concern whether the directive's implementation was on schedule. The process of implementing the directive is described as highly complex; the change of existing regulations requires intersectoral negotiations, which is highly time-consuming. For a country like Poland, harmonising EU and Polish national law is a very demanding exercise. Nevertheless, the Floods Directive is seen as a useful vehicle for assessing and managing flood risks.	Kundzewicz, Z. (2014): Adapting flood preparedness tools to changing flood risk conditions: the situation in Poland. Oceanologia, Volume 56, Issue 2 (2014)
Floods Directive	FR	National	The report is one deliverable of the STAR-FLOOD project (completed under the EU 7th Framework programme) that focuses on flood risk governance in six European countries. This report analyses flood risk governance in France.	A new legal system for flood management is being implemented to transpose the EU Floods Directive into French law at different territorial levels: a national strategy, flood management plans, and local strategies. This study concludes that the Flood Directive is likely to have only a limited impact in France as flood policy remains under the control of the state, which uses its national Flood Prevention Plan ('*Plans de prévention du risque d'inondation*' - PPRI) instrument to regulate land use.	Larrue, C., Bruzzone, S., Lévy, L., Gralepois, M., Schellenberger, T., Trémorin, J. B., Fournier, M., Manson, C., Thuilier, T. (2016). Analysing and evaluating Flood Risk Governance in France: from State Policy to Local Strategies, STAR-FLOOD Consortium, Tours, France. ISBN: 978-94-91933-08-0
Landfill Directive	PL	Regional	Assessment of the implementation of the sustainable development principle within the framework of the Regional Operational Programme for the West Pomeranian Voivodeship for the period 2007-2013.	Based on the final report of the evaluation, the greatest effect of the fulfilment of international obligations under EU directives can be observed in the area of waste management.	Fundeko Korbel, Krok-Baściuk Sp.J. (2015): Ocena realizacji zasady zrównoważonego rozwoju wramach Regionalnego Programu Operacyjnego Województwa Zachodniopomorskiego na lata 2007-2013. Available at: https://www.ewaluacja.gov.pl/media/32613/ ZZRZachodniopomorskie0713.pdf

Seveso III Directive	IT	Local	The paper analyses the Piedmont Seveso laws from an industrial point of view. It highlights the difficulties of applying the Land Use Planning regulations.	Difficulties in implementing the Seveso directive arose due to the lack of communication between the production sector and the government. Non-Seveso and Seveso sub-threshold plants were highly affected by this problem, especially when they are very small. As Italian factories are still negatively affected by the economic crisis and burdened by high taxation, they perceive actions by the government and / or the region with suspicion. The paper stresses the importance of increasing and maintaining constant cooperation between the authorities and the plants. Also, the laws should include a mechanism to reward the adoption of good behaviour and make it economically advantageous to do so, both for plants and municipalities.	Camuncoli G., Demichela M. & Pilone E. (2013): The Impact of Local Regulations on Land Use Planning for Seveso Sites: SMEs Perspective. Chemical Engineering Transactions, Volume 32 (2013)
Marine Spatial Planning Directive	UK	National	A comparative analysis of the contribution to UK marine governance of two recent EU initiatives: the Marine Strategy Framework Directive (MSFD) and Marine Spatial Planning (MSP).	Of the two EU policies, the authors conclude that "Marine Spatial Planning is both the more dominant and the more practicable instrument, reflecting the UK's preference for sustainable development over conservationism in marine policy. A recent proposal by the European Commission to make Marine Spatial Planning and integrated coastal management a Directive reinforces the UK position".	Brennan, J., Fitzsimmons, C., Gray, T. & Raggatt, L. (2014): EU marine strategy framework directive (MSFD) and marine spatial planning (MSP): Which is the more dominant and practicable contributor to maritime policy in the UK?, Marine Policy, Volume 43 (2014)
Marine Spatial Planning Directive	HR	National	The Physical Planning Act (*PCA*) of the Republic of Croatia regulates the spatial planning system and its objectives and principles. The Act defines the development of spatial plans, their making and the process of adoption, implementation of spatial plans, land use and construction process. Through amendments in 2017, the Republic of Croatia transposed the postulates of Directive 2014/89/EU (Marine Spatial Planning) into the Croatian spatial planning system.	The Physical Planning Act directly defines the spatial planning and land use systems of Croatia. It provides the framework for the development of spatial plans at local, regional and national levels which define land use and the purpose of spatial development of a particular area. Since the PCA sets restrictions for urbanisation and land use in coastal areas, it directly contributed to the reduction of unsustainable practices of land use with an emphasis on the protection of natural landscape. On the other hand, the Marine Spatial Planning Directive does not address urbanisation practices in coastal areas per se. Nevertheless, activities proposed under the Directive are interlinked with coastal infrastructure, therefore indirectly addressing land use in coastal areas.	Republic of Croatia (2017): Physical Planning Act. Available at: https://www.zakon.hr/z/689/Zakon-o-prostornom-ure%C4%91enju

Marine Strategy Framework Directive	ES	National	The Spanish study analyses initiatives implemented, especially in Europe and the European Union, exploring correlations between the main focuses of the maritime sector and planning systems.	The study shows how the maritime economy model and geopolitical factors explain the planning options for the marine environment. The enactment of the Marine Strategy Framework Directive opens a dual institutional course for marine spatial planning: Integrated Maritime Policy vs. the Marine Strategy Framework Directive.	Suárez de Vivero, J. L. & Rodríguez Mateos, J. C. (2012): The Spanish approach to marine spatial planning. Marine Strategy Framework Directive vs. EU Integrated Maritime Policy. Marine Policy, Volume 36, Issue 1 (2012)
Various Directives (incl. Air Quality Directive, Habitat Directive, Birds Directive, Waste Framework Directive, Environmental Noise Directive)	PL	Regional	The implementation of obligations arising from EU directives in the field of sustainable development were addressed by taking measures co-financed by the Regional Operational Programme of Kuyavian and Pomeranian Voivodeship for the years 2007-2013.	Activities undertaken within the area of environmental protection and nature conservation were implemented under four priority axes of ROP KPV for the years 2007-2013. The total allocation of funds amounted to € 173,812,247. Analysis of the spatial distribution of the projects revealed an uneven distribution. Most activities (35%) were implemented in the largest cities of the region and the counties adhering to them. The Directive to which the project partners had to comply with most often was the Directive regarding air quality (56% of cases). Directives taken less often into account were the Directive on the conservation of natural habitats and wild fauna and flora (applied by 29.5% of respondents) and the Directive on the conservation of wild birds (applied by 25.8% of respondents). Moreover, the following requirements were also widely met by project partners: requirements relating to urban wastewater treatment (applied by 16.6% of respondents), requirements linked to water policy (applied by 15.7% of respondents) and the Directive relating to the promotion of the use of energy from renewable sources (applied by 12.9% of respondents). The least frequently applied directives by the applicants were the Directive on waste (applied by 10.6% of respondents) and the Directive relating to the assessment and management of environmental noise (applied by 10.6% of respondents).	Urząd Marszałkowski Województwa Kujawsko-Pomorskiego (2014): Realizacja zobowiązań wynikających z dyrektyw UE w zakresie zrównoważonego rozwoju poprzez działania współfinansowane z Regionalnego Programu Operacyjnego Województwa Kujawsko-Pomorskiego na lata 2007-2013. [Implementation of obligations resulting from EU directives in the field of sustainable development through actions co-financed from the Regional Operational Programme of Kujawsko-Pomorskie Voivodeship for 2007-2013.] Available at: http://2007-2013.mojregion.eu/tl_files/mojregion/dokumenty-rpo/Ewaluacja/Badania%20ewaluacyjne/badanie%20srodowisko%202014/Raport%20koncowy%20-%203.04.2014.pdf

Colour code: red = deficient/negative impacts (e.g. implementation problems), orange = limited impacts, green = positive impacts (e.g. successfully implemented, prevention of unsustainable land use practices)

EU legislation: conclusions and recommendations

Two directives directly dealing with assessing the effects of developments on soil and consequently on land use and land take are the Environmental Impact Assessment (EIA) and the Strategic Environmental Assessment (SEA). Several other EU directives can limit urbanisation by regulating some sectoral land use issues. Examples are Natura2000, Floods Directive, Landfill Directive.

Assessing the territorial effects of EU legislations:

In an "Ordinary Legislative Procedure", the European Commission (EC) proposes a new initiative (like legislative proposals), which then must be agreed upon by the European Parliament together with the Council. Before the EC proposes a new initiative, it assesses potential economic, social and environmental impacts that it may have. In order to be able to understand whether proposed legislation is likely to cause negative or unsustainable effects on land use, this should be done at an early stage. In this context, the European Commission recognises the territorial dimension of impacts within the Better Regulation Toolbox Tool #33 and defines two cases where the assessment of territorial impacts could be relevant:

- If the problem to be addressed by a policy is unevenly distributed, the impacts are likely to be unevenly distributed.
- If a policy acts unevenly, the impacts are likely to be unevenly distributed – even if the problem is not.

While in some cases, territorially unevenly distributed impacts are part of the policy design, in other cases, they come as side-effects. In cases of unwanted side-effects, there should be a policy response.

In order to gauge whether a proposed piece of legislation could produce unwanted side-effects, the "ESPON TIA Tool - TIA necessity check"[6] could be used. This provides a step-by-step procedure that can be used by officials and managers in a lead DG to identify the necessity of a Territorial Impact Assessment (TIA). If this analysis reveals that a TIA is advisable, there are various methods to choose between, for example Rhomolo[7] and Luisa[8] developed by the Joint Research Center (JRC) of the European Commission and DG REGIO as well as the TIA QUICK CHECK TOOL developed by ESPON,[9] which can be used to identify potential territorial impacts.

[6] ESPON TIA TOOL: https://tiatool.espon.eu/#check

[7] RHOMOLO web tool: https://ec.europa.eu/jrc/en/rhomolo/web-tool

[8] LUISA Territorial Modelling Platform: https://ec.europa.eu/jrc/en/luisa

[9] TIA QUICK CHECK TOOL: https://tiatool.espon.eu

4.3.2 Funding instruments

The EU provides for a wide range of projects and programmes (such as regional and urban development, employment and social inclusion, agriculture and rural development) different kind of funding. More than three-quarters of this EU budget is managed in collaboration with national and regional authorities (also called as a system of "shared management"). In this context, the implementation of the Europe 2020 strategy is primarily supported through the **European Structural Investment Funds (ESI Funds)**, which play an important role in various EU-policies, such as Cohesion, Rural Development, and Territorial Cooperation. These funds are managed by the EU countries themselves by means of partnership agreements.[10] Other funds (such as Grants for specific projects in relation to EU policies and Contracts that are awarded through calls for tenders) are managed directly by the EU.

Regional Development and Cohesion Policy beyond 2020 will focus on five investment priorities. In the context of the current study, objective **2 "a greener, low-carbon Europe"** and objective **5 "a Europe closer to citizens"**, are most attuned to the topic of sustainable urbanisation and land use. Within objective number 2 the Paris agreement will be implemented and focus will be lied on energy transition, renewable energy and climate change measures. Objective number 5 will support locally-led development strategies as well as a sustainable urban development throughout the EU.

With regard to land use and sustainable urbanisation especially the **Regulation (EU) No 1303/2013 of the European Parliament and of the Council**, which operates under the **ESI Fund** framework and lays down the rules applicable to the European Regional Development Fund (ERDF), the European Social Fund (ESF), the Cohesion Fund (CF), the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF), is of particular importance. More specifically, one of the objectives to be supported with funding aims at preserving and protecting the environment and promoting resource efficiency. Promotion of sustainable development through funding will potentially lead to projects directly related to sustainable urbanisation and efficient land use, it will also support these issues indirectly as cross-cutting requirements for all development projects to be implemented, i.e. projects complying with requirements of sustainable development, efficient land uses and environmental protection. Further, the ESI Fund aims at supporting urban-rural linkages and the development of peripheral areas. This might potentially lower pressure on urban development in central areas, while at the same time engender marks of urbanisation in supported rural areas. However, more specific impact exerted at urbanisation could be traced via further regulations laying down principles and priorities for each ESI Fund, and further through programmes and finally projects implemented with the support of each Fund across sectors. As the Regulation promotes sustainable development, the actual on-site

[10] In cooperation with the European Commission, each EU country prepared an agreement specifying how the funds was used in the latest funding period 2014-20.

impact of ESIF is needed to be traced via activities of each Fund implemented under its auspices.

The **Cohesion Fund (CF)** Regulation No 1300/2013 aims to reduce economic and social disparities and to promote sustainable development, by supporting Member States whose Gross National Income (GNI) per inhabitant is less than 90% of the EU average. This aim also applies to urban areas, hence exerting impacts on land use practices participating in urban development. Sustainable urban development is further an explicit objective within the **European Regional Development Funds (ERDF)** Regulation No 1301/2013. Both funds support efficient land use for urbanisation through a number of investment priorities with related issues, such as revitalisation of cities, regeneration and decontamination of brownfield sites (including conversion areas); protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura2000, and green infrastructure, as well as transport investments. Further, they also contain some other provisions supporting cooperation via urban development networks and enhancing urban-rural linkages. These topics are strongly related to the efficient and sustainable use of land, both developed urban sites and green areas. This can lower pressure on urban development in central areas, while at the same time engender marks of urbanisation in supported rural areas. General support of sustainable urban development can lead to more resource-efficient and responsible urbanisation, including in terms of land use. Support of soil and nature protection will restrict uncontrolled land exploitation for urbanisation. Support of urban regeneration can serve to accommodate a certain part of the demand for urban growth without additional land consumption.

The **European Agricultural Fund for Rural Development (ERDF)** Regulation No 1305/2013 contains propositions regarding land, which might be adjacent to prospective urbanisation sites and hence can restrict urban expansion. The Policy has an impact on urbanisation mainly via its actions in the field of rural development, as regarding competing land uses (agricultural vs. urban), support of rural areas as opposed to concentrated urbanisation, or provision of subsidies for maintaining certain land uses. The Fund promotes a balanced territorial development of rural economies and communities, fostering the competitiveness of agriculture. The policy's measures supporting rural development and sustainable land management, efficient land use impact a wide range of land uses, such as agriculture, forestry, permanent pastures, including lands of former agriculture use, etc. Such control might restrict uncontrolled encroachments, or extensive land takes for the purposes of development from the above land categories. The more indirect, but more significant long-term impact of the policy is seen in subsidies and payments for farmers and land managers to sustain certain land uses (like forestry, Natura2020 areas, agriculture) so that this might alleviate one of the key drivers for conversion of agriculture land for urban development, such as profitability.

The **Common Agriculture Policy (CAP)** Regulation No 1306/2013 comprises two funds, namely the European Agricultural Guarantee Fund (EAGF) and the European Agricultural Fund for Rural Development (EAFRD). The Policy would have an impact on urbanisation mainly via its actions in the field of rural development. It established a general framework for rural development expenditures, so more relevant provisions as regards land uses, etc. are established in the related directives on Funds Rules (namely, the EAFRD). The Policy puts in place certain mechanisms (farm advisory system) which potentially via supporting rural development and related land uses restrict land takes for urban development and discourage conversion of land for development purposes.

Interreg (funded by the ERDF) is one of the key instruments of the EU which supports cooperation across borders. It has three different types of programmes: Cross-Border Cooperation (Interreg A), Transnational Cooperation Programmes (Interreg B) and Interregional Programmes (Interreg C). The different programmes promote an overall sustainable and integrated development in the EU and are in line with the objectives set out in the EU strategy for smart, sustainable and inclusive growth. All programmes have an indirect impact on urbanisation and related land-use practices and address some of the big challenges of sustainable development (such as issues related to environmental protection or encouraging sustainable development). The current **URBACT III** programme is a European Territorial Cooperation programme aiming to promote sustainable integrated urban development in cities. The programme expresses support for polycentric urban structures, small and medium-sized cities, and urban-rural linkages. However, the programme recognises the issue of increasing urbanisation accompanied by a reverse trend of decrease in urban population, claiming that cities should deal with demographic changes and depletion of natural resources. It explicitly calls for coordinated policies for urban renewal and control of urban sprawl. Further, as the overall aim of the programme is to support integrated sustainable urban development, various projects implemented under its funding are expected to contribute in varied ways towards sustainable urbanisation inter alia integrating transport planning and land use planning, promoting brownfield redevelopment, green infrastructure, and urban soil management, etc. As the other INTERREG C programmes it promotes sustainable and integrated development. In order to find common solutions for a sustainable and integrated urban development in Europe, URBACT III supports cities by exchanging information and good practices.

As can be seen from the examples above the main influence is exerted by incentives in the form of financing projects within the Member States. The derived impact on land use and sustainable urbanisation is often positive (intended or not). However, as the scope of the **ESI Funds** (in particular of **ERDF** and **CF**) is very wide and supports virtually any kind of projects for the investment for growth and jobs goal, it could be difficult to trace its indirect impact on the mode and pace of urbanisation. A similar situation applies to the **ESF**. The Fund provides an opportunity to obtain support for sustainable urban development through integrated actions to tackle the economic, environmental and social challenges. These might cover projects

touching upon efficient and sustainable land use in urban areas, especially in environmental components. However, as the scope of support is placed on the social sector, the impact on land use practices related to urbanisation would be very indirect, if any, and difficult to trace, for example through social components of sustainable urban development. **Interreg** programmes, in general, require cooperation between a lot of different stakeholders across the EU: between adjacent regions (Interreg A), between several countries (Interreg B), or even all EU Member States (Interreg C). This circumstance is often very difficult due to linguistic, cultural and administrative differences. Another issue is the support of projects (e.g. in the field of energy or transport) that focus on the use of renewable energy, developing rail transport, supporting intermodality, strengthening public transport, etc. Extensive transport investments and enhancement of connectivity might spur regional growth in the form of sprawl, or boost the demand for land as a consequence of better transport accessibility.

Below a list of scientific contributions discussing the impact of funding instruments on urbanisation in EU Member States (see Table 4.13).

Table 4.13: Concrete examples of reports and scientific papers discussing the impact of funding instruments on urbanisation and related land use practice in European Member States

Funding Instruments	Country	Level	Short description of the example	Potential impact on MS	Source
TEN-T Guidelines	PL	National	The EEA Report No 8/2016 describes the impacts of EU policies on several Member States through case studies. The case study on Poland investigates these impacts on the national level, while at the same time providing an interesting account of the regional level, because governance is shifting to the regions. The focus of the study is on Lower Silesia, one of the fastest developing regions in Poland, and one with a high level of degraded land.	The Polish case study highlights the role of the national, regional and local level in the context of EU spending. The investments supported by EU funds have been found to be planned, assessed and monitored more than other investments. However, effective legislation to protect land is missing. The case shows that the construction of new and improved TEN-T highways is expected to fuel urban sprawl and land take. Based on the MIiR study on the impact of the construction of highways on socio-economic and territorial development in Poland, transport investments co-financed by EU funds are characterised by better coverage of spatial development plans as compared to other areas. The study also found that changes in the degree of urbanisation seem to be related to transport investments. This suggests that investments in roads, especially those supported by the EU cohesion policy, induces urbanisation processes around these roads.	EEA (European Environmental Agency) (2016). The direct and indirect impacts of EU policies on land. *EEA Report No 8/2016*. MIiR (Ministerstwo Infrastruktury i Rozwoju), (2013): Impact of motorways and expressways on socio-economic and territorial development of Poland. Available at: http://www.ewaluacja.gov.pl/Wyniki/Documents/Raport_koncowy_z_badania_autostrady_i_drogi_ekspresowe.pdf
uropean Regional Develop-ment Funds (ERDF)	PL	National	Various studies/reports discuss the impact of the ERDF in Poland:		
			The study “Analysis of changes in the land use structure of developed and urban areas in Eastern Poland” analysis five Polish voivodeships (Lubelskie, Podkarpackie, Podlaskie, Świętokrzyskie, and Warmińsko-Mazurskie) characterised by the lowest GDP per capita in the EU-25.	The results of the analysis in Eastern Poland point to positive changes in the structure of developed and urbanised land and land occupied by transportation networks. This increase could have been stimulated by the Development of Eastern Poland Operational Programme.	Senetra, A., Szczepańska, A. & Wasilewicz-Pszczółkowska, M. (2014): Analysis of changes in the land use structure of developed and urban areas in Eastern Poland. Bulletin of Geography. Socio-economic Series. 24. 219-230.

			The evaluation report demonstrates the effects of EU support on revitalisation in the framework of the 2007-2013 Operational Programme of the West Pomeranian region and identifies the potentials and further needs for revitalisation in the perspective of the 2014-2020 programming period.	The results of the evaluation study on the West Pomeranian region show that the focus was on improving the urban fabric, whereas social components of revitalisation were insufficiently considered.	Centre for Social and Economic, Marshal's Office of the Zachodniopomorskie Region (2015): Evaluation of support in the area of revitalisation within the framework of the Regional Operational Programme of Zachodniopomorskie Voivodeship for 2007-2013 and identification of the potential and needs of the region in the scope of revitalisation. Available at: https://www.ewaluacja.gov.pl/media/32611/raport_rewitalizacjaZachpom0713.pdf
			The report evaluates the effects of transport infrastructure development funded by European Funds over 2004-2006 in the context of efficiency with regard to the achievement of the 2004-2006 Polish National Development Plan's goals.	The results of the evaluation report describe several investments within metropolitan areas, in particular access roads in major cities with bottlenecks and where the measured traffic volume significantly exceeds capacity.	Polska Akademia Nauk (2010): Evaluation of the impact of TRANSPORT INFRASTRUCTURE INVESTMENTS implemented under the framework of the cohesion policy on the growth of regional competitiveness (in the framework of the ex post evaluation of NDP 2004-2006).
			The report describes the impact of European funds over 2007-2013 on the socio-economic development of Eastern Poland.	The report highlights that due to EU funds, a concentration of interventions in functional areas of voivodships in Eastern Poland (in particular Rzeszów and Lublin) occurred. This helped to develop metropolitan functions and increased their attractiveness for current and prospective inhabitants.	Imapp (s.a.): Impact of European funds of the financial perspective 2007-2013 on social and economic development – Eastern Poland Final report. Available at: http://www.ewaluacja.gov.pl/media/18790/MIR_ex-post_PW_raport_koncowy_v2.pdf
			An Ex-post evaluation of the impact of ERDF over 2007-2013 (and the Cohesion Policy overall) on cities (including suburbanisation and urban renewal).	The research clearly indicates that the resources from the 2007-2013 structural funds contributed to the improvement of internal cohesion in cities and the increase of territorial cohesion of medium cities and their surroundings. In many cities, internal cohesion grew thanks to the improvement of communication accessibility of outlying districts or districts where it was difficult to travel due to high density traffic.	Ecorys (2017): Impact of cohesion policy on urban development in the 2007-2013 perspective – Final report. Available at: https://www.ewaluacja.gov.pl/media/50547/expost_Miasta0713.docx

			The objective of the study was to evaluate the effects of the projects implemented under Measure 2.1 of the 2007-2013 Operational Programme 'Infrastructure and Environment' (OPIE 2007-2013), aiming at protecting sea coasts affected by erosion.	The evaluator determined that, in total, 38.62 km of protected seashore has been achieved. The largest benefits of the projects are: stabilisation of the shoreline, protection of infrastructure and property on the shore, overcoming flood hazard and increased tourist attractiveness, as well as protection of natural habitats and vegetation in coastal areas. The most important socio-economic benefits include: widening of the beaches; improvement of the aesthetics of the seaside; increase in the number of tourists; greater satisfaction of tourists and comfort of rest; avoidance of costs of resettlement; growth in municipalities' revenues.	Bluehill Solutions (s.a.): Final report – Effects of projects aimed at securing sea shores at risk of erosion – the I&E OP Perspective 2007-2013. Available at: http://www.ewaluacja.gov.pl/media/32140/RKBrzegiPOIiS.pdf
			An ex post evaluation of environmental investments within the ERDF over 2007-2013 (and the Cohesion Policy overall).	The evaluation reveals that environmental projects implemented under the National Strategic Reference Framework have an impact not only on the environment but also on the society and the economy at large. Social effects of environmental interventions, identified at the local level, generally involved an improvement in the quality of life: better access to sewage, water supply and waste segregation systems and raised public awareness on environmental issues, which translates into a greater sense of responsibility for common spaces and the quality of the environment. Among the most important economic effects resulting from the implementation of environmental projects were: increased attractiveness for settlement, more land available for development, enhanced attractiveness for investment and better conditions for tourism activities. In the particular case of water and sewage infrastructure development, the implementation of projects affected the functioning of households through an increase in the cost of sewage.	FundEko (s.a.): Environmental impact of Cohesion Policy 2007-2013. Available at: http://www.ewaluacja.gov.pl/media/32138/RKSrodowisko0713.pdf
			This study summarises the results of analyses of investments partly financed by EU funds and evaluates their compliance with the needs of Poland.	The analysis assesses how development factors correspond to the directions of intervention of regional policies in terms of their creation and improvement. Its added value results from a comprehensive analysis of the relationships between development disparities, unique factors determined by the various territorial capitals and the directions of development policy interventions in Poland.	Churski, P. & Perdał, R. (2016): Where Do Cohesion Policy Funds Flow and Do They Have any Impact? – The Polish Lesson. Barometr Regionalny. 14. 7-24.

