URBAN GreenUP

D7.1: Exploitation and market deployment plan

WP 7 , T 7.3

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URBAN GreenUP

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Technical References

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0 Executive summary

The aim of the current document is to provide an overview of the strategy and plan that will be implemented for the exploitation and market deployment of Urban GreenUP results. The strategy to exploit the results obtained in the project development is crucial to create a NBS market open to European and non-European actors.

All data concerning the exploitability of results will be collected and will be organized in order to assess the potential deployment of each NBS intervention implemented in demo site cities. Business models and associated financing mechanisms will also be assessed concerning their transferability. Deliverable 7.1 will be subject to revisions and updates during the project. The continuous monitoring activities will provide regular feedback to assess the effectiveness of the plan.

1 Introduction

The aim of this deliverable is to design a strategy and a plan to define specific activities to exploit the results obtained in the Urban GreenUP project. Urban GreenUP is a Research and Innovation Action, which will develop a tailored methodology to support the co-development of Renaturing Urban Plans focused on climate change mitigation and adaptation and efficient water management, and to assist in the implementation of NBS in an effective way by means of a fully replicable demonstration action of NBS. Therefore, the project implementation will deliver a variety of results, ranging from knowledge to specific products, services, methodologies, as well as the implementation of a set of Nature-Based Solutions (NBSs).

Urban GreenUP will act both individually and collectively through systematic, project-duration exploitation activities. For citizens, the project will provide a space of interaction between citizens, the private sector and the government that will result in a more inclusive society, which uses co-design and co-development to improve the innovation capacity and to create an advanced model of community. For installers and SME contractors, Urban GreenUP will provide new, innovative business models for NBS. For technology providers, the project will create demand for these new products and services. For the cities, Urban GreenUP will provide an invaluable strategy for Urban Renaturing in line with the demanding objectives of GHG emission reductions, improved comfort and well-being of its inhabitants and improving the attractiveness and competitiveness of the cities.

Indeed, the exploitation potential of these results will be evaluated both from the public sector point of view (with the involvement and collaboration of demo site cities) and from the private sector point of view (with the involvement of industrial partners of the project) in order to define exploitation models to fit public and private sector interests and needs. All data concerning the exploitability of results will be collected and will be organized in order to assess the potential deployment of each NBS intervention implemented in demo site cities. Business models and associated financing mechanisms will also be assessed concerning their transferability.

Exploitation will support project partners in bringing products, services and methodologies derived from the project results to market. For this reason the exploitation strategy will be a live document, and will be updated and integrated during the course of the project. The implementation of its activities will be monitored and reported along the project duration.

2 Exploitation and market deployment strategy

2.1 Objectives and approach

Urban GreenUP exploitation strategy focuses on exploiting and spreading the project results in order to be used in several contexts and situations by relevant stakeholders, who will take advantage of these services, products and methodologies, replicating and exploiting them at the local, regional, national or international levels beyond the project lifetime.

Urban GreenUP main objectives are:

- Define a strategic framework allowing to duly collect and organize project results and assess their exploitation and deployment potential;
- Delineate and implement a set of activities and tools in order to correctly exploit the project results;
- Guarantee an appropriate articulation with dissemination activities, ensuring that the project developments are regularly communicated to target audiences, towards a growing impact and an increasing market uptake;
- Ensure that the project outcomes last beyond the project lifetime;
- Define appropriate exploitation models, adapted to the selected target groups, ensuring that their interests and needs are met;
- Ensure accessibility and open access of all Urban GreenUP project results and associated outcomes;

Provide the basis effective co-operation between partners, stakeholders and target groups during and after the project period, as a central element to a successful, sustainable and economically viable exploitation of project results.

Urban GreenUP dissemination and exploitation activities' are interrelated and they will take place throughout the project lifespan. Even though separate plans for Dissemination (D8.2) and another one for Exploitation (D7.1) are to be developed, it is understood that an effective exploitation strategy should comprise both dissemination and exploitation activities**.**

In this regard, this document aims at designing a strategy that ensures an effective exploitation of the project results through and after its implementation process, leading to the sustainability of project outputs. This strategy, comprising tools and activities, will allow the project target audiences to benefit from the project knowledge, thus promoting further research and allowing an increasing market uptake of these solutions.

2.2 Structure

The structure comprises an accurate and sharp methodological framework that allows understanding the logical connection between the strategic and operational components of the Exploitation and Market Deployment Plan.

Figure 1 visually summarizes Urban GreenUP exploitation thematic and methodological framework. Having this thematic and methodological framework into consideration, Urban GreenUP Exploitation and Market Deployment Plan is structured as follows:

- **Section 2.4** presents and details the main Target Audiences of the Exploitation Strategy. Apart from the main target groups, it is important to note the critical importance of the public (e.g. mainly the cities) and private sectors (e.g. partner businesses and industries) as respective main end-users and main developers of the solutions to be implemented;
- **Section 2.5** shows a preliminary list of the NBS to be exploited during and after the project lifetime;
- **Section 2.6** presents a set of other relevant project results that have potential to contribute for further research and/or market exploitation at this level;
- **Section 2.7** briefly presents and explains how the exploitation potential of NBS and other project results will be ascertained, particularly for the public sector;
- **Section 2.8** synthetizes how the exploitation potential of NBS and other project results will be evaluated, particularly for the private sector;
- **Section 2.9** makes an *a priori* analysis of the potential economic and social benefits that will arise from market exploitation of the solution to be implemented during the project lifespan;
- **Chapter 3** introduces the Exploitation and Market Deployment Plan;
- **Section 3.1** presents the exploitation activities to be carried out aiming at effectively exploit the project results, along with the role that each project partner will perform to this end;
- **Section 3.2 and 3.3** identifies potential synergies between the exploitation and the dissemination & communication, in a mutual reinforcing action that will increase project impacts, awareness and market and research of project results;
- **Section 3.4** makes a preliminary identification of risks and potential obstacles to the future exploitation of project results;
- **Section 3.5** makes a quick overview on how exploitation results will be monitored and duly reflected in project deliverables. It will also be made a first approach to the foreseen exploitation strategy update schedule along the project lifetime.

