



TITLE:

Ex-ante Assessment of the Thematic Area “Greening Cities” under the Urban Agenda for the EU

Final report

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Date: 08 June 2022



Executive summary	6
1 Introduction	8
2 Methodological Approach	11
3 Greening Cities through green and blue infrastructure	17
4 Multi-level governance	26
5 Policy environment	36
6 Regulatory Environment	43
7 Gaps and recommendations	47
8 Trends and evidence about EU cities	57
9 Recommendations	60
Annex 1: References	69
Annex 2 Stakeholder consultation	72
Annex 3: Relevant policy and strategic documents	74
Annex 4: Review of relevant initiatives	85
Annex 5: EU Funding opportunities	88

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Abbreviations

CoR	Committee of the Regions
CEMR	Council of European Municipalities and Regions
CLLD	Community-led local development
CSO	Civil Society Organisations
EAA	Ex-ante Assessment
EC	European Commission
ECP	European Climate Pact
EUKN	European Urban Knowledge Network
EIP-SCC	European Innovation Partnership on Smart Cities and Communities
GCTP	Greening Cities Thematic Partnership
JRC	Joint Research Centre
ICC	Intelligent Cities Challenge
HADEA	European Health and Digital Executive Agency
MS	Member State
NEB	New European Bauhaus
REA	European Research Executive Agency
SDG	Sustainable Development Goals
SECAP	Sustainable Energy and Climate Action Plan
SMC	Small and Medium sized Cities
TP	Thematic Partnership
UAEU	Urban Agenda for the European Union
UATPG	Urban Agenda Technical Preparatory Group

Executive summary

The **Urban Agenda for the EU (UAEU)** intends to better involve cities in the design and implementation of policies and include or strengthen their urban dimensions. Its implementation should lead to better regulation, better funding and better knowledge for cities in Europe. In November 2021, EU Ministers responsible for Urban Matters adopted the **Ljubljana Agreement and its Multiannual Working Programme** which marks the start of a new phase of the Urban Agenda for the EU. The Greening cities theme was added to the existing UAEU priority themes.

Thus, the current **Ex-Ante Assessment (EAA)** is a new step towards the creation of a Thematic Partnership, namely on Greening cities. It is an exploratory process, which should allow for the deployment of an effective and result-oriented approach, aiming at increasing the impact of future deliverables of the **UAEU**. The current EAA aims to clarify issues such as themes pertinent to Greening cities; timing and activities; possibilities for contribution to better regulation efforts; cooperation and coordination with other initiatives, etc. It also explores if a multi-level governance approach to deliver on the objectives of the UAEU for the greening cities theme fits in a favourable policy and regulatory context.

An **explorative proposal** for the greening cities theme suggests a focus on green and blue infrastructure in the context of biodiversity and climate crises. It was the starting point of the current EAA, which also looked into on a comprehensive literature review of global and EU policy frameworks and initiatives. These were complemented by interviews with Commission services and a continuous stakeholder consultation process within the inter-governmental framework of the UAEU. The EAA is carried out on the basis of several assessment criteria: multi-level governance, policy environment, regulatory environment, existing identified gaps and trends and evidence.

Thematic focus

After a careful consideration of the explorative proposal, reviewed literature, interviews and stakeholder consultations, the report **recommends a thematic focus of the future partnership on green and blue infrastructure** - as an effective and efficient approach to address climate and biodiversity challenges in cities. In addition, the concept of green and blue infrastructure could be **enlarged and enriched with the concept of nature-based solutions (NBS)**, at the same time avoiding overlapping with the previous thematic partnership on Sustainable land-use and NBS. As greening cities is a holistic concept it would be preferable to approach the theme in a more holistic manner and **make thematic links to a wider set of policy areas** (the most of them being built environment; sustainable mobility; urban agriculture; and water management) without compromising the emphasis on green and blue cities theme.

Policy alignment

The EAA report reveals the links between the greening cities theme and a **number of global and EU policy documents**. Strong relevance and links have been demonstrated with the following policies: UN Sustainable Development Goals (SDGs); UN New Urban Agenda; European Green Deal; New Leipzig Charter; EU Biodiversity Strategy; EU Forest Strategy; EU Green Infrastructure Strategy; EU Climate Adaptation Strategy; EU Climate Law; EU Zero Pollution Action Plan; EU Digital Strategy; New Bauhaus Initiative; Territorial Agenda 2030, etc.

Multi-level governance

City authorities have an important role in implementing EU environmental law. At the same time, there are significant gaps with implementation of EU legislation and the lack of coordination between different levels of government is an important factor for that. The analysis of EU strategic and policy

landscape reveals a number of **opportunities for strengthening the cooperation and coordination of different levels of governance with the objective of greening the cities**. Stakeholders include the EC; national authorities; regional authorities and regional associations; large cities; small and medium size cities (SMC); SMC associations; etc.

Coordination and cooperation

Under the greening cities theme there is possibility to link different relevant initiatives through the prism of greening the cities and serve as a knowledge exchange hub and also as a source of inspiration for better and more integrated funding. There is a number of relevant initiatives in the urban landscape which are analysed in the EAA report. Moreover, the new Partnership needs to coordinate closely its actions with the other relevant Partnerships within the Urban Agenda in order to avoid overlaps and strengthen synergies.

Regulatory environment and better regulation

The potential Greening Cities Thematic Partnership could contribute to all dimensions of better regulation – evidence-based and transparent law making, taking into consideration the views of the affected and delivering laws where they matter most – by deploying different activities and support actions. Close collaboration with the Fit for Future Platform RegHub2 Group is key for the better regulation-related work with the goal of improving the quality of local input and feedback. There are a number of aspects from the Work Programme of the Commission which are relevant to the better regulation pillar.

Recommendations

The present report concludes that there is a good opportunity for the launching of a Greening Cities Thematic Partnership with a focus on green and blue infrastructure in an urban context and with extensive links with a wide range of relevant policies and initiatives. Also, there is an opportunity for a balanced thematic coverage vis-à-vis the three pillars of the UAEU outlined in Chapter 9.

In terms of better knowledge, while a solid base already exists, we recognize that access to knowledge is unequal and significant improvements are possible for the deployment of concrete green and blue infrastructure solutions at city level, following tested methodologies. In addition to the technical dimensions of GI, the partnership could contribute to improving soft knowledge on communication with different stakeholders; prioritisation of GI vis-à-vis grey infrastructure, etc.

Concerning better regulation, the partnership could provide feedback to the European Commission with the objective of strengthening the urban dimension of upcoming EU policies and better integrating green and blue infrastructure in other sectoral policies. The Partnership could also support cities to better implement relevant EU policies and also better integrate GI into national, local and regional voluntary and mandatory planning documents.

In terms of better funding, the partnership could develop new knowledge and strategies for increasing absorption of funding for GI in an integrated manner. Cities could also be supported in Greening their budgets. On one hand, this could be beneficial for the members and other cities across Europe, while it could also feed into the European Commission's process of tailoring different financial instruments through place-based approaches, sensible to the needs of cities of different sizes.

The present report concludes that the establishment of the Greening Cities Thematic Partnership is timely and needed as it has the potential to positively impact the uptake of recent EU legislation on conservation and planning green and blue infrastructure across European cities, for improving the liveability of urban environments.

Recommendations are also made with regards to timing for successful implementation, required type of expertise of the members, institutions/stakeholders of interest, support that will be required for the implementation.

1 Introduction

1.1 Objective and scope of the assignment

The Ex-Ante Assessment (EAA) has been proposed as a new step towards the creation of partnerships and other forms of cooperation as part of the Urban Agenda for the European Union (UAEU). It was introduced by the Ljubljana Agreement in November 2021¹ and has been launched for the first time for the two new themes of the UAEU - “Greening Cities” and “Sustainable Tourism”.

Launched as an exploratory process, the EAA aims, as defined in the Multiannual Working Programme for the UAEU, **“to enable the deployment of a pragmatic, effective and result-oriented approach aiming at increasing the impact of future Urban Agenda for the EU (UAEU) deliverables”**.

The Multiannual Working Programme for the UAEU further clarifies the purpose of the EAA as follows:

- **To ensure the relevance and focus of the theme in the policy and regulatory context;**
- **To guide and ease the work of the Partnership in stocktaking and preparatory actions;**
- **To secure suitable level of partners’ expertise in the Partnership;**
- **To optimise the workflow of the Partnership.**

In line with these objectives the EEA for the greening cities aims to provide an in-depth analysis of the proposals for this theme to help optimise focus, timing and activities of the multi-level cooperation as well as safeguard the suitable level of partners’ thematic and procedural expertise.

1.2 The Urban Agenda for the EU

Initiated within the framework of intergovernmental cooperation the Urban Agenda for the EU (UAEU) was established with the Pact of Amsterdam signed in May 2016 at the informal meeting of EU Ministers responsible for urban matters.

The main aim of the Urban Agenda for the European Union is to identify and tackle urban challenges by bringing together Member States, cities, the European Commission and other stakeholders, into a framework for dialogue and finding solutions on policy initiatives that affect urban areas (Pact of Amsterdam, 2016).

The UAEU strives to stimulate action along three key objectives (or “pillars”): Better Regulation, Better Funding and Better Knowledge, as defined in the Pact of Amsterdam (**Figure 1**).

¹ “Ljubljana Agreement”, Informal Meeting of Ministers responsible for Urban Matters, 26 November 2021, Brdo pri Kranju, Slovenia (https://ec.europa.eu/regional_policy/sources/docgener/brochure/ljubljana_agreement_2021_en.pdf).

Figure 1 The three pillars of the Urban Agenda for the EU

Better regulation	Better funding	Better knowledge
<ul style="list-style-type: none"> • The UAEU focuses on a more effective and coherent implementation of existing EU policies, legislation and instruments • The UAEU will not initiate new legislation 	<ul style="list-style-type: none"> • The UAEU will contribute to identifying, supporting, integrating and improving traditional, innovative and user-friendly source of funding • The UAEU will not create new funding 	<ul style="list-style-type: none"> • The UAEU will contribute to enhancing the knowledge base on urban issues and exchange of best practices and knowledge

Source: own elaboration

Since its formal launch, the UAEU has contributed to establishing a more effective integrated and coordinated approach to EU policies and with a potential impact on urban areas². The **key delivery mechanism** for achieving this are the Thematic Partnerships (TPs) that have been launched in four steps (**Figure 2**). In November 2021, EU Ministers responsible for urban matters adopted the Ljubljana Agreement and its Multiannual Working Programme (MWP) that indicates the start of a new phase of the UAEU with a common goal to make it more impactful and efficient.

Figure 2 Thematic partnerships delivered in the first phase of the UAEU

Amsterdam Partnerships (2016)	Bratislava partnerships (2017)	Malta partnerships (2017)	Vienna partnerships (2019)
<ul style="list-style-type: none"> • Air quality • Housing • Urban poverty • Inclusion of migrants and refugees 	<ul style="list-style-type: none"> • Digital Transition • Urban mobility • Circular economy • Jobs and skills in the local economy 	<ul style="list-style-type: none"> • Public procurement • Sustainable land use and nature-based solutions • Energy transition • Climate adaptation 	<ul style="list-style-type: none"> • Security in public spaces • Culture/Cultural heritage

Source: own elaboration

1.3 Understanding the proposal for the UAEU thematic partnership “Greening cities”

Initially the proposal for the greening cities theme was focused on the potential of urban forests for restoration of biodiversity, addressing climate change and contributing to human health. Additionally, the proposal was updated and refined by the Council of European Municipalities and Regions (CEMR) and Eurocities towards green and blue infrastructure in urban areas, its role for better addressing adaptation to climate change, protection of biodiversity and public health, and potential synergies with other sectors. A **“linking matrix”** has been used as an instrument for defining the priority thematic coverage of the greening cities theme by linking it to the New Leipzig Charter principles and dimensions (the just, green and productive city and the transformative power of cities for the common good), EU policy priorities, the Territorial Agenda 2030, as well other emerging urban relevant policy trends and initiatives and global agendas. The “linking matrix” findings embedded in the **explorative proposal** for the greening cities, as well clustering of the thematic angles of greening cities according to the new challenges and priorities that cities are facing, were the starting point for the purposes of this EAA.

In the attempt to find the niche for the Greening Cities Thematic Partnership (GCTP), the explorative proposal takes a relatively narrow approach to the greening cities theme **by focusing predominantly on green and blue infrastructure**. Therefore, the EAA has made an attempt to highlight the far-

² Assessment study of the Urban Agenda for the EU, Final report

reaching links between green and blue infrastructure and other policy areas such as water management, buildings, mobility, etc. At the same time, the EAA has kept and further developed the strong emphasis on climate change and biodiversity objectives. One of the main challenges in this EAA and the future GCTP is to find the right balance between a realistic focus and the holistic and far-reaching theme of greening cities.

In addition, the reflection within this EAA on the scope of the greening cities theme has also been approached from the perspective of the key bottlenecks cities face with regards to the implementation of green and blue infrastructure (e.g. knowledge, insufficient capacity, access to funding, etc.) and in line with the UAEU principles.

Finally, the potential GCTP has close relations with other thematic partnerships under the UAEU. Understanding these links is important for the definition of the scope of the potential GCTP with the objective builds on the knowledge and achievements and avoid overlaps, as well as for establishing synergies with them. These linkages are elaborated in Chapter 7 Gaps and recommendations.

2 Methodological Approach

The assignment has been based on a lean methodology involving literature review and stakeholder consultation process. The EEA has been steered by the Urban Agenda Technical Preparatory Group (UATPG) with particular role of supervision from the Presidency and the European Commission. The analytical part of the EEA was carried out according to a set of assessment criteria presented below.

2.1 Assessment criteria

The assessment criteria for this EEA were defined in the Terms of Reference (ToR) and the Multiannual Working Programme of the UAEU and were key for the establishment of the relevance of the greening cities theme in terms of scope and timing. These criteria (**Table 1**) have been broken down into sub-topics which informed the interview questions and the angle of literature and policy analysis.

Table 1 Assessment criteria

Assessment criteria	Sub-criteria	Comments	Data sources
Multi-level governance	Compatibility of multi-level governance approach	- Is multi-level governance approach suitable for green and blue infrastructure as a policy area in urban context. Why? To what extent?	Desk research Interviews Stakeholder meetings
	Differences of repartition of competencies between MS and various levels of governance in the EU	- How does the differences of repartition of competences at various levels of governance relate to green and blue infrastructure theme in urban context? - Is there anything from the past repartition that was not optimal and needs improvement?	
	Outreach to different stakeholders	- How to reach a wider group of cities and stakeholders to maximise the results of Greening Cities Thematic Partnership?	
	Involvement of small and medium-sized cities in the theme	- How to involve small and medium- sized cities for GI development?	
Policy environment	EU headline priorities	- Analyse policy environment to identify which elements of the main policy priorities are aligned with the thematic area. How?	Desk research Interviews
	EC Work programme	- Analyse EC Work Programme to identify which elements of the Programme are compatible with the thematic area. How?	Desk research Interviews
	Upcoming developments from main EC communications	- Analyse upcoming developments in EC communications to identify how these are compatible with the thematic area. How?	Interviews Stakeholder meetings
	New Leipzig Charter	- Compatibility of the theme with New Leipzig Charter	Desk research

	Pact of Amsterdam	- Compatibility of the theme with the Pact of Amsterdam	Desk research
	Global agendas	- Analyse relevant Global agendas to identify how these are compatible with the thematic area.	Desk research
Regulatory Environment	Planning of evaluations within the EC	<ul style="list-style-type: none"> - Are there any bottlenecks with regards to the transposition of the theme (or some elements of its elements) in the national regulatory environment? If any, what are these? - Ways to improve disposition - Evaluation of possible contribution of the partnership to Better Regulation dimension 	Desk research Interviews Stakeholder meetings
	Fit for future platform (RegHub subgroup)		
	Work programme of the EC		
	Funding opportunities	- Evaluate possible contribution of the partnership to Better Funding dimension	
Existing identified gaps and recommendations	Existing research	<ul style="list-style-type: none"> - Identify gaps in existing research on green and blue infrastructure in urban areas with regards to Better Regulation/Better Knowledge/Better Funding 	Desk research Interviews Stakeholder meetings
	Identified gaps and recommendations on Better Regulation/Better Knowledge/Better Funding		
	Challenges relevant to the theme (not addressed by previous partnerships)	- Highlight the challenges related to the theme identified/addressed by previous partnerships	
	Linking matrix within the UAEU Workshop	- Review the scope of the theme against the linking matrix; identify if something is missing.	
Trends and evidence about EU cities	Available evidence and scientific expertise from 'Future of cities'	- Identify evidence for addressing theme?	Desk research

	Available evidence and scientific expertise from Urban Data Platform +	<ul style="list-style-type: none"> - Relevant indicators and data collected or identified challenges - How these scientific and research evidence support further development of measures related to green and blue infrastructure? - Do the results of scientific research support further tackling theme as a response to urban challenges? 	Interviews Stakeholder meetings
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2.2 Literature review

The main goal of the literature review is to inform the Ex-ante Assessment in terms of positioning of the Greening cities theme in the EU policy context but also among other relevant partnerships, initiatives, policy developments, etc.

The literature review covers the following types of documents:

- UN SDG framework;
- EU strategic and policy framework;
- EU initiatives and partnerships relevant to the greening cities topic (interpreted widely);
- Assessment study of the Urban Agenda for the EU from 2019.

A full list of the documents which have been reviewed is included in [Annex 1: References](#).

The literature review has been carried out with several main purposes:

- Explore the relevance of the greening cities theme in the context of other EU strategic and policy documents;
- Explore the coherence of the theme with these and other frameworks;
- Explore the scope of other EU initiatives with the purpose of identifying possible synergies and avoiding overlaps.
- Explore various existing knowledge such as key guidance documents produced by the EC.

2.3 Consultation process

The stakeholder consultation in the form of online interviews, written input and meetings has been an essential element of the EEA process. Series of online interviews were organised with relevant services of the European Commission (DG CLIMA, DG ENER, DG RTD and the Research Executive Agency (REA), DG Mobility and Transport (DG MOVE), DG REFORM, DG REGIO and the Joint Research Centre (JRC)) as well as with the coordinator on the thematic partnership on climate adaptation. Input in writing was also provided by DG Environment. The interviews were part of the research work on the assessment criteria and served as a source of information on initiatives and policy developments relevant to the greening cities theme. An interview guide/questionnaire was prepared for these interviews. List of interviewees is provided in [Annex 2 Stakeholder consultation](#).

Additionally, the thematic online discussion with Eurocities, the Council of European Municipalities and Regions (CEMR), the European Committee of the Regions (CoR), DG Regional and Urban Policy (DG REGIO), the French Presidency of the EU and Member States was instrumental for gaining further insights and clarifications on the thematic angles and subtopics relevant to both sustainable tourism and greening cities themes. Secondly, the meetings were an opportunity for the experts to give an overview of the methodological approach, as well as the thematic issues and questions that have emerged as part of the consultations with DGs. The discussions on the EAA interim report and draft final report at the UATPG and UDG meetings held in March-May provided valuable insights for further development and refinement of the EAA.

2.4 The ex-ante assessment report and next phase of the EEA

This deliverable is the EAA report for the greening cities theme. It is organised into two parts as per the ToR and Multiannual Working Programme for the UAEU:

Part 1 includes a chapter that sets the thematic context for the greening cities (chapter 3) and an analysis of the assessment criteria (Chapters 4-8).

Part 2 of the report is presented in Chapter 9 and includes recommendations for:

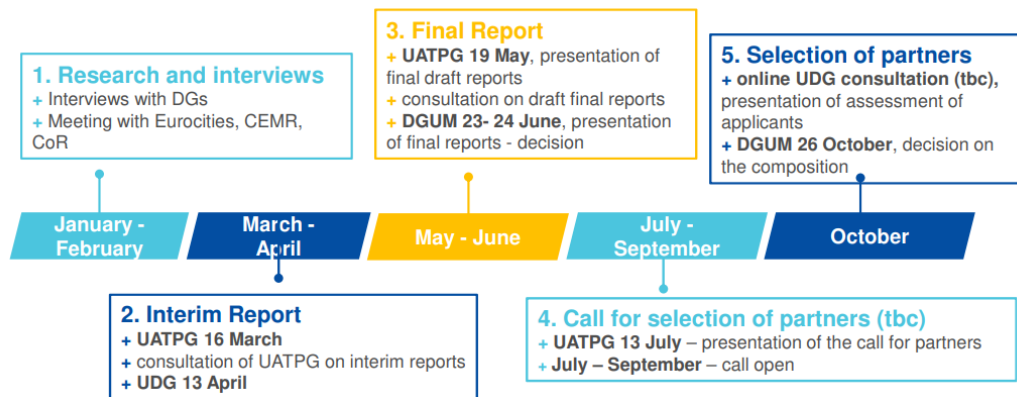
- the thematic scope of the greening cities

- the most suitable form of multilevel cooperation
- the timing for successful implementation;
- the required type of expertise of the members;
- the institutions/stakeholders of interest to be involved in the multilevel cooperation set-up;
- the type of support that will be required for the implementation;

Chapter 9 also provides an assessment on the opportunity to launch a partnership on greening cities.

As a next step and building on the findings of the EEA report, the call for selection of partners for the creation of the partnership will be prepared. The overall timeline for the development of the EAA is presented in the figure below.

Figure 3 Time for the development of the EAA



Source: DG Regio presentation

3 Greening Cities through green and blue infrastructure

3.1 Climate and biodiversity crises from the urban perspective

In Europe, more than 74% of the population lives in urban areas and this is projected to increase to over 83% by 2050³. Up to one third of Europeans living in cities are exposed to levels of air pollutants exceeding EU air quality standards, in particular for particulate matter (PM) and ozone, which poses significant health issues. Half of the EU's urban population is exposed to traffic noise levels above 55dB. With regards to the biodiversity crisis the recently published 8th Cohesion report⁴ notes that biodiversity loss and the degradation of ecosystem services continue in the EU across terrestrial, freshwater and marine ecosystems and many EU policy targets will not be achieved. For example, 60% of the species and 81% of the habitats protected under the Habitats Directive are assessed as having a poor or bad conservation status. In the dense urban environment green spaces, correctly planned and managed, can contribute to addressing a wide range of challenges that cities face today.