			This study provides an ex post evaluation of the impact of ERDF over 2004-2006 (and the Cohesion Policy overall) on urban renewal.	The results of the study reveal that renewal projects represented only a small part of the interventions implemented under the Cohesion Policy programmes in cities. Relatively low expenditure and a small number of projects led to a significant spread of interventions, which undoubtedly affected the scope of the results. Most of the projects classified as renewal projects were not comprehensive, i.e. they did not consist in the restructuring of spatial, social and economic structures, but were rather repair and modernisation investments. The general impact of the projects classified as renewal projects at the domestic level was found to be low, although most of the individual projects had a positive impact on their immediate surroundings or even on the city as a whole	Płoszaj, A. (2011): Urban Revitalisation in Cohesion Policy 2004-2006. Regional and Local Studies, Wydanie specjalne 2011.
			Final report of the ex post evaluation of the impact of ERDF over 2004-2006 (and the Cohesion Policy overall) on suburbanisation in Poland.	The influence of the 2004-2006 Cohesion Policy on counteracting the negative effects of suburbanisation covered the performance of transport infrastructure projects, basic social infrastructure projects and environmental infrastructure projects in suburban communes. The results of the evaluation show that individual projects could only temporarily improve the living conditions. Furthermore, the effects of the projects reached only selected suburban zones. Such investments, not supported by regulations in the field of integrated spatial planning at the metropolitan level, and in most cases not taking into account future phenomena and social and economic processes (for example increase in the number of children in suburban communes) were not capable of preventing negative effects of suburbanisation processes effectively and in the long-term.	Ministry of Regional Development of Warsaw (2010): Assessment of the impact of the cohesion policy for the development of polish cities (in the framework of the ex post evaluation of NDP 2004-2006). Available at: http://www.euroreg.uw.edu.pl/dane/web_euroreg_publications_files/3107/ocena_wpywu_polityki_spjnoci_na_rozwj_miast_polskich.pdf
European Social Fund (ESF)	NL & ES	National	The study investigates variations in the domestic impact of the ESF in the Netherlands and in Spain.	The results stress that the ESF had significant effects on both countries in different ways: “intermediate variables such as leverage, learning, and aid conditionality determine how the ESF actually ‘hits home’, in addition to the degree of institutional, political and policy (mis)fit.”	van Gerven, M., Vanhercke, B. & Gürocak, S. (2014): Policy learning, aid conditionality or domestic politics? The Europeanisation of Dutch and Spanish activation policies through the European Social Fund, Journal of European Public Policy, 21:4, 509-527.
European Social Fund (ESF)	PL	National	The following two studies discuss the impact of the ESF in Poland:		

			Impact assessment of the 2007-2013 ESF in Poland (National Human Development Report prepared by UNDP).	Based on the study, a strong link was established between human development and the level of expenditure in the Operational Programme 'Human Capital'. Investment in education and skills is one of the key factors contributing to increasing income and improving health and therefore contributes to social sustainability.	UNDP Project Office in Poland (2013): National Human Development Report Poland 2012Local and Regional Development. Available at: http://www.euroreg.uw.edu.pl/dane/web_euroreg_publications_files/6339/lhdi_report_poland_2012_eng.pdf
			Ex-post evaluation of the impact of the 2004-2006 ESF (and the Cohesion Policy overall) on social cohesion in cities.	The evaluation reveals that it was difficult to make a detailed assessment on the influence of public intervention on social cohesion in Polish cities, due to differences in the territorial scope of the completed projects. A majority (as much as 55%) of funds designated to improving social cohesion was used at the supralocal level for large domestic or regional projects. The study found that these projects did contribute to a large extent to the improvement of the situation of women in the labour market and to better access to medical services.	Ministry of Regional Development of Warsaw (2010): Assessment of the impact of the cohesion policy for the development of polish cities (in the framework of the ex post evaluation of NDP 2004-2006). Available at: http://www.euroreg.uw.edu.pl/dane/web_euroreg_publications_files/3107/ocena_wpywu_polityki_spjnoci_na_rozwj_miast_polskich.pdf
URBACT III	IT	Local	The study aims to produce useful tools for coping with the abandonment of public spaces in former commercial urban areas.	The study showed that by setting up a local support group, URBACT projects created a positive process. First, the initiatives developed by public institutions started with consultations and resource gathering. Second, private institutions and civil society were involved in the process.	Esposito de Vita, G., Bevilacqua, C. & Trillo, C. (2013): Improving Conviviality in Public Places: The Case of Naples, Italy. Journal of Civil Engineering and Architecture. Volume 7, No. 10 (Serial No. 71), pp. 1209-1219.
URBACT III INTERREG	PL	National	An Ex-post evaluation of the impact of INTERREG (A, B, C) and URBACT over 2004-2006 on Polish cities	The evaluation found that project results are usually of soft type and involve transfer of good practices, institutional capacity building and human capital. In this respect, the results of the projects should be considered at least satisfactory, although their number and scale do not produce measurable effects in a country-wide perspective.	Płoszaj, A. (2011): Cohesion policy as a tool to stimulate cooperation between cities – Example of interreg and urbact. Studia Regionalne i LokalneWydanie specjalne 2011ISSN 1509–4995
INTERREG (A)	SE & NO	National	The study analyses whether the objective of territorial cohesion in the area known as "Inner Scandinavia" can be achieved through the interventions of the European Union's cross-border cooperation programme, INTERREG-A.	The study emphasises that an improvement in the selectivity of projects and partners is evident with increasing participation of universities and research centres. However, the author highlights that many challenges still exist. In general, the Swedish-Norwegian border region continues to lag socio-economically in Scandinavia. The main urban agglomerations (Stockholm, Oslo, and Gothenburg) benefit from territorial competitive advantages such as human capital, knowledge centres, decision-making structures, access to capital and accessibility.	Medeiros, E. (2014): Territorial cohesion trends in Inner Scandinavia: The role of cross-border cooperation – INTERREG-A 1994–2010. Norwegian Journal of Geography, Volume 68, Issue 5.

INTERREG (B)	IT	National	This study provides a review of the main criticisms of place-based strategies, the main distinctive dimensions and the potential value-added of territorial cooperation initiatives.	The study highlights that the identification of transnational spatial units, joint administrative authorities, and transregional strategies can help to overcome some of the limitations of place-based strategies. As the European political and economic space becomes increasingly trans-scalar and interconnected, the author emphasises that the two policy domains may learn from each other and a new generation of local policies may emerge, which are both territorial and relational, place-based and transregional.	Celata, F. & Coletti, R. (2014): Place-based strategies or territorial cooperation? Regional development in transnational perspective in Italy. Local Economy: The Journal of the Local Economy Policy Unit. Volume 29, Issue 4-5
INTERREG (C)	GR, IT & ES	National	This study focuses on the Interreg IIIC project ProgreSDEC, which involves local and regional authorities from Greece, Italy and Spain working together in interregional and transnational projects.	Stein (2010) looks at both the vertical and horizontal dimensions of European integration and explains three aspects of territorial cohesion. When talking about growing awareness, a distinction should be made between awareness of European issues, the quality of planning and endogenous "territorial capital". Key concepts of European inclusive planning are interpreted differently. The paper discusses in particular the aspects of "polycentricity", "landscape" and "governance".	Stein, A. (2010): Territorial Cohesion in the Context of Interregional and Transnational Cooperation. European Spatial Research and Policy. Volume 17, Issue 1.
ITI (Integrated Territorial Investments)	PL	National	The study presents the emergence and development of two models of the "leading path" for the integrated management of functional urban areas of voivodship centres (FUA VC) in Poland in connection with the implementation of the new instrument of the EU Cohesion Policy – the Integrated Territorial Investment (ITI).	The conclusion of the study was that the ITI instrument was seen as a factor that initiates, deepens or hampers the cooperation of local governments in FUAs. It was emphasised that despite the creation of organisational and financial instruments that activate cooperation between local governments in functional areas, there remains a need for legislative changes that give a special status to metropolitan areas, sources of income and specific powers.	Kaczmarek, T. & Kociuba, D. (2017): Models of governance in the urban functional areas: Policy lessons from the implementation of integrated territorial investments (ITIs) in Poland. Quaestiones Geographicae. Volume 36, Issue 4.

CAP (Common Agricultural Policy)	PL	National	The paper shows the role of the Common Agricultural Policy (CAP) in land-use conflicts at the regional level in Poland.	The authors used the Computable General Equilibrium (CGE) model to identify how the CAP, through farmland price distortions, influenced the Polish land market in the 2004-2013 period. One of the findings of the study was that in the most urbanised regions, the contribution of the CAP to agricultural land prices was relatively small. Farmers still had a strong incentive to sell their land for non-agricultural purposes. As a consequence, spatial conflicts arose in these regions, as agricultural land was subjected to a high degree of conversion to non-agricultural uses, leading to conflicts between farmers and non-farmers.	Milczarek-Andrzejewska, D., Zawalińska, K. & Czarnecki, A. (2018): Land-use conflicts and the Common Agricultural Policy: Evidence from Poland, Land Use Policy, Volume 73, 423-433.
CAP (Common Agricultural Policy)	IT	Regional	This study describes the implications of changes in precipitation and land use to soil erosion from 1955 to 2002 in Basilicata, a region in southern Italy.	The results of the study show that land use in Basilicata is very dynamic, particularly due to the application of the European Union's Common Agricultural Policy (CAP) measures. EU policies have led to the reclamation of low-quality land and degraded grassland for agriculture, especially for durum wheat cultivation. This agricultural practice and the abandonment of some remodeled areas has increased the risk of soil erosion and desertification.	Piccarreta, M., Capolongo, D., Boenzi, F. & Bentivenga, M. (2006): Implications of decadal changes in precipitation and land use policy to soil erosion in Basilicata, Italy, CATENA, Volume 65, Issue 2.

Colour code: red = deficient/negative impacts (e.g. implementation problems), orange = limited impacts, green = positive impacts (e.g. successfully implemented, prevention of unsustainable land use practices)

EU funding instruments: conclusions and recommendations.

The overall European Union policy objectives in the 2021 – 2027 budgeting period simplifies the former 11 objectives into five: 1) a smarter Europe; 2) a greener, low-carbon Europe; 3) a more connected Europe; 4) a more social Europe; and 5) a Europe closer to citizens. Arguably, Objectives 2 and 5 are most attuned to the topic of sustainable urbanisation and land use.

With regard to Objective 5, local communities should be involved in strategic planning and decision making in order to better address local needs with respect to urban challenges (like affordable housing). Furthermore, focus should place on functional urban areas by including actions that promote urban-rural linkages in order to provide important services for wide areas. In this, Interreg plays an important role in supporting cross-border metropolitan areas and there are promising EU instruments such as the Integrated Territorial Investment (ITI), the Community Led Local Development (CLLD) or the Integrated urban development. However, it is also important to simplify the application for funds in order to lift the administrative burden and promote urban centres, overcome negative effects of peripherality and address depopulation or urban sprawl. Incentivised actions should also consider the UN Sustainable Development Goals in order to address today's most important global challenges – namely poverty, inequality, climate change, environmental degradation, peace and justice in order to achieve […] a better and more sustainable future for all […] (United Nations).

<u>Focusing SEA of ESI Funds on unintended negative effects</u>

Most ESI Fund programmes financing infrastructure are subject to a Strategic Environmental Assessment (SEA). Some ESI funded projects can positively contribute to sustainable urban development while other ESI funded projects can indirectly or directly affect urbanisation and land use negatively. Thus, the SEAs should focus on unintended negative effects on sustainable urbanisation and land-use especially when financing transport infrastructure. Measures to minimise negative effects should be developed and incorporated in the relevant programmes.

4.3.3 Binding and non-binding strategic documents and agreements

Documents with a **binding character** that impact land use and sustainable urbanisation are, inter alia, the Europe 2020 and the Energy 2020 strategies, the Roadmap to a Resource Efficient Europe, the Biodiversity strategy and the Environment Action Programme to 2020, or the Single European Transport Area.

The **Europe 2020** puts forward three mutually reinforcing priorities – namely smart, sustainable and inclusive growth. Numerous urban development policies are declaring their commitment to fulfil Europe 2020 objectives, as they become translated and incorporated into the urban development sector. Hence it has a very strong indirect impact on the general direction of urban development toward integrated sustainable growth. Further, the programme suggests measures related to the improvement of land management, enhancing knowledge-based innovative approaches to it, or to cut off environmentally harmful subsidies (which might over-stimulate unsustainable land demand inter alia). Further measures on efficient use of resources (land included) are outlined in the EU flagship initiative "Resource efficient Europe". One of the Strategy's targets focuses on climate change and energy, pushing towards greenhouse gas emissions 20% lower than 1990 levels, 20% of energy coming from renewables, and 20% increase in energy efficiency. These objectives directly impact urbanisation and related land-use practices. Europe 2020 is a very broad framework which is translated in more details and expanded priorities into numerous sectoral policies, hence its positive impact would be rather long-term, broad and indirect in the form of setting the overall direction for smart sustainable growth, aligning national policies of Member States toward this goal, which then would be translated into direct implications for restricting land take for uncontrolled urban development.

Part of the Europe 2020 Strategy is, inter alia, the **Roadmap to a Resource Efficient Europe**. It builds upon and complements the other initiatives such as a transition to a green low carbon economy, and takes into account progress made on the 2005 Thematic Strategy on the Sustainable Use of Natural Resources and the EU's strategy on sustainable development. The Roadmap envisages a set of measures regarding land and soils thereby exerting direct impacts on sustainable urbanisation in terms of land take. Namely, it sets the target of no net land take by 2050 and a limit of 800 km^2 per year in 2000-2020. It calls against soil sealing. Further, it calls for better integrating land considerations into sectoral policies and decision-making processes. It also exerts a strong indirect impact, as it promotes sustainable use of resources which have an environmental impact on urbanisation and related land-use practices. Further, its main objectives refer to the reduction of greenhouse gas emissions, energy efficiency, and renewable energy. These areas are indirectly related to land use practices and the process of urbanisation. Further, it calls against Environmentally Harmful Subsidies (EHS), which potentially could also stimulate unsustainable land consumption and land take for urban development. It also calls for adjustments of pricing policies and taxation in order to stimulate sustainable use of resources (including land for

development) and preclude unsustainable ones. It also calls for a number of measures for environmental protection, including preserving biodiversity, provision of eco-services, etc., which could restrain land take for urban development.

Intergovernmental cooperation plays an important role, inter alia, by highlighting the importance of soil-related issues and by formulating concrete objectives in this concern. The "**LEIPZIG CHARTER on Sustainable European**" is an example of an important document, where the European Member States' Ministers responsible for Urban Development agree upon common principles and strategies for urban development policies. Other, **non-binding documents** which directly contribute to sustainable land use and urbanisation are the European Spatial Development Perspective (ESDP), the Territorial Agenda of the European Union 2020 (TA2020), the Urban Agenda for the EU (UA), as well as the Urban Agenda for the EU – ACTION PLAN, the Soil Thematic Strategy, the Commission Staff Working Document "*Guidelines on best practice to limit, mitigate or compensate soil sealing*", the Toledo and Basque declarations, the Aalborg charter and commitments, the Convent of Mayor, or the EU Adaptation Strategy – to name a few examples.

The **ESDP**, for instance, provides framework guidelines for creating a sustainable, comprehensive, multisectoral and directional strategy for the spatial development of EU countries. It is structured around issues, which have territorial dimensions and suggested policy options to tackle them. Some of such options offer measures directly concerning land-use practices. It also presents challenges of spatial development and calls for action to tackle them, devoting a specific section to the problem of continuing urban sprawl. It provides a framework for creating a sustainable and comprehensive strategy for the spatial development of EU countries by providing guidelines for national strategic documents and defining scenarios of possible spatial development directions. Further, ESDP envisions measures aimed at the support and development of rural territories, better rural-urban linkages and protection of open countryside from uncontrolled development and urbanisation. It also calls to polycentric urban-rural development model, with rural areas retaining their character. This would potentially constrain centralisation tendencies towards cities, hence lower pressure on land from rural-urban migration. It also suggests protecting cultural landscapes, including by restricting land uses. Further, it calls for improving accessibility of EU regions and calls against the concentration and development corridors in terms of transport, which promotes uneven spatial development. This would potentially encourage urban growth in less accessible regions and restrict growth in already highly developed regions. ESDP also sets a guideline for macroregional cross-border spatial planning.

Another important example is the **Urban Agenda (UA)** of the EU 'Pact of Amsterdam'. It relies on the principle of an integrated approach to sustainable urban development as the guiding principle to achieve the goals of the three policy pillars (Better Regulation, Better Funding, and Better Knowledge). It also supports goals set in the Territorial Agenda 2020, and UN 2030 Agenda for Sustainable Development, notably Goal 11 'Make cities inclusive,

safe, resilient and sustainable' and the global 'New Urban Agenda' as part of the Habitat III process. The UA establishes as one of its Priority Themes sustainable use of land and nature-based solutions. It also calls for limiting greenfield consumption. It is aimed at promoting integrated sustainable urban development across all EU; well-balanced territorial development; better governance and urban and regional planning. It addresses small- and medium-sized Urban Areas and calls for polycentric development. Further, it sets local and FUA level recommendations for sustainable land use that could be directly implemented in Member States' spatial planning systems. It also sets recommendations for better integrating land use concerns into EU-level policies.

Further, the **European Landscape Convention** aims to promote landscape protection, management and planning, and to organize European co-operation on landscape issues. Targeting all types of landscapes, including urban and peri-urban areas, the Convention suggests direct measures aimed at their protection and sustainable management in general. It concerns landscapes that might be considered outstanding as well as degraded landscapes. Hence it would put restrictions on land take or unsustainable landscape exploitation related to urbanisation processes when unsustainable exploitation of landscapes, including urban and peri-urban, which will lead to more sustainable land-use practices related to urban development. Declaring landscape, a subject of the policy aimed at its protection and sustainable management will bring improvements into practices of land use, especially those harming landscapes. The process could take the form of a) a proper landscape planning and development system endowed with specific instruments, interconnected at the different administrative levels (landscape plan); or b) a systematic introduction of the landscape dimension into spatial planning at different levels (national, regional, local), supplemented by specific studies and instructions (landscape studies).

Of utmost relevance for sustainable urban expansion are such measures as land take targets, peri-urban areas and protection of agricultural soils and landscapes (hence restricting land take). Other measures suggested are also of high relevance, although they concern urban land uses (such as brownfields etc.) or compensation nor recovery of already sealed soils. Some of the actions have limited geographical scope and focus mainly on particular projects (such as the **Convent of Mayors**). Others, that supports the sustainable land-use practices not directly, but via supporting smart, sustainable and inclusive development in cities and also call for improvement of transport connectivity, including on peripheries and through the development of secondary network (such as the **TA2020**) can potentially lead to urban expansion into newly connected areas. However, the non-binding character of these agreements is the Achilles 'heel. Even if a strong indirect impact in form of awareness-raising and good practice examples can be provided, the positive impact of them is highly dependent on Member States and their willingness to assume responsibility, adopt their own national strategies on the subject, etc., which weakens the overall effect of the convention and makes it uncertain, difficult to measure, or varied per Member State.Concrete examples are reported in Table 4.14 below.

Table 4.14: Concrete examples of reports and scientific papers discussing the impact of binding and non-binding strategic documents and agreements on urbanisation and related land use practice in European Member States

Binding	Country	Level	Short description of the example	Potential impact on MS	Source
Roadmap to a Resource Efficient Europe	BE	Regional	In line with the EU's "no net land take by 2050" target in the Roadmap, Flanders (Belgium) has voted to ban new "greenfield" development by 2040. The resulting *Betonstop* (halt on urbanisation) plans to organise the territory more economically and sustainably and to achieve the objective of 'no net land take' by 2040.	The "Betonstop" seeks to ban all new soil sealing on natural land. New development should occur on brownfield and via urban regeneration. It seeks to limit urban sprawl and land take results not only in new development dedicated to housing function but also to all services and utilities needed for the normal function of settlement areas. It is too early to tell if this will be effective.	Centre Permanent pour la Citoyenneté et la Participation (CPCP) (2018): Le " Stop au béton ": Vers une Belgique plus compacte? [The "Stop to concrete": Towards a more compact Belgium?] Available at: http://www.cpcp.be/publications/stop-beton/
EU Biodiversity Strategy	IT	National	Several international initiatives, including the European Biodiversity Strategy for 2020, promote the identification and mapping of ecosystems as fundamental tools for the conservation of biodiversity and related services. This paper presents a nationwide ecosystem mapping approach.	The Ecosystem Map of Italy includes 43 types of forest ecosystems instead of the 5 woodland, forest and other wooded land types recognised at the European level. The authors of the study outline the expected advantages of the extended approach. They show how these maps may help to meet biodiversity conservation targets at the national level.	Blasi, C. et al. (2017): Ecosystem mapping for the implementation of the European Biodiversity Strategy at the national level: The case of Italy, Environmental Science & Policy, Volume 78, 173-184.
Non-Binding	Country	Level	Short description of the example	Potential impact on MS	Source
ESDP European Spatial Development Perspective	BE	Regional	The Strategic Spatial Structure Plan of Antwerp is a binding strategic document that introduces a spatial strategy for urban development with three types of development policies: generic, specific and active policy. The three policy types are complementary. Generic policy produces thematic guidelines at the city level. These policy visions, guidelines, and norms are then concretised at the level of large, coherent city areas in the specific policy and at the project level in the active policy.	The document is oriented towards spatial planning and land use, where three levels of implementation policy distinguish different zones according to land use. The Strategy singles out specific area-oriented programmes which aim for the complete renovation of large, coherent city areas in the medium term. Within the framework tailored to these areas, interventions in the public realm are combined with multi-disciplinary projects and innovative forms of public-private cooperation. The Strategic Spatial Structure Plan defines a few strategic projects related to every policy that is area-oriented and that contribute to the development of the entire city. These strategic projects are integrated and connected.	City of Antwerp (2012): Urban development in Antwerp. Available at: https://www.antwerpen.be/docs/Stad/Stadsvernieuwing/9746949_urbandevelopment_English.pdf

ESDP European Spatial Development Perspective	IT	National	This study analyses the changes that are taking place in Italian urban and territorial policy, mainly through the discussion of the relationship between the principles of polycentrism and networking affirmed by the European Spatial Development Perspective (ESDP) and, more generally, by the official European documents on spatial planning, and the role of polycentrism and networking in Italian practice.	The importance of the ESDP in Italy stems above all from the clarity with which it defines strategic territorial issues (such as polycentrism, sustainability, etc.) and actions, and from the importance it attaches to cooperation and integration between different policies, i.e. intersectoral actions and inter-institutional cooperation and partnership.	Governa, F. & Salone, C. (2006): Italy and European spatial policies: polycentrism, urban networks and local innovation practices.
TA2020 Territorial Agenda of the European Union 2020	HR	National	The Spatial Development Strategy of the Republic of Croatia is a fundamental national-level strategic document that directs the development of areas in accordance with the total needs and opportunities arising from other state documents with emphasis on sustainable development and territorial cohesion of under-developed areas. The utmost objective of this Strategy is the "balanced and sustainable spatial development based on the principle of territorial cohesion to improve the quality of life and mitigate depopulation trends while preserving the spatial identity".	The Strategy provides measures and activities for the development of certain spatial areas and defines the development of local and regional level spatial plans. It serves as a strategic framework for spatial planning at all levels. Since it has an impact on the spatial planning system, it has directly set the guidelines for urbanisation and land use principles. The Strategy refers to urbanisation as the process that harms the development of the entire area of the Republic of Croatia, to land use as an important factor of the development of urban and rural areas, especially the renewal and re-use of abandoned areas, and with the process of urbanisation that affects depopulation in rural areas. The Strategy also refers to land use primarily in the context of the development of certain economic activities. Therefore, the development of activities largely depends on urbanisation and land use.	Croatian Parliament (2017): Strategija prostornog razvoja Republike Hrvatske [Spatial Development Strategy of the Republic of Croatia]. Available at: https://narodne-novine.nn.hr/clanci/sluzbeni/2017_10_106_2423.html

Soil Thematic Strategy	NL	National	The European Commission has proposed a path towards a Thematic Strategy for Soil Protection based on the distinction of seven soil functions and eight threats. The process, illustrated in a Dutch case study, consists in defining: (i) water management units in the landscape context; (ii) land use, land hydrology, and soil functions; (iii) soil threats and relevant soil qualities; (iv) drivers of land-use changes and their future impacts; (v) improvement of relevant soil qualities; (vi) ways to institutionalise soil quality improvement as part of the EU soil protection strategy.	The results underline that a focus on regional water management units is likely to lead to a strong engagement of local stakeholders and government officials, allowing for a more specific DPSIR[11] approach. However, this will only work, according to the authors, if local officials are also given legal powers to design and enforce codified "good practices" to be developed within communities of practice.	Bouma, J. & Droogers, P (2007): Translating soil science into environmental policy: A case study on implementing the EU soil protection strategy in The Netherlands, Environmental Science & Policy, Volume 10, Issue 5, 454-463.
Macro-regional strategies	SE, DK, EE, FI, DE, LV, LT & PL	National	The Baltic Sea Region (BSR) has become an EU test area for international cooperation. This study presents the origin and the typologies of this cooperation and discusses macroregional, territorial and cross-border cooperation. The main objective of this article was to analyse the main determinants of the development of cross-border cooperation in the BSR.	The study shows that macro-regional cooperation significantly supports territorial cooperation in the Baltic Sea Region. For this purpose, the financial instruments of territorial cooperation were analysed. It was demonstrated that the priorities of these programmes are in line with the priorities of the EU Strategy for the Baltic Sea Region. Furthermore, an attempt was made to analyse the organisational resources of cross-border cooperation, with a focus on Euroregions and European groupings of territorial cooperation. It was shown that the organisational structure is not fully efficient, which is described as an obstacle to the development of cross-border cooperation.	Studzieniecki, T. (2016): The Development of Cross-border Cooperation in an EU Macroregion – A Case Study of the Baltic Sea Region, Procedia Economics and Finance, Volume 39, 235-241.