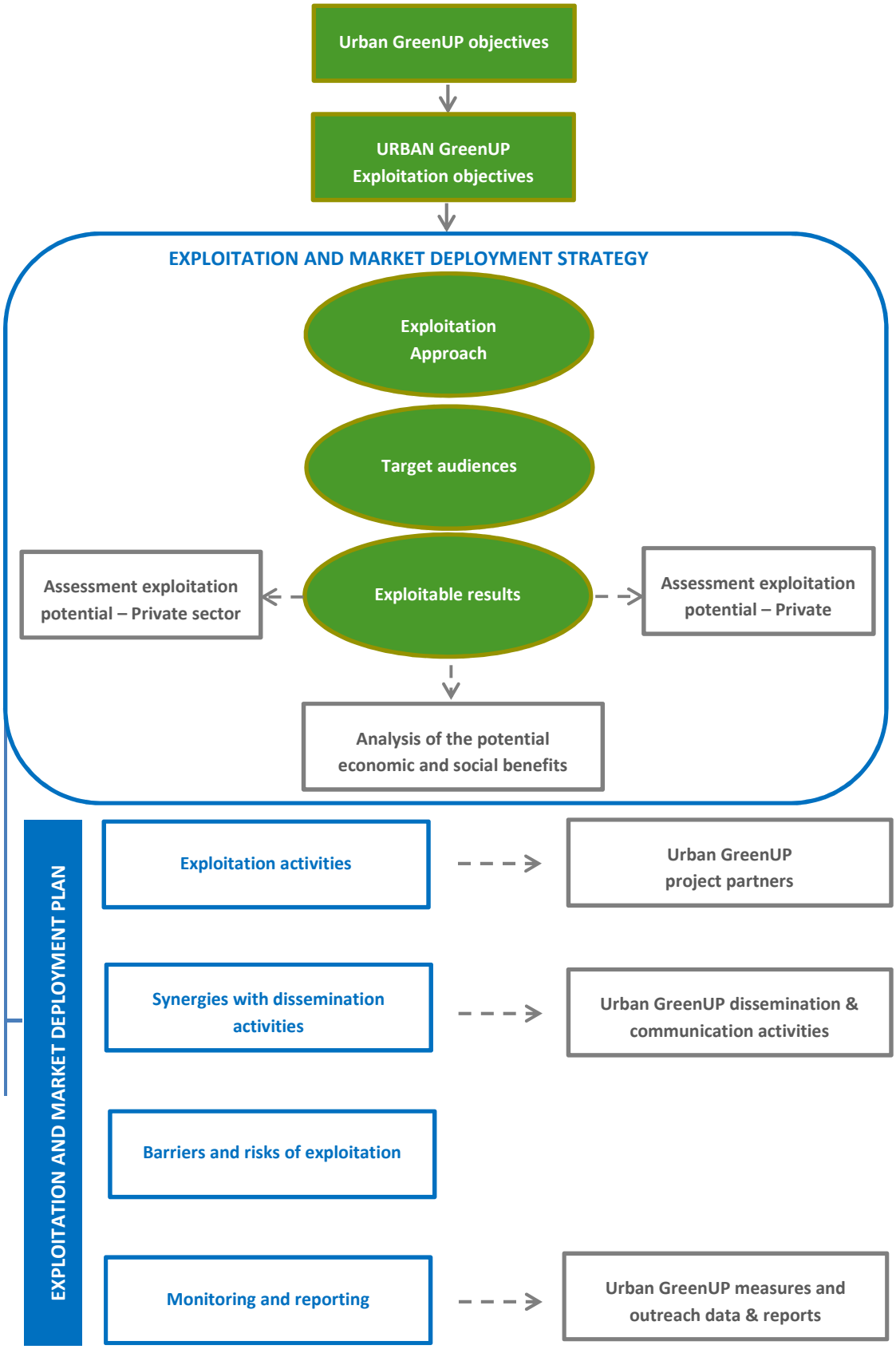

Figure 1.1: Urban GreenUP thematic and methodological framework

2.3 Target audiences

The target audiences are basically constituted by entities and/or individuals that can benefit from project results. Aiming at ensuring the sustainability of the project and an effective and targeted exploitation of the products, services, methodologies and overall knowledge produced, Urban GreenUP has selected the following target audiences:

Table 1. Target audiences

Target group	Profile
Municipalities, City Council and city administration	Cities, regional and metropolitan authorities
National and regional governments	National and local governments and public authorities; Planning/Urban Planning Ministries, Environment and Agriculture Ministries, European committees, Community Leaders, Environment and Planning Authorities and institutions, Legislators
City services companies	They implement SSC solutions to increase city services efficiency
Utility providers	They are responsible for the deployment of some of the features of NBSs like water management.
NGOs	Non-governmental with an interest in the project regardless of their amount of technical knowledge on the subject
Environmental associations	Local associations that are interested in the implementation of NBSs in urban areas with the involvement of citizens
International, Regional and Multilateral Organization	They include UN agencies and multilateral organizations. They can be promoters of initiatives towards human development, environmental sustainability and improvement of quality of life worldwide
Industry associations	Small and Medium Enterprises and industries working on the development of NBSs or associated fields
Academia, research organizations and specialized bodies	Universities, research & innovation centres, technology providers, consultancies
Citizens	Citizens and general public (all types of audiences, with different ages, backgrounds and education levels) levels
Urban Planners	Experts working in management, administrative and technical positions somehow associated critical areas of the project, such as urban/landscape planning, environment, infrastructure, etc.
Standardization bodies	These organizations are critical to ensure a common terminology and minimum characteristics of a SSC, as well as to

	define measurement methods to assess the performance and sustainability of NBSs
Financial institutions (banks, foundations, capital management bodies, large private investors, insurance companies)	Financing organizations with interest in investing in the development of NBS.
European institutions and agencies	European institutions interested in the SCC results in order to enrich the policy and data available on NBSs

Parallel to the overall exploitation and market deployment plan to be implemented and addressed to the above mentioned target audiences, there are two major sectors to which specific exploitation models shall be created regarding their importance for the success of the project: the public and the private sectors.

- **Public sector**. The public sector consists of governments and all publicly controlled or publicly funded agencies, enterprises, and other entities that deliver public programs, goods, or services. Among the public sector entities involved in the project, it is particularly important to stress the cities (and relevant associated bodies) given their status of main end-users of the products, services and methodologies to be developed, implemented, replicated and commercially uptake;
- **Private sector**. The private sector encompasses all for-profit businesses that are not possessed or operated by the governments or public authorities. Regarding Urban GreenUP project it is important to highlight business and industrial partners of the project, that are the main responsible for developing NBS products and services and, in an initial phase, for providing them to the market.

Illustrative of the public and private sectors' importance for the exploitation dimension of the project is the prospective development of concrete and targeted project outputs to fit their interests and needs. Among those are the following project deliverables:

- D7.5 "Table of exploitable results and related business models to implement NBS for private sector";
- D7.6 "Table of exploitable results and related business models to implement NBS for public sector";
- D7.7 "Report on the exploitation strategy for public and private bodies".

2.4 List of exploitable results: NBSs

Urban GreenUP explicitly aims to develop a methodology for promoting the re-naturing of cities to mitigate the effects of climate change, by assisting the co-development of Renaturing Urban Plans (RUPs) and supporting the co-implementation of NBSs in specific areas. A large-scale demonstration action will be carried out in three European cities (front-runners): Valladolid (Spain), Liverpool (UK) and Izmir (Turkey). The demonstration action will comprise the real implementation of NBSs, aimed to solve specific problems previously identified in the three front-runners related with climate change and water management. The selected NBSs relate to **renaturing urbanization, water interventions, green singular infrastructures**. The

implementation of complementary **non-technical actions** is also foreseen. The list of all the NBS to be implemented in each front-runner city together with their short description is presented below.