Cities generate about 70% of global GHG emissions, and, at the same time, are particularly vulnerable to the impacts of climate change such as more frequent and prolonged heatwaves, flooding, water scarcity, etc. 46% of the functional urban areas⁵, on average, has a low capacity to mitigate floods. Increased flooding risk is an important concern of cities and the strategic implementation of green infrastructure will be an essential nature-based solution to address this challenge.

3.2 Green and blue infrastructure in urban areas

Definitions

For the purpose of this EEA the following definition of the Green infrastructure and blue infrastructure was considered.

Green infrastructure (GI) is 'a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services. It incorporates green spaces and other physical features in terrestrial (including coastal) and marine areas. On land, GI is present in rural and urban settings⁶. The concept of blue infrastructure is similar to the one of GI and covers natural and semi-natural areas including aquatic ecosystems, coastal and marine areas⁷. (EU Green Infrastructure Strategy)

Aligned with the definition adopted by the Green Infrastructure Strategy and with the terminology used in the 4th MAES report on urban ecosystems (Maes et al. 2016) **Urban Green Infrastructure (UGI)** can be defined as is the strategically managed network of urban green spaces and natural and

³ <https://www.un.org/development/desa/publications/2018-revision-of-world-urbanization-prospects.html>

⁵ Functional Urban Areas, defined as the core city (with at least 50,000 inhabitants) and the commuting zone. It is based on commuters, employed persons living in one city that work in another city. It represents an 'operational urban spatial extent' that allows to map and evaluate the city and its surroundings., source: EnRoute project

⁶ Green Infrastructure (GI) — Enhancing Europe's Natural Capital, COM(2013) 249 final

⁷ Idem

semi-natural ecosystems situated within the boundary of the urban ecosystem. Biodiversity is a key component of UGI.⁸

Peri-urban areas are also of high relevance for the green infrastructure. Peri-urban areas are a transitional zone between the city and countryside and are usually characterised by diverse land uses. They can be found at the urban fringe along the edges of built-up area and comprise lower density settlements and urban concentrations around transport hubs. Peri-urban areas may be predominantly large green open spaces such as urban woodlands, farmland and nature reserves in the urban periphery, and as such are often characterised by a mix of fragmented urban and rural functions.

In addition, for the purposes of this EEA the concept of nature-based solutions (NBS) is taken into consideration for two main reasons. Firstly, NBS are an umbrella concept and encompass a number of existing concepts and initiatives, among which green and blue infrastructure, urban forestry, ecosystem-based adaptation, etc. Secondly, the greening cities theme has direct linkages with the TP on land use and NBS which are analysed in Chapter 7.

Nature-based solutions (NBS) are 'solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions'⁹.

Benefits

The benefits of green and blue infrastructure come through their role as providers of ecosystem services and go beyond the area of biodiversity.

GI is a complex system and many of the interactions are two-way. Some of the most important links are as follows:

- GI helps to regulate air quality by removing contaminants through filtration, decomposition and assimilation;
- Improved noise abatement, trees and shelter belts provide sound screening from traffic noise for human settlements;
- Urban GI helps to regulate the urban heat island effect thereby reducing heat stress;
- GI areas encourage physical activity, which is linked to many aspects of physical and mental health;
- Opportunities for contact with nature offer stress reduction, which is linked to many aspects of physical and mental health; and
- GI in cities promotes social cohesion and reduces social inequalities; in turn leading to reduced public health issues linked with inequality (such as diet related health concerns)¹⁰.

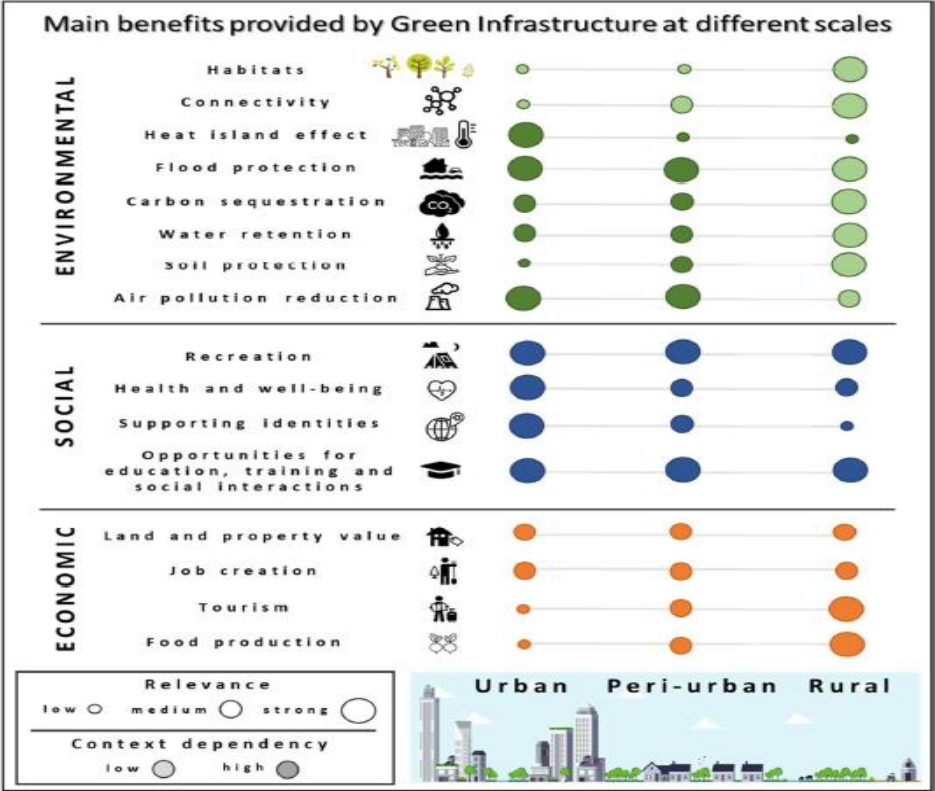
Figure 4 Benefits of green and blue infrastructure provides a classification of benefits by different types of green and blue infrastructure at different scales.

⁸ <https://op.europa.eu/en/publication-detail/-/publication/cc585ccd-3b0c-11e9-8d04-01aa75ed71a1/language-en>

⁹ [Nature-based solutions | European Commission \(europa.eu\)](#)

¹⁰ SWD_2019_193_F1_STAFF_WORKING_PAPER_EN_V4_P1_1024680.PDF (europa.eu)

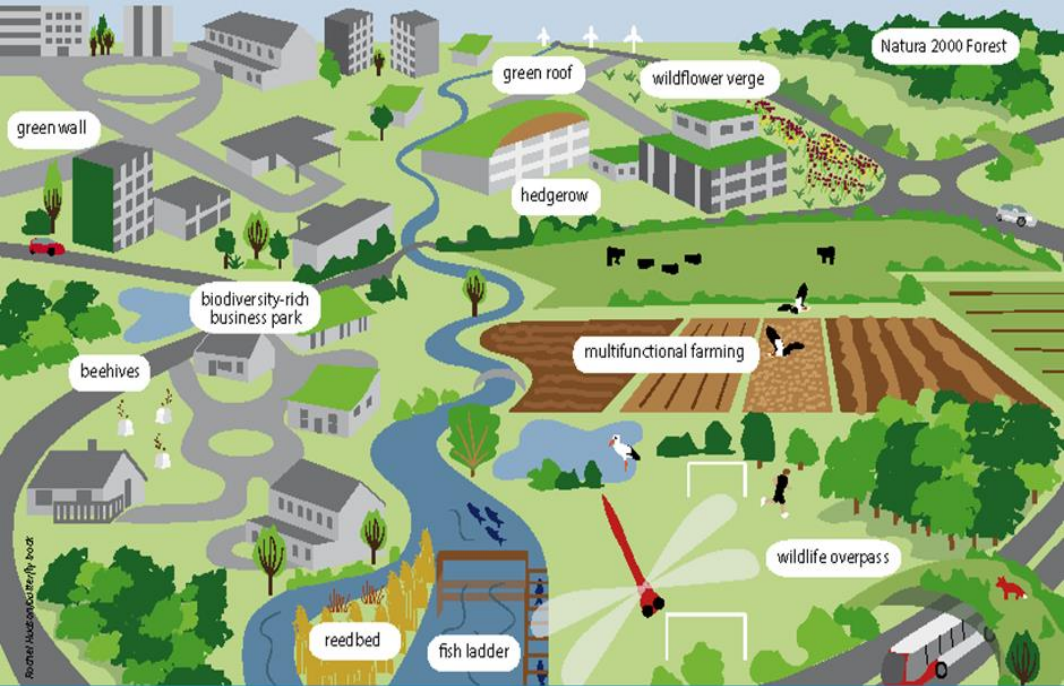
Figure 4 Benefits of green and blue infrastructure



Source: ESPON, GRETA project

In the context of greening cities theme green and blue infrastructure are relevant to urban and peri-urban areas and the figure below illustrates some of the possible types of GI in an urban setting.

Figure 5 Potential components of green and blue infrastructure



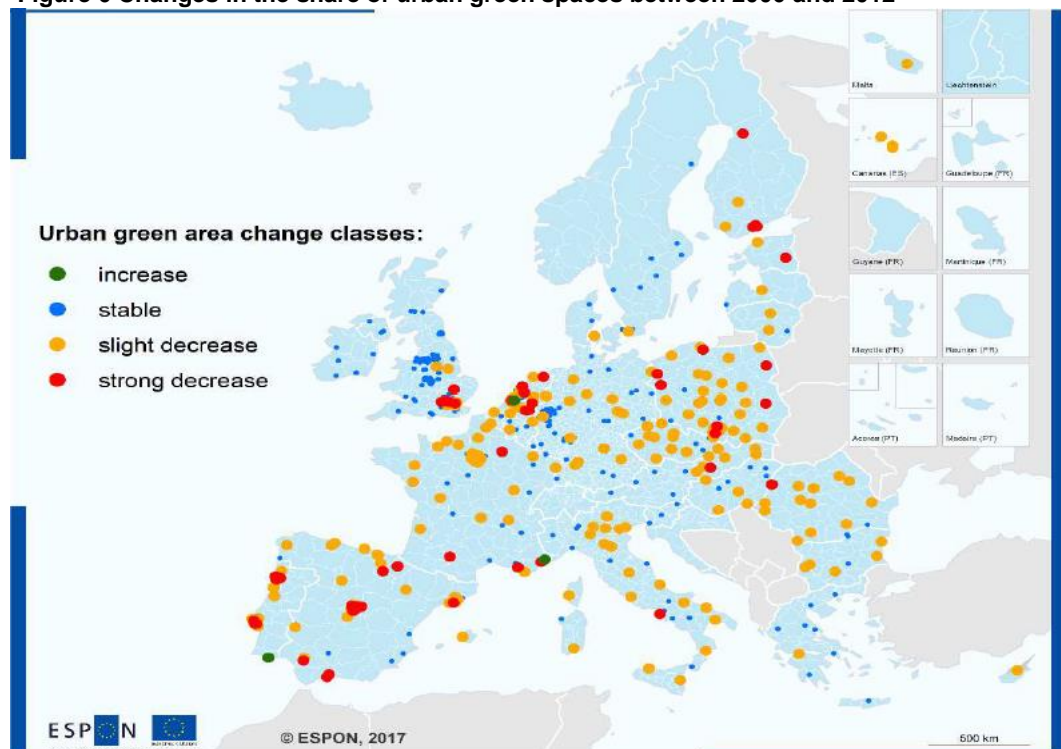
Source: EC, 2013b

Types of green and blue infrastructure

Urban green spaces

Urban green spaces are the structural components of urban GI¹¹. They are very diverse and scale-dependent and include parks, gardens, green roofs, ponds, streams, urban forests, restored brownfields sites, etc. Green bridges and fish ladders could serve as connecting elements¹². Urban green spaces have multiple environmental, social and economic benefits elaborated further in the text. Despite the wider recognition of the benefits of green infrastructure, a mixed picture of urban areas with a slight or strong decrease of green spaces is observed on an EU level between 2006 and 2012. Urbanisation, economic development and tourism development are the main causes of decreasing urban spaces¹³.

Figure 6 Changes in the share of urban green spaces between 2006 and 2012



Source: GRETA project

Urban and peri-urban agriculture

In Europe, the attractiveness of urban and peri-urban agriculture has been growing. Urban agriculture can range from household, school and community gardens to rooftop, vertical and indoor farms¹⁴. Benefits are mainly related to well-being, quality of life and emotional balance. Urban farming strengthens local communities and could be used for educational purposes. The production of locally grown, fresh fruit and vegetables is also noteworthy although quantities are not significant. Urban farming could also be associated with small-scale entrepreneurship for activities such as agri-tourism, social care, kindergarten farms or nursery-school services.

¹¹ https://ec.europa.eu/environment/nature/knowledge/ecosystem_assessment/pdf/102.pdf

¹² Green Infrastructure (GI) — Enhancing Europe's Natural Capital, COM(2013) 249 final

¹³ GRETA project

¹⁴ European Parliament, 2017, Urban Agriculture in Europe

Buildings

GI solutions such as green roofs and walls are also very relevant for buildings as they help reduce GHG emissions, and deliver many other benefits, such as water retention, air purification and biodiversity enrichment.

Transport

Green and blue infrastructure also creates opportunities to connect urban, peri-urban and rural areas and provides appealing places to live and work (ESPON). This connecting feature of GI is particularly suitable for introducing solutions for alternative mobility such as cycling and walking.

Disaster resilience

A number of GI solutions could be made in combination with infrastructure for disaster risk reduction, such as river protection works. These include functional flood plains, riparian woodland, protection forests in mountainous areas, barrier beaches, coastal wetlands, etc. Most of these are blue infrastructure solutions. (e.g., forest soil is used to collect and filter water; protection against tidal floods).

Water management

There is a close link between GI and water management on urban level namely through natural water retention measures which can slow down storm waters and reduce pollution. These are important for reaching the objectives of the Water Framework Directive and the Floods Directive. At the same time, these contribute to biodiversity preservation and climate change adaptation. GI can also help improve water quality and protect against floods¹⁵.

Restored brownfield sites

Many cities are in charge of planning the future of brownfield sites. There is a multitude of options. Their transformation into green/blue areas is one of the most attractive options given the numerous benefits that go with this transformation.

The **Table 2** Typology of Green Infrastructure below provides one possible classification of Green Infrastructure.

Table 2 Typology of Green Infrastructure

Category	Urban green infrastructure element
Building greens	Balcony green, ground based green wall, facade-bound green wall, extensive green roof, intensive green roof, atrium, green pavements and green parking pavements, green fences and noise barriers
Urban green areas connected to grey infrastructure	Tree alley and street tree/hedge, street green and green verge, house garden, railroad bank, green playground/school ground, green parking lots, riverbank greens
Parks and (semi)natural urban green areas, including urban forests	Large urban park, historical park/garden, pocket park/parklet, botanical garden/arboreta, zoos, neighbourhood green space, institutional green space, cemetery and churchyard, green sport facility, forest, shrubland, abandoned and derelict area with patches of wilderness
Allotments and community gardens	Allotment, community garden, horticulture
Agricultural land	Arable land, grassland, tree meadow/orchard, biofuel production/ agroforestry, horticulture

¹⁵ Review of progress on implementation of the EU green infrastructure strategy

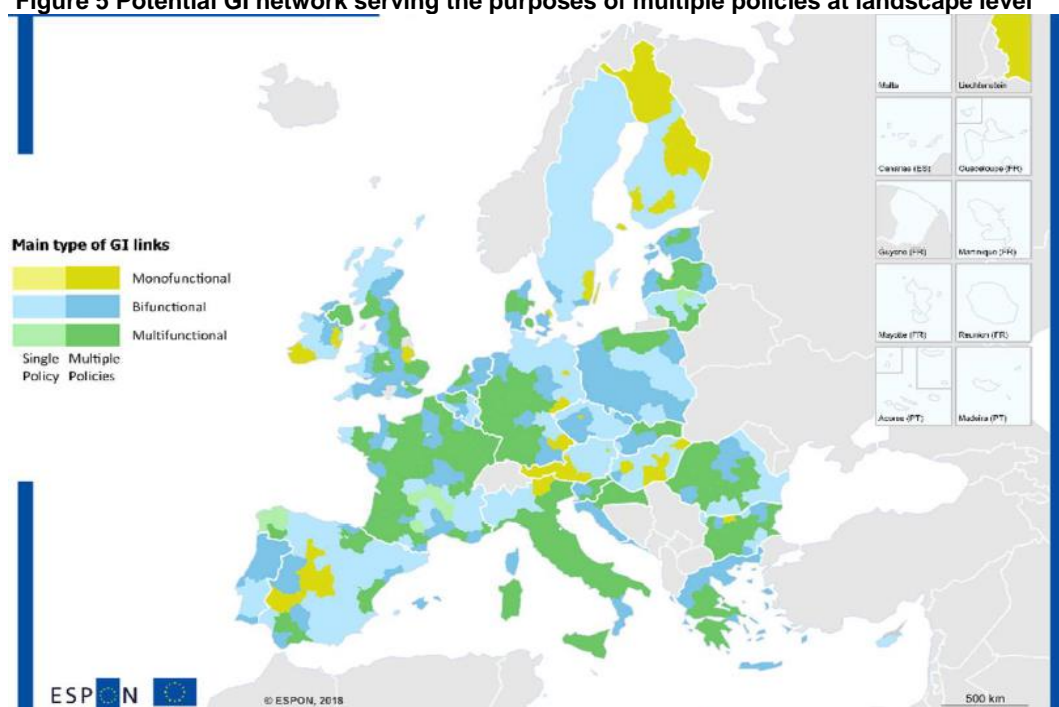
Green areas for water management	Rain gardens or sustainable urban drainage systems (SUDS), rain gardens, swales / filter strips
Blue areas	Lake/pond, river/stream, dry riverbed, canal, estuary, delta, seacoast, wetland/bog/fen/marsh

Source: Ecologic Institute based on Cvejić et al. 2015, Xing et al, 2017; Ecologic Institute, 2011, Ndubisi et al., 1995

Contribution to a number of policy frameworks

The ESPON GRETA project conducted relevant research on the contribution of GI to different policy frameworks. The conclusion is that GI benefits are unevenly distributed across Europe. Nevertheless, in big parts of Europe (green colour) GI serves multiple functions and therefore contributes to multiple policies¹⁶. Differences are due to 'biophysical drivers (e.g., geology and climate) and land management practices'¹⁷.

Figure 5 Potential GI network serving the purposes of multiple policies at landscape level



Source: GRETA project

The **EU Green Infrastructure Strategy** highlights the links between strengthening GI in the EU and different EU policies. The thematic linkages of the green and blue infrastructure with different EU policies such as **EU Green Deal**, **EU Biodiversity Strategy**, **EU Strategy on Adaptation to Climate Change**, **EU Forest Strategy**, the EU Mission on Climate-Neutral and Smart Cities and others have been discussed at length throughout this report.

3.3 Greening cities and the EU Cohesion policy

The sustainable urban development dimension was reinforced in the current **EU Cohesion policy** which can be seen in the 2021–2027 Multiannual Financial Framework (MFF). At least 8% of the European Regional Development Fund in each EU Member State is directed to support sustainable

¹⁶ <https://www.espon.eu/green-infrastructure>

¹⁷ Idem

urban development strategies. This support entails an integrated and place-based approach that empowers the relevant territorial and local authorities from planning to implementation of their integrated and sustainable urban strategies.

The Policy Objective 5 'A Europe closer to citizens' has been introduced, which can be used to support targeted investment strategies at the relevant territorial scale below the programme area, where people work, live and commute daily. The EU Cohesion Policy 2021-2027 has also a dedicated policy objective (PO 2) of "a greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe by promoting clean and fair energy transition, green and blue investment, the circular economy, climate change mitigation and adaptation, risk prevention and management, and sustainable urban mobility". Also, this PO 2 includes a specific objective of "Enhancing biodiversity, green infrastructure in the urban environment and reducing pollution. Additionally, Cohesion policy in the 2021-2027 period is guided by a set of "green rules", such as the "do no significant harm principle", or the obligation to allocate at least 30% of ERDF and 40% of Cohesion Fund towards climate actions. The European Commission will launch in 2022 **a new European Urban Initiative (EUI)**¹⁸ financed by the European Regional Development Fund to support cities with innovative actions, capacity and knowledge building, policy development and communication on sustainable urban development. The objectives of the EUI are to strengthen integrated and participatory approaches to sustainable urban development, and to provide a stronger link to EU policies, and in particular to Cohesion policy and investments in urban areas. The EUI shall support the UAEU.

Restoring Europe's ecosystems and biodiversity is one of the four "key strategic orientations" of **Horizon Europe** which will be significant financial support for R&I projects in the area of nature restoration and conservation as well as climate change mitigation, adaptation. Horizon Europe Mission on 'Climate-neutral cities' could have linkages with the greening cities theme in relation to the emphasis on climate neutrality for cities; multi-level governance; and capacity building, while the thematic linkages of Mission Adaptation to Climate Change can be seen with regards to addressing adaptation to climate change in urban areas. EU **LIFE Programme** will support major investments aimed at protecting and enhancing Europe's biodiversity and addressing adaptation to climate change as part of the 'Environment' part and the 'Climate Action' part of the programme. Among the areas eligible for financing under the **InvestEU** Programme are the enhancement and restoration of ecosystems and their services including through green and blue infrastructure projects; sustainable urban, rural and coastal development as well as climate adaptation, including natural hazard disaster risk reduction. Detailed information about opportunities for funding of actions under the greening cities theme is presented in [Annex 5: EU Funding opportunities](#).

3.4 Building on the accumulated knowledge

It has to be emphasized that knowledge on green and blue infrastructure is widely available in the form of initiatives, reports, guidance documents and publications and can serve as a source of inspiration for the GCTP. For example, the European Commission has compiled the EU Guidance document on a strategic framework for further supporting the deployment of EU-level green and blue infrastructure (2019)¹⁹ which aims to encourage the scaling-up of investments in EU-level GI projects. The EU Guidance document on integrating ecosystems and their services in decision-making (2019)²⁰. Is also of relevance for the greening cities theme.

Research and innovation are instrumental in helping cities and its citizens to co-design and accelerate the green and digital transition towards the target of Europe becoming the first climate neutral







¹⁸ <https://uia-initiative.eu/en/eui/european-urban-initiative>

²⁰ https://ec.europa.eu/environment/nature/ecosystems/pdf/8461_Summary%20EU_Guidance_Draft_02_17.07.2020.pdf

continent by 2050. The Yearly mapping report²¹ of the EC - EU research & innovation for and with cities from June 2021 sheds a light on city related actions, initiatives, platforms and networks and highlights their impact on urban environments and urban policies. In particular, it provides an EU quantitative knowledge base on innovative urban policies and planning, for decision makers, urban planners and practitioners, strengthening the science-policy-private sector interface.