[11] The DPSIR approach is used to highlight relationships between human activity and environment degradation.

Covenant of Mayors	IT	Regional	On the European stage, the innovative model of multi-level governance introduced by the European Community in 2008 and known as the "Covenant of Mayors" represents a breakthrough in the field of environmental sustainability. This analysis provides a general overview of the participation of all Italian regions, with a focus on the region of Sicily.	The study has developed a sequence of indices to assess the degree of participation of the Italian regions and to evaluate the temporal trend of the success of this initiative. A deeper analysis was carried out for Sicily. The regional government integrated a new model of energy development by financing this initiative with European funds. Moreover, the work of the Control Room has given a stronger impulse to the success of this initiative by increasing the number of signatories in just one year. Unfortunately, the bureaucratic difficulties in the process of managing this European funding by the Region of Sicily delayed this process. Many local authorities have still not planned to tie the production of the Sustainable Energy Action Plan (SEAP) to private companies.	Famoso, F., Lanzafame, R., Monforte, P., Scandura, F. (2015): Analysis of the Covenant of Mayors Initiative in Sicily, Energy Procedia, Volume 81, 482-492.

Colour code: green = positive impacts (e.g. supporting biodiversity targets, supporting engagement of local stakeholders)

EU Strategies and agreements: conclusions and recommendations.

In order to foster sustainable land use goals, it is necessary to emphasise that landscape and land use issues should be approached through a systematic planning process adapted to the different administrative levels, from European to national and subnational levels, throughout the whole territory, including urban and extra-urban areas. Coordinated approaches and initiatives are essential (which became, for instance, obvious in the Alpine Convention). Furthermore, the development of institutional capacity, cooperation, and communication between different actors are among the main success factors.

Practices to limit, mitigate or compensate soil sealing will promote sustainable land use of soils and restrict uncontrolled land development.[12] Measures on environmental protection and biodiversity will result in the prevention of land take which is particularly harmful to the environment. Economic measures on the restriction of environmentally harmful subsidies and adjustment of pricing and taxation can discourage unsustainable market-driven land development. Targets to reduce negative impacts on soil and land take should be therefore based on European wide binding commitment, instead of voluntary agreement of single Member States. Even if good solutions are rooted in non-binding agreements, it is important to recognise that many issues cannot be solved only through the voluntariness of individuals.

Overall, the policies should serve enhancing efficiency and sustainability of (urban) land use, be it existing uses compensated for soil sealing, de-sealing and soil recovery, or brownfield regeneration; as well as restricting new land uses up to undertaking limiting land take targets. Since the EU does not have direct instruments or competences to deal with land uses directly (so far), such formats of binding commitments might be one of the few possibilities to have a common European policy outlines on the subject.

[12] The factsheet description of the "Roadmap to a Resource Efficient Europe" mentioned that Guidelines on practices to limit, mitigate or compensate soil sealing will promote more sustainable use of soils and restrict uncontrolled land development. For example, all provisions of the Roadmap are designed with the direct goal of promoting sustainable use of resources, including land and soils. Target to reduce land take to an average of 800 km² per year in the period 2000-2020 will results in decrease of land take.

4.4 Collection of Factsheets

The following pages contain the assembled factsheets.

Factsheet 1 -Trans-European Transport Network (TEN)

Impact: Weak indirect positive	Potential negative effect
EU Policy	"Regulation (EU) No 1315/2013 of the European Parliament and of the Council, of 11 December 2013, on Union Guidelines for the development of the trans-European transport network and repealing Decision No 661/2010/EU)" TEN-T Guidelines
Status	Funding Instruments and Corresponding Programmes
Area	Transport
Description	The EU transport infrastructure policy (or TEN-T policy) was originally conceived as a funding instrument for major transport projects — the so-called 'priority projects' —. As in the case of other initiatives and policies, it has been subject to changes over the years. With the new TEN-T guidelines, policy focus has shifted away from a geographically scattered set of projects to an integrated network approach; even though projects approach is still present, with a list of priority ones. For this list, one combines EU priorities but also those of each Member State according to their one geopolitical will or spatial articulation needs (both external –EU context- but also internal –national- ones). From an alternative point of view, thematic, "Funds are now devoted to funding the TEN-T core network, which focuses on bridging the missing links between national transport networks, removing bottlenecks, ensuring interoperability and promoting investments in transport nodes in order to enhance intermodality." (EEA, 2016: The direct and indirect impact of EU policies on land, p. 47). In this sense, one of the main objectives of the EU Transport Policy "is to enhance a 'mobility that is efficient, safe, secure and environmentally friendly and to create the conditions for a competitive industry generating growth and jobs'" (Source: http://ec.europa.eu/transport/about-us/index_en.htm).
Impact on urbanisation and related land use practices	Impacts are both direct and indirect. The policy directly describes requirements for a specific land-use, namely land take for transport infrastructure, soil sealing and landscape fragmentation. General interest of such investments usually is over previous land use planning, finally adapted to these new projects or directly pressed by them. In an indirect way, new infrastructures generated new territorial functionalities or can increase previous ones; development of transport, which most likely would entail further spatial development and expansion, hence more land take and consumption of land for development purposes. However, it also can have positive impacts if it is addressed to completing the missing links of the core network and the upgrade of current infrastructure is preventing additional land take that would take place as a result of a more uncoordinated approach. This is a new and most recent approach looking for better and more efficient inter-connectivity and multi-modal transport.
Policy gaps / weaknesses / **negative effects**	Increasing accessibility by enlarging transport infrastructure, besides land take, soil sealing, and land fragmentation can stimulate obliged mobility (e.g. foster urban sprawl by making attractive suburban and rural areas) and impeding sustainability. TEN-T projects can pose significant threats to biodiversity and Natura 2000 areas, resulting from the 'physical reduction of natural habitats, landscape fragmentation, migration barriers, collision of vehicles with animals, emissions of noise and air pollutants, changes to the water regime and others'. (Source: EEA, 2016: The direct and indirect impact of EU policies on land). Environmental Assessments, mainly Strategic Environmental Assessment of plans and programs is needed and applied according to SEA Directive (Directive 2001/42/EC). However, it depends on Member States transposition to their own legal framework. In addition, much attention is recently paid to "EIA" (environmental impact assessment) of projects (Directive 2011/92/EU of the European Parliament and the Council of 13 December 2011).

Factsheet 2 - Water Framework Directive

Impact: Strong indirect positive	No potential negative effect
EU Policy	"Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy"
Status	Legislation (directives, regulations)
Area	Environment
Description	"The Water Framework Directive (2000/60/EC) establishes a legal framework for the protection and restoration of clean water across Europe to ensure its long-term, sustainable use. It calls on Member States to attain a 'good status' for all of the surface water and groundwater bodies in Europe. The directive covers all freshwater bodies, as well as 'transitional' waters, such as estuaries and coastal waters up to one nautical mile from the shoreline. A 'good status' is defined in terms of both chemical status and ecological status, and thus the directive protects aquatic ecosystems as well as the wetlands and terrestrial ecosystems that are linked to them." (Source: EEA, 2016: The direct and indirect impact of EU policies on land, p. 75).
Impact on urbanisation and related land use practices	The main target of the policy is waters, its protection and restoration, while this would entail certain restrictive requirements on urbanisation near water bodies, etc., which would exert more control on land-take and land uses related to spatial development. The policy targets specific land uses which are directly impacting waters (including pollutant inputs and anthropogenic alterations to the recharge characteristics such as rainwater and run-off diversion through land sealing, artificial recharge, damming or drainage -2000/60/EC-), i.e. in the proximity of water bodies, river basins, as well as impacting groundwaters. WFD contains planning requirements, namely the preparation of RMBPs (River basin management plans) and FRAMPs (Flood risk management plans). Planning under the WFD, e.g. restore river morphology and flood plains may contribute to reducing land take and land degradation. In order to improve the ecological status of rivers, Member States have undertaken measures in their RBMPs and PoMs (Programme of measure) to restore wetlands and other natural features, by, for example, reversing morphological modifications that have changed river courses. But probably is flood risk prevention plans that can influence more clearly urban developments. Besides, availability (quantity and quality) of water resources are included as pre-condition of spatial and urbanistic plans approval (Article 4(7) of the Directive). WFD includes a requirement for the assessment of new projects that could affect water bodies. Alternatives should demonstrate 'technical feasibility' and that has not a 'disproportionate cost'. These measures may influence land use by restricting areas for land take; they may also improve soil quality.
Policy gaps / weaknesses / negative effects	"The WFD was prepared before EU land objectives were first put in place in the 2006 Soil Thematic Strategy, and thus it is not surprising that they do not contain direct references to objectives related to land use, land take or land degradation." (Source: EEA, 2016: The direct and indirect impact of EU policies on land, p.77). Due to a lack of institutional framework, delays in WFD application in Member States according to the timetable for implementation occur (https://ec.europa.eu/environment/water/water-framework/info/timetable_en.htm). Special effects of WFD were expected on coastal areas, however, it has been difficult to implement complementary with IZCM; not a priority as Marine Strategy Directive (2008/56/CE) was. Only IZCM Mediterranean Protocol (mainly art. 8) helps to control urban developments in closer 100m to the sea baseline (https://www.pap-thecoastcentre.org/pdfs/Protocol_publikacija_May09.pdf).

Factsheet 3 - European Spatial Development Perspective

Impact: Strong direct positive	No potential negative effect
EU Policy	ESDP - European Spatial Development Perspective Towards Balanced and Sustainable Development of the Territory of the European Union agreed at the Informal Council of Ministers responsible for Spatial Planning in Potsdam, May 1999
Status	Non-binding Agreements, Agenda and Discourse
Area	Regional Development / Sustainability
Description	ESDP is a fundamental document of EU spatial development that provides framework guidelines for creating a sustainable, comprehensive, multisectoral and directional strategy for the spatial development of EU countries. It is based on the EU aim of achieving a balanced and sustainable development, in particular by strengthening economic and social cohesion. It pursues the triangle of objectives linking the three following fundamental goals of European policy: 1. economic and social cohesion; 2. conservation of natural resources and cultural heritage; 3. more balanced competitiveness of the European territory. It also establishes three policy guidelines for the spatial development of the EU: 1. development of a balanced and polycentric urban system and a new urban-rural relationship; 2. securing parity of access to infrastructure and knowledge; 3. sustainable development, prudent management and protection of nature and cultural heritage.
Impact on urbanisation and related land use practices	ESDP targets spatial development in general. It is structured around issues, which have territorial dimension and suggested policy options to tackle them. Some of such options offer measures directly concerning land-use practices. It also presents challenges of spatial development and calls for action to tackle them, devoting a specific section to the problem of continuing urban sprawl. It provides a framework for creating a sustainable and comprehensive strategy for the spatial development of EU countries by providing guidelines for national strategic documents and defining scenarios of possible spatial development directions. Further, ESDP envisions measures aimed at the support and development of rural territories, better rural-urban linkages and protection of open countryside from uncontrolled development and urbanisation. It also calls to polycentric urban-rural development model, with rural areas retaining their character. This would potentially constrain centralisation tendencies towards cities, hence lower pressure on land from rural-urban migration. It also suggests protecting cultural landscapes, including by restricting land uses. Further, it calls for improving accessibility of EU regions and calls against the concentration and development corridors in terms of transport, which promotes uneven spatial development. This would potentially encourage urban growth in less accessible regions and restrict growth in already highly developed regions. ESDP also sets a guideline for macroregional cross-border spatial planning. As a "policy document, the ESDP clearly contributes to articles 96 and 98 of the New Urban Agenda as well as UN SDG 11". (Dallhammer 2018: 13) The overall impact of the policy is positive, as it declares commitment to sustainable spatial development and suggests measures restricting land consumption and promoting efficient land use planning. It also declares commitment to environmental protection, including preservation of natural areas, soils, and landscapes. This would potentially restrict uncontrolled land take and land exploitation. Targeting the problem of rural development, it also promotes the preservation of rural land uses, which would potentially restrict their conversion for urban uses. It also calls for the protection of cultural lands, which would potentially promote more sustainable use of these areas.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 4 - Territorial Agenda 2020

Impact: Strong indirect positive	Potential negative effect
EU Policy	Territorial Agenda of the European Union 2020 Towards an Inclusive, Smart and Sustainable Europe of Diverse Regions, agreed at the Informal Ministerial Meeting of Ministers responsible for Spatial Planning and Territorial Development on 19th May 2011 Gödöllő, Hungary
Status	Non-binding Agreements, Agenda and Discourse
Area	Regional Development / Sustainability
Description	Territorial Agenda of the European Union 2020 (TA2020) is the successor of the Territorial Agenda launched in 2007. TA2020 is an action-oriented policy framework to support territorial cohesion in Europe as a new goal of the EU. It outlines objectives in accordance with the time horizon of major policy documents until 2020. The objective of the TA2020 is to provide strategic orientations for territorial development, fostering the integration of territorial dimension within different policies at all governance levels and to ensure implementation of the Europe 2020 Strategy according to territorial cohesion principles. TA202 defines six territorial priorities for the EU which can contribute to the successful implementation of the Europe 2020 Strategy: 1. Promote polycentric and balanced territorial development 2. Encouraging integrated development in cities, rural and specific regions 3. Territorial integration in cross-border and transnational functional regions 4. Ensuring global competitiveness of the regions based on strong local economies 5. Improving territorial connectivity for individuals, communities and enterprises 6. Managing and connecting ecological, landscape and cultural values of regions.
Impact on urbanisation and related land use practices	The policy does not target land use or land use planning per se, thus exerting an indirect impact on land use practices related to urbanisation through promoting sustainable and balanced territorial growth in general. Thus, it aims at promoting polycentric and balanced territorial development, encouraging integrated development in cities, rural and specific regions, improving territorial connectivity, and protection of urban and rural landscapes. "Both the 2007 and the 2011 versions of the territorial agenda contain suggestions and guidelines which contribute to UN SGD 11 and articles 96, 98 and 99 of the New Urban Agenda. (Dallhammer 2018: 14). The policy calls for sustainable urban development, including through smart growth and development of the peri-urban areas and functional regions of cities. This would potentially encourage more control and planning over urban expansion and land take in these areas. TA2020 supports sustainable land-use practices not directly, but via supporting smart, sustainable and inclusive development in EU cities.
Policy gaps / weaknesses / **negative effects**	The policy calls for improvement of transport connectivity, including on peripheries and through the development of secondary networks. This might potentially lead to urban expansion into newly connected areas.

Factsheet 5 - Cohesion Policy 1

Impact: Strong indirect positive	Potential negative effect
EU Policy	Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013 laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, and the European Maritime and Fisheries Fund and repealing Council Regulation (EC) No 1083/2006, ESIF Rules valid for 2014-2020 Programming period
Status	Funding Instruments and Corresponding Programmes
Area	Cohesion Policy / Funding
Description	The Regulation lays down the common rules applicable to the European Regional Development Fund (ERDF), the European Social Fund (ESF), the Cohesion Fund, the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF), which operate under a common framework (the 'European Structural and Investment' - 'ESI Funds'). It also lays down the provisions necessary to ensure the effectiveness of the ESI Funds and their coordination with one another and with other Union instruments. Each ESI Fund shall support the following thematic objectives: (1) strengthening research, technological development and innovation; (2) enhancing access to, and use and quality of, ICT; (3) enhancing the competitiveness of SMEs, of the agricultural sector (for the EAFRD) and of the fishery and aquaculture sector (for the EMFF); (4) supporting the shift towards a low-carbon economy in all sectors; (5) promoting climate change adaptation, risk prevention and management; (6) preserving and protecting the environment and promoting resource efficiency; (7) promoting sustainable transport and removing bottlenecks in key network infrastructures; (8) promoting sustainable and quality employment and supporting labour mobility; (9) promoting social inclusion, combating poverty and any discrimination; (10) investing in education, training and vocational training for skills and lifelong learning; (11) enhancing institutional capacity of public authorities and stakeholders and efficient public administration.
Impact on urbanisation and related land use practices	The Regulation promotes sustainable development in general. More specifically, one of the objectives to be supported with funding aims at preserving and protecting the environment and promoting resource efficiency. Promotion of sustainable development through funding will potentially lead to projects directly related to sustainable urbanisation and efficient land use, it will also support these issues indirectly as a cross-cutting requirement for all development projects to be implemented, i.e. projects complying with requirements of sustainable development, efficient land uses and environmental protection. Further, the Fund aims at supporting urban-rural linkages and the development of peripheral areas. This might potentially lower pressure on urban development in central areas, while at the same time engender marks of urbanisation in supported rural areas. However, more specific impact exerted at urbanisation could be traced via further regulations laying down principles and priorities for each ESI Fund, and further through programmes and finally projects implemented with the support of each Fund across sectors.
Policy gaps / weaknesses / **negative effects**	The actual on-site impact of ESIF is needed to be traced via activities of each Fund and programmes & projects implemented under its auspices. Massive funding support for development might encourage potential externally stimulated growth, which would lead to land takes and be interrupted or halted once the funding is ceased.

Factsheet 6 - Cohesion Policy 2

Impact: Strong indirect positive	Potential negative effect
EU Policy	Regulation (EU) No 1301/2013 of the European Parliament and of the Council of 17 December 2013 on the European Regional Development Fund and on specific provisions concerning the Investment for growth and jobs goal and repealing Regulation (EC) No 1080/2006 ERDF Rules valid for 2014-2020 Programming period
Status	Funding Instruments and Corresponding Programmes
Area	Cohesion Policy / Funding
Description	The Regulation establishes the tasks of the European Regional Development Fund (ERDF), the scope of its support with regard to the Investment for growth and jobs goal and the European territorial cooperation goal and specific provisions concerning ERDF support for the Investment for growth and jobs goal. The aim of ERDF is to contribute to the financing of support which aims to reinforce economic, social and territorial cohesion by redressing the main regional imbalances in the Union through the sustainable development and structural adjustment of regional economies, including the conversion of declining industrial regions and regions whose development is lagging behind. ERDF follows 11 objectives/investment priorities as outlined in common provisions for all ESI Funds, focusing on Fund-specific actions within them.
Impact on urbanisation and related land use practices	ERDF policy will support efficient land use for urbanisation through a number of investment priorities dealing with related issues, such as revitalisation of cities, regeneration and decontamination of brownfield sites (including conversion areas); protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure. The Regulation also supports transport investments, which have a huge impact on the state of urbanisation and consume land in itself. Further, the Regulation contains specific Article “Sustainable urban development”, as well as some other provisions supporting innovative actions in urban development, cooperation via urban development networks and enhancing urban-rural linkages. "The ERDF also gives particular attention to specific territorial characteristics. ERDF action is designed to reduce economic, environmental and social problems in urban areas, with a special focus on sustainable urban development. At least 5 % of the ERDF resources are set aside for this field, through 'integrated actions' managed by cities" (EC, https://ec.europa.eu/regional_policy/en/funding/erdf/). In particular, the ERDF promotes a sustainable integrated approach to urban development. It focuses its investments on several key priority areas which have an impact on urbanisation: innovation and research; the digital agenda; support for small and medium-sized enterprises (SMEs); and the low-carbon economy. In particular, some ERDF resources must be channeled specifically towards low-carbon economy projects: more developed regions: 20%; transition regions: 15%; and less developed regions: 12%. General support of sustainable urban development will potentially lead to more resource-efficient and responsible urbanisation, including in terms of land use. Support of soil and nature protection will restrict uncontrolled land exploitation for urbanisation. Support of urban regeneration will potentially serve to accommodate a certain part of the demand for urban growth without additional land consumption.
Policy gaps / weaknesses / **negative effects**	Extensive transport investments and enhancement of connectivity might spur regional growth in the form of sprawl, or boost the demand for land as a consequence of better transport accessibility.

Factsheet 7 - Cohesion Policy 3

Impact: Strong indirect positive	Potential negative effect
EU Policy	Regulation (EU) No 1300/2013 of the European Parliament and of the Council of 17 December 2013 on the Cohesion Fund and repealing Council Regulation (EC) No 1084/2006 valid for 2014-2020 Programming period
Status	Funding Instruments and Corresponding Programmes
Area	Cohesion Policy / Funding
Description	The Regulation establishes the Cohesion Fund and outlines its tasks and the scope of its support with regard to the Investment for growth and jobs goal. The Cohesion Fund (CF) aims to reduce economic and social disparities and to promote sustainable development. The Fund focuses on Member States whose Gross National Income (GNI) per inhabitant is less than 90% of the EU average. The Cohesion Fund supports: (a) investment in the environment, including areas related to sustainable development and energy which present environmental benefits; (b) TEN-T, in compliance with the guidelines adopted by Regulation (EU) No 1315/2013; (c) technical assistance. The Cohesion Fund supports Fund-specific actions within selected 5 objectives/investment priorities as outlined in common provisions for all ESI Funds. - supporting the shift towards a low-carbon economy in all sectors; - promoting climate change adaptation, risk prevention and management; - preserving and protecting the environment and promoting resource efficiency; - promoting sustainable transport and removing bottlenecks in key network infrastructures; - enhancing institutional capacity of public authorities and stakeholders and efficient public administration.
Impact on urbanisation and related land use practices	The Fund aims to reduce economic and social disparities and to promote sustainable development, also in urban areas, hence exerting an indirect impact on land use practices participating in urban development. More specifically, the Fund supports actions in the field of revitalisation of cities, regeneration and decontamination of brownfield sites (including conversion areas); protecting and restoring biodiversity and soil and promoting ecosystem services, including through Natura 2000, and green infrastructure, as well as transport investments. These topics are strongly related to the efficient and sustainable use of land, both developed urban sites and green areas. It would also put limitations on land take for development. Support of soil and nature protection will restrict uncontrolled land exploitation for urbanisation. Support of urban regeneration will potentially serve to accommodate a certain part of the demand for urban growth without additional land consumption. As the scope of Cohesion policy advanced by the Cohesion Fund is wide and support virtually any kind of projects reducing economic and social disparities, it could be difficult to trace its indirect impact on the mode and pace of urbanisation.
Policy gaps / weaknesses / **negative effects**	The Cohesion Fund supports projects (e.g. energy, transport) that focus on the use of renewable energy, developing rail transport, supporting intermodality, strengthening public transport, etc. Extensive transport investments and enhancement of connectivity might spur regional growth in the form of sprawl, or boost the demand for land as a consequence of better transport accessibility. Massive funding support for development might encourage potential externally stimulated growth, which would lead to land takes and be interrupted or halted once the funding is ceased.