Table 2. List of NBS

City	NBSs	Description
IZM	New green cycle lane and re-naturing existing bike lane sections	Requalification of existing bike road and development of new green bike lanes.
	New Green Corridor	Development of new green corridor from coastal areas to nature protection area.
	Grassed swales and Water retentions ponds	Development of grassed swales and water retention ponds around Bio-Boulevard to illustrate water-based NBSs to the public.
	Smart Soil into Green Shady Structures	Production of smart soil to exploit new urban farming opportunities in Çiğli wastewater plant zone and implementation in selected urban areas.
	Planting Trees in new green corridor	Planting trees in and around new corridor in order to improve healthy continuum between urban and nature.
	Shade and cooling trees	Trees (26 unit) will be planted cooling sidewalks alongside selected urban car parking area.
	Installation Natural pollinator's modules	Boosting bio-diversity via new pollinator Houses alongside with new green corridor.
	Installation of Parklets	Streets and sidewalks make up to 20 % of the City's land area, which is highly responsible for heat island effect due to concrete pavements, and asphalt for road surfaces. Parklet or pocket park is provides opportunities for people to create small but important public spaces right in their own neighbourhoods.
	Green fences	Green fences around stream in Mavişehir District will be implemented as bearer of sea water-resisted vegetal species.
	Installation of Fruit walls	It is urban farming practices using the effect of sun-heated walls suits to the raising of grapes and currants. Some retaining walls with southern exposure to selected car park areas will be used as productive surface to enhance urban farming practices.
	Urban Carbon Sink	Species to maximise carbon sequestration around stream in Mavişehir District.
	Green Pavement	Development of green pavement instead of existing grey infrastructure to re-naturing stream in Mavişehir District.
	Cool Pavement	It covers high-reflective or permeable paving materials and/or thinner pavements to reduce absorption and retention of heat.
	Green Covering Shelter	Urban heat island abatement will be enhanced by implementing green covering shelter in selected Public Car Park areas in Mavişehir District.
	Green Shady Structures	Green shady structures will be implemented in selected Public Car Park areas in Mavişehir District to strengthen the efficiency of heat island abatement.
	Installation of Climate-smart Greenhouse	Greenhouse will be used for learning purposes in order to illustrate the effects of climate change on farming (for both urban and peri-urban areas) and urban green vegetation implemented by the Municipality.
	Bio-fuel production unit	The use of a non-fossil alternative will be tested to reduce fuel-poverty and hence improve air quality.
	Community meeting facility for climate-smart urban farming	A community meeting facility will be designed in the greenhouse, a touch point illustrating the issues in climate-smart urban farming practices.

	Market Stalls for Urban Farming	It can be adjusted with activities of climate-smart urban farming precinct in and around Sasalı Nature Life Park.
	Educational Path /Bio-boulevard	Bio-boulevard is an educational path explaining the primary issues of Urban GreenUP such as biodiversity and nature-based water interventions.
	Municipality-enabled urban farming with Agricultural cooperatives	Multi-functional farming (in conjunction with women's cooperatives), social farming (participation of people with disabilities) and community supported urban farming practices have to be enabled by the Municipality.
VAL	New green cycle lane and re-naturing existing bike lanes	It is foreseen the deployment of several Km of new green cycle lane or re-naturing existing bike lane. This intervention integrates other NBS, which will allow the development of a real green corridor into the city. It will include innovative cycle-pedestrian paths wherever cyclists could interact with pedestrians without conflicts. This corridor will be a natural biodiversity line, which will connect isolated green areas in the city.
	Tree related actions	Planting trees in different locations and with other interventions. Cycle lane, Green parking pavements.
	Sustainable Drainage Systems	10 SUDs (50 m2 each) for managing and treating surface water runoff in the cycle lanes and in the re-naturing parking area. Sustainable Drainage Systems will be implemented to replicate natural systems that use cost effective solutions with low environmental impact to drain away dirty and surface water run-off through collection, storage, and cleaning before allowing it to be released slowly back into the environment.
	Natural Wastewater Treatment Plant	On a park that already exists, it will be created a wetland to treat wastewater from the city to generate water for irrigation purposes.
	Rain gardens	Rain gardens will be installed to complete the managing and treating surface water runoff in the parking of Football Stadium zone. This kind of gardens contributes to preserve the habitat value and diversity for local ecological communities.
	Green filter area	Area within the flooded park in which a green filter will be installed to treat the water of the river for use in irrigation or other uses.
	Floodable park	Creation of a floodable area as an urban park.
	Green Parking Pavements	Asphalt pavement will be substituted by green pavements with 50% vegetal soil and high drainage capacity will be installed.
	Smarts soils as substrate	Innovative soil auto-fertilizing, NOX fixing properties, which will be used along several NBS.
	Pollinators modules	Natural and compacted pollinator modules to be installed in several locations into the 3 sub-demo areas.
	Vertical green interventions	Innovative substrate and specific vegetal species in order to avoid negative effect of traffic noise with a minimum maintenance. It is taken into account the use of anti-allergy plant. These GI will be designed and installed in order to streets re-naturing, preserve, and enhance the urban biodiversity.
	Horizontal green interventions	To fight against HIE it is foreseen to install 2 units of this GI in Spain Sq. zone, which integrate specific vegetation in a curve surface with a minimum maintenance. The used of local and anti-allergy species will be taken into account. This vegetal roof integrates specific vegetation with a minimum maintenance and anti-allergy properties. Its structural features provide water for plants, humidity for the air and may capture CO2. Likewise, the green roof contributes to reduce the energy consumption due to the improvement of isolation.

	Electro wetland	Innovative wetland surface, which can provide electricity through microbial fuel cell technology. The system will provide electricity to feed the irrigation of nearby gardens and illumination.
	Urban garden bio-filter (Polluted air)	Using a special substrate (mixture of urban products), it will possible treat urban polluted air (capturing NOx, PM, CO, benzene, toluene, etc.). This NBS uses degradation that takes place in soil to purify the polluted air of an underground parking without waste generation.
LIV	Urban Catchment Forestry	Engineered solutions to retrofit sustainable tree cover in urban areas to reduce flood risk and improve water quality. Urban Catchment Forestry will trial engineered solutions to retrofit 36 large ecologically selected trees into hard urban areas, Tree pits will be designed to help reduce flood risk and to maximise water supply to the establishing tree. Soils used will be trialled to maximise soil health and establishment and where necessary innovative designs will be trailed for root cages to ameliorate compaction.
	Pollinator verges & spaces	Areas of grassland close to highways or on neglected land that are sown with wildflower and ecologically chosen species to encourage pollinating insects, increase biodiversity and create a sense of place and social cohesion. Each resting place will create a place where nature can come into the city and thrive close to where people live and work.
	Pollinator walls/vertical	Building living pollinator walls in urban areas decreases the urban heat island effect and provides pollinators a safe place to feed, rest and thrive. Green Barriers include innovative substrate and specific vegetal species to reduce negative effect of traffic noise and to minimise maintenance (guaranteeing their sustainability) and improve air quality.
	Pollinator roofs	Green roofs designed to provide maximum benefit for bees and other pollinators whilst also functioning to manage water flows, provide cooling, and improve air quality. The green roof trial will enable the direct engagement of commercial businesses in testing the value of Green Infrastructure.
	Shade trees	Trees positioned in strategic locations to maximise summer time shading. Species selected will be broad-leaved trees with spreading canopies to maximise shade in summer to reduce thermal loading on building, but open canopy in winter to allow for loading.
	Cooling trees	Trees planted to take advantage of evapo-transpirative cooling. Species selected will be those, which transpire at high rates to maximise their cooling effect. Provision of a constant water supply to such trees will be essential to ensure this function is effective.
	Sustainable Drainage Systems	Sustainable Drainage Systems will be implemented to replicate natural systems that use cost effective solutions with low environmental impact to drain away dirty and surface water run-off through collection, storage, and cleaning before allowing it to be released slowly back into the environment.
	Cycle Route Definition - lin. M	Cycle route definition will introduce innovative ways of establishing green cycle routes where harder engineering solutions are not feasible.
	Green Travel Routes	Enhancements to active travel routes designed to make them more attractive and encourage greater use. Creation of green travel routes. Enhancing and defining existing pedestrian routes with green infrastructure, re-naturing in order to develop a green pedestrian and cycle route through the city to make them more attractive and encourage greater use. Interventions will be