Several European projects contribute to the knowledge base on green infrastructure such as the projects funded under Horizon 2020 on NBS in cities (Table 3). For example, some of these Horizon 2020 project provided evidence at the EU-level of the value of NBS to address the different challenges that cities are facing nowadays. The themes tackled by these projects, as well as the numerous innovative tools they developed can serve as an inspiration for the future GCTP. These Horizon 2020 projects²² illustrate the wide range of NBS addressing urban challenges related to greening cities. Other interesting examples include the BEGIN²³ project that looks at the co-creation of blue and green infrastructure through pilots in 10 EU cities. as well as EnRoute²⁴ project that provides scientific knowledge of how urban ecosystems can support urban planning at different stages of policy and delivers guidance on the creation, management and governance of urban green infrastructure.

Table 3 Examples of Horizon 2020 projects on nature-based solutions in cities



Project	Focus
	- An innovative methodology to re-naturing cities for adaptation to climate change , through for example the concept of Re-naturing Urban Planning (RUP) which incorporates the urban planning aspects directly related to the NBS as part of the Sustainable Urban Planning.
	- Development and implementation of 'living lab' demonstration areas, a robust evidence base and European framework of innovative, replicable, and locally attuned nature-based solutions to enhance the climate and water resilience of cities .
	- Delivery of systemic changes to the long-term planning, development, operation and management of Cities through the use of NBS, in order to deliver quantified improvements in climate and water resilience, social, environmental and economic performance .
	- Creation of Living Labs in urban areas which face the challenge of post-industrial regeneration .
	- Healthy corridors as drivers of social housing neighbourhoods for the co-creation of social, environmental and marketable NBS.
	- Innovating with nature to co-create climate resilience in cities. - Co-development of the policy and practices necessary to scale up urban resilience, innovation and governance using nature-based solutions

²¹ <https://op.europa.eu/en/publication-detail/-/publication/1a11dc10-edba-11eb-a71c-01aa75ed71a1>

²² The projects included in table 3 have been funded under the H2020 Call Topics SCC-02-2016-2017: Demonstrating innovative nature-based solutions in cities. There are other topic areas addressed by specific Work Programmes within H2020 covering also NBS themes.

²³ <http://science2society.atosresearch.eu/content/begin-blue-green-infrastructure-through-social-innovation>

²⁴ <https://oppla.eu/groups/enroute>

	<ul style="list-style-type: none"> - Demonstration of the added value of NBS in an urban regeneration context displaying innovation pathways towards a nature-based transformation. Multiple challenges are addressed: loss of biodiversity, climate change, increasing demographic diversity, social inclusion, environmental injustice and a relative lack of economic prosperity in certain parts of the cities.
	<ul style="list-style-type: none"> - Development of a sustainable network of cities, empowering their inhabitants with a common methodology to explore the wealth and diversity of existing Edible City Solutions.

Source: own elaboration

Urban policies increasingly use GU and NBS in the planning process. Also, more data is becoming available to support these policies as noted in MAES 2016²⁵ report on urban ecosystems policies.

Box 1 The Finnish National Urban Park

The Finnish National Urban Park (NUP) Concept is a tool for promoting biodiversity in urban areas. It helps to build cities in a more sustainable way, protecting nature and green spaces in urban environment. In each of the park, there are historic buildings and blocks, parks, recreational areas and urban nature. In most NUPs natural heritage forms the biggest part of the area. In all NUPs there are one or more protected areas, Natura 2000 –sites, old growth forests – even sea, lake and river ecosystems. National Urban Park is an integrated urban space with a high natural and cultural environment and part of a wider ecological whole. The National Urban Park (NUP) Concept is a part of the Land Use and Building Act.

Source: <https://www.europarc.org/case-studies/finnish-national-urban-parks-nup-tool-for-promoting-biodiversity-in-urban-areas/>

Finally, the EC has invested strategically in a range of platforms, databases and networks with the purpose of understanding green and blue infrastructure and NBS benefits and promoting knowledge exchange also at city level. Examples include the EKLIPSE impact evaluation framework (Raymond et al., 2017); databases and tools provided by a number of specific projects and initiatives (such as NATURVATION's urban nature atlas). In addition, Oppla²⁶ serves as a knowledge open platform on ecosystem services, natural capital and nature-based solutions.

²⁵ https://ec.europa.eu/environment/nature/knowledge/ecosystem_assessment/pdf/102.pdf

²⁶ <http://www.oppla.eu/>

4 Multi-level governance

The chapter presents an assessment of multi-level governance and explores to what extent the greening cities theme is suitable to be addressed in the context of UAEU. It also explores links with other initiatives and stakeholders as well as issues with engaging small and medium-sized cities.

4.1 Compatibility of multi-level governance approach to tackle the Greening cities theme

The UAEU is a multi-level governance initiative by definition. This means that any **new Thematic Partnership should lend itself to the principle of multi-level governance**. Therefore, this assessment explores to what extent the issue of greening cities can be addressed in partnership and complementarity by different levels of governance – the EU level (The European Commission, the European Parliament and the Committee of the Region); MS national authorities and national associations; regional authorities and regional associations; local authorities (divided into large cities and small and medium cities) and other stakeholders (civil society organisations, experts, private sector etc.). The section below also dwells on **differences of repartition of the competences between MS and across various levels of governance in the EU**.

Implementation of EU environmental law as a multi-level governance process

Within the consultation for this EAA, DG Environment highlighted the fact that **‘regional and local authorities have an important role in implementing EU environmental law’**. In this respect, the EU Communication on the Environmental Performance Reviews²⁷ underlines significant gaps with implementation of EU legislation and singled out the lack of coordination between different levels of government as one of the most important factors for that. Improving the implementation of EU environmental law should be one of the objectives of potential GCTP.

The analysis of the EU strategic and policy landscape **revealed a number of opportunities for strengthening the cooperation and coordination of different levels of governance** with the objective of greening cities.

For example, undertaking national level reform to implement the EU Green Deal (on the topics relevant to greening cities) should go hand in hand with increasing the capacities of cities to implement these reforms as well as their capacities to attract funding for that from national and/or EU funds. This requires a narrow collaboration between national and regional and local levels aligning regional and local capacities with the requirements of national policy objectives. In the case of the analysed theme, there is a need to integrate the EU and national EU Green Deal goals on protecting health and well-being of citizens from environment-related risks and on a just and inclusive transition into regional and local policies and actions.

A very good coordination and cooperation across governance levels is also needed to promote and invest in the necessary digital transformation and tools for greening cities as essential enablers of changes. For example, standardised solutions developed on an EU or national level could be promoted and deployed locally. Alternatively, innovative solutions which have been developed and implemented in one place could be scaled up on a national or EU level.

²⁷ EU COM(2016) 316 final on Delivering the benefits of EU environmental policies through a regular Environmental Implementation Review

For example, with regards to the **EU Biodiversity Strategy**, the EC is tasked with ‘creating a comprehensive governance framework to steer the implementation of biodiversity commitments’ and with ‘unlocking 20 billion EUR/year for biodiversity from various sources’. National governments ensure the implementation of the strategy while local authorities have a role in protecting and restoring ecosystems and incorporating biodiversity considerations into their urban planning. Cities of more than 20,000 inhabitants need to develop Urban Greening Plans in order to steer the implementation of the strategy by, among others, creating biodiverse and accessible urban forests, parks and gardens; urban farms; green roofs and walls; tree-lined streets; urban meadows; etc.

Deploying of existing solutions

In addition to implementing EU law in an urban and regional context, local authorities are well-placed to deploy solutions which have already been tested and made standard. Concerning the EU Climate Adaptation Strategy, the EU level would be responsible for the developing data; preparing risk assessment tools; filling in gaps on adaptation knowledge; and developing customised, user-friendly tools. MS national level would be in charge of improving climate change adaptation strategies and planning and in involving national standardisation in the implementation of their National Adaptation Strategies. Local authorities would be well-placed to deploy tools on local level and mainstream climate resilience in all possible sectors relevant to the city such as infrastructure, transport, etc

Stakeholder involvement from a multi-stakeholder perspective

Implementation of environmental law and environmental projects on urban level should be associated with involving stakeholders, an issue which is a part of the multi-level governance dimension of the proposed TP. A project’s success depends on the involvement of stakeholders from early on in the project’s life cycle. Stakeholders should include citizens, neighbourhood associations, private homeowners, companies/foundations, CSOs and educational and research institutions. Stakeholder involvement takes place in various ways: collaborating with local authorities to plan, adopt roadmaps, prioritise and implement projects; undertaking own initiatives in greening the cities; exerting pressure on local authorities for action with regards to greening cities; etc. For example, with regards to the EU Climate Adaptation Strategy, citizens can have an active role in increasing preparedness and disaster risk prevention; but also supporting national and EU programmes for skilling and re-skilling.

An analysis of multi-level governance implication of different EU policies and strategies is available in **Table 4**.

Table 4 Dimensions of Multi-level Governance to the greening cities theme

	European Commission	National level authorities and organisations	Regional authorities and organisations	Local authorities	Citizens/NGOs	
SDG#11 Sustainable cities and communities SDG#13 Take urgent action to combat climate change and its impacts #7 Ensure access to affordable, reliable, sustainable and modern energy for all #12 Ensure sustainable consumption and production patterns	Aligns policies with SDGs			(11.3) enhance inclusive and sustainable urbanization (11.6) Reduce the adverse environmental impact of cities. (11.7) Universal access to safe, inclusive and accessible, green and public spaces... (7.2) Share of renewable energy (urban context) (7.3) Energy efficiency improvements in an urban context		
			(11.a) Links between urban, per-urban and rural areas by strengthening national and regional development planning			
		(11.5) Disaster resilience (11.b) Adopt and implement integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters				
European Green Deal	- Integrates goals (protect health and well-being of citizens from environment-related risks; a just and inclusive transition) into policies - Makes use of regulation and standardisation levers - Investments through various EU funds	- Undertake national reforms. - Channel national and EU investments to EGD goals - Align national innovation system with EGD goals	Increase capacities to secure funding for the goals of the EGD			
		Promote and invest in the necessary digital transformation and tools as essential enablers of the changes Provide careful attention to trade-offs between economic, environmental and social objectives;				
	Work in intense coordination to exploit the available synergies across all policy areas					
New Leipzig Charter	- Provides a key policy framework document for sustainable urban development in Europe			- establish integrated and sustainable urban development strategies - ensures implementation	Provides input to strategy development	

	European Commission	National level authorities and organisations	Regional authorities and organisations	Local authorities	Citizens/NGOs
EU Biodiversity Strategy	<ul style="list-style-type: none">- Ensure implementation- Create a comprehensive governance framework to steer the implementation of biodiversity commitments- Unlock 20 billion EUR/year for biodiversity from various sources			<ul style="list-style-type: none">- role in protecting and restoring ecosystems and incorporating biodiversity considerations into their urban planning- cities of 20,000+ inh. to develop Urban Green Plans	Citizen initiatives and pressure are key to integration
				Actions focused on better biodiversity protection in cities contribute to specific social goals, such as community-based management, sustainable development and poverty reduction in cities.	
				Participate actively in the creation of the biodiversity governance framework	
				Plan and invest available EU funding in line with the goals of the Biodiversity Strategy	
EU Forest Strategy	<ul style="list-style-type: none">- Can serve as a guidance on effective afforestation and forest restoration- Share good practices- Design funding mechanisms	<ul style="list-style-type: none">- Develop a national strategy;- Earmark funding- Prioritise- Facilitate access to financial support	<ul style="list-style-type: none">- Active and sustainable re- and afforestation and tree planting concerns mainly urban and peri-urban areas (including e.g., urban parks, trees on public and private property, greening buildings and infrastructure, and urban gardens) and agricultural area		
EU Green Infrastructure Strategy	<ul style="list-style-type: none">- Provides strategic framework- Provides significant funding	<ul style="list-style-type: none">- Integrate NBS in various policies in different sectors- Roll out nationally standardised solutions- Improve access to finance within national and EU funds- Develop guidance	<ul style="list-style-type: none">- Implement NBS on regional and local level in various sectors- Build capacity of various sectors to implement NBS		<ul style="list-style-type: none">Exert pressure for green, NBSWork with authorities to improve integration and develop skills

	European Commission	National level authorities and organisations	Regional authorities and organisations	Local authorities	Citizens/NGOs
EU Climate Adaptation Strategy	<ul style="list-style-type: none">- Develop robust data- Develop risk assessment tools- Fill in gaps on adaptation knowledge;- Develop customised, user-friendly tools;- Increase investment in resilient climate-proof infrastructure (give the knowledge and instruments to cities to do so)- Improve access to platforms: EIP-SCC Marketplace , the Digital Europe Programme, and the Intelligent Cities Challenge, Covenant of Mayors and ensure synergies between them-ONE STOP SHOP topic page of the EC and ensure linking to existing knowledge repositories such as Climate Neutral and Smart Cities Mission, Innovating Cities web page etc.	<ul style="list-style-type: none">- Improve CC adaptation strategies and planning- Deploy tools on regional and local level- Involve national standardisation in the implementation of their National Adaptation Strategies;	<ul style="list-style-type: none">- Increase preparedness and disaster risk prevention;- The Strategy calls for the implementation of blue-green nature-based solutions (NBS- Adapt faster through the implementation of 'no regret' solutions; nature-based solutions;-Provide local data- Mainstream climate resilience in all possible sectors relevant to the city such as infrastructure, transport, etc- Develop local capacities to access funding;- Active participation in EU platforms ;- Buy into national and EU programmes for skilling and re-skilling;- Prepare buildings for climate change and also use their for potential for adaptation;		
	<ul style="list-style-type: none">- Provide accessible of climate resilience decision support systems and technical advice- Support for education, training and re-skilling				
EU Climate Law	<ul style="list-style-type: none">- Sets targets;- Facilitating access to scientific information on climate change mitigation and adaptation- Support to cities in preparing sectoral roadmaps	<ul style="list-style-type: none">- Align newly adopted strategic and planning documents with CL targets in the context of Better Regulation-Development of indicative roadmaps	<ul style="list-style-type: none">- Establishment of a multilevel climate and energy dialogue in which local authorities, civil society organisations (CSO), business community, investors, etc.- Enable and empower all parts of society (Art.9)		
EU Zero pollution action plan on air, water, and soil	<ul style="list-style-type: none">- Provides policy framework and adopts vision and targets- Provides funding- Rewards city champions	<ul style="list-style-type: none">- Identify key urban greening and innovation needs to prevent pollution- Ensures stricter implementation and enforcement	<ul style="list-style-type: none">- Take measures to reduce air pollution locally including through green infrastructure and NBS		<ul style="list-style-type: none">- Propose and implement air pollution reduction initiatives

	European Commission	National level authorities and organisations	Regional authorities and organisations	Local authorities	Citizens/NGOs
	Demonstrate the social, environmental and economic costs of failing to act				
European Digital Strategy	- Provide knowledge on using digital tools - Provides exchange of good practices and better access to funding through platforms such as ICC			Deploy digital solutions in different sectors of the greening cities theme with the support of the local ecosystem	
European Pillar of Social Rights	- Develop framework	- Integrate biodiversity and ecosystems in education and training	- Provide effective access to essential services of sufficient quality - access to water, sanitation, healthcare, energy and transport - Make green infrastructure available to secure 'better working conditions and ensuring healthy and safe work environments'.		Engage in local work and citizen pressure
Territorial Agenda 2030	- Strengthen the territorial dimension of policies through the new TP - Provide external support through the new thematic partnership		- Consider the concept of 'functional regions' including 'cooperation and networking within and between cities, towns and their surrounding areas. - Focus on better ecological livelihoods, climate-neutral and resilient towns, - Promote sustainable land-use, open spaces and public green areas, restoring degraded land		
HEU Missions on 'Climate-neutral cities'	- Develop mission framework - Provide funding - Integrate mission objectives across different policy areas	- Align national policies with the mission objectives - Support the capacity building efforts	- 100 cities become climate-neutral and smart by 2030 - Involve citizens and business in the effort - Reduce urban environmental footprint - Establish innovative governance model and institutional partnerships and frameworks		- Support the climate-neutrality goal - Support the capacity building efforts
HEU Missions on "Adaptation to Climate Change, including Societal Transformation"			- Responsibility to adapt to and mitigate climate change in urban areas - 200 communities to develop solutions for transformative adaptation		
EU Urban Mobility Framework	Provide guidance for local action and offer cities a toolbox for sustainable mobility	National programmes to support regions and cities in the roll-out of sustainable urban mobility plans that would help achieve EU goals	Sustainable urban mobility plans (SUMP) promoting public transport and active mobility (cycling and walking) can be viewed from the perspective of synergies of greening cities with sustainable mobility		

Source: own elaboration

Multi-level governance and the greening cities theme

Against this backdrop, potential GCTP could provide a platform for direct communication between the EU level and local level in both directions. On one hand, the Commission can communicate policy and strategic matters to local level while on the other hand local level can inform new policies, EU level initiatives, etc. through a better understanding of the needs on the ground. At the same time, GCTP can address national level of governance in terms of better transposition of EU policies in Member States but also in terms of using national level as an intermediary and facilitator of local level deployment of solutions and thus provide a platform for direct communication between the EU level and local level in both directions. On one hand, the Commission can communicate policy and strategic matters to local level while on the other hand local level can inform new policies, EU level initiatives, etc. through a better understanding of the needs on the ground.

The greening cities theme as a link between different initiatives

One aspect of the functioning of the potential GCTP is the possibility to link up different relevant initiatives through the prism of greening the cities and serve as a knowledge exchange hub and also as a source of inspiration for better and more integrated funding. There are a number of relevant initiatives in the urban landscape. In most cases they address one specific urban topic (sustainable mobility, energy efficiency, air pollution, etc.) and are perceived to operate in silos by the majority of interviewed stakeholders. Sometimes, the silos have a reason for existing related to a necessary focus of an initiative but nevertheless, the need for integration remains. This shortcoming was also highlighted in the Assessment Study of the UAEU: "...the alignment between the UAEU and its TPs, and other relevant EU initiatives (such as the timing of URBACT calls for proposals) was limited. This results in a certain amount of "working in silos". There is room for improving the way the UAEU interacts with other relevant initiatives."

Hence, there is a need of a very good coordination between different initiatives in order to:

- optimise the offer to cities,
- improve the availability of funding and
- provide integrated and complementary knowledge.

The GCTP could be the catalyst to bring the needed elements together and take them back to the community.

A number of relevant initiatives are included in the figure below but the list is not exhaustive. Depending on the final choice of the thematic coverage of the potential GCTP the list of relevant initiatives could be reduced or extended.

Figure 7 EU level initiatives related to the Greening Cities topic



Source: own elaboration

4.2 Better outreach to different stakeholders

The Assessment Study of the UAEU noted that “the outreach to stakeholders who are not directly involved in the UAEU has been limited”. To overcome this shortcoming, it is of utmost importance that the potential GCTP reaches out efficiently and effectively to different stakeholders. The purpose is twofold and could cover the following issues:

- communicating products, deliverables, insights developed within the TP to other stakeholders.
- conveying needs, themes and other various feedback from the members of the TP to other stakeholders.
- communicating products, methodologies, toolkits developed by other stakeholders and relevant to the TP.

Effective outreach of stakeholders will also contribute to raising the profile and visibility of the UAEU, which according to the same study, “remains quite low”. The below Table 5 is an initial attempt to map the **most relevant institutional stakeholders for the greening cities theme**. Depending on the choice of thematic coverage the list of relevant stakeholders on EU level could be reduced or extended but an additional quick mapping exercise by its members will need to take place at the beginning of the TP.

Table 5 Relevant stakeholders and topics of mutual interest

Stakeholder	Topics of mutual interest
ESPON	- Territorial focus, work on green infrastructure
OECD	- Project about measuring contribution of regions and cities to the effort in terms of GHG reduction

European Urban Knowledge Network (EUKN)	- Relevant knowledge resources (publications, policy labs, etc.)
European Parliamentary Research Service (EPRS)	- Potential GCTP can feed EPRS with information and insights from its work
JRC	- Urban Data Platform Plus - City Science Initiative - connecting mayors and city officers with universities. Holding meetings where city officers meet with EC officers and universities.
ICLEI	- Focus on cities and city resilience, global coverage and possibility to be informed about global developments and solutions too - City-to-city connections, solutions, publications
Eurocities	- Developed in collaboration with its members, ICLEI and the European Commission on the concept of the Urban Greening Plans, specifically on the Guidance and Toolkit. The Guidance is expected to be published by the Commission in the coming months and will be the main reference document for the Urban Greening Plans
Relevant Horizon Europe missions	- Informs the missions on products, events, etc. A portfolio of best solution is available on Cortex database for all missions including the relevant ones. Some funding is available under the missions - Possible to complement the efforts of the missions as they focus on bigger cities and the Partnership can focus on SMC - Missions inform the potential GCTP on progress with mission implementation, innovative solutions, etc.
EIB	- Active two-directional communication with the purpose of improving access to funding of cities and also communicating city priorities and obstacles to EIB - Possible support to the cities through JASPERS
European Environmental Agency	- Sharing of data, publications, tools, etc.
EU agencies (REA, HADEA, etc.)	- Funding opportunities for research and innovation - Missions communicate the results and the solutions of H2020 and Horizon Europe projects in NBS, green and blue infrastructure, etc. Use the resources under climate-neutral cities website, REA website, innovating cities website, etc. - The Partnership provides inputs to R&I priorities in the covered topics
European Urban Mobility Observatory (ELTIS)	- Guidance and best practice for sustainable urban mobility planning - Networking between cities for peer-learning and knowledge exchange
Climate-KIC	- Toolkit for system innovation (urban strategic thinking)
URBACT	- Cross-fertilise each other's work, use toolkits, etc.
European Urban Initiative	- Integrated and participatory approaches to sustainable urban development

Source: own elaboration

The communication and outreach could be done in a structured way through a regular newsletter, through organisation of thematic talks or webinars or through mutual participation in events, presentation of deliverables, tools, etc.