Factsheet 8 - Cohesion Policy 4

Impact: Weak indirect positive	No potential negative effect
EU Policy	Regulation (EU) No 1304/2013 of the European Parliament and of the Council of 17 December 2013 on the European Social Fund and repealing Council Regulation (EC) No 1081/2006 valid for 2014-2020 Programming period
Status	Funding Instruments and Corresponding Programmes
Area	Cohesion Policy / Funding
Description	The Regulation establishes the missions of the European Social Fund (ESF), including the Youth Employment Initiative (YEI), the scope of its support, specific provisions and the types of expenditure eligible for assistance. The ESF aims at promoting high levels of employment and job quality, improve access to the labour market, support the geographical and occupational mobility of workers and facilitate their adaptation to industrial change and to changes in production systems needed for sustainable developments, encourage a high level of education and training for all and support the transition between education and employment for young people, combat poverty, enhance social inclusion, and promote gender equality, non-discrimination, and equal opportunities, thereby contributing to the priorities of the Union as regards strengthening economic, social and territorial cohesion. The Social Fund supports Fund-specific actions within selected 4 objectives/investment priorities as outlined in common provisions for all ESI Funds: - promoting sustainable and quality employment and supporting labour mobility; - promoting social inclusion, combating poverty and any discrimination; - investing in education, training and vocational training for skills and life-long learning; - enhancing institutional capacity of public authorities and stakeholders and efficient public administration.
Impact on urbanisation and related land use practices	The Fund provides an opportunity to obtain support for sustainable urban development through integrated actions to tackle the economic, environmental and social challenges. These might cover projects touching upon efficient and sustainable land use in urban areas etc., especially in environmental components. However, as the scope of support is placed on the social sector, the impact on land use practices related to urbanisation would be very indirect, if any, and difficult to trace, for example. through a social component of sustainable urban development. Thus, the Fund through support of projects in the field of integrated sustainable urban development might contribute to promoting sustainable urbanisation indirectly.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 9 - Urban development

Impact: Strong direct positive	No potential negative effect
EU Policy	Urban Agenda for the EU 'Pact of Amsterdam' Agreed at the Informal Meeting of EU Ministers Responsible for Urban Matters on 30 May 2016 in Amsterdam, The Netherlands.
Status	Non-binding Agreements, Agenda and Discourse
Area	Urban Development
Description	The Urban Agenda for the EU strives to involve Urban Authorities in supporting three pillars of EU policy: Better Regulation, Better Funding and Better Knowledge (knowledge base and exchange). It relies on the principle of an integrated approach to sustainable urban development as the guiding principle to achieve the goals of the three policy pillars. It also supports goals set in the Territorial Agenda 2020, and UN 2030 Agenda for Sustainable Development, notably Goal 11 'Make cities inclusive, safe, resilient and sustainable' and the global 'New Urban Agenda' as part of the Habitat III process. The Policy's aims: - to realise the full potential and contribution of Urban Areas towards achieving the objectives of the Union and related national priorities in full respect of subsidiarity and proportionality principles and competences; - to establish a more effective integrated and coordinated approach to EU policies and legislation with a potential impact on Urban Areas and also to contribute to territorial cohesion by reducing the socioeconomic gaps observed in urban areas and regions; - to involve Urban Authorities in the design of policies, to mobilise Urban Authorities for the implementation of EU policies, and to strengthen the urban dimension in these policies; - to enable Urban Authorities to work in a more systematic and coherent way towards achieving overarching goals. The Policy works toward achieving its goals via Partnerships, established voluntarily 12 Priority Themes: 1 Inclusion of migrants and refugees. 2 Air quality. 3 Urban poverty. 4 Housing. 5 Circular economy. 6 Jobs and skills in the local economy. 7 Climate adaptation (including green infrastructure solutions). 8 Energy transition. 9 Sustainable use of land and Nature-Based solutions. 10 Urban mobility. 11 Digital transition.12 Innovative and responsible public procurement.
Impact on urbanisation and related land use practices	The UA establishes as one of its Priority Themes sustainable use of land and nature-based solutions. It also calls for limiting greenfield consumption. It is aimed at promoting integrated sustainable urban development across all EU; well-balanced territorial development; better governance and urban and regional planning. It addressees small- and medium-sized Urban Areas and calls for polycentric development. Further, it sets local and FUA level recommendations for sustainable land use that could be directly implemented in Member States' spatial planning systems. It also sets recommendations for better integrating land use concerns into EU-level policies. According to the "ESPON-project "COMPASS" the Urban Agenda for the EU explicitly records direct impacts locally, through the inspiration of integrated plans for urban regeneration, of inter-municipal partnerships, or sustainable urban strategies" (Dallhammer 2018: 13). The Urban Agenda for the EU has a "clear impact on sustainable human settlement planning and management as mentioned in UN SDG 11 as well as articles 96 and 98 of the New Urban Agenda". (Dallhammer 2018: 13). It provides mechanisms to address directly issues of sustainable land use, which would engender actions and efforts aimed at tackling urban sprawl, inefficient land consumption, etc. Further, the support of urban regeneration, brownfield redevelopment will provide an alternative to land take for urban growth and a potentially lower pressure for conversion of greenfields for urban use, etc.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 10 - Sustainable land use and soil protection

Impact: Strong direct positive	No potential negative effect
EU Policy	Urban Agenda for the EU - ACTION PLAN: Sustainable Use of Land and Nature-Based Solutions Partnership October 2018
Status	Non-binding Agreements, Agenda and Discourse
Area	Sustainable Land Use / Soil Protection
Description	The Plan establishes the Sustainable Use of Land and Nature-Based Solutions (SUL_NBS) Partnership and outlines its actions in achieving one of 12 thematic priorities of EU Urban Agenda, namely: ‘’to ensure that the changes in Urban Areas (growing, shrinking and regeneration) are respectful of the environment, improving quality of life.” The SUL_NBS Partnership focuses on three pillars of EU policy-making and implementation; Better Regulation, Better Funding, and Better Knowledge. It also takes into account a number of cross-cutting issues highlighted in the Pact of Amsterdam, acknowledging the territorial dimension, the importance of small and medium-sized cities, the added-value of good urban planning, the links with the international dimension (especially the New Urban Agenda and the Sustainable Development Goals). The general aim of the Partnership: “To ensure the efficient and sustainable use of land and other natural resources to help create compact, liveable and inclusive European cities for everyone”. This general aim is underpinned by two objectives: 1) to promote the liveable compactness city model and 2) to mainstream and promote nature-based solutions as a tool to build sustainable, resilient and liveable urban spaces.
Impact on urbanisation and related land use practices	The Plan calls for actions in the field of sustainable land use, envisioning measures to tackle this issue. It also lists bottlenecks, points out to the lack of common European Land Use Policy, and insufficient coverage of sustainable land use issues at all levels of governance. The Partnership is joined voluntarily; hence it does not cover all Member States. The actions proposed might be disseminated as best-practices or tools, undertaken by other Member States in tackling the same issues, including via partners representing the European Commission: DG REGIO, DG ENV, DG RTD, DG JRC. For the partners involved the direct positive impact will be much stronger, as they agreed to undertake the measures outlined in action plan. For other Member States the positive impact might be in learning from best practicing, putting the issues on agenda, raising awareness, etc.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 11 - Roadmap to a Resource Efficient Europe

Impact: Strong direct positive	No potential negative effect
EU Policy	Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions (CoR). Roadmap to a Resource Efficient Europe. COM(2011) 571
Status	Binding Strategies, Documents and Policy Guidelines
Area	Regional Development / Sustainability
Description	The Roadmap is a part of the Europe 2020 Strategy. It builds upon and complements the other initiatives such as transition to a green low carbon economy, and takes into account progress made on the 2005 Thematic Strategy on the Sustainable Use of Natural Resources and the EU's strategy on sustainable development. It sets the milestones on a path to resource efficiency and sustainable growth. Each section describes the actions that are needed in the short term to start off this process. It provides a framework explaining how policies interrelate and build on each other, in which future actions can be designed and implemented coherently. It also outlines inter-linkages between key sectors and resources and their associated EU policy initiatives. It also sets two levels of indicators: 1."Resource Productivity" - to measure the principal objective of the Roadmap of improving economic performance while reducing pressure on natural resources; 2. A series of complementary indicators on key natural resources such as water, land, materials and carbon, that will take account of the EU's global consumption of these resources.
Impact on urbanisation and related land use practices	The Roadmap envisages a set of measures regarding land and soils thereby exerting direct impact on sustainable urbanisation in terms of land take. Namely, it sets the target of no net land take by 2050 and limit of 800 km2 per year in 2000-2020. It calls against soil sealing. Further it calls for better integrating land considerations into sectoral policies and decision-making process. It also exerts strong indirect impact, as it promotes a sustainable use of resources which have an environmental impact on urbanisation and related land use practices. Further, its main objectives refer to reduction of green gas emissions, energy efficiency and renewable energy. These areas are indirectly related to land use practices and the process of urbanisation. Further, it calls against Environmentally Harmful Subsidies (EHS), which potentially could also stimulate unsustainable land consumption and land take for urban development. It also calls for adjustments of pricing policies and taxation in order to stimulate sustainable use of resources (including land for development) and preclude unsustainable ones. It also calls for a number of measures for environmental protection, including preserving biodiversity, provision of eco-services etc., which could restrain land take for urban development. All provisions of the Roadmap are designed with the direct goal of promoting sustainable use of resources, including land and soils. Target to reduce land take to an average of 800 km² per year in the period 2000-2020 will results in decrease of land take. Guidelines on practices to limit, mitigate or compensate soil sealing will promote more sustainable use of soils and restrict uncontrolled land development. Measures on environmental protection and biodiversity will result in prevention of land take which is particularly harmful to environment. Economic measures on restriction of EHS, and adjustment of pricing and taxation will discourage unsustainable market driven land development.
Policy gaps / weaknesses / negative effects	The Roadmap does not capture some important consequences to the economy and quality of life such as inefficient land use, low water quality and availability, waste, air pollution, and losses of ecosystem services, fish stocks and biodiversity. Capturing these would reinforce the efficient use of resources, including land, and put restrictions on uncontrolled urbanisation.

Factsheet 12 - EIA Directive

Impact: Strong direct positive	No potential negative effect
EU Policy	Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment, EIA Directive
Status	Legislation
Area	Environment / Climate Action
Description	The Directive establishes the requirement for Member states to ensure that public and private projects which are likely to have significant effects on the environment to undergo an obligatory assessment of the environmental effects. Consultation with the public is a key feature of environmental assessment procedures. The environmental impact assessment shall identify, describe and assess in an appropriate manner, the direct and indirect effects of a project on the following factors: (a) human beings, fauna and flora; (b) soil, water, air, climate and the landscape; (c) material assets and the cultural heritage; (d) the interaction between the above factors. The Directive also contains a list of such projects.
Impact on urbanisation and related land use practices	Among the projects listed for the obligatory EIA procedure there are projects directly contributing to urban expansion and land take due to urban development. Developers are obliged to justify the adverse impacts, suggest remedies or ways of minimisation, reduction or elimination of adverse effects. All projects listed for the obligatory EIA procedure involve land take. Partly they are related to agriculture, industries, waste treatment etc. Of greater impact on the urbanisation are projects for infrastructure development, as they would include direct land take, but also the potential to spur further urbanisation and related land takes in the process of future expansion along newly constructed infrastructure lines etc. The control over certain types of projects from the side of obligatory EIA would promote more efficient and environmentally sustainable land use for such projects in general, as it would pose barriers against uncontrolled land take. It would also promote active actions toward compensation of adverse effects, including soil sealing, change of land use etc. Although not directly restricting land take, it still might improve the situation by alleviating the negative effects of it. "EIAs contribute to sustainable human settlement planning mentioned in UN SDG 11 as well as article 98 of the New Urban Agenda is to be expected" (Dallhammer et al. 2018: 6).
Policy gaps / weaknesses / negative effects	As the Directive only outlines general requirements towards establishment of EIA procedure and does not say anything regarding the criteria of granting or refusal of development consent based on EIA results, it might limit the positive impact of EIA.

Factsheet 13 - SEA Directive

Impact: Strong direct positive	No potential negative effect
EU Policy	Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, SEA Directive
Status	Legislation
Area	Environment / Climate Action
Description	The Directive sets the requirement for Member States to establish the procedure of strategic environmental assessment (SEA) for plans and programmes, which are prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in EIA Directive. The objective of the Directive is to provide for a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development, by ensuring that, in accordance with the Directive, an environmental assessment is carried out of certain plans and programmes which are likely to have significant effects on the environment.
Impact on urbanisation and related land use practices	Among the plans and programmes listed for obligatory SEA, there are those prepared for town and country planning and land use. Further, the Directive sets a number of criteria related to the characteristics of areas to be affected by such plans and programmes, including the reversibility of effects, intensive land-use, the effects on areas or landscapes with protection status. The obligatory SEA is required for plans and programmes inter alia for transport, telecommunications, energy, waste treatments, industry, tourism, each of which would have implications for possible urbanisation processes associated with or engendered by actions in these fields. The incorporation of consideration of sustainable development into town and land use planning documents will lead to general positive effects in the practices of land use policies related to urbanisation processes. The general pro-environmental approach of SEA might constrain adverse effects and extensive land take. "The SEA Directive set new standards for reflecting environmental issues in the planning process in a structured way in several countries" (Dallhammer et al. 2018: 4). "The SEA contributes to sustainable and integrated urbanisation and human settlement planning mentioned in UN SDG 11 as well as to article 98 of the New Urban Agenda" (Dallhammer et al. 2018: 6).
Policy gaps / weaknesses / negative effects	The Directive expresses only general requirement of setting SEA procedures, while the detailed procedures, including criteria of acceptable/unacceptable levels of environmental impact, etc. are left to Member States. Hence the actual impact of the Directive would vary across MSs and is difficult to estimate.

Factsheet 14 - Natura 2000

Impact: Strong indirect positive	Potential negative effect
EU Policy	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora Habitat Directive Natura 2000
Status	Legislation
Area	Environment / Climate Action
Description	The aim of the Directive is to contribute towards ensuring bio-diversity through the conservation of natural habitats and of wild fauna and flora in the European territory of the Member States. Measures taken pursuant to the Directive shall be designed to maintain or restore, at favourable conservation status, natural habitats and species of wild fauna and flora of Community interest. The Directive also establishes a coherent European ecological network of special areas of conservation under the title Natura 2000. This network, composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range. The Natura 2000 network shall include the special protection areas for bird habitats as well.
Impact on urbanisation and related land use practices	The Directive operates in the field of environmental protection and doesn't have land or soil as its subjects per se. However, it makes considerable claims as regards certain land uses, which would compete with those made by urban development. Hence the impact of the Directive on urbanisation and related land-use practices might be deemed rather considerable, although indirect. The Directive by means of establishment of the network of protected areas sets limitations for land development within the network, hence restricting land take in certain protected areas. In general, determining protected areas important for flora and fauna habitat restricts land take which would be detrimental for the environment. Further, such measures as obligatory compensation or mitigation measures, as well as a general guiding requirement to avoid deterioration of natural habitats will also serve as constraining unsustainable land development. Further, one more channel of indirect impact exerted by the Directive is through its requirements as regards planning and policies. Thus, it calls for land use planning and development policies to recognise and respect environmental considerations with regards to fauna and flora habitats. Once these issues are incorporated in direct land use and planning policies, it would have a more direct effect.
Policy gaps / weaknesses / **negative effects**	The need to respect protected areas might impede compact development and lead to so-called leapfrog developments with patches of natural areas intermingled with sprawling developments in between. As it would serve environmental goals, it could also increase dependence on transport, need for more extensive infrastructure, etc. as opposed to compact urban development mode.

Factsheet 15 - Birds Directive

Impact: Strong indirect positive	Potential negative effect
EU Policy	Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds, Birds Directive
Status	Legislation
Area	Environment / Climate Action
Description	'The Birds Directive is the oldest piece of EU legislation on the environment and one of its cornerstones. Amended in 2009, it became the Directive 2009/147/EC. The Directive relates to the conservation of all species of naturally occurring birds in the wild state in the European territory of the Member States. It also places great emphasis on the protection of habitats for endangered and migratory species. It covers the protection, management and control of these species and lays down rules for their exploitation. It establishes the requirements for Member States to take the requisite measures to preserve, maintain or re-establish a sufficient diversity and area of habitats for all the species of birds listed. It establishes a network of Special Protection Areas (SPAs) including all the most suitable territories for these species. Since 1994, all SPAs are included in the Natura 2000 ecological network, set up under the Habitats Directive 92/43/EEC.
Impact on urbanisation and related land use practices	The Directive sets an obligation to reserve certain areas for protected bird habitats, thus closing off these areas for any possible development. Further, it sets an obligation to create biotopes, thus determining certain land use for designated areas, again precluding any other land developments there. Hence it would exert an impact on urbanisation by imposing competing land uses and imposing restrictions on urban development in certain areas. The impact of Directive goes along with the overall policy under the umbrella of Natura2000 network. Hence Member States are required to incorporate considerations and provisions of the Birds Directive's requirements into land use and planning policies.
Policy gaps / weaknesses / **negative effects**	The need to respect protected areas might impede compact development and lead to so-called leapfrog developments with patches of natural areas intermingled with sprawling developments in between. As it would serve environmental goals, it could also increase dependence on transport, need for more extensive infrastructure, etc. as opposed to compact urban development mode.

Factsheet 16 - Floods Directive

Impact: Strong indirect positive	Potential negative effect
EU Policy	Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks, Floods Directive
Status	Legislation
Area	Environment / Climate Action
Description	The Floods Directive Directive applies to all kinds of floods (e.g. river, lakes, flash floods, urban floods, coastal floods, including storm surges and tsunamis) on all of the EU territory. The Directive establishes a framework for the assessment and management of flood risks, aiming at the reduction of the adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods. It sets the requirements for Member States to conduct a flood risk assessment, prepare flood hazard maps and flood risk maps and set flood risk management plans focusing on prevention, protection, preparedness, including flood forecasts and early warning systems and taking into account the characteristics of the particular river basin or sub-basin. These steps need to be reviewed every 6 years in a cycle coordinated and synchronised with the Water Framework Directive (WFD) implementation cycle. Flood risk management plans may also include the promotion of sustainable land-use practices, improvement of water retention as well as the controlled flooding of certain areas in the case of a flood event.
Impact on urbanisation and related land use practices	The Directive calls for the introduction of flood risk concerns into planning and land-use policies. It also calls for the promotion of sustainable land-use practices and soil management. The Directive points at increasing human settlements, soil sealing, land cover and intensive land use among possible causes aggravating flood risks, therefore calling to address these issues. Further, it establishes a framework affecting land use in flood-prone areas, including possible restrictions of certain land uses for development, etc. (these measures are to be designed by Member States). Measures put in place for flood risk prevention will result in more sustainable land use in flood-prone areas, including by restricting extensive land cover/ soil sealing, etc. Certain flood-prone areas might be closed off for development in general, and as such, they will serve for preserving natural areas.
Policy gaps / weaknesses / **negative effects**	The designation of areas prohibited for development due to flood risks might result in dispersed non-compact development with intermingled patches of natural areas serving for water retention etc. While serving flood prevention and amelioration, it might also cause the need for expanded infrastructure, transport connections, etc.

Factsheet 17 - Landfill Directive

Impact: Strong indirect positive	No potential negative effect
EU Policy	Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste (OJ L 182, 16.7.1999, p. 1) (the latest amendment 14.6.2018), Landfill Directive
Status	Legislation
Area	Environment / Climate Action
Description	The aim of the Directive is to ensure a progressive reduction of landfilling of waste, in particular of waste that is suitable for recycling or another recovery, and, by way of stringent operational and technical requirements on the waste and landfills, to provide for measures, procedures and guidance to prevent or reduce as far as possible negative effects on the environment, in particular the pollution of surface water, groundwater, soil and air, and on the global environment, including the greenhouse effect, as well as any resulting risk to human health, from landfilling of waste, during the whole life-cycle of the landfill. The Directive also contains the relevant technical requirements for landfills in accordance in order to achieve the above aim. Further, it calls for Member States to develop obligatory national strategies for the implementation of the reduction of biodegradable waste going to landfills, and sets a target of reduction of such waste. In fact, landfilling is the least preferable option and should be limited to the necessary minimum and has to be strictly controlled.
Impact on urbanisation and related land use practices	The Directive would have a direct impact on certain land uses, related to waste management. Hence it will only partially concern urbanisation-related land uses insofar as it concerns waste management and land use for these purposes. As it sets the requirements to the location of landfills it creates limitations on certain planning decisions in regards to land allocation for landfills. It, in turn, would impact urban planning decisions and create competing land use for urban development at certain sites and around them (within buffer zones). Further, by setting strict requirements and measures to protect soils, groundwaters and minimise negative environmental impact, it promotes more sustainable land management of this particular kind (landfill lands). The strict requirements to the site and conditions of landfills would ensure the amelioration of the negative environmental impact of such land use. More important positive impact is seen in setting targets to reduce landfill waste so that with decreasing volumes of such waste less and less land would be taken for landfill sites. However, as more and more waste will be undergoing recycling, land might be taken for waste recycling facilities.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 18 - Waste framework Directive

Impact: Weak indirect positive	No potential negative effect
EU Policy	Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (latest amendment 14.6.2018). Waste Framework Directive
Status	Legislation
Area	Environment / Climate Action
Description	The Directive 2008/98/EC sets the basic concepts and definitions related to waste management (e.g. recycling, recovery). It lays down measures to protect the environment and human health by preventing or reducing the generation of waste, the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use, which are crucial for the transition to a circular economy and for guaranteeing the Union's long-term competitiveness. It also lays down waste management principles: e.g. waste has to be managed without endangering human health and harming the environment; without risk to water, air, soil, plants or animals; without causing a nuisance through noise or odours; and without adversely affecting the countryside or places of special interest.
Impact on urbanisation and related land use practices	As the Directive concerns the general framework for waste management, it would have a rather indirect impact on land use practices, mainly through limitations of land take for landfills etc. As the Directive call to minimisation of land filling as the least preferred way of waste disposal, it could potentially lead to a reduction of land use for landfill sites, and subsequently to free land for urban development. Hence, the reduction of land take for landfilling purposes would not necessarily lead to an overall reduction in land take, as the freed land could be taken for urban development instead.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 19 - Agriculture/rural development 1

Impact: Strong indirect positive	No potential negative effect
EU Policy	Regulation (EU) No 1305/2013 of the European Parliament and of the Council of 17 December 2013 on support for rural development by the European Agricultural Fund for Rural Development (EAFRD) and repealing Council Regulation (EC) No 1698/2005
Status	Funding Instruments and Corresponding Programmes
Area	Agriculture / Rural Development
Description	The Regulation lays down general rules governing EU support for rural development, financed by the European Agricultural Fund for Rural Development ("the EAFRD"). It sets out the objectives to which rural development policy is to contribute and the relevant Union priorities for rural development. It outlines the strategic context for rural development policy and defines the measures to be adopted in order to implement rural development policy. In addition, it lays down rules on programming, networking, management, monitoring and evaluation on the basis of responsibilities shared between the Member States and the Commission and rules to ensure coordination of the EAFRD with other Union instruments. The European Agricultural Fund for Rural Development (EAFRD) supports the European policy on rural development. It also finances rural development programmes across the EU. These programmes are designed in cooperation between the European Commission and the Member States, in line with the strategic guidelines for rural development policy adopted by the Council and the priorities of national strategic plans.
Impact on urbanisation and related land use practices	The Policy contains propositions regarding land, which might be adjacent to prospective urbanisation sites and hence might restrict urban expansion. The Policy would have an impact on urbanisation mainly via its actions in the field of rural development, as regarding competing land uses (agricultural vs. urban), support of rural areas as opposed to concentrated urbanisation, provision of subsidies for maintaining certain land uses, etc. The Fund promotes a balanced territorial development of rural economies and communities, fostering the competitiveness of agriculture. The policy's measures supporting rural development and sustainable land management, efficient land use impact a wide range of land uses, such as agriculture, forestry, permanent pastures, including lands of former agriculture use, etc. Such control might restrict uncontrolled encroachments, or extensive land takes for the purposes of development from the above land categories. The more indirect, but more significant long-term impact of the policy is seen in subsidies and payments for farmers and land managers to sustain certain land uses (forestry, Natura 2020 areas, agriculture, etc.) so that this might alleviate one of the key drivers for conversion of agriculture land for urban development, such as profitability.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 20 - Agriculture/rural development 2

Impact: Strong indirect positive	No potential negative effect
EU Policy	Regulation (EU) No 1306/2013 of the European Parliament and of the Council of 17 December 2013 on the financing, management and monitoring of the common agricultural policy and repealing Council Regulations (EEC) No 352/78, (EC) No 165/94, (EC) No 2799/98, (EC) No 814/2000, (EC) No 1290/2005 and (EC) No 485/2008
Status	Funding Instruments and Corresponding Programmes
Area	Agriculture / Rural Development
Description	The Policy lays down the rules on the financing of expenditure under the Common Agricultural Policy (CAP), including expenditure on rural development. It establishes two funds for this purpose: the European Agricultural Guarantee Fund (EAGF) and the European Agricultural Fund for Rural Development (EAFRD) and outlines the scope of activities to be funded.
Impact on urbanisation and related land use practices	The Policy would have an impact on urbanisation mainly via its actions in the field of rural development. It established a general framework for rural development expenditures, so more relevant provisions as regards land uses, etc. are established in the related directives on Funds Rules (namely, of the European Agricultural Fund for Rural Development (EAFRD)). The Policy puts in place certain mechanisms (farm advisory system) which potentially via supporting rural development and related land uses might restrict land takes for urban development, discourage conversion of land for development purposes, etc.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 21 - A new EU forest strategy

Impact: Weak indirect positive	No potential negative effect
EU Policy	Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 20.9.2013 COM(2013) 659 final "A new EU Forest Strategy: for forests and the forest-based sector"
Status	Non-binding Agreements, Agenda and Discourse
Area	Environment / Climate Action
Description	The Policy constitutes a framework for forest and forest-based sector management across EU. It establishes guiding principles: - Sustainable forest management and the multifunctional role of forests, delivering multiple goods and services in a balanced way and ensuring forest protection; - Resource efficiency, optimising the contribution of forests and the forest sector to rural development, growth and job creation. - Global forest responsibility, promoting sustainable production and consumption of forest products. Further, it establishes 2020 forest objectives: - to ensure and demonstrate that all forests in the EU are managed according to sustainable forest management principles and that the EU's contribution to promoting sustainable forest management and reducing deforestation at a global level is strengthened, thus: - contributing to balancing various forest functions, meeting demands, and delivering vital ecosystem services; - providing a basis for forestry and the whole forest-based value chain to be competitive and viable contributors to the bio-based economy.
Impact on urbanisation and related land use practices	The Strategy aims at reducing deforestation and forest protection, including sustainable maintenance and restoration of forests, which might potentially prevent land take for the purposes of development or create competing land uses (reforestation sites vs. urbanised areas, etc.). It mentions the need to comply with Natura 2020 protection requirement, including preserved areas prohibited for development. In general, forest protection might potentially put restrictions on uncontrolled land take for infrastructure development or other land uses related to urbanisation.
Policy gaps / weaknesses / negative effects	No direct provisions regarding prevention or discouraging land take from forest land funds for development purposes are mentioned; no requirement to link national forest programmes/ action plans to land use planning etc. Lack of references to protection of forest land use against conversion for development purposes etc. might weaken the positive effect of the Strategy toward sustainable land use.