		designed to maximise green infrastructure functionality and encourage active travel, both walking and cycling.
	Pollution Filters	Large urban trees and hedging are excellent filters for urban pollutants and fine particulates to reduce pollution in urban areas, creating a physical barrier to intercept or trap fine particulate pollutants in urban areas.
	Carbon Capture	Water planting interventions designed to maximise and test carbon sequestration, uptake and storage through species selection and monitoring. Species chosen to maximise carbon uptake and storage in grassland SUD conditions through growth of woody plants, shrubs and trees in the SUDS ecological conditions.
	GI for Physical Activity	These interventions will be supplemented by community engagement and links to the wider initiatives to increase physical activity across the city. In particular, the interventions will focus on how to get young people more active more often.
	GI for Mental Health	The intervention focuses on a combination of mindfulness and green infrastructure. Using an innovative programme developed in conjunction with clinical psychologists, the intervention provides opportunities for improving mental health and well-being in the heart of a busy city centre.
	Moving gardens	Mobile gardens provide temporary, intermittent greening of areas across the demo areas to tackle particular challenges and encourage community involvement and engagement.
	Floating gardens	Floating gardens, which are both self-contained and mobile and can be located in blue spaces within the visitor docklands for maximum effect and impact. The structural elements of the floating garden will be innovatively designed to maximise ease of transportation and installation, to minimise the requirement for external watering and maintenance and to maximise flexibility of target locations.
	Road junction pedestrian improvements	In conjunction with green infrastructure interventions city engineers will improve key junctions and road layouts to facilitate the green routes and build the green travel routes interventions into the engineering works.
	Hard Drainage Pavements	Hard drainage pavements will have a special structure with filter properties. Gaps in the pavement will be filled with smart soil and specific creeping grass species with a short growing and minimum maintenance. These will be used for pedestrian and cycle routes.
	Hard Drainage	Techniques of drainage focussed on the prevention of flood - this action implies culvert works in specific areas of demo sites to reduce flood risk in the city centre and improve water quality of water flow into sewerage system.
	Enhanced nutrient managing and releasing soils	Engineered solutions to improve the functionality of soils in cities. Improvements will include the use of biochar (increase the absorption of water pollutants from urban run-off and the slow release of plant nutrients). The use of 3D printed soil structures to improve tree stability and potentially improve water storage and pollutant filtration will be assessed. Smart soils will also assess opportunities for biodiversity enhancement.

The real implementation of the selected NBSs will therefore represent a key result of the project. NBS of demo-site cities will be evaluated applying an innovative **analytical framework** based on their **provision of ecosystem services**. The analytical framework will be developed within the Urban GreenUP project, keeping into account already existing tools and methodologies to

evaluate NBS and tailoring them on the urban context. The analytical framework will identify and assess the generation of new, enhanced, restored flows of ecosystem services generated by urban renaturing, quantifying these flows in physical and monetary terms. The evaluation of NBS in demo-sites cities will allow to assess the monetary value generated by NBS and will allow to identify the exploitable results from demo sites. This will constitute the base to develop the next steps of the project: creation of business models, design of ad hoc financing mechanisms, assessment of the replicability of the model, and creation of a NBS market.

Furthermore, for the selected NBS, a **survey of the technological and management solutions** arising from the project potentially subject to exploitation will be carried out. A classification of the NBS implemented in the demo cities will highlight their mayor impacts. For each NBS, the related business models and financial instruments suitable for their implementation will be detailed explained. A **stakeholder engagement map** for each NBS will be developed in order to put in evidence which are the actors involved and which the potential benefits of each NBS are for both public and private stakeholder. This will facilitate the transferability and scaling up of NBS in different contexts. The classification of the NBS will be developed with the collaboration of demo site cities.

Innovative financial instruments and business models will be also identified to foster the implementation of NBS and to provide recommendations to public authorities and investors. Based on the NBS evaluation, ad hoc financial mechanisms will be selected taking in account the implementation context and the typology of NBS. The strategy to exploit the results obtained in the project development is crucial to create a NBS market open to European and non-European actors. All data concerning the exploitability of results will be collected and organized in order to assess the deployment potential of each NBS intervention implemented in demo-site cities.

2.5 List of exploitable results: other results

Beyond the implementation of real NBS, the URBAN GreenUP project will deliver a variety of results, ranging from knowledge to specific products, services, methodologies supporting the re-naturing of cities, that could be useful for other users and could be applied in other contexts beyond the project itself. During the development of the project proposal, partners have identified a preliminary list of project results that could be potentially exploited in further activities. Each participant is responsible to identify innovative aspects of URBAN GreenUP within their own organizations. First exploitable results are listed in the table below, together with the main sector of exploitation (public/private), the type of result (product/service/process/knowledge/report), as well as their target markets (European/global). All partners will review, refine and update this preliminary list during the course of the project along with the monitoring activities of the exploitation plan.

Table 3. List of exploitable results

Exploitable project result	Sector	Target market	Type of exploitable project result
D6.5 URBAN GreenUP knowledge transfer activities	Public/private	European/global	Dissemination

D6.7 URBAN GreenUP information package - promotional material and collateral to promote EU capacities and expertise in the NBS market through specific examples from the consortium	Public/private	European/global	Dissemination
D8.5 and D8.6 Project videos	Public/private	European/global	Dissemination
D8.8 Final report on dissemination and communication activities	Public/private	European/global	Dissemination
D2.3 Technical specific. of Valladolid demo	Public/private	European/global	Knowledge
D2.4 Monitoring program Valladolid	Public/private	European/global	Knowledge
D2.7: Final report about implementation and commissioning of NBS in Valladolid	Public/private	European/global	Knowledge
D3.3 Technical specific. of Liverpool demo	Public/private	European/global	Knowledge
D3.4 Monitoring program Liverpool	Public/private	European/global	Knowledge
D3.7: Final report about implementation and commissioning of NBS in Liverpool	Public/private	European/global	Knowledge
D4.3 Technical specific. of Izmir demo	Public/private	European/global	Knowledge
D4.4 Monitoring program Izmir	Public/private	European/global	Knowledge
D4.7: Final report about implementation and commissioning of NBS in Izmir	Public/private	European/global	Knowledge
D6.3 Report with the model and analysis for replication in follower cities	Public/private	European/global	Knowledge/process
Involvement of River Mincio Contrat in nature based solution	Public	/	Networking
D6.4 Global NBS engagement and networking	Public/private	European/global	Networking
D1.17 Final composition of the methodology	Public/private	European/global	Process
Deployment of a deep and robust monitoring strategy	Public/private	/	Process
D5.3 City diagnosis and monitoring procedures	Public/private	European/global	Process/knowledge
Impact-based communication & dissemination model & strategy	Public/private	European/global	Process/knowledge
Implementation strategies for climate adaptation in the city administration	Public	/	Process/knowledge
Methodology and low cost sensor network to asses temperatures and HIE effects.	Public/private	European/global	Process/knowledge
Neutrality and field-based approach, Journalist/Specialist in Research communication /Open Source	Public/private	European/global	Process/knowledge
Re-naturalization of the City Environmental Plan	Public/private	/	Process/knowledge
Re-naturing “methodology”	Public/private	European/global	Process/knowledge
Sustainable methodology for Smart Cities Projects	Public/private	European/global	Process/knowledge
Urban sustainable plan (USP)	Public	European/global	Process/knowledge
Biofilter technology for removing environmental pollutants	Public/private	European/global	Product
Green shadow structures	Public/private	European/global	Product
D1.7 NBS scenarios generation tool	Public/private	European/global	Product
D1.8 KPIs calculation tool and prioritization criteria	Public/private	European/global	Product
D1.9 Guidelines to tendering process specification	Public/private	European/global	Product