4.3 Better outreach to a wider circle of cities. Feasibility of involving small and medium-sized cities. Bottlenecks.

The relatively less strong participation of cities of smaller sizes in the previous generations of TPs has been identified as an issue in the Assessment Study of the UAEU, and also mentioned by interviewees. This is also acknowledged in the MWP for the UAEU that highlights the need for stimulating the participation of the small and medium-sized cities (SMC) and recommends specific steps for that. The aspect of involvement of SMC of the partnership needs to be addressed by the GCTP from the beginning of its activities.

The low capacity of cities to participate in numerous partnerships and initiatives is highlighted as a main reason for that. The availability of an active secretariat of the TP and solid funding could increase the level of involvement of cities. During the consultations, it has been flagged that particular attention could be paid to Eastern European cities where these problems are even more acute.

Interviewees singled out several strategies for formulating a more attractive offer for stakeholders outside of the European institutions:

- **Establish a secretariat** of the potential GCTP which will provide ownership and have significant resources for direct work with the members of the TP;
- **Increase funding** for organising meetings, producing deliverables, etc. If possible, provide some seed funding to cities so that they can increase their capacities to participate in the work of the potential TP;
- **Improve the better knowledge component** through producing own hands-on proofed tools aligned with EC regulatory requirements and by providing easy access to tools and deliverables developed within other relevant partnerships and initiatives;
- **Improve the better regulation** component through providing concrete support to member cities in terms of implementing EU regulations on the ground and by reflecting their opinions in EC legislative efforts;
- **Improve the better funding pillar** by liaising between the member cities and sources of funding. Members should know that by participating in the potential GCTP they have better chances to fund their initiatives and projects.
- Consult cities and receive **feedback on what has been useful and successful** so that other SMC are attracted to join the partnership.

5 Policy environment

The chapter presents an analysis of the policy environment in relation to greening cities by looking into a wide set of EU policies relevant to the topic. The chapter also discusses issues of alignment and coherence.

5.1 Thematic linkages with global and EU policy agendas

There is strong alignment of the greening cities theme with several SDGs, a number of EU strategic priorities and EU urban policy priorities.

Looking at the global agendas, the urban governance aspects are specifically illustrated in SDG Goal 11 which emphasises the inclusive and sustainable urbanization and capacity for participatory and integrated planning and management. SDG 11 includes seven specific targets aiming at making cities and communities better places to live. One important target is to provide universal access to safe, inclusive and accessible, green and public spaces by 2030.

The **New Urban Agenda**²⁸ also promotes safe, accessible and green public spaces. Furthermore, the SDGs are integrated in the **European Green Deal**²⁹ which is a roadmap launched by the European Commission as a response to the EU obligations to tackle climate change and other environmental issues. A core part of the European Green Deal will also support a green recovery following the Covid-19 pandemic. The greening cities theme is in line with several of the policy developments outlined in the Green Deal on the topics of decarbonisation; zero pollution; water; just transition; greening budgets; the protection of the health and well-being of citizens from environment-related risks, increase of biodiversity in urban spaces and green European cities, etc. The National Recovery and Resilience Plans (RRPs) supported under the Recovery and Resilience Facility³⁰ are also well aligned with the EU Green Deal, containing measures that are expected to facilitate and accelerate the green and digital transitions in the Member States, while increasing resilience, cohesion and sustainable growth.

The idea, objectives and thematic priorities of the greening cities theme corresponds well with the overall objectives of EU urban policy, in particular with goal of the **Pact of Amsterdam** to strengthen the urban dimension of EU policies through better regulation, better access and use of European funds and better knowledge on urban issues. The “Green City” is an important field of action in the **New Leipzig Charter**³¹ which, also with the emphasis on the social and economic aspects (“the just city” and “the productive city”) defines the fundamental dimension of sustainable urban change.

The green city as per the New Leipzig Charter³²:

- “The transformative power of cities contributes to combatting global warming and to high environmental quality for air, water, soil and land use. The development of high-quality urban environments for all includes adequate access to green and recreational spaces.”

²⁸ <https://unhabitat.org/sites/default/files/2019/05/nua-english.pdf?msclid=02adac33b00011eca7af86e9a4c006a8>

²⁹ EU Green Deal

³⁰ https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en

³¹ https://ec.europa.eu/regional_policy/en/information/publications/brochures/2020/new-leipzig-charter-the-transformative-power-of-cities-for-the-common-good

³² idem

- “Cities are called on to protect and regenerate endangered ecosystems and their species and, to use nature-based solutions where high quality green and blue infrastructure can accommodate extreme weather conditions”. “Well-designed, managed and connected green and blue areas are a precondition for healthy living environments, adapting to climate change and preserving and developing biodiversity in cities.”

Cities can contribute substantially to a number of priorities of the **EC Work programme**, including such that are relevant to the sub-themes pertinent to greening cities. For example, green and blue infrastructure solutions are relevant to the follow-up actions on the **Zero-Pollution Action Plan** including in the areas of ambient air quality. Finally, commonalities can be highlighted with the **Territorial Agenda 2030** and its Green Europe priority which picks up the theme of better ecological livelihoods, climate-neutral and resilient towns, cities and regions through ‘the development of nature-based solutions as well as green and blue infrastructure networks’.

5.2 The urban dimension of climate and biodiversity crisis: synergies with EU strategic framework

There are direct linkages between the greening cities and the objectives, principles, targets and actions of several EU strategic documents that address climate and biodiversity challenges.

The **EU Biodiversity Strategy to 2030**³³, highlights that the biodiversity loss and climate crises are interrelated and require coordinated action which is also at the core of the greening cities theme. In particular, ecosystem restoration is seen as a key instrument and will be subject to ‘legally binding EU nature restoration targets in 2021 to restore degraded ecosystems, in particular those with the most potential to capture and store carbon and to prevent and reduce the impact of natural disasters’.

To systematically bring nature back to cities, the EU Biodiversity Strategy calls upon cities with over 20,000 inhabitants to develop **Urban Greening Plans (UGP)** by the end of 2021. These plans should include nature-based solutions that enhance biodiversity, such as urban forests, parks, green roofs, or street trees, to achieve the target of planting 3 billion trees by 2030. These actions will further help to improve connections between green spaces, limit biodiversity harmful practices and cool urban areas as recognised by the EU Biodiversity Strategy. Urban Greening Plans should also mobilise policy, regulatory and financial tools. Thus, a potential GCTP could be well positioned to contribute to the policy dialogue and address some of the questions related for example to technical knowledge, mainstreaming, implementation as well as governance, access to funding for nature-based solutions, etc. In addition, the Urban Greening Plans present an opportunity for the systematic integration of green infrastructure in urban planning structures, policy and practices across Europe, a theme that is linked to the greening of cities which can bring the bottom-up and urban perspective. Another entry point is the opportunity for collaboration and exchange with the EU Urban Greening Platform under a new ‘Green City Accord’ with cities and mayors which is envisaged to be set-up under the EU Biodiversity Strategy.

On the climate adaptation side, the EU has several policy frameworks in place to increase the resilience of European cities and their residents, including the EU Adaptation Strategy and the EU Biodiversity Strategy 2030, which are building blocks of the EU Green Deal. In particular, the **EU Strategy on Adaptation to Climate change**³⁴ aims to accelerate adaptation by developing solutions, moving from planning to implementing adaptation strategies and plans at all levels of governance, also increasing adaptation mainstreaming and a systemic approach for policy development. There are direct linkages of the greening cities theme with a number of climate change related topics such as: promotion of nature-based solutions for adaptation, and stimulation of local

³³ <https://climate-adapt.EEA.europa.eu/metadata/publications/eu-biodiversity-strategy-to-2020>

³⁴ <https://climate-adapt.EEA.europa.eu/eu-adaptation-policy/strategy>

adaptation actions to improve the science-based knowledge on climate risks, ecosystem restoration, and sustainable management for minimising risks, improve resilience, etc.

The role of green and blue infrastructure is widely recognised as part of the solutions for achieving better resilience as for instance in the **EU Green infrastructure strategy**. Realising this potential of green and blue infrastructure for their cooling effect and building resilience in cities is also at the core of the proposal for a GCTP. As cities and local authorities are on the frontline of dealing with the immediate consequences of climate-related hazards, the Strategy highlights their critical role in implementing prevention measures such as green infrastructure. Despite the progress made, in its the EC 2019 review of the EU Green Infrastructure Strategy³⁵, recommended that greater emphasis should be placed on the economic, social and other co-benefits arising from GI and ecosystem-based solutions and scaling-up the deployment of GI. Building the knowledge base on GI is another area where commonalities can be found with the greening cities in the direction of strengthening of the urban dimension.

The EU has been increasingly focused on afforestation and sustainable forestry due to their multifunctional role and contributing to adaptation requirements. This is an area that is of high relevance also for the cities. **The EU Forest Strategy**³⁶ includes measures for strengthening forest protection and restoration, enhancing sustainable forest management, and improving the monitoring and effective decentralised planning on forests in the EU. A roadmap for planting an additional three billion trees by 2030 is also included in the strategy. There are synergies between these objectives and the opportunity of GCTP to contribute to their integration at urban level.

The greening cities theme also has parallels to the objectives of **the European Climate Law** which calls for continuous progress in enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change.

Besides contributing to climate and biodiversity objectives the uptake of green and blue infrastructure and NBS has positive impact on other policy areas which illustrates the multiple benefits of greening the cities. For example, greening cities can contribute to reducing air, water and soil pollution which is at the core of the **EU Zero Pollution Action Plan**³⁷. Several flagships included in the plan are of thematic relevance to the greening cities theme, e.g. the identification of key urban greening and innovation needs to prevent pollution, promotion of depolluted and re-naturalised sites as potential public green areas in the new Soil strategy and in all urban greening actions. In the construction sector the integration of NBS is seen as one of the ways to make the construction ecosystem fit to deliver sustainable renovation as per the **Renovation Wave Strategy**. There are indirect links between the greening cities theme and other EU strategic documents. For example, the linkages with the themes addressed in the Long-term Vision for Rural Areas can be found in reference to the challenges faced by the **peri-urban areas**, which are a transitional zone between the city and countryside and are usually characterised by diverse land uses: sustainable planning of peri-urban areas; governance aspects. Links with the **European Pillar of Social Rights (EPSR)** resonate with the need to 'integrate biodiversity and ecosystems in education and training' which is aligned with the better knowledge pillar. With regards to **EU Digital Strategy**, it would be relevant to explore the link between increasing digital skills of cities and their capacity to green them.

Considering the above the alignment of the greening cities theme with EU headline priorities as well as the policy urban framework based on "transformative power of cities" (New Leipzig Charter, 2020) is clear and indisputable. Further elaboration on the link between global and EU strategic and policy frameworks and the scope of the greening cities theme, both as outlined in the exploratory proposal but also in the context of a wider interpretation of this theme can be found in [Annex 3: Relevant policy](#)

³⁵ https://ec.europa.eu/environment/nature/ecosystems/index_en.htm

³⁶ https://ec.europa.eu/info/sites/default/files/communication-new-eu-forest-strategy-2030_with-annex_en.pdf

³⁷ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0400&qid=1623311742827>

and strategic documents. Finally, there are a number of EU-level partnerships and initiatives that are very relevant to the greening cities theme as illustrated in **Table 6**.

Table 6 The landscape of EU-level partnerships and initiatives relevant to the greening cities theme

	Thematic coverage	Better knowledge elements	Better regulation elements	Better funding elements	Links with the greening cities theme
Green City Accord	Air pollution, waste management, nature and biodiversity, quality of water bodies, noise	Knowledge exchange opportunities Capacity building and peer learning	Implement integrated policies in these areas	Improved information on access to financing	Through the thematic coverage and through focus on integrated solutions
Covenant of Mayors	Energy efficiency, urban adaptation, energy poverty	Online and offline support	Adoptions of Sustainable Energy & Climate Action Plans	Support to access financial sources for CoM members	Through the wider topic of greening cities
New European Bauhaus	Buildings, ecosystems and biodiversity, resilience	Projects and ideas	NR	Available funding opportunities	Through the biodiversity and resilience component
Climate Adapt	Climate change adaptation	Country case studies Adaptation support tool Country profiles Publications and reports	Big database of relevant policies	Resources on available financing	Through the climate adaptation focus
EU Climate Pact	Climate change mitigation and adaptation: green areas, transport, buildings, skills	Sharing knowledge	Bottom-up participation is at the very core of better regulation	NR	Through the green areas topics (in case of narrow focus) and buildings and transport (wider focus)
Zero Pollution Stakeholder Platform	Air, water, soil and noise pollution; health and well-being;	Knowledge exchange, thematic talks, publications	Focus on enforcement and implementation	Information on funding opportunities for zero pollution objectives	Close links possible both through the flagship initiative of the platform “ Supporting urban zero pollution actions ”
European Year of Greener Cities	Climate mitigation, agriculture	Toolkits, webinars	Input to EU policy making	NR	Through the GI angle

Future of Cities Platform	The concept of a resilient city Adaptation to climate change Urban governance	Sharing knowledge	Tools to design, implement and monitor strategies for urban and territorial development	NR	Through the climate adaptation focus, urban governance aspects
Smart Cities Marketplace	Energy efficiency, renewables, smart cities, buildings	Sharing of solutions	NR	Matchmaking with investors	Weaker links in case of Option 1 and strong links in case of option 2
The European Urban Initiative	Environmental and climate challenges in urban context	Knowledge exchange opportunities EUI will contribute to the implementation of actions towards better knowledge related to EU policies.	EUI will contribute to the implementation of actions towards better regulation, related to EU policies.	EUI will contribute to the implementation of actions towards better funding related to EU policies.	Through environmental and climate aspects; urban governance aspects
EU Mission Climate -Neutral and Smart Cities	Climate neutrality	Sharing knowledge, best R&I practises and solutions to achieve the first climate neutral cities by 2030	Support relevant EU policies to climate neutrality	Horizon Europe calls to implement the objectives on the ground	Through climate neutrality, through the H2020 knowledge platform on smart and green cities
New EU Urban Mobility Framework	Sustainable mobility	Knowledge on healthier and safer mobility practices	Increase the role of walking and cycling in the updated SUMP guidance; Review of the 19 sustainable urban mobility indicators	Stronger link between SUMPs and funding instruments Priority to urban mobility projects that are backed by SUMP ³⁸ s Support for sustainable urban mobility investments	Through the emphasis on easier and more attractive options for active mobility such as walking and cycling

³⁸ Sustainable Urban Mobility Plans

Driving Transitions to a sustainable future³⁹	Multi-functional use of green spaces Sustainable urban mobility	Strong focus on knowledge sharing regarding restoring natural capital and increase the use of multi-functional greening approaches Establishment of local innovation platforms	Tbd	Through the facilitation of an exchange among different national and regional funding agencies	<p>The focus area 'Circular Urban Economies Transition Pathway' – focus on the restoration of natural capital and the use of multi-functional greening approaches.</p> <p>15-Minute City Transition Pathway (15minC) aims to foster sustainable transitions in urban mobility</p>
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³⁹ Partnership under Horizon Europe Programme to be launched soon

6 Regulatory Environment

The purpose of the analysis within the regulatory environment criterion is to assess if and how the proposed GCTP could contribute to the better regulation dimension of the work of the European Union and the Member States. In addition, the analysis addresses the issue of integrating urban issues and urban impacts in policies.

6.1 Better regulation pillar in the context of greening cities

The overall goal of the EU Better Regulation agenda is to ensure:

- evidence-based law-making.
- transparent law-making.
- that views of those that may be affected are taken into consideration.
- that laws are 'delivered where it matters most'.

Therefore, in order to contribute fully to the Better Regulation dimension, the TP should integrate in its work programme the following **approaches to addressing different dimensions of Better Regulation**.

Table 7 Dimension of Better Regulation under the greening cities theme

Dimension of Better Regulation	Strategy for the potential GCTP
Evidence-based law-making	<ul style="list-style-type: none">- Contribute to the development and strengthening of evidence-base and need identification especially with regards to small and medium cities- Cities should receive support for generating better data
Transparent law-making	<ul style="list-style-type: none">- Communicate to and consult with the potential GCTP any future law-making initiatives within the covered topics which the Commission will undertake during the functioning of the Partnership
Views of those that may be affected are taken into consideration	<ul style="list-style-type: none">- The potential GCTP can make sure that the views of the stakeholders involved in it are collected, processed and taken into consideration during the drafting of relevant EU policy
Laws are 'delivered where it matters most'	<ul style="list-style-type: none">- Through emphasising the centrality of the multi-level governance principle, the potential GCTP can explore how each of the relevant laws and strategies could be implemented optimally, in the most effective and efficient manner, at the right governance level. While certain aspects could be decided upfront these efforts should be ongoing and should be integrated in the way of functioning of the partnership.

6.2 Synergies with other platforms, programmes and initiatives

Fit for Future Platform and RegHub2 Group

In practice, the potential GCTP could establish narrow collaboration with the **Fit for Future Platform** as a part of the Commission Regulatory fitness and performance (REFIT) programme and especially with the **RegHub2 Group** which is the Network of Hubs for EU Policy Implementation Review. The goal of the collaboration would be to collect the insights of the partnership members (especially SMC)

during the evaluation of the implementation of relevant policies. The assumption is that quality of EU regulation depends on the quality of local input and feedback. The input would be in the direction of simplifying EU laws and reducing unnecessary costs. This is particularly important for local and regional authorities as they implement 70% of EU legislation⁴⁰. Although the work of the subgroup is relevant in principle, **the 2022 work programme does not contain legislation of relevance to the greening cities theme**. Only the topic of food waste is indirectly relevant to the wider thematic focus.

Work Programme of the Commission 2022

One of the main objectives of the Commission legislative work programme is the 'acceleration of the twin green and digital transition achieving climate neutrality by 2050 and building a fairer and more resilient society'. The Commission intends to 'create regulatory framework for the **certification of carbon removals**, to scale up the deployment of sustainable carbon removals and to create a new business model rewarding land managers for such practices'. The potential GCTP is well-placed to inform this work through the Fit for Future Platform and/or through other types of consultations.

Other initiatives relevant to greening cities include:

- Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL **on European green bonds** COM(2021)391 final 2021/0191 (COD) 06.07.2021 as significant funds will be needed to deploy green and blue infrastructure.
- Revision of the **urban wastewater treatment Directive** with focus on better tackling remaining and emerging pollution, and improving the governance of the sector while better connecting it to the European Green Deal objectives. Public health considerations will also be included. (Q2/2022)
- Revision of EU ambient **air quality legislation** (legislative, incl. impact assessment, Article 192 TFEU, Q3 2022)⁴¹

Zero Pollution Action Plan

It is important that the potential GCTP gets involved in the implementation of the **Zero Pollution Action Plan**. This could happen through establishing a partnership with the Zero Pollution Stakeholder Platform that has started recently. The GCTP is potentially in a good position to contribute to the **Year of Greener Cities**; and the identification of key urban greening and innovation needs to prevent pollution. The flagship on promoting depolluted and re-naturalised sites as potential public green areas is also of common interest and the GCTP could harness the efforts of the members to contribute but also make sure that they have the necessary capacities for that. The potential GCTP can also contribute to the work on redressing social inequalities to an equitable access to green infrastructure. At the same time, GCTP can benefit from the monitoring and outlook tool. GCTP can also contribute to the: implementation of Flagship 6 'Showcasing zero pollution solutions for buildings' as far as GI is concerned.

Just transition

It is also extremely relevant that the potential GCTP contributes to and informs the mobilisation of resources for **just transition** both within and beyond the Just Transition Fund and the proposed Social Climate Fund especially with regards to biodiversity spending. It has been noted by DG Environment that the GCTP would support the delivery of environmental obligations locally only if the coverage is extended to reflect the priorities identified in the Zero Pollution Action Plan hence the need to make it extensive. As work on better regulation is a part of the Commission Work Programme, members of the GCTP can support the Commission in assessing the new burdens and costs entailed by new legislation so that in the end they are feasible and proportionate. In addition, as pointed out by DG Environment, the Commission is undergoing a revision of the EU air quality legislation and input will be sought from cities across Europe.

⁴⁰ <https://cor.europa.eu/en/news/Pages/F4F-plenary.aspx>

⁴¹ https://eur-lex.europa.eu/resource.html?uri=cellar%3A9fb5131e-30e9-11ec-bd8e-01aa75ed71a1.0001.02/DOC_2&format=PDF

6.3 Strengthening the national regulatory framework related to greening cities. Bottlenecks on a national or subnational level.

In the spirit of better regulation and multi-level governance the potential GCTP can be instrumental in supporting Member States in strengthening relevant EU strategic and policy frameworks on national and urban level. These would cover policies with urban dimensions in general, the Biodiversity Strategy, the Green Infrastructure Strategy, the Soil Strategy, the Climate Adaptation Strategy and the Zero Pollution Action Plan. Often, the legal framework has to be adapted on a national level but needs to be closely coordinated with the local level. In addition to the better regulation GCTP could improve knowledge and also the process of coordination.

With regards to the **Biodiversity Strategy**, cities need to take up a dominant role in protecting and restoring ecosystems and incorporating biodiversity considerations into their urban planning and the Partnership can play a role in it. Cities above 20,000 inhabitants also need to draft and adopt **Urban Greening Plans** with the purpose of creating biodiverse and accessible urban forests, parks and gardens; urban farms; etc. The potential GCTP can provide hands-on advice on both issues by improving capacities (especially of SMC) for drafting these plans. The EU Nature Restoration Plan within the Strategy actions and targets needs to be implemented throughout the whole territory and the TP could have a role in supporting cities for better integration.

The issue of NBS is central to the **Green Infrastructure Strategy** and could be considered by the potential GCTP in close collaboration with the Thematic Partnership on Sustainable Use of Land and Nature-based Solutions to avoid overlapping.

With regards to the **Climate Adaptation Strategy** national, regional and local authorities need to be fully aligned and the TP may have a role in this coordination effort especially as far as the implementation of blue-green NBS including no-regret solutions. It could also play a role in increasing the capacities of cities to mainstream climate resilience in all possible sectors relevant to the city such as infrastructure, transport, etc.

It has been underlined by DG Environment that greening cities theme may extend the thematic coverage to the themes covered under the **Green City Accord (GCA)** with the aim of supporting its implementation and contributing to reporting obligations. In line with the better regulation the GCA aims to accelerate the implementation of relevant EU environmental laws. The GCA goals are in line with the greening cities theme namely with regards to the improvement of air quality in cities; conserving and enhancing urban biodiversity, including through an increase in the extent and quality of green areas in cities; and reduction in noise pollution⁴². Partnership with GCA is very relevant as the initiative also functions in a multi-stakeholder fashion and makes use of innovative co-design process involving citizens, experts, businesses, as well as policy-making institutions.