Factsheet 22 - Environment Action Programme to 2020

Impact: Strong direct positive	No potential negative effect
EU Policy	Decision No 1386/2013/EU of the European Parliament and of the Council of 20 November 2013 on a General Union Environment Action Programme to 2020 'Living well, within the limits of our planet' 7th EAP
Status	Binding Strategic Documents and Policy Guidelines
Area	Environment / Climate Action
Description	The programme outlines the environmental strategy for EU. It lists nine priority objectives and what the EU needs to do to achieve them by 2020: (1) to protect, conserve and enhance the Union's natural capital; (2) to turn the Union into a resource-efficient, green and competitive low-carbon economy; (3) to safeguard the Union's citizens from environment-related pressures and risk to health and well-being; (4) to maximise the benefits of Union environment legislation by improving implementation; (5) to improve the knowledge and evidence base for Union environment policy; (6) to secure investment for environment and climate policy and address environmental externalities; (7) to improve environmental integration and policy coherence; (8) to enhance the sustainability of the Union's cities; (9) to increase the Union's effectiveness in addressing inter-national environmental and climate-related challenges. The programme is guided by a long-term vision: "In 2050, we live well, within the planet's ecological limits. Our prosperity and healthy environment stem from an innovative, circular economy where nothing is wasted and where natural resources are managed sustainably, and biodiversity is protected, valued and restored in ways that enhance our society's resilience. Our low-carbon growth has long been decoupled from resource use, setting the pace for a safe and sustainable global society."
Impact on urbanisation and related land use practices	The Strategy lists issues such as land fragmentation, degradation, unsustainable land use to address. Further, it contains direct provisions aiming at sustainable land use, soil protection. A specific priority area is aimed at sustainable urban development: "Priority objective 8: To enhance the sustainability of the Union's cities." The overall approach of the framework promotes sustainable development across all sectors, which would positively impact, support and facilitate efficient land use in all of those areas and hence impact urbanisation. The framework's fields of action (e.g. environment, green economy, climate response, health, efficient use of resources, etc.) have very strong relations to sustainable urban development. An important indirect impact is seen via Priority objective 7: to improve environmental integration and policy coherence, as it potentially might lead to better integration of sustainable land use requirements in town and land use planning. Explicit articulation of issues related to overconsumption of land, unsustainable land use due to urbanisation among other human activities will push strongly MSs' national policies toward direct actions improving the situation. The resolution "no net land take" by 2050 will lead to a substantial reduction in land take. The resolutions related to the restoration and preservation of soils will lead to an improved state of land across MSs and increase the amount of environmentally viable land. The statement "land is managed sustainably in the Union, the soil is adequately protected and the remediation of contaminated sites is well underway" will push MSs towards developing and adopting corresponding policies, approaches and measures, which in turn will ensure sustainable land use. The demand to put in place sustainable urban planning and design policies will also ensure the channeling of land concerns into urban development, controlling and restricting potentially explorative unsustainable land use for urban development.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 23 - Soil Thematic Strategy

Impact: Strong direct positive	No potential negative effect
EU Policy	The Soil Thematic Strategy: I. Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions Com (2006) 231 Final 22.9.2006 Thematic Strategy for Soil Protection II. Proposal for a Directive of the European Parliament and of the Council establishing a framework for the protection of soil and amending Directive 2004/35/EC Brussels, 22.9.2006 COM(2006) 232 final 2006/0086 (COD)
Status	Non-binding Agreements, Agenda and Discourse
Area	Sustainable Land Use/ Soil Protection
Description	In 2002, the European Commission published the Communication "Towards a Thematic Strategy for Soil Protection" (COM(2002) 179) in response to concerns about the degradation of soils in the EU. For the first time the Commission addresses the theme of soil protection. It outlines the first steps to the development of a Thematic Strategy to protect soils in the European Union (COM(2006) 231). The Commission proposed a Soil Framework Directive in 2006. The European Parliament adopted its first reading on the proposal in November 2007 by a majority of about two thirds. At the March 2010 Environment Council, a minority of Member States blocked further progress on grounds of subsidiarity, excessive cost and administrative burden. No further progress has since been made by the Council. The proposal remains on the Council's table. [Source: Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions “The implementation of the Soil Thematic Strategy and ongoing activities” 13.2.2012 COM(2012) 46 final, p.5] I. The Communication outlines the state of European soil, European, national and international policy background (“existing policies are far from covering all soils and all soil threats identified” [p.4]), and defines the following objectives: The overall objective is the protection and sustainable use of soil, based on the following guiding principles: (1) Preventing further soil degradation and preserving its functions: – when soil is used and its functions are exploited, action has to be taken on soil use and management patterns, and – when soil acts as a sink/receptor of the effects of human activities or environmental phenomena, action has to be taken at source. (2) Restoring degraded soils to a level of functionality consistent at least with current and intended use, thus also considering the cost implications of the restoration of soil. II. The Directive establishes a framework for the protection of soil and the preservation of the capacity of soil to perform any of the following environmental, economic, social and cultural functions: (a) biomass production, including in agriculture and forestry; (b) storing, filtering and transforming nutrients, substances and water; (c) biodiversity pool, such as habitats, species and genes; (d) physical and cultural environment for humans and human activities; (e) source of raw materials; (f) acting as carbon pool; (g) archive of geological and archeological heritage. To that end, it lays down measures for the prevention of soil degradation processes, both occurring naturally and caused by a wide range of human activities, which undermine the capacity of a soil to perform those functions. Such measures include the mitigation of the effects of those processes, and the restoration and remediation of degraded soils to a level of functionality consistent at least with the current and approved future use.

Impact on urbanisation and related land use practices	The Strategy has as its core target soil protection, wherein soil sealing is mentioned specifically as one of the threats; however, in general, soil protection is addressed not only in terms of restricting land uses for development, etc. related to urbanisation, but in general environmental sense against all threatening human activates across any fields that might exploit land for various purposes (including agriculture, industry, etc.), urban development included as one of them. The Strategy apart from direct measures calls for the integration of soil protection provisions across wider policies, that is, including in urban and land use planning, etc. The call to prevent or restrict soil sealing occurring due to urban sprawl and increasing demand for land would have resulted in improvements as regards these issues. However, as the Strategy remains unbinding, its positive effects are rather weak and indirect and take the form of raising awareness, putting the matters on agenda and opening it for discussion, encouragement for MSs to adopt their own national strategies or undertake certain responsibilities at national level, or integrating soil protection concerns into land-use & urban planning. Overall, despite the fact that the Strategy has as its subject matter soil, the positive effects on restricting land take for urban development might be weakened by the fact that due to limits of EU competences these matters could not be directly addressed. See: “Abundant calls for mandatory restrictions on urban and touristic developments have not been endorsed as the Community has limited competences on restricting land use. [p.4]”. Instead, it could be only addressed via soil sealing.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 24 - Soil Sealing

Impact: Strong direct positive	No potential negative effect
EU Policy	Commission Staff Working Document "Guidelines on best practice to limit, mitigate or compensate soil sealing" 15.5.2012 SWD(2012) 101 final/2
Status	Non-binding Agreements, Agenda and Discourse
Area	Sustainable Land Use/ Soil Protection
Description	The objective of this Commission Staff Working Document containing guidelines on best practices to limit, mitigate or compensate for soil sealing is to provide information on the magnitude of soil sealing in the EU, its impacts and examples of best practices in Member States. The Guidelines are targeted at competent authorities in Member States (at national, regional and local levels), professionals dealing with land planning and soil management, and stakeholders in general. The document contains relevant information on soil sealing, its drivers, impacts, available options, and good practices across the Member States. It can be used for different purposes, from awareness-raising to planning, from identifying and implementing mitigation measures to providing a checklist for development projects, for example, those subject to an environmental impact assessment or funded by the EU.
Impact on urbanisation and related land use practices	The Guidelines do not have a direct binding legal power and therefore does not contain any obligatory requirements. However, the content of the Guidelines bears direct relevance to the problem of land consumption caused by urban expansion. Further, it contains suggested policy measures and actions which might be undertaken by MSs voluntarily in order to tackle the issue. Most of them concern either land use & planning or urban planning & urban management sectors. Of utmost relevance for sustainable urban expansion are such measures as land take targets, peri-urban areas and protection of agricultural soils and landscapes (hence restricting land take from these land funds). Other measures suggested are also of high relevance, although they concern urban land uses (such as brownfields etc.) or compensation nor recovery of already sealed soils. The Guidelines would have a strong indirect impact in the form of raising awareness and calling MSs to address the issue of soil sealing. It might also have a strong indirect impact of policy alignment and integration of soil sealing and sustainable land use into planning frameworks. Further, as the Guidelines outline the negative impact of soil sealing across numerous sectors, not only environmental but also societal, economical, etc., it presents a strong case for MSs and stakeholders to take action. The Guidelines also contain measures tackling improvement of soils and efficiency of land use in already existing urban areas, which would indirectly impact land take. Overall, the Guidelines should serve enhancing efficiency and sustainability of urban land use, be it existing uses compensated for soil sealing, de-sealing and soil recovery, or brownfield regeneration; as well as restricting new land uses up to undertaking limiting land take targets. Since the EU does not have direct instruments or competences to deal with land uses directly, such a format of non-binding guidelines might be one of the few possibilities to have a common European policy outlines on the subject.
Policy gaps / **weaknesses /** negative effects	The positive impact of the Guidelines is highly dependent on MSs and their willingness to assume responsibility, adopt their own national strategies on the subject, etc., which weakens the overall effect of the policy and makes it uncertain, or varied per MSs.

Factsheet 25 - Single European Transport Area

Impact: Strong indirect positive	Potential negative effect
EU Policy	WHITE PAPER Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system 28.3.2011 COM(2011) 144 final
Status	Binding Strategic Documents and Policy Guidelines
Area	Transport
Description	The document presents the common vision of EU in the transport and mobility sector. It outlines the state of arts in transport, challenges and future projections. It sets 60% emission reduction target on the way toward clean sustainable mobility. Further, it highlights the following directions of future transport development: - Growing Transport and supporting mobility while reaching the 60% emission reduction target; - An efficient core network for multimodal intercity travel and transport; - A global level-playing field for long-distance travel and intercontinental freight; - Clean urban transport and commuting. Further, it contains a list of initiatives (areas/ actions and objectives to be achieved) regarding transport.
Impact on urbanisation and related land use practices	No direct measures aimed at changing land-use practices related to transport or infrastructure development are included. The transport policy would have a strong indirect impact on land uses related to development, as transport connectivity is commonly named as one of the drivers for urban sprawl. The Roadmap sets an overall goal for transport to minimise its negative impact on the environment including reducing its pressure on land. Further, the set of actions aimed at urban mobility and promoting public transport, walking and cycling would impact urbanisation and related land consumption. Three aspects of indirect positive impact could be mentioned: -the pricing and taxation policies aimed at discouraging the use of private transportation might reduce the appeal of suburban commuting hence retaining the demand for land taken for peri-urban expansion. -the promotion of public transport, shortening commuting distances, cycling and walking would encourage concentrated development based on proximity principle, which might reduce demand for land consumption and instead encourage densification, redevelopment in inner-city areas, etc. -the most direct connection between land consumption and transport development is seen in the call for integrated planning strategy coupling mobility with land use planning inter alia. This could be a very strong instrument in bringing up interconnectedness of transport infrastructure and urban sprawl/ expansion as a subject of specific policies and managing it in a way that would promote sustainability.
Policy gaps / weaknesses / **negative effects**	The overall orientation of the Roadmap toward “Growing Transport and supporting mobility” would mean that with enhanced connectivity urban development on the regional scale would also be enhanced, resulting in an increase of land consumption for infrastructure and related urban development.

Factsheet 26 - Urbact III

Impact: Strong direct positive	Potential negative effect
EU Policy	European Regional Development Fund 2014 – 2020 European Territorial Cooperation URBACT III OPERATIONAL PROGRAMME CCI 2014TC16RFIR003, adopted by the European Commission on 12th December 2014 / Version 2 Oct 2015, URBACT III
Status	Funding Instruments and Corresponding Programmes
Area	Cohesion Policy / Funding
Description	The document outlines the objectives and operational rules for the 3rd generation of URBACT programme. The URBACT programme started in 2002 with URBACT I (2002-2006) which focused on sustainable regeneration. URBACT II (2007-203) widened its focus on a wider range of policy areas related to sustainable urban development. The current URBACT III continues to promote sustainable integrated urban development and contributes to the delivery of the Europe 2020 strategy. The URBACT programme is an European Territorial Cooperation programme (INTERREG C) which aims to promote sustainable integrated urban development in cities across Europe. It is an EU Cohesion Policy instrument and is co-financed by the European Regional Development Fund with a budget of 74.302 million EUR for the 2014-2020 period. URBACT facilitates the sharing of knowledge and good practice between cities and other levels of government with the purpose to promote integrated sustainable development and improve the effectiveness of regional and cohesion policy. The potential thematic scope of URBACT III is provided by the 11 thematic objectives described in Article 9 of the Common Provisions Regulation EU 1303/2013. A specific investment priority has been created for URBACT under thematic objective 11 'Enhancing institutional capacity and efficient public administration' as outlined in Regulation EU 1299/2013 (ETC) Article 7 (1) (c) (i): 'Disseminating good practice and expertise and capitalising on the results of the exchange of experience in relation to sustainable urban development, including urban-rural linkages'. It works within the scope as set by ERDF regulations in the programming period 2014-2020: 1. Integrated sustainable urban development actions (either through Integrated Territorial Investments or through specific urban development operational programmes or Priority Axes); 2. Participatory approaches through Community Led Local Development following LEADER model; 3. Urban-rural partnerships. URBACT does not directly invest in urban development (such as road building or science park construction). Instead, the programme enables exchange and learning between elected officials, officers and other city stakeholders; it contributes to the improvement of the quality of planning and implementation of integrated urban plans and programmes in cities, through policy learning on sustainable urban development, through the setting up of Local Support Groups and the Local Action Plans that they produce. URBACT aims to have an indirect effect on the implementation in mainstream Operational Programmes.
Impact on urbanisation and related land use practices	The programme expresses support for polycentric urban structures, small and medium-size cities, and urban-rural linkages. However, the programme recognises the issue of increasing urbanisation accompanied by a reverse trend of decrease in urban population, claiming that cities should deal with demographic changes and depletion of natural resources. It explicitly calls for coordinated policies for urban renewal and control of urban sprawl. The programme might have a direct impact at the level of cities implementing corresponding projects on improving the sustainability of urban land use etc. tackling the above challenges. In general, the programme is oriented to bring indirect effect and has not "been prepared for agriculture, forestry, fisheries, energy, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use" [p.109]. As claimed by the programme, it is meant to bring indirect effect, as it does not fund direct actions, but only actions at levels of urban policy, strategic planning, administration, exchange of knowledge. Hence it might bring incorporation of efficient land use concerns/ combating sprawl / promoting inner-city regeneration etc. into urban planning agendas of cities. Further, as the overall aim of the programme is to support integrated sustainable urban development, various projects implemented under its funding are expected to contribute in varied ways towards sustainable urbanisation inter alia. e.g. integrating transport planning and land use planning, promoting brownfield redevelopment, green infrastructure, and urban soil management, etc. As the other INTERREG C programmes it promotes sustainable and integrated development. In particular, URBACT III (2014-2020) provides a network of local and regional bodies that face similar urban challenges. In order to find common solutions for a sustainable and integrated urban development in Europe, URBACT III supports cities by exchanging information and good practices. The positive effects of the programme will be seen mostly in such areas as raising awareness and bringing issues of sustainable urbanisation on agenda, integrating relevant concerns into cities' action plans etc. It will be spanned unevenly and localised at the city level (as cities being the main beneficiaries of the programme). "URBACT is primarily a capacity building programme through the exchange of experience. It looks for appropriate and integrated solutions for urban policies and is unlikely to have direct significant environmental effects. [p.111]"
Policy gaps / **weaknesses / negative effects**	Support for polycentric urban structure, small and medium-size cities, and urban-rural linkages might mean supporting more development outside established urban areas, more spread development hence more land consumption. The impact is weakened by the fact that no direct actions are funded within the programme, therefore all positive effects might be either long-term or intangible.

Factsheet 27 - Toledo declaration

Impact: Strong direct positive	No potential negative effect
EU Policy	Toledo Informal Ministerial Meeting on Urban Development Declaration Toledo, 22 June 2010 Toledo Declaration
Status	Non-binding Agreements, Agenda and Discourse
Area	Urban Development
Description	The document represents the common position as agreed by Urban Development Ministers of MSs, featuring the representatives of relevant EU authorities (such as European Parliament (EP), Committee of the Regions (CoR), European Economic and Social Committee (EESC), European Investment Bank (EIB)), representatives from the three candidate countries for EU membership, plus Norway and Switzerland, and several observers and relevant stakeholder organisations related to urban development. It contains three areas of action: A. On addressing the current urban challenges and implementing the Europe 2020 strategy by achieving a smarter, more sustainable and socially inclusive urban development. B. On supporting the continuation of the Marseille process and the implementation of the European reference framework for sustainable cities. C. On the need to consolidate a European urban agenda in the future. Further, it is complemented by an annex – Toledo reference document on integrated urban regeneration and its strategic potential for a smarter, more sustainable and socially inclusive urban development in Europe.
Impact on urbanisation and related land use practices	The Declaration contains numerous references to the need and call for action to address urban sprawl, control land consumption and promote urban regeneration. The overall goal of the Declaration is to promote integrated, smart, sustainable, cohesive, inclusive urban development that would contribute to sustainable urbanisation in general. Call for integrated urban development policies might facilitate control of urbanisation, accounting for cross-sectoral interdependencies and causal relations across various policies and how they impact land use, etc. The recognition of the need to tackle land consumption, restrict land take and promote alternative modes of urban growth (such as regeneration, etc.) would lead to actions taken by MSs (and relevant authorities) promoting efficient and sustainable urbanisation. Commitment to put more control over the development of land would restrict uncontrolled and harmful land uses. Promotion of integrated approach to urban development policies would allow better-aligned planning, accounting for land use concerns in other sectoral policies (such as transport, etc.), which might lead to an improvement in the efficiency of land uses and reduction of possible side or negative effects of other policies to land demand and consumption.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 28 - Europe2020

Impact: Strong indirect positive	No potential negative effect
EU Policy	Communication from the Commission EUROPE 2020: A strategy for smart, sustainable and inclusive growth Brussels, 3.3.2010 COM(2010) 2020 EUROPE 2020
Status	Binding Strategic Documents and Policy Guidelines
Area	Regional Development / Sustainability
Description	Europe 2020 puts forward three mutually reinforcing priorities: – Smart growth: developing an economy based on knowledge and innovation. – Sustainable growth: promoting a more resource-efficient, greener and more competitive economy. – Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion. Further, it sets the following EU headline targets, suggesting them to be translated into national targets and trajectories: – 75 % of the population aged 20-64 should be employed. – 3% of the EU's GDP should be invested in R&D. – The "20/20/20" climate/energy targets should be met (including an increase to 30% of emissions reduction if the conditions are right). – The share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree. – 20 million less people should be at risk of poverty. It also puts forward seven flagship initiatives to catalyse progress under each priority theme. The Europe 2020 strategy emphasises smart, sustainable and inclusive growth as a way to overcome the structural weaknesses in Europe's economy, improve its competitiveness and productivity and underpin a sustainable social market economy.
Impact on urbanisation and related land use practices	Numerous urban development policies are declaring their commitment to fulfil Europe 2020 objectives, as they become translated and incorporated into the urban development sector. Hence it has a very strong indirect impact on the general direction of urban development toward integrated sustainable growth. Further, the programme suggests measures related to the improvement of land management and enhancing knowledge-based innovative approaches to it; some measures to cut off environmentally harmful subsidies (which might over-stimulate unsustainable land demand inter alia). Further measures on efficient use of resources (land included) are outlined in EU flagship initiative "Resource efficient Europe". One of the Strategy's targets focuses on climate change and energy, pushing towards greenhouse gas emissions 20% lower than 1990 levels, 20% of energy coming from renewables, and 20% increase in energy efficiency. These objectives directly impact urbanisation and related land-use practices Europe 2020 is a very broad framework which is translated in more details and expanded priorities into numerous sectoral policies, hence its positive impact would be rather long-term, broad and indirect in the form of setting the overall direction for smart sustainable growth, aligning national policies of MSs toward this goal, which then would be translated into direct implications for restricting land take for uncontrolled urban development, etc.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 29 - Energy2020

Impact: Strong indirect positive	Potential negative effect
EU Policy	Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Energy 2020 - A strategy for competitive, sustainable and secure energy {SEC(2010) 1346}
Status	Binding Strategic Documents and Policy Guidelines
Area	Energy
Description	The Strategy consolidates the measures which have been taken so far in the energy sector and suggests new activities in areas where new challenges are emerging as compared to the previous generation of energy policies. It sets out initial policy decisions that will be needed to meet EU 2020 energy objectives. The Strategy is complemented by the 2050 low carbon economy and energy roadmaps which represent a long-term vision. It outlines five priorities: 1. Achieving an energy efficient Europe; 2. Building a truly pan-European integrated energy market; 3. Empowering consumers and achieving the highest level of safety and security; 4. Extending Europe's leadership in energy technology and innovation; 5. Strengthening the external dimension of the EU energy market.
Impact on urbanisation and related land use practices	The energy policy would have a massive indirect impact on land use in general (not only urban-related), as energy infrastructure, production of biofuel and other renewable energy sources create a large demand for land. Further, the more indirect impact would be caused by the demands of energy efficiency and low-carbon methods in such fields as construction and transport. The energy policy is also strongly linked with smart growth and smart city policies, so it demands innovations in urban management, planning and use of resources, which might include smart land use planning in order to achieve energy efficiency, etc., which would all have implications on modes of urban development. Requirements for energy efficiency and carbon reduction in transport and construction sectors might discourage demand for land for development, or limit the moving-out tendency for residents due to restricted use of carbon-dependent private transport, etc. Overall, dispersed low-density urban patterns are commonly linked to higher levels of energy consumption, higher carbon emission rates due to traffic, etc. Hence all energy efficiency/ low-carbon policies would be set against sprawling development.
Policy gaps / weaknesses / **negative effects**	Land use for energy-related infrastructure might be competing to land uses for development purposes. This could concern urban expansion in a way of creating interruptions in settlement distribution (wind farms, grids, buffer no-development zones, etc.).