D8.7 Best Practices kit	Public/private	European/global	Product
Decision-making tool	Public	European/global	Product
Development of a strong replicability and up-scaling action	Public/private	/	Product
Devising nature based solution in no green urban areas according to the Lombardy regions Rete Ecologica.	Public	/	Product
Devising nature based solutions in existing green area of Mantua city	Public	/	Product
Energy and power system control of electrowetlands	Public/private	European/global	Product
Environmental sensors	Public/private	European/global	Product
Green landscape connectivity in the whole city, to overcome barriers	Public	/	Product
Implementation of nature based solutions at district level, e.g. green buffers	Public	/	Product
Involvement of Mantova City stakeholders (citizens, local associations, grassroot groups, etc)	Public/private	/	Product
Mobile GI	Public	European/global	Product
Smart soils tech.	Public/private	European/global	Product
Urban Catchment Forestry	Public/private	European/global	Product
Development of a replicable scaled-up electrowetland	Public/private	/	Product
Integrated GI Assessment tools	Public/private	European/global	Product/service
Collect images by Citizen smart phones for BioBlitz Creation of an ecosystem services map with the interaction of the citizens. Participation of farmers in monitoring processes to give them real time information about potential risks	Public	European/global	Product/service
Portals with Service to Citizens (Parks, Health Life Style etc.)	Public	European/global	Product/service
Portals with Service to Citizens (Parks, Health, Life Style etc.)	Public	European/global	Product/service
Sensors DAQ system and associated database and Mobile/web portal i) to implement a drone based monitoring process and ii) to develop a mobile DAQ Sensors for air quality and temperature monitoring.	Public/private	European	Product/service
Sensed City	Public/private	European/global	Product/service
D1.1 NBS catalogue	Public/private	European/global	Report
D1.11 Co-creation and co-development tools and procedures	Public/private	European/global	Report
D1.2 Climate change challenge catalogue	Public/private	European/global	Report
D1.5 Barriers and boundaries identification	Public/private	European/global	Report
D5.4 NBS implementation conclusions and recommendations	Public/private	European/global	Report
D5.1 Technical KPIs definition	Public/private	European/global	Report/knowledge
D7.10 Report on the existing opportunities and potential barriers for the large-scale	Public/private	European/global	Report/knowledge

deployment of NBS and guidelines on how to overcome them			
D7.8 Report on the market opportunities in European and non-European countries for NBS	Public/private	European/global	Report/knowledge
D8.9 Report on Outreach Indicators and Engagement	Public/private	European/global	Report/knowledge
D1.10 Evaluation and scaling up guideline	Public/private	European/global	Report/process
D1.3 City and area diagnosis procedure	Public/private	European/global	Report/process
D1.4 Baseline calculation procedure	Public/private	European/global	Report/process
D1.6 Guideline to city zoning	Public/private	European/global	Report/process
D6.3 Report with the model and analysis for replication in follower cities	Public/private	European/global	Report/process
D7.2 Report on ESA monetary evaluation for NBS	Public/private	European/global	Report/process
D7.3 Guidelines for the application of ESA methodology in different contexts	Public/private	European/global	Report/process
D7.4 Guidelines for the use of financial instruments and to design business models to implement NBS	Public/private	European/global	Report/process
D7.9 Guidelines to foster international cooperation	Public/private	European/global	Report/process
Climate Smart Urban and peri-urban Knowledge Repository/Exchange	Public/private	European/global	Service
D5.2 Urban platform and data guidelines	Public/private	European/global	Service
D8.3 Website online	Public/private	European/global	Service
Design, development and operation of electrowetland as wastewater treatment and energy producer technology	Public/private	European/global	Service
Expanded Citizen-easy Biodiversity Atlas, Mapping Facility and Tool	Public	European/global	Service
Improved living conditions and biodiversity	Public	Chengdu Hi-Tech Developing Zone, then the whole City of Chengdu	Service
Increased international cooperation and global market opportunities	Public	Chengdu Hi-Tech Developing Zone, then the whole City of Chengdu	Service
Networking and contacts with media and relevant stakeholders	Public/private	European/global	Service
New concept for renaturing WWTP	Public/private	European/global	Service
Pollinator's modules design.	Public/private	European/global	Service
Space-based urban monitoring	Public	European/global	Service
Using NBS database for Chengdu	Public	Global	Service
Involvement of stakeholders as multiplier	Public	/	Strategy/ Method.

2.6 Assessment of exploitation potential: public sector

The public and the private sector can be engaged in quite different ways in the exploitation of project results. As described in par. 2.3, the public sector includes governments and all publicly controlled or publicly funded agencies, enterprises, and other entities that deliver public

programs, goods, or services, and local governments or subjects are of particular interest for the project. These entities are responsible for urban and local planning activities in key domains, which can largely be supported by Urban GreenUP tools and methodologies. Furthermore, the knowledge generated by the project can represent the ground base for their further planning activities and investment decisions. On the private sector side, private partners (large enterprises and SMEs) can bring the innovation deriving from the project into commercial strategies.

For these reasons, the assessment of the exploitation potential of project results (NBSs and other project results) will be conducted from two different perspectives, the public and the private sector ones. The assessment from the public sector point of view will see the involvement and collaboration of demo site cities. The NBS will be associated with the ad hoc business model and financial instrument with a matrix in which the information collected in the previous tasks of WP7 will be resumed. The focus of the analysis will be on impacts and benefits generated for public sector through the implementation of NBS. Public administrations can contribute to the development of new markets for NBS with public financial mechanisms (payments for ecosystem services, municipality-led investment programs, equity funds, urban development funds, large scale area based regeneration schemes, Funds for Strat. Infract, Natural Capital Financing Facilities) and foster private investment for NBS implementation. In addition, the market situation and the regulatory framework will be taken in consideration to highlight the context conditions in which NBS have been implemented. This activity will lead to the development of deliverable D7.6: Table of exploitable results and related business models and financial instrument to be used to implement NBS for public sector (M60).

A further part of the analysis will regard the potential uses by public sector actors of specific tools, methodologies and products developed by the project. The potential exploitation of these results will be investigated in collaboration with the demo-site cities, through specific interviews and surveys.