Funding

In general, the potential GCTP is well-placed to support Member States and regional and local authorities in making a bridge to funding opportunities. The GCTP could also support cities in improving knowledge in integrating green and blue infrastructure dimensions in **Integrated Strategies and Plans for Sustainable Urban Development** and **Integrated Territorial Investment Strategies and Action Plans**. Links could be established with sector-specific strategic documents and with Regional Innovation Strategies. For example, this could be done through using the Self-Assessment Tool for Sustainable Urban Development strategies (SAT4SUD) developed by the JRC. It is designed for Local Authorities and national and regional Managing Authorities of EU Cohesion Policy, in charge of building or updating sustainable urban development strategies – better alignment with EU Funding and Programmes. Besides improving the better regulation pillar of the UAEU this

⁴² <https://op.europa.eu/en/publication-detail/-/publication/cc585ccd-3b0c-11e9-8d04-01aa75ed71a1/language-en>

would also enhance the better funding pillar. In addition, support could be provided to cities in the development of Local Green Deals, City Contracts, etc.

City budgets are means for implementing EU priorities therefore greening city budget could also be within the mandate of the potential GCTP. It has been underlined by DG REFORM that greening budgeting tools could be rolled out to ensure efficient use of public resources for the implementation of greening city actions. Local green budgets are an important part of the implementation of the European Green Deal on sub-national level.

7 Gaps and recommendations

The chapter presents gaps that were identified in relation to the greening cities topic, thematic linkages and synergies with several first-generation partnerships under the UAEU outlined vis-à-vis the three pillars of the UAEU (Better Regulation, Better Knowledge and Better Funding). The chapter also includes reflections and suggestions for the thematic scope of the greening cities.

7.1 Gaps

Despite the progress made with the development of green and blue infrastructure, in its **2019 review of the EU Green Infrastructure Strategy**⁴³, the EC concluded that the deployment of GI needs to be further scaled up. The Commission has urged European policy makers to engage in a more strategic approach, in mainstreaming GI in their development policies and in a better use of the EU funding instruments. Gaps and needs relevant to greening cities identified in this report include:

- Despite the fact that there are a number of existing guidance documents on GI, the knowledge base for green infrastructure needs to be further improved.
- The integration of GI into appropriate EU funding mechanisms has provided new opportunities; however, the uptake is still too limited. There is a need to improve awareness of existing opportunities, and to provide information on how to combine different sources for more strategic and integrated GI projects.
- More could be done including at city level to highlight the multiple benefits GI can provide to climate change mitigation and adaptation, directly through e.g., carbon sequestration, and indirectly by reducing energy demands and pollution through GI-related active transport (such as cycling and walking), mitigating heat island effects and reducing the needs for cooling and heating of buildings through green roofs and green walls;
- In EU health policy, despite many studies demonstrating the positive link between GI and human health, GI is not widely used by decision-makers and stakeholders as a cost-efficient solution to health issues. Good practices promote a holistic approach to GI and human health need to be scaled up. With regards to water sector the an ex-post assessment of the operational programmes has suggested that in spite of some progress, more needs to be done to promote strategic and integrated programmes; and that planning of larger-scale GI and natural water retention measures could provide benefits for water quality, protect against floods and deliver on biodiversity objectives.⁴⁴

7.2 Linkages with previous thematic partnerships and identified synergies

Several of the previous thematic partnerships Figure 2 Thematic partnerships delivered in the first phase of the UAEU have included themes that are relevant for greening cities, and this was highlighted in the Linking matrix created for the greening cities theme at the UAEU workshop held in October 2021. The earlier generation of partnerships with more explicit links to greening cities are:

- Thematic partnership **on sustainable use of land and nature-based solutions**⁴⁵

⁴³ https://ec.europa.eu/environment/nature/ecosystems/index_en.htm

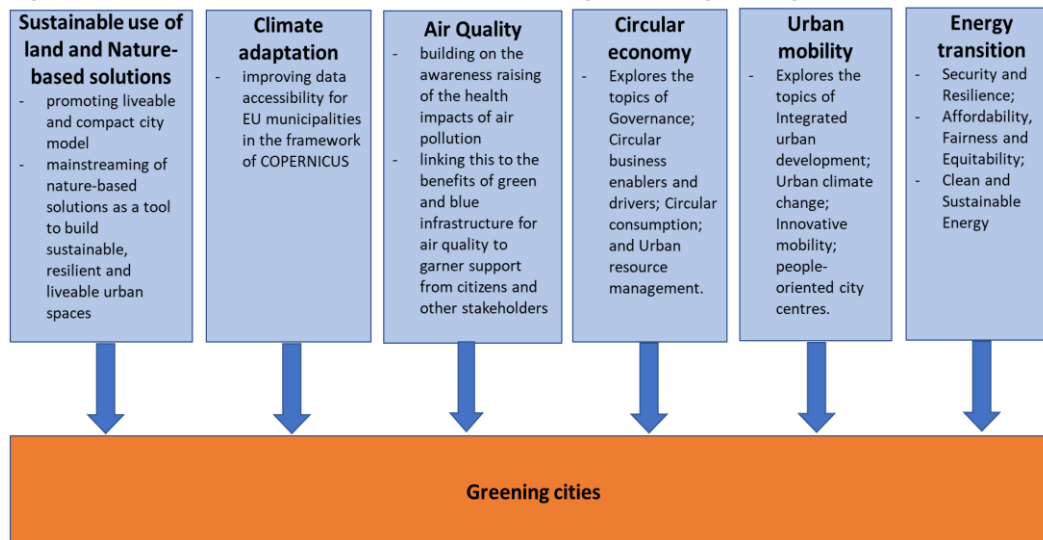
⁴⁴ Natural water retention measures can help to slow down the flow of storm water, increase infiltration and reduce pollution through natural processes.

⁴⁵ <https://futurium.ec.europa.eu/urban-agenda/sustainable-land-use/library/final-action-plan-sustainable-use-land-and-nature-based-solutions-partnership>

- Thematic partnership **on climate adaptation**⁴⁶
- Thematic partnership **on air quality**⁴⁷

Wider thematic linkages can be also found with the thematic partnerships on circular economy, energy transition and urban mobility.

Figure 8 Previous thematic partnerships with linkages to the greening cities



Source: Own elaboration

The **TP on sustainable use of land and nature-based solutions**⁴⁸ aimed at promoting the liveable compactness city model and mainstream and promoting NBS for a more resilient and liveable urban space. There are direct links between this partnership and the greening cities illustrated through the following actions of the TP on sustainable use of land and NBS:

- Action 6: Better regulation to boost NBS at European, national and local levels
- Action 7: Better financing of NBS
- Action 8: Awareness raising NBS and urban sprawl
- Action 9: Agreeing on common target and indicators for NBS, urban green infrastructure, biodiversity and ecosystem services in cities.

The correlation of the greening cities theme with this TP is undeniable as NBS by definition encompass also GI. As the TP on land use and NBS focused on a specific thematic area of NBS, i.e., the reduction of land take, redevelopment of underutilised brownfields through NBS, there is no evidence of overlapping between the activities of this TP so far and the greening cities. On the contrary, the EEA has identified opportunities for synergies, exchange and collaboration. For example, the TP on land use identified several challenges that were not addressed as part of the activities of this partnership but are relevant to the scope of the greening cities. These include redefining the basis of city infrastructure in the context of climate change, NBS for climate-related challenges, mainstreaming green and blue infrastructure in spatial planning policies. To avoid duplication of work, it will be important that there is strong coordination between the two TPs.

⁴⁶ <https://futurium.ec.europa.eu/urban-agenda/climate-adaptation/action-plan/climate-adaptation-action-plan>

⁴⁷ <https://futurium.ec.europa.eu/urban-agenda/air-quality/action-plan/air-quality-final-action-plan-now-available>

⁴⁸ - <https://futurium.ec.europa.eu/urban-agenda/sustainable-land-use/library/final-action-plan-sustainable-use-land-and-nature-based-solutions-partnership>

Also, there are several outputs of the TP on land use and NBS that are valuable sources of knowledge and inspiration for GCTP and can be explored. These include a guidebook on land take and soil properties in impact assessment procedures; indicators for NBS, Urban Green Infrastructure, Biodiversity and Ecosystem Services; and recommendations that can be used to intensify the implementation of NBS and to increase the visibility of NBS in OPs.

The **TP on air quality** aimed to improve air quality in cities and bring the 'healthy city' higher on the local, national and EU agendas as part of the UAEU. The following actions are of relevance for the greening cities theme:

- Action 4 – Better focus on the protection and improvement of citizen' health
- Action 2 – Better air quality planning (governance)

Complementarities between this partnership and greening cities theme can be seen with regards to the knowledge gaps in integrating green and blue infrastructure elements into policies pertinent to public health. In particular, Action 1 is linked to greening cities as it opened possibilities for considering green and blue infrastructure, while Action 2 is relevant as it emphasised the coordination of air policy with other policy areas including urban planning.

This **TP on air quality** addresses indirectly the relation of air quality issues and urban regeneration, for example on actions where there is or should be a connection between air quality and urban planning. Identified challenges that have not been addressed so far by the TP are about funding mechanisms that require integration of green and blue infrastructure in projects on air quality, and urban regeneration policies integrating green aspects. These are areas that could be of mutual interest for both TPs.

The main focus of the **TP on climate adaptation**⁴⁹ was on: "vulnerability assessments, climate resilience and risk management (including the social dimension of climate adaptation strategies)." The scope of this partnership is very relevant for the greening cities theme, in particular through Action R1: Analysis of national multilevel urban development and planning regulations with focus on climate adaptation.

Insights from greening cities could be integrated into the templates for the elaboration of local climate adaptation strategies (a gap outlined under the TP on climate adaptation). Promoting spatial development planning instruments for greening the cities is an area that is very relevant for the greening cities as the approach will support cross-cutting of urban adaptation with green solutions and will help addressing the challenges with existing urban planning regulations, strategies and tools.

Among the areas that were also pointed out by this TP and can be of relevance for greening cities are the lack of effective participatory tools for multilevel governance and the need to improve access to funding for climate adaptation in cities.

Finally, it can be said that commonalities between the three TPs and the greening cities can be found with regards to the three pillars of the UAEU. Undoubtedly, the results achieved so far by these partnerships need to be carefully captured, analysed and considered when the new GCTP is designed. This process of identifying commonalities across the TPs is essential and will contribute to capitalising the accumulated knowledge, breaking down the silos and establishing thematic areas for further collaboration across the thematic partnerships. The process also requires dialogue and coordination from the partnership members. Some of the partners that led actions and outputs of relevance can have a more active role and facilitate the exchange and coordination. This is also in

⁴⁹ - <https://futurium.ec.europa.eu/urban-agenda/climate-adaptation/action-plan/climate-adaptation-action-plan>

line with the recommendation of the Multiannual Working Programme for the UAEU that “the best use of knowledge should be secured”.

As the greening cities theme has the potential to contribute to a wide range of urban policy areas such as energy, sustainable mobility, etc. It needs to be noted that there are indirect links with other TPs, for example with regards to sustainable tourism theme as parks and green areas make cities more attractive for tourists and can add to their experience.

7.3. Thematic directions for the Greening Cities Thematic Partnership

Framing the scope of the potential GCTP is essential for this EAA. The explorative proposal suggests a thematic focus on green and blue infrastructure in an urban context and between cities which was confirmed during the EAA consultation process. Biodiversity and climate change can be the entry points on how greening the cities support ecosystems and build resilience⁵⁰. Besides, linking the biodiversity and climate crises could be a good steppingstone to mainstreaming green and blue infrastructure into other sectors (mobility, agriculture, buildings, etc.). Crucially for cities, collaboration will be needed between national and local level to align national level Biodiversity Action Plans with the urban greening plans, especially in terms of knowledge and funding for long-term maintenance, which is an issue for bigger and smaller cities.

Based on the literature review and the stakeholder interviews, as well as the linking matrix created for the greening cities within the UAEU workshop of 6 October 2022, the EAA proposes a list of GI-related topics that can be taken into consideration for defining the scope of the GCTP. These are elaborated on the way they could be addressed concretely by the potential GCTP. Moreover, a brief analysis of the state of play has been made giving an indication of the city needs for addressing different GI-related topics. In addition, the contribution of addressing the different themes to the EU policy implementation has been indicated together with the funding sources.

Exploring the diversity of green and blue infrastructure solutions on the basis of good practices is an important element of better knowledge aspect. The link to concrete pieces of EU legislation and funding instruments is key. Additional knowledge on the costs and benefits (economic, social and environmental) of individual solutions could be generated with the TP. What could be of high interest is how the knowledge (and data) of these benefits are communicated to various stakeholders with the goal of adopting GI solutions vis-à-vis other alternatives.

While green and blue infrastructure are important, they alone are not sufficient for achieving a healthy, clean and green urban environment. Therefore, the integration of green and blue infrastructure into other sectors is of high relevance to the TP as this will enlarge the thematic perspective taken by it and will ensure a better correspondence to the greening cities title of the partnership. It would also probably be better adapted to the expectations of future members of a more holistic approach to the topic. These links are presented below in **Table 8**.

In addition, the topics have been elaborated with regards to the alignment of individual themes to UA priorities better knowledge, better regulation and better funding. While the majority of the themes naturally belong to the better knowledge pillar, the EAA suggests a sufficient number of better regulation and better funding themes, thus addressing the shortcoming identified in the Assessment Study of the UAEU that “relatively few actions focus on better regulation or better funding compared with better knowledge”.

⁵⁰ Interviews

An initial prioritisation has been made in **Table 9** with regards to the relevance of the individual themes to the greening cities. Nevertheless, the final selection of themes will be made by the TP members.

Table 8 Topics related to green and blue infrastructure; state of play and bottlenecks; contribution to EU policy and funding frameworks

Topic	Current state of play	Thematic bottlenecks vis-à-vis the three pillars of the UAEU	Contribution to EU policy	EU funding
Types of green and blue infrastructure	<ul style="list-style-type: none"> - The state of play is different for the different types of GI. - Detailed map of urban green infrastructure is a key for informed decision-making. Few cities make use of European wide or even national datasets for supporting local decision making. (EnRoute project) - 	<ul style="list-style-type: none"> - Scattered data exist on the uptake of individual solutions (see report on urban agriculture) - Better knowledge - Opportunities embedded in the various EU financing instruments have not yet been fully exploited (better funding) - Insufficient integration of GI in spatial planning (better regulation) - Detailed and locally collected spatial data are needed to integrate urban green infrastructure in policy (better knowledge and better regulation) 	<ul style="list-style-type: none"> EU Green Infrastructure Strategy EU Climate Change Strategy EU Biodiversity Strategy (incl. Urban Greening Plans) EU Forest Strategy 	<ul style="list-style-type: none"> GI and ecosystem-based adaptation as a cost-effective alternative or a complementary measure to grey infrastructure and intensive land use change. European Regional Development Fund
Exploring the benefits of GI in an urban context: <ul style="list-style-type: none"> - Environment (habitats, connectivity, clean air, etc.) - Society (health, well-being, recreation, etc.) - Economy (tourism, job creation, livelihood, etc.) 	<ul style="list-style-type: none"> - Multiple projects and reports explore impacts and benefits of different types of GI on environment, society and economy. - Demonstrating the benefits of urban green infrastructure requires linking ecosystem data with socio-economic statistics. (EnRoute project) - Meeting target 2 of EU Biodiversity Strategy and restoring Natura 2000 to favourable status could further generate respectively up to 50 000 and 140 000 jobs; and up to EUR 4.2 and 11.1 billion of direct outputs annually; as well as a wider range of benefits from ecosystem services (COM:2019:236: FIN). 	<ul style="list-style-type: none"> - The fact that benefits are difficult to quantify while costs are visible is a significant issue (better knowledge) - Insufficient knowledge on integrating green and blue infrastructure dimensions in strategies and plans for Sustainable Urban Development and Integrated Territorial Investment Strategies (better funding) - Insufficient information on local level regarding biodiversity within cities (better knowledge) 	<ul style="list-style-type: none"> EU water regulation Disaster and risk prevention Health and consumer policies Water Framework Directive (WFD) Marine Strategy Framework Directive (MSFD) EU policy framework in energy efficiency, built environment, sustainable mobility, etc. 	<ul style="list-style-type: none"> European Agricultural Fund for Rural Development Life Programme Common Agricultural Policy Natural Capital Financing Facility (NCFF) BiodivERsA ERA-net co-fund
Integration of green and blue infrastructure into other sectoral policies: <ul style="list-style-type: none"> - Built environment - Transport - Urban Agriculture - Energy - Health - Air 	<ul style="list-style-type: none"> - In many Member States, objectives or requirements specifically related to GI are included in broader biodiversity and nature conservation policies and legislation (COM:2019:236: FIN) 	<ul style="list-style-type: none"> - Insufficient Integration of different types of GI solutions into local plans, sectoral plans regulations, etc. (better regulation) - Insufficient scaling up of good practices of integration of GI into sectoral policies – better regulation - 	<ul style="list-style-type: none"> Cities Mission 	<ul style="list-style-type: none"> Horizon Europe (e.g., Mission on Climate Neutral and Smart Cities)

	<ul style="list-style-type: none"> - Interviewed stakeholders have pointed at significant margins for improvement 	<ul style="list-style-type: none"> - GI is not widely used by decision-makers and stakeholders as a cost-efficient solution to health issues (COM: 2019:236:FIN) (better knowledge) - Good practices on GI in transport are sporadic (COM: 2019:236:FIN) – better knowledge 		
<p>Implementation of green and blue infrastructure:</p> <ul style="list-style-type: none"> - Quality of design and aesthetics of green public spaces - Quality of implementation 	<ul style="list-style-type: none"> - Increasing number of cities acknowledge that the quality of urban spaces and places, including the green ones contributes fundamentally to our well-being and makes cities more beautiful, inclusive and sustainable. - 	<ul style="list-style-type: none"> - There is no systematised information on the quality of different types of GI across EU cities – better knowledge - GI solutions are not used to their full extent and their potential should be further strengthened at EU level (COM: 2019:236:FIN) better knowledge 	<p>New Leipzig Charter</p> <p>EU GI Strategy</p> <p>EU Climate Change Strategy</p> <p>EU Biodiversity Strategy</p> <p>EU Forest Strategy</p> <p>EU Water regulation</p> <p>Disaster and risk prevention</p> <p>New European Bauhaus</p> <p>Renovation Wave Strategy</p>	

With regards to **suitability of green and blue infrastructure as a focus of the potential GCTP** , further analysis of the topic in an urban context is presented in the table below from the perspective of its relevance to city needs, coherence with other thematic partnerships, coherence with other initiatives, possibilities to focus (relative to the available resources and time), attractiveness to cities, impact on cities and integrated approach. This analysis provides an additional justification of the relevance of the green and blue infrastructure as central for the greening cities theme.

Table 9 Analysis of the green and blue infrastructure topic

Relevance to city needs	<ul style="list-style-type: none"> - Biodiversity at city level is not sufficiently addressed. - There are gaps in expertise on the topic, hence there is a possibility for the TP to contribute to the knowledge base; - Very relevant as green and blue infrastructure have huge potential to respond to biodiversity and climate changes that cities face; - Linkages of greening cities theme to other policy areas should not be excluded (to the extent possible) as greening of cities is a holistic concept.
Coherence with other thematic partnerships	<ul style="list-style-type: none"> - There are linkages with the partnerships on air quality, sustainable land use and NBS, adaptation to climate change which could be further explored to achieve synergies. - Avoids overlaps with urban mobility, energy transition and circular economy
Coherence with other initiatives	<ul style="list-style-type: none"> - Green and blue infrastructure are not explicitly addressed in other initiatives - A relatively narrow thematic focus with strong transversal links would optimise coherence with other initiatives
Possibilities to focus (relative to the available resources and time)	<ul style="list-style-type: none"> - Good overall concentration of resources and time. - Certain resources and time need to be spent on links with other sectors
Attractiveness to cities	<ul style="list-style-type: none"> - Clearly delineated topic - Does not provide fully holistic approach and coverage of the greening cities topic
Impact on cities	<ul style="list-style-type: none"> - Multiple economic, social and environmental benefits such as contributing to a healthier and more resilient urban environment; better connecting people to the natural environment in cities and peri-urban areas, etc.
Integrated approach	<ul style="list-style-type: none"> - Green and blue infrastructure solutions integrated in the climate and biodiversity policies. - Multiple benefits of green and blue infrastructure achieved when integrated in wider range of policy areas. - Better use of integrated spatial planning processes, improved capacity of decision-makers and improved cross-sectoral cooperation essential for mainstreaming of GI in other policy areas

Finally, a number of **horizontal questions** for the greening cities theme have been suggested during the stakeholder consultation under this EAA. The issues/questions summarised below correspond to the identified gaps and are not necessarily linked to specific themes. These can be taken into account and further explored by the potential GCTP.

Table 10 Horizontal themes of relevance

Gap	Response within the greening cities theme	Description and examples
Lack of vision	Address the issue of creating vision for greening cities	Inspiring examples of vision that led to transformative changes in cities that could serve as a mode for others
Difficulty in prioritising greening in cities	Propose strategies and tools for prioritisation of green actions	Existing strategies for prioritising green solutions (NBS, green infrastructure, etc.) vis-à-vis grey solutions
Benefits of greening not properly communicated	Propose communication strategies and models	Strategies of communicating with citizens, companies, etc.
Insufficient awareness of citizens of these benefits		Storytelling as a powerful tool
Lack of knowledge on innovative business models for greening cities	Share positive examples of business model innovation	Introducing new business models and practices (e.g., switching to green procurement)
Insufficient efforts for capacity building for green cities	Share approaches and tools for capacity building esp. in small municipalities	Support of climate coaches; building sustainable communities; using structural funds to build greening capacities, etc.
Insufficient citizen engagement in greening cities	Share approaches and tools for citizen engagement	Need for an inclusive perspective, ensuring buy-in for greening
City budgets not sufficiently green	Sensitize regions and cities on the opportunities of using green budgeting practices	Propose tools for greening city financing Discuss how to avoid brown financing
Greening cities may lead to social issues	Discuss just transition issues, solutions, etc.	By implementing the objectives of the EUGD no more poverty should be created. Address the issue of affordability. Explore the link between the chosen themes and just transition questions
Insufficient access to information for SMC	Proposed concrete, hands-on, tailored knowledge base, esp. for SMC	By sharing good examples for addressing specific challenges very much present at the level of SMC urban areas

SMC underrepresented in terms of funding for greening	Address the issue of better access to funding for SMC	May happen through bundling of projects, and thus achieving cumulative impact, etc.
Lack of concrete blueprints and tools	Develop easy blueprints and guidelines	Offer something easy that will facilitate change by asking the question on what you need to convince your administration.