Factsheet 30 - Urban Innovative Actions Initiative

Impact: Strong direct positive	Potential negative effect
EU Policy	Urban Innovative Actions Initiative (Based on UIA – Guidance Version 4 – 15 October 2018)
Status	Funding Instruments and Corresponding Programmes
Area	Urban Development
Description	The UIA Initiative is an instrument of the EU and is managed by the DG Regional and Urban Policy via indirect management. The UIA Initiative is set out in Article 8 of EU Regulation No 1301/2013 on the ERDF and on specific provisions concerning the Investment for growth and jobs which states that "[a]t the initiative of the Commission, the ERDF may support innovative actions in the area of sustainable urban development". Commission Delegated Regulation No 1410/2014 defines the main rules concerning the selection and management of innovative actions in the area of sustainable urban development to be supported by ERDF. The Commission has designated the Region Hauts-de-France (France) as Entrusted Entity for the implementation of the UIA Initiative via a Permanent Secretariat. Thus, UIA acts as a funding scheme that supports innovative pilot projects to identify and test new solutions that address issues related to sustainable urban development and which fall outside the scope of mainstream EU programmes funding.
Impact on urbanisation and related land use practices	Among the topics of the supported projects, there is "Sustainable use of land and nature-based solutions", hence the programme might have a direct impact through the corresponding thematic projects implemented with its support. The UIA supports the implementation of EU Urban Agenda as outlined in Amsterdam Pact and follows the thematic objectives and investment priorities of ERDF, further the Investment for growth and jobs goal under which the framework for urban innovative action initiative is established all of which are concerned sustainable urbanisation hence would have an indirect impact. In general, the initiative supports sustainable urban growth, which potentially would contribute to an overall improvement of urbanisation patterns toward more sustainable and resource-efficient ones.
Policy gaps / weaknesses / **negative effects**	As projects supported by UIA are of innovative character, aiming at testing and piloting solutions for which no precedents exist, it could involve higher risks of failures or unexpected/unforeseen negative effects (e.g. side effects of new incentives/subsidies system aimed at discouraging peri-urban development would create economic disparities in territorial development of areas or higher pressure and demand on land in inner-city areas, etc.).

Factsheet 31 - Energy performance of buildings

Impact: Weak indirect positive	No potential negative effect
EU Policy	Public procurement for a better environment I. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan 16.7.2008 COM(2008) 397 final II. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Public procurement for a better environment 16.7.2008 COM(2008) 400 final III. Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings
Status	Legislation
Area	Procurement
Description	I. Description: The Action Plan outlines a framework to improve the energy and environmental performance of products and foster their uptake by consumers. It comprises the following actions: - Minimum requirements will be set for products with significant environmental impacts, focusing on key environmental aspects; - Product labeling; - energy efficiency and environmental criteria will be used to establish a harmonised base for public procurement and incentives; - Promotion of smarter consumption. II. Description: The policy is aimed at reducing the environmental impact caused by public sector consumption via the use GPP (Green Public Procurement - "…a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life cycle when compared to goods, services and works with the same primary function that would otherwise be procured.") to stimulate innovation in environmental technologies, products and services. The specific objectives of this Communication are to address the obstacles to the uptake of GPP: • a process for setting common GPP criteria; • information on life cycle costing of products; • legal and operational guidance; • political support through a political target, linked to indicators and future monitoring. 1. Construction (covering raw materials, such as wood, aluminium, steel, concrete, glass as well as construction products, such as windows, wall and floor coverings, heating and cooling equipment, operational and end-of-life aspects of buildings, maintenance services, the on-site performance of works contracts); 2. Food and catering services; 3. Transport and transport services; 4. Energy (including electricity, heating, and cooling coming from renewable energy sources); 5. Office machinery and computers; 6. Clothing, uniforms and other textiles; 7. Paper and printing services; 8. Furniture; 9. Cleaning products and services; 10. Equipment used in the health sector III. Description: The Directive lays down requirements as regards common general framework for a methodology for calculating the integrated energy performance of buildings and building units; the application of minimum requirements to the energy performance of new and renovated buildings and building units; national plans for increasing the number of nearly zero-energy buildings, energy certification, and control.
Impact on urbanisation and related land use practices	As GPP does not cover land acquisition, there would be no considerable impact.
Policy gaps / weaknesses / negative effects	No indicators or consideration for building energy performance/ CO_2 emissions mentioned related to the type and location of buildings *(sprawl vs. compact, transport energy consumption needed to serve, etc.)

Factsheet 32 - Environmental Noise Directive

Impact: Weak indirect positive	No potential negative effect
EU Policy	The Environmental Noise Directive (END) 2002/49/EC
Status	Legislation (directives, regulations)
Area	Environment / Climate Action
Description	The Environmental Noise Directive (2002/49/EC, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52000PC0468&from=EN>) manages noise pollution levels and regulates environmental noise policies in Europe. The Directive focuses on three main aspects. First, it defines citizens' exposure to environmental noise. Second, it preserves good environmental noise and prevents high noise pollution levels. Third, it ensures that environmental noise information and its effects are publicly available. The Directive ensures the prevention and reduction of environmental noise, particularly in urban areas (e.g. near schools, hospitals) and green areas; however, it does not take into consideration other types of noise (e.g. domestic and workplaces). For more information see <https://ec.europa.eu/environment/noise/dir ective_en.htm>.
Impact on urbanisation and related land use practices	The Directive is the main EU instrument through which 'land-based noise emissions' are monitored and policy actions developed. In fact, the Directive promotes the use of 'acoustical planning' and 'noise zoning' to effectively manage negative noise issues and effects (see Article 5). For the Directive, "'*acoustical planning*' shall mean controlling future noise by planned measures, such as *land-use planning*, systems engineering for traffic, traffic planning, abatement by sound-insulation measures and noise control of sources" (Directive 2002/49/EC). In particular, Member States are required to design and implement noise maps and noise management action plans every five years, for: "agglomerations with more than 100,000 inhabitants; major roads (more than 3 million vehicles a year); major railways (more than 30,000 trains a year); and major airports (more than 50,000 movements a year, including small aircraft and helicopters)" (<https://ec.europa.eu/environment/noise/directive_en.htm>). The production of strategic noise maps can enhance the spatial effectiveness of policies that promote sustainable urbanisation processes. In fact, the creation of green areas and buffer zones can positively enhance the long-term sustainable development of built-up areas. Lower levels of noise pollution can also lead to higher levels of well-being and life satisfaction. For Dallhammer et al. (2018: 7) the potential contribution of the Environmental Noise Directive to "*sustainable settlement planning* as mentioned in UN SDG 11 and to articles 98 and 105 of the New Urban Agenda, therefore, is high, however little use of acoustic zoning is reported for the last 16 years" (see ESPON 2018, Annex 7). Environmental noise issues are indirectly related to sustainable land-use practices and urbanisation processes. In fact, land-use management is seen as an effective tool for the protection of noise at the local level. The importance of these issues is stressed by King et al. (2012) in their study on the effects of the built environment and land use on the levels of environmental noise. For them, "recent trends towards the intensification of urban development to increase urban densities and avoid *sprawl* should be accompanied by research into the potential for related health impacts from environmental exposure" (King et al. 2012).
Policy gaps / **weaknesses /** negative effects	In 2015-2016, the Directive has been evaluated in the context of the Regulatory Fitness and Performance initiative (REFIT). The evaluation study points out that, since the Directive's adoption over ten years ago, there have been some delays in adopting common assessment methodologies (<https://ec.europa.eu/environment/noise/pdf/staff_working_doc_refit_evaluation_environmental_noise.pdf>). Moreover, the Directive does not define common target values and the measures that need to be included in the action plans, leaving the choice to each Member State. However, the definition of a set of indicators and of target values could enhance the effectiveness of the Directive and positively enhance sustainable urbanisation practices (for more information see <https://ec.europa.eu/environ ment/noise/evaluation_en.htm>).

Factsheet 33 - Air Quality Directive

Impact: Weak indirect positive	Potential negative effect
EU Policy	The Air Quality Directive 2008/50/EC
Status	Legislation (directives, regulations)
Area	Environment / Climate Action
Description	The Air Quality Directive (AQD, 2008/50/EC, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008L0050&from=EN>) was adopted on 21 May 2008. The Directive aims to reduce levels of air pollution in Europe and to protect both human health and the environment (see Article 1). It unifies previous EU air quality legislation and defines binding target or limit values for concentrations of major air pollutants (e.g. Pb, NO_2, PM, SO_2, CO, PaH, O_3). The Directive requires the Member States to continuously measure and evaluate (e.g. through measurement stations) the quality of air of the different pollutants. The number and location of the measurement stations are decided by each Member State, in line with the methods and criteria defined in the Air Quality Directive (for more information see <https://ec.europa.eu/environment/air/quality /directive.htm>).
Impact on urbanisation and related land use practices	The Directive seeks to "promote the integration into the policies of the Union of a high level of *environmental protection* and the improvement of the *quality of the environment* in accordance with the principle of *sustainable development* as laid down in Article 37 of the Charter of Fundamental Rights of the European Union" (Directive 2008/50/EC). To do this, the Directive favours the adoption of 'air quality plans' (see Article 17). These plans spatially identify the concentration of air pollutants and trigger more effective policies, which could positively influence the adoption of sustainable land-use practices. For example, an increased number of green areas in a city can positively improve air quality and the long-term sustainable development of urbanised areas. In many Member States, city and regional air quality plans are implemented under the EU Directive 2008/50/EC. Member States are required to produce air quality plans for areas where air pollution levels are high (and target values are exceeded), adopting strategies and measures (e.g. increased number of green areas, traffic reduction) to ensure that these limits are achieved. Moreover, "the transboundary nature of specific pollutants, such as ozone and particulate matter, may require coordination between neighbouring Member States in drawing up and implementing air quality plans and short-term action plans and in informing the public" (Directive 2008/50/EC). Overall, the Directive seems to indirectly influence sustainable urbanisation processes and land-use practices. In fact, it promotes air pollution reduction in order to improve air quality levels, especially in built-up areas, which tend to have high noise pollution due to the plan concentration of traffic and industry. A more effective management of air pollution in urban areas (e.g. PM and NO_2), could also lead to a higher quality of life for citizens.
Policy gaps / weaknesses / **negative effects**	Since air pollution (especially in an urban environment) is not spatially homogeneous, the bad implementation of a city or regional air quality plan could lead to negative consequences in the environment and lead to long-term unsustainable development.

Factsheet 34 - Seveso III Directive

Impact: Weak indirect positive	No potential negative effect
EU Policy	The Seveso III Directive 2012/18/EU
Status	Legislation (directives, regulations)
Area	Environment / Climate Action
Description	The Seveso III Directive (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32012L0018&from=E>) came into force on 1 June 2015, replacing the previous Seveso I (Directive 82/501/EC) and Seveso II (Directive 96/82/EC) directives. The Directive, which gets its name from the 1976 Seveso disaster in Italy, is the main EU legislation that aims to reduce risks of hazardous materials and controls (e.g. through quantity thresholds, safety permits) major chemical accident hazards involving dangerous substances. The Directive is implemented in national legislation and is enforced by national chemical safety authorities. The objective of the Directive is to limit the consequences of these potential accidents not only for human health but also for the environment (for more information see: <https://ec.europa.eu/environment/seveso/>).
Impact on urbanisation and related land use practices	The Seveso Directive ensures risk mitigation processes in order to promote sustainable growth in Europe. These issues are indirectly related to land use practices and urbanisation processes. In fact, risk mitigation is improved through land-use planning. For the Directive, Member States need to ensure that a number of requirements are fulfilled, such as to integrate the objectives of the Directive with land use planning (see Article 13). In fact, Article 13 on land-use planning states that "Member States shall ensure that the objectives of preventing major accidents and limiting the consequences of such accidents for human health and the environment are taken into account in their *land-use policies* or other relevant policies" (Directive 2012/18/EU). The Directive also introduces the term 'planning for emergencies', stressing the importance of ex-ante evaluation analyses in order to identify foreseeable emergencies. The Directive promotes risk mitigation processes in order to preserve the environment and promote more sustainable land-use practices. The identification of spatial boundaries of potential high/low-risk areas during the drafting of spatial plans could help the reduction of damage in case of an accident situation. These spatial plans should also help the developers to ensure monitoring procedures as well as safety distances.
Policy gaps / **weaknesses /** negative effects	Sustainable land use issues could have a more central position in the Directive's scope of interest. This aspect could be improved to enhance the spatial effectiveness of the Seveso Directive.

Factsheet 35 - Renewable Energy Directive

Impact: Weak indirect positive	No potential negative effect
EU Policy	The Renewable Energy Directive 2009/28/EC
Status	Legislation (directives, regulations)
Area	Energy
Description	The Renewable Energy Directive (2009/28/EC, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0028&from=EN>) is an overall framework policy that enhances the use of renewable energy in the EU. In particular, the Directive requires the EU to achieve (at least) 20% of its total energy needs with renewables by 2020. This objective has to be achieved through the fulfillment of specific national targets: the Directive identifies national energy targets for each country (e.g. 10% in Malta, 49% in Sweden). The revised Renewable Energy Directive (2018/2001/EU) entered into force in 2018, as part of the Clean Energy for all Europeans package. The Directive has the objective of facilitating the EU to meet its emissions commitments under the Paris Agreement (for more information see <https://ec.europa.eu/ energy/en/ topics/renewable-energy/renewable-energy-directive/overview>).
Impact on urbanisation and related land use practices	The Directive promotes the use of renewable resources in Europe, which indirectly influences the adoption of sustainable land-use practices. For Dallhammer et al. (2018: 8) the Directive has a "clear impact on sustainable human settlement planning and management mentioned in UN SDG 11 as well as articles 96, 98 and 105 of the New Urban Agenda". The Directive requires considerable coordination between national, regional and local administrative bodies, including spatial planning. In fact, Article 13 states that Member States must ensure that the "respective responsibilities of national, regional and local administrative bodies for authorisation, certification and licensing procedures including *spatial planning* are clearly coordinated and defined, with transparent timetables for determining planning and building applications" (Directive 2009/28/EC). When applying the Directive, each Member State can also decide if to "indicate geographical locations suitable for the exploitation of energy from renewable sources in *land-use planning* and for the establishment of district heating and cooling" (Directive 2009/28/EC, Article 22). Overall, even though the Directive focuses on the energy sector, it contains few statements regarding its relation to land use, sustainable development, and spatial planning.
Policy gaps / **weaknesses /** negative effects	Land use and its related issues are not the principal concern of the Renewable Energy Directive. Improving this aspect could enhance the spatial effectiveness of the Directive.

Factsheet 36 - Energy Efficiency Directive

Impact: Weak indirect positive	No potential negative effect
EU Policy	The Energy Efficiency Directive 2012/27/EU
Status	Legislation (directives, regulations)
Area	Energy
Description	The 2012 Energy Efficiency Directive (2012/27/EU, <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:315:0001:0056:en:PDF>) establishes a common framework and a set of binding measures to help the EU reach its 20% energy efficiency target by 2020. The Directive requires all EU countries to use energy more efficiently during the various stages of the energy chain production (e.g. energy generation, transmission, distribution, end-use consumption). In 2018, as part of the Clean Energy for all Europeans package, the new amending Directive on Energy Efficiency (2018/2002) was adopted to update the policy framework by 2030. For more information see <https://ec.europa.eu/energy/en/topics/energy-efficiency/targets-directive-and-rules/eu-targets-energy-efficiency>.
Impact on urbanisation and related land use practices	The Directive ensures energy savings, encouraging cities to adopt integrated and sustainable 'energy efficiency plans'. The Directive also promotes citizen involvement throughout the development and implementation of these plans. In fact, the Directive states that "Member States should encourage municipalities and other public bodies to adopt integrated and sustainable *energy efficiency plans* with clear objectives, to involve citizens in their development and implementation and to adequately inform them about their content and progress in achieving objectives" (Directive 2012/27/EU). These energy efficiency plans can "yield considerable energy savings, especially if they are implemented by energy management systems that allow the public bodies concerned to better manage their energy consumption" (Directive 2012/27/EU). The Directive seems to have a positive impact on urbanisation, enhancing the adoption of sustainable land-use practices. Today, a high number of municipalities have already been implementing energy action plans and integrated approaches, such as those developed under the Covenant of Mayors initiative. Indeed, the Directive has promoted the exchange of good practices between European cities, in order to enhance the exchange of innovative experiences and know-how.
Policy gaps / **weaknesses /** negative effects	The Energy Efficiency Directive does not appear to cover land use related issues. Expanding this coverage could improve the Directive's effectiveness and impact.

Factsheet 37 - TEN-E strategy

Impact: Weak indirect positive	No potential negative effect
EU Policy	The Regulation (EU) 347/2013 on Guidelines for trans-European energy infrastructure
Status	Legislation (directives, regulations)
Area	Energy
Description	The EU Regulation on Guidelines for trans-European energy infrastructure (347/2013, <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:115:0039:0075:EN:PDF>) sets out the guidelines for trans-European energy infrastructure, as well as the identification and the management of priority corridors. The aim of the Regulation is the development of trans-European energy networks and their connection in Europe. The Regulation also provides guidelines for the selection procedure of Projects of Common Interest (PCI's). For more information see <http://trinomics.eu /project/ten-e-evaluation/>.
Impact on urbanisation and related land use practices	The Directive seems to have an indirect impact on urbanisation and land-use practices, especially as regards land take. The Directive promotes sustainable development and states that "when the various European networks are being planned, preference could be given to integrating transport, communication and energy networks in order to ensure that *as little land as possible is taken up*, whilst ensuring, where possible, that existing or disused routes are reused, in order to reduce to a minimum any negative social, economic, environmental and financial impact" (Directive 347/2013). Thus, the Directive ensures the protection of the natural environment, reducing the land taken by artificial land development. It also aims to lower the environmental risk associated with the energy transport of particular land pipelines (e.g. oil pipelines). The Directive requires that the planned European networks must be coordinated from an overall economic, technical, environmental or *spatial planning* point of view. Thus, Member States can also include decisions taken in the context of spatial planning, which "determines the general land use of a defined region, includes other developments such as highways, railways, buildings and nature protection areas, and is not undertaken for the specific purpose of the planned project" (Directive 347/2013).
Policy gaps / **weaknesses /** negative effects	The 2018 study on the *Evaluation of the TEN-E Regulation and assessing the impacts of alternative policy scenarios*, explains that the Regulation is an overall positive initiative since it has improved the realisation of trans-European energy infrastructure projects. However, the study points out that the Regulation should allow a more flexible and 'future-proof approach', and that certain elements could benefit from better implementation at the national level and additional guidance of the EU. For more information see <https://publications.europa.eu/en/publication-detail/-/publication/81f6baae-5efc-11 e8-ab9c-01aa75ed71a1/language-en>.

Factsheet 38 - Public Procurement Directive

Impact: Weak indirect positive	No potential negative effect
EU Policy	The Directive 2014/24/EU on public procurement
Status	Legislation (directives, regulations)
Area	Procurement
Description	The Public Procurement Directive 2014/24/EU (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0024&from=EN>) of the European Parliament and the Council came into force in 2014, repealing the Directive 2004/18/EC. The Directive establishes the rules on public procurement procedures (e.g. contracts, design contests) and has the aim of simplifying the rules and procedures for public sector tender competitions across Europe. It has brought two major changes: the existence of a new type of award procedure and the existence of rules on the performance of contracts. Member States have been requested to transpose these Directives into their national law by 18 April 2016. The Directive also carried out some innovations: - the indication of new thresholds; - the appearance of electronic catalogues; - the possibility of exclusion of an economic operator from an award procedure. For more information see <https://www.lexology.com/library/detail.aspx?g=757b4d69-6670-4252-844a-1e5f6408a2f0>.
Impact on urbanisation and related land use practices	The Directive promotes long-term sustainable and integrated development. In fact, it states that public procurement plays an important role in the Europe 2020 strategy, as one of the market-based instruments to achieve “smart, sustainable and inclusive growth while ensuring the most efficient use of public funds” (Directive 2014/24/EU). The Directive also seems to have an indirect impact on urbanisation practices since ‘design contests’ are traditionally used in the fields of town and country planning, architecture and engineering or data processing (see Article 9).
Policy gaps / **weaknesses /** negative effects	Land use and its related issues are not the principal concern of the Public Procurement Directive. This aspect could be improved.

Factsheet 39 - Public procurement in given sectors

Impact: Weak indirect positive	No potential negative effect
EU Policy	The Directive 2014/25/EU on procurement by entities operating in the water, energy, transport and postal services sectors
Status	Legislation (directives, regulations)
Area	Procurement
Description	The Directive 2014/25/EU (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0025&from=EN>) on procurement by entities operating in the water, energy, transport and postal services sectors establishes the rules on the procedures for procurement by contracting entities with respect to contracts (as well as design contests), whose value is estimated to be not less than the thresholds laid down in Article 15 (see Article 1). The Directive also carried out some innovations: - the existence of a new award procedure (innovation partnership); - the rules on the contract performance; - the existence of electronic catalogues as a new technique/instrument for electronic and aggregated procurement; - the grounds for exclusion and selection of candidates criteria (referring to the Directive 2014/24/EU). For more information see <https://www.lexology.com/library/detail.aspx?g=757b4d69-6670-4252-844a-1e5f6408a2f0>.
Impact on urbanisation and related land use practices	As the Directive 2014/24/EU on public procurement, the Directive 2014/25/EU promotes long-term sustainable and integrated development. In fact, it states that public procurement plays an important role in the Europe 2020 strategy, as one of the market-based instruments to achieve “smart, sustainable and inclusive growth while ensuring the most efficient use of public funds” (Directive 2014/25/EU). The Directive also seems to have an indirect impact on urbanisation practices since ‘design contests’ are traditionally used in the fields of town and country planning, architecture and engineering or data processing (see Article 20). However, the Directive states that “these flexible instruments could be used also for other purposes and that it may be stipulated that the subsequent service contracts would be awarded to the winner or one of the winners of the design contest by a negotiated procedure without publication” (Directive 2014/25/EU).
Policy gaps / **weaknesses** / negative effects	The Directive on procurement by entities operating in the water, energy, transport and postal services sectors does not appear to cover land use related issues. Improving this aspect could enhance the spatial effectiveness of the Directive.

Factsheet 40 - Marine spatial planning Directive

Impact: Weak direct positive	Potential negative effect
EU Policy	The Marine Spatial Planning Directive 2014/89/EU
Status	Legislation (directives, regulations)
Area	Maritime
Description	The Directive (2014/89/EU, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0089&from=EN>) has established a framework for maritime spatial planning with the aim of promoting sustainable development of marine areas, as well as the sustainable use of marine resources. The Directive applies to the marine waters of EU Member States; however, it does not apply to "coastal waters or parts thereof falling under a Member State's town and country planning, provided that this is communicated in its maritime spatial plans" (Directive 2014/89/EU). In fact, the Directive does not interfere with the Member States' competence to design and determine, within their marine waters, the extent and coverage of their maritime spatial plans. For more information see <https://ec.europa.eu/maritimeaffairs/policy/maritime _spatial_planning _en>
Impact on urbanisation and related land use practices	The Directive ensures the present and future sustainable use of marine and coastal resources and manages spatial uses in marine areas. In fact, the Directive establishes a "framework for maritime spatial planning aimed at promoting the sustainable growth of maritime economies, the sustainable development of marine areas and the sustainable use of marine resources" (Directive 2014/89/EU). In order to promote sustainable development and the protection of the environment, maritime spatial plans must include resilience measures that face climate change impacts. The Directive also manages the spatial uses in marine areas and encourages multi-purpose uses, in line with national legislation and policies. When drafting maritime spatial plans, Member States have to consider the economic, social and environmental aspects that support sustainable development and growth. However, the creation of maritime spatial plans (e.g. identification of fishing areas, maritime transport routes, nature and species conservation sites and protected areas) can create indirect effects that might impact land-use practices. Nevertheless, the Directive does not directly apply to coastal waters and to town and country planning. This framework Directive has no direct impact on urbanisation since it "does not interfere with Member States' competence for town and country planning, including any terrestrial or land spatial planning system used to plan how land and coastal zone should be used" (Directive 2014/89/EU). If Member States apply terrestrial planning to coastal waters or parts thereof, this Directive should not apply to those waters." (Directive 2014/89/EU). Thus, the Directive does not seem to have a strong impact on urbanisation and related land-use practices. This is confirmed by Dallhammer et al. (2018: 9), who argues that "the directive has no impact on sustainable human settlement planning and management as mentioned in UN SDG 11 as well as articles 96, 98, 99 and 105 of the New Urban Agenda".
Policy gaps / weaknesses / **negative effects**	The creation of maritime spatial plans (e.g. identification of fishing areas, maritime transport routes, nature and species conservation sites and protected areas) can create indirect effects that might impact land-use practices. Various marine activities (see article 8 of the Directive) which might be included in maritime spatial planning (e.g. aquaculture, fishery, resource exploration and exploitation, maritime transport, tourism) are strongly interlinked with the land use of the coastal zone. However, if these activities are not well planned can create negative effects on the coastal infrastructure and land-use practices.