2.7 Assessment of exploitation potential: private sector

In addition to the assessment of the exploitation potential for the public sector, a similar activity will be conducted on the private sector to evaluate the potential of exploitation for the business sector of NBS solutions developed in demo sites and of other project results. This activity from the private sector point of view will see the involvement and collaboration of the industrial partners of the project. The NBS will be associated with the ad hoc business model and financial instrument through the use of a matrix in which the information collected in the previous tasks of WP7 will be resumed. Furthermore, the market situation and the regulatory framework will be taken in consideration to highlight the context conditions in which NBS have been implemented and which impacts and benefits have been generated for private actors.

This activity will lead to the development of deliverable D7.5: Table of exploitable results and related business models and financial instrument to be used to implement NBS for private sector (M60). A further part of the analysis will regard the potential uses by private actors of specific tools, methodologies and products developed by the project. The potential exploitation of these

results will be investigated in collaboration with the industrial partners of the project, through specific interviews and surveys.

2.8 Analysis of the potential economic and social benefits generated from market exploitation of NBS implemented in the project

A specific analysis will be dedicated to investigate the wider potential economic and social benefits linked to the implementation of NBS. NBS implementation in fact generates revenues that affect the socio-economic context. An ex-post analysis of the NBS impacts generated on the socio-economic context of demo sites cities will be carried out in order to highlight which are the side effects (side effects improve the perception of the city and human well-being, can improve the liveability in cities, human health, improve security, attract more tourism, and attract new business). The results will be resumed in a table in which each NBS will be related to the possible effects generated from their implementation.

3 Exploitation and market development plan

3.1 Exploitation activities and role of partners

As highlighted in the previous sections, Urban GreenUp will generate a variety of outputs and project results, from the implementation of real NBS, which will deliver a series of technological, and management solutions, to specific products, services and methodologies to support the urban renaturing process in cities. The assessment of exploitation potential will enable to understand the related markets for these outputs (at EU and international level) and to identify opportunities for exploitation (internally and externally). After the assessment, partners will need to define specific activities for exploitation, to be implemented at two levels: within the project consortium – with all project partners – and with their potential clients and stakeholders outside the consortium, from front-runner, follower cities up to the URBAN GreenUP Cluster of Cities and further networks and platforms.

Since the project is at its start, partners have defined a preliminary list of potential exploitation activities of project results, which will be further updated along the project and fine-tuned, based on the project advancements and on the results of the exploitation potential assessment. The main exploitation activities identified in this preliminary screening can be grouped in the following categories. Partners will refer to the Consortium Agreement for all aspects concerning the IPR of results within exploitation activities.

- *R&D activities,*
- *commercial exploitation activities,*
- *standardisation,*
- *educational training, awareness and participation*
- *policy making*

R&D activities. Project partners in connection with other research activities and projects related to urban environmental quality, urban climate change mitigation and adaptation, urban nature-based solutions and water management may use the results of Urban GreenUP, in which they are participating. At the same time, the results of activities and projects related to these domains will provide inputs and inspiration for Urban GreenUP activities, in a synergic way. Urban GreenUP results will also represent a knowledge base to build further research activities in the future, with the aim to further improving and bring forward the urban renaturing process as well as developing new products, services and ideas.

Commercial exploitation activities. Some innovative outputs of URBAN GreenUP may be transformed by partners into future products, services or processes, capable of meeting citizens', end-users' and business needs and expectations. To support this process, specific impact sessions will be organized within the project, linked to Project Meetings, to take all necessary steps to bring the commercial exploitation of the URBAN GreenUP developments on the way. These sessions will form an essential part of the joint consolidation of final exploitation strategies. Impact sessions will be designed to support the consortium and individual participants with the process of managing IPR and to pursue any patent opportunities within URBAN GreenUP via the consortium agreement.

Once innovations for exploitation have been identified, the matter of know-how protection via patenting, for example, will be investigated and patent applications will be filed where applicable. In a next step, the focus will shift to the generation of business plans, compiling benchmarking activities and identifying investments needs required for further development in order allow market launch. Support will be provided by UBO throughout the whole duration of the project to all partners.

Standardisation. URBAN GreenUP will consider a set of Standards and will cooperate with key actors such as the European Standardisation Organisations (CEN, CENELEC, ETSI) as well as others (notably ISO TCs 59,163, 257) responsible for technical specifications in the area of NBS. Urban GreenUP will aim to actively contribute to standards in the area of NBS, focusing on interoperability of solutions, consistency of data and social acceptance, also to ensure that they are adapted to the needs of city planners and other city service operators.

Educational training, awareness and participation. URBAN GreenUP explicitly foresees citizens' and stakeholders' engagement and participation in the urban renaturing process through their effective and systematic involvement in participatory, trans-disciplinary and multi-stakeholder consultation processes for co- design, co-development and co-implementation of the RUPs. These activities will represent a legacy also after the end of the project, through the implementation of the RUPs and the related engagement activities. Therefore, citizens and more in general stakeholders will continue to use the project's results and its outputs in the future. The project will have a broader value in terms of educational training and awareness raising on environmental behaviours and solutions, climate change adaptation solutions and strategies, water management issues.

Policy making. URBAN GreenUP will provide project partners with tools and methodologies aimed to support them in the renaturing process of cities, therefore the project results will be directly exploited in urban planning activities and policy making. The project will also generate useful data for the participating cities and other actors, which will provide a knowledge base for informed policy decisions.

The following table lists the exploitation activities identified by partners in this preliminary phase and describes their potential role within such activities.

Table 4. Role of partners in the exploitation of project results

Partner	Role in the Exploitation of project results
CAR	CARTIF will offer the product or service to municipalities by direct collaboration or through direct collaboration or through local associations and local companies.
VAL	*Research activities*• Valladolid will use the results of the project in the following research and innovation synergic EU projects: • S2City - Intelligent System of Services to the Citizen and the Tourist, through the ICT. URBAN GreenUp will provide data to feed S2City big data system. • InLife – Incubate a New Learning and Inspiration Framework for Education, in the demonstration of the advantages of gamification with educational uses, for environmental awareness and social inclusion. • NAIAD - Nature Insurance value: Assessment and Demonstration. It aims to prevent damages caused by climate change through actions in rivers or aquifers, leaded by Confederación Hidrográfica del Duero (CHD). *Data generation and policy making*

	• The project will generate integrated data of interest for the city (temperature, noise, $CO_{2\,eq}$, etc.). It will allow informed political decision making. *Economic development* • Attracting talent, companies, entrepreneurs and tourism, who generate green opportunities, jobs and economic activity for the city. *Educational training, awareness and participation* • Develop environmental education and increase environmental awareness of the citizens. As well as citizen public participation. *Other* • Improvement of the city's resilience to climate change, enhance resources management such as water, development of flood risk management plans and other risks models, definitely, approach Valladolid closer to the sustainable and smart city concepts.
ACC	Use of the technology for internal exploitation and looking for new opportunities of developing a biofilter with other target pollutants. Looking for new opportunities of the technology within other H2020 projects and future proposals related to the use of NBS. Use of knowledge generated during this project, in currently as well as in future research projects related with NBS as Smartcities at internal and H2020 level. On the other hand the knowledge generated also will be useful as part of futures service portfolio for consulting services
CEN	Further R&D (exploit other methodology developments focus on other projects such as rural contexts, cultural heritage, etc). Internal exploitation as part of the Company´s service portfolio for new construction projects.
LIV	Liverpool team will work, through the delivery of the planned interventions, on the development of these ideas as exploitable results from the project. Some aspects are very new and therefore may not be at a stage where Urban GreenUP can exploit them. We also want to work with the Lead and follower cities on several of these ideas to ensure that the thinking from many cities is taken into account in developing these ideas and products.
IZM	Izmir team will work, through the delivery of the planned interventions, on the development of these ideas as exploitable results from the project. The results of the project will be used to promote urban planning based on high quality information. Furthermore, results will be used and shared to support for decision-making.
GMV	Use of the technology for internal exploitation and looking for new opportunities to improve monitoring methodologies. Looking for new opportunities of the technology within other H2020 projects and future proposals related to the use of NBS. Use of knowledge generated during this project, in future research projects related with NBS.
IFO	Results will be exploited to development of innovative content formats, especially for social media usage (including, impact-based campaigns) and design of a comprehensive video and digital storytelling strategy.
SGR	Further R&D. Internal exploitation as part of the Company´s service portfolio for new construction projects.
LEI	LEITAT will use the technical knowledge acquired during the URBAN GreenUP (UGU) project in different research/innovation projects and market initiatives: (1) European projects related to NBS: LEITAT is currently participating in the H2020 project GrowGREEN (GG) which aims to implement NBS over Europe and China mainly. The design of a Green Vertical Ecosystem to treat greywater (GG) will generate synergies with the design of the electrowetland (UGU). (2) National projects: The results obtained would provide useful information for the development of the project ELECTROWETLAND submitted to the Catalan industrial research call ACCIÓ. (3) Market initiatives: LEITAT aims to collaborate with wastewater treatment companies in order to standardize the technology and place it in the market by its implementation in real constructed wetland-based wastewater treatment plants. The results of this project will be protected by

	means of IPR regulatory strategies agreed within the consortium and in accordance with the requirements of the H2020 European call.
UBO	UBO will use the project results to: • publish academic paper • improve knowledge processes of NBSs evaluation • develop a policy framework to foster implementation of NBS • develop an integrated evidence base and a European reference framework on NBS
SPI	SPI will make use of the project results in the following research activities: • LIS-Water – an initiative of LNEC to create in Portugal an international Centre of Excellence for leading edge R&I on water services and related water resources with a high impact on public policies, management and regulation in Portugal, Europe and worldwide); • H2020 project BINGO aimed at reducing the uncertainty of near-term climate predictions and developing response strategies that may help society to better manage the remaining uncertainty, therefore enabling a more efficient management of water resources in Europe.
ROV	The results of the project will be used to promote urban planning based on high quality information. Furthermore, results will be used and shared to support for decision-making.
MAN	The results of the project can be strengthened by the activities of the future Research centre inserted in Mantova HUB project. Sharing NBS in Strategic Urban Plan of Municipality of Mantua. The aim of Municipality is also to involve stakeholder in relationship to other local, or National/European project. The results of the project can be shared by the activities of River Mincio Contract.
LUD	LUD will use the know-how created in the project in several departments. Furthermore, LUD will update frequently several other departments about the projects in the Front runner Cities to create a good basis for our replication plan. In addition, project results will be disseminated in LUD network.
MED	The results of the project will be used to promote urban planning based on high quality information. Furthermore, results will be used and shared to support for decision-making.
BIN	The results of the project will be used to promote urban planning based on high quality information. Furthermore, results will be used and shared to support for decision-making.
CHE	The results of the project will be used to promote urban planning based on high quality information. Furthermore, results will be used and shared to support for decision-making.

3.2 Synergies with dissemination activities

The overall objective of the URBAN GreenUP exploitation-oriented dissemination activities is to establish the overall strategy for ensuring an early and broad uptake of the project results. They will focus on those players that have a concrete interest in taking up and adopting URBAN GreenUP exploitable results. Considering this very specific objective, the implementation of exploitation-oriented dissemination activities will be carried out in close cooperation with WP6 and WP8.

The project exploitation and exploitation-oriented dissemination activities are structured in such a way as to align the project within a strategic innovation context and to make the project outcomes scalable, replicable and exploitable beyond the project duration. Considering that the project will focus on already existing solutions with an average current TRL between 6-8 aiming at 8-9 at project end, intensive exploitation-oriented dissemination activities and supporting

actions will be planned as part of the project to ensure the uptake and replication impact potential of URBAN GreenUP outcomes.

Synergies with URBAN GreenUP dissemination activities are thus expected to have the greatest impact on key stakeholders beyond the project partnership, to ensure that:

- Project outputs can be fully exploited for the benefit of the entire Community.
- The knowledge and information generated and gathered by the project will be made available to all interested stakeholders and potential adopters.
- Elements of excellence of the project outcomes can be reused and replicated beyond the demonstration activities in the Runner Cities.

Beyond the specific responsibilities of WP7, WP8 and WP6 leaders, all partners will be involved in the implementation of the exploitation-oriented dissemination activities, as they will be responsible for contacting their enablers and end-users, especially at local level.

The most effective way of reaching target groups is contacting them through the channels they already know: direct dissemination and communication, preferably through personal contacts is often the most effective way. Therefore, the direct exploitation-oriented dissemination activities to end-users in a first step will build on existing URBAN GreenUP partner contacts. To better structure this process, the following steps will be implemented:

1. The list of enablers and end-users will be included in a stakeholders' database that will be developed with the input of all URBAN GreenUP partners. The database will be constantly updated. WP8 leader will collect the partners' inputs and include them in the database.
2. Each partner will be responsible for their entries, both for the maintenance as well as for contacting them during the lifetime of the project. This procedure reflects the national privacy regulations: entries in the database might only be stored on a meta level (showing only information which is publicly available on websites including the organisation name, city and country, sector/branch, general contact details) as URBAN GreenUP partners might not legally be able to pass on existing personal contact details to third parties. Thus, the stakeholder database will indicate the URBAN GreenUP project partner who stores the individual contact details at their premises. For contacts that have been acquired by URBAN GreenUP, IFO will be responsible.
3. Partners are responsible for addressing the end-users in their regions/country but also at European and international level if they have a direct contact. Addressing and supporting end-user in countries where no URBAN GreenUP partner is situated is more complex: WP7, WP8 and WP6 leaders will be responsible to develop proposals for the division of these end-users among the URBAN GreenUP consortium.

3.3 Exploitation-oriented dissemination channels and tools

A mix of channels and dissemination tools will be exploited to reach these targets. These channels and dissemination tools are reported in the table below.

Table 5. Channels and dissemination tools

Channels	**Online channels managed by the partners**. Considering the importance of the partners' individual actions, they will exploit their already existing and established communication channels.
	Online channels managed by URBAN GreenUP: website and social media accounts. The management of these channels is under WP8 leader (IFO) responsibility.
	One-to-one mail-outs introducing URBAN GreenUP and exploitation-oriented contents. The partner owning the responsibility of the management of their individual contacts will directly manage these or by WP8 leader in case of URBAN GreenUP own contacts and registered users on the website.
	Off-line channels are represented by events, face-to-face meetings, dedicated workshops, professional training sessions, etc.
Dissemination tools	**Information packages** will be produced in the form of fact/info-sheets, providing easy-to-understand descriptions of the solutions, financial instruments and business models. The information packages will be available on the website and distributed via 1-to-1 mail outs to registered users by WP8 leader and by the partners (to personal contacts).
	Newsletters will be used to inform the stakeholders about exploitable results. As soon as exploitable results have been identified and the relative news item or info-pack is released, a teaser will be added to the URBAN GreenUP newsletter. Partners will be invited to do the same in their relevant newsletters. WP8 leader will distribute the newsletter via 1-to-1 mail outs to registered users.
	Best Practices Kit. The Best Practices Kit consist of a modular flip-book and will be released in the final stage of the project in electronic and printable version. The content will focus on results and examples of effective solutions and strategies developed within the project as well on exploitable results, lessons learnt in the form of best-practice guidelines for future initiatives aligned with the philosophy and objectives of URBAN GreenUP.
	Webinars can be used as platform to inform firstly about URBAN GreenUP and to explain the exploitable results and raise the interest of the participants in the results. Webinars will be organized on the specific topics of the info-packs, which are used as a dissemination material for the participants. Webinars will take place on a regular basis targeting different groups of stakeholders. Webinar will be available on the website.
	Networking and relations. Partners will participate at several networking initiatives and events involving EU and international audience for exploitation purposes. The goal is to increase acceptance towards the project's results and open the way to replication and uptake of the URBAN GreenUP model and solutions. Networking activities will leverage on already existing links and communities of interest developed in other EU-funded FP7 and H2020 projects, where many URBAN GreenUP partners are participating as well as on strong relationship with European and international city associations promoting sustainability to distribute news and contents through their channels and organize events under their sponsorship.
	European and international platforms. A special focus on indirect dissemination will be on European platforms as they connect a large variety of stakeholders who are interested in the smart cities theme. A list of European platforms is provided in D8.2 Dissemination and Communication Plan. Platforms like the European Innovation Partnership on Smart Cities and Communities (EIP-SCC), or more NBS-oriented ones such as Oppla and Think Nature bring together diverse stakeholders like cities, industry, SMEs, banks, research and other urban players.
	Participation in external conferences and events. Project partners will participate in events such as conferences, fairs and roundtables. The goal is to boost increase the attention on URBAN GreenUP exploitable results, strengthen, and intensify the relationship with the stakeholders' community.

Another important aspect of Urban GreenUP project is the **replication-oriented dissemination** since it will be used to support the exploitation process. The replication-oriented dissemination will be developed at three levels (as described in D8.2):

- **Replication-oriented dissemination between URBAN GreenUP Runner and Follower cities, and local, regional, and national stakeholders.** The first set of replication-oriented activities will be performed between URBAN GreenUP Runner and Follower cities as part of WP6 tasks[1].
- **Foster transferability and dissemination towards a larger cluster of cities.** Other cities will be invited to join the cluster of URBAN GreenUP, thus creating a wider community of interest regarding the project's vision. The community will represent a pillar of the URBAN GreenUP project's sustainability and replication. It will be maintained through a dedicated communication stream also focusing on exploitable results to increase market opportunities in other countries at international level.
- **Clustering with other NBS and SCC projects and international initiatives.** Starting from exiting EU funded SCC-02 projects, additional initiatives, networks and projects promoting NBS at both a European and an international level will be identified for further collaboration.

3.4 Barriers and risks of exploitation

In order to maximise the potential impact of these results, the exploitation strategy efforts must cover a number of aspects and several levels of implementation that will be implemented along the project: (1) Evaluation of the demo sites (2) Exploitation strategy development (public and private entities) and (3) Global market opportunities and international cooperation. Several barriers and risks can occur during the project development, such as:

- lack in the achievement of results;
- team knowledge gaps;
- lack of data about the effectiveness of project solutions;
- lack of evidence based about replicability of results;
- problems with dissemination and communication activities;
- involvement of private and public stakeholders;
- low interest in Urban GreenUP outputs by targeted audiences.

In order to prevent and eventually manage these kind issues potential regulatory, economic and social barriers will be assessed in follower cities and in cities that will be identified using the consortium's networks and those that become involved in the Network of Cities/Cluster (Task 6.8). This involvement will leverage the identification and involvement of additional international public and private stakeholders in the project to guarantee commitments from other cities to uptake NBS. To achieve the above target, the consortium will conduct desk

[1] WP6 aims at facilitating the knowledge transfer and cooperation between the two groups of cities to enable the implementation of the model in the Follower cities, with different climatic areas, challenges and barriers

research and literature review on existing documents to obtain a comprehensive understanding of the framework conditions in cities that may influence and affect the large-scale deployment and replicability of NBS for each city.

Apart from the barriers, the consortium will also analyse, from another perspective, the market opportunities lying in the six follower cities. This will include conducting a SWOT analysis for each of the cities and providing a summary report on the key characteristics and with a focus on the opportunities for NBS deployment, especially in terms of how to most effectively and efficiently apply the project developed demonstrations and solutions. In addition, seminars and brokerage events will be organised in each follower city, to present the results from previous subtasks and collect feedback and opinions, especially on the priority topics for cooperation of Urban GreenUP results exploitation.

Finally, there are risks that simply concern EC Projects, those related with a Consortium formed by different agents with different interests:

- Conflict of Interest among the partners;
- Lack of Support along the project development;
- Changes in the final phase of the project.

All these kind of risks are managed and regulated in the Consortium Agreement document, in particular it stablishes conditions concerning: intellectual property, responsibilities of parties, access rights, etc.

3.5 Monitoring and reporting

Partners will be asked to revise and update their exploitation activities through the update of the i) table 2 “List of NBSs”, ii) table 3 “List of exploitable results” and iii) table 4 “Role of the partners in the exploitation of project results”, if necessary. This regular monitoring will provide measures of outreach and feedbacks to the exploitation strategy of Urban GreenUP project.

Furthermore, to maximize the impact of project results, in terms of academic impact and exploitation potential, several monitoring activities will be addressed, to assure research cohesion and coherence with EU policies and other EU on-going projects:

- Scientific Background and participation / networking at external events during the course of the project;
- Ongoing analysis of Technology Offer & Business Profiles and implementation of Offers;
- Patent / Trademark Search.

The exploitation and market deployment plan will be updated through the new deliverable that have been added through the first amendment: D7.11 Exploitation and market deployment plan (M36) and finally if necessary a second update of the exploitation and market deployment plan will be performed at the end of the project (M60). In fact, some deliverables are a fundamental part of the exploitation and market deployment plan, as already stated this will be a living document and it will be updated from the beginning within the end of Urban GreenUP project in order to monitor partners activities, results achieved, stakeholders engagement and markets

analysis. The following table summarises the timeline for the submission of the updated versions of the plan.

Deliverable	Submission	Mandatory
D 7.11 Exploitation and market deployment plan	M36	YES
Report - Exploitation and market deployment plan *update*	M60	TBC

4 Conclusions

This report provides an overview of the strategy and plan that will be implemented for the exploitation and market deployment of Urban GreenUP results. As already highlighted the plan is a living document that will be integrated and enriched during the overall project duration in order to ensure that all Urban GreenUp results could be properly analysed and included in the plan allowing different stakeholders to exploit them and to define upscaling and ready to market opportunities.

Furthermore, the suggestions and the requests made by the reviewers during the first periodic meeting of Urban GreenUP project will be fully integrated in the next version of the exploitation and market deployment plan.