Source: Interviews

8 Trends and evidence about EU cities

This chapter provides information about the trends and evidence about cities related to the greening cities topic aiming to establish evidence-based perspective supporting further development of actions.

8.1. Trends

The greening cities theme reveals the inextricable links between both the climate and biodiversity and the need to focus on solutions that resolve both. While there is recognition in both scientific and policy-making circles that the two are interconnected, in practice they are quite often addressed in their own domains. Hence, there is an opportunity for the potential GCTP to contribute to promoting a **more holistic approach** by bringing the urban perspective.

Previous policies have largely tackled the problems of climate change and biodiversity loss independently. Policies that simultaneously address synergies between mitigating biodiversity loss and climate change, while also considering their societal impacts, offer the opportunity to maximize co-benefits and help meet development aspirations for all.

Source: 2021, “Scientific Outcome of the IPBES-IPCC co-sponsored workshop on biodiversity and climate change”⁵¹

The desk research carried out as part of the EAA has confirmed that there is significant evidence and scientific research results that support the relevance of questions and themes included under the greening cities. Relevant data and research findings can be found in ‘Future of cities’⁵², the Urban Data Platform +⁵³, numerous projects on the topic, as well as other sources. All this demonstrates that urban areas have substantial potential to contribute to biodiversity and climate objectives by implementing solutions such as urban allotments and gardens, green parks, pollinator sites, green corridors, restored wetlands, sustainable urban drainage systems, green roofs, etc. These interventions can bring additional and more diverse nature into cities, playing a critical role in improving human well-being and health, increasing social cohesion, raising knowledge and awareness, and re-connecting people with nature in highly populated and built areas.

The greenness of European cities has increased by 38% over the last 25 years while globally it has grown by 12% over the same period (EC JRC, 2018). As COVID-19 crisis has shown, there is a need to bring even more **green spaces** to cities. With regards to **urban green areas**, it can be noted that their presence in cities varies greatly – whereas some city centres have forested areas within their city centres, others lack green areas, especially in Mediterranean regions. Hence, the potential GCTP will be well positioned to contribute to bridging the gap between the cities that are more advanced in securing access to green space and the cities that are lagging behind.

⁵¹ <https://ipbes.net/events/ipbes-ipcc-co-sponsored-workshop-report-biodiversity-and-climate-change>

⁵² <https://urban.jrc.ec.europa.eu/thefutureofcities/>

⁵³ <https://urban.jrc.ec.europa.eu/?lng=en&ctx=udp>

Another characteristic of the public green spaces also relevant for the GCTP is its **accessibility and inclusiveness** for all. Approximately 40% of the surface area of the European cities is made up of urban green infrastructure, with around 18.2m² of publicly accessible green space per inhabitant. The WHO recommends a minimum amount of 9m² of green open space per person (WHO, 2009). 44% of Europe's urban population lives within 300m of a public park. While there are contradictions in how a city may define green space, many cities struggle to reach this recommended minimum while others aim to incorporate substantially more (for example, the Italian planning law requires 18m² of green area per person in new developments). Often there is a direct relation between the quantity of available green areas and the socio-economic status of the population. The areas of the cities that need more green spaces are usually the ones where it is more difficult to intervene in.

It needs to be noted that the way public space is used is changing there is a push to make optimal use of the space already available in cities in creative ways. The **regeneration of urban spaces** with the uptake of green and blue solutions, converting derelict areas into urban green spaces provides opportunities to (re-)create cultural and recreational functions.

Many cities in Europe are making efforts to accelerate their transition towards sustainability and have set specific targets to maintain or enhance GI. Specific urban biodiversity targets can focus on the protection of particular species and habitats or on the enhancement of certain ecosystem services and urban green infrastructure which underpin these services. However, specific urban biodiversity targets depend on the local context. This means that possible national or European targets for urban biodiversity need to factor in the differences that exist among cities.⁵⁴

8.2 Growing involvement of cities in green initiatives

Over the past decades, many European cities have developed strategies to address the above mentioned environmental, social, and economic challenges. For example, between 2014-2020, more than 680 cities implemented sustainable development strategies under the cohesion policy that focuses on climate adaptation, air quality, low carbon society, mobility, circular economy, energy or nature-based solutions. The cities' efforts towards green transition continue illustrated by the following initiatives:

- More than 150 cities in all Member States have expressed different levels of ambition related to climate neutrality and sustainable urban development. These cities represent around 10% of the European urban population. The initiatives are typically directly managed by cities, in response to a European call for engagement/interest.
- More than 300 cities with over 50,000 inhabitants in the EU-27 that are part of the Covenant of Mayors have pledged to reduce their GHG emissions by at least 40% by 2030⁵⁵.
- More than 11,000 towns and cities have committed to making progress towards sustainable urban mobility in the European Mobility Week since 2002.⁵⁶

⁵⁴ <https://op.europa.eu/en/publication-detail/-/publication/cc585ccd-3b0c-11e9-8d04-01aa75ed71a1/language-en>

⁵⁵ <https://www.eumayors.eu/en/>

⁵⁶ <https://mobilityweek.eu/home/>

- More than 300 cities from Europe have signed the CIVITAS Declaration committing to cleaner and innovative transport.⁵⁷
- Over 130 cities are receiving support under the European Commission's Intelligent Cities Challenge initiative in using cutting-edge technologies to lead the intelligent, green and socially responsible recovery. Over 30 cities participating in the Initiative have developed or are currently shaping Local Green Deals, to support the implementation of the European Green Deal at the local level.⁵⁸
- As part of H2020 a network of more than 500 cities using NBS was developed with an emphasis on combining technological, digital, social, cultural innovations to address urban challenges such as climate resilience and water management, health and well-being, urban regeneration, etc.⁵⁹

The European Green Capital (EGC) and Green Leaf Awards (EGL) are awarded annually and play an important role in encouraging cities to become greener, more sustainable places. The Green Capital recognises and rewards pioneering cities for their consistent record of achieving high environmental standards and commitment to ambitious goals in 12 thematic areas. The EGC Award is open to cities with more than 100,000 inhabitants, from EU Members States, Liechtenstein, Norway, Iceland, Switzerland and EU candidate countries. The EGL targets smaller cities with the overall award's message that any city can 'go green' and that protecting the environment and providing a quality of life for citizens can go hand in hand with a thriving economy. The Green Leaf is open to cities with populations of between 20,000 and 100,000.⁶⁰

Another important Member States-led initiative relevant to the greening cities is the JPI Urban Europe⁶¹ that will develop to the European Partnership '**Driving Urban Transitions**' under Horizon Europe. The partnership is under formation and its focus area 'Circular Urban Economies Transition Pathway' will address, inter alia, the restoration of natural capital and the increase of the use of multi-functional greening approaches.

The above evidence supports further development and implementation of actions under the greening cities theme. In this way, the potential GCTP may contribute to addressing a wide range of urban challenges, and at the same time bring the urban perspective in the relevant EU policies.

⁵⁷ <https://civitas.eu/resources/civitas-city-declaration>

⁵⁸ <https://www.intelligentcitieschallenge.eu/>

⁵⁹ Stakeholder consultation

⁶⁰ <https://op.europa.eu/en/publication-detail/-/publication/1a11dc10-edba-11eb-a71c-01aa75ed71a1/language-en/format-PDF>

⁶¹ <https://jpi-urbaneurope.eu>

9 Recommendations

This chapter summarises the findings of the analysis and provides recommendations with regards to the following elements as specified in the ToR and the Multiannual Working Programme for the UAEU:

- Thematic scope
- Form of multilevel cooperation
- Timing for successful implementation
- Required type of expertise of the members
- Institutions/stakeholders of interest
- Support that will be required for the implementation
- Assessment on the opportunity to launch a partnership

9.1 Thematic scope

It is proposed that the thematic focus of the future partnership on greening cities would be on **green and blue infrastructure as an effective and efficient approach to address climate and biodiversity challenges in cities**. In addition, a potential GCTP can consider **making thematic links to a wider set of policy areas** such as built environment, transport and mobility, health, energy, etc. without compromising the emphasis on green and blue infrastructure theme. Tackling jointly **biodiversity and climate crisis** through green and blue infrastructure solutions is an area with significant potential for cities to contribute to with bottom-up approaches and initiatives and represents a specific niche for the potential partnership.

In addition, the greening cities theme is well aligned with and can contribute to the **headline priorities of several policy frameworks**, which were not published by the time when the previous similar UAEU partnerships were active. In particular, the New Biodiversity strategy (May 2020) with the emphasis on developing urban greening plans, the Zero Pollution Action Plan (from 2021) setting key targets to speed up reduction of air, water and soil pollution and the EU Strategy on Climate Adaptation (February 2021) with the emphasis on NBS set the policy context that further justifies the importance of greening cities theme in the framework of UAEU. This is further supported by the forthcoming EU nature restoration targets in line with the objective to restore EU's ecosystems, increase biodiversity, mitigate and adapt to climate change, which will have a binding character. Finally, the need for action on the topic corresponds to the **New Leipzig Charter principles and dimensions** ("the just, green and productive city" and "the transformative power of cities for the common good").

Although **linkages between the greening cities and several of the first-generation partnerships** exist, the topic of green and blue infrastructure for tackling biodiversity and climate challenges at city level has not been dealt with by the previous partnerships in this scope. This is especially valid for tackling biodiversity challenges at city level through the prism of green and blue infrastructure solutions. It is also recommended to consider green and blue infrastructure for tackling additional biodiversity challenges at city level such as invasive alien species, pollinators decline and provide the bottom-up input to the EU level in these policy areas.

Other themes that bring in new elements in the UAEU context and are coherent with recent EU policy developments include:

- Exploring the different types of green and blue infrastructure in urban context through the lens of biodiversity and climate objectives
- Exploring links of green and blue infrastructure with sectoral policies (e.g. urban agriculture, urban mobility, built environment)
- Improving the quality and accessibility of urban spaces through green solutions which makes cities more beautiful, inclusive and sustainable.

These aspects are elaborated in detail in **Table 8**.

Still, there are some complementarities and synergies between the greening cities theme and some of the previous partnerships, such as the partnerships on land use and NBS, climate adaptation, air quality.

The correlation of the greening cities theme with the TP on land use and NBS comes from the fact that NBS by definition include also GI. However, the TP on land use and NBS focused on a specific thematic area of NBS, i.e. the reduction of land take, redevelopment of underutilised brownfields which, is far from the proposed main focus of the greening cities report. Extensive communication and coordination is needed with other relevant UA thematic partnerships with the purpose of avoiding overlaps and generating synergies and complementarities where relevant. This is also in line with the Multiannual Working Programme for the UAEU that envisages a special role of the first-generation partnerships “which will be encouraged to support the knowledge and experience dissemination process further, for example as mentors or active partners in the next generation of partnerships/OFC”.

Making **wider thematic links** will, on one hand, give justice to the horizontal nature of the greening cities theme and, on the other hand, reflect the wide relevance of green and blue infrastructure to different sectors. This would also be a balanced approach between concentration of resources and looking at the issue of green and blue infrastructure through a wider, more holistic lens. The thematic focus proposed through the present report also takes into account the multi-functionality of green and blue infrastructure in urban context, but at the same time tries to avoid diluting the focus. Moreover, linking the biodiversity and climate crises could be a good basis for mainstreaming green and blue infrastructure into other sectors (sustainable mobility, urban agriculture, buildings) etc.

Synergies between greening cities and other policy areas could be made to the extent possible in the context of the future partnership. It is recommended to explore these opportunities with regards to some of the following policy areas:

- Built environment (the New EU Biodiversity Strategy calls for integrating GI and NBS in the design of buildings and their surroundings; this is also linked with energy efficiency and will contribute to climate objectives);
- Sustainable urban mobility (good practices in GI in transport exist but are sporadic (COM:2019:236:FIN); GI could be seen as an opportunity to create transportation corridors between urban centres and peri-urban areas; contribution to climate objectives and reduction of air pollution through the promotion of cycling;
- Urban agriculture (the sector is important for biodiversity preservation, provides social and cultural benefits to the communities and has strong implications to climate change adaptation);

- Water sector due to the flood protection functions of GI and its contribution to more sustainable rainwater management in cities.⁶²

All (or most) future activities of the TP will be relevant to issues like air pollution reduction; health and well-being; disaster risk reduction; land take; etc. Therefore, liaising with initiatives on these topics such as the Zero Pollution Stakeholder Platform is necessary to ensure a more holistic coverage of the TP. While the report suggests a long list of potential concrete topics with the above characteristics, the members of the TP will have the possibility to choose the precise focus and activities complementing rather than overlapping with other TPs.

Table 11 illustrates potential thematic coverage of the partnership vis-à-vis the three pillars of the UAEU. The directions have been formulated based on the analysis, discussions with interviewees and online meetings as part of the stakeholder consultation process.

Table 81 Green and blue infrastructure topics and GCTP potential contributions. Degree of relevance

Dimension	How the potential partnership can contribute	Relevance for the GCTP
Better knowledge	Supporting cities in creating vision on GI deployment and integration based on an improved knowledge of different types of GI	High
	Exploring the demand for green and blue infrastructure in EU cities and communicate those to the EC in order to improve support and funding delivery	Medium
	Supporting the process of standardisation of tested GI solutions at city level by providing blueprints and ready models as well as facilitating the exchange	High
	Continuing to explore the concrete benefits at city level by types of GI (and valuation methods thereof) with the goal of making the case of GI v/s other solutions.	High
	Sharing examples of benefits of different GIs and their communication to the general public	
	Providing examples and hands-on advice on GI interventions in disadvantaged areas of the cities	Medium
	Providing support for cities for the development of Urban Greening Plans	Medium
	Exploring indicators and metrics for assessing the quality of GI and share good practices	Low
	Exploring the systemic synergies at urban level between green and blue infrastructure and the following elements which contribute to the quality of life of citizens: air and water quality, soil pollution and noise.	High
	Investigating the implementation failures (implications for better regulation and better funding)	Medium
	Exploring the coordination between different levels of government and different sectors within local government as a key factor for GI implementation	High
	Exploring and sharing good practices in stakeholder involvement for the sake of planning, adopting roadmaps, prioritising and implementing projects, etc.	High
	Building knowledge on the improvement of health and well-being of people and communities through green areas	Medium

⁶² - https://ec.europa.eu/environment/nature/ecosystems/pdf/Green%20Infrastructure/GI_water.pdf

	Improving the deployment of existing EC guidance on the integration of ecosystems and their services into decision-making	Medium
Better regulation	Providing specific feedback from an urban perspective during evaluations of relevant strategic and policy frameworks or during the drafting of new EU legislation or the update of existing legislation ⁶³ (also see page 44)	High
	Providing evidence and feedback on benefits of GI in cities during the EU policy drafting process	High
	Integrating different types of GI solutions into local plans, regulations, etc.	High
	Exploring and scaling up good practices of integration of GI into sectoral policies	
	Providing support for cities for the development of Urban Greening Plans	Medium
	Supporting cities to take action regarding the EU Nature Restoration Plan as part of the Biodiversity Strategy	Medium
Better funding	Supporting the deployment of tested solutions for different types of GI in an integrated manner including through a better usage of EU funding schemes	High
	Exploring the role of the private sector including in funding GI and share good practices	Medium
	Raising awareness of the use of innovative funding approaches like Green City Bonds or Social Impact Bonds and participatory budgeting need to be encouraged.	Medium
	Supporting cities in developing Integrated Strategies and Plans for Sustainable Urban Development and Integrated Territorial Investment Strategies and Action Plans Supporting cities in greening their budgets	Medium

9.2 Form of multilevel cooperation

Besides partnerships, the Multiannual Working Programme for the UAEU provides the possibility for considering Other Forms of Cooperation (OFC) in specific cases, i.e.:

- “When a more specific and targeted approach is needed, for example when an urban topic requires a quicker response, targeted delivery or a specific focus on one pillar of the UAEU and/or question/issue
- The scope of the OFC should be a specific issue, one pillar of the UAEU, a cluster of themes or a cross-cutting issue. The scope should link to the actions needed at the EU, national, regional or local level and in underlining the benefits of multilevel cooperation”.

Based on the analysis of the greening cities theme it is considered that the OFC is not suitable for greening cities for the following reasons:

- Greening cities aims to address issues and cover themes that will spread across the three pillars of the UAEU
- While the focus of the theme is on biodiversity climate adaptation objectives through green and blue infrastructure, greening cities is a holistic topic and linkages to other policy areas need to be considered.

Therefore, it is proposed that the form of multilevel cooperation for the greening cities is a thematic partnership for the following reasons:

⁶³ Relevant aspects from the EC Working Programme 2022 include: 1/ certification of carbon removals and 2/ green bonds..

- This form of cooperation offers good prospects of linking different Commission and other initiatives dedicated to the topic of greening cities.
- The partnership on greening cities as a form of multi-level cooperation is important for striking a good balance between members of different governance levels, which would complement each other.
- Multi-level cooperation will be suitable for increasing the integrated character of the work so that it can stand out with regards to other initiatives. Currently, cities are faced with high demand for participation in EU initiatives. By joining the potential GCTP, cities should know that they get access to a much wider circle of resources, knowledge, funding, etc. and the partnership could provide a relevant platform for that.
- In practice, the multi-level cooperation could be realised by including a wide variety of members in the Partnership and by liaising with partners and contributors on different governance levels.
- As demonstrated in the report, the multi-level cooperation is particularly suitable for:
 - Implementing EU environmental law at local level.
 - Improving the national implementation of the EU Green Deal through increasing capacities of cities.
 - Deploying of existing GI solutions in cities.
 - Deploying of networks of GI areas/parks.
- In general, the success of any GI-related project would depend on the involvement of diverse stakeholders on different governance levels as the management of green and blue infrastructure is often in the hand of several administrative bodies.

One aspect of the functioning of the TP is the possibility to link up different relevant EU initiatives through the prism of greening the cities and serve as a knowledge exchange hub, as well as a source of inspiration for better and more integrated funding. A very good coordination between initiatives is needed in order to optimise the offer to cities; optimise EU funding; and provide integrated and complementary knowledge. In order to ensure the above, it is recommended to have better and structured outreach to different stakeholders in order to communicate products and deliverables in both directions.

The involvement of the small and medium-sized cities needs special attention and efforts taking into account that they have specific issues and a specific perspective often conditioned by their lower administrative capacity. Their involvement needs to be encouraged in two ways - with regards to them benefitting from the outcomes of the TP as well as being active members providing valuable input. This aspect can be further explored and addressed in the process of preparing the Call for interest.

9.3 Timing for successful implementation

The Multiannual Working Programme highlights that in order “to enhance the impact of the UAEU at the EU level, the UAEU should be better linked with EU agenda setting, policymaking and legislative processes at different levels”⁶⁴. As the GCTP together with sustainable tourism are new TPs in the context of the UAEU, the timeline needs to be carefully planned to ensure that the relevant stakeholders are ready to actively contribute to the successful launch of these new TPs. This will require extra communication and coordination efforts and the time associated with it to address the issues regarding the uneven level of participation of some members.

⁶⁴ Some relevant regulatory initiatives are included in the 2022 EC Working Programme elaborated on page 44.

From a greening cities perspective, there is a certain urgency in addressing both the climate and biodiversity challenges, so the earlier the Partnership is launched, the better. It is recommended to synchronize the delivery of the actions' results with the deadlines of the EU regulatory and policy processes. The timing for individual actions could be different depending on the scope of the action, objectives and complexity.

9.4 Required type of expertise of the members

Based on the analysis, interviews, lessons learned from previous partnerships that have linkages to the greening cities theme it is proposed that collectively the partnership covers the following expertise:

- Knowledge on certain types of green and blue infrastructure (as per the typology available in **Table 2** Typology of Green Infrastructure) and on concrete and tested solutions.
- Knowledge on integration of green and blue infrastructure into urban and spatial planning and local strategic documents such as Integrated Strategies and Plans for Sustainable Urban Development and Integrated Territorial Investment Strategies and Action Plans.
- At least one member needs to have a tested knowledge in developing blue infrastructure in an urban context.
- Experience with including and coordinating various city stakeholders (such as Regional Development Agencies; universities and research institutions; Civil Society Organisations, etc.) for the implementation of GI in a context of competing priorities.
- Knowledge in deploying GI and/or NBS solutions in various sectors such as mobility, built environment, energy, etc. It would be very positive if different members cover at least one sector and if they can attract the relevant experts when needed for the work of the Partnership.
- Knowledge in GI-related data management as this is important for analysing the status quo in relation to the presence of green and blue infrastructure in cities and their assessment and monitoring over time.
- Proven knowledge in funding GI from EU funds, from national and local budgets and from private sources.
- Experience with integrating green and blue infrastructure concept in national legal frameworks (e.g., the Finnish example of National Urban Plans).
- Experience in establishing national networks of cities with green and blue infrastructure.

9.5 Institutions/stakeholders of interest

The composition of the partnership is essential in defining the thematic scope of the greening cities in detail. A balanced mix of committed members is needed to ensure efficient coordination and cooperation between different levels of governance with regards to the implementation of the relevant EU strategic and policy priorities related to greening cities. These may include:

- Relevant EC services (e.g., DG ENV, DG MOVE, DG REGIO, DG RTD, etc.) which could contribute with bringing EU agenda closer to cities in terms of creating vision, implementing legislation or receiving feedback on upcoming legislative changes. EC services can contribute with precise examples of flagship projects or through their networks of cities (e.g.,

DG RTD network of more than 500 cities using NBS combined with technological, digital, social, cultural innovations to address urban challenges)

- Relevant national level ministries/agencies (e.g., ministries of environment and environmental agencies). These would be relevant in case they want to structure and deploy GI activities on city level or set up networks of urban GI.
- Small and medium-sized cities (SMC), possibly through SMC associations and networks. Selection criteria should be motivating for these partners.
- Bigger and more advanced cities which could act as mentor cities. It needs to be clear from the very beginning that these cities will play this specific mentor role.
- Urban planning institutions responsible for the spatial and landscape planning in cities. The objective of their participation would be to strengthen the level of integration of GI into spatial planning, as well as to complement the technical expertise such in applying GIS to green infrastructure, mapping of ecosystem services.
- Regional Development Agencies (on behalf of cities). In certain cases, the RDAs have higher capacities for participating in different initiatives. These are also involved in designing administrative capacity building instruments for cities and would be able to transfer good practices.