Factsheet 41 - Marine strategy framework Directive

Impact: Weak indirect positive	No potential negative effect
EU Policy	The Marine Strategy Framework Directive 2008/56/EC
Status	Legislation (directives, regulations)
Area	Maritime
Description	The Marine Strategy Framework Directive (MSFD, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32008L0056&from=EN>) of the European Parliament and of the Council was adopted on 17 June 2008. It is the first EU legislative instrument that is related to the safeguard of marine biodiversity and applies to all marine waters. The main objective of the Marine Strategy Framework Directive is to protect more effectively the marine environment in Europe. The Directive also aims to achieve a Good Environmental Status (GES) of the EU's marine waters by 2020 and to promote sustainable marine economic and social activities. The Directive has established an overall framework for community action to enhance sustainable development and protect the marine environment. The Directive defines a set of criteria, indicators, and methodological standards in order to support the Member States to implementation of the Directive. Moreover, the Directive has identified four main European marine regions (Baltic Sea, North-east Atlantic Ocean, Mediterranean Sea and Black Sea), triggering cooperation and public events between these regions. In order to achieve GES by 2020, each Member State is required to develop a strategy for its marine waters, which must be reviewed every six years. A monitoring programme has also been established, in order to assess and evaluate the overall process. Environmental targets are updated regularly. For more information see <https://ec.europa.eu/environment/marine/eu-coast-and-marine-policy/marine-strategy-framework-directive/index_en.htm>.
Impact on urbanisation and related land use practices	The Directive ensures long-term sustainable and integrated development for present and future generations. It has a positive influence on the marine environment since it promotes environmental preservation and the sustainable use of marine goods. However, the Directive has an "indirect impact on sustainable human settlement planning and management as mentioned in UN SDG 11 as well as articles 96, 98, 99 and 105 of the New Urban Agenda" (Dallhammer et al. 2018: 9). In fact, the Directive applies to marine waters but not to coastal waters and to town and country planning.
Policy gaps / **weaknesses /** negative effects	The Marine Strategy Framework Directive does not seem to deal with land use related issues and does not apply to town and country planning. Expanding this coverage could improve the Directive's effectiveness and impact.

Factsheet 42 - Maritime and Fisheries Fund

Impact: Weak indirect positive	No potential negative effect
EU Policy	The European Maritime and Fisheries Fund (EMFF, regulation n. 508/2014)
Status	Funding Instruments and Corresponding Programmes
Area	Maritime
Description	The European Maritime and Fisheries Fund (EMFF, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0508&from=EN>) supports the EU's maritime and fisheries policies in the current 2014-2020 programming period. The fund helps fishermen in the transition to sustainable fishing; supports coastal communities in diversifying their economies; finances projects that create new jobs and improve quality of life along European coasts; support sustainable aquaculture developments; and makes it easier for applicants to access financing. The Directive is one of the five European Structural and Investment (ESI) Funds which complement each other and seek to promote growth and job-based recovery in Europe. The Fund is used to co-finance projects, along with national funding. The national authorities and the Commission are jointly responsible for the implementation of the programme and decide which projects to fund. For more information see <https://ec.europa.eu/fisheries/cfp/emff_en>.
Impact on urbanisation and related land use practices	The European Maritime and Fisheries Fund promotes the sustainable development of maritime areas and supports coastal communities. It also promotes integrated sustainable management of natural resources. The Directive considers "maritime spatial planning and integrated coastal zone management are essential for the sustainable development of marine areas and coastal regions, and both contribute to the aims of ecosystem-based management and the development of land-sea links" (Regulation 508/2014). The implementation of Marine Strategy Framework Directive 2008/56/EC further defines the boundaries of sustainability of human activities that have an impact on the marine environment. The Fund also ensures sustainable economic development and cross-border investments. The Fund must also be coherent and integrated with different EU sectoral policies, such as transport, industry, territorial cohesion, environment, energy, and tourism policies. These strong policy interconnections could create indirect effects at the land-sea interface, which might also indirectly impact land-use practices. However, the Directive does not apply to town and country planning.
Policy gaps / **weaknesses /** negative effects	The European Maritime and Fisheries Fund does not appear to deal with land use related issues and does not apply to town and country planning. These aspects could be improved in order to improve the spatial effectiveness of the EMFF.

Factsheet 43 - Interreg A

Impact: Weak indirect positive	No potential negative effect
EU Policy	Cross-Border Cooperation - INTERREG (A)
Status	Funding Instruments and Corresponding Programmes
Area	Cohesion Policy / Funding
Description	European cross-border cooperation (known as Interreg A) supports cooperation between adjacent regions in Europe and tackles common challenges in these border areas. Interreg A promotes sustainable and integrated growth, as well as cooperation in order to reach an harmonious development of the European Union. Common development strategies are developed in order to face these challenges. Interreg is funded by the European Regional Development Fund (ERDF) which fosters cooperation between regions in the European Union. EU Regulation n. 1299/2013 of the European Parliament and the Council of 17 December 2013 set the specific provisions for the support from the European Regional Development Fund to the European territorial cooperation goal (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1299&from=IT>). Interreg V A (2014-2020) presents a high number of programmes: it covers 57 cooperation programmes (e.g. Italy-Austria, Sweden-Norway, Spain-Portugal). For more information see <https://ec.europa.eu/regional_policy/en/policy/cooperation/european-territorial/cross-border/#3>.
Impact on urbanisation and related land use practices	The European cross-border cooperation programme promotes an overall sustainable and integrated development in the European Union and is in line with the objectives set out in the EU strategy for smart, sustainable and inclusive growth. To achieve these targets, the ERDF (under the European territorial cooperation goal) supports, for example, a greener, more resource-efficient and competitive economy, sustainable cross-border mobility, and sustainable tourism. The programme has an indirect impact on urbanisation and related land-use practices and addresses some of the big challenges of sustainable development. Regulation 1299/2013 stresses the importance of cross-border cooperation to identify and face common environmental challenges jointly identified in border regions, such as environmental pollution and risk prevention. Cooperation programmes must also take into account specific environmental actions, such as “environmental protection requirements, resource efficiency, climate change mitigation and adaptation, disaster resilience and risk prevention and risk management” (Regulation 1299/2013). For example, the current 2014-2020 Interreg V-A France-Italy (ALCOTRA) cooperation programme promotes a safer environment, as well as the valorisation of natural and cultural resources (for more information see <https://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/europe/2014t c16rfcb034>). Cooperation programmes require cooperation between the interested stakeholders and the exchange of best practices, as well as a more inclusive and integrated approach to tackle local problems. In particular, the exchange of good practices in relation to sustainable urban development is seen as a means to reinforce the effectiveness of cohesion policy (see Article 2, Regulation 1299/2013). However, the impacts of cross-border cooperation in influencing domestic territorial governance and spatial planning are still generally uninvestigated and underestimated (see Solly et al. 2018: 31).
Policy gaps / **weaknesses /** negative effects	Land use related issues do not seem to be a main focus of the cooperation programme. This aspect could certainly be improved: land use and spatial issues would then have a more central position in the programme’s scope of interest.

Factsheet 44 - Interreg B

Impact: Weak indirect positive	No potential negative effect
EU Policy	Transnational Cooperation - INTERREG (B)
Status	Funding Instruments and Corresponding Programmes
Area	Cohesion Policy / Funding
Description	European transnational cooperation (known as Interreg B), involves regions from several countries of the EU forming bigger areas. This Interreg strand is seen as an intermediate level, where non-contiguous regions from different countries cooperate in order to face common challenges. It involves various stakeholders and national, regional and local authorities. Like Interreg A, the programme aims to promote better cooperation and regional development in Europe and promote better integration. In particular, Interreg B supports transnational projects related to many interdisciplinary issues, such as those related to the environment, innovation and urban development. Interreg is funded by the European Regional Development Fund (ERDF) which fosters cooperation between regions in the European Union. EU Regulation n. 1299/2013 of the European Parliament and the Council of 17 December 2013 set the specific provisions for the support from the European Regional Development Fund to the European territorial cooperation goal (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1299&from=IT>). Interreg B (2014-2020) covers 15 cooperation programmes (e.g. Alpine Space). It is delivered through the European Regional Development Fund (ERDF) with EUR 2.1 billion for the 2014-2020 period. For more information see <https://ec.europa.eu/regional_policy/en/policy/cooperation/european-territorial/trans-national/>.
Impact on urbanisation and related land use practices	Like Interreg A, the European transnational cooperation programme promotes an overall sustainable and integrated development in the European Union and is in line with the objectives set out in the EU strategy for smart, sustainable and inclusive growth. To achieve these targets, the ERDF (under the European territorial cooperation goal) supports, for example, a greener, more resource-efficient and competitive economy, sustainable cross-border mobility, and sustainable tourism. The programme has an indirect impact on urbanisation and related land-use practices and addresses some of the big challenges of sustainable development. Regulation 1031/2013 (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1301&from=EN>) stresses the importance of transnational cooperation to tackle issues related to risk management investments. Cooperation programmes must also take into account specific environmental actions, such as “environmental protection requirements, resource efficiency, climate change mitigation and adaptation, disaster resilience and risk prevention and risk management” (Regulation 1299/2013). The current 2014-2020 Alpine Space programme supports the shift towards a low-carbon economy, the protection of the environment and resource efficiency promotion (for more information see <https://ec.europa.eu/regional_policy/en/atlas/programmes/2014-2020/austria/2014tc16rftn001>). Cooperation programmes require cooperation between the interested stakeholders and the exchange of best practices, as well as a more inclusive and integrated approach to tackle local problems. In particular, the exchange of good practices in relation to sustainable urban development is seen as a means to reinforce the effectiveness of cohesion policy (see Article 2, Regulation 1299/2013). However, like cross-border cooperation, the impacts of transnational cooperation in influencing domestic territorial governance and spatial planning are still generally uninvestigated and underestimated (see Solly et al. 2018: 31).
Policy gaps / **weaknesses /** negative effects	Land use related issues do not seem to be a main focus of the cooperation programme. Expanding this coverage could improve the programmes’s effectiveness and impact.

Factsheet 45 - Interreg C

Impact: Weak indirect positive	No potential negative effect
EU Policy	Interregional Cooperation - INTERREG (C)
Status	Funding Instruments and Corresponding Programmes
Area	Cohesion Policy / Funding
Description	European interregional cooperation (known as Interreg C), geographically covers all EU Member States. It promotes networks to develop good practice and facilitate the exchange and transfer of experience by successful regions. Interreg is funded by the European Regional Development Fund (ERDF) which fosters cooperation between regions in the European Union. EU Regulation n. 1299/2013 of the European Parliament and the Council of 17 December 2013 set the specific provisions for the support from the European Regional Development Fund to the European territorial cooperation goal (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1299&from=IT>). Interreg V C (2014-2020) covers 4 interregional cooperation programmes: Interreg EUROPE, INTERACT, URBACT and ESPON. For more information see <https://ec.europa.eu/regional_policy/it/policy/cooperation/european-territorial/interregional/>.
Impact on urbanisation and related land use practices	Like Interreg A and B, the European interregional cooperation programme promotes an overall sustainable and integrated development in the European Union and is in line with the objectives set out in the EU strategy for smart, sustainable and inclusive growth. To achieve these targets, the ERDF (under the European territorial cooperation goal) supports, for example, a greener, more resource-efficient and competitive economy, sustainable cross-border mobility, and sustainable tourism. The programme has an indirect impact on urbanisation and related land-use practices and addresses some of the big challenges of sustainable development. For example, interregional cooperation tackles issues related to environmental protection, encouraging sustainable urban development. Cooperation programmes must also take into account specific environmental actions, such as “environmental protection requirements, resource efficiency, climate change mitigation and adaptation, disaster resilience and risk prevention and risk management” (Regulation 1299/2013). The current URBACT III programme (2014-2020) ensures sustainable and integrated urban development in Europe. It provides a network of local and regional bodies that face common urban challenges in order to find joint sustainable solutions (e.g. environment and risk prevention, for more information, see <https://urbact.eu/>). Cooperation programmes require cooperation between the interested stakeholders and the exchange of best practices, as well as a more inclusive and integrated approach to tackle local problems. In particular, interregional cooperation reinforces the effectiveness of cohesion policy by promoting the exchange of good practices in relation to sustainable urban development (e.g. urban-rural linkages) (see Article 2, Regulation 1299/2013). However, like cross-border and transnational cooperation, the impacts of interregional cooperation in influencing domestic territorial governance and spatial planning are still generally uninvestigated and underestimated (see Solly et al. 2018: 31).
Policy gaps / **weaknesses /** negative effects	Land use related issues do not seem to be a main focus of the cooperation programme. Improving this aspect could enhance the spatial effectiveness of interregional cooperation.

Factsheet 46 - Macroregional strategies

Impact: Weak indirect positive	No potential negative effect
EU Policy	Macro-regional strategies, COM(2019) 21
Status	Funding Instruments and Corresponding Programmes
Area	Cohesion Policy / Funding
Description	A macro-regional strategy is an integrated framework endorsed by the European Council, which may be supported by the European Structural and Investment Funds. It addresses common challenges faced by a defined geographical area (Member States and third countries located in the same geographical area) which benefit from strengthened cooperation contributing to the achievement of economic, social and territorial cohesion. They respond to general objective and principle, included in the ESDP, of territorial articulation through territorial cooperation (way to achieve territorial cohesion) while promoting new economic global integration zones across peripheral EU. Four EU macro-regional strategies, covering several policies, have been adopted so far: The EU Strategy for the Baltic Sea Region (2009) The EU Strategy for the Danube Region (2010) The EU Strategy for the Adriatic and Ionian Region (2014) The EU Strategy for the Alpine Region (2015) They are developed through specific thematic projects in subjects as energy efficiency, mobility, flood risk, waterways, climate…
Impact on urbanisation and related land use practices	Macro-regional strategies promote sustainable and integrated spatial development in a broad sense; however, some projects could have direct impacts on urbanisation and related land-use practices (i.e. sustainable tourism, transport and energy networks. The ministerial 'Ioannina Declaration' of May 2017 emphasises how important the Blue Economy is for sustainable development in the Adriatic and Ionian Region (COM(2019) 21). In the EU Strategy for the Alpine Region, projects like 'CirculAlps31' (promoting innovation, sustainability and the circular economy in forestry value chains across the Alpine region) or AlpLinkBioECO32 (Linking bio-based industry value chains across the Alpine region) (COM(2019) 21) helps to control urban development.
Policy gaps / weaknesses / negative effects	Pending to which extent economic growth and territorial competitiveness, based on projects whit clear measurable effects, can be combined with sustainability and undesired negative territorial impacts in trouble crisis times.

Factsheet 47 - Rural development plans

Impact: Weak direct positive	No potential negative effect
EU Policy	Rural development plans, Council Regulation (EC) n. 1257/1999, of 17 May, on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF)
Status	Legislation (directives, regulations)
Area	Agriculture and Rural Development
Description	The rural development plan is the main programming and financing tool for interventions in the agricultural, forestry and rural development sectors and operates throughout the entire regional territory. According to art. 1, this Regulation establishes the framework for Community support for sustainable rural development. This support for rural development relates to farming activities as well as their conversions, by improving structures in agricultural holdings and structures for the processing and marketing of agricultural products, and improvement of rural areas. More specifically Chapter IX Promoting the Adaptation and Development of Rural Areas, in art. 33, supports, among other: basic services for the rural economy and population; renovation and development of villages and protection and conservation of the rural heritage; diversification of agricultural activities and activities close to agriculture to provide multiple activities or alternative incomes; development and improvement of infrastructure connected with the development of agriculture.
Impact on urbanisation and related land use practices	Rural development plans promote sustainable development, which have direct impacts on urbanisation and related land-use practices. Art. 43.1 says: "Rural development plans shall include: [...] an appraisal showing the expected economic, environmental and social impact, including employment effects"
Policy gaps / **weaknesses /** negative effects	Limited effects in the EU-15. The mid-term review of the CAP-reform in 2003 resulted in a new regulation, 1783/2003/EC. This new regulation modified several measures of the former rural development regulation in an enlarged EU. Even rural development has been present in regulations, the focus was on production and prices not in territorial effects from a spatial planning point of view. Only when the European Commission published the next financial framework for 2007-2013 in 2004 (Council Regulation (EC) No 1698/2005/ EC), appear proposals for the new rural development policy. Leader method was applied, afterward, in 2013, enlarged to non-rural areas through CLLD initiatives within new regulation for Structural Funds for new programation period 2014-2020 (Council Regulation (EC) No 1303/2013 D).

Factsheet 48 - Basque declaration

Impact: Strong indirect positive	No potential negative effect
EU Policy	The Basque Declaration, 2016. New Pathways for European Cities and Towns to create productive, sustainable and resilient cities for a liveable and inclusive Europe.
Status	Non-binding Agreements, Agenda and Discourse
Area	Urban Development
Description	The Basque Declaration (2016) outlines 15 pathways for the development of more sustainable cities in Europe. The Declaration was acclaimed at the 8th European Conference on Sustainable Cities & Towns (27-29 April 2016) in the Basque Country. The Basque Declaration outlines new pathways for European Cities and Towns to create productive, sustainable and resilient cities for a liveable and inclusive Europe. The document aims to support and accelerate socio-cultural, socio-economic and technological transformation. It is in line with the sustainability vision of the Local agenda 21, in this sense can be seen as a continuation of the 1994 Aalborg Charter and the 2004 Aalborg Commitments in line with: Climate Change Agreements, the Global Compact of Mayors. the United Nations 17 Sustainable Development Goals (SDGs), and Urban Agendas.
Impact on urbanisation and related land use practices	The Declaration ensures the development of sustainable and resilient cities in Europe in order to support and accelerate the Socio-Cultural Transformation, the Socio-Economic Transformation and the Technological Transformation. Literally: "We call upon the national and regional governments, and the European Union: To substantially increase the horizontal (across departments and ministries) and vertical (across all levels of governance) integration of the policies relating to urban development; [...] To align the political goals and targets with the financial programmes and support schemes available for urban development and infrastructure". (The Basque Regulation 2016: 5) "We declare our readiness: To support national and regional governments, and the European Union in implementing the UN SDGs and the Paris Climate Agreement, and in aligning the EU Urban Agenda with their goals". (The Basque Regulation 2016: 5) Even its soft law nature, this kind of international declarations and agreements has real impact because finally can become International Treaties and then translated to national legislation framework. Also observation and fulfilment of such principles are considered within financial instruments (as in the case of Sustainable Integrated Urban Development Initiatives in the current programation period, to which is allocated 5% of ERDF in each beneficiary Member State).
Policy gaps / **weaknesses /** negative effects	Smart Cities usually understood as new ICT developments, technological focus to create new development opportunities (smart cars, smart tourism, smart trade…) can re-place a sustainable one. Voluntary application in case of non-public funds beneficiaries. Low impact assessment.

Factsheet 49 - Aalborg charter

Impact: Strong indirect positive	No potential negative effect
EU Policy	The Charter of European Sustainable Cities and Towns Towards Sustainability (known as the Aalborg Charter), 1994
Status	Non-binding Agreements, Agenda and Discourse
Area	Sustainable Land Use (and Urban Development)
Description	The 1994 Aalborg Charter, an urban sustainability initiative, was approved by the participants at the first European Conference on Sustainable Cities & Towns in Aalborg, Denmark. It is inspired by the Rio Earth Summit's Local Agenda 21 plan, and was developed to contribute to the European Union's Environmental Action Programme, 'Towards Sustainability'. It represents an European understanding of LA21 principles and relates to public participation and collaborative planning (see Aalborg Commitments, 2004). It was the basis from which National Participation Laws were developed, and public participatory plans were integrated as a common stage in Strategic Environment Assessment requirement within the process of planning for any plan, program, and project with environmental effects (SEA Directive 2001/42/EC).
Impact on urbanisation and related land use practices	The Charter enhances the sustainable development of urbanised areas. "I.8 Sustainable Land-Use Patterns: We, cities & towns, recognise the importance of effective land-use and development planning policies by our local authorities which embrace the strategic environmental assessment of all plans. We should take advantage of the scope for providing efficient public transport and energy which higher densities offer while maintaining the human scale of development. In both undertaking urban renewal programmes in inner urban areas and in planning new suburbs we seek a mix of functions so as to reduce the need for mobility. Notions of equitable regional interdependency should enable us to balance the flows between city and countryside and prevent cities from merely exploiting the resources of surrounding areas." "I.1 The Role of European Cities and Towns: We understand that our present urban lifestyle, in particular our patterns of division of labour and functions, land-use, transport, industrial production, agriculture, consumption, and leisure activities, and hence our standard of living, make us essentially responsible for many environmental problems humankind is facing. This is particularly relevant as 80 percent of Europe's population live in urban areas." (The Aalborg Charter, 1994)
Policy gaps / weaknesses / negative effects	Local Agenda 21 Processes and Local Action Plans Towards Sustainability were abandoned and substituted by other instruments more related to climate change and energy challenges. Then it is loosing its initially integrated spatial approach (in local-based sense, not only build environment but rural-urban as well) and more environmentally and sectorally oriented. The European Cities & Towns Towards Sustainability campaign (urban focus) remains.

Factsheet 50 - Aalborg commitments

Impact: Strong indirect positive	No potential negative effect
EU Policy	The Aalborg Commitments, 2004
Status	Non-binding Agreements, Agenda and Discourse
Area	Urban Development (and Sustainable Land Use)
Description	The Aalborg Commitments (AALBORG+10: INSPIRING FUTURES) were established in 2004, ten years after the Aalborg Charter. The Commitments were endorsed at the 4th European Conference on Sustainable Cities & Towns held in Aalborg (2004). It ensures sustainable development and aims to develop a framework to be used at the local level to better articulate sustainability across sectors. It is a declaration signed by over 700 cities and towns showing their commitment to a sustainable future. The purpose was to develop a common understanding of sustainability and to develop a framework to be used at the local level that would better articulate how to embed sustainability across sectors. In such sense, it represents a step forward for application and make operative principles of previous Aalborg Declaration in 1994, to adapt them to meet their own local conditions.
Impact on urbanisation and related land use practices	The commitments encompass a list of qualitative objectives organised into 10 themes, among them number: 2) Local management towards sustainability: it includes 2.4: ensure that sustainability issues are central to urban decision-making processes and that resource allocation is based on strong and broad sustainability criteria). 5) Planning and design: 1. re-use and regenerate derelict or disadvantaged areas; 2. avoid urban sprawl by achieving appropriate urban densities and prioritising brownfield site over greenfield site development; 3. ensure the mixed use of buildings and developments with a good balance of jobs, housing and services, giving priority to residential use in city centres; 4. ensure appropriate conservation, renovation and use/re-use of our urban cultural heritage; 5. apply requirements for sustainable design and construction and promote high quality architecture and building technologies), and 6) Better mobility, less traffic: it includes 6.2. increase the share of journeys made by public transport, on foot and by bicycle and 6.4: develop an integrated and sustainable urban mobility plan. (The Aalborg Commitments, 2004: 3) Besides, in final section of endorsement, is now considered monitoring and evaluation: 7) agree to make a regular Aalborg Commitments monitoring review of our achievements available to our citizens. 8) agree to regularly provide information on our targets and our progress to the European Sustainable Cities & Towns Campaign and, through this cooperation, to review progress and learn from each other. A first European assessment is scheduled for the year 2010, with subsequent reviews scheduled in five-year cycles (The Aalborg Commitments, 2004: 5).
Policy gaps / **weaknesses /** negative effects	Low level of assessment and binding recommendations.

Factsheet 51 - European Sustainable Cities and Towns conferences

Impact: Weak indirect positive	No potential negative effect
EU Policy	The European Sustainable Cities and Towns conferences (ESCT), 1994 (now Sustainable Cities Platform)
Status	Non-binding Agreements, Agenda and Discourse
Area	Urban Development
Description	The European Sustainable Cities & Towns Campaign was first launched in 1994 in the 1st European Sustainable Cities & Towns Conference held in Aalborg (Denmark) when the Aalborg Charter was adopted. Since 1994, the initiative has mobilised thousands of local governments in Europe in the name of sustainability. The campaign, with more than 2700 participants, is the biggest European initiative for local sustainable development to discuss taking the Agenda 21 initiative to the European local level. Since the 7th European Sustainable Cities & Towns Conference in Geneva, the European Sustainable Cities & Towns Campaign (ETSCT) was renamed as “Sustainable Cities”. Sustainable Cities act as a gateway for interested parties seeking information on European sustainability initiatives, the structure of regional organisations, EU law and funding opportunities. Its website acts as an information hub for local governments, regional organisations, NGOs and interested individuals; a channel through which municipalities and other actors can share information and best working practices. Following sustainable principles, was conceived the European Green Capital Award. Starting in 2010, one European city is selected each year as the European Green Capital of the year. The award is given to a city that: Has a consistent record of achieving high environmental standards; it is committed to ongoing and ambitious goals for further environmental improvement and sustainable development; Can act as a role model to inspire other cities and promote best practices to all other European cities. (Source: https://ec.europa.eu/environment/europeangreencapital/about-the-award/index.html#Background%20to%20the%20European%20Green%20Capital%20Award).
Impact on urbanisation and related land use practices	Real impacts are depending on particular initiatives developed within the framework of this platform (i.e. Bask Declaration). It serves as a hub in order to share experiences and look for funds opportunities. Interesting also for demonstration effect of its European Green Capital Award. Interesting bottom-up approach supported by EC.
Policy gaps / weaknesses / negative effects	Non-negative effects, but some gaps related to its soft nature; it requires long timing and presents limited geographical scope concentrated in some cities acting as leaders.

Factsheet 52 - Adaptation strategy

Impact: Strong indirect positive	No potential negative effect
EU Policy	The EU Adaptation Strategy, COM(2013) 216
Status	Non-binding Agreements, Agenda and Discourse
Area	Environment / Climate Action
Description	In 2013, the European Commission adopted an EU strategy on adaptation to climate change. The strategy aims to make Europe more climate-resilient, enhancing governance levels to respond to the impacts of climate change. It focuses on three key objectives: 1) Encourage Member States to adopt comprehensive adaptation strategies (currently 25 MS have strategies) and providing funding to take action. It also supports adaptation in cities through the *Covenant of Mayors for Climate and Energy* initiative. 2) Promoting adaptation in key vulnerable sectors such as agriculture, fisheries and cohesion policy, ensuring that Europe's infrastructure is made more resilient, and promoting the use of insurance against disasters. Adaptation can and should be a powerful ally of sustainable development and disaster risk reduction efforts. 3) Better informed decision-making by developing the European climate adaptation platform (Climate-ADAPT), through Adaptation Preparedness Scoreboard. (https://ec.europa.eu/clima/policies/adaptation/what_en). EU looks for creating a basis for coordinated research, information sharing, exchange of best practice and innovative approaches; make key economic & policy sectors more resilient to the impacts of climate change; facilitate funding for adaptation in all relevant EU funding programmes for 2014-20. (https://ec.europa.eu/clima/sites/clima/files/summary/docs/adapting_en.pdf). Climate adaptation, including green infrastructure solutions, are one of its priority themes of EU Urban Agenda. A Partnership on Climate Adaptation was been launched in 2017 offering a unique opportunity for local authorities, Member States, European Commission and other EU organisations to work together to deliver concrete improvements on the ground (through better regulation, better funding and better knowledge). Also, an Action Plan on climate adaptation was defined.
Impact on urbanisation and related land use practices	The EU Adaptation Strategy promotes sustainable development. The strategy is a policy instrument with little administrative implications for most stakeholders (non-binding), but has succeeded in focusing decision-makers on the need to prepare for climate hazards. (https://eur-lex.europa.eu/legal-content/EN/TXT/DOC/?uri=CELEX:52018DC0738&from=EN). According to the Commission Staff Working Document, Evaluation of the EU Strategy on adaptation to climate change. Accompanying the document. Report from the Commission to the European Parliament and the Council on the implementation of the EU Strategy on adaptation to climate change. {COM(2018)738 final}-{SEC(2018) 472 final}-{SWD(2018) final} (https://eur-lex.europa.eu/legal-content/EN/TXT/DOC/?uri=CELEX:52018SC0461&from=EN) there is „…clear evidence that land use and spatial/urban policies at Member State level explicitly address climate impacts, and require or encourage adaptation; and evidence that the policies are followed in practice across the majority of the Member States" (p. 163). „Less than half of Member States have addressed climate change in relation to many aspects of implementation and review, including consideration of climate change in disaster risk plans (9), land use planning (15), major projects (13), and national (11), sectoral (14) and sub-national (9) monitoring and reporting. As regards monitoring and reporting, only five Member States have started to develop and use a comprehensive set of process or outcome-based indicators to monitor implementation of adaptation strategies and plans" (p. 36). „Detailed risk and/or vulnerability assessments have been used by 25 Member States to identify adaptation options for at least a majority of priority sectors. (Construction is only considered in 11 MS Strategies." (p. 142). „A total of 15 Member States have land use, spatial, urban and maritime planning policies that explicitly address climate impacts, and require or encourage adaptation." (p. 147).
Policy gaps / **weaknesses** / negative effects	Slower progress than expected. Around half or more of MS are yet to ensure: Climate adaptation is considered in SEA; Land use, spatial, urban and maritime planning policies encourage adaptation; There is an appropriate consideration of potential climate impacts on major projects or programmes and of alternative options, including green infrastructure. Where binding measures at national level % of local authorities in the EU with a local adaptation strategy was higher (Ibidem. p, 63).

Factsheet 53 - Covenant of Mayors

Impact: Weak indirect positive	No potential negative effect
EU Policy	The Covenant of Mayors, 2008
Status	Non-binding Agreements, Agenda and Discourse
Area	Energy and Environment
Description	The Covenant of Mayors was launched in 2008 by European Commission with the aim to achieve EU climate and energy targets; an initiative local authorities voluntarily committed to improving the quality of urban life by pursuing EU climate and energy objectives. Urban areas are particularly vulnerable to climate change impacts. They increasingly concentrate population, aging population, infrastructure as well as the high proportion of artificial surfaces. The increasing frequency of extreme weather makes them extremely vulnerable with undesired economic and social consequences. In order to address this challenge, in 2014, 'Mayors Adapt', the Covenant of Mayors Initiative on Climate Change Adaptation, was set up by the European Commission (as one of the actions of the EU Adaptation Strategy -COM(2013) 216-) as a flagship programme to promote and facilitate urban adaptation planning. Mayors Adapt drew on experience and expertise developed under the 2012-2013 'EU Cities Adapt' pilot project. In October 2015, 'Mayors Adapt' and the Covenant of Mayors initiatives were merged, and the Covenant of Mayors for Climate and Energy (Covenant) was officially launched, introducing an integrated approach on mitigation and adaptation and a robust methodology to assess the risks and vulnerabilities associated with climate change and track effectiveness of adaptation action. Source: Report from the Commission to the European Parliament and the Council on the implementation of the EU Strategy on adaptation to climate change (p. 98). {COM(2018)738 final}-{SEC(2018) 472 final}-{SWD(2018) final} (https://eur-lex.europa.eu/legal-content/EN/TXT/DOC/?uri=CELEX:52018SC0461&from=EN)
Impact on urbanisation and related land use practices	Several initiatives related to efficient energy buildings and reducing obliged mobility and new de-carbonised modes of transportation impact on urban cities model and future developments, focusing on developments in consolidated city instead of new developments and urban sprawl. „At the local level, the Covenant of Mayors increased urban preparedness, bringing adaptation actions close to the citizens and delivering on the objectives of the Strategy by means of a bottom-up, multilevel governance approach... Survey-based estimates indicate that, overall, more than one-quarter of EU cities have such a policy document" (Ibidem, p. 61). Two years following the date of the local council decision, a Sustainable Energy and Climate Action Plan (SECAP) outlining the key actions they plan to undertake. The plan will feature a Baseline Emission Inventory to track mitigation actions and a Climate Risks and Vulnerability Assessment. Signatory cities pledge action to support the implementation of the EU 40% greenhouse gas reduction target by 2030 and the adoption of a joint approach to tackling mitigation and adaptation to climate change. (Source: https://www.covenantofmayors.eu/about/covenant-initiative/objectives-and-scope.html).
Policy gaps / **weaknesses /** negative effects	Limited geographical scope. Focused mainly on particular projects/actions. Enough financial capacity (private and public) to implement measures as efficient energy buildings in consolidated cities, mainly in popular low-income neighbours. Not clear alternatives for sustainable mobility: walking, cycling, scooters, public transport, private transport (non-carbonic), smart-autonomous cars… and better efficient multi-modal combinations because of interests and resistances. Voluntary commitment, not binding. Ensure permanence and progress in time.

Factsheet 54 - Seventh Cohesion Report

Impact: Weak indirect positive	No potential negative effect
EU Policy	My Region, My Europe, Our Future, Seventh Report on economic, social and territorial cohesion, 2017
Status	Non-binding Agreements, Agenda and Discourse
Area	Cohesion Policy / Funding
Description	The report is defining the cohesion impact in EU regions over the recent past and assesses its impact on national policies, cohesion policy and other EU policies as required by the Treaty on the Functioning of the European Union. The report reviews the measures linking the effectiveness of the European Structural and Investment (ESI) Funds to sound economic governance, as required by the Regulation on Common Provisions with regard to the Structural Funds.
Impact on urbanisation and related land use practices	The document focuses on diagnostic, by describing the process of urbanisation and land-use changes in the EU, therefore, emphasising its negative consequences on uncontrolled expansion of urban areas while degrading rural areas. The document stands out different types of EU regions according to the urbanisation level and land use per person. The document is referring to different types of activities in urban and rural areas and its impact on the urbanisation, land use and environmental problems. Transport is emphasised as one of the most important activities in urban areas that is affecting the process of urbanisation and especially the land use in the city: “Land use per person in the EU increased steadily from 0.94 of a hectare per 100 people in 1975 to 1.3 hectares in 2010. The overall increase in land use per person is consistent with an ‘urban sprawl’ phenomenon, or the rapid, and sometimes uncontrolled, expansion of built-up areas around towns and cities, creating widespread and relatively low-density urban suburbs, often inefficient in terms of energy and land consumption". "Accordingly, large cities offer the possibility of accessing services by walking or by bicycle while in rural areas or in smaller towns, it is much more difficult, or impossible, to do so. For instance, the average share of the population in the EU living within 1 km of local services increases rapidly with the degree of urbanisation and the size of the city, rising from 12% in rural areas to over 80% in cities of more than 5 million inhabitants". Proposed alternatives: The document promotes the efficient use and consumption of energy in order to achieve sustainable development, especially in urban areas where the use of land is considered more efficient and more adaptable to low carbon lifestyle and, surprisingly, environmental-friendly in comparison to rural areas.
Policy gaps / **weaknesses /** negative effects	A large concentration of population in urban areas and a large share of utilised urban areas causes environmental problems that lead to more influential climate change and lower quality of life in the city. Traffic congestion and a large amount of city-directed movement also cause excessive pollution that prevents sustainable development in the cities. Ecological services in city-region, urban-rural relationships are not considered enough.

Factsheet 55 - Integrated territorial investment

Impact: Strong indirect positive	No potential negative effect
EU Policy	Integrated territorial investment (Article 36 of Regulation (EU) No 1303/2013 of the European Parliament and of the Council of 17 December 2013 laying down common provisions) (2013)
Status	Legislation (directives, regulations)
Area	Cohesion Policy / Funding
Description	An optional territorial development tool, integrated territorial investments (ITIs) make it possible to combine resources from the European Social Fund, European Regional Development Fund or Cohesion Fund under priority axes of one or more operational programmes. While ITIs may be used to implement sustainable urban development as well as other territorial strategies, they also allow Member States to delegate management tasks to the local level. It constitutes the more operational side (financial instrument) of the territorial dimension of regional policy instruments, to support local-based approach and local sustainable development strategies – CLLD- (planning and implementing instrument). With ITI is possible to monitoring and justify expenditures for several projects, financed by different founds, that are considered in a coordinated way as part of a single local spatial vision (from LAU2 and below to LAU1).
Impact on urbanisation and related land use practices	It promotes sustainable urban development in functional urban areas. "55 countries are delivering sustainable urban development (SUD) strategies using ITI, the funding involved actually amounts to €7.1 billion, which is almost 50 % of total ERDF funding allocated to SUD (€14.5 billion)." (http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/614735/EPRS_BRI(2018)614735_EN.pdf). "This positive view is shared by the European Commission, whose 2017 strategic report on the implementation of ESIF notes that sustainable urban development, ITIs and community-led local development (CLLD) have all led to a change in local and regional planning culture, promoting cooperation across sectors and different levels of government, including across administrative boundaries, with other commentators also highlighting the benefits of ITIs." (http://www.europarl.europa.eu/RegData/etudes/BRIE/2018/614735/EPRS_BRI(2018)614735_EN.pdf)
Policy gaps / **weaknesses /** negative effects	In spite of the creation of organisational and financial instruments (ITIs) that activate the cooperation of self-governments in functional areas, one must take into account the need for legislative changes that give a special status to metropolitan areas, income sources and specific powers.

Factsheet 56 - Common agricultural policy

Impact: Weak indirect positive	No potential negative effect
EU Policy	The Common Agricultural Policy (CAP, 1962)
Status	Funding Instruments and Corresponding Programmes
Area	Agriculture and Rural Development
Description	Launched in 1962, the EU's common agricultural policy (CAP) aims to support farmers and improve agricultural productivity, ensuring a stable supply of affordable food; safeguard European Union (EU) farmers to make a reasonable living; help tackle climate change and the sustainable management of natural resources; maintain rural areas and landscapes across the EU; and keep the rural economy alive by promoting jobs in farming, agri-foods industries and associated sectors. It is a dynamic policy that, through successive reforms (e.g. reform of the CAP 2013) has been adapted to new challenges faced by European agriculture. These challenges include more sustainable use of natural resources, climate change, increased competition from global markets and the need to preserve rural areas across the EU. Together with increasing attention paid to rural development, the CAP reform for 2014-20 provides a range of instruments that can contribute to supporting biodiversity.
Impact on urbanisation and related land use practices	Common Agricultural Policy protects rural areas and landscapes it has direct impacts on urbanisation and related land-use practices. Fixing the rural population and make rentable agriculture is the way to create some barriers to urban sprawl in rural areas as source ecological services for the urban population. In some areas as urban peripheral spatial conflicts arose from the fact that agricultural land was exposed to high conversion to non-agricultural purposes, something engendering conflict between farmers and non-farmers. The Common Agricultural Policy ensures sustainable management of natural resources and preserves rural areas and landscapes across the EU.
Policy gaps / weaknesses / negative effects	non-applicable

Factsheet 57 - Biodiversity strategy to 2020

Impact: Strong indirect positive	No potential negative effect
EU Policy	The EU Biodiversity strategy to 2020 (2011)
Status	Binding Strategies, Documents and Policy Guidelines
Area	Environment
Description	The 2011 EU Biodiversity Strategy aims to stop the loss of biodiversity and ecosystem services in the EU and halt global biodiversity loss by 2020. The Strategy is in line with the 2010 international Convention on Biological Diversity. It is organised in several targets: Target 1: Fully implement the Birds and Habitats Directives. Target 2 Maintain and restore ecosystems and their services. Target 3a Increase the contribution of agriculture to maintaining and enhancing biodiversity. Target 3b Increase the contribution of forestry to maintaining and enhancing biodiversity. Target 4 Ensure the sustainable use of fisheries resources and achieve good environmental status. Target 5 Help combat invasive alien species. Target 6 Help avert global biodiversity loss. (https://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/mid_term_review_summary.pdf)
Impact on urbanisation and related land use practices	The Directive has a direct impact on urbanisation and land-use practices. The Nature Directives and Natura 2000 contribute towards achieving the EU Biodiversity Strategy to 2020. The Nature Directives require Member States to take measures within Natura 2000 to maintain and restore the habitats and species in a favourable conservation status, avoiding activities that could significantly disturb In order to address this, completion of the Natura 2000 network and good management are essential. The most significant positive impact on urbanisation and land use practice is Target I. Since 2010, the network of Natura 2000 sites has progressed and is largely completed for terrestrial and inland water habitats covering about 18% of the land surface. The coverage of the marine network has increased to more than 300.000 km2 in 2014. In fact, Natura 2000 was the way to protect urban developments by declaring some new protected areas of special protection. Natura 2000 sites are protected through a series of policy instruments that are put in place by the directives and are translated into national legislation. Certain articles of the Habitats Directive require Member States to report on the conservation status of habitats and species and on compensation measures taken for projects having a negative impact on Natura 2000 sites. It requires Member States to take measures avoiding activities that could significantly disturb these species, result in deterioration of their habitats or damage habitat types. Regarding Habitats Directive, art. 6, paragraphs 6(1) and 6(2); paragraphs 6(3) and 6(4) lay down the procedure to follow when planning new developments that might affect a Natura 2000 site. Article 10 states that Member States shall try to improve the ecological coherence of the Natura 2000 network and encourage the management of features of the landscape that are of major importance for wild fauna and flora, through their land-use planning and development policies. As a requirement of both directives (Article 12 of the Birds Directive and Article 17 of the Habitats Directive), Member States report every 6 years on the progress of implementation and information provision regarding the current conservation status of habitats and species. In 1979, the Birds Directive (amended in 2009) established an EU-wide protection regime for all bird species naturally occurring in the EU. It included classification by Member States of Special Protection Areas (SPA) for 194 particularly threatened bird species and for all migratory birds. (https://www.eea.europa.eu/themes/biodiversity/natura-2000#tab-data-visualisations).
Policy gaps / weaknesses / negative effects	In the EU, a decline in the viability of farming practices favourable to biodiversity led to the loss of some critical ecosystem services in rural areas and of fertile agricultural land, with land abandonment causing economic and social losses in rural communities in particular. (COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Options for an EU vision and target for biodiversity beyond 2010. Brussels, 19.1.2010 COM(2010) 4 final, p. 4. (https://ec.europa.eu/environment/nature/biodiversity/policy/pdf/communication_2010_0004.pdf).

Factsheet 58 - European Landscape Convention

Impact: Strong indirect positive	No potential negative effect
EU Policy	European Landscape Convention adopted by the Committee of Ministers of the Council of Europe on 19 July 2000 and opened for signature by its Member States in Florence on 20 October 2000
Status	Non-binding Agreements, Agenda and Discourse
Area	Sustainable Land Use/ Soil Protection + Environment
Description	European Landscape Convention is a treaty adopted by the Council of Europe and signed or ratified by countries-members. Some EU countries ratified it while other ones neither signed nor ratified. The aims of this Convention are to promote landscape protection, management and planning, and to organise European co-operation on landscape issues. Recommendation CM/Rec 2008 (3) of the Committee of Ministers to Member States on the guidelines for the implementation of the European Landscape Convention Adopted by the Committee of Ministers of the Council of Europe on 6 February 2008. Together with Nature 2000 network and places with natural or cultural value, landscape helps to define the Green Infrastructure.
Impact on urbanisation and related land use practices	Targeting all types of landscapes (see Art. 2 –Scope), including urban and peri-urban areas, the Convention suggests direct measures aimed at their protection and sustainable management in general. It concerns landscapes that might be considered outstanding as well as everyday or degraded landscapes. Hence it would put restrictions on land take or unsustainable landscape exploitation related to urbanisation processes when unsustainable exploitation of landscapes, including urban and peri-urban, which will lead to more sustainable land-use practices related to urban development. Declaring landscape a subject of the policy aimed at its protection and sustainable management will bring improvements into practices of land use, especially those harming landscapes. The process could take the form of: a) a proper landscape planning and development system endowed with specific instruments, interconnected at the different administrative levels (landscape plan); b) a systematic introduction of the landscape dimension into spatial planning at different levels (national, regional, local), supplemented by specific studies and instructions (landscape studies). Regarding its implementation: “To put landscape policies into effect, each Party undertakes to introduce instruments aimed at protecting, managing and/or planning the landscape”. Guidelines on implementation will reinforce the positive impact, such measures as the incorporation of landscape planning will facilitate the inclusion of land management considerations into sectoral planning and policies, which will result in improvement of land use impacting practices across sectors Through raising awareness and promotion of cooperation across countries-signees the Convention will stimulate exchanges of best practices, know-how… on landscape-related issues. Further promoting cooperation at policy level it will facilitate joint efforts across countries on tackling landscape-related challenges. (Chapter III- European Co-operation, Art. 7). Call for information exchange and cooperation will advance the topic on the European agenda, facilitate policy-making on the topic and engender better solutions, which altogether will be translated into better land-use practices. Measures as Landscape Award will encourage countries to move forward in the direction of sustainable landscape management. These issues will also include challenges related to urbanisation.
Policy gaps / **weaknesses** / negative effects	The Convention has not been signed by all EU countries (as Germany and Austria), which would weaken the positive effects of the Convention, also in terms of exchange of information, cross-border cooperation on landscape-related issues, etc. It is necessary to emphasise that landscape issues should be approached through a systematic landscape planning process adapted to the different administrative levels, from national to local, throughout the whole territory, including urban and extra-urban areas. Certain urban development themes and problems, which should be categorised according to the particular features of the different areas, may be the subject of specific instructions and regulations and may be mentioned as topics for special landscape studies: for example, town approaches, urban fringe, peri-urban areas, linear links between historic centres (ribbon developments), etc.

Factsheet 59 - ESPON

Impact: Strong direct positive	No potential negative effect
EU Policy	European Spatial Planning Observation Network ESPON 2020 Cooperation Programme adopted 26 May 2016
Status	Funding Instruments and Corresponding Programmes
Area	Cohesion Policy / Funding
Description	The ESPON 2020 Programme aims at promoting and fostering a European territorial dimension in development and cooperation by providing evidence, knowledge transfer and policy learning to public authorities and other policy actors at all levels. Mission: ESPON 2020 shall continue the consolidation of a European Territorial Observatory Network and grow the provision and policy use of pan-European, comparable, systematic and reliable territorial evidence. It shall contribute to the Europe 2020 Strategy and a reformed Cohesion Policy 2014-2020. The objective of the ESPON 2020 Cooperation Programme is to support the reinforcement of the effectiveness of EU Cohesion Policy and other sectoral policies and programmes under European Structural Investment (ESI) funds as well as national and regional territorial development policies, through the production, dissemination and promotion of territorial evidence covering the entire territory of the 28 EU Members States, as well as 4 Partner States of Iceland, Liechtenstein, Norway and Switzerland. In order to fulfil the strategy, mission and objectives related to the ESPON 2020 Programme, two Priority Axes will govern the programme implementation: Priority Axis 1: Territorial Evidence, Transfer, Observation, Tools and Outreach Priority Axis 2: Technical Assistance (TA) Budget: 48,678,851.00 €; EU contribution: 41,377,019.00 €. In addition, the ESPON 2020 Programme receives support of 1,850,000.00 € from the 4 Partner States (Iceland, Liechtenstein, Norway and Switzerland). The five specific objectives that will guide the implementation of the ESPON 2020 Programme are: 1: Enhanced production of territorial evidence through applied research and analyses. 2: Upgraded knowledge transfer and use of analytical user support. 3: Improved territorial observation and tools for territorial analyses. 4: Wider outreach and uptake of territorial evidence. 5: Leaner, and more effective and efficient implementation provisions and more proficient programme assistance. Budget: 48,678,851.00 €; EU contribution: 41,377,019.00 €.
Impact on urbanisation and related land use practices	ESPON 2020 has a strong impact on urbanisation and land use & planning issues as it supports territorial dimension of EU 2020, EU Cohesion Policy 2014-2020 as well as other territorially-relevant, sectoral policies and programmes, at all levels of government. Via funding such projects as COMPASS, SUPER it directly contributes to addressing issues of land use planning and sustainable urbanisation via building evidence-based policy approaches, exchange and promotion of best practices and dissemination of knowledge on topics. Having at its core territorial dimension of development, ESPON 2020 contributes significantly towards building evidence-based approach in policy-making, improving institutional capacities of public authorities across all fields concerning spatial planning and territorial development, hence not only topics of sustainable urbanisation and land use per se would be supported, but the overall impact of ESPON projects would be much broader in its promotion of sustainable territorial growth. Extensive knowledge production supporting policy making and planning in its territorial dimension at the level of EU will advance and promote sustainable territorial development, including sustainable urbanisation. Moreover, integrated approach and exploring territorial dimension of EU sectoral policies will extend the positive impact of considerations for sustainable territorial development, covering not only the most directly related areas (such as urban planning; land use, etc.) but the whole spectrum of cohesion policy to be considerate of it.
Policy gaps / weaknesses / negative effects	non-applicable

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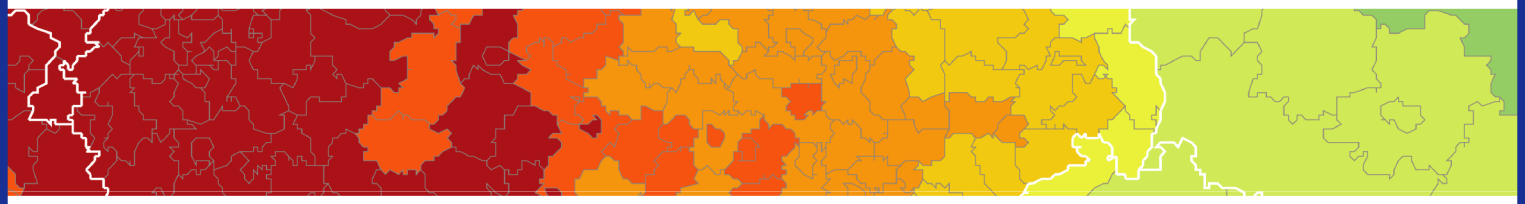
Example for main report (endnotes):



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