9.6 Support that will be required for the implementation

The Assessment Study of the UAEU highlights that the level of engagement of stakeholders in previous thematic partnerships was uneven which was also confirmed by the interviewees. To address this challenge, it is recommended to:

- Establish a TP secretariat which has been singled out as a key governance factor⁶⁵. The role of the secretariat should be clear from the very beginning. With regards to governance of the GCTP innovative elements could be considered. For example, more cities could be in the governance of the partnership and be involved more intensively as opposed to only one city leading⁶⁶.
- Support with outreach and external communication, especially given the multiple links and synergies which have been identified.
- Support with communication and tailoring the messages to the actual level of experience and expertise of partnership members will be essential for achieving the objectives of the potential partnership.
- Support with clarifying and communicating the role of the members from the beginning will be needed.
- Take into account that cities differ in their level of involvement. Therefore, more targeted effort will be needed to engage especially small and medium sized cities which can be provided with additional support (to address language barriers, regarding travel costs, etc).
- Increase the peer learning character of the potential GCTP by allowing more frequent peer-to-peer exchanges through virtual sessions, sharing of ready solutions, etc. This might require technical expert support.

It would be beneficial for the future partnership to have a first discussion with coordinators of the previous relevant partnerships, Eurocities, CEMR, EUKN and CoR in order to discuss possible overlaps and synergies with previous partnerships.

⁶⁵ Interviews

⁶⁶ Idem

Policy making on greening cities needs to be evidence-based and the members could be supported on how to strengthen the science-policy interface. This could be done through facilitating and stimulating exchange and collaboration. This aspect could be also useful in view of the formulation of the Action Plan.

9.7 Assessment on the opportunity to launch a partnership

Based on the analysis within the EAA the conclusion is that there is a good opportunity for the launching of a Greening Cities Thematic Partnership with a focus on green and blue infrastructure in an urban context and with extensive links to a number of priority sectors namely the built environment, sustainable transport, water management and urban agriculture.

The new partnership would be of high relevance to the problems and the needs of the cities of all sizes including small and medium sized cities with regards to biodiversity preservation and adaptation to climate change. The partnership would be aligned with the objectives of cities to provide higher well-being to citizens through cleaner air, better inclusiveness and more aesthetic environment. Additional benefits for cities and citizens come through improved liveability and higher attractiveness, which could also bring economic benefits.

The new partnership is coherent with numerous global (a number of SDGs) and EU policy agendas such as the Biodiversity Strategy, the Green Infrastructure Strategy, the Climate Adaptation Strategy, the New Bauhaus Initiative, etc. Implementing green and blue infrastructure contributes to the implementation of these strategies. It is also coherent with a number of other EU initiatives, which represents potential for cross-fertilisation and exchange at policy level.

The GCTP will be complementary to other existing Urban Agenda thematic partnerships and while risks for overlaps is minimal, these should be avoided through active communication and coordination. The Partnership should build on the knowledge generated on green and blue infrastructure in general and most importantly through DG ENV and DG RTD work on the topic.

The effectiveness of the Greening Cities Thematic Partnership would be enhanced (compared to the previous generation of partnership) through setting up an inclusive governance structure, supported by a secretariat. As previously described, the right mix of complementary partners would guarantee fruitful exchanges and learning experience.

As elaborated throughout the EAA, the new partnership lends itself to the key pillars of the Urban Agenda for the EU, namely better knowledge, better regulation and better funding. In terms of better knowledge, while a solid base already exists, we recognize that access to knowledge is unequal and significant improvements are possible for the deployment of concrete green and blue infrastructure solutions at city level, following tested methodologies. In addition to the technical dimensions of GI, the partnership could contribute to improving soft knowledge on communication with different stakeholders; prioritisation of GI vis-à-vis grey infrastructure, etc.

Concerning better regulation, the partnership could provide feedback to the European Commission with the objective of strengthening the urban dimension of upcoming EU policies and better integrating green and blue infrastructure in other sectoral policies. The Partnership could also support cities to better implement relevant EU policies and also better integrate GI into national, local and regional voluntary and mandatory planning documents.

In terms of better funding, the partnership could develop new knowledge and strategies for increasing absorption of funding for GI in an integrated manner. Cities could also be supported in Greening their budgets. On one hand, this could be beneficial for the members and other cities across Europe, while it could also feed into the European Commission's process of tailoring different financial instruments through place-based approaches, sensible to the needs of cities of different sizes.

Based on the above and on the detailed analysis throughout the report, the establishment of the Greening Cities Thematic Partnership is timely and needed as it has the potential to positively impact the uptake of recent EU legislation on conservation and planning green and blue infrastructure across European cities, for improving the liveability of urban environments.

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Annex 2 Stakeholder consultation

A. List of interviewed stakeholders

Institution	Name	Date
European Commission, DG Environment	Helen McCarthy (input in writing)	24/02/2022
European Commission, DG MOVE	Robert Szucs and Piotr Rapacz	31/01/2022
European Commission, DG REGIO	Miriam Boveda	09/02/2022
European Commission, DG REFORM	Riikka Torppa	02/02/2022
European Commission, DG RTD and REA	Marie Yeroyanni (RTD) Emanuela de Menna (REA)	31/01/2022
European Commission, DG CLIMA	Katarina Fortun	03/02/2022
European Commission, DG ENER	Georg Houben	01/02/2022
Joint Research Centre	Silvia Iodice Carlo Lavalle	17/02/2022
Genoa Municipality Climate Adaptation Partnership Coordinator	Stefania Manca	02/05/2022
European Commission, DG REGIO	Pia Laurila	23/05/2022

B. Meetings

Date	Meeting
16/02/2022	French Presidency (Luc Faraldi, Sabrina Abdi), Eurocities (Pietro Reviglio, Heather Brooks), CEMR (Marine Gaudron, Axelle Griffon), CoR (Gustavo Lopez Cutillas, GRUBIŠIĆ Mario Grubisic), DG REGIO (DE BETHUNE Thomas de Bethune, Andreea Maier, Laura Liger, Lamprini Ethra Lambropolou)
16/03/2022	UATPG
13/04/2022	UDG
18/05/2022	UATPG

C. Two rounds of consultation on the draft report

Deliverable	Feedback provided by
Interim report	DG REGIO

	Urban Development Group (Spain, Estonia, Belgium, Germany, European Committee of the Regions, Finland, Italian Delegation, Council of European Municipalities and Regions)
Draft final report	Urban Development Group (Estonia, Lithuania/Ministry of Environment, Netherlands, Norway, Greece, Slovakia, Romania/Ministry of Development, Public Works and Administration, Slovenia, Finland, Eurocities) European Commission (DG Environment, DG REGIO, DG RTD, DG MOVE, JRC, REA)

Annex 3: Relevant policy and strategic documents

UN SDGs

The **Sustainable Development Goals (SDGs)**⁶⁷ are at the heart of 2030 Agenda for Sustainable Development adopted in 2015. The 17 SDGs are a call for action by countries: both developed and developing. Each SDGs is accompanied by a number of actions and indicators. They are integrated in the European Green Deal and the European Semester process. Several SDGs are relevant to the Greening Cities Thematic Partnership. The review covers all SDGs and SDG themes and targets which are relevant to a wide interpretation of the 'greening cities' topic. Only SDG#11 is relevant to the topic as developed in the Explorative proposal for the Greening Cities Thematic Partnership.

SDG	Relevance
#7 Ensure access to affordable, reliable, sustainable and modern energy for all	(7.2) Share of renewable energy (urban context) (7.3) Energy efficiency improvements in an urban context <i>SDG#7 is relevant to a wider set of urban topics.</i>
#11 Sustainable cities and communities	Make cities inclusive, safe, resilient and sustainable (11.2) Access to accessible and sustainable transport (11.3) enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management (11.5) Disaster resilience (11.6) Reduce the adverse environmental impact of cities, including by paying special attention to air quality and municipal and other waste management (11.7) Universal access to safe, inclusive and accessible, green and public spaces , in particular for women and children, older persons and persons with disabilities (11.a) Links between urban, per-urban and rural areas by strengthening national and regional development planning (11.b) Adopt and implement integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters <i>SDG#11 is relevant both in terms of sectors to be covered but also in terms of integration and other linkages.</i>
#12 Ensure sustainable consumption and production patterns	(12.3) Reduction of food waste (12.5) Reduce waste generation through prevention, reduction, recycling and reuse (12.8) Relevant information and awareness for sustainable development and lifestyles in harmony with nature <i>While 12.3 and 12.5 are relevant in a wider thematic context, 12.8 is relevant as a horizontal theme.</i>
#13 Take urgent action to combat climate change and its impacts	(13.1) Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

⁶⁷ <https://sdgs.un.org/goals>

	<p>(13.2) Integrate climate change measures into national policies, strategies and planning</p> <p>(13.3) Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning</p> <p><i>Closely related to the interpretation of the theme in the exploratory proposal.</i></p>
#15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	<p>(15.9) Integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts</p> <p><i>Closely related to the interpretation of the theme in the exploratory proposal.</i></p>

European Green Deal

The Green Deal⁶⁸ is a roadmap launched by the European Commission as a response to the EU obligations to tackle climate change and other environmental issues. The target to achieve a climate-neutral and circular economy will require the mobilisation of industry.

Relevant Green Deal aims:

- protect the health and well-being of citizens from environment-related risks.
- ensure a just and inclusive transition.

Relevant principles:

- Make consistent use of all policy levers: regulation and standardisation, investment and innovation, national reforms, dialogue with social partners and international cooperation. policy response to complex and interlinked challenges must be 'bold and comprehensive and seek to maximise benefits for health, quality of life, resilience and competitiveness'.
- intense coordination to exploit the available synergies across all policy areas.
- promote and invest in the necessary digital transformation and tools as essential enablers of changes;
- provide careful attention to trade-offs between economic, environmental and social objectives.
- enforcement of current legislation.

Relevant targets

- 2050 neutrality objective integrated in the EI Climate Law.
- 25% climate mainstreaming across all EU programmes.
- At least 30% of the InvestEU Fund will contribute to fighting climate change;

Relevant policy developments. Relevant actions

- New Climate Change Adaptation Strategy (reviewed later) – climate proofing; resilience building; link with public and private finance; risk management; citizen engagement.
- **Decarbonisation:** prioritisation of energy efficiency; development of renewable sources; energy and climate planning on city level; energy poverty; 'Renovation Wave' of public and private buildings; enforcement the legislation related to the energy performance of buildings.
- **Sustainable mobility:** shift to multi-modal transport; price of transport should reflect impact on the environment; combination of measures on addressing transport emissions, urban congestion, and improved public transport.

⁶⁸ EU Green Deal

- **Sustainable food sector (from Farm to Fork Strategy):** public awareness; reduce the environmental impact of the food processing and retail sectors by taking action on transport, storage, packaging and food waste; stimulate sustainable food consumption;
- **Zero pollution action plan for air, water and soil** (*reviewed later*)
- **Water:** cities to address pollution from urban run-off
- **Strengthen provisions on monitoring, modelling and air quality plans to help local authorities achieve cleaner air.**
- **Just transitions:** relevant for regions (hence cities) most affected by the transition to a low-carbon future (energy poverty, re-skilling, public transport)
- **Greening budgets:** bigger use of green budget tools; remove harmful subsidies; green public investment.
- **Engaging schools, training institutions and universities in the transition**
- **Pro-active re-skilling and upskilling** to adapt to the changing society
- **Improve the way EU better regulation guidelines and supporting tools** address sustainability and innovation issues
- European Climate Pact (*reviewed later*)

The New Leipzig Charter

The **New Leipzig Charter**⁶⁹ was adopted at the Informal Ministerial Meeting organised on 30 November 2020 under the German Presidency. The Charter provides a key policy framework document for sustainable urban development in Europe. It highlights that cities need to establish integrated and sustainable urban development strategies and ensure their implementation for the city as a whole. The document is strongly aligned with the Cohesion Policy and its framework for sustainable urban development. Member States agreed to implement the Charter in their national or regional urban policies. The Charter emphasises that the urban transformation is based on the integration of the social, ecological and economic dimensions of sustainable development.

Relevance to the greening cities theme

The Charter particularly refers to the Urban Agenda for the EU mentioning that the principles of the Charter shape basic elements that further develop and implement the agenda as well as the urban and territorial dimensions of EU Cohesion Policy. The Charter is closely related to the interpretation of the theme in the exploratory proposal, in particular.

The Charter highlights the contribution of cities to **combatting global warming and protection and regeneration of endangered ecosystems** and their species. The Charter calls the cities to use nature-based solutions where high quality green and blue infrastructure can accommodate extreme weather conditions and is a precondition for healthy living environments, adapting to climate change and preserving and developing biodiversity in cities.

Multi-level governance: The signatories acknowledge that the Urban Agenda for the EU has made an important contribution to a widely appreciated multi-level and multi-stakeholder approach to urban development emphasising the role of every governmental level – local, regional, metropolitan, national, European and global in tackling complex challenges. This requires the cooperation of all societal actors, including civil society and the private sector. Vertical and horizontal multi-level and multi-stakeholder cooperation, both bottom-up and top-down, is key to good urban governance.

Strengthening the vertical and horizontal exchange of knowledge and expertise among all multi-level governance stakeholders. The Urban Agenda for the EU offers an exchange platform for European, national, regional and local urban stakeholders.

⁶⁹ https://ec.europa.eu/regional_policy/en/information/publications/brochures/2020/new-leipzig-charter-the-transformative-power-of-cities-for-the-common-good

Strengthening the knowledge base - EU-funded urban development, research and development cooperation programmes, networks and initiatives can contribute to this idea.

EU Biodiversity Strategy

The European Green Deal stresses the urgency of halting biodiversity loss and highlights that the EU is not meeting some of its most important environmental objectives for 2020, such as the Aichi targets under the Convention on Biological Diversity⁷⁰. The new **EU Biodiversity Strategy for 2030**⁷¹ with the associated Action Plan is a core part of the European Green Deal. The Strategy aims to support a green recovery and represents a comprehensive and ambitious plan for protecting nature and reversing the degradation of ecosystems. Also, its objective is to build societies' resilience to future threats such as climate change impacts, forest fires, food insecurity or disease outbreaks, including by protecting wildlife and fighting illegal wildlife trade. It acknowledges that in the EU there is currently no comprehensive governance framework to steer the implementation of biodiversity commitments agreed at national, EU or international level.

Key commitments of the EU Biodiversity Strategy 2030:

- Legally protect a minimum of 30% of the EU's land area and 30% of the EU's sea area and integrate ecological corridors, as part of a true Trans-European Nature Network.
- Restore degraded ecosystems at land and sea across the whole of Europe by increasing organic farming and biodiversity-rich landscape features on agricultural land; restoring at least 25 000 km of EU rivers to a free-flowing state; reducing the use and risk of pesticides by 50% by 2030; planting 3 billion trees by 2030.
- Unlock 20 billion EUR/year for biodiversity through various sources, including EU funds, national and private funding. Natural capital and biodiversity considerations will be integrated into business practices.
- Put the EU in a leading position in the world in addressing the global biodiversity crisis.

Relevance to the greening cities theme

With regards to the thematic focus:

The objectives and the commitments of the EU Biodiversity Strategy to 2030 are very much relevant to the urban context as cities have an essential role in protecting and restoring ecosystems and **incorporating biodiversity considerations into their urban planning**. This is recognised by the Strategy which "calls on European cities of at least 20,000 inhabitants to **develop ambitious Urban Greening Plans** by the end of 2021.

The key thematic elements of the plans are in line with the main topics explored as part of the EAA on greening cities. In particular, the plans should include measures to create biodiverse and accessible urban forests, parks and gardens; urban farms; green roofs and walls; tree-lined streets; urban meadows; and urban hedges. They should also help improve connections between green spaces, eliminate the use of pesticides, limit excessive mowing of urban green spaces and other biodiversity harmful practices. Such plans could mobilise policy, regulatory and financial tools. Finally, actions focused on better biodiversity protection in cities contribute to specific **social goals**, such as community-based management, sustainable development and poverty reduction in cities.

With regards to governance:

The Strategy envisages a **new European biodiversity governance framework**. This will help map obligations and commitments and set out a roadmap to guide their implementation. As part of this new framework, the Commission will put in place a monitoring and review mechanism.

Co-responsibility and co-ownership by all relevant actors in meeting the EU's biodiversity commitments. The Strategy will support **administrative capacity building, transparency, stakeholder dialogue, and**

⁷⁰ <https://www.cbd.int/convention/>

⁷¹ https://eur-lex.europa.eu/resource.html?uri=cellar:a3c806a6-9ab3-11ea-9d2d-01aa75ed71a1.0001.02/DOC_1&format=PDF

participatory governance at different levels. The Commission will assess the progress and suitability of this approach in 2023 and consider whether a legally binding approach to governance is needed.

EU Forest Strategy

The new EU Forest Strategy for 2030⁷² is a flagship initiative of the European Green Deal and builds on the EU Biodiversity Strategy for 2030. The Forest Strategy can serve as a guidance on effective afforestation and forest restoration in Europe, that will help to improve sustainable forest management, increase the absorption of CO₂ and the promotion of the bioeconomy. The strategy will contribute to achieving the EU biodiversity objectives as well as GHG emission reduction target of at least 55% by 2030 and climate neutrality by 2050. In line with the EU Green Deal and Biodiversity Strategy the Forest Strategy reconfirms the target of planting 3 billion trees by 2030 and sets out a roadmap for that. It recognises the central and multifunctional role of forests, and the contribution of foresters and the entire forest-based value chain for achieving a sustainable and climate neutral economy and preserving lively and prosperous rural areas.

Relevance to the greening cities theme

The relevance of the UA Partnership on Greening cities to the new EU Forest Strategy is evident in the Strategy's objectives concerning **re- and afforestation**. The Strategy recognises the potential for extending forest and tree coverage in the EU through active and sustainable re- and afforestation and tree planting, an area that concerns mainly urban and peri-urban areas (including e.g., urban parks, trees on public and private property, greening buildings and infrastructure, and urban gardens) and agricultural area. The Strategy underlines the importance of capitalising on this potential, as enhanced afforestation is also among the most effective **climate change and disaster risk mitigation strategies**. Adaptation to climate change is an area specifically highlighted under the greening cities theme.

The Strategy stresses the importance of setting up good governance that enables close collaboration between the public and the authorities at various levels of the administration and government (e.g., local, municipality, agglomeration, regional and national level).

EU Green Infrastructure Strategy

The European Commission adopted an **EU Strategy on green infrastructure**⁷³ in 2013 to enhance the economic benefits of GI by attracting greater investment in Europe's natural capital to achieve its biodiversity objectives by 2020. The strategy shows how green infrastructure (GI), and natural solutions can provide ecological, economic and social benefits in various EU policy areas. This includes EU climate change and adaptation policy and urban policy at EU level among many others such as the Common Agricultural Policy, EU maritime affairs and fisheries policy, disaster risk management, water, health, energy or transport policy. Whenever green infrastructure offers an alternative to grey measures, the green solution should be endorsed or established as a complement.

The GI Strategy sets out four priority work streams:

- promoting green infrastructure in the main policy areas.
- improving information, strengthening the knowledge base and promoting innovation.
- improving access to finance.
- contributing to the development of GI projects at EU level.

⁷² <https://ec.europa.eu/info/files/communication-new-eu-forest-strategy-2030>

⁷³ https://eur-lex.europa.eu/resource.html?uri=cellar:d41348f2-01d5-4abe-b817-4c73e6f1b2df.0014.03/DOC_1&format=PDF

Despite the progress made, in its 2019 review of the EU Green Infrastructure Strategy⁷⁴, the EC concludes that the deployment of GI needs to be further scaled up. The Commission urges European policy makers to engage in a more strategic approach, in mainstreaming GI in their regional development policies and in a better use of the future EU funding instruments.

Relevance to the greening cities theme

The Strategy has direct thematic linkages to the greening cities theme. With regards to climate change adaptation and EU climate adaptation policy, the review reports note that GI and ecosystem-based solutions are becoming increasingly important and accepted and this is valid for urban areas as well.

Overall, the EU GI strategy has successfully supported awareness raising and implementation of GI in many areas. The review of GI Strategy implementation points out that a lot has happened in the last few years, but there is still high potential more to be done. It is recommended that greater emphasis should be placed on the economic, social and other co-benefits arising from GI and ecosystem-based solutions. The multiple benefits of green and blue infrastructure are also at the core of the greening cities theme. **Building the knowledge base on GI** is another area where commonalities can be found.

EU Climate Adaptation Strategy

The **EU Strategy on Climate Adaptation** (adopted in Feb. 2021) is based on **four principles - smarter adaptation, faster adaptation, more systemic adaptation and stepping up international action for climate resilience**. Smarter adaptation means that adaptation actions must be informed by robust data and risk assessment tools that are available. Faster adaptation means actions must be quicker and more comprehensive. Actions also need to be systemic as climate change will have impacts at all levels of society and across all sectors of the economy. The fourth principle of the new EU Adaptation Strategy means that the EU will support international climate resilience and preparedness through scaling up international finance.

Relevance to the greening cities theme

Cities are severely impacted by climate change. At the same time, they are main actors in the efforts to adapt to climate change. A number of climate change related topics are relevant for cities and could be considered for the thematic coverage of the potential GCTP. These include **preparedness; 'no regret' solutions; nature-based solutions; disaster risk prevention**, etc.

Cities need to take action in the following directions:

- adapt in a smarter way – fill in gaps on adaptation knowledge; develop customised, user-friendly tools; acquire more and better data to improve accuracy of risk assessment – local smart solutions.
- adapt faster.
- adapt in a more systemic way – mainstream climate resilience in all possible sectors relevant to the city such as infrastructure, transport, etc. Local authorities do their share of climate action in a multi-stakeholder context.
- Improve climate change adaptation strategies and planning.
- Improve access to financial support: ESIF; CAP; the LIFE Programme, Horizon Europe, and the Recovery and Resilience Facility.
- Improve access to platforms: EIP-SCC Marketplace, the Digital Europe Programme, and the Intelligent Cities Challenge;
- Through (Global) Covenant of Mayors – adaptation strategies and plans.
- Support for education, training and re-skilling: European Skills Agenda, the Youth Guarantee, the European Social Fund Plus (ESIF+), or the Recovery and Resilience Facility; The Strategy calls for the **implementation of blue-green nature-based solutions** (NBS). Solutions which are relevant for cities include the development of urban green spaces and installing green roofs and walls. Leveraging more investments in NBS is also a possible topic for the Partnership. (NBS are developed in detail further in the text).

⁷⁴ https://ec.europa.eu/environment/nature/ecosystems/index_en.htm

- Accessibility of climate resilience decision support systems and technical advice (the Partnership could contribute to this goal).
- Investment in resilient climate-proof infrastructure (give the knowledge and instruments to cities to do so).
- involve national standardisation in the implementation of their National Adaptation Strategies.
- Synergies with broader work on disaster risk prevention and reduction.
- Prepare European buildings for climate change and also use their potential for adaptation.
- Reduction of water use.

EU Climate Law

The **European Climate Law** was adopted in July 2021. It incorporates the goal set out in the European Green Deal for Europe's economy and society to become climate-neutral by 2050. This means achieving net zero GHG emissions for EU countries as a whole, mainly by cutting emissions, investing in green technologies and protecting the natural environment. In order to reach the climate-neutrality objective the binding Union 2030 climate target shall be a domestic reduction of net GHG by at least 55 % compared to 1990 levels by 2030. The law is also relevant to climate adaptation as **it calls for continuous progress in enhancing adaptive capacity, strengthening resilience and reducing vulnerability to climate change**. The law foresees the development of indicative voluntary roadmaps in different sectors. It also calls on Member States (MS) 'to establish a multilevel climate and energy dialogue in which local authorities, civil society organisations (CSO), business community, investors and other relevant stakeholders and the general public are able actively to engage and discuss the achievement.

Relevance to the greening cities theme

Newly adopted strategic and planning documents should be aligned with EU Climate Law targets in the context of Better Regulation. Development of indicative roadmaps could be foreseen. Under the greening cities theme, it can be considered to facilitate access to scientific information on climate change mitigation and adaptation. The work of the potential Partnership may focus on the objectives of Art.9 on enabling and empowering all parts of society. It may also support cities in preparing sectoral roadmaps (as per Art.10).

EU Zero pollution action plan on air, water, and soil

The **EU Zero Pollution Action Plan**⁷⁵, published in May 2021, provides a zero pollution vision for 2050 aiming at reducing air, water and soil pollution to levels that are no longer considered harmful to health and natural ecosystems.

Zero pollution key 2030 targets to speed up reducing pollution at source:

- improving air quality to reduce the number of premature deaths caused by air pollution by 55%.
- improving water quality by reducing waste, plastic litter at sea (by 50%) and microplastics released into the environment (by 30%).
- improving soil quality by reducing nutrient losses and chemical pesticides' use by 50%.
- reducing by 25% the EU ecosystems where air pollution threatens biodiversity.
- reducing the share of people chronically disturbed by transport noise by 30%, and
- significantly reducing waste generation and by 50% residual municipal waste.

Relevance to the greening cities theme

⁷⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0400&qid=1623311742827>

Thematic relevance can be found in the following flagships included in the Plan:

Supporting urban zero pollution action as part of the future Year of Greener Cities, the Commission will, in synergy with the proposed Horizon Europe Mission for Climate Neutral and Smart Cities, the revision of the Urban Mobility Package, the Covenant of Mayors, and the New European Bauhaus initiative.

Promoting depolluted and re-naturalised sites as potential public green areas in its upcoming proposal for legally binding EU nature restoration targets, in the new soil strategy and in all urban greening actions, as announced in the EU biodiversity strategy for 2030.

redressing social inequalities to an equitable access to green infrastructure in cities as much as possible.

Governance: The plan seeks improvements to the governance of pollution policies, including at the international level and notably via a monitoring and outlook tool using existing and new data sources and models. The Action Plan will also clarify the opportunities provided by the EU's instruments and recovery efforts to direct financing towards supporting the Zero Pollution ambition.

European Digital Strategy

Digital technologies are instrumental in achieving the objectives of the EU Green deal. They allow greener processes in a number of sectors including those relevant to the Greening Cities Partnership such as energy, buildings and city planning. The links to the topic also come through the four pillars of the Digital Compass.

Relevance to the greening cities theme

It would be relevant to explore the link between increasing digital skills of cities and their capacity to green them; adoption of digital technologies for businesses for a lower carbon footprint; more sustainable mobility; etc.

Long-term Vision for Rural Areas

The Long-term Vision for Rural Areas identifies the challenges and concerns that rural areas are facing and highlights some of the most promising opportunities that are available to these regions. The Vision highlights that responding to challenges posed by globalisation, urbanisation, ageing and to reap the benefits of the green and digital transitions, place-sensitive policies and measures are needed that take into account the diversity of EU's territories and their specific needs.

The Vision proposes a Rural Pact and a Rural Action Plan, which aim to make our rural areas stronger, connected, resilient and prosperous. The Rural Pact is a framework for cooperation among authorities and stakeholders at the European, national, regional and local level. It aims to contribute to achieving the shared goals of the long-term vision for the EU's rural areas. The Pact initiates a long-term process. It seeks to simplify interaction on ideas and experiences, to help public authorities, stakeholders and citizens to combine and increase efforts for the benefit of rural areas.

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Relevance to the greening cities theme

The linkages with the themes addressed in the Long-term Vision for Rural Areas can be found in reference to the challenges faced by the **peri-urban areas**, which are a transitional zone between the city and countryside and are usually characterised by diverse land uses. Challenges related to biodiversity and adaptation to climate change are also relevant to these areas, thus urban planning needs to be harmonised with **sustainable**

planning of peri-urban areas. The Vision mentions that flourishing sources of nature, enhanced by and contributing to the objectives of the Green Deal, including climate neutrality, as well as sustainable management of natural resources.

Secondly, linkages can be seen with regards to **governance** aspects: the Vision stresses upon the engagement in multi-level and place-based governance, developing integrated strategies using collaborative and participatory approaches, benefitting from tailor-made policy mixes and interdependencies between urban and rural areas.

European Pillar of Social Rights

The **European Pillar of Social Rights (EPSR)** (adopted in 2017) is a rulebook structured around 20 key principles. It proposes concrete initiatives and concrete targets. The link between EPSR and the greening cities theme is indirect. The EPSR aims to 'equip people with green and digital skills to help them adapt to the green and digital transitions'. This resonates with the **need to "integrate biodiversity and ecosystems in education and training"** which is aligned with the better knowledge aspect of the Partnership. The EPSR is also relevant to the greening cities theme so far as it calls for '**effective access to essential services of sufficient quality**'. Availability of green infrastructure is also a factor for securing 'better working conditions and ensuring healthy and safe work environments'.

Territorial Agenda 2030

The **Territorial Agenda 2030 (A Future for all places)** was adopted in December 2020. It is an action-oriented framework targeted at stakeholders involved in spatial planning and territorial development policies at all administrative levels including cities hence it is relevant for the greening cities theme. The Territorial Agenda 2030 is aligned with other global and EU strategic documents and frameworks. At urban level, the aspects of the Territorial Agenda 2030 on equal opportunities, including access to public services for people and enterprises are developed in the New Leipzig Charter (*analysed separately*). The **Territorial Agenda 2030** recognizes the fact that 'regional and local authorities may need external support' and the potential GCTP would be one such example of external support. The Territorial Agenda 2030 also calls for a **place-based** as well as **multi-level governance approaches** to policy making hence these should be integrated in the work of the Partnership. The Territorial Agenda 2030 acknowledges that **small and medium-sized towns face specific challenges** hence the potential GCTP need to integrate different types of cities.

In terms of thematic coverage in sustainable development the TA has prioritized climate change mitigation and adaptation actions including agriculture, the bioeconomy, green, blue and circular economies, and renewable energy production. Air, soil and water quality are also a priority and have links to the greening cities topic. Other relevant topics include 'Secure, affordable and sustainable energy' (link possible through energy efficiency); 'Just transition'; 'Circular value chains' (especially suitable to small and medium cities); Nature, landscape and cultural heritage (link through topics related to the improving quality of living through better urban landscapes).

Possible GCTP could also take into consideration the **concept of 'functional regions' including 'cooperation and networking within and between cities, towns and their surrounding areas**. The Green Europe priority of the TA specifically picks up the theme of Better ecological livelihoods, climate-neutral and resilient towns, cities and regions through 'the development of nature-based solutions as well as green and blue infrastructure networks', which fits with the thematic focus as presented in the explorative proposal. Additional topics of focus include promoting sustainable land-use, open spaces and public green areas, restoring degraded land and coastal areas. In terms of

horizontal action, the TA underlines the importance of ‘empowering local and regional communities to protect, rehabilitate, utilise and reutilise their (built) environments, etc.’

Renovation Wave Strategy

The European Commission has published its Renovation Wave Strategy⁷⁶ to improve the energy performance of buildings. The Commission aims to at least double renovation rates in the next ten years and ensures that renovation leads to increased energy and resource efficiency. This will enhance the quality of life for people living in and using the buildings, reduce Europe’s greenhouse gas emissions, foster digitalization and improve the reuse and recycling of materials. By 2030, 35 million buildings could be renovated and up to 160,000 additional green jobs created in the construction sector. The Strategy will prioritize action in three areas: decarbonization of heating and cooling; tackling energy poverty and worst-performing buildings; renovation of public buildings such as schools, hospitals and administrative buildings.

Relevance to the greening cities theme

Thematically the Renovation Wave Strategy has linkages with the greening cities theme in the direction of making the construction ecosystem fit to deliver sustainable renovation, based on circular solutions, use and reuse of sustainable materials, and the integration of **nature-based solutions**. Besides, the Strategy discusses the New European Bauhaus initiative and the benefits of nature-based materials in the design of this initiative: stocking carbon emissions in buildings and avoiding emissions that would have been needed to produce conventional construction materials.

European Commission Work programme

In October 2021, the European Commission adopted its 2022 Commission Work Programme⁷⁷ designed to rebuild a post COVID-19 Europe, accelerate the twin green and digital transition achieving climate neutrality by 2050, and build a fairer and more resilient society. It also lists the key legislative proposals that should get priority in the legislative process to ensure swift implementation on the ground across all six of the Commission’s headline ambitions: A EU Green Deal; A Europe fit for the digital age; An economy that works for people; A stronger Europe in the world; and Promoting our European way of life⁷⁸.

Relevance for the greening cities theme

The following elements/legislative proposals of the Work Programme are relevant to the themes elaborated in the GCTP:

- Follow-up on the zero pollution action plan including in the areas of integrated water management to tackle surface and groundwater pollutants and ambient air quality to align standards with World Health Organisation recommendations.
- Regulatory framework for the certification of carbon removals
- Green bonds will play an increasingly important role in the financing needed for the decarbonisation of our society, as part of the Sustainable Europe Investment Plan.

⁷⁶ https://eur-lex.europa.eu/resource.html?uri=cellar:0638aa1d-0f02-11eb-bc07-01aa75ed71a1.0003.02/DOC_1&format=PDF

⁷⁷ https://ec.europa.eu/info/publications/2022-commission-work-programme-key-documents_en

⁷⁸ https://ec.europa.eu/info/strategy/priorities-2019-2024_en

- Mobilization of resources to ensure a green transition that is socially and internationally fair and just: next to the Just Transition Fund and the proposed Social Climate Fund linked to the extension of carbon trading to transport and housing, the external funding for biodiversity will be doubled.

It has to be noted that in its programme, the French Presidency of the EU states that it will 'step efforts to preserve and restore biodiversity and will start discussions on the proposed regulation to establish a new legal framework for the restoration of healthy ecosystems'⁷⁹.

⁷⁹ https://presidence-francaise.consilium.europa.eu/media/zeqny1y5/fr_programme-pfue-v2-5.pdf

Annex 4: Review of relevant initiatives

Green City Accord

The **Green City Accord** is a movement of European mayors committed to making cities cleaner and healthier. It aims to improve the quality of life for all Europeans and accelerate the implementation of relevant EU environmental laws. By signing the Accord, cities commit to take further action to achieve the following goals by 2030:

- Significant improvement in air quality in cities, moving closer to respecting the World Health Organization's Air Quality Guidelines, while ending exceedances of EU air quality standards.
- Important progress in improving the quality of water bodies and the efficiency of water use.
- Progress in conserving and enhancing urban biodiversity, including through an increase in the extent and quality of green areas in cities, and by halting the loss of and restoring urban ecosystems.
- Advance towards the circular economy by securing a significant improvement in the management of household municipal waste, reduction in waste generation and landfilling, and increase in re-use, repair and recycling.
- Significant reduction in noise pollution, moving closer to the levels recommended by the World Health Organization.

Relevance for the greening cities theme

Numerous cities still struggle to address pollution sufficiently. For instance, EU air quality standards are still breached in more than 100 cities in the EU. The Commission will continue to encourage, motivate and work with cities, under the recent Green City Accord, in particular, so that they commit to step up their local action on air, noise, water, nature and biodiversity, etc. thematic links in this regard can be found in the UA Partnership on Greening cities.

New European Bauhaus

The **New European Bauhaus**⁸⁰ is a cultural, environmental and economic initiative of the European Commission inspired by the Bauhaus movement from the early 20th century. It brings together innovation, creativity, culture, and the European Green Deal. As an interdisciplinary initiative, the New European Bauhaus builds a community to imagine and design future ways of living. It draws from a collective dialogue between art, culture, social inclusion, science and technology. The initiative is shaped through an innovative co-design process involving citizens, experts, businesses, as well as policy-making institutions. Artists, designers, engineers, scientists, entrepreneurs, architects, students, and all interested people with a creative mind are welcome to contribute and share examples, challenges, stories and ideas.⁸¹

⁸⁰ https://europa.eu/new-european-bauhaus/index_en

⁸¹ https://europa.eu/new-european-bauhaus/index_en

Relevance for the greening cities theme

The objectives of the New European Bauhaus (NEB) are well in line with the orientations of the UA Partnership on Greening cities towards restoring Europe's ecosystems and biodiversity, making European cities climate-neutral and sustainable and creating a more resilient and inclusive European society.

Covenant of Mayors

The Covenant of Mayors⁸² is an EU initiative launched in 2008 with the main goal of harnessing the efforts of local and regional governments for achieving energy and climate targets. Currently, it gathers almost 11,000 members in 54 countries. Signatories pledge to submit a Sustainable Energy and Climate Action Plan (SECAP). Actions are both mitigation and adaptation and cover a variety of sectors.

Relevance for the greening cities theme

A big majority of actions are relevant to the greening cities theme including buildings (4.3% of actions); environment and biodiversity (3.3%); health (2.1%); land (2.8%); transport, waste and water. The CoM website has a depository of good practices searchable by sectors.

EU Climate Pact

The European Climate Pact⁸³ (ECP) is an initiative of the EC giving the '**opportunity for people, communities and organisations to participate in climate action across Europe**' through learning about climate change; developing and implementing solutions; and connecting with others to maximise the impact of these solutions.

Relevance for the greening cities theme

Green Areas is a priority topic for the EU Climate Pact with a focus on 'restoring, protecting and enlarging green urban areas' and also 'providing a forum for dialogue and cooperation between communities, businesses, landowners and local governments'. The promotion of climate education and awareness is also relevant to the greening cities theme. The Green Buildings and Green Transport priorities are relevant to the wider theme of greening cities.

European Year of Greener Cities

In 2020, the European Parliament adopted a resolution on the European Year of Greener Cities 2022⁸⁴. The aim of the initiative is to raise awareness to the multiple benefits of greener urban environment. Green infrastructure and Green Public Procurement are priority topics. The initiative also aims to spur local citizen action and create educational activities; increase research on the topic and the number of projects; share best practices among MS; etc. The European Parliament also calls on the Commission to devise a new EU strategy for greener cities and green infrastructure. The resolution of the EP strengthens the case for enhanced attention to the topic of greener cities in general and green infrastructure in particular.

⁸² <https://www.covenantofmayors.eu/en/>

⁸³ https://europa.eu/climate-pact/index_en

⁸⁴ https://www.europarl.europa.eu/doceo/document/TA-9-2020-0241_EN.html

Relevance for the greening cities theme

The resolution of the EP strengthens the case for enhanced attention to the topic of greener cities in general and green infrastructure in particular.

‘Future of cities’ related data and research findings

The platform identifies challenges influencing the future of cities in Europe and beyond. It also presents several perspectives from which to look at resolving these issues. It is an initiative of the Joint Research Centre (JRC), supported by the Commission's Directorate-General for Regional and Urban Policy (DG REGIO). The main aim is to raise open questions and steer discussions on what the future of cities can, and should be, both within the scientific and policymaker communities. This platform benefits greatly from the collective intelligence put forward by the Members of the EC Community of Practice on Cities.

Relevance for the greening cities theme

The platform highlights that a resilient city assesses, plans and acts to prepare for and respond to all hazards among which climate change. Understanding social and economic vulnerabilities is essential to formulate actions for resilience adapted to local needs, with local communities playing a central role. This angle is relevant for the greening cities theme as green and blue infrastructure are expected to contribute to addressing climate crisis.

Smart Cities Marketplace

The Smart Cities Marketplace was created by merging two former platforms, the “Marketplace of the European Innovation Partnership on Smart Cities and Communities (EIP-SCC Marketplace)” and the “Smart Cities Information System (SCIS)”. It aims to bring cities, industries, SMEs, investors, banks, researchers and many other smart city actors together with the objective to improve citizens’ quality of life, increase the competitiveness of European cities and industry as well as to reach European energy and climate targets. Smart Cities marketplace has synergies with initiatives such as Civitas, ICC, Living in EU Movement, Communities of Practice on Smart Cities, etc.

Relevance for the greening cities theme

Among the main areas of the Marketplace's cross-cutting operation that are relevant to Greening cities theme are:

- sustainable districts and built environment
- citizen focus
- policy and regulation
- integrated planning and management
- knowledge sharing
- baselines, performance indicators and metrics
- open data governance
- business models, procurement and funding

The Smart Cities Marketplace's operations are structured by its integrated Explore-Shape-Deal Matchmaking process, purposefully geared towards the **knowledge exchange on, the capacity building support** for and the development, implementation, replication and upscaling of Smart City solutions.

Annex 5: EU Funding opportunities

European Structural and Investment Funds

The Multiannual Financial Framework (MFF) adopted for the 2021–2027 programming period supports European regions and cities in becoming greener. One of the five objectives of the European Regional Development Fund (ERDF) for the 2021–2027 period is a greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe. Besides, for the period 2021-2027, the urban dimension of Cohesion policy has been strengthened and substantial investments in urban areas will be mobilised. The new Policy Objective ‘a Europe closer to Citizens’ has been introduced to the main policy framework as an enhanced commitment to integrated territorial development and includes a specific objective to foster sustainable urban development. It provides local actors with opportunities to take the lead in identifying and addressing their diverse challenges, and above all, to tap into their local development potentials. The reinforced sustainable urban development dimension of Cohesion policy shows the conviction of the EU that cities have to be involved in the design and implementation of policy responses to their local challenges.

Horizon Europe Programme

Restoring Europe’s ecosystems and biodiversity is one of the four “key strategic orientations” of Horizon Europe. As such, it was included in the first strategic plan that will guide the new EU research and innovation programme between 2021 and 2024. Horizon Europe Cluster 6 – concerning food, bioeconomy, natural resources, agriculture and environment – is expected to contribute to the aforementioned key strategic orientation and will be an important source of financial support for R&I projects in the area of nature restoration and conservation as well as climate change mitigation, adaptation. EU Missions are a novelty of the Horizon Europe research and innovation programme for the years 2021-2027. They will deliver impact by putting research and innovation into a new role, combined with new forms of governance and collaboration, as well as by engaging citizens.

Horizon Europe Mission on ‘Climate-neutral cities’:

- The Mission (Cities Mission)⁸⁵ will involve local authorities, citizens, businesses, investors as well as regional and national authorities to deliver 100 climate-neutral and smart cities by 2030 and ensure that these cities act as experimentation and innovation hubs. As foreseen in its implementation plan, the Cities Mission takes a cross-sectoral and demand-led approach, creating synergies between existing initiatives and basing its activities on the actual needs of cities.
- The actions eligible for funding under the Cities Missions could have linkages with the greening cities theme in relation to the: emphasis on climate neutrality for cities; multi-level governance; and capacity building.

Mission Adaptation to Climate Change:

- The Mission will enable Europe to prepare for unavoidable climate impacts and accelerate the transformation to a climate-resilient Europe. Rooted in research and innovation, the Mission will set out concrete objectives and deliver tangible solutions to Europeans.

⁸⁵ https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-12-missions_horizon-2021-2022_en.pdf

- The Mission has synergies with the UA Partnership on Greening cities in its **multi-stakeholder approach**. Thematic linkages with the greening cities theme can be seen in relation to addressing **adaptation to climate change in urban areas**, although the role of green and blue corridors/infrastructure is not particularly mentioned.

Life Programme

LIFE is the EU's funding programme for environmental and climate action. The new regulation for the 2021-2027 programming period has allocated a budget of approximately €220 million out of the €280 million to a wide range of projects dealing with the environment and resource efficiency, nature and biodiversity, and environmental governance and information. This includes major investments aimed at protecting and enhancing Europe's biodiversity and addressing adaptation to climate change as part of the 'Environment' part and the 'Climate Action' part of the programme. The LIFE programme will also support the Urban Greening Plans (UGP) introduced by the EU Biodiversity Strategy to 2030 to bring nature back to cities. These plans are expected to mobilise the necessary policy and regulatory reform and leverage financial tools (EC, 2020e).

InvestEU

The InvestEU Programme supports sustainable investment, innovation and job creation in Europe and supports EU's policy priorities, such as making the EU climate neutral by 2050 and achieving its digital transition. It aims to trigger more than €372 billion in additional investment over the period 2021-27. It is an EU centrally managed programme composed of the InvestEU Fund, InvestEU Advisory Hub and InvestEU portal. Among the areas eligible for financing are **the enhancement and restoration of ecosystems and their services including through green and blue infrastructure projects; sustainable urban, rural and coastal development** as well as climate change actions, climate adaptation and mitigation, including natural hazard disaster risk reduction.

Recovery and resilience facility

As part of a wide-ranging response, the aim of the Recovery and Resilience Facility is to mitigate the economic and social impact of the coronavirus pandemic and make European economies and societies more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions.