Integrated NBS-based Urban Planning Methodology for Enhancing the Health and Well-being of Citizens

# D10.2

# Exploitation Strategy (Version 2)

WP10 – Exploitation Activities, Route to the Market, and Project Sustainability

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|---|---|
| **Lead Contributors** | Eirini Marinou (GSH), Betty Charalampopoulou (GSH), Flora Chalakatevaki (GSH) |
| **Contributors** | |
| **Reviewers** | Paris Gallos (BioAssist), Morten Rask Madsen (Byspektrum ApS) |

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## Legal Disclaimer

## Table of Contents

## List of Figures



## List of Tables

## Executive Summary

This document presents Deliverable **D10.2** with the title "Exploitation Strategy (Version 2)" and it is the main outcome of Work Package 10 and especially Task 10.1 which is entitled "Exploitation and Business Plan-Development". In this Work Package, an Exploitation Strategy is defined for the consortium in an early stage of the project (M18) and will be then updated in M36 (August 2023) and finally delivered in M48 (end of the project). This Task aims to present the comprehensive strategy developed to ensure the effective exploitation and commercialization of the project's results. The document outlines the key activities, milestones, and updated plans for the exploitation phase, aiming to maximize the uptake and impact of the project outcomes by relevant stakeholders. It provides insights into the state-of-the-art in NBS scaling-up, highlights good practices, and emphasizes the importance of an integrated exploitation plan. The deliverable also includes an overview of the exploitation workshops, IP exploitation strategy, and analysis of the socioeconomic aspects of the value chain, e.g., job creation, effects on GDP, and import/export. The exploitation workshops organized as part of Task 10.1, include dedicated meetings among the consortium and workshops where the European exploitation tools are incorporated within the EuPOLIS project. The results of these workshops are fed into the overall exploitation and business plan that is been developed during the project.

***Objectives of this Task***

1. Develop and apply exploitation strategies and plans to foster the market introduction of the critical innovations of the project within the wider European community of cities (development of a business plan).
2. Define a clear vision using the roadmap, which includes the key factors, scenarios, and impacts to accelerate the deployment of EuPOLIS in Europe and worldwide.
3. Agree on a plan for ensuring project sustainability.

## List of Acronyms / Abbreviations

***Table 1**. Acronyms*

| Acronym | Explanation |
|---|---|
| **BGS** | Blue Green Solutions |
| **CAC** | Customer Acquisition Cost |
| **CI** | Contextual Indicator |
| **DS** | Demo Sites |
| **EC** | European Commission |
| **ENPL** | EnPLUS |
| **FL** | Follower cities |
| **FR** | Front Runner cities |
| **GA** | Grant Agreement (of the EuPOLIS project) |
| **GDPM** | Goal-Driven Planning Matrix |
| **GSH** | Geosystem Hellas S.A. |
| **IPR** | Intellectual Property Rights |
| **KER** | Key Exploitable Results |
| **KPI** | Key Performance Indicator |
| **NBS** | Nature-Based Solutions |
| **PH** | Physical Health |
| **PPC** | Pay-per-click |
| **SEO** | Search Engine Optimization |
| **SMEs** | Small-Medium Enterprises |
| **SWOT** | Strengths, Weakness, Opportunities, and Threats |
| **WB** | Well-Being |
| **WP** | Work Package |

## Glossary of Terms

***Table 2**. Glossary of Terms*

| Term | Explanation |
|---|---|
| Blue Green Solutions (BGS) | In the EuPOLIS project, we apply a methodology for innovative urban planning, called Blue Green Solutions (BGS). The methodology originates from the EU (EIT-Climate_KIC program) project Blue Green Dream (BGD - www.bdg.org). The planning guide: Blue Green Solutions, A Systems Approach to Sustainable, Resilient and Cost-Effective Urban Development (available from www.bgd.org.uk ).<br>The BGS methodology is considered an innovative paradigm for the planning, designing, operating, and maintaining of urban water systems (blue assets) and urban vegetated areas (green infrastructure) not as separate systems, as is the case today, but as a synergistic network interlinked with urban ecosystem services (ESS). |
| Business Plan | A business plan is a document that defines in detail a project's objectives and how it plans to achieve its goals |
| Dissemination | Dissemination is the sharing of information and findings with a wider audience. It involves distributing knowledge through various channels to promote awareness and understanding. The goal is to reach and influence the target audience, fostering utilization and impact |
| Exploitation Strategy | The utilization of results in further research activities other than those covered by the action concerned, or in developing, creating, and marketing a product or process, or in creating and providing a service, or in standardization activities (European Commission 2013, 2016b) |
| Market Analysis | Market analysis is the process of gathering data about a target market. It examines the competitive landscape, consumers, and conditions that impact the marketplace |
| Nature-Based Solutions (NBS) | In the broader frameworks, NBS can be described as Implementation of the solutions based on nature and ecological functions, which address both environmental and societal challenges such as adaptation to and mitigation of climate change, natural disaster protection public health and well-being, and food security by delivering multiple ecosystem services |
| Roadmap | A roadmap is a strategic plan or guide that outlines the envisioned path, goals, and milestones for achieving a particular objective or vision. It visually represents the journey ahead, highlighting key steps, timelines, and dependencies. Roadmaps help align efforts, communicate the overall direction, and facilitate decision-making and resource allocation |
| Stakeholders | Stakeholders are individuals, groups, or organizations who have a vested interest or are affected by a particular project, initiative, or decision. They can include internal or external parties such as employees, customers, suppliers, government agencies, and communities. |

# 1. Introduction

Global geopolitical, economic, climatic, as well as other developments, are posing significant social issues for European cities, placing great pressure on urban areas to create conditions that support Public Health (PH) and well-being (WB). The traditional approach to urban and revitalization planning is mostly driven by financial criteria and regular processes, frequently lacking cutting-edge integrated approaches and concepts that strongly emphasize societal, cultural, economic, and environmental factors. As a result, the demands of local communities are either ignored, or underappreciated, and as a result, cities make expensive investments that local populations do not support and are consequently not sustainable. To address these challenges, urban planning approaches built on the EuPOLIS NBS services and enhanced with cultural and societal considerations provide the combination of a people-centred approach with the major environmental and economic benefits of Blue Green Solutions.

The **EuPOLIS project's main goal** is to regenerate and rehabilitate urban ecosystems by creating proper urban planning matrices and inclusive and accessible urban spaces. The addressed key challenges include low environmental quality and low biodiversity in public spaces, water-stressed resources, and undervalued use of space. Specifically, it aims to replace the traditional perception in which engineering systems are built to protect the environment at significant costs. The project's methodologies will be tested in four front cities: Belgrade (Serbia), Lodz (Poland), Piraeus (Greece), and Gladsaxe (Denmark). Additionally, four follower cities have also been selected to adapt, replicate, and demonstrate the advantages of EuPOLIS innovations via mentoring and coaching, cities of Bogota, Palermo, Limassol, and Trebinje. The EuPOLIS team will outline these critical challenges that the demonstration sites face, provide integrated solutions, and measure their positive impact on the quality of the citizens' lives, like their overall well-being (WB), physical health (PH,) and mental and emotional health.

The role of Work Package 10 **(WP10)** "Exploitation Activities, Route to the Market, and Project Sustainability" is to develop and apply exploitation strategies and plans to foster the market introduction of the key innovations of the project within the wider European community of cities, resulting in a complete business plan. Its basic objective is to define a clear vision using a roadmap, including the key factors, scenarios and impacts to accelerate the deployment of EuPOLIS in Europe and worldwide and to agree on a plan for ensuring project sustainability. WP10 consists of the following tasks:

- **Task 10.1: "Exploitation and Business Plan-Development" [M1-M48]**
- Task 10.2: "Future of deploying NBS for improving PH and WB" [M31-M42] – **Ongoing**
- Task 10.3: "Scaling-up of the EuPOLIS solutions-Route to the Market" [M12-M48] – **Ongoing**
- Task 10.4: "Consensus-Building Workshop" [M32-M46] – **Ongoing**
- Task 10.5: "Long-term EuPOLIS Roadmap" [M36-M48] – **Hasn't started yet**

This document presents the key activities followed for the development of the EuPOLIS exploitation strategy and is the result of Task 10.1 "Exploitation and Business Plan-Development". Within this WP 3 version of updated deliverables are to be submitted based on the GA (Grant Agreement). The first version was successfully submitted in M18 and later, has been approved by the reviewers, thus this report represents the **2nd version** of these 3 series of deliverables. The following sub-sections present

the scope and objectives, the updates of the 2nd version compared to the 1st version, the structure of the document, and the relation to other WPs and Tasks.

It is important to mention that this document, as the second and more updated version, should have contained more updated/new information focused on the deployments/interventions at the demonstration sites. However, because of the delayed implementation of the NBS solutions in the demo sites, no major advancements are documented. All four (4) FR cities dealt with several conditions, including, the pandemic (unprecedent for all countries), legislative and political changes and severe inflation, which had an impact both on the design as well as on the building/construction phases. Some of the reported delays, e.g., Gladsaxe, are attributed to specific challenges. In the case of the Gladsaxe project, the delay is due to the extended development time required for new water systems and prototypes designed to manage water locally through evaporation. Despite the proactive Risk Management Plan created for this project, these challenges can be unpredictable and may still impact the regular timeline of the project. The expected delays vary for each demonstration site, starting from 2 to more than 8 months. Hence, version 2 focuses on the workshops, feedback collected from partners, and the EU tools used to gather useful information to proceed with ensuring the project's overall success and impact.

## 1.1 Scope and Objectives of the Deliverable

The main objective of deliverable **D10.2 "Exploitation and Business Plan-Development (Version 2)"**, is to outline the range of exploitation actions that have been completed until now and are scheduled within this project to amplify the knowledge developed within this Task. This task is led by Geosystems Hellas **(GSH)** and has as participants, all the EuPOLIS SMEs, the VFI, and the consortium cities. All SME partners of the consortium are participating in the formulation of the EuPOLIS project exploitation strategy, by contributing to the creation of the relevant documentation and the organization of the exploitation workshops. More specifically, the development of the plan is supported by **a series of 3 Exploitation Workshops** for the consortium, organized by **ENPL (EnPLUS)** to prepare the exploitation strategies of the project results; these workshops will also monitor potential IPR opportunities.
In more detail, this task aims to develop a common and efficient strategy for exploiting the project findings (in individual and collective ways), to ensure that these are taken up by the relevant stakeholders during and after the project's lifetime, defined at the developed business plan. This task was initiated with a detailed state-of-the-art review of the NBS scaling-up and related good practices, introduced at the early stage of the project (M18) in D10.1 introducing in a more general way the ultimate goals and the preliminary strategies that need to be followed throughout the development of the overall exploitation strategy. Aiming to define a holistic Exploitation Strategy for the consortium, the 2nd version is reported and further updated in **M36 (August 2023)** and will finally be delivered in M48 (end of the project). In particular, this deliverable describes the project activities and the identification of the partner's products according to the boosting recommendations suggested in the Plan for the Exploitation and Dissemination of Results in Horizon 2020.[1] The exploitation is based on an innovative scheme that will be reviewed in the three versions of this document during the project so that it incorporates the latest understanding of the project achievements that could be further exploited.

[1] European Commission, Directorate-General for Research and Innovation, (2021) Evaluating the impact of nature-based solutions – A handbook for practitioners. Publications Office of the European Union. https://data.europa.eu/doi/10.2777/244577

## 1.2 D10.2 (version 2) Updates and Changes

In **Version 2** of the "Exploitation and Business Plan-Development" deliverable, the following updates and changes have been incorporated:

- Organization of **Consortium Workshops** to identify each partner's products
- Inclusion and Utilization of a **European Exploitation Tool**
- Based on the input from the Consortium Workshops, an updated **SWOT analysis** is presented
- Updated **market analysis** to reflect the latest trends and developments in the industry
- Enhanced financial projections and risk assessment based on new information and market dynamics
- Expanded socio-economic analysis to provide a more comprehensive understanding of the project's impact

## 1.3 Structure of the Deliverable

The present document, namely **D10.2 "Exploitation and Business Plan-Development (Version 2)"**, is organized into seven (7) Chapters to facilitate search, reference, and further analysis as needed.

- **Chapter 2** presents the Exploitation Strategy of the EuPOLIS project
- **Chapter 3** includes information regarding the Business Plan developed
- **Chapter 4** presents the Exploitation Workshops conducted among the consortium
- **Chapter 5** introduces the European exploitation tool [Horizon Results Booster]
- **Chapter 6** summarises the conclusions of this deliverable
- **Annex 1** includes the documents related to the EU exploitation Tools used
- **Annex 2** includes the Preliminary Report for the HRB
- **Annex 3** includes the Final Report for the HRB

## 1.4 Relation to other Work Packages (WPs)

All EuPOLIS working packages are interrelated with WP10 offering a comparative advantage over other urban development methods in terms of scientific and technological excellence, as can be seen in **Figure 1**.

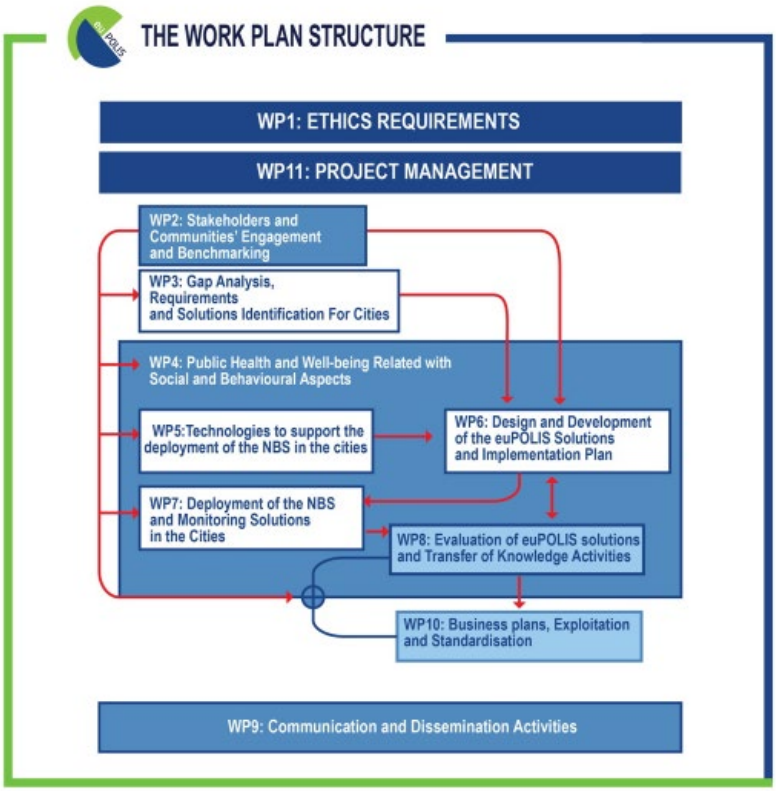



***Figure 1.*** *Demonstration of the Work Plan Structure, the position of WP10, and correlation with the other Work Packages*

The baseline analysis, problems, and needs assessment through intense stakeholder involvement (WP2, WP3) are fed to WP4, which will provide a set of Indicators appropriate for assessment. WP7 is responsible for deploying the NBS and monitoring solutions in the cities, which will be evaluated once they are deployed during WP8. WP10 builds directly upon WP8, WP6, and WP2. WP8 develops a solid evidence-based demonstration that BGS/NBS are superior to current state-of-the-art conventional solutions while at the same time assessing the scalability and resilience of NBS methods. WP6 develops an innovative master planning system utilizing participatory processes creating a sense of ownership among the citizens and increasing the acceptance rate of proposed implementations. WP2 serves as a stakeholders' engagement plan and receptor of several workshops which are crucial for EuPOLIS's results to be exploited after the project lifetime. Furthermore, is indirectly built upon WP3, WP4, and WP5.

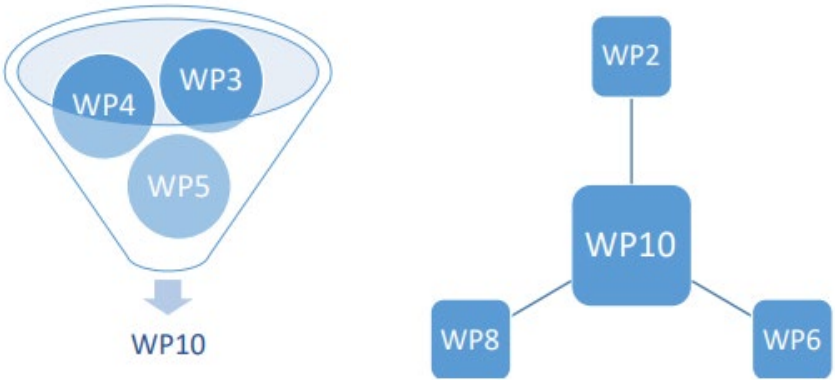



***Figure 2.*** *Connection with other Work Packages*

## 2. Exploitation Strategy

Before moving forward with identifying final KERs, it was considered important to discuss how the consortium should use acquired interactive knowledge. It was important to be aware of what we can offer, what type of projects we do approach, analyse and define what a standard offer would be and prepare our offer's crucial principles, by first defining a strategy. This discussion was conducted within the scope of the Consortium Workshops (see section 4).


***Figure 3.*** *General idea of the required steps to devise a strategy*

To gain more experience and have the time to re-evaluate the overall Exploitation Strategy, several steps were considered to be more prepared when the problems related to the interventions are resolved. Within the scope of every innovation project, the **exploitation methodology** plays a significant role in achieving future commercial success. It is therefore important to leverage the knowledge and technologies developed throughout the project's lifetime, transforming the generated value into market success. The designed exploitation strategy for the EuPOLIS project is developed based on careful examination of rights, patents, and IPR issues, strictly in line with EU policies. Inspired by the Business Model Generation[2], EuPOLIS focuses on developing sustainable plans for its innovative urban solutions, effectively balancing economic and environmental benefits, aiming to transform cities into resilient, inclusive, and sustainable urban spaces.

[2] Business Model Generation, New Jersey, John Wiley & Sons, 2010

To develop the exploitation strategy, the following aspects are covered:

- Identification of the **Key Exploitable Results (KERs)**/assets of the project
- Conduct a **Market Analysis**
- Definition of **Business Models**
- Protection of the **Intellectual Property Rights (IPRs)** of the Consortium's members

The presented strategy also uses a valuable participatory methodology, in which all members of the consortium have worked closely together to identify and outline the project's main exploitable results. According to these, the target groups have been identified during dedicated meetings of WP10, workshops and through dedicated questionnaires that have been conducted in the past months. Additionally, this document includes a concrete business plan and a comprehensive market study, offering an in-depth analysis of the project's market positioning and growth strategies upon competition.

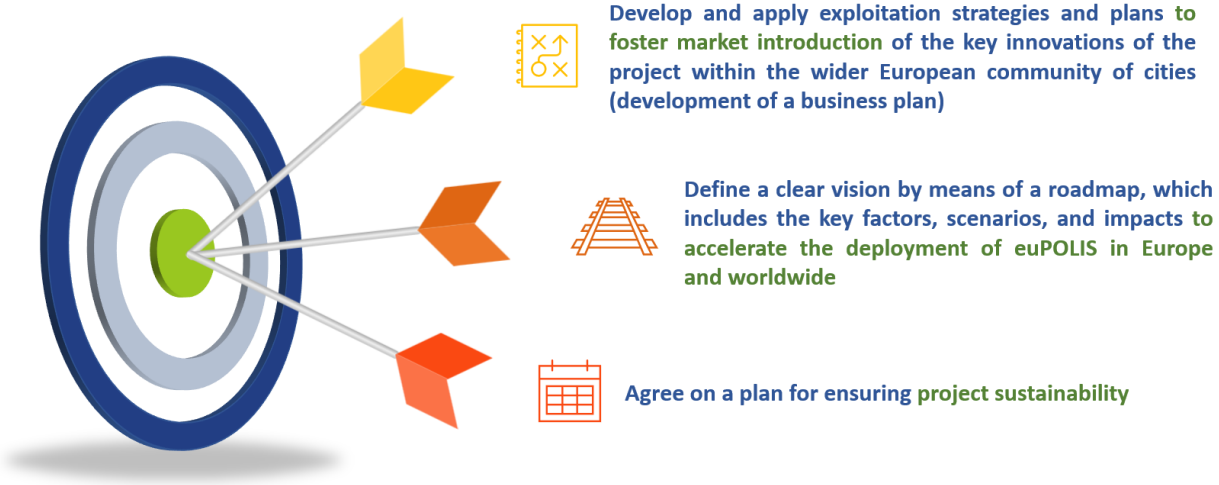



***Figure 4**. Overall Strategy of the EuPOLIS Project*

## 2.1 Market Analysis of the EuPOLIS Project

**Market analysis** is a vital component concerning every company or project strategy; hence it constitutes an integral part of the EuPOLIS project's exploitation plan too. To this end, it is of high significance to update in D10.2, the conducted analysis of the market environment made in the deliverable D10.1, entailing a methodical study of market circumstances, industry trends, customer demands, and the competitive landscape. The final version of this analysis will be included in the third version, enabling participants to make properly formulated decisions, identify opportunities, and formulate successful methods to attain their objectives.

The following sub-sections provide a detailed explanation of all the components that are included in the concept of the second version of Market Analysis:

- **Sub-section 2.1.1:** Proplem stated vs EuPOLIS solution
- **Sub-section 2.1.2:** Value Proposition
- **Sub-section 2.1.3:** Key Exploitable Results

- **Sub-section 2.1.4:** SWOT Analysis
- **Sub-section 2.1.5:** Target Audience
- **Sub-section 2.1.6:** Competitors Analysis
- **Sub-section 2.1.7:** Risk Management

### *2.1.1 Problem stated vs. EuPOLIS solution*

**Problem:** In the modern era, multiple adverse effects are observed worldwide, ranging from climate change to biodiversity loss and several natural disasters, which directly impact human well-being. Effects on both people and nature are first experienced in cities, where approximately half of the human population on a global scale can be found. Climate change, urbanization, and the accompanying increases in the size and number of cities are placing a variety of interrelated pressures on ecosystems. These problematic situations need to be addressed decisively, by adopting a holistic approach that considers sustainability's both social and environmental dimensions.

**Solution:** The euPOLIS research project focuses on the regeneration and rehabilitation of urban ecosystems by creating proper urban planning matrices and inclusive and accessible urban spaces, aiming to create the EuPOLIS methodology. Within the created strategy, modules, matrices, detailed scientific methodologies and the integrated visualization platform are combined, to effectively monitor, evaluate, and validate the interventions, using thematic and interactive maps. This integration will provide a thorough understanding of the environmental problems and are simple to comprehend for people outside the scientific field. Such tools and systems are of high importance allowing stakeholders, including policymakers and urban planners, to completely assess the spatiotemporal impact of NBS interventions on the urban environment and citizens' well-being. The lack of such solutions makes it difficult to dynamically and easily explore, comprehend, and evaluate optimized NBS interventions, which makes it difficult to determine how effective NBS is at fostering sustainable urban development.
For example, the Preliminary Selection Toolkit and the EuPOLIS Visualization Platform address the need for effective monitoring and evaluation of NBSs in urban areas. Existing solutions may not provide the necessary capabilities to explore, comprehend, and evaluate the optimized EuPOLIS solutions in a dynamic and easily accessible manner, hindering the understanding of the effectiveness of NBS interventions in promoting sustainable urban development.

### *2.1.2 Value Proposition*

The core of **EuPOLIS 's value proposition** relies upon the transformation of urban landscapes into thriving and sustainable cities. The main emphasis on the following four key areas guarantees a future that prioritizes the well-being of both people and the environment:

1. **Enhanced Citizen Experience**
   EuPOLIS is dedicated to enhancing urban residents' lives by developing inclusive and sustainable spaces. Fostering a sense of community and social interaction through the creative developed approaches to urban planning and design, while in parallel improving the standard of living for all residents
2. **Green Cities/Buildings**
   Commitment to bring nature into the heart of urban areas through these initiatives, by integrating harmoniously the built environment with green infrastructures (NBS) and multi-

functional natural systems, fostering ecological resilience and enhancing the urban experience

3. **Public Health Improvement**
   EuPOLIS prioritizes public health in urban planning. With improved air quality, enhanced water quality, and better access to green spaces, the offered sustainable solutions improve urban residents' physical and mental health
4. **Sustainable Energy Sources**
   According to EuPOLIS, sustainable energy technologies can reduce carbon emissions, advance energy efficiency, and pave the way for a greener and more resilient urban future by incorporating renewable energy sources

### *2.1.3 Preliminary Key Exploitable Results (KERs)*

In this current version 2, some **preliminary KERs** were considered, based on the progress made until now, resulting from feedback collected from partners, and the EU tools that were used to gather useful information, to proceed with ensuring the project's overall success and impact. The following KERs are part of the technologies and methodologies that were created and/or updated within the project. In version 3 (D10.3), more KERs will be analysed, as well as the overall EuPOLIS Methodology will be explicitly inferred and detaily documented.

After having fruitful discussions with the consortium, the Preliminary KERs that will be documented and further investigated via EU tools are the following ones:

**EuPOLIS Visualization Platform:** The EuPOLIS Visualization Platform is an innovative web-based application that addresses the need for effective monitoring and evaluation of NBS in urban areas. This solution provides a user-friendly interface where stakeholders, such as policymakers and urban planners, can explore, comprehend, and evaluate the impact of NBS interventions on the urban environment and citizens' well-being. With its cutting-edge 2D and 3D visualization capabilities, comprehensive data integration, and advanced analytics, our platform delivers valuable insights and supports evidence-based decision-making for sustainable urban development. The unique value proposition lies in providing a comprehensive and easily accessible means of monitoring and understanding the effects of NBS, empowering stakeholders to create greener, more livable cities.

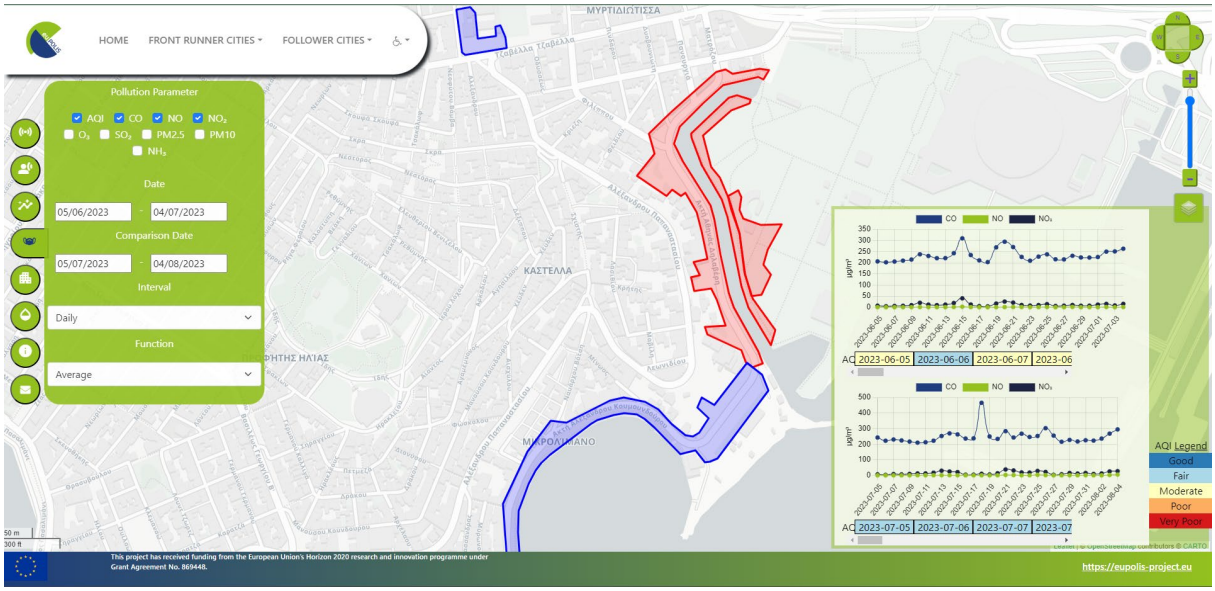



***Figure 5.*** *The EuPOLIS Visualization Platform*

**Goal Driven Planning Matrix:** The Goal Driven Planning Matrix is a tactical framework that combines thorough policy recommendations for planning with specific guidelines for urban planning. It directs decision-makers to incorporate improvements to the environment, social dynamics, and economic conditions to improve public health and well-being. The matrix provides specific information on sustainable land use, green infrastructure, pedestrian-friendly streets, and other topics for urban planners. Value Proposition: The well-being and quality of life of urban residents are given priority in this integrated approach, which promotes collaboration, fact-based decision-making, and sustainable urban development.

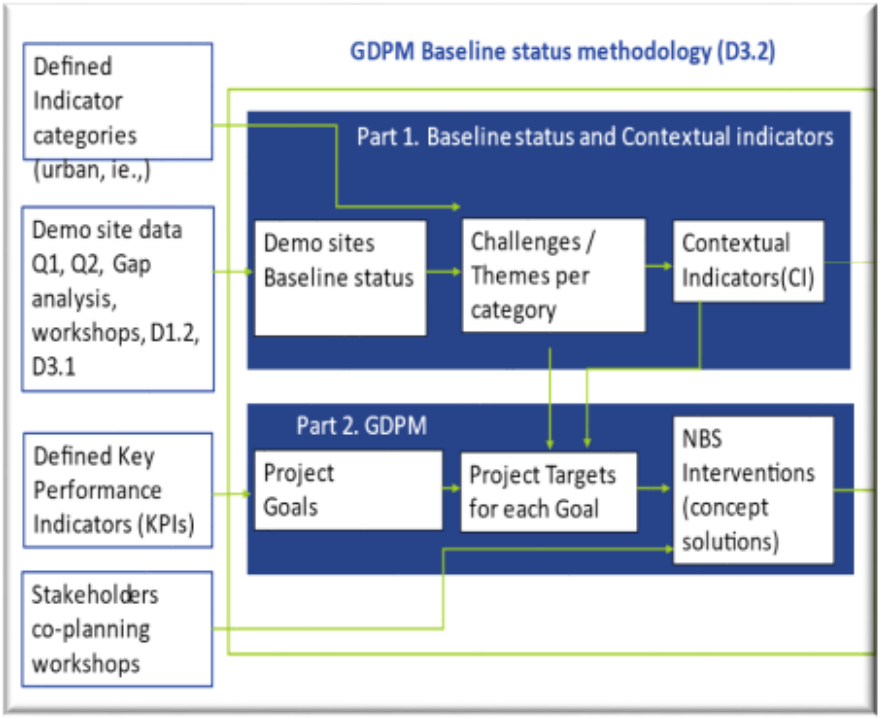



***Figure 6.*** *The Goal-Driven Planning Matrix*

**EuPOLIS NBS Preliminary selection tool:** EuPOLIS NBS Preliminary selection tool is an easy-to-use online decision support tool to assist in NBS implementation in cities by carrying out a preliminary NBS selection and assisting urban planners and practitioners to identify the most promising interventions that can then be further investigated more thoroughly, for example through detailed modelling. This tool is built upon a methodological framework that has been developed for providing an initial assessment of candidate NBS interventions considered for a specific site through, employing a preliminary multi-dimensional impact analysis, as well as a standardised site screening process that exploits readily available data to quantify the identified main Contextual Indicators (CIs) and assess the severity of the associated concerns at the site. Value Proposition: The developed methodology provides a quantifiable analysis, that is not based solely on subjective criteria and best practices, and consequently formulates a practical tool for complementing and augmenting the implementation of other important urban planning practices and methods.

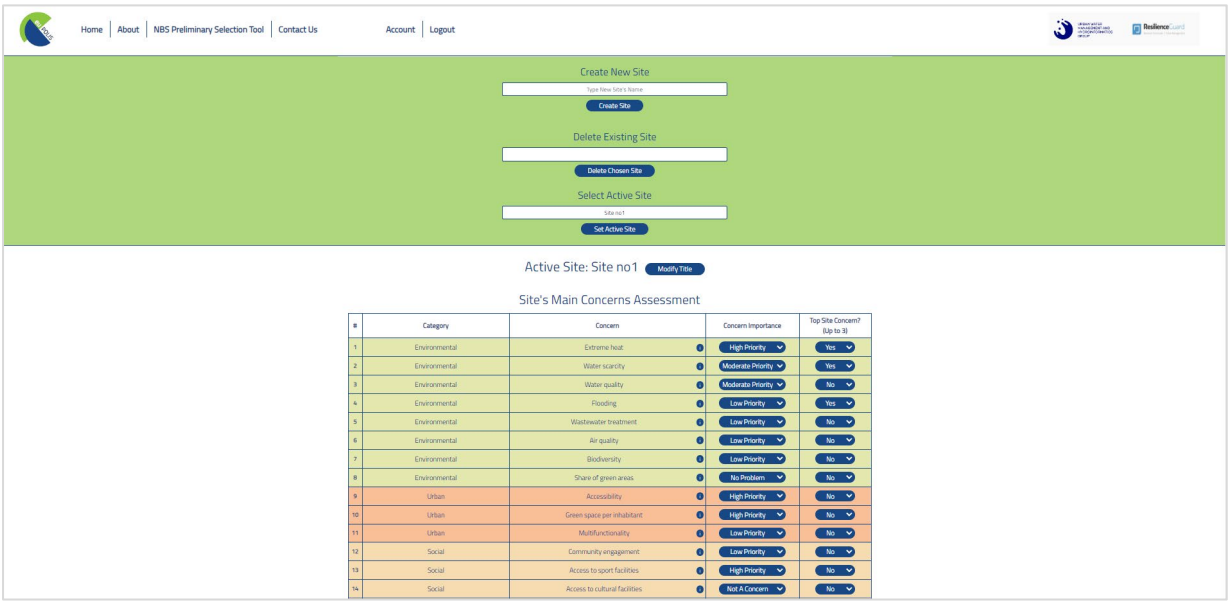



***Figure 7.*** *NBS Preliminary Selection Tool*

### *2.1.4 SWOT Analysis*

| Strengths | Weaknesses |
|---|---|
| ➢ euPOLIS has included major players, including worldwide end-users, industrial partners, and academia partners: each one is an expert in a relevant field of NBS and the provision of ecosystem services in cities<br>➢ High-tech solutions with easy implementation within existing systems and facilities<br>➢ Capacity to harmonize with other technologies and existing platforms<br>➢ Several partners have implemented NBS technologies in various contexts and industries worldwide | ➢ Cities as end-users (operators) are often not particularly interested in sophisticated (ICT-based) solutions, especially given the current level of economic crisis<br>➢ Need special training of the NBS operators<br>➢ Speed of technical evolution in the domain which blocks some end-users fearing a quick obsolescence<br>➢ Difficulties among different communities in euPOLIS multidisciplinary approach<br>➢ Lack of convincing, quantified examples |
| **Opportunities** | **Threats** |
| ➢ Increased need of cities for radically innovative integrated solutions to resolve their operational problems caused by the population pressure<br>➢ Successful implementation may be applicable to other domains, e.g. transport infrastructure.<br>➢ Real necessity of upgrading existing services to meet the EC standards, as well as the worldwide NBS trends<br>➢ May open up markets also in the US, Canada, and the rest of Asian countries (through international partnerships as well) | ➢ Competition from existing and emerging players in the NBS market<br>➢ Challenges with navigating and complying with diverse policies and regulations across regions and countries<br>➢ Limited public awareness and understanding of the benefits of NBS solutions<br>➢ Potential for resource constraints and budget cuts impacting future funding and project implementation |

#### 2.1.4.1 Strengths

- Inclusive Consortium with Worldwide Reach: EuPOLIS has an inclusive consortium with major players, global end users, industrial partners, and academic partners. The incorporation of cutting-edge solutions into the curricula at private universities is also of interest.

- High-Tech Solutions with Easy Implementation: The project provides high-tech solutions, such as GDPM, MyFeel, Bioassist platform, EuPOLIS Visualization Platform, Urban Water Metabolism Toolbox, Sensor's Gateway, etc., that can be quickly integrated into current facilities and systems.

- Capacity for Harmonization with Existing Platforms: EuPOLIS can collaborate with other technologies and established platforms to co-design and develop features that could eventually be offered as product-service combinations.

- Knowledge-Based NBS Deployment: The project takes advantage of the partners' expertise as many have successfully deployed NBS technologies across the globe, ensuring knowledge-based deployment.

#### 2.1.4.2 Weaknesses

- The Reluctance of Cities as End-Users: Given the current economic crisis, cities may be hesitant to adopt complex ICT-based solutions, making widespread implementation difficult.

- Need for Special Training of NBS Operators: To effectively manage and maintain Nature-Based Solutions, skilled operators need specialized training, which increases complexity and costs.

- Rapid technological advancements could make some end users uncertain and afraid that their technology will become quickly obsolete.

- Multidisciplinary Approach Challenges: Bringing together various viewpoints can make it difficult to align goals and make decisions.

- Lack of Quantified, Convincing Examples: The absence of strong supporting data may limit the adoption and acceptance of EuPOLIS solutions.

#### 2.1.4.3 Opportunities

- Addressing Growing Urban Challenges: To control population pressures and fix operational issues, cities urgently need innovative solutions. With its cross-boundary planning methodology and wide range of practical urban solutions, EuPOLIS is prepared to meet this demand.

- Core Benefit of Cross-Boundary Planning: EuPOLIS 's cross-boundary planning promotes collaboration among various stakeholders, allowing for better-tailored solutions that are in line with each city's particular requirements.

- Applicability to Other Domains: By adapting the project's effective solutions to other fields, such as transportation infrastructure, its influence can be felt outside of urban settings.

- Highly Adaptive Methodology: EuPOLIS 's adaptable methodology fits various city scenarios and offers locally pertinent and efficient solutions.

- The Necessity for Upgrading Existing Services: The real need for upgrading urban services to comply with EC standards and global NBS trends is addressed by EuPOLIS, which promotes urban development.

- International Market Opportunities: Through international partnerships, and collaborations with nations like the US, Canada, and Asia, chances for widespread acclaim and impact.

#### *2.1.4.4 Threats*

- EuPOLIS is up against established and new competitors in the competitive NBS market. To stand out, it must highlight special value propositions and show how well its strategy works.

- Navigating Diverse Policies and Regulations: When operating across multiple regions, it's important to pay close attention to the various policies and regulations that apply. By involving local stakeholders, compliance and efficient execution will be ensured.

- Limited Awareness of NBS Benefits: NBS benefits may not be widely known. Workshops and conferences that involve citizens and stakeholders will improve understanding and support.

- Potential Budget Cuts and Resource Limitations: Funding insecurity could be problematic. Partnerships and strategic financial management can guarantee project resilience.

### *2.1.5 Target Audience*

EuPOLIS aims to engage a wide range of stakeholders who are committed to advancing sustainability and NBS in urban settings. To advance public health, well-being, and environmental preservation, this creative initiative brings together policymakers, urban planners, researchers, NGOs, and a variety of other practitioners. By providing useful data-driven insights and game-changing tools to improve the implementation and monitoring of NBS interventions, EuPOLIS meets the unique needs of its diverse target audience as it rolls out its sophisticated Visualization Platform. More specifically the target audience is:

**Policymakers and Urban Planners**
These decision-makers shape urban policies and need comprehensive insights into NBS interventions' impact to foster sustainable urban development.

**Environmental Agencies**
Organizations focused on environmental protection and monitoring require tools to assess NBS interventions' effectiveness in addressing environmental challenges.

**Research Institutions and Academia**
Academic entities studying urban planning and environmental science can utilize the platform to gather data and contribute to NBS research.

**Non-Governmental Organizations (NGOs)**
NGOs advocating for urban development and environmental conservation can use the platform to assess NBS's impact and promote positive change.

**City Officials and Administrators**
Municipal authorities implementing NBS interventions benefit from the platform for monitoring and data-driven decision-making.

**Progressive City Governments**
Cities actively working towards sustainable development seek comprehensive tools to monitor and evaluate NBS projects.

**Environmental NGOs**
NGOs advocating for NBS interventions may require robust platforms to monitor and assess their effectiveness.

**Research Institutions and Think Tanks**
Academic institutions with ongoing research on NBS interventions can use the platform for data gathering and analysis.

**Innovators and Technology Enthusiasts**
Technology developers interested in urban development may integrate the platform into their products or services.

**Urban Construction**
Companies involved in urban construction can use the platform to assess the impact of NBS interventions on projects.

**Municipalities and Big Developers**
Urban developers and local governments benefit from the platform's data-driven insights for NBS implementation and evaluation.

***Table 3.*** *Target Audience of the EuPOLIS Project*

| ***Target Audience*** |
|---|
| *Policymakers and Urban Planners* |
| *Environmental Agencies* |
| *Research Institutions and Academia* |
| *Non-Governmental Organizations (NGOs)* |
| *City Officials and Administrators* |
| *Progressive City Governments* |
| *Environmental NGOs* |
| *Research Institutions and Think Tanks* |
| *Innovators and Technology Enthusiasts* |
| *Urban Construction* |
| *Municipalities and Big Developers* |

### *2.1.6 Competitors Analysis*

The exploitation plan for EuPOLIS, a groundbreaking project aimed at implementing NBS for sustainable urban development, is heavily influenced by **competitor analysis.** For making wise choices, spotting potential obstacles, and seizing opportunities, it is essential to comprehend the competitive landscape. By scrutinizing its main rivals and their advantages and disadvantages, EuPOLIS can hone its tactics, capitalize on its distinctive offerings, and establish itself as a market leader. A thorough competitor analysis enables EuPOLIS to develop a solid exploitation strategy, optimize its resources, and maximize the beneficial effects of its cutting-edge NBS solutions on urban environments and society at large. Some examples regarding the competitor's Analysis constitute the following:

Green City Solutions

Green City Solutions is a reputable business that specializes in urban greening solutions, such as vertical moss installations and air purification technologies. They offer scalable options for enhancing urban air quality.

- Strengths: The strong assets of this business are the proven track record of putting green infrastructure projects into action, a strong brand reputation, and a wide range of products designed for different urban environments.

- Weaknesses: The lack of comprehensive NBS solutions for other facets of urban sustainability IS a weakness due to the primary focus on air quality improvement.

Urban Nature Alliance (UNA)

UNA is a group of academic institutions and research organizations committed to expanding understanding and proficiency in NBS research.

- Strengths: Strong academic reputation, collaboration opportunities for research projects, extensive expertise in NBS research, and data-driven insights are some of the strengths of this business.
- Weaknesses: A major weakness is considered the lack of a commercialization focus and products specifically designed for urban practitioners.

In addition, among others, a significant competitor of EuPOLIS can be assumed the Ellinikon Project which is located in Athens, Greece. This competitor was thoroughly analysed in D10.1. The Elliniko Project is a visionary venture set on the sprawling grounds of Athens' former international airport, spanning an impressive 6,200,000 sqm. The project's primary objective is to create an unparalleled ecosystem, encompassing multiple distinct communities, with a focus on delivering luxurious living spaces and enriching public experiences. Anchoring the southern edge of The Elliniko site is a captivating 3.5 km stretch of coastline, meticulously upgraded to cater to both luxury living and the delight of the general public. At the heart of The Elliniko Project lies the magnificent 2,000,000$m^2$ Ellinikon Park, a captivating spectacle and Europe's largest coastal park. The park serves as an iconic landmark, setting the stage for 21st-century Greece. The Ellinikon Park promises boundless opportunities for individuals of all ages and interests, offering a refreshing green haven for Athenians while exemplifying the essence of sustainable living and recreation. The park, recently accessible to visitors, is already becoming a social hub and a focal point for immersive aquatic music choreographies, captivating its guests with a mesmerizing experience.

### *2.1.7 Risk Management*

The success of EuPOLIS ' market analysis and the accomplishment of its mission to advance sustainable urban development through NBS depend **on effective risk management**. Making informed decisions and strategic plans to deal with uncertainties and take advantage of opportunities requires the identification, assessment, and management of potential risks. Partnership, technological, market, financial, and regulatory risks are all included in EuPOLIS. To optimize market analysis efforts and maximize the benefits of EuPOLIS solutions in building resilient urban environments, proactive interventions are crucial. More specifically, the risk and the possible intervention of EuPOLIS are:

**Partnership Risk Factors**

**Industrialization at Risk**

Risk: The potential lack of manufacturers capable of producing the exploitable result may pose a significant risk to the project's commercialization. Without a reliable supply chain, the scalability and widespread adoption of EuPOLIS solutions could be compromised.

Intervention: To mitigate this risk, EuPOLIS will actively explore and identify alternative supply chain partners for the rig and Hardware-in-the-Loop (HWIL) system. The project will conduct thorough market research and establish strong collaborations with manufacturers to ensure a seamless industrialization process.

**Disagreement on Ownership Rules**

Risk: Disagreements among project partners regarding ownership rights could lead to conflicts and hinder the successful exploitation of EuPOLIS solutions. Without a clear understanding of each partner's role and the ownership of updated versions of tools, collaboration may become challenging.

Intervention: To address this risk, EuPOLIS will initiate discussions and negotiations between relevant partners before the development of a future version or supplementary material. By clearly defining ownership rules and roles, the project aims to foster a more robust and harmonious partnership.

**Exploitation Disagreement among Partners**
Risk: Divergent interests among project partners may lead to disagreements and conflicts, potentially hindering the successful exploitation of EuPOLIS solutions.
Intervention: To ensure a harmonious partnership, EuPOLIS will facilitate open communication and collaborative decision-making among partners. The project will seek to find common ground and reach mutually beneficial agreements, fostering a unified approach to exploitation.

## Technological Risk Factors

**Worthless Result**
Risk: The emergence of better technology/methodology shortly could render the current EuPOLIS solutions less valuable and potentially obsolete, limiting their market appeal.
Intervention: To stay ahead of technological advancements, EuPOLIS will continuously monitor and evaluate the landscape of available technologies. This proactive approach will allow the project to understand the strengths and weaknesses of emerging alternatives and make necessary improvements to its solutions, ensuring they remain competitive and relevant.

**Significant Dependency on Other Technologies**
Risk: Relying heavily on specific technologies may create vulnerabilities if these technologies fail or become unavailable. Such dependencies could disrupt the seamless functioning of EuPOLIS solutions.
Intervention: To minimize dependency risks, EuPOLIS will conduct thorough research and identify alternative technologies available in the market. The project will evaluate the strengths and weaknesses of these alternatives and establish contingency plans to ensure uninterrupted operations, even in the face of technological challenges.

## Market Risk Factors

**Low Product Demand - Standards Not Yet Established**
Risk: The lack of demand for EuPOLIS solutions may arise if no established standards are making them compulsory. This can deter potential customers from investing in the product.
Intervention: To create demand for its solutions, EuPOLIS will adopt successful guidelines used in other sectors. The project will actively collaborate with certification bodies or customers to establish testing guidelines, aiming to align its solutions with existing and emerging standards.

**Challenges in Initial Sales**
Risk: Difficulties in the initial sales phase, such as unforeseen hurdles or customer-related issues, may hamper the successful adoption of EuPOLIS solutions.
Intervention: To overcome initial sales challenges, EuPOLIS will prioritize customer satisfaction and engage closely with clients. The project will work collaboratively with customers to find mutually beneficial agreements and address any concerns promptly and effectively.

**Product Rejection by End-users**

Risk: If end-users do not perceive the benefits or relevance of EuPOLIS solutions, they may reject the product, limiting its adoption.

Intervention: To address potential end-user rejection, EuPOLIS will enhance its promotion strategies and provide clear explanations of the advantages and positive impacts of its solutions. By engaging with end-users and responding to their needs, the project aims to foster greater acceptance and adoption of its offerings.

## IPR/Legal Risk Factors

**Legal Problems and Proceedings**

Risk: Legal challenges or proceedings against EuPOLIS could disrupt project activities and hinder the commercialization process.

Intervention: To mitigate legal risks, EuPOLIS will proactively seek legal and/or commercial agreements with relevant parties. The project will employ legal experts to navigate potential issues and ensure compliance with applicable laws and regulations.

## Financial/Management Risk Factors

**Lack of Top Management Endorsement**

Risk: The lack of endorsement from top management may hinder the project's progress and success.

Intervention: EuPOLIS will adopt a proactive communication strategy to communicate the positive outcomes and benefits of the exploitable results to top management. By showcasing the potential value and impact of its solutions, the project aims to gain the support and endorsement of key decision-makers.

**Resource Inadequacy**

Risk: Inadequate human and/or financial resources may impede the project's advancement towards successful exploitation.

Intervention: To secure adequate resources, EuPOLIS will review the implementation timeline and make necessary adjustments to ensure smooth progress. The project will seek additional funding or investments as required and liaise with existing partners and clusters to promote its solutions effectively.

**Know-How Risks**

Risk: Leaks of confidential information or know-how may jeopardize the competitiveness of EuPOLIS solutions.

Intervention: To prevent know-how risks, EuPOLIS will implement robust security measures and resource strategies to safeguard sensitive knowledge. The project will establish protocols and guidelines for handling confidential information, ensuring that knowledge remains protected and confidential.

## Environmental/Regulation/Safety Risks

**Influence of Laws and Regulations**

Risk: Changes in laws and regulations may impact the testing and compliance requirements for EuPOLIS solutions.

Intervention: To adapt to evolving regulations, EuPOLIS will actively participate in technical committees, stay updated on new testing standards, and ensure compliance with existing and future regulations.

**Non-Compliance with Testing Standards**
Risk: The product or service may not comply with existing or future testing standards.
Intervention: EuPOLIS will engage in technical committees to review actual test standards and closely monitor activities related to the definition of new standards. By ensuring compliance with testing standards, the project aims to maintain the quality and reliability of its solutions.

# 3. Business Plan

The strategic design of EuPOLIS assets ensures scalability and adaptability while meeting the unique requirements and preferences of various stakeholders. The system is adaptable enough to support organizations of various sizes, locations, and operational scenarios, making it a useful tool for a variety of users. EuPOLIS makes sure that its solution is relevant and efficient over time and is capable of adapting to shifting trends by keeping an eye on future technological advancements and changing requirements.

EuPOLIS's potential revenue streams from the software-as-a-service (SaaS) licensing model, subscription-based access on a monthly or annual basis, and the provision of specialized solutions and consulting services determine its viability as a business. EuPOLIS can also introduce customer service models that charge users for extra assistance when it's required and offer options for round-the-clock operational support that is customized to each customer's needs.

The success of EuPOLIS, which aims to promote broad acceptance and effective commercialization of its innovative findings, depends on inclusive distribution planning. The project's **road map**, a well-written **business plan directs market positioning**, **distribution channels**, **sales strategies**, **marketing initiatives**, and **cost structures**. EuPOLIS's distribution strategy includes in-depth knowledge of the company's goals, target markets, channels of distribution, sales tactics, marketing and promotion programs, cost structure analysis, and sales projections. By taking these strategic steps, EuPOLIS can reach its intended audience and effectively use its software-based solutions, increasing the project's influence and impact in advancing NBS for sustainable urban development.

## 3.1 Distribution Plan

The core of the EuPOLIS distribution channels is a Unified Solution Package that combines the EuPOLIS NBS Preliminary Selection Tool, Goal Driven Planning Matrix, and Visualization Platform (as well as other methods and tools that will be considered in the remaining time of the project). To effectively monitor and implement NBS in urban areas, this comprehensive offering is geared toward urban planners, policymakers, and practitioners. The main exploitable results can be accessed separately as tools, and collaborations expand EuPOLIS 's credibility and reach. Through providing stakeholders with cutting-edge solutions and insights, EuPOLIS seeks to build greener, more sustainable cities through a variety of distribution channels.

### *3.1.1 Objectives and Target Audience*

The goal of EuPOLIS is to provide a cutting-edge, reasonably priced, and user-friendly software-based solution that can be used for a variety of tasks and is accessible to both the public and private sectors, including policymakers. The project's **unique and innovative nature**, which addresses the market demand for cutting-edge NBS for urban development, will be the driving force behind its commercialization and market positioning.

The target market for EuPOLIS is made up of a wide range of organizations, including those from the private sector, government agencies, decision-makers, urban planners, researchers, property owners, energy consultants, and European academic institutions. The distribution strategies are painstakingly crafted to meet the unique requirements and preferences of each target group.

To realize the full potential of its software-based product, EuPOLIS understands the value of involving both **private and public stakeholders**. EuPOLIS aims to become the leading provider of NBS solutions through strategic commercialization efforts and powerful market positioning, playing a crucial part in determining the direction of urban development and sustainability.

### *3.1.2 Channels of Distribution for EuPOLIS Key Exploitable Results*

**Unified Solution Package**

A comprehensive unified solution package will be made available, including, for instance, the EuPOLIS Visualization Platform, Goal Driven Planning Matrix, and EuPOLIS NBS Preliminary Selection Tool. The web-based application, methodologies, and decision-support tools included in this package will deal with the monitoring, evaluation, and application of NBS in urban settings. Stakeholders who want a comprehensive approach to implementing the NBS and sustainable urban development are catered to by this all-inclusive package.

**Standalone Tools**

Each key exploitable result may be provided as a standalone tool for stakeholders with particular requirements or preferences. With its cutting-edge 2D and 3D visualization capabilities, the EuPOLIS Visualization Platform can be a valuable resource for urban planners and policymakers looking for an in-depth understanding of the effects of NBS interventions. Urban planners seeking to include thorough and integrated planning policies may find the Goal Driven Planning Matrix to be an appealing stand-alone methodology. Similarly, practitioners looking for effective and efficient preliminary NBS selection may find the EuPOLIS NBS Preliminary Selection Tool appealing due to its user-friendly online interface.

**Collaborations and Partnerships**

EuPOLIS can explore partnerships and collaborations with relevant organizations, academic institutions, environmental agencies, and urban planning bodies in addition to direct sales. By working with reputable organizations, EuPOLIS can broaden its market reach and promote the widespread adoption of its key exploitable results. Collaborations can be joint ventures, licensing agreements, or co-development projects that make use of the resources and networks of partner organizations. The market penetration and impact are accelerated by this.

### *3.1.3 Sales Strategy*

A **sales strategy** is a plan of action designed to sell a product or service to a specific group of clients. Identifying new clients, understanding their requirements and preferences, and executing particular methods to create leads, develop relationships, and complete sales are all part of the process. The sales strategy for the EuPOLIS assets initiative may be separated into two categories: **Direct Sales** and **Partnerships**.

**a. Direct sales**

The following methods can be used in the direct sales strategy for EuPOLIS:

- A specialized sales team could engage potential customers more successfully by taking a consultative approach, which would increase the adoption rates of the EuPOLIS NBS Preliminary Selection Tool, Goal Driven Planning Matrix, and EuPOLIS Visualization Platform.

- Continuous market research may offer insightful knowledge into shifting consumer preferences and market trends, enabling EuPOLIS to remain competitive and relevant in the marketplace.
- Customized consultations that offer individualized solutions may increase EuPOLIS ' appeal to potential customers and boost the use of its tools and methodologies.

**b. Partnerships**

In addition to direct sales, partnerships may significantly boost EuPOLIS 's sales and distribution efforts. Several particular strategies to form alliances are the following:

- The successful integration of EuPOLIS solutions into their service offerings may come from strategic partnerships with energy consultants, construction experts, and trade associations. This would increase the market reach and adoption of EuPOLIS tools and methodologies.
- Collaborations in marketing and promotion with partners may improve the brand's value proposition and visibility, potentially luring more customers to choose EuPOLIS solutions over rival products.
- Giving selling and marketing partners in-depth training and ongoing support could enable them to market and use EuPOLIS solutions more successfully, leading to higher client adoption rates and better market penetration.

### *3.1.4 Marketing and Promotion*

EuPOLIS can effectively present its Visualization Platform and NBS Preliminary Selection Tool to potential clients and increase brand recognition by taking part in pertinent **trade shows**, **conferences**, and **industry events**. Making thoughtful decisions about the right times will guarantee that EuPOLIS successfully reaches its target audience. It will draw event attendees and encourage meaningful conversations with a captivating booth presence that includes fascinating graphics and interactive displays. By making EuPOLIS stand out as an original solution during speaking engagements or panel discussions, the platform's value and potential will be better understood by the audience. Active networking can result in meaningful connections and potential partnerships with participants and industry leaders. Through events and trade shows, these actions can **raise public awareness** of EuPOLIS, generate leads, and create partnerships within the sector.

**A) Digital Marketing**

Through implementing a thorough digital marketing strategy, EuPOLIS can reach and engage its target audience effectively. The platform and the rest technological tools can increase their online visibility through search engine optimization (SEO) and pay-per-click (PPC) advertising, ensuring that potential customers actively looking for NBS solutions can quickly find EuPOLIS. The target audience will gain insightful knowledge and insights from its content marketing initiatives, which include blog posts, articles, and case studies. To connect with the audience, share pertinent content, and build a community around NBS solutions, social media marketing will be extremely important.

**B) Events and Tradeshows**

Taking part in pertinent events and trade shows can increase EuPOLIS 's brand recognition and exposure to new client networks. Visitors will be drawn to an engaging booth presence with compelling graphics and interactive displays, which will promote fruitful conversations. Speaking engagements will give EuPOLIS the chance to position itself as an effective solution and persuade the audience of its value by giving engaging presentations. In addition to exploring possible partnerships and collaborations, EuPOLIS can further its presence and generate leads within the industry by actively networking with participants and industry leaders.

**C) Public relations**

Through clever PR tactics, EuPOLIS can improve the perception of its brand and reputation. The market visibility of EuPOLIS will grow as a result of distributing press releases to media outlets and interacting with journalists and influencers in the sector. Through guest posts, expert commentary, and interviews, EuPOLIS can build relationships with journalists and influencers and position itself as a reliable source for NBS. EuPOLIS ' quality will be further highlighted by pursuing accolades and recognitions, which will help to improve its reputation.

**D) Measurement and Evaluation:**

Key performance indicators (KPIs) will be created by EuPOLIS to monitor the success of its marketing and promotion efforts. To judge the efficacy of the distribution plan, metrics like website traffic, conversion rates, and customer feedback will be tracked. Customer acquisition cost (CAC) and sales performance, including earnings from EuPOLIS sales, will also be closely watched. Regular data evaluation and analysis will guide resource allocation and distribution process optimization, fostering ongoing progress for future success.

### *3.1.5 Revenue steams*

The implementation and sustainability of EuPOLIS's urban development initiatives depend on generating income. These revenue streams are a preliminary version that will be further improved and examined as the project develops, allowing EuPOLIS to maximize its financial strategies and impact. To support its mission of building greener, more livable cities through nature-based solutions and sustainable urban planning, generating **financial benefits** from a variety of sources is essential. In this section, with a focus on the commercial exploitation of the EuPOLIS features, more fundamental financial assumptions and first predictions for the business strategy are presented. The forecasts are based on the project's exploitable assets and a scenario of cooperative exploitation, while individual exploitation options are considered.

**EUPOLIS Revenue Streams**

**Consultancy Services:** Offering expert guidance on urban nature-based solutions (NBS) implementation to municipalities and organizations seeking sustainable urban development.

**Technology Products:** Providing innovative NBS technologies, tools, and platforms that enhance urban infrastructure resilience and ecosystem services.

**Alignment with EU Regulations:** Adherence to EU sustainability standards creates funding and grant opportunities for urban development, strengthening EuPOLIS's reputation and luring potential investors.

**Savings on Public Healthcare:** Increasing public health through cleaner environments may result in lower healthcare costs, which will be advantageous to both residents and local healthcare budgets.

**All-Year Tourism:** Year-round tourism can be attracted by sustainable urban planning, bringing in money for nearby businesses and fostering local growth.

### *3.1.6 Cost Structure*

The EuPOLIS solution places a high priority on **cost structure and analysis** to ensure effective resource allocation and risk reduction. Labour and expertise costs, infrastructure costs, operational costs, marketing and advertising costs, contingency and risk management costs, and other costs are included in the preliminary cost breakdown for the major project components. This initial estimate will be used as a guide, and the final version will be updated and revised to more accurately reflect the project's changing requirements and market dynamics. A thorough analysis of each category can provide stakeholders with important insights into the financial effects of the EuPOLIS solution, facilitating wise decision-making.

The **plan's preliminary cost structure** includes several components necessary for its implementation. Costs associated with installing IT and infrastructure include purchasing servers, networking hardware, sensors, and other IT hardware required for data collection and processing. In addition, costs associated with software licensing are taken into account. These costs include a variety of applications used for data analysis, GIS mapping, and modelling. Data storage solutions will be put into place to ensure secure and scalable storage for the project's large volume of data. To ensure seamless data transfer, dependable high-speed network connections will be installed, and IT staffing expenses will pay the salaries and benefits of the specialists in charge of the project's infrastructure and data management.

The initial cost structure for software includes costs for creating custom software that is designed specifically to meet data processing, analytics, and visualization requirements. Furthermore, costs for integrating various software components to guarantee smooth data flow within the project are taken into account, as well as licensing fees for commercial software used for geospatial mapping and data analysis. Costs associated with routine software updates, bug fixes, and system optimization are included in the costs associated with system updates and maintenance.

EuPOLIS can allocate funds for marketing and promotion, the sales team, training, and personnel in addition to the installation of IT and infrastructure. These crucial components seek to successfully reach the target audience, encourage adoption, and guarantee successful implementation. Digital marketing tactics, events, and conferences will all be used in marketing campaigns. A committed sales team will practice consultative selling by providing clients with unique solutions. The team will receive training to enable them to utilize and promote EuPOLIS ' services efficiently. The salaries and benefits of project team members are covered by personnel costs. These costs will be further honed as the project develops to ensure successful resource allocation and execution.

### *3.1.7 Key Performance Indicators (KPIs)*

To assess the success of its distribution plan, EuPOLIS will analyze the Key Performance Indicators (KPIs) in the final deliverable. Sales and digital presence will be the two main areas of focus for these KPIs. The financial success and market acceptance of EuPOLIS products will be revealed by sales KPIs. Assessing sales performance and customer satisfaction will be aided by metrics like total revenue, unit sales, and customer retention rate. EuPOLIS will also be able to optimize its pricing and sales strategies

by tracking customer acquisition cost (CAC) and sales growth rate. KPIs for digital presence will evaluate the effectiveness of online exposure and digital marketing campaigns. To improve website performance and user engagement, conversion rate, SEO performance, and lead generation will be monitored. Monitoring brand awareness, customer satisfaction, and partnership performance will also help to increase EuPOLIS's overall online presence and visibility.

## 3.2 IPR (Intellectual Property Rights) Strategy

A crucial component of the euPOLIS project is **ownership** and **data rights**. The data generated by these results will be considered the property of each partner who contributed significant exploitable results. They will also be acknowledged for their contributions to this data. This strategy makes sure that rights and obligations are fairly distributed, encouraging cooperation and trust among all project participants. The exploitation strategy's relationship with intellectual property, which consists of intangible works of the human intellect, is crucial in determining how the project will turn out. The exploitation strategy, which outlines how the innovations and knowledge produced by the project will be used, shared, and commercialized, is closely related to IP. IPR are introduced in each deliverable based on different levels of maturity, described as follows:

D10.1: Protecting IP linked to the inventions and creations made during the implementation of the euPOLIS project **was one of the first steps taken**. A thorough examination of the background IP disclosed by each partner was conducted during the first month of the project's implementation. To compile and validate this data, a Google Sheet was created. Having obtained the results from this process, the file was examined and discussed during a dedicated partners' workshop among the partners (see D10.1).

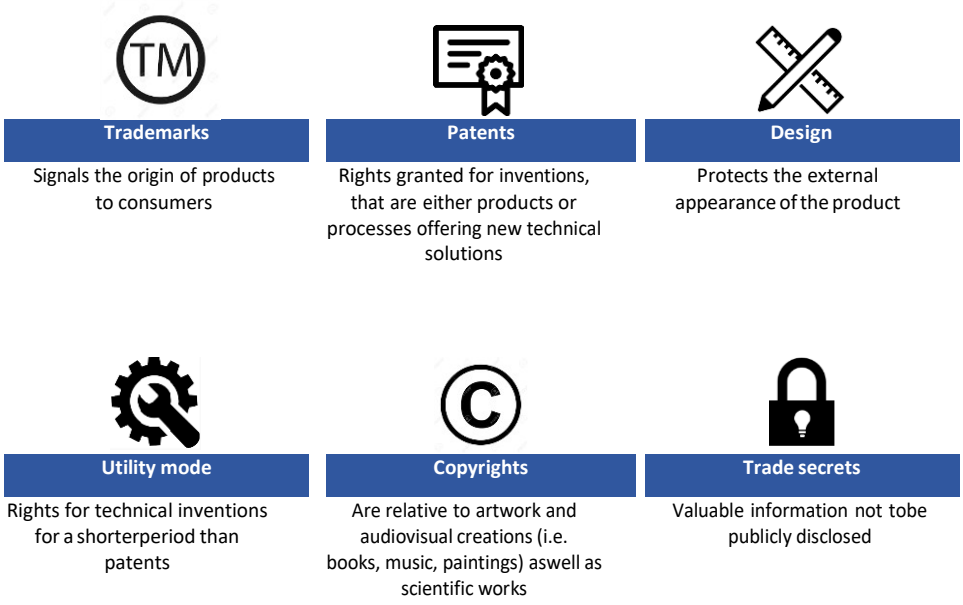



***Figure 8**. Examination of the background IPR.*

D10.2: The **IPR documentation** has not been updated since the 1st version. The main focus of the second iteration of the exploitation strategy is often on identifying the general course and first actions for commercialization. Finding possible partners, markets, and value propositions is part of this process.

D10.3: The final report will, however, provide a thorough analysis of both the background and foreground IPR which must be emphasized. Focusing on the IPR in the third iteration of the exploitation strategy enables a more thorough and precise method for preserving and utilizing the project's solutions. This version will be accompanied by a dedicated annex that provides all necessary background information and specifics regarding the IPRs connected to each exploitable result. By the third edition, you've probably learned more about individual breakthroughs, their possible applications, and the market environment. Your ability to solve IPR-related issues, such as patenting, licensing, and safeguarding special technologies or processes, is improved thanks to this greater understanding. By addressing IPR in version 3, you can make sure **that your approach is in line with how your project is progressing.**

The core assets that will be further leveraged for the EuPOLIS project are the identified IPRs. Proper application forms and statements have been created to emphasize the special qualities of EuPOLIS and the importance of safeguarding its IPRs. IPR not only is a way to protect innovation for the benefit of the innovator but also to maintain a balance between the spread of knowledge to the general public and private commercial interests.

Moreover, to enhance our knowledge and make sure that the EU exploitation tools such as **Horizon IP scan**[3] will be used in the following months. Horizon IP scan is a tailored, free-of-charge, first-line Intellectual Property (IP) support service provided by the European Commission specifically designed to help European start-ups and other small and medium-sized enterprises (SMEs) involved in EU-funded collaborative research projects to efficiently manage and valorise IP in collaborative R&I efforts.


***Figure 9.*** *Horizon IP Scan EU exploitation Tool*

The Horizon IP Scan team will help to:

- Increase your IP knowledge
- Get a clear picture of your existing IP
- Identify potential ways to protect your intangible assets
- Develop a joint IP management and exploitation strategy with your partners
- Prevent potential IP conflicts
- Boost your Plan for the Exploitation and Dissemination of Results
- Leverage your company's innovation capacity

[3] European Commission, Executive Agency for Small and Medium-sized Enterprises, Horizon IP scan: helping SMEs manage and valorise intellectual property in R&I collaborations, Publications Office, 2021, https://data.europa.eu/doi/10.2826/127400

In conclusion, the report's IPR section gives a summary of the **initial steps taken** to safeguard and control intellectual property within the euPOLIS project. The complete analysis of the assets produced throughout the project will be provided in the report's final iteration, which will delve deeper into the foreground IPR.

# 4. Exploitation Consortium Workshops

In the frame of Task 10.1, to support the creation of the Exploitation Strategy it was defined in the GA that this plan will be supported **by a series of 3 exploitation workshops** for the consortium, organized by EnPLUS, to prepare the exploitation strategies of the project results. These workshops will provide a final strategy for IP exploitation in the "after the project" phase and also monitor potential IPR opportunities. The results of these workshops will feed into the overall exploitation and business plan that is being developed during the project. The **First Workshop** had the title "Definition of Exploitable Products", the **Second Workshop** "Definition of the Optimal Market Approach", and the **Third Workshop** was named "Definition of the Formalities for a Joint Market Approach".

## 4.1 Workshop 1. Definition of Exploitable Products

**Workshop No 1** focused on the process of identifying and defining the products or outcomes of the project that have the potential for exploitation, preferably as a joint approach. The workshop involved discussions and activities aimed at determining which project deliverables, technologies, innovations, or intellectual property can be effectively commercialized or utilized beyond the scope of the project. **Key objectives** before the workshop included:

1. **Understanding the project's outputs**: It was considered important that the participants assess the project's outcomes, such as research findings, prototypes, methodologies, or software, to identify those with commercial or exploitable potential
2. **Evaluating market opportunities**: The workshop would involve analyzing market trends, customer needs, and competitor offerings to assess the viability and demand for the project's products in relevant industries or sectors
3. **Defining exploitation strategies**: Discussions would revolve around strategies for commercialisation, including identifying target markets, defining pricing models, exploring partnerships, and considering intellectual property protection measures
4. **Prioritizing exploitable products**: Workshop participants would collaborate to prioritize the identified exploitable products based on factors like market demand, feasibility, and potential impact

By the end of the workshop, the goal was to acquire a clear understanding of the **project's exploitable products** and a **preliminary plan** for their commercialization or utilization beyond the project duration. This workshop serves as a crucial step in shaping the exploitation strategy and laying the foundation for the subsequent development of an effective business plan. Having all this information in mind, Workshop no1 was organized as indicated in **Table 5**.

***Table 4**. Details regarding the organisation of Workshop no1*

| **Workshop No 1** | |
|---|---|
| **Organizer** | EnPLUS |
| **Meeting date** | Monday 23rd of January, 2023 |
| **Time** | 09:00 AM (CET) |
| **Duration** | 2 hours |

The main focus of the first workshop was on acquiring interactive knowledge and exploring the exploitation potential of EuPOLIS results. The following **key points** and **actions** were identified:

1. **Knowledge Acquisition**: The consortium emphasized the importance of getting to know each other's expertise through workshops and leveraging the results obtained.
2. **Business Plan Development**: The next steps involve incorporating the workshop results into future workshops and delivering a Business Plan with an exploitation strategy in the upcoming deliverables.
3. **City Authorities' Role**: City authorities are crucial in disseminating the usage of EuPOLIS through their networks. Front-runner and Follower cities will be the first to initiate dissemination activities.
4. **Commercialization**: The commercialization of interventions was identified as a primary selling point for EuPOLIS.
5. **Cost Effectiveness**: The implementation tables in each city should include a focus on cost-effectiveness to ensure efficient resource utilization.
6. **Joint Commercialization**: Workshop participants expressed their interest in joint commercialization of the presented interventions.
7. **Knowledge Packages**: Each partner highlighted their competitive advantage and expertise.

**WHAT** will be done – *from the Grant Agreement*

- **Article 28.1** Obligation to exploit the results
- **Article 30.1** Transfer of ownership
- **Article 30.2** Granting licenses
- **ARTICLE 31** — ACCESS RIGHTS TO RESULTS

**HOW** will be done – *from the Project Proposal section 2.2.1*

- **Pillar 1: A comprehensive stakeholder analysis**
- **Pillar 2: A detailed exploitation strategy, business plan, and roadmap**

**THEREFORE, CONSORTIUM CAN EXPLOIT:**

1. **EuPOLIS RESULTS (demonstrated on implemented interventions)**
2. **Partners' knowledge packages**
3. **Technology packages**

All the above-mentioned information was gathered and used to feed the second workshop which aims to define the optimal market approach.

## 4.2 Workshop 2. Definition of the Optimal Market Approach

**Workshop No. 2** focused on developing a strategic approach to target and engage the optimal market for the selected exploitable products of the project. The workshop involved brainstorming, discussions, and activities aimed at defining the appropriate target market, understanding which are the customer needs and main interests, and creating an effective marketing and communication strategy. **Key objectives** before the workshop included:

1. **Preliminary market analysis**: Having introduced and discussed in the previous workshop the exploitable products, participants will now be encouraged to identify and analyze the different market segments that could be of interest in aligning with the project's exploitable products.

Through experience and fruitful discussions, significant factors may be included such as industry sectors, specific geographic regions, demographics, and challenges that these products can address.

2. **Customer profile and needs assessment:** It was considered important, to deeply understand which are the actual needs, preferences and gaps of potential customers within the identified market sectors. This way a more specific customer profile could be developed resonating with the observed requirements.
3. **Competitive analysis:** Development of a unique selling proposition.
4. **Marketing and communication strategies:** Formulation of effective marketing and communication strategies to reach and engage the target market.

A well-defined market approach, including target market segmentation, customer profiles, competitive positioning, and an extensive marketing and communication plan, would be the workshop's output and be suited to the project's exploitable products. This knowledge would be helpful in the formulation of the exploitation and business strategy that would follow, giving a clear road map for effectively entering and seizing the possibilities in the selected markets. Having all this information in mind, Workshop No 2 was organised as indicated in **Table 6**.

***Table 5**. Details regarding the organisation of Workshop no2*

| **Workshop No 2** | |
|---|---|
| **Organizer** | EnPLUS |
| **Meeting date** | Monday 20th of March, 2023 |
| **Time** | 09:00 AM (CET) |
| **Duration** | 3 hours |

The main focus of the second workshop was centred on the exchange of experiences among partners, with a focus on consulting and detailing discussing technological services offered to the market by EuPOLIS. The discussion highlighted the importance of defining the Technology Readiness Level (TRL) for each product, particularly for those already in use. The workshop outcomes led to the identification of products and services that EuPOLIS can offer, paving the way for future marketing strategies. The EuPOLIS market strategy explored distinctive advantages over traditional services and approaches to engage municipalities and government agencies. Specific TRL updates were made for various products, enabling the consortium to identify commercialization opportunities. Challenges in approaching municipalities were discussed, emphasizing the need to address existing procurement barriers and develop a flexible communication template tailored to different regions. Furthermore, potential clients in the public and private sectors, including universities, health institutions, engineering and construction companies, and social housing administrations, were identified.

## 4.3 Workshop 3. Definition of the Formalities for a Joint Market Approach

**Workshop No. 3** is not organized yet, as it was important to first obtain results from the EU tools, such as the Horizon Results Booster described in section 5, that took place. To this end, workshop No 3 is

scheduled after finishing D10.2, to consume all the gathered data both from the previous consortium workshops and meetings and the available EU tools.

# 5. European Exploitation Tools

*"Plan for using the EU tools for exploitation: according to the dissemination and exploitation (D&E) obligations (WP10) and opportunities beyond the end of the grant duration"*

The results of the euPOLIS project will be promoted via the **Horizon Results Platform (HRP)**, which is a matchmaking tool allowing the publication of the Key Exploitable Results to attract the target audience, such as investors, stakeholders, policymakers, potential business partners, etc. The euPOLIS results will be promoted with a one-page exploitation brochure, with some key technical points describing the euPOLIS products/solutions showing their impact. This EU exploitation tool will be used during the **last months** of the EuPOLIS project.

As for now, the **Horizon Results Booster** was utilized, which is a module included within the Horizon Results Platform, offering free consulting services. The Horizon Results Booster is a European Commission initiative that aims to maximize the impact of research projects funded by FP7, Horizon 2020, and Horizon Europe. It consists of three individual Services:

**Service 1**: Portfolio Dissemination & Exploitation Strategies – ***Done!***
**Service 2:** Business Plan Development – ***To be utilized***
**Service 3:** Go to Market – ***To be utilized***

The services include clustering of projects for common dissemination, enhanced exploitation plans, business plans for R&I results, and commercialization services for more mature results. Horizon Results Booster is a new package of specialized services to maximize the impact of R&I public investment and further amplify the added value of the Framework Programmes (FPs). It helps to bring a continual stream of innovation to the market and beyond. euPOLIS will get support, to increase the project results' exploitation potential and improve the access to the market. The generation of an impact, at the end or even during the project's lifetime, strongly depends on the Dissemination and Exploitation strategy and implementation. A wrong basis could generate wrong strategies. Moreover, joining forces through common dissemination activities may increase the interest of relevant audiences or even policymakers and save resources from implementing activities.

### Service 1

### Portfolio Dissemination & Exploitation Strategy, Module C

Assisting projects to improve their existing exploitation strategy. This service will provide guidance and training to improve the existing euPOLIS strategies towards effective exploitation of key exploitable results. The exploitation strategy will improve the following aspects:

- Review of the key exploitable results of the project.
- Revise, complement and clarify existing exploitation plans of project results and/or outline exploitation paths of results.
- Techniques to identify all relevant stakeholders in the exploitation value chain.
- Support to perform a risk analysis related to the exploitation of results.

## Service 2

### Business Plan Development

The service guide and support euPOLIS project beneficiaries in preparing their project result(s) for the market.
The EuPOLIS team will receive tailor-made training and support for better developing the business plan which will include:

- Start-up operations (e.g., identification of incubators, third-party management support – legal, administrative).
- Investors (e.g., identification of venture capitalists in the market sector, identification of business angel networks).
- Funding (e.g., identification of financial instruments for start-ups or new businesses from banks, local governments, national funding, identification of crowdfunding platforms and schemes).

This service is available for ongoing or closed projects that have a developed exploitation plan and a draft business plan (or completed service 1 module C). To this end, **Service No. 2 will be utilized in the upcoming months.**

## Service 3

### Go to market

This service prepares project beneficiaries to take their project results to the market. The service provides assistance, coaching, mentoring, and contacts with the market stakeholders regarding:

- Pitching, presenting a product(s) or service(s) to potential investors, identification of relevant events for pitching (forums, trade fairs, expos), identification of venture capital and/or traditional funding mechanisms, and guidance on how to follow up a pitch.
- Support and guidance for Intellectual Property Rights (IPR): introduction to IP services, guidance regarding the procedures, definitions and regulations on IPR, as well as patenting, IP licensing and sale; freedom of operations - due diligence, transfer of IP.
- Training in innovation management (product, process and resulting organisational changes).
- Business services – co-designing a plan for commercial development, feasibility studies to assess potential business plans, support in the creation of spin-offs and start-ups.
- Examining exploitation/business implementation options.
- Introduction to non-EU funding opportunities available and support in the application.

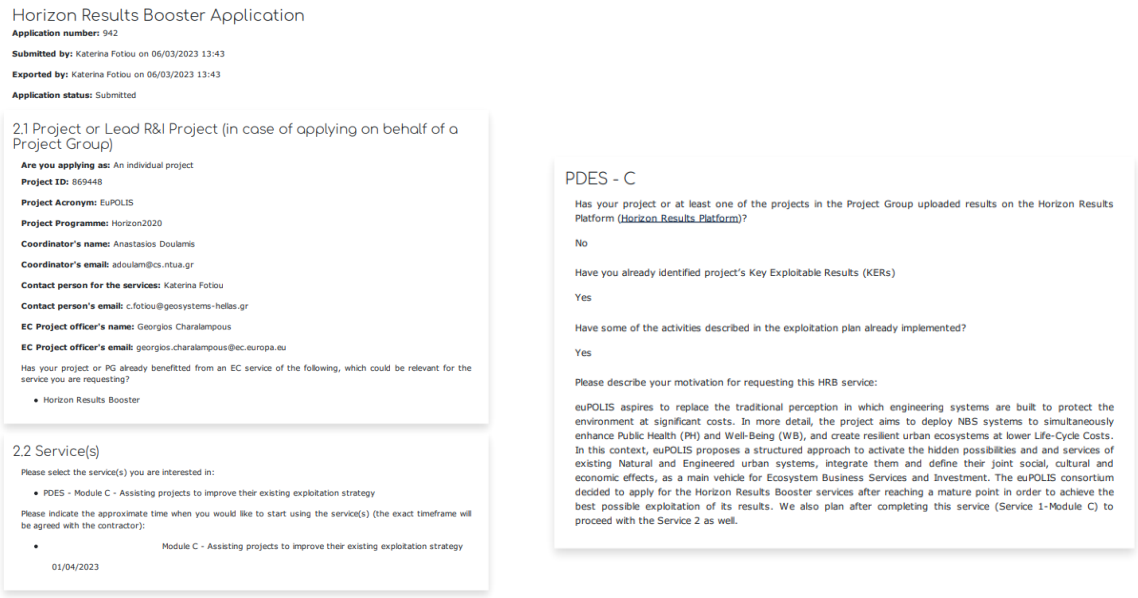
This service is available for ongoing or closed projects, with identified key exploitable results, a dissemination and exploitation plan and an advanced business plan (or completed service 2). To this end, **Service No. 3 will be utilized after finishing with Service 2, in the upcoming months.**

**Service 1**: Portfolio Dissemination & Exploitation Strategies, Module C, was the service that was requested for support by the EU Commission.

Application Process:

- Application is **public/open**
- HRB services can be requested **at any given moment** by eligible projects
- During the application → specify the **indicative quarter of delivery**
- Beneficiaries have to register first to the **HRB platform** to submit an application

## Application Form



Horizon Results Booster Application

**Application number:** 942

**Submitted by:** Katerina Fotiou on 06/03/2023 13:43

**Exported by:** Katerina Fotiou on 06/03/2023 13:43

**Application status:** Submitted

2.1 Project or Lead R&I Project (in case of applying on behalf of a Project Group)

**Are you applying as:** An individual project

**Project ID:** 869448

**Project Acronym:** EuPOLIS

**Project Programme:** Horizon2020

**Coordinator's name:** Anastasios Doulamis

**Coordinator's email:** adoulam@cs.ntua.gr

**Contact person for the services:** Katerina Fotiou

**Contact person's email:** c.fotiou@geosystems-hellas.gr

**EC Project officer's name:** Georgios Charalampous

**EC Project officer's email:** georgios.charalampous@ec.europa.eu

Has your project or PG already benefitted from an EC service of the following, which could be relevant for the service you are requesting?

- Horizon Results Booster

2.2 Service(s)

Please select the service(s) you are interested in:

- PDES - Module C - Assisting projects to improve their existing exploitation strategy

Please indicate the approximate time when you would like to start using the service(s) (the exact timeframe will be agreed with the contractor):

- Module C - Assisting projects to improve their existing exploitation strategy

  01/04/2023

PDES - C

Has your project or at least one of the projects in the Project Group uploaded results on the Horizon Results Platform (Horizon Results Platform)?

No

Have you already identified project's Key Exploitable Results (KERs)

Yes

Have some of the activities described in the exploitation plan already implemented?

Yes

Please describe your motivation for requesting this HRB service:

euPOLIS aspires to replace the traditional perception in which engineering systems are built to protect the environment at significant costs. In more detail, the project aims to deploy NBS systems to simultaneously enhance Public Health (PH) and Well-Being (WB), and create resilient urban ecosystems at lower Life-Cycle Costs. In this context, euPOLIS proposes a structured approach to activate the hidden possibilities and and services of existing Natural and Engineered urban systems, integrate them and define their joint social, cultural and economic effects, as a main vehicle for Ecosystem Business Services and Investment. The euPOLIS consortium decided to apply for the Horizon Results Booster services after reaching a mature point in order to achieve the best possible exploitation of its results. We also plan after completing this service (Service 1-Module C) to proceed with the Service 2 as well.

***Figure 10.*** *The application form regarding the HRB request for Services (Module C)*

Having completed the application form, an expert from the European Commission got in contact with the assigned person from the EuPOLIS side and the preparations for the HRB Workshop began. The EU expert requested the following steps:

- To identify some Preliminary KERs (which are the ones described in this document): The **EuPOLIS Visualization Platform**, **the Preliminary Selection Toolkit,** and the **Goal-Driven Matrix**
- To fill out specific documents concerning the three KERs, which can be found in **Annex 1** both in their preliminary form as well as completed for each KER.
- Be present in an Introductory call – EU expert, Project coordinator and GSH.
- Organize a two-day Workshop; On the **1st day** it was the theoretical part addressed to all EuPOLIS partners interested in exploitation/dissemination activities, while on the **2nd day**, three separate sessions were conducted each for one KER

## Introductory Meeting



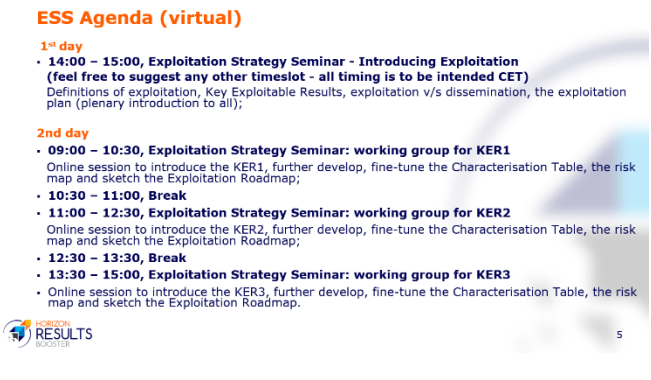
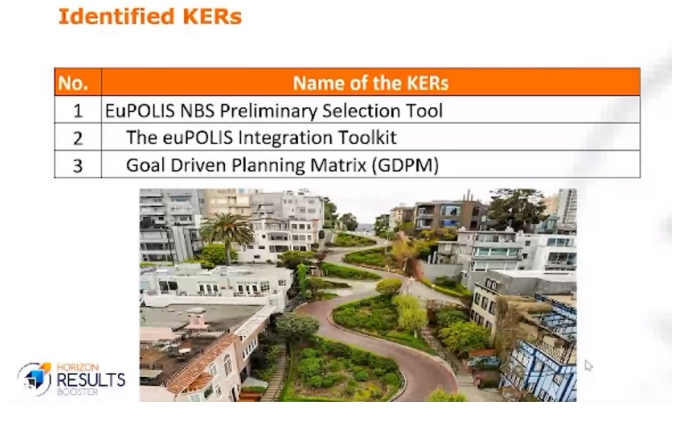



***Figure 11**. The Introductory meeting among EU experts, the Project coordinator (NTUA) and GSH*

Before the 2nd day of the HRB Workshop, the EU expert distributed **a Preliminary Report** including all the information for each of the preliminary KERs based on the provided input as described in **Annex 2.**

## 1st day of HRB Workshop


## 2nd day of the Workshop

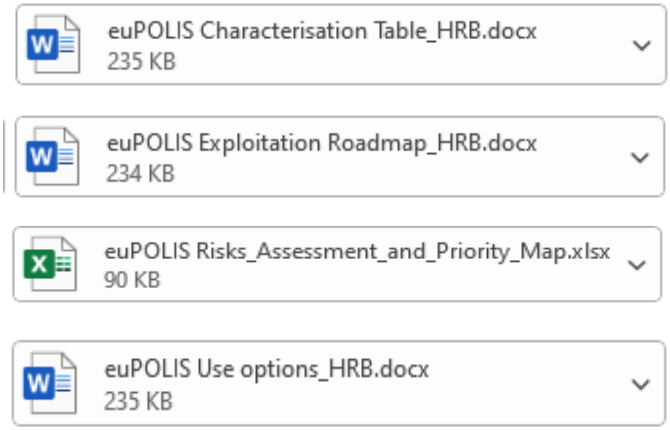



***Figure 12.*** *The documents requested to be filled out prior to Workshop 2*

Having concluded the 2nd day of the HRB Workshop, the EU expert distributed **a Final Report** including all the fruitful information as derived from the conversation among the EuPOLIS partners as described in **Annex 3.**

# 6. Conclusion

The exploitation plan specified in this document serves in a twofold way, **i)** to inform on the vision behind the direction taken in making this project's results **tangible and valuable** especially in real-world environments and situations, such as the implementation of the NBS solutions, and **ii)** also to pave the way toward an effective and appropriate exploitation and commercialization route for the EuPOLIS project. Furthermore, it ensures simplifying and quantifying the steps needed to proceed with the decided strategy will be implemented by the following actions:

- Identify the potential market to exploit, that is the interested parties and end-users.
- Define their requirements, needs, and potential acquired benefits through the usage of the project's solution.
- Propose different, innovative clear, feasible solutions.

**THEREFORE, CONSORTIUM CAN EXPLOIT:**

1. **EuPOLIS RESULTS (demonstrated on implemented interventions)**
2. **Partners' knowledge packages**
3. **Technology packages**

The success of this plan is strongly based on the holistic approach regarding how the project's results will be utilized. Different markets and groups are targeted, aiming for the expansion of the project's initial idea whenever possible. This document is a constant work in progress, meaning that the overall strategy will be evaluated frequently according to specific success criteria. If needed, the strategy will be adapted to new problems and possibilities, to better suit the project's needs and the latest opportunities offered in the future. This process shall ensure the successful commercialization of the project's results. More specifically, directions regarding the targeted groups and the EuPOLIS-added value outcomes will be documented in the third version of this report at M48 (D10.3).

# ANNEX 1: Documents of KERs

The Characterisation table is designed to start the collection of information that will be then reviewed and further integrated during the project life. Partners in charge of the Key Exploitable Result (KER) should fill in the content and discuss it with the ones involved in the finalisation of the KER including the partners that will oversee the testing phase.

| KER name | Input from the Beneficiary |
|---|---|
| **Problem** | *Describe the problem you are addressing (the problem your potential users have). Potential users are the people, companies, organisations, etc. that you expect will use the result (and generate an impact). They are your "Customers".* |
| **Alternative solution** | *Describe how your "customer" has solved the problem so far.* |
| **Unique Selling Point USP - Unique Value Proposition UVP** | *Describe the competitive advantages, the innovative aspects. What does your solution do better, what are the benefits considering what your user/customer wants, how does your solution solve his/her problem better than alternative solutions, what distinguishes the KER from the competition / current solutions?* |
| **Description** | *Describe in a few lines your result and/or solution (i.e., product, service, process, standard, course, policy recommendation, publication, etc.). Use simple wording, avoid acronyms, make sure you explain how your UVP is delivered.* |
| **"Market" – *Target market*** | *Describe the market in which your product/service will be used/can "compete", answering the following questions:*<br>*- What is the target market?*<br>*- Who are the customer segments?* |
| **"Market" – *Early Adopters*** | *Early adopters are the "customers" you are willing to address first. They are usually the ones that feel the problem harder than all the others (they are not the project partners).* |

| | |
|---|---|
| **"Market" - Competitors** | *Who are your "competitors" (note: they are the ones offering "alternative solutions")?*<br>*What are their strengths and weaknesses comparing to you?* |
| **Go to Market – Use model** | *Explain what is your "use model", how the KER will be put in use (made available to "customers" to generate an impact). Examples of use models: manufacturing of a new product, provision of a service, direct industrial use, technology transfer, license agreement, contract research, publications, standards, etc.*<br>*Note training is a service.* |
| **Go to Market - Timing** | *What is the time to market?* |
| **Go to Market – IPR Background** | *What is the Background (type/ partner)?*<br>*Provide information considering also what already agreed in the Consortium Agreement, in Annex I.* |
| **Go to Market – IPR Foreground** | *What is the Foreground (type/ partner)?*<br>*Provide information considering also what already agreed in the Consortium Agreement.* |

The Exploitation Roadmap is a tool designed to help the consortium to identify and plan activities to be performed after the end of the project. The highest risk a consortium faces is not being able to implement the exploitation and dissemination plan and increase the TRL level or go to market, due to lack of resources. The exploitation roadmap is designed to address this risk, mitigate it and pave to way toward use and a stronger impact.

| **Exploitation roadmap** | |
|---|---|
| **Actions** | *Briefly describe actions planned to be executed 3-6 months after the end of the project.*<br>*Make sure you do not just focus on technical activities (realisation of a prototype, software interface, etc) but also consider the finalisation of a business plan, the protection of intellectual property, the collection of authorisations, all it will be needed to start implement what is in your exploitation plan* |
| **Roles** | *Roles of partners involved in the actions defined above.* |
| **Milestones** | *List the milestones and KPIs to be used for monitoring the implementation of the actions listed above. Add timeline.* |
| **Financials Costs** | *Cost estimation to implement planned activities (1 year, 3 years).*<br>*Provide information on the costs/investments needed to bridge the end of the project to the next steps planned and increase TRL or go to market (you may invest in a patent, in the realisation of a prototype, etc.).* |
| **Revenues** | *Projected revenues and eventual profits once the KER will be used (1 and 3 years after use)*<br>*Consider revenues you will expect to collect by licensing, or thanks to service provision or sale of devices. They generate the cash flow that will make the use of the result sustainable over time (provide an estimation concerning the first year and what is expected after 3 years, if possible). It is recommended that you estimate the revenues according to your early adopters and potential customers and include the information in the draft exploitation plan.* |
| **Other sources of coverage** | *Resources needed to bridge the investment needed to increase TRL and ensure the result is used.*<br>*Financial resources to cover costs incurred before collecting the first revenues (during the "time to market" – see costs) and their sources. Sources can be partners` own budget, other project grants, national/regional incentives, risk capital, loans, etc. Make sure to obtain them at the right timing.* |
| **Impact in 3-year time** | *Describe impact in terms of growth/benefits for the society*<br>*Impact is the objective of H2020. Impact should mobilise measurable changes in terms of growth/benefits for the society (i.e. jobs created, investments mobilized, turnover generated).* |

## Use options

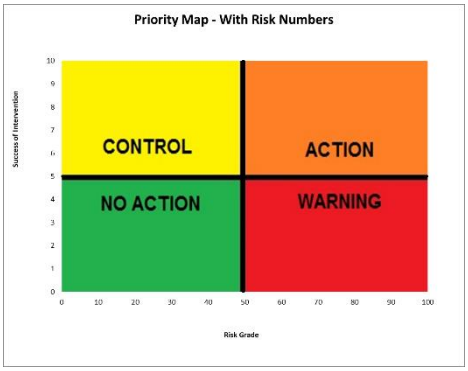
| KER's Exploitation route (how the KER will be further exploited) | | | |
|---|---|---|---|
| **Selected route** | | **Implementing actor** | **Yes** |
| **DIRECT USE** | Commercialisation: *deployment of a novel product/service (offered to the target markets)* | One partner[1] | |
| | | A group of partners[2] | |
| | Contract research (*new contracts signed by the research group with external clients*) | A partner | |
| | | A group of partners | |
| | A new research project (*application to public funded research programmes*) | A partner | |
| | | A group of partners | |
| | Implementation of a new university – course (*Note that a training course is a service*) | A partner | |
| | | A group of partners | |
| | | A new partnership | |
| **INDIRECT USE** | Assignment of the IPR | A partner | |
| | | A group of partners | |
| | Licensing of the IPR | A partner | |
| | | A group of partners | |
| | Development of a new legislation/standard | A partner | |
| | | A group of partners | |
| | Spin- off | A partner | |
| | | A group of partners | |
| | | By assignment | |
| | | By licensing | |
| | Other (*please describe*) | | |

[1] Partners identifies the partners of the project receiving the ESS, not third parties that may be partner in the future.
[2] Provide the names of the partners

## KER Risk Assessment Map

Hold cursor over cells to show inspiration for potential

| | Description of Risks | Degree of criticality of the risk related to the final achievement of this Key Exploitable Result. Please rate from 1 to 10 (1 low- 10 high) | Probability of risk happening Please rate from 1 to 10 (1 low - 10 high) | Risk Grade | Potential intervention | Estimated Feasibility/Success of Intervention Please rate from 1 to 10 (1 low- 10 high) | Conclusion |
|---|---|---|---|---|---|---|---|
| | Partnership Risk Factors | | | | | | |
| 1 | | | | 0 | | | Not Filled |
| 2 | | | | 0 | | | Not Filled |
| 3 | | | | 0 | | | Not Filled |
| 4 | | | | 0 | | | Not Filled |
| 5 | | | | 0 | | | Not Filled |
| | Technological Risk Factors | | | | | | |
| 6 | | | | 0 | | | Not Filled |
| 7 | | | | 0 | | | Not Filled |
| 8 | | | | 0 | | | Not Filled |
| 9 | | | | 0 | | | Not Filled |
| 10 | | | | 0 | | | Not Filled |
| | Market Risk Factors | | | | | | |
| 11 | | | | 0 | | | Not Filled |
| 12 | | | | 0 | | | Not Filled |
| 13 | | | | 0 | | | Not Filled |
| 14 | | | | 0 | | | Not Filled |
| 15 | | | | 0 | | | Not Filled |
| | IPR/Legal Risk Factors | | | | | | |
| 16 | | | | 0 | | | Not Filled |
| 17 | | | | 0 | | | Not Filled |
| 18 | | | | 0 | | | Not Filled |
| 19 | | | | 0 | | | Not Filled |
| 20 | | | | 0 | | | Not Filled |
| | Financial/Management Risk Factors | | | | | | |
| 21 | | | | 0 | | | Not Filled |
| 22 | | | | 0 | | | Not Filled |
| 23 | | | | 0 | | | Not Filled |
| 24 | | | | 0 | | | Not Filled |
| 25 | | | | 0 | | | Not Filled |
| | Environmental/Regulation/Safety risks: | | | | | | |
| 26 | | | | 0 | | | Not Filled |
| 27 | | | | 0 | | | Not Filled |
| 28 | | | | 0 | | | Not Filled |
| 29 | | | | 0 | | | Not Filled |
| 30 | | | | 0 | | | Not Filled |




| Summarizing Risks Table | |
|---|---|
| Number of "No Action" Risks | 0 |
| Number of "Control" Risks | 0 |
| Number of "Action" Risks | 0 |
| Number of "Warning" Risks | 0 |
| Number of Risks in the middle of everything | 0 |
| Number of Risks Between Control & No Action | 0 |
| Number of Risks Between Action & Warning | 0 |
| Number of Risks Between No Action & Warning | 0 |
| Number of Risks Between Control & Action | 0 |

# Goal Driven Planning Matrix (GDPM)

The Characterisation table is designed to start the collection of information that will be then reviewed and further integrated during the project life. Partners in charge of the Key Exploitable Result (KER) should fill in the content and discuss it with the ones involved in the finalisation of the KER including the partners that will oversee the testing phase.

| KER name | Input from the Beneficiary |
|---|---|
| **Problem** | *Describe the problem you are addressing (the problem your potential users have). Potential users are the people, companies, organisations, etc. that you expect will use the result (and generate an impact). They are your "Customers".*<br>**1. Standard urban planning technology is based on knowledge and experience and not a systemic analysis. Thus, number of potential synergies are missed.**<br>**2. Cities and big developments do not have developed methodology for systemic enhancement of citizens PH&WB by organized, increased exposure to the NBS entities.** |
| **Alternative solution** | *Describe how your "customer" has solved the problem so far.*<br>**Sporadically, by creating blue green entities without clear functional determination of relevant components.** |
| **Unique Selling Point USP - Unique Value Proposition UVP** | *Describe the competitive advantages, the innovative aspects. What does your solution do better, what are the benefits considering what your user/customer wants, how does your solution solve his/her problem better than alternative solutions, what distinguishes the KER from the competition / current solutions?*<br>**Citizens PH&WB systemic and organized improvements by introducing GDPM innovative urban planning criteria, also as a precondition for project approval.** |
| **Description** | *Describe in a few lines your result and/or solution (i.e., product, service, process, standard, course, policy recommendation, publication, etc.). Use simple wording, avoid acronyms, make sure you explain how your UVP is delivered.*<br>**1. Planning policy recommendations leading to PH&WB enhancement based on complex set of improvements related to environment, social and economic conditions.** |

| | |
|---|---|
| | **2. Urban planning detailed technical recommendations designed for PH&WB organized enhancement in all related categories.** |
| **"Market" – *Target market*** | *Describe the market in which your product/service will be used/can "compete", answering the following questions:*<br>*- What is the target market?* **– Urban construction**<br>*- Who are the customer segments?* **– Municipalities and big developers** |
| **"Market" – *Early Adopters*** | *Early adopters are the "customers" you are willing to address first. They are usually the ones that feel the problem harder than all the others (they are not the project partners).*<br>**- EuPOLIS project Frontline Cities** |
| **"Market" - Competitors** | *Who are your "competitors" (note: they are the ones offering "alternative solutions")?*<br>*What are their strengths and weaknesses comparing to you?*<br>**- Competitors: big, well-known consultants**<br>**- Their strengths: good name, trusted in quality, cost and timing**<br>**- Their weaknesses: not offering GDPM advantages** |
| **Go to Market – Use model** | *Explain what is your "use model", how the KER will be put in use (made available to "customers" to generate an impact). Examples of use models: manufacturing of a new product, provision of a service, direct industrial use, technology transfer, license agreement, contract research, publications, standards, etc.*<br>*Note training is a service.*<br>**Use model: use of euPOLIS project results, market education - first with publications, workshops, training and later customization of this tool to local conditions. This is brain storming type of exercise.** |
| **Go to Market - Timing** | *What is the time to market?*<br>**We will be able to answer this once the processes with euPOLIS project cities are completed and relevant lessons learned** |
| **Go to Market – IPR Background** | *What is the Background (type/ partner)?* |

| | |
|---|---|
| | *Provide information considering also what already agreed in the Consortium Agreement, in Annex I.*<br>**?** |
| **Go to Market – IPR Foreground** | *What is the Foreground (type/ partner)?*<br>*Provide information considering also what already agreed in the Consortium Agreement.*<br>**?** |

| **Partner name** | **Key Exploitable Result (KER)** | **Your interest** (exploitation intention of this KER, intended market/customers) | **Your organization contribution to the generation of this KER** (what was/is/will be your input?) | **Role of each organisation** with regards to the KER and according to **the Grant and Consortium Agreement** |
|---|---|---|---|---|
| ENPLUS | GDPM | Everything starts with euPOLIS project RESULTS | | |
| ENPLUS | GDPM | 1. To be offered to developers as urban planning tool for their projects.<br>2. To be offered to municipalities as citizens PH&WB enhancement tool | The EnPlus input was GDPM construction deriving from its professional experience.<br>EnPlus will, together with other euPOLIS partners, offer logistic support (Tool customization) to the potential customers | As specified in GA, project proposal |
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The Exploitation Roadmap is a tool designed to help the consortium to identify and plan activities to be performed after the end of the project. The highest risk a consortium faces is not being able to implement the exploitation and dissemination plan and increase the TRL level or go to market, due to lack of resources. The exploitation roadmap is designed to address this risk, mitigate it and pave to way toward use and a stronger impact.

| Exploitation roadmap | |
|---|---|
| **Actions** | *Briefly describe actions planned to be executed 3-6 months after the end of the project.*<br><br>*Make sure you do not just focus on technical activities (realisation of a prototype, software interface, etc) but also consider the finalisation of a business plan, the protection of intellectual property, the collection of authorisations, all it will be needed to start implement what is in your exploitation plan*<br><br>**We do not yet have business plan guideline, that was supposed to be developed in Task 10.1. Proposed actions will have to be fully coordinated with this guideline** |
| **Roles** | *Roles of partners involved in the actions defined above.*<br>**Partners have to determine and declare their involvement. The process has been instigated in recent workshop No.2. We are now waiting for their response to make relevant decisions at workshop no. 3.** |
| **Milestones** | *List the milestones and KPIs to be used for monitoring the implementation of the actions listed above. Add timeline.*<br>**GA Milestone ?** |
| **Financials Costs** | *Cost estimation to implement planned activities (1 year, 3 years).*<br><br>*Provide information on the costs/investments needed to bridge the end of the project to the next steps planned and increase TRL or go to market (you may invest in a patent, in the realisation of a prototype, etc.).*<br><br>**There should not be additional costs at any preparation phase. That is at the partner risk.** |
| **Revenues** | *Projected revenues and eventual profits once the KER will be used (1 and 3 years after use)*<br><br>*Consider revenues you will expect to collect by licensing, or thanks to service provision or sale of devices. They generate the cash flow that will make the use of the result sustainable over time (provide an estimation concerning the first year and what is expected after 3 years, if possible). It is recommended that you estimate the revenues according to your early adopters and potential customers and include the information in the draft exploitation plan.*<br><br>**The revenue calculation end distribution will have to be defined between partners at the offer preparation stage.** |
| **Other sources of coverage** | *Resources needed to bridge the investment needed to increase TRL and ensure the result is used.*<br><br>*Financial resources to cover costs incurred before collecting the first revenues (during the "time to market" – see costs) and their sources. Sources can be partners` own budget, other project grants, national/regional incentives, risk capital, loans, etc. Make sure to obtain them at the right timing.*<br><br>**Each partner should develop own product to the level required to interact with other partners products, as a basis for market approach.** |
| **Impact in 3-year time** | *Describe impact in terms of growth/benefits for the society* |

| | |
|---|---|
| | *Impact is the objective of H2020. Impact should mobilise measurable changes in terms of growth/benefits for the society (i.e. jobs created, investments mobilized, turnover generated).*<br>- ***PH improvement: euPOLIS results should be available.***<br>- ***Public WB improvemen: euPOLIS results should be available.***<br>- ***Investments mobilized: Once accepted by cities we will propose to cities to enlarge their NBS budgets for at least 5%***<br>- ***Jobs created: result from the above*** |

## Use options

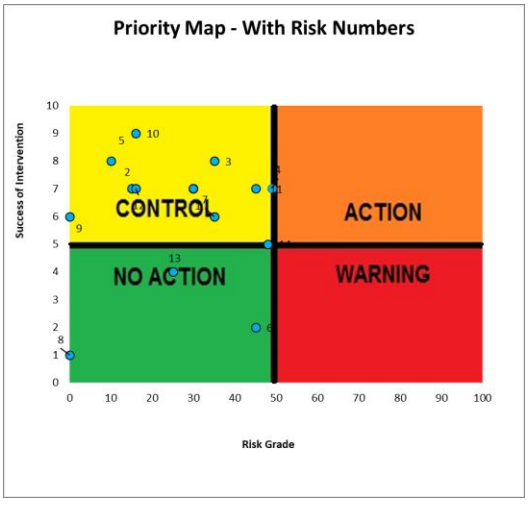
| KER's Exploitation route (how the KER will be further exploited)<br>Note: only an option is to be selected | | | |
|---|---|---|---|
| **Selected route** | | **Implementing actor** | **Yes** |
| **DIRECT USE** | Commercialisation: *deployment of a novel product/service (offered to the target markets)* | One partner[1] | |
| | | A group of partners[2] | |
| | Contract research (*new contracts signed by the research group with external clients*) | A partner | |
| | | A group of partners | |
| | A new research project (*application to public funded research programmes*) | A partner | |
| | | A group of partners | |
| | Implementation of a new university – course<br>(*Note that a training course is a service*) | A partner | |
| | | A group of partners | |
| | | A new partnership | |
| **INDIRECT USE** | Assignment of the IPR | A partner | |
| | | A group of partners | |
| | Licensing of the IPR | A partner | |
| | | A group of partners | |
| | Development of a new legislation/standard | A partner | |
| | | A group of partners | |
| | Spin- off | A partner | |
| | | A group of partners | |
| | | By assignment | |
| | | By licensing | |
| | Other (*please describe*) | | |

[1] Partners identifies the partners of the project receiving the ESS, not third parties that may be partner in the future.
[2] Provide the names of the partners

# euPOLIS KER Risk Assessment Map

Hold cursor over cells to show inspiration for potential

| | Description of Risks | Degree of criticality of the risk related to the final achievement of this Key Exploitable Result. Please rate from 1 to 10 (1 low- 10 high) | Probability of risk happening Please rate from 1 to 10 (1 low - 10 high) | Risk Grade | Potential intervention | Estimated Feasibility/Success of Intervention Please rate from 1 to 10 (1 low- 10 high) | Conclusion |
|---|---|---|---|---|---|---|---|
| | **Partnership Risk Factors** | | | | | | |
| 1 | Disagreemnts | 6 | 5 | 30 | Arrange detailed analysis of products combination potential effects. | 7 | Control. |
| 2 | Partner leaves the market | 3 | 5 | 15 | Analyse mid term plans with involved partners; include relevant points into contract. | 7 | Control. |
| | Partner breaks and create competition | 5 | 5 | 25 | Adress it in the contract. | 7 | Control. |
| | | | | 0 | | | Not Filled |
| | | | | 0 | | | Not Filled |
| | **Technological Risk Factors** | | | | | | |
| 3 | Ill-timed disclosure | 7 | 5 | 35 | Make sure that presentation to the client does not interfere with their interests. | 8 | Control. |
| 4 | Result aiming at replacing existing,.... | 7 | 7 | 49 | Prepare convincing replacement argumentation and/or make use of euPOLIS project results. | 7 | Control. |
| | Better technology exists | 3 | 5 | 15 | Make market analysis | 8 | Control. |
| | | | | 0 | | | Not Filled |
| | | | | 0 | | | Not Filled |
| | **Market Risk Factors** | | | | | | |
| 5 | Exploitation disagreemen: Partners on the same market | 2 | 5 | 10 | Make greement on leadership in this case | 8 | Control. |
| 6 | Unsutable sales force | 5 | 9 | 45 | euPOLIS approach requires multidisciplinary experts, presently non existent. Engagement and activation of more experts at the same time might be difficult to arrange | 2 | No Action' |
| 7 | The project hits against monopoly | 5 | 7 | 35 | Monopoly is usually connected to client interests. If our regular presentation does not overcome it it will be difficult to proceed | 5 | Control. |
| 8 | | | | 0 | | 6 | Not Filled |
| 9 | | | | 0 | | 6 | Not Filled |
| | **IPR/Legal Risk Factors** | | | | | | |
| 10 | Combination of panteted and non-patented products | 2 | 8 | 16 | Make legal agreement on handling rules in this case | 9 | Control. |
| | | | | 0 | | | Not Filled |
| | | | | 0 | | | Not Filled |
| | | | | 0 | | | Not Filled |
| | | | | 0 | | | Not Filled |
| | **Financial/Management Risk Factors** | | | | | | |
| 11 | No resources (human) secured to make next step towards exploitation | 5 | 9 | 45 | euPOLIS approach requires multidisciplinary experts, presently non existent. Engagement and activation of more experts at the same time might be difficult to arrange. Pre-contract agreements and strict contract conditions required to support activities. | 7 | Control. |
| 12 | Inadequate comunication among partners | 8 | 2 | 16 | As above item 11 | 7 | Control. |
| 13 | Inadequate business plan | 5 | 5 | 25 | Detailed business plan required coordinating interactive interests from partners with market requirements | 4 | No Action' |
| | | | | 0 | | | Not Filled |
| | | | | 0 | | | Not Filled |
| | **Environmental/Regulation/Safety risks:** | | | | | | |
| 14 | Influence of laws and regulations | 8 | 6 | 48 | Use euPOLIS tesults results to instigate regulations change or introduction of additional regulative clauses within existing documents | 5 | Between Control & No Action |
| | | | | 0 | | | Not Filled |
| | | | | 0 | | | Not Filled |
| | | | | 0 | | | Not Filled |
| | | | | 0 | | | Not Filled |




## Summarizing Risks Table

| | |
|---|---|
| Number of "No Action" Risks | 2 |
| Number of "Control" Risks | 11 |
| Number of "Action" Risks | 0 |
| Number of "Warning" Risks | 0 |
| Number of Risks in the middle of everything | 0 |
| Number of Risks Between Control & No Action | 1 |
| Number of Risks Between Action & Warning | 0 |
| Number of Risks Between No Action & Warning | 0 |
| Number of Risks Between Control & Action | 0 |

# Preliminary Selection Toolkit

The Characterisation table is designed to start the collection of information that will be then reviewed and further integrated during the project life. Partners in charge of the Key Exploitable Result (KER) should fill in the content and discuss it with the ones involved in the finalisation of the KER including the partners that will oversee the testing phase.

| KER name | Input from the Beneficiary |
|---|---|
| **Problem** | *Describe the problem you are addressing (the problem your potential users have). Potential users are the people, companies, organisations, etc. that you expect will use the result (and generate an impact). They are your "Customers".*<br><br>Due to the multiple and diverse benefits Nature-Based Solutions (NBS) offer, there is an ever-increasing demand for structured methodologies and easy-to-implement urban design tools to facilitate their adaptation in standard urban policies and modern practices with the aim of improving urban environments through NBS.<br><br>More specifically, urban planners, city authorities and practitioners need methodologies and tools to assist them in selecting appropriate NBS interventions for a specific site of interest. These tools/methodologies need to provide an option for quantifiable analysis, so that the selection of NBS is not based solely on subjective criteria and best practices. |
| **Alternative solution** | *Describe how your "customer" has solved the problem so far.*<br><br>Conventionally the selection of NBS by urban planners and cities is carried out through past experience and best practices using subjective criteria. Alternatively, specific simulation models might be used to assess different NBS interventions in terms of very specific and mostly technical impacts (i.e. stormwater runoff, UHI effect mitigation). However, all the diverse impacts NBS could have (social, economic, PH & WB, etc.) cannot be assessed through simulation models. |

| | |
|---|---|
| **Unique Selling Point USP - Unique Value Proposition UVP** | *Describe the competitive advantages, the innovative aspects. What does your solution do better, what are the benefits considering what your user/customer wants, how does your solution solve his/her problem better than alternative solutions, what distinguishes the KER from the competition / current solutions?*<br><br>A simple, yet systematic, methodological framework has been developed for providing an initial assessment of candidate NBS interventions considered for a specific site through, by means of a preliminary multi dimensional impact analysis, as well as a standardised site screening process that exploits readily available data to quantify the identified main Conextual Indicators (CIs) and assess the severity of the associated Concerns at the site. The developed methodology provides a quantifiable analysis, that is not based solely on subjective criteria and best practices, and consequently formulates a practical tool for complementing and augmenting the implementation of other important urban planning practices and methods. A key innovation of the proposed methodology is the simultaneous consideration of the severity of the Concerns that are faced by the investigated urban site with the ability of a certain NBS to resolve them so as to provide a site-specific scoring and ranking for the potential NBS. This Preliminary Site Screening & NBS Selection Methodology, that has also been developed as an online tool, is therefore considered to offer a useful and practical decision support tool for enabling a first-order site-specific selection of the most effective NBS, prior to any in-depth analysis and modelling that might be carried out for the final selection and NBS design. |
| **Description** | *Describe in a few lines your result and/or solution (i.e., product, service, process, standard, course, policy recommendation, publication, etc.). Use simple wording, avoid acronyms, make sure you explain how your UVP is delivered.*<br><br>The methodology has also been developed and is offered as an easy-to-use online decision support tool to assist in NBS implementation in cities by carrying out a preliminary NBS selection and assisting urban planners and practitioners to identify the most promising |

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|---|---|
| | interventions that can then be further investigated more thoroughly, for example through detailed modelling. The tool can be accessed through the link: https://eupolis-nbs-tool.uwmh.eu/<br><br>The methodology and tool are described in the following conference publication, as well as in the corresponding euPOLIS deliverable.<br><br>Baki, S., Kazantzi, A., and Makropoulos, C.: NBS efficiency-informed urban upscaling methodology: the euPOLIS approach, EGU General Assembly 2023, Vienna, Austria, 24–28 Apr 2023, EGU23-17125, https://doi.org/10.5194/egusphere-egu23-17125, 2023.<br><br>Baki, S., Randelovic, A., Kazantzi, A., Tsattalios, S., Manouri, S., Makropoulos, C. (2022) D8.1: Report on the performance assessment metrics, framework & certification, WP8 – Evaluation of the euPOLIS solutions, Training and Capacity Building, euPOLIS project deliverable, 03/10/2022. |
| **"Market" – *Target market*** | *Describe the market in which your product/service will be used/can "compete", answering the following questions:*<br>*- What is the target market?*<br>*- Who are the customer segments?*<br><br>The tool is primarily intended for urban planners, researchers and other related practitioners, as well as cities/municipalities departments. |
| **"Market" – *Early Adopters*** | *Early adopters are the "customers" you are willing to address first. They are usually the ones that feel the problem harder than all the others (they are not the project partners).*<br><br>Urban planners / cities that need to select and prioritise the implementation of different NBS interventions. |

| | |
|---|---|
| **"Market" - Competitors** | *Who are your "competitors" (note: they are the ones offering "alternative solutions")?*<br>*What are their strengths and weaknesses comparing to you?*<br><br>To our knowledge, a similar solution is not currently offered. |
| **Go to Market – Use model** | *Explain what is your "use model", how the KER will be put in use (made available to "customers" to generate an impact). Examples of use models: manufacturing of a new product, provision of a service, direct industrial use, technology transfer, license agreement, contract research, publications, standards, etc.*<br>*Note training is a service.*<br><br>Possible examples: Detailed step-by-step manual, application examples, consultancy as a service, hands-on training for the use of the tool. |
| **Go to Market - Timing** | *What is the time to market?*<br><br>At the end of the project? |
| **Go to Market – IPR Background** | *What is the Background (type/ partner)?*<br>*Provide information considering also what already agreed in the Consortium Agreement, in Annex I.* |
| **Go to Market – IPR Foreground** | *What is the Foreground (type/ partner)?*<br>*Provide information considering also what already agreed in the Consortium Agreement.* |

| **Partner name** | **Key Exploitable Result (KER)** | **Your interest** (exploitation intention of this KER, intended market/customers) | **Your organization contribution to the generation of this KER** (what was/is/will be your input?) | **Role of each organisation** with regards to the KER and according to **the Grant and Consortium Agreement** |
|---|---|---|---|---|
| NTUA – UWMH Group | NBS Preliminary Selection Tool | ++++ | Development of the methodology and development of the online tool | N/A |
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The Exploitation Roadmap is a tool designed to help the consortium to identify and plan activities to be performed after the end of the project. The highest risk a consortium faces is not being able to implement the exploitation and dissemination plan and increase the TRL level or go to market, due to lack of resources. The exploitation roadmap is designed to address this risk, mitigate it and pave to way toward use and a stronger impact.

| Exploitation roadmap | |
|---|---|
| **Actions** | *Briefly describe actions planned to be executed 3-6 months after the end of the project.*<br><br>*Make sure you do not just focus on technical activities (realisation of a prototype, software interface, etc) but also consider the finalisation of a business plan, the protection of intellectual property, the collection of authorisations, all it will be needed to start implement what is in your exploitation plan*<br><br>The product will be disseminated in several scientific conferences during and following the project completion. A documentation of the tool / manual is planned to be produced to assist interested users in implementing the tool in actual urban design projects. Input files from euPOLIS case study applications can also be offered to the registered users, as preliminary design examples. Access to the online tool will be free of charge and the main market goal is to offer it as a) a service/consultancy to potential clients or b) detailed documentation/guide with example input files. |
| **Roles** | *Roles of partners involved in the actions defined above.*<br><br>NTUA will be the main partner for carrying out the exploitation of the tool and for implementing any future upgrades to the tool (e.g., expand the tool to account for other aspects such as for instance budget constraints that might affect the final selection of NBS or inclusion of other indicators). RG will assist in the future tool upgrades, as well as in the exploitation actions and especially in the organisation of related workshops and training courses. |
| **Milestones** | *List the milestones and KPIs to be used for monitoring the implementation of the actions listed above. Add timeline.*<br><br>- *Develop a detailed exploitation strategy & actions*<br>- *Develop documentation of the tool (manual, example files & applications)*<br>- *Develop material for hands-on training*<br>- *Do a plan for the further development of the tool and ways to finance this*<br>- *Tool development* |
| **Financials Costs** | *Cost estimation to implement planned activities (1 year, 3 years).*<br><br>*Provide information on the costs/investments needed to bridge the end of the project to the next steps planned and increase TRL or go to market (you may invest in a patent, in the realisation of a prototype, etc.).*<br><br>The expected costs refer mostly to the promotional activities (presenting the online tool in conferences, municipalities, policy makers, promotional training, etc.). Also, the online tool is currently hosted in NTUA server. There might be a need to use another server, external to the university infrastructure. The further tool development will most probably require securing additional funding / investment. |
| **Revenues** | *Projected revenues and eventual profits once the KER will be used (1 and 3 years after use)*<br><br>*Consider revenues you will expect to collect by licensing, or thanks to service provision or sale of devices. They generate the cash flow that will make the use of the result sustainable over time (provide an estimation concerning the first year and what is* |

| | |
|---|---|
| | *expected after 3 years, if possible). It is recommended that you estimate the revenues according to your early adopters and potential customers and include the information in the draft exploitation plan.*<br><br>Future revenues are expected from the following sources:<br>• Selling of the tool's documentation (manual, example application files)<br>• Training courses to municipalities and/or companies<br>• Consultancy services (application of the tool/methodology to a specific site of interest)<br><br>The tool itself is open to the public and its use is free of charge. |
| **Other sources of coverage** | *Resources needed to bridge the investment needed to increase TRL and ensure the result is used.*<br><br>*Financial resources to cover costs incurred before collecting the first revenues (during the "time to market" – see costs) and their sources. Sources can be partners` own budget, other project grants, national/regional incentives, risk capital, loans, etc. Make sure to obtain them at the right timing.*<br><br>The most probable sources for additional financial resources are considered to be project grants and national/regional incentives. |
| **Impact in 3-year time** | *Describe impact in terms of growth/benefits for the society*<br><br>*Impact is the objective of H2020. Impact should mobilise measurable changes in terms of growth/benefits for the society (i.e. jobs created, investments mobilized, turnover generated).*<br><br>Investments in NBS interventions, green development, improvement of the urban environment, improvement of PH & WB of citizens, optimization of public spending in terms of benefits (environmental, urban, social, economic, PH & WB), provision of ecosystem services, creation of related jobs. |

## Use options

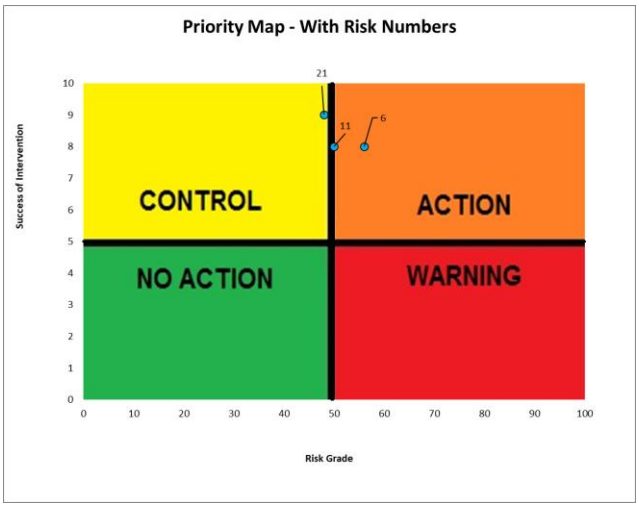
| KER's Exploitation route (how the KER will be further exploited) | | | |
|---|---|---|---|
| **Selected route** | | **Implementing actor** | **Yes** |
| **DIRECT USE** | Commercialisation: *deployment of a novel product/service (offered to the target markets)* | One partner[1] | X |
| | | A group of partners[2] | X |
| | Contract research (*new contracts signed by the research group with external clients*) | A partner | |
| | | A group of partners | |
| | A new research project (*application to public funded research programmes*) | A partner | |
| | | A group of partners | X |
| | Implementation of a new university – course (*Note that a training course is a service*) | A partner | |
| | | A group of partners | |
| | | A new partnership | |
| **INDIRECT USE** | Assignment of the IPR | A partner | |
| | | A group of partners | |
| | Licensing of the IPR | A partner | |
| | | A group of partners | |
| | Development of a new legislation/standard | A partner | |
| | | A group of partners | |
| | Spin- off | A partner | |
| | | A group of partners | |
| | | By assignment | |
| | | By licensing | |
| | Other (*please describe*) | | |

[1] Partners identifies the partners of the project receiving the ESS, not third parties that may be partner in the future.
[2] Provide the names of the partners

# KER Risk Assessment Map

Hold cursor over cells to show inspiration for potential risks

| | Description of Risks | Degree of criticality of the risk related to the final achievement of this Key Exploitable Result. Please rate from 1 to 10 (1 low- 10 high) | Probability of risk happening Please rate from 1 to 10 (1 low - 10 high) | Risk Grade | Potential intervention | Estimated Feasibility/Success of Intervention Please rate from 1 to 10 (1 low- 10 high) | Conclusion |
|---|---|---|---|---|---|---|---|
| | **Partnership Risk Factors** | | | | | | |
| 1 | Disagreement on ownership rules (the role of each partner might not be clear, the ownership of an updated tool version) | *6* | *5* | **30** | Discussions between NTUA and RG prior to the development of a future version or development of supplementary material | | **No Action'** |
| 2 | | | | **0** | | | **Not Filled** |
| 3 | | | | **0** | | | **Not Filled** |
| 4 | | | | **0** | | | **Not Filled** |
| 5 | | | | **0** | | | **Not Filled** |
| | **Technological Risk Factors** | | | | | | |
| 6 | Maybe a better technology/methodology is developed in the near future | *8* | *7* | **56** | Investigate further available technologies and stay up to date with new tools and methodologies to potentially upgrade the tool if necessary. | *8* | **Action!** |
| 7 | | | | **0** | | | **Not Filled** |
| 8 | | | | **0** | | | **Not Filled** |
| 9 | | | | **0** | | | **Not Filled** |
| 10 | | | | **0** | | | **Not Filled** |
| | **Market Risk Factors** | | | | | | |
| 11 | Nobody buys the product. Nobody needs it. Maybe municipalities/practitioners continue with the business as usual practicies and are not interesting in spending money for this service. | *10* | *5* | **50** | Further promote the tool through free of charge workshops and training courses.<br>Further development of the tool so that it provides even further advantages and becomes more easy-to-use. | *8* | **Between Control & Action** |
| 12 | | | | **0** | | | **Not Filled** |
| 13 | | | | **0** | | | **Not Filled** |
| 14 | | | | **0** | | | **Not Filled** |
| 15 | | | | **0** | | | **Not Filled** |
| | **IPR/Legal Risk Factors** | | | | | | |
| 16 | | | | **0** | | | **Not Filled** |
| 17 | | | | **0** | | | **Not Filled** |
| 18 | | | | **0** | | | **Not Filled** |
| 19 | | | | **0** | | | **Not Filled** |
| 20 | | | | **0** | | | **Not Filled** |
| | **Financial/Management Risk Factors** | | | | | | |
| 21 | No resources (human and/or financial) for adequately marketing the product | *8* | *6* | **48** | Attempt to secure additional funding / investment and liaise with existing project partners and clusters to promote the tool. Develop coherent roadmap and business plan. | *9* | **Control.** |
| 22 | | | | **0** | | | **Not Filled** |
| 23 | | | | **0** | | | **Not Filled** |
| 24 | | | | **0** | | | **Not Filled** |
| 25 | | | | **0** | | | **Not Filled** |
| | **Environmental/Regulation/Safety risks:** | | | | | | |
| 26 | | | | **0** | | | **Not Filled** |
| 27 | | | | **0** | | | **Not Filled** |
| 28 | | | | **0** | | | **Not Filled** |
| 29 | | | | **0** | | | **Not Filled** |
| 30 | | | | **0** | | | **Not Filled** |




## Summarizing Risks Table

| | |
|---|---|
| Number of "No Action" Risks | 1 |
| Number of "Control" Risks | 1 |
| Number of "Action" Risks | 1 |
| Number of "Warning" Risks | 0 |
| Number of Risks in the middle of everything | 0 |
| Number of Risks Between Control & No Action | 0 |
| Number of Risks Between Action & Warning | 0 |
| Number of Risks Between No Action & Warning | 0 |
| Number of Risks Between Control & Action | 1 |

# EuPOLIS Visualization Platform

The Characterisation table is designed to start the collection of information that will be then reviewed and further integrated during the project life. Partners in charge of the Key Exploitable Result (KER) should fill in the content and discuss it with the ones involved in the finalization of the KER including the partners that will oversee the testing phase.

| KER name | Input from the Beneficiary |
|---|---|
| **Problem** | *Describe the problem you are addressing (the problem your potential users have). Potential users are the people, companies, organizations, etc. that you expect will use the result (and generate an impact). They are your "Customers".*<br><br>The euPOLIS Visualization Platform addresses the need for effective monitoring and evaluation of Nature-Based Solutions (NBSs) in urban areas. The problem being addressed is the lack of comprehensive tools and systems that allow stakeholders, such as policymakers and urban planners, to assess the spatiotemporal impact of NBS interventions on the urban environment and the well-being of citizens. Existing solutions may not provide the necessary capabilities to explore, comprehend, and evaluate the optimized euPOLIS solutions in a dynamic and easily accessible manner, hindering the understanding of the effectiveness of NBS interventions in promoting sustainable urban development. |
| **Alternative solution** | *Describe how your "customer" has solved the problem so far.*<br><br>1. Policymakers and Urban Planners: Currently, policymakers and urban planners may rely on traditional methods of data collection, analysis, and evaluation to assess the impact of NBS interventions in urban areas. This could involve manual surveys, limited sensor data, and subjective assessments. They may also consult scientific studies and research papers to gain insights into the effectiveness of NBSs. However, these methods might lack the comprehensive and real-time information provided by the euPOLIS Visualization Platform |

| | |
|---|---|
| | 2. Environmental Agencies: Environmental agencies may use a combination of monitoring stations, such as weather conditions and air pollution stations, to gather data on the environmental impact of urban areas. They might employ data analysis techniques and models to understand the effectiveness of NBSs. However, these approaches may not offer a holistic view of the spatiotemporal impact of NBS interventions or provide interactive visualization capabilities like the euPOLIS Visualization Platform.<br>3. Research Institutions and Academia: Research institutions and academia likely utilize their research projects and studies to investigate the impacts of NBS interventions. They may conduct field surveys, collect data through various research methods, and analyze the results using specialized software or statistical tools. While these efforts contribute to scientific knowledge, they might lack the integrated and user-friendly visualization features offered by the euPOLIS Visualization Platform. |
| **Unique Selling Point USP - Unique Value Proposition UVP** | *Describe the competitive advantages and the innovative aspects. What does your solution do better, what are the benefits considering what your user/customer wants, how does your solution solve his/her problem better than alternative solutions, and what distinguishes the KER from the competition / current solutions?*<br><br>The euPOLIS Visualization Platform offers several competitive advantages and innovative aspects compared to alternative solutions, providing unique benefits to its users/customers. Here are some key points that distinguish the euPOLIS Visualization Platform (KER) from the competition/current solutions:<br>1. Comprehensive Monitoring and Evaluation: The euPOLIS Visualization Platform offers a comprehensive solution for monitoring and evaluating the spatiotemporal impact of Nature-Based Solutions (NBSs) in urban environments. It provides users with 2D and 3D views of the city environment, enriched with temporal data from various sources. This comprehensive approach allows stakeholders to gain a holistic understanding of the effectiveness of NBS interventions and their impact on the urban environment and citizens' well-being. |

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| | 2. User-Friendly Interface and Accessibility: The platform features a dynamic and user-friendly interface that can be easily customized to meet the specific requirements of different users, such as policymakers, urban planners, and researchers. It provides an easily accessible means of exploring and evaluating the effects of NBSs, making it easier for users to navigate through the platform, access relevant information, and derive meaningful insights from the data.<br>3. Integration of Cutting-Edge Technologies: The euPOLIS Visualization Platform leverages cutting-edge technologies to provide an innovative solution. It integrates various data sources, including measurements from weather conditions and air pollution stations, modeling and sensor information, and advanced analytical, numerical, and time-based data. This integration enables users to have a comprehensive and accurate understanding of the impact of NBS interventions on the urban environment and human well-being.<br>4. Unique Combination of Features: The euPOLIS Visualization Platform stands out by offering a unique combination of features that are not readily available in alternative solutions. These features include spatiotemporal visualization capabilities, comprehensive data integration, a user-friendly interface, and the ability to generate valuable insights for stakeholders. The platform's ability to combine and leverage these features sets it apart from existing solutions, providing a more robust and effective tool for monitoring and evaluating NBS interventions in urban areas.<br>5. Stakeholder Engagement and Decision Support: The platform is designed to support evidence-based decision-making by engaging stakeholders such as policymakers and urban planners. It provides them with the necessary insights and data to assess the effectiveness of NBS interventions, thus enabling them to make informed decisions regarding sustainable urban development. The platform's analysis results are of great value to stakeholders who are interested in understanding the impacts of NBS interventions and promoting citizen well-being. |

| | |
|---|---|
| **Description** | *Describe in a few lines your result and/or solution (i.e., product, service, process, standard, course, policy recommendation, publication, etc.). Use simple wording, avoid acronyms, and make sure you explain how your UVP is delivered.*<br><br>The euPOLIS Visualization Platform is an innovative web-based application that addresses the need for effective monitoring and evaluation of Nature-Based Solutions (NBSs) in urban areas. Our solution provides a user-friendly interface where stakeholders, such as policymakers and urban planners, can explore, comprehend, and evaluate the impact of NBS interventions on the urban environment and citizens' well-being. With its cutting-edge 2D and 3D visualization capabilities, comprehensive data integration, and advanced analytics, our platform delivers valuable insights and supports evidence-based decision-making for sustainable urban development. Our unique value proposition lies in providing a comprehensive and easily accessible means of monitoring and understanding the effects of NBSs, empowering stakeholders to create greener, more livable cities. |
| **"Market" – *Target market*** | *Describe the market in which your product/service will be used/can "compete", answering the following questions:*<br>*- What is the target market?*<br>*- Who are the customer segments?*<br><br>**Target Market:**<br>The target market for the euPOLIS Visualization Platform is the domain of urban development and sustainability. It encompasses stakeholders involved in planning, implementing, and monitoring Nature-Based Solutions (NBSs) in urban areas. The platform aims to serve both public and private entities that seek to enhance the well-being of citizens, promote sustainable urban development, and address environmental challenges through the adoption of NBS interventions. |

| | |
|---|---|
| | **Customer Segments:**<br><br>1. Policymakers and Urban Planners: These are key decision-makers responsible for formulating policies and strategies related to urban development and sustainability. They require comprehensive insights into the impact of NBS interventions to make informed decisions and shape urban policies that promote environmental sustainability and citizen well-being.<br><br>2. Environmental Agencies: Organizations and agencies focused on environmental protection and monitoring are an important customer segment. They need tools and data to assess the effectiveness of NBS interventions in addressing environmental challenges, such as air pollution, water management, and climate resilience.<br><br>3. Research Institutions and Academia: Research institutions and academic entities involved in studying urban planning, environmental science, and sustainability will benefit from the platform. They can utilize it to gather data, conduct analyses, and contribute to scientific knowledge in the field of NBSs and urban development.<br><br>4. Non-Governmental Organizations (NGOs): NGOs working in the areas of urban development, environmental conservation, and citizen well-being can utilize the euPOLIS Visualization Platform to assess the impact of NBS interventions. They can advocate for the adoption of sustainable urban practices and engage with policymakers and communities to promote positive change.<br><br>5. City Officials and Administrators: Municipal authorities and city administrators responsible for implementing NBS interventions and monitoring their effectiveness are an important customer segment. They can utilize the platform to monitor the |

| | |
|---|---|
| | performance of NBS projects, optimize resource allocation, and make data-driven decisions to enhance the quality of life for urban residents. |
| **"Market" – *Early Adopters*** | Early adopters are the "customers" you are willing to address first. They are usually the ones that feel the problem harder than all the others (they are not the project partners).<br><br>1. Progressive City Governments: Cities that have recognized the importance of NBS interventions and are actively working towards sustainable urban development. These forward-thinking local governments may have already initiated NBS projects and are seeking a comprehensive platform to monitor and evaluate their impact.<br><br>2. Environmental NGOs: Non-governmental organizations focused on environmental conservation and sustainability. These organizations are often at the forefront of advocating for NBS interventions and may have firsthand experience of the challenges in monitoring and evaluating the effectiveness of such initiatives.<br><br>3. Research Institutions and Think Tanks: Academic institutions and research organizations specializing in urban development, sustainability, and environmental studies. These institutions may have ongoing research projects related to NBS interventions and require a robust platform to gather data, analyze results, and contribute to scientific knowledge.<br><br>4. Innovators and Technology Enthusiasts: Individuals or companies developing innovative technologies or solutions in the realm of urban development and sustainability. These early adopters may be interested in integrating the euPOLIS Visualization Platform into their products or services to enhance their offerings and address the monitoring and evaluation challenges associated with NBS interventions. |

| | |
|---|---|
| **"Market" - Competitors** | *Who are your "competitors" (note: they are the ones offering "alternative solutions")?*<br>*What are their strengths and weaknesses compared to you?* |
| **Go to Market – Use model** | *Explain what is your "use model", how the KER will be put into use (made available to "customers" to generate an impact). Examples of use models: manufacturing of a new product, provision of a service, direct industrial use, technology transfer, license agreement, contract research, publications, standards, etc.*<br>*Note training is a service.*<br><br>The use model for the euPOLIS Visualization Platform involves the provision of a service to customers, enabling them to access and utilize the platform to monitor and evaluate Nature-Based Solutions (NBSs) in urban areas. The platform will be made available as a web-based application that customers can access through their internet browsers.<br><br>Access and Subscription: Customers interested in utilizing the euPOLIS Visualization Platform can subscribe to the service. They will gain access to the platform by registering and creating an account, either through a subscription-based model or through a free access program, depending on the specific implementation strategy. (??? this is not decided yet – just an assumption)<br><br>Data Integration and Setup: Once customers have access to the platform, they can integrate relevant data sources into the system. This could include data from weather conditions and air pollution stations, modeling and sensor information, as well as any additional data specific to their NBS projects. Customers will set up and configure the platform based on their requirements and project parameters.<br><br>Data Visualization and Analysis: Customers can then utilize the platform's 2D and 3D visualization capabilities to explore and analyze the impact of NBS interventions. They can |

| | |
|---|---|
| | navigate through the city environment, view spatial and temporal data, and derive insights about the effectiveness of the NBS interventions on the urban environment and citizen well-being.<br><br>Continuous Support and Updates: As customers utilize the platform, they will receive ongoing support from the euPOLIS team. There is also a User Manual inside the platform available for download to make sure the Users experience optimal navigation. Apart from the manual, es assistance with any technical issues, platform updates, and access to new features or improvements that are introduced over time, will be provided. (TBD) |
| **Go to Market - Timing** | *What is the time to market?*<br><br>The eupolis visualization platform is considered to be in the development phase: The development phase involves designing, building, and testing the platform. This phase can vary in duration depending on the complexity of the platform and the availability of resources. It includes activities such as software development, data integration, user interface design, and testing. |
| **Go to Market – IPR Background** | *What is the Background (type/ partner)?*<br>*Provide information considering also what is already agreed in the Consortium Agreement, in Annex I.* |
| **Go to Market – IPR Foreground** | *What is the Foreground (type/ partner)?*<br>*Provide information considering also what is already agreed in the Consortium Agreement.* |

The Exploitation Roadmap is a tool designed to help the consortium to identify and plan activities to be performed after the end of the project. The highest risk a consortium faces is not being able to implement the exploitation and dissemination plan and increase the TRL level or go to market, due to lack of resources. The exploitation roadmap is designed to address this risk, mitigate it and pave to way toward use and a stronger impact.

| Exploitation roadmap | |
|---|---|
| **Actions** | *Briefly describe actions planned to be executed 3-6 months after the end of the project.*<br><br>*Make sure you do not just focus on technical activities (realization of a prototype, software interface, etc) but also consider the finalization of a business plan, the protection of intellectual property, and the collection of authorizations, all it will be needed to start to implement what is in your exploitation plan*<br><br>1. Refinement and Optimization: The euPOLIS team may continue refining and optimizing the platform based on user feedback and lessons learned during the project. This could involve addressing any identified bugs or issues, improving the user interface, and enhancing the platform's performance and functionality.<br>2. User Engagement and Adoption: Efforts would be made to promote the euPOLIS Visualization Platform to potential users and encourage its adoption. This could involve marketing and outreach activities, such as conducting awareness campaigns, showcasing success stories, and engaging with relevant stakeholders through targeted communication channels.<br>3. Partnership and Collaboration Development: The euPOLIS team may explore partnership opportunities with organizations and stakeholders in the field of nature-based solutions, urban planning, or sustainability. Collaborations could involve integrating additional data sources, expanding the platform's functionalities, or exploring joint research initiatives to further enhance the platform's capabilities.<br>4. Commercialization Strategy: If the euPOLIS Visualization Platform has commercial potential, the team may develop a commercialization strategy. This could involve conducting market research to identify potential customers, defining pricing models, and exploring business partnerships or licensing agreements to make the platform commercially available.<br>5. Support and Maintenance: The euPOLIS team would likely establish mechanisms to provide ongoing support and maintenance for the platform. This could include setting up a helpdesk or support system to address user queries, providing regular updates and bug fixes, and ensuring the platform's continuous operation and data integration.<br>6. Impact Assessment and Reporting: A comprehensive assessment of the impact of the euPOLIS Visualization Platform would be conducted. This would involve collecting feedback from users, analyzing data on platform usage, and evaluating the platform's contribution to the field of nature-based solutions and urban planning. The findings would be documented in impact reports to showcase the value and effectiveness of the platform. |
| **Roles** | *Roles of partners involved in the actions defined above.*<br>GSH is currently the main responsible for the platform |
| **Milestones** | *List the milestones and KPIs to be used for monitoring the implementation of the actions listed above. Add timeline.* |
| **Financials Costs** | *Cost estimation to implement planned activities (1 year, 3 years).* |

| | |
|---|---|
| | *Provide information on the costs/investments needed to bridge the end of the project to the next steps planned and increase TRL or go to market (you may invest in a patent, in the realization of a prototype, etc.).* |
| **Revenues** | *Projected revenues and eventual profits once the KER will be used (1 and 3 years after use)*<br><br>*Consider revenues you will expect to collect by licensing, or thanks to service provision or sale of devices. They generate the cash flow that will make the use of the result sustainable over time (provide an estimation concerning the first year and what is expected after 3 years, if possible). It is recommended that you estimate the revenues according to your early adopters and potential customers and include the information in the draft exploitation plan.* |
| **Other sources of coverage** | *Resources are needed to bridge the investment needed to increase TRL and ensure the result is used.*<br><br>*Financial resources to cover costs incurred before collecting the first revenues (during the "time to market" – see costs) and their sources. Sources can be partners` own budgets, other project grants, national/regional incentives, risk capital, loans, etc. Make sure to obtain them at the right time.* |
| **Impact in a 3-year time** | *Describe the impact in terms of growth/benefits for the society*<br><br>*The impact is the objective of H2020. The impact should mobilize measurable changes in terms of growth/benefits for the society (i.e. jobs created, investments mobilized, turnover generated).*<br><br>1. Enhanced Quality of Life<br>2. Sustainable Urban Development<br>3. Business Growth and Turnover<br>4. Investment Mobilization<br>5. Job Creation |

## Use options

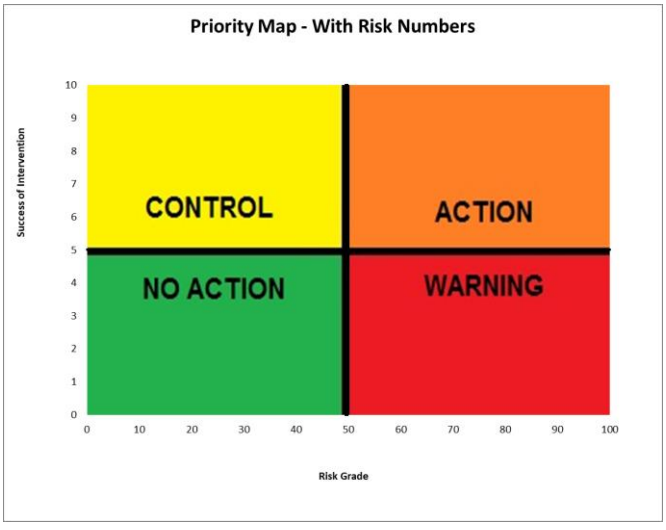
| KER's Exploitation route (how the KER will be further exploited) | | | |
|---|---|---|---|
| **Selected route** | | **Implementing actor** | **Yes** |
| **DIRECT USE** | Commercialization: *deployment of a novel product/service (offered to the target markets)* | One partner[1] | |
| | | A group of partners[2] | X |
| | Contract research (*new contracts signed by the research group with external clients*) | A partner | |
| | | A group of partners | |
| | A new research project (*application to publicly funded research programs*) | A partner | |
| | | A group of partners | X |
| | Implementation of a new university – course (*Note that a training course is a service*) | A partner | |
| | | A group of partners | |
| | | A new partnership | |
| **INDIRECT USE** | Assignment of the IPR | A partner | |
| | | A group of partners | |
| | Licensing of the IPR | A partner | |
| | | A group of partners | |
| | Development of a new legislation/standard | A partner | |
| | | A group of partners | |
| | Spin- off | A partner | |
| | | A group of partners | |
| | | By assignment | |
| | | By licensing | |
| | Other (*please describe*) | | |

[1] Partners identifies the partners of the project receiving the ESS, not third parties that may be partner in the future.
[2] Provide the names of the partners

## KER Risk Assessment Map

Hold cursor over cells to show inspiration for potential

| | Description of Risks | Degree of criticality of the risk related to the final achievement of this Key Exploitable Result. Please rate from 1 to 10 (1 low- 10 high) | Probability of risk happening Please rate from 1 to 10 (1 low - 10 high) | Risk Grade | Potential intervention | Estimated Feasibility/Success of Intervention Please rate from 1 to 10 (1 low- 10 high) | Conclusion |
|---|---|---|---|---|---|---|---|
| | **Partnership Risk Factors** | | | | | | |
| 1 | Disagreement on further investments | 2 | 2 | 4 | | | No Action' |
| 2 | Disagreement on ownership rules | 3 | 2 | 6 | | | No Action' |
| 3 | | | | 0 | | | Not Filled |
| 4 | | | | 0 | | | Not Filled |
| 5 | | | | 0 | | | Not Filled |
| | **Technological Risk Factors** | | | | | | |
| 6 | Better methodology exists | 5 | 7 | 35 | | | No Action' |
| 7 | Significant dependency on other technologies | 3 | 9 | 27 | | | No Action' |
| 8 | | | | 0 | | | Not Filled |
| 9 | | | | 0 | | | Not Filled |
| 10 | | | | 0 | | | Not Filled |
| | **Market Risk Factors** | | | | | | |
| 11 | Performance lower than market needs | | 8 | 7 | | | No Action' |
| 12 | | | | 0 | | | Not Filled |
| 13 | | | | 0 | | | Not Filled |
| 14 | | | | 0 | | | Not Filled |
| 15 | | | | 0 | | | Not Filled |
| | **IPR/Legal Risk Factors** | | | | | | |
| 16 | | | | 0 | | | Not Filled |
| 17 | | | | 0 | | | Not Filled |
| 18 | | | | 0 | | | Not Filled |
| 19 | | | | 0 | | | Not Filled |
| 20 | | | | 0 | | | Not Filled |
| | **Financial/Management Risk Factors** | | | | | | |
| 21 | | | | 0 | | | Not Filled |
| 22 | | | | 0 | | | Not Filled |
| 23 | | | | 0 | | | Not Filled |
| 24 | | | | 0 | | | Not Filled |
| 25 | | | | 0 | | | Not Filled |
| | **Environmental/Regulation/Safety risks:** | | | | | | |
| 26 | | | | 0 | | | Not Filled |
| 27 | | | | 0 | | | Not Filled |
| 28 | | | | 0 | | | Not Filled |
| 29 | | | | 0 | | | Not Filled |
| 30 | | | | 0 | | | Not Filled |




## Summarizing Risks Table

| | |
|---|---|
| Number of "No Action" Risks | 5 |
| Number of "Control" Risks | 0 |
| Number of "Action" Risks | 0 |
| Number of "Warning" Risks | 0 |
| Number of Risks in the middle of everything | 0 |
| Number of Risks Between Control & No Action | 0 |
| Number of Risks Between Action & Warning | 0 |
| Number of Risks Between No Action & Warning | 0 |
| Number of Risks Between Control & Action | 0 |

# ANNEX 2: Preliminary Report for HRB

# Exploitation Strategy Seminar Preliminary Report

**For**

Integrated NBS-based Urban Planning Methodology for Enhancing the Health and Well-being of Citizens

**Project ID Number**

**869448**

**Provided by:**

**Emmanuel Sofianopoulos**

# Index

# 1. Web-based exploitation strategy seminar - Online ESS

An Exploitation Strategy Seminar (ESS) is a workshop to brainstorm on use of project results, characterise them, identify the risks and potential obstacles for exploitation and analyse how to address them.
At the ESS the project partners and the appointed Expert work together on:

- The description of the key exploitable project results (KERs)
- The intentions of each partner with regard to use of the KERs

After the ESS, the Expert prepares a report summarising the results of the seminar for the project partners and the European Commission.

The ESS for "Integrated NBS Urban Planning Methodology for Enhancing the Health and Well-Being of Citizens" will be conducted from remote, online, due to the COVID19 restrictions enforced throughout Europe. Below some information on how to organise the online seminar and a proposed draft agenda.

## 1.1 Instruction for the Online ESS

**Before the seminar**

The **project** selects the KERs to be addressed by the service (max3).

The **project Coordinator/Exploitation Manager** provide the expert with the requested information (tables and excel) – 3 weeks before the webinar.

The **Expert** sends to the coordinator/exploitation manager the preliminary report with comments and elements to be addressed during the web meetings 7-5 days before the ESS. The **Coordinator/Exploitation Manager** shares the preliminary report with the partners so that everybody is prepared for the workshops.

**At the seminar:**

- In the initial minutes, **all participants**, if possible, turn on the camera to say hello. After the welcome session, is to be turned off.
- The **Expert** will stimulate interaction and make sure timing is kept. Some sessions will be theoretical with the introduction of the tools to be used, other practical with project partners working on the KERs.

**At the end of the seminar**

The **Coordinator** will gather from the participants the feedback forms (provided before the ESS by the expert) and send them back to the Expert, anonymously.

The **Expert** prepares a draft report that is shared with the Coordinator, who revises it and integrate with additional information and send back to the expert. The **Expert** updates the final report and shares it with the project (within a week from having received all materials back).

**If the connection breaks down**

We are not experiencing particular problems during these days, should the connection not work well it will be important to receive written contribution to those having problems.

## 1.2 Agenda of the day (CET/CEST timing)

**1st day 5/7/23 (For all partners)**

- **14:00 – 15:00, Exploitation Strategy Seminar –**

**Introducing Exploitation. Definitions of exploitation, Key Exploitable Results, exploitation v/s dissemination, the exploitation plan (plenary introduction to all).**

**2nd day 6/7/23 (For KER technical partners)**

- **09:00 – 10:30, Exploitation Strategy Seminar:**

**working group for KER1 Online session to introduce the KER1, further develop, fine-tune the Characterisation Table, the risk map and sketch the Exploitation Roadmap;**

- **10:30 – 11:00, Break**
- **11:00 – 12:30, Exploitation Strategy Seminar:**

**working group for KER2 Online session to introduce the KER2, further develop, fine-tune the Characterisation Table, the risk map and sketch the Exploitation Roadmap;**

- **12:30 – 13:30, Break**
- **13:30 – 15:00, Exploitation Strategy Seminar:**

**working group for KER3 Online session to introduce the KER3, further develop, fine-tune the Characterisation Table, the risk map and sketch the Exploitation Roadmap.**

**15:00 – 15:15 Wrap-up (Emmanuel, All)**

**Wrapping up & Closing Remarks.**

## 2. List of Abbreviations

| Abbreviation | Definition |
|---|---|
| BGS | Blue Green Solutions |
| BP | Business Plan |
| CC | Climate Change |
| DS | Demo sites |
| EO | Earth Observation |
| FL | Follower cities |
| FR | Front Runner cities |
| GA | Grant Agreement of the euPOLIS project |
| GDPM | Goal Driven Planning Matrix |
| GDPR | General Data Protection Regulation |
| IoT | Internet of Things |
| ICT | Information Communication Technologies |
| IPR | Intellectual property rights |
| KPI | Key Performance Indicator |

# 3. Integrated NBS Urban Planning Methodology for Enhancing the Health and Well-Being of Citizens

**Starts:** 1 September 2020; **Ends:** 31 August 2024

**Abstract**

Urban planners and engineers are integrating nature-based solutions (NBS) to address contemporary environmental, social and economic challenges. The EU-funded EuPOLIS project will deploy natural systems to enhance public health and well-being and create resilient urban ecosystems. It will design a structured approach that integrates existing natural and engineered urban systems and define their joint social, cultural and economic effects. The project will aim to regenerate and rehabilitate urban ecosystems to create inclusive and accessible urban spaces. It will address key challenges such as low environmental quality and low biodiversity in public spaces, water-stressed resources and undervalued use of space. The project's solutions will be tested in four cities: Belgrade, Lodz, Piraeus and Gladsaxe.

# 4. List of partners

| No. | Partner |
|---|---|
| 1 | ETHNICON METSOVION POLYTECHNION |
| 2 | UNIWERSYTET WARSZAWSKI |
| 3 | FACULTY OF CIVIL ENGINEERING, SERBIA |
| 4 | AMPHI INTERNATIONAL APS |
| 5 | EUROPEJSKIE REGIONALNE CENTRUM EKOHYDROLOGII POLSKIEJ AKADEMII NAUK |
| 6 | VERTICAL FARM INSTITUTE |
| 7 | GEOSYSTEMS HELLAS IT KAI EFARMOGESGEOPLIROFORIAKON SYSTIMATON ANONIMIETAIREIA |
| 8 | IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE |
| 9 | BIOPOLUS INTEZET NONPROFIT ZRT. |
| 10 | RISA SICHERHEITSANALYSEN GMBH |
| 11 | RESILIENCE GUARD GMBH |
| 12 | CDP WORLDWIDE (EUROPE) GEMEINNUTZIGE GMBH |
| 13 | ENPLUS |
| 14 | BIOASSIST SA |

| | |
|---|---|
| 15 | SENTIO LABS MONOPROSOPI IKE |
| 16 | BYSPEKTRUM IVS |
| 17 | MIKSER UDRUZENJE |
| 18 | MIKSER UDRUZENJE |
| 19 | PLEGMA LABS TECHNOLOGIKES LYSEIS ANONYMOS ETAIRIA |
| 20 | UNIVERSIDAD DE LOS ANDES FUNDACION |
| 21 | GRAD BEOGRAD |
| 22 | LODZ-MIASTO NA PRAWACH POWIATU |
| 23 | DIMOS PEIRAIA |
| 24 | GLADSAXE KOMMUNE |
| 25 | COMUNE DI PALERMO |
| 26 | DIMOS LEMESOS |
| 27 | GRAD TREBINJE |
| 28 | FENGXI NEW CITY DEVELOPMENT AND CONSTRUCTION (GROUP) CO LTD XIXIAN NEW AREA SHAANXI PROVINCE |
| 29 | EMPRESA DE RENOVACION Y DESARROLLO URBANO DE BOGOTA |
| 30 | VERTICAL FARM INSTITUTE GMBH |

# 5. Exploitable Results

## 5.1 List of Exploitable results

Time at the ESS seminar allows only for few results to be discussed in groups and provide the base for further developing all the others. The ESS will elaborate few selected Key Exploitable Results (KERs); partners, having been through the "exercises and procedures" will then apply what discussed to all the other KERs. The group discussions will be general, in such a way that everyone can contribute, so that it will be useful/instructive for all the attendees and that it will become understandable and acceptable and satisfying for all.

The experience regarding ESSs is that discussion takes more time than expected but, in the end, contributions are considered by the participants important and valuable for making concrete step as to the exploitation routes.

Based on this, the following KERs have been proposed by the partners to be discussed during the seminar.

| No. | Name of the KERs |
|---|---|
| 1 | EuPOLIS visualization platform |
| 2 | Goal Driven Planning Matrix (GDPM) |

## 5.2 Exploitation intentions

| Partner name | Key Exploitable Result (KER) | Interest | Contribution to the generation of this KER | Role |
|---|---|---|---|---|
| | EuPOLIS visualization platform | | | |
| ENPLUS | GDPM | 1. To be offered to developers as urban planning tool for their projects.<br>2. To be offered to municipalities as citizens PH&WB enhancement tool | The EnPlus input was GDPM construction deriving from its professional experience.<br>EnPlus will, together with other euPOLIS partners, offer logistic support (Tool customization) to the potential customers | As specified in GA, project proposal |

# 6. KER No. 1 EuPOLIS visualization platform (KER leading beneficiary: …)

## 6.1 Characterisation of the result

| euPOLIS Visualization Platform | Input from the Beneficiary |
|---|---|
| **Problem** | The euPOLIS Visualization Platform addresses the need for effective monitoring and evaluation of Nature-Based Solutions (NBSs) in urban areas. The problem being addressed is the lack of comprehensive tools and systems that allow stakeholders, such as policymakers and urban planners, to assess the spatiotemporal impact of NBS interventions on the urban environment and the well-being of citizens. Existing solutions may not provide the necessary capabilities to explore, comprehend, and evaluate the optimized euPOLIS solutions in a dynamic and easily accessible manner, hindering the understanding of the effectiveness of NBS interventions in promoting sustainable urban development. |
| **Alternative solution** | 1. Policymakers and Urban Planners: Currently, policymakers and urban planners may rely on traditional methods of data collection, analysis, and evaluation to assess the impact of NBS interventions in urban areas. This could involve manual surveys, limited sensor data, and subjective assessments. They may also consult scientific studies and research papers to gain insights into the effectiveness of NBSs. However, these methods might lack the comprehensive and real-time information provided by the euPOLIS Visualization Platform<br>2. Environmental Agencies: Environmental agencies may use a combination of monitoring stations, such as weather conditions and air pollution stations, to gather data on the environmental impact of urban areas. They might employ data analysis techniques and models to understand the effectiveness of NBSs. However, these approaches may not offer a holistic view of the spatiotemporal impact of NBS interventions or provide interactive visualization capabilities like the euPOLIS Visualization Platform.<br>3. Research Institutions and Academia: Research institutions and academia likely utilize their research projects and studies to investigate the impacts of NBS interventions. They may conduct field surveys, collect data through various research methods, and analyze the results using specialized software or statistical tools. While these efforts contribute to scientific knowledge, they might lack the integrated and user-friendly visualization features offered by the euPOLIS Visualization Platform. |
| **Unique Selling Point USP -** | The euPOLIS Visualization Platform offers several competitive advantages and innovative aspects compared to alternative solutions, providing unique benefits to its |

| | |
|---|---|
| **Unique Value Proposition UVP** | users/customers. Here are some key points that distinguish the euPOLIS Visualization Platform (KER) from the competition/current solutions:<br><br>1. Comprehensive Monitoring and Evaluation: The euPOLIS Visualization Platform offers a comprehensive solution for monitoring and evaluating the spatiotemporal impact of Nature-Based Solutions (NBSs) in urban environments. It provides users with 2D and 3D views of the city environment, enriched with temporal data from various sources. This comprehensive approach allows stakeholders to gain a holistic understanding of the effectiveness of NBS interventions and their impact on the urban environment and citizens' well-being.<br>2. User-Friendly Interface and Accessibility: The platform features a dynamic and user-friendly interface that can be easily customized to meet the specific requirements of different users, such as policymakers, urban planners, and researchers. It provides an easily accessible means of exploring and evaluating the effects of NBSs, making it easier for users to navigate through the platform, access relevant information, and derive meaningful insights from the data.<br>3. Integration of Cutting-Edge Technologies: The euPOLIS Visualization Platform leverages cutting-edge technologies to provide an innovative solution. It integrates various data sources, including measurements from weather conditions and air pollution stations, modeling and sensor information, and advanced analytical, numerical, and time-based data. This integration enables users to have a comprehensive and accurate understanding of the impact of NBS interventions on the urban environment and human well-being.<br>4. Unique Combination of Features: The euPOLIS Visualization Platform stands out by offering a unique combination of features that are not readily available in alternative solutions. These features include spatiotemporal visualization capabilities, comprehensive data integration, a user-friendly interface, and the ability to generate valuable insights for stakeholders. The platform's ability to combine and leverage these features sets it apart from existing solutions, providing a more robust and effective tool for monitoring and evaluating NBS interventions in urban areas.<br>*5.* Stakeholder Engagement and Decision Support: The platform is designed to support evidence-based decision-making by engaging stakeholders such as policymakers and urban planners. It provides them with the necessary insights and data to assess the effectiveness of NBS interventions, thus enabling them to make informed decisions regarding sustainable urban development. The platform's analysis results are of great value to stakeholders who are interested in understanding the impacts of NBS interventions and promoting citizen well-being.<br>6. Local Gateway: A strong UVP is the possibility of installing a local gateway (edge computing device) that performs data collection and preprocessing, and more specifically, local calculations and thresholds set through a rule-engine |
| **Description** | The euPOLIS Visualization Platform is an innovative web-based application that addresses the need for effective monitoring and evaluation of Nature-Based Solutions |

| | |
|---|---|
| | (NBSs) in urban areas. Our solution provides a user-friendly interface where stakeholders, such as policymakers and urban planners, can explore, comprehend, and evaluate the impact of NBS interventions on the urban environment and citizens' well-being. With its cutting-edge 2D and 3D visualization capabilities, comprehensive data integration, and advanced analytics, our platform delivers valuable insights and supports evidence-based decision-making for sustainable urban development. Our unique value proposition lies in providing a comprehensive and easily accessible means of monitoring and understanding the effects of NBSs, empowering stakeholders to create greener, more livable cities. |
| **"Market" – *Target market*** | **Target Market:**<br><br>The target market for the euPOLIS Visualization Platform is the domain of urban development and sustainability. It encompasses stakeholders involved in planning, implementing, and monitoring Nature-Based Solutions (NBSs) in urban areas. The platform aims to serve both public and private entities that seek to enhance the well-being of citizens, promote sustainable urban development, and address environmental challenges through the adoption of NBS interventions.<br><br>**Customer Segments:**<br><br>1. Policymakers and Urban Planners: These are key decision-makers responsible for formulating policies and strategies related to urban development and sustainability. They require comprehensive insights into the impact of NBS interventions to make informed decisions and shape urban policies that promote environmental sustainability and citizen well-being.<br>2. Environmental Agencies: Organizations and agencies focused on environmental protection and monitoring are an important customer segment. They need tools and data to assess the effectiveness of NBS interventions in addressing environmental challenges, such as air pollution, water management, and climate resilience.<br>3. Research Institutions and Academia: Research institutions and academic entities involved in studying urban planning, environmental science, and sustainability will benefit from the platform. They can utilize it to gather data, conduct analyses, and contribute to scientific knowledge in the field of NBSs and urban development.<br>4. Non-Governmental Organizations (NGOs): NGOs working in the areas of urban development, environmental conservation, and citizen well-being can utilize the euPOLIS Visualization Platform to assess the impact of NBS interventions. They can advocate for the adoption of sustainable urban practices and engage with policymakers and communities to promote positive change.<br>5. City Officials and Administrators: Municipal authorities and city administrators responsible for implementing NBS interventions and monitoring their |

| | |
|---|---|
| | effectiveness are an important customer segment. They can utilize the platform to monitor the performance of NBS projects, optimize resource allocation, and make data-driven decisions to enhance the quality of life for urban residents. |
| **"Market" – *Early Adopters*** | 1. Progressive City Governments: Cities that have recognized the importance of NBS interventions and are actively working towards sustainable urban development. These forward-thinking local governments may have already initiated NBS projects and are seeking a comprehensive platform to monitor and evaluate their impact.<br>2. Environmental NGOs: Non-governmental organizations focused on environmental conservation and sustainability. These organizations are often at the forefront of advocating for NBS interventions and may have firsthand experience of the challenges in monitoring and evaluating the effectiveness of such initiatives.<br>3. Research Institutions and Think Tanks: Academic institutions and research organizations specializing in urban development, sustainability, and environmental studies. These institutions may have ongoing research projects related to NBS interventions and require a robust platform to gather data, analyze results, and contribute to scientific knowledge.<br>4. Innovators and Technology Enthusiasts: Individuals or companies developing innovative technologies or solutions in the realm of urban development and sustainability. These early adopters may be interested in integrating the euPOLIS Visualization Platform into their products or services to enhance their offerings and address the monitoring and evaluation challenges associated with NBS interventions. |
| **"Market" - Competitors** | |
| **Go to Market – Use model** | The use model for the euPOLIS Visualization Platform involves the provision of a service to customers, enabling them to access and utilize the platform to monitor and evaluate Nature-Based Solutions (NBSs) in urban areas. The platform will be made available as a web-based application that customers can access through their internet browsers.<br><br>Access and Subscription: Customers interested in utilizing the euPOLIS Visualization Platform can subscribe to the service. They will gain access to the platform by registering and creating an account, either through a subscription-based model or through a free access program, depending on the specific implementation strategy. (??? this is not decided yet – just an assumption)<br><br>Data Integration and Setup: Once customers have access to the platform, they can integrate relevant data sources into the system. This could include data from weather conditions and air pollution stations, modeling and sensor information, as well as any |

| | |
|---|---|
| | additional data specific to their NBS projects. Customers will set up and configure the platform based on their requirements and project parameters.<br><br>Data Visualization and Analysis: Customers can then utilize the platform's 2D and 3D visualization capabilities to explore and analyze the impact of NBS interventions. They can navigate through the city environment, view spatial and temporal data, and derive insights about the effectiveness of the NBS interventions on the urban environment and citizen well-being.<br><br>Continuous Support and Updates: As customers utilize the platform, they will receive ongoing support from the euPOLIS team. There is also a User Manual inside the platform available for download to make sure the Users experience optimal navigation. Apart from the manual, es assistance with any technical issues, platform updates, and access to new features or improvements that are introduced over time, will be provided. (TBD) |
| **Go to Market - Timing** | The eupolis visualization platform is considered to be in the development phase: The development phase involves designing, building, and testing the platform. This phase can vary in duration depending on the complexity of the platform and the availability of resources. It includes activities such as software development, data integration, user interface design, and testing. |
| **Go to Market – IPR Background** | |
| **Go to Market – IPR Foreground** | |

## 6.2 Exploitation Roadmap

| Exploitation roadmap | |
|---|---|
| **Actions** | 1. Refinement and Optimization: The euPOLIS team may continue refining and optimizing the platform based on user feedback and lessons learned during the project. This could involve addressing any identified bugs or issues, improving the user interface, and enhancing the platform's performance and functionality.<br>2. User Engagement and Adoption: Efforts would be made to promote the euPOLIS Visualization Platform to potential users and encourage its adoption. This could involve marketing and outreach activities, such as conducting awareness campaigns, showcasing success stories, and engaging with relevant stakeholders through targeted communication channels.<br>3. Partnership and Collaboration Development: The euPOLIS team may explore partnership opportunities with organizations and stakeholders in the field of nature-based solutions, urban planning, or sustainability. Collaborations could involve integrating additional data sources, expanding the platform's functionalities, or exploring joint research initiatives to further enhance the platform's capabilities.<br>4. Commercialization Strategy: If the euPOLIS Visualization Platform has commercial potential, the team may develop a commercialization strategy. This could involve conducting market research to identify potential customers, defining pricing models, and exploring business partnerships or licensing agreements to make the platform commercially available.<br>5. Support and Maintenance: The euPOLIS team would likely establish mechanisms to provide ongoing support and maintenance for the platform. This could include setting up a helpdesk or support system to address user queries, providing regular updates and bug fixes, and ensuring the platform's continuous operation and data integration.<br>6. Impact Assessment and Reporting: A comprehensive assessment of the impact of the euPOLIS Visualization Platform would be conducted. This would involve collecting feedback from users, analyzing data on platform usage, and evaluating the platform's contribution to the field of nature-based solutions and urban planning. The findings would be documented in impact reports to showcase the value and effectiveness of the platform. |
| **Roles** | GSH is currently the main responsible for the platform |
| **Milestones** | |
| **Financials** | |

| | |
|---|---|
| **Costs** | |
| **Revenues** | |
| **Other sources of coverage** | |
| **Impact in a 3-year time** | 1. Enhanced Quality of Life<br>2. Sustainable Urban Development<br>3. Business Growth and Turnover<br>4. Investment Mobilization<br>5. Job Creation |

## 6.3 Risks Assessment and Priority Map


**Legend**

**Partnership Risk Factors**

**Technological Risk Factors**

**Market Risk Factors**

**IPR/legal risk factors**

**Financial/Management Risk Factors**

**Environmental/Regulation/Safety risks:**

## 6.4 Use options

| KER's Exploitation route (how the KER will be further exploited) | | | |
|---|---|---|---|
| **Selected route** | | **Implementing actor** | **Yes** |
| **DIRECT USE** | Commercialization: *deployment of a novel product/service (offered to the target markets)* | One partner[1] | |
| | | A group of partners[2] | X |
| | Contract research (*new contracts signed by the research group with external clients*) | A partner | |
| | | A group of partners | |
| | A new research project (*application to publicly funded research programs*) | A partner | |
| | | A group of partners | X |
| | Implementation of a new university – course (*Note that a training course is a service*) | A partner | |
| | | A group of partners | |
| | | A new partnership | |
| **INDIRECT USE** | Assignment of the IPR | A partner | |
| | | A group of partners | |
| | Licensing of the IPR | A partner | |
| | | A group of partners | |
| | Development of a new legislation/standard | A partner | |
| | | A group of partners | |
| | Spin- off | A partner | |
| | | A group of partners | |
| | | By assignment | |
| | | By licensing | |
| | Other (*please describe*) | | |

[1] Partners identifies the partners of the project receiving the ESS, not third parties that may be partner in the future.
[2] Provide the names of the partners

# 7. KER No. 2 Goal Driven Planning Matrix (KER leading beneficiary: ENPLUS)

## 7.1 Characterisation Table

| Goal Driven Planning Matrix | Input from the Beneficiary |
|---|---|
| **Problem** | 1. Standard urban planning technology is based on knowledge and experience and not a systemic analysis. Thus, number of potential synergies are missed.<br>2. Cities and big developments do not have developed methodology for systemic enhancement of citizens PH&WB by organized, increased exposure to the NBS entities. |
| **Alternative solution** | Sporadically, by creating blue green entities without clear functional determination of relevant components. |
| **Unique Selling Point USP - Unique Value Proposition UVP** | Citizens PH&WB systemic and organized improvements by introducing GDPM innovative urban planning criteria, also as a precondition for project approval. |
| **Description** | 1. Planning policy recommendations leading to PH&WB enhancement based on complex set of improvements related to environment, social and economic conditions.<br>2. Urban planning detailed technical recommendations designed for PH&WB organized enhancement in all related categories. |
| **"Market" – *Target market*** | - *What is the target market?* – Urban construction<br>- *Who are the customer segments?* – Municipalities and big developers |
| **"Market" – *Early Adopters*** | - EuPOLIS project Frontline Cities |
| **"Market" - Competitors** | - Competitors: big, well-known consultants<br>- Their strengths: good name, trusted in quality, cost and timing<br>- Their weaknesses: not offering GDPM advantages |
| **Go to Market – Use model** | Use model: use of euPOLIS project results, market education - first with publications, workshops, training and later customization of this tool to local conditions. This is brain storming type of exercise. |

| | |
|---|---|
| **Go to Market - Timing** | We will be able to answer this once the processes with euPOLIS project cities are completed and relevant lessons learned |
| **Go to Market – IPR Background** | |
| **Go to Market – IPR Foreground** | |

## 7.2 Exploitation Roadmap

| Exploitation roadmap | |
|---|---|
| **Actions** | We do not yet have business plan guideline, that was supposed to be developed in Task 10.1. Proposed actions will have to be fully coordinated with this guideline |
| **Roles** | Partners have to determine and declare their involvement. The process has been instigated in recent workshop No.2. We are now waiting for their response to make relevant decisions at workshop no. 3. |
| **Milestones** | GA Milestone ? |
| **Financials**<br><br>**Costs** | There should not be additional costs at any preparation phase. That is at the partner risk. |
| **Revenues** | The revenue calculation end distribution will have to be defined between partners at the offer preparation stage. |
| **Other sources of coverage** | Each partner should develop own product to the level required to interact with other partners products, as a basis for market approach. |
| **Impact in 3-year time** | - *PH improvement: euPOLIS results should be available.*<br>- *Public WB improvemen: euPOLIS results should be available.*<br>- *Investments mobilized: Once accepted by cities we will propose to cities to enlarge their NBS budgets for at least 5%*<br>- *Jobs created: result from the above* |

## 7.3 Risks Assessment and Priority Map

| | Key Exploitable Results | Importance of the risk (1 low- 10 high) | Probability of risk happening (1 low - 10 high) | Risk Grade | Scope and type of potential intervention | Feasibility/Success of Intervention (1 low- 10 high) | Priority Level |
|---|---|---|---|---|---|---|---|
| **Partnership Risk Factors** | | | | | | | |
| **1** | Industrialization at risk: no manufacturer for the exploitable result. | *4* | *6* | **24** | Find a new supply chain for the rig and the HWIL. | *6* | **Control.** |
| **2** | Disagreement on ownership rules. | *4* | *8* | **32** | Implement a new HWIL system or find a more robust agreement. | *6* | **Control.** |
| **3** | | | | | | | **Control.** |
| **4** | | | | | | | **Not Filled** |
| **5** | | | | | | | **Not Filled** |
| **Technological Risk Factors** | | | | | | | |
| **6** | Worthless result: better technology/methodology exists. | *7* | *9* | **63** | Understand strength and weaknesses of these technologies. Find improvements. | *9* | **Action!** |
| **7** | Significant dependency on other technologies. | | | **0** | Identify alternatives on the market if technologies fail and evaluate strength and weaknesses of these technologies. | | **Not Filled** |
| **8** | | | | **0** | | | **Not Filled** |
| **9** | | | | **0** | | | **Not Filled** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **10** | | | | **0** | | | **Not Filled** |
| **Market Risk Factors** | | | | | | | |
| **11** | Nobody buys the product. Standards to make it compulsory don't yet exist. | *8* | *10* | **80** | Adopt guidelines used in other sectors<br>Agree testing guidelines with certification bodies or customers. | *3* | **Warning;** |
| **12** | Nobody buys the product. Ocean energy market not well developed yet. | | | **0** | Participation on new research projects and lobby with main players from the sector. | | **Not Filled** |
| **13** | Nobody buys the product. Problems at the time of the first sales. | | | **0** | Find a better agreement with the customer facing issues. | | **Not Filled** |
| **14** | Nobody buys the product. Rejected by end-users. | | | **0** | Propose an explanation to the end-users with improved promoting actions. | | **Not Filled** |
| **15** | Exploitation disagreement: partners with divergent interests. | | | **0** | Find an agreement with partners. | | **Not Filled** |
| **IPR/Legal Risk Factors** | | | | | | | |
| **16** | Legal problems: proceeding against us. | | | **0** | Find a legal and/or commercial agreement. | | **Not Filled** |
| **17** | | | | **0** | | | **Not Filled** |
| **18** | | | | **0** | | | **Not Filled** |
| **19** | | | | **0** | | | **Not Filled** |
| **20** | | | | **0** | | | **Not Filled** |
| **Financial/Management Risk Factors** | | | | | | | |
| **21** | Lack of endorsement from top management. | *7* | *9* | **63** | Adopt a better communication strategy and clearly explain the positive consequences of the exploitable result. | *6* | **Action!** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **22** | No resources (human and/or financial) secured to make the next step toward exploitation. | *7* | *10* | **70** | Review the timeline of the implementation of the result. | *2* | **Warning;** |
| **23** | Know-how risks: there are leaks of confidential information. | | | **0** | Secure the turnover and leak of knowledge based on company resource strategies. | | **Not Filled** |
| **24** | | | | **0** | | | **Not Filled** |
| **25** | | | | **0** | | | **Not Filled** |
| **Environmental/Regulation/Safety risks:** | | | | | | | |
| **26** | Influence of laws and regulations. | | | **0** | Get involved in TC to review actual test standards. Closely follow activities for the definition of new standards. | | **Not Filled** |
| **27** | Product/service does not comply with the actual or future testing standards. | | | **0** | Get involved in TC to review actual test standards. Closely follow activities for the definition of new standards. | | **Not Filled** |
| **28** | | | | **0** | | | **Not Filled** |
| **29** | | | | **0** | | | **Not Filled** |
| **30** | | | | **0** | | | **Not Filled** |


**Legend**

**Partnership Risk Factors**

**Technological Risk Factors**

**Market Risk Factors**

**IPR/legal risk factors**

**Financial/Management Risk Factors**

**Environmental/Regulation/Safety risks**

## 7.4 Use options

| KER's Exploitation route (how the KER will be further exploited) | | | |
|---|---|---|---|
| | **Selected route** | **Implementing actor** | **Yes** |
| **DIRECT USE** | Commercialisation: *deployment of a novel product/service (offered to the target markets)* | One partner[3] | |
| | | A group of partners[4] | |
| | Contract research (*new contracts signed by the research group with external clients*) | A partner | |
| | | A group of partners | |
| | A new research project (*application to public funded research programmes*) | A partner | |
| | | A group of partners | |
| | Implementation of a new university – course (*Note that a training course is a service*) | A partner | |
| | | A group of partners | |
| | | A new partnership | |
| **INDIRECT USE** | Assignment of the IPR | A partner | |
| | | A group of partners | |
| | Licensing of the IPR | A partner | |
| | | A group of partners | |
| | Development of a new legislation/standard | A partner | |
| | | A group of partners | |
| | Spin- off | A partner | |
| | | A group of partners | |
| | | By assignment | |
| | | By licensing | |
| | Other (*please describe*) | | |

[3] Partners identifies the partners of the project receiving the ESS, not third parties that may be partner in the future.
[4] Provide the names of the partners

# Annex 1: Related information

This chapter reports the results of specific project related to specified key words on the Internet, also a list of projects (found on Cordis) of similar interest with a brief description and related patents.

## 7.5 Related links

**Key Words: «** sustainable urban planning **»**

Examples:

Curitiba, Brazil: Curitiba is often cited as a model for sustainable urban planning. It has a well-integrated public transportation system, extensive green spaces, and effective waste management.

Copenhagen, Denmark: Copenhagen has prioritized cycling infrastructure, with an extensive network of bike lanes and bike-sharing programs. The city also aims to become carbon neutral by 2025.

Freiburg, Germany: Freiburg is known for its commitment to renewable energy, energy-efficient buildings, and pedestrian-friendly neighborhoods. The city has set ambitious goals to become carbon neutral.

Vancouver, Canada: Vancouver focuses on sustainable development, with initiatives such as green building practices, efficient public transportation, and extensive parkland. The city aims to be the greenest city in the world.

Portland, United States: Portland has a strong emphasis on urban planning that promotes walkability, public transportation, and bicycle infrastructure. The city has also prioritized green space preservation.

Stockholm, Sweden: Stockholm aims to be fossil fuel-free by 2040 and has invested heavily in public transportation, renewable energy, and waste management. The city also promotes compact urban development.

Singapore: Singapore is known for its efficient land use planning, integrated transportation system, and commitment to green building practices. The city-state has implemented measures to improve air and water quality.

Amsterdam, Netherlands: Amsterdam prioritizes cycling and pedestrian infrastructure, with a comprehensive network of bike lanes and car-free zones. The city also promotes sustainable transport and renewable energy use.

Curridabat, Costa Rica: Curridabat is a small city that has focused on sustainable urban planning, emphasizing green spaces, urban agriculture, and sustainable mobility. It aims to be carbon neutral by 2050.

Reykjavik, Iceland: Reykjavik has set ambitious goals to become carbon neutral by 2040. The city has invested in geothermal energy, sustainable transport, and energy-efficient buildings.

These cities serve as notable examples of sustainable urban planning and can inspire others to implement similar strategies for a more sustainable future.

## 7.6 Related projects

Inspiring and activating European cities in the energy transition

An EU-funded project is building and promoting capacity on integrated urban planning. It features best-practice examples in the fields of transport, energy and land-use.

Project: MULTIPLY (ID: 785088)

European cities join forces to plan their urban and energy future together

Large urban areas throughout Europe are trying to strike a balance between their rapid growth and the need to significantly reduce fossil energy consumption and CO2 emissions. Cities need efficient and effective planning practices to cope.

Project: URBAN LEARNING (ID: 649883)

Biodiversity loss and enhancing ecosystem services in urban and peri-urban areas

Cities with their peri-urban areas have a vital role in protecting and enhancing nature and nature contribution to people in urban areas across EU, such as health, well-being, and climate resilience. They are also key in delivering global and EU biodiversity objectives and...

Urban greening and re-naturing for urban regeneration, resilience and climate neutrality

Cities are at the forefront of tackling climate change and pollution and managing impacts through mitigation and adaptation measures. However, while in the last decade local and regional authorities gained a better understanding of the inter-related climate challenges and...

Urban planning and design for just, sustainable, resilient and climate-neutral cities by 2030

Global challenges such as climate change, biodiversity loss, pandemic, pollution and irreversible depletion of natural resources demand cities to engage in urgent and decisive systemic transitions towards climate neutrality, sustainability and resilience in line with the...

New governance, business, financing models and economic impact assessment tools for sustainable cities with nature-based solutions (urban re-naturing)

Actions should: map and analyse existing experiences and practices and recommend innovative business models, financing mechanisms (e.g. crowd funding) and governance arrangements to develop socially acceptable urban 're-naturing' planning through participatory...

URBAN LEARNING Integrative energy planning of urban areas: collective learning for improved governance

ID: 649883

From: 1 March 2015 to: 30 November 2017

URBAN LEARNING gathers capitals and other large cities across Europe facing the common challenge of considerable population growth while being committed to significantly reduce fossil energy consumption and CO2 emissions. E.g. Stockholm grew by more than 12.000 people / a...

Coordinated in: Austria

Programme: SOCIETAL CHALLENGES - Secure, clean and efficient energy, Market uptake of energy innovation - building on Intelligent Energy Europe

## 7.7 Related patents

**Real-time traffic simulation analysis system and method based on internet big …**
**CN CN111275965A**
**Priority 2020-01-20 • Filed 2020-01-20 • Published 2020-06-12**
**Similar The invention relates to the technical field of traffic simulation, in particular to a real-time traffic simulation analysis system and method based on internet big data, which comprises a data storage module, a data processing module, a simulation management module and a user terminal module; the …**

**A kind of grid equipment inspection route Intelligent planning method**
**CN CN109269505A**
**Priority 2018-10-24 • Filed 2018-10-24 • Published 2019-01-25**
**Similar The present invention provides a kind of grid equipment inspection route Intelligent planning method, when departure place and destination are all at city, directly gives city inspection route ; When departure place is in city, destination is at suburb, route is divided into two parts by system, …**

**Traffic demand control device**
**WO EP CN JP WO2014199503A1**
**Priority 2013-06-14 • Filed 2013-06-14 • Published 2014-12-18**
**Similar The purpose of the present invention is to provide control information so that each traffic means is used at a desired usage rate in a traffic network in which multiple traffic means exist. In order to fulfill said purpose, the present invention has: a storage unit for storing traffic operation …**

**Method, device and storage medium for obtaining map data and map**
**CN CN110779535B**
**Priority 2019-11-04 • Filed 2019-11-04 • Granted 2023-03-03 • Published 2023-03-03**
**Similar The application relates to the technical field of data processing, in particular to a method, a device and a storage medium for obtaining map data and a map, which are used for improving the efficiency and the accuracy of obtaining the map data, wherein the method comprises the following steps: …**

**City control management system based on wisdom street lamp**
**CN CN110876126B**
**Priority 2020-01-17 • Filed 2020-01-17 • Granted 2020-04-24 • Published 2020-04-24**
**⋯ of urbanization, and the problem of urban diseases in partial areas is increasingly severe. In order to solve the urban development problem and realize urban sustainable development, the construction of smart cities becomes the irreversible historical trend of urban development in the world.**

# 8. Annex 2: Provisions regarding exploitation of project results

## 8.1 Background

The use of Background is strictly limited for use to the achievement of the project goals and for the duration of the project. The receiving partner or partners will sign appropriate non-disclosure agreements with the providing partner upon request. An exhaustive overview of the Background over which the partners agree and are entitled to grant access rights will be included as an annex to the consortium agreement.

## 8.2 Ownership of Result

Results are owned by the Party that generates them or on whose behalf they are generated. Each partner is obligated to fully inform the Commission of the filing of patent applications of knowledge created in the project as foreseen in the Grant Agreement. Each partner that owns a specific Result shall be free to exploit such Result

## 8.3 Joint ownership

The joint owners shall conclude an agreement covering the allocation and terms of exercise (including exploitation) of their joint ownership.

## 8.4 Access Rights

Access Rights to Background and/or Results that are owned by one or more of the partners shall be granted on fair and reasonable conditions and to the extent necessary to enable these partners to exploit their own results. For this purpose, the involved partners are entitled to conclude appropriate agreements.

## 8.5 Access Rights for implementation

Access Rights to Results and Background Needed for the performance of the own work of a Party under the Project shall be granted on a royalty-free basis.

## 8.6 Access Rights for Exploitation

Access Rights to Results if Needed for Exploitation of a Party's own Results shall be granted on Fair and Reasonable conditions and is subject to a separate written agreement between the Parties in question.

Access Rights to Background if Needed for Exploitation of a Party's own Results, including for research on behalf of a third party, shall be granted on Fair and Reasonable conditions and is subject to a separate written agreement between the Parties in question.

## 8.7 Access Rights for Affiliated Entities

Access Rights may be refused to Affiliated Entities if such granting is contrary to the legitimate interests of the Party which owns the Background or the Results.

Access Rights granted to any Affiliated Entity are subject to the continuation of the Access Rights of the Party to which it is affiliated and shall automatically terminate upon termination of the Access Rights granted to such Party.

Upon cessation of the status as an Affiliated Entity, any Access Rights granted to such former Affiliated Entity shall lapse.

Further arrangements with Affiliated Entities may be negotiated in separate agreements.

## 8.8 Dissemination

Concept texts of publications must be submitted to all Partners together with a request for permission to publish. Requests for such permission to publish shall be responded to within one month of receipt thereof. Agreement is considered to have been granted if no objection is raised within a period of one month after submission of the manuscript to all partners. If an objection has been raised, the involved partners shall discuss how to overcome the justified grounds for the objection on a timely basis. And an objecting partner shall not unreasonably continue the opposition if appropriate actions are performed following the discussion.

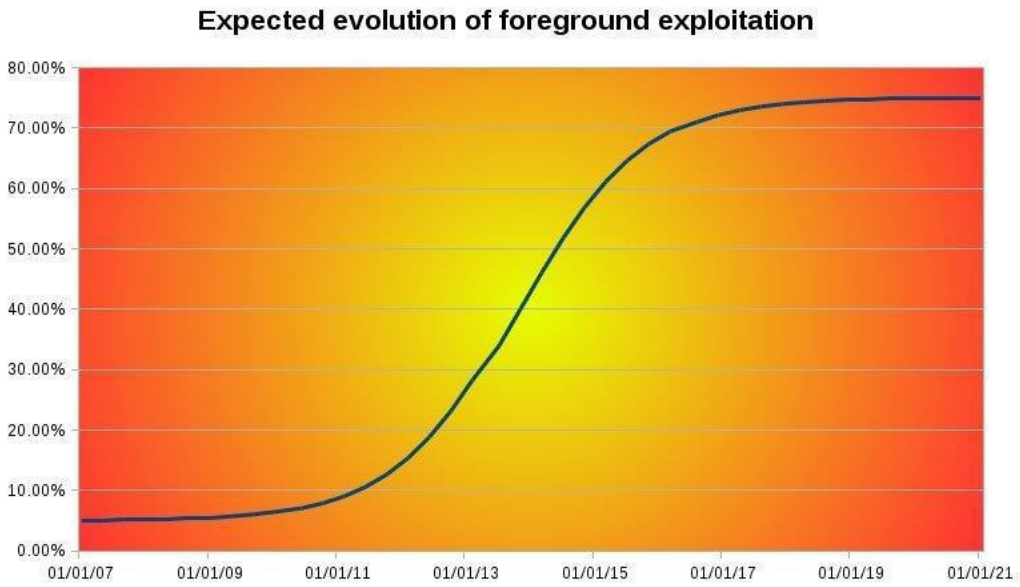
The participating research institutes/universities are entitled to use knowledge or results from the project that either have been published, or have been classified as publishable, for research and teaching purposes. The project's website will also contain an overview/archive of all published information and/or links hereto.

# 9. Annex 3: Additional content

## 9.1 Exploitation

The challenge that the European Commission is facing is like the one any government or publicly funded organisations are facing. Citizens are increasingly requesting value for money. They need to be convinced that the public money is well invested, that the return on the investment (RoI) is effective. Actions should be taken to encourage partners for exploitation and commercialization. EC wants to be sure that the selected results are brought to the next stage. That exploitation plans are not just a deliverable but a business plan dealing with real activities where partners commit themselves to implement the solutions, having identified resources and first operative steps. They do not want just a list of posters presented or few researches trained. This is the overall idea, - then from providing a list of deliverables and providing a business plan, there are a lot of different paths that could be followed.

The European Commission's expectations are - from an average of 5% of the results being exploited by the end of FP6, to a rapid growth during H2020. The figure below shows that 80% is the target. In H2020 exploitation and commercialization will have to play an important role.



## 9.2 Definitions[5]:

- **Exploitation** means the use of results in further research activities other than those covered by the action concerned, or in developing, creating, and marketing a product or process, or in creating and providing a service, or in standardisation activities;
- **Dissemination** means the public disclosure of the results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium;
- **Commercialisation** is the process of turning products and services into a commercially viable value. Concerning Intellectual Property (IP), this term can be more specifically defined as the process of bringing IP to the market in view of future profits and business growth
- **"Use"** is usually defined as the direct or indirect utilisation of the results in further research activities other than those covered by the project, or for developing, creating, and marketing a product or process, or for creating and providing a service.
- **"Direct use"** implies that partners utilise the results themselves for commercial applications (e.g. by producing and/or commercialising a new product or by integrating a new process into their manufacturing plant) and/or for further research ("further" with respect to the scope of the project in which the foreground is generated).
- **"Indirect use"** implies that partners may allow third parties to exploit the research results through a specific agreement.

[5] Regulation of the European Parliament and of the Council laying down the rules for participation and dissemination in "Horizon 2020 -the Framework Programme for Research and Innovation (2014-2020)" and repealing Regulation (EC) No 1906/2006 - Draft

# 10. Annex 4: Tips for further fine tuning your KER

## 10.1 KER definition

**A Key Exploitable Result (KER)** is a result fitting a specific need or responding to the demand of a defined group of customer/users. This does not necessarily mean that the KER is to be transformed into a product or a service and brought to a "marketplace". It neither means that the KER will generate large revenues. *However, every KER is very likely to at least have traces of these.*

Thus, if you believe that your KER does not have customers, competitors, generate revenue, a unique value proposition or the project is at a low TRL level and that you thus do not have any "bringing to market" activities; Consider the following:

- **Customers**: Instead of focusing on businesses that will *buy* your product, focus instead on the who will *use* your product. Where the customer section is, describe your users instead, and what they gain from your KER. Users can as well be colleagues within your organisation or processes.
- **Competitors**: Your KER may not have direct "living" competitors; but there is most often always a different way of responding to a demand or fulfilling a need than the one you propose. What are current and alternative solutions to the need that your KER solves? Another methodology, another component etc. The word competitor may be misleading but if taken in its general sense it should hopefully make sense.
- **Revenue**: Your KER may not be directly sellable as a product/service; but there will always be someone who pays for it, that pays for the cost of the resources involved. Perhaps an external partner, an investor or the budget of the company that you work for. Perhaps yourselves; but if so, you must be thinking that the KER will have the possibility to decrease costs somewhere in your organisation or increase revenue of another product/service. If so, simply explain this instead (how much you expect to save or how much you expect to increase revenue of another product).
- **Market and market size:** If there are users there is also a market; thus explain the "market" of the KER. It could be the production setup in which the KER is a new component, the project group in which the KER is a new methodology etc. In regard to market size, see if you can picture it in the same way as with revenue. What is the total potential saving for using your product, what is the total potential investment that you can receive from external partners or your management, what is the total increase of revenue that can be gathered by "bringing to the next stage" the solution in which your KER is a new component?
- **Unique Value Proposition**: Every KER has a unique value proposition; something that differentiates it from alternative solutions or competitors. Perhaps you have developed a new methodology for conducting a process that exceed the old methodology, perhaps it is a software input that works faster than current software etc.
- **Bringing to market activities:** You can read these as development and implementation activities. There is always something that you need to conduct before your KER is fully exploited. For example, for a standard you need to lobby in the standard committee or negotiate the resources within your organization to participate to the standard committee meetings or to pay for the experts in standardization to prepare the draft of the new standard.

Use these hints to iterate the characterization table you have worked out during the seminar and update it with the new information that will come from the demonstration stage of your project.

booster@meta-group.com

www.horizonresultbooster.eu

HORIZON RESULTS BOOSTER

An initiative of the European Commission

# ANNEX 3: Final Report for HRB

HORIZON RESULTS BOOSTER

An initiative of the European Commission

# PDES – Module C Final Report

for

« euPOLIS»


## Integrated NBS-based Urban Planning Methodology for Enhancing the Health and Well-being of Citizens

Project ID Number

**869448**

Exploitation Strategy Seminar

delivered on 5 & 6/7/2023

Provided by:

**Emmanuel Sofianopoulos**

# Index

# 1 Executive summary

This report summarises the process followed for the PDES-C service delivered to **euPOLIS** - Integrated NBS Urban Planning Methodology for Enhancing the Health and Well-Being of Citizens and the main outcomes of the exploitation strategy seminar (ESS) held on the 5 & 6/7/2023. The seminar was conducted from remote (online).

It presents the seminar, the agenda of the day, the participants. It then introduces the terminology used, and the three main tools presented and exercised:

- the characterisation table
- the exploitation roadmap and
- the risk matrix.

The Expert was appointed on 13/3/2023 and the Project Coordinator was contacted on 14/3/2023. The Coordinator informed the Expert that the ESS would have taken place in the summer of 2023 remotely.

On 24/3 a conference call with Project Coordinator was organised to discuss expectations, get a first insight on the state of the art, present the service and introduce preparatory activities, it was agreed to have a two-half days ESS. On the same day, the Expert sent to the Project Coordinator all the info and the Exploitation Summary Table to be shared with Project Partners and filled.

A Preliminary Report was sent out on the 5th of July with the Expert strongly suggesting sharing the document with all the Partners before the ESS to have a common starting point at the ESS.

The ESS was then attended by all the Partners. The agenda presented in this report is the one actually run.

During the seminar, the discussions included a focus on how exploitation needs to aim at sustainability of the activities, after the end of the project. Sessions were held in plenary, with all the partners attending, and actively contributing, according to their roles.

On the same days of the ESS, the Expert sent to the Project Coordinator, to be shared with Project Partners, all the materials used, and slides presented, namely euPOLIS ESS.ppt

After the ESS the Expert requested and received updated data on KERs discussed during the workshop.

Anonymous feedback will be gathered from participants through the HRB platform project's dedicated workspace, and it was as well discussed the possibility of a follow-on service (Business Plan Development).

From the Expert's perspective, some quick preliminary remarks that will be better detailed in the Recommendations section are provided below. Project Partners need to consider the following remarks:

a. Make sure not to forget any costs or potential sources of revenues when you make the financial analysis. Involve experienced personnel from accounting and sales.
b. Consider intermediate products and minor customers like hospitals and big housing complexes.
c. Look at epo.org and Have an IPR workshop
d. Analyse mid-term plans with involved partners; include relevant points in contract. euPOLIS approach requires multidisciplinary experts. Engagement and activation of more experts at the same time might be difficult to arrange. Pre-contract agreements and strict contract conditions are required to support activities.
e. Keep in mind the following parameters that affect exponentially live: Tourism, huge building complexes, migration, villages managed, urbanism, smartphone apps, green certifications and governance.
f. Hold a Business Plan (BPD) workshop.

## 2 List of Abbreviations

| Abbreviation | Definition |
|---|---|
| BGS | Blue Green Solutions |
| BP | Business Plan |
| CC | Climate Change |
| DS | Demo sites |
| EO | Earth Observation |
| FL | Follower cities |
| FR | Front Runner cities |
| GA | Grant Agreement of the euPOLIS project |
| GDPM | Goal-Driven Planning Matrix |
| GDPR | General Data Protection Regulation |
| IoT | Internet of Things |
| ICT | Information Communication Technologies |
| IPR | Intellectual property rights |
| KPI | Key Performance Indicator |

# 3 Introducing the PDES-C

## 3.1 The PDES-C

The aim of this service is to strengthen the capacity of projects in using their research results enhancing partners' capacity to improve their exploitation strategy.

Project activities and the research work done or to be done are considered in terms of Key Exploitable Results (KERs). KERs are results which have commercial and/or societal significance. The results selected for the discussion during the service are analysed from a viewpoint which is exploitation only and considering how they will be used to generate, after the end of the project, impact. This is the market/customer demand or societal needs/user point of view.

The service and the virtual Exploitation Strategy Seminar (ESS) provided the participants with the opportunity to work on:

1) the identification/grouping of key exploitable results;
2) the first definition of the related use mode;
3) the identification and mapping of risks related to the exploitation;
4) follow-up actions.

**The ESS for euPOLIS was conducted remotely, online.**

## 1.1 Agenda of the day (CET/CEST timing)

**1st day 5/7/23**

- **14:00 – 15:00, Exploitation Strategy Seminar –**

**Introducing Exploitation. Definitions of exploitation, Key Exploitable Results, exploitation v/s dissemination, and the exploitation plan (plenary introduction to all).**

**2nd day 6/7/23**

- **09:00 – 10:30, Exploitation Strategy Seminar:**

**working group for KER1 Online session to introduce the KER1, further develop, fine-tune the Characterisation Table, the risk map and sketch the Exploitation Roadmap;**

- **10:30 – 11:00, Break**
- **11:00 – 12:30, Exploitation Strategy Seminar:**

**working group for KER2 Online session to introduce the KER2, further develop, fine-tune the Characterisation Table, the risk map and sketch the Exploitation Roadmap;**

- **12:30 – 13:30, Break**
- **13:30 – 15:00, Exploitation Strategy Seminar:**

**working group for the KER3 Online session to introduce the KER3, further develop, fine-tune the Characterisation Table, the risk map and sketch the Exploitation Roadmap.**

**15:00 – 15:15 Wrap-up (Emmanuel, All)**

**Wrapping up & Closing Remarks.**

## 3.2 List of Participants

| No. | Organisation | Name and Surname |
|---|---|---|
| 1 | NATIONAL TECHNICAL UNIVERSITY OF ATHENS (NTUA) | Eftychios Protopapadakis, Sandra Baki, E. Sardis |
| 2 | GEOSYSTEMS HELLAS IT KAI EFARMOGESGEOPLIROFORIAKON SYSTIMATON ANONIMIETAIREIA | Eirini Marinou, Giorgos Daskalopoulos |
| 4 | AMPHI INTERNATIONAL APS | Andrea |
| 5 | EUROPEJSKIE REGIONALNE CENTRUM EKOHYDROLOGII POLSKIEJ AKADEMII NAUK | Kinga Krauze |
| 9 | BIOPOLUS | Erzsébet Poór-Pócsi |
| 10 | RISA | Dora Karali |
| 11 | RESILIENCE GUARD GMBH | Nancy Kazantzi |
| 13 | ENPLUS | Ranko Bozovic |
| 14 | BIOASSIST SA | Paris Gallos |
| 15 | SENTIO LABS MONOPROSOPI IKE | Elsa Katsorida |
| 16 | BYSPEKTRUM | Morten Rask Madsen |
| 19 | PLEGMA LABS TECHNOLOGIKES LYSEIS ANONYMOS ETAIRIA | Stelios Kalogridis, Nikos Ipiotis |
| 23 | DIMOS PEIRAIA | Julia Tzortzi |
| 26 | DIMOS LEMESOS | Christiana Antoniadou |

14 partners out of 28 (+optional follower cities) attended the meeting held on the 5th and 6th of July, 2023.

Missing partners:

MIKSER UDRUZENJE

CDP WORLDWIDE (EUROPE) GEMEINNUTZIGE GMBH

IMPERIAL COLLEGE OF SCIENCE TECHNOLOGY AND MEDICINE

COMUNE DI PALERMO

GLADSAXE KOMMUNE

GRAD TREBINJE

EMPRESA DE RENOVACION Y DESARROLLO URBANO DE BOGOTA

UNIVERSIDAD DE LOS ANDES FUNDACION

VERTICAL FARM INSTITUTE GMBH

GRAD BEOGRAD

UNIWERSYTET WARSZAWSKI

FACULTY OF CIVIL ENGINEERING, SERBIA

LODZ-MIASTO NA PRAWACH POWIATU

FACULTY OF CIVIL ENGINEERING, SERBIA

# 4 Exploitation and Key Exploitable Results

## 4.1 Exploitation in Horizon Europe

Activities to disseminate and exploit results from research and innovation are an integral part of Horizon Europe. Enhanced dissemination and exploitation are strategic matters for the success of Horizon Europe, synergies with other programmes and the achievement of impact on society at large. One of the most efficient ways of furthering the dissemination and exploitation of research results is through education and training. When discoveries and knowledge are integrated into education activities, students at all levels are able to bring state-of-the-art knowledge with them to workplaces across society.

In addition to the initiatives towards open science mentioned above, Horizon Europe introduces novelties in the way research and innovation results are disseminated and exploited, giving more **emphasis to third-party uptake** with **private investments** and to the knowledge and **impact these results create after the end of research and innovation projects**.

Against this background, and in line with Horizon Europe's overarching objective of enhanced communication and engagement with the public, dedicated activities for the visibility, use and valorisation of research and innovation results, including mission outputs are introduced. Horizon Europe ensures support to beneficiaries for their dissemination and exploitation activities during and after their project lifetime. Furthermore, a framework for feeding consolidated outcomes based on research and innovation results, into policy and decision-making will be proposed.

The availability of top-quality talent and the effective circulation of knowledge between research, industry, education and training is a pre-requisite for maximising the impact of European research and innovation investments. Integrating research and innovation activities with education and training and supporting activities for knowledge exchange and transfer across sectors, for instance via Marie Skłodowska-Curie Actions and Knowledge and Innovation Communities, is a powerful method to ensure research and innovation activities are informed by and directed towards citizens' and society's needs and the results are widely disseminated, for instance through a well-educated work-force. A balanced approach between research and innovation is a central part of Horizon Europe, built in the design which spans the full range of Technology Readiness Levels (TRLs) from curiosity-driven research to commercially driven innovation and support to market deployment, and within innovation, technological, non-technological and social innovation.

## 4.2 Definitions

**Results: Any tangible or intangible output of the action**, such as device, data, knowledge and information whatever their form or nature, whether they can be protected.

**Communication:** the **promotion of the project and its results** to a multitude audience (including the media and the public/society) strategically and effectively.

**Dissemination:** the **public disclosure of the results** by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific publications in any medium.

**Exploitation:** the **utilisation of results** – up to four years after the action:

- in further research activities other than those covered by the action concerned, or
- in developing, creating and marketing a product or process, or
- in creating and providing a service, or in standardisation activities.

## 4.3 Characterisation Table

The characterisation table is the tool used in the ESS to summarise the main features of a KER and to provide information on the selected exploitation route. Information summarised in the characterisation table is to be further integrated and finalised after the ESS becomes the base for the PEDR/business plan for the result. It does not focus on the scientific dimension of the KER but offers a snapshot of the most important elements to be considered when dealing with the use of a result, following a problem-oriented (demand-driven) approach.

During the ESS project partners interactively discuss the characterisation table and further finalised it.

In the table, each element is described in a simple way highlighting the most important features that distinguish the result from current solutions. The table contains information on:

- **The novel solution:** Description of the Result, problem solved, Unique Selling Point (competitive advantages or innovativeness introduced compared to already existing Products/Services);
- **Market:** Product/Service Market Size, Market Trends/Public Acceptance, Product/Service Positioning; Competitors/Incumbents, Prospects/Customers;
- **External factors:** Legal or normative or ethical requirements (need for authorisations, compliance to standards, norms, etc.);
- **Go to market aspects:** Cost of Implementation (before Exploitation), Time to market, Estimated Product/Service Price, Adequateness of Consortium Staff, External Experts/Partners to be involved;
- **IPR Status***:* Background (type and partner owner), Foreground (type and **partner owner)**;
- **Exploitation Strategy:** Exploitation Forms (direct industrial use, technology transfer, license agreement, publications, standards, etc.), Which partner contributes to what (main contributions in terms of know-how, patents, etc.) Partner/s' expectations, Sources of financing foreseen after the end of the project (venture capital, loans, other grants, etc.).

## 4.4 Priority map and risk matrix

The Priority Map provides at a glance a snapshot of the main risks identified by the partners. It is based on risks selected in the Risk Matrix assessment tool (Risk Matrix) and the proposed remedy actions. The Risk Matrix helps the partnership identify for each KER, the type of risk, its level of importance related to the use of the concerned KER, the probability for such a risk to happen, remedy actions and their probability to succeed.

The Risk Matrix analyses the following six different categories of risks:

- **1. Partnership Risks:** internal risk factors related to the composition of the partnership or specific behaviours of the partners, conflict of interests, etc.
- **2. Technological Risks:** external factors related to the feasibility of the technology, its level of development, the presence of other emerging technologies, etc.
- **3. Market Risks:** external risk factors related to fulfilment of marked needs, presence of competitors or alternative products, etc.
- **4. IPR Risks:** factors related to the presence of similar previous patents, the possibility to protect the developed technology/product, patent counterfeit, etc.
- **5. Environmental risk factors:** are external factors related to the presence or changes in legislation, standards, etc. Special attention will be given to the regulatory environment and standardisation issues.
- **6. Financial risk factors:** factors related to the availability of funds for bringing the research stage to prototyping industrialisation/commercialisation.

The severity grade is scored for each risk (1 = low; 10 = high). The grade shows the importance of the risk with respect to successful exploitation. For example:

- a previous patent, on the same technology, is a severe risk (10 points) if our exploitation route is fully relying on patenting;
- the sudden change in market conditions can be a severe risk if we want to introduce a product into the market.

After scoring the severity grade, the second step is to evaluate the probability for the risk to happen (1 = low; 10 = high). In the examples above:

- in the case of the patent, if we realize (after a quick search) that there is a patent preventing us to patent as well, then the probability of happening is 100% and the related mark is 10;
- in the case of market change: the apple market will not change so dramatically in the next future (grade 1) while the apps market is changing every day (grade10).

The product of the severity and the probability grade will give the risk grade of the concerned risk factor (value on the x-axis).

The risk grade coupled with the probability of success will position the risk in the Priority Map.

- A high-risk grade and a low probability of success of the intervention, identifies a situation where we may consider discussing to stop the project (Warning). Examples:
  - There is a patent interfering with the one we would like to file. As a remedy, there is a plan to ask the owner for an agreement but, it is evident, chances of succeeding are very low. The selected exploitation path is blocked and there is not any possibility to go on;
  - The market is changing regulations and the product is not compliant anymore. As a remedy, there is the re-design of the product but with a very low probability of having something that will match the customers' needs. This may lead to the decision to stop the project.

- A high-risk grade with a high probability of success for the remedy action defines a situation where there is the need for immediate action to ensure exploitation (action). Examples:
  - There is a previous patent interfering with the one we are about to file in. An agreement with the previous patent is feasible. In this case, the exploitation of that technology, if the agreement is reached, it is still possible, but action should be taken as soon as possible;

- The market is changing regulations and the product is not respecting the new one. The re-design of some components will fulfil both compliance to new regulations and customers' needs. Partnership should re-think our project as soon as possible.

- A low-risk grade coupled with a high probability of success of the planned remedy defines a situation where it would be preferable to keep an eye on what is happening (Control) to be ready to act. Example:
  - Regulations in the market have not changed in the last 20 years and our product is valid only with such regulations. As a remedy, we should re-design some components to continue to be on the market. We have to monitor the situation (regulatory framework) and in case it will change, we have to immediately re-design our product.

- A low-risk grade and a low probability of success for the remedy, it is a situation that does not call for immediate action (no action). Examples:
  - Regulations in the market have not changed in the last 20 years and our product is valid only with such regulations. We could think of re-designing our product but there are low possibilities to get good results. Under these conditions it is better not consider any intervention;
  - Regulations in the market have not changed in the last 30 years and our product is fully compliant. There is no need at the current stage to modify our product nor to be worried about any change in regulations.

## 4.5 Towards the exploitation plan

The ESS is just one of the first steps of a structured path towards exploitation. Working with KERs calls for understanding what the actual results are (will be) and what needs to be until the end of a project (and beyond) to have a clear and actionable exploitation plan ready and agreed among partners.
In the following pages, we provide a table that illustrates how what it is discussed during the ESS is to be integrated and developed to prepare the exploitation plan. Using these tables will help project partners in better prepare and structuring the Plan for Exploitation and Dissemination of the Results (PEDR) by focusing on relevant information planning actions and ensuring resources needed for a sustainable use of the results. Support in finalising is part of the Business Plan Development (BPD) service provided under the Horizon Results Booster [1].

**Characterisation Table**

| **Add KER name** | |
|---|---|
| **Problem** | *Describe the problem you are addressing (the problem your potential users have). Potential users are the people, companies, organisations, etc. that you expect will use the result (and generate an impact). They are your "Customers".* |
| **Alternative solution** | *Describe how your "customer" has solved the problem so far.* |
| **Unique Selling Point USP - Unique Value Proposition UVP** | *Describe the competitive advantages, the innovative aspects. What does your solution do better, what are the benefits considering what your user/customer wants, how does your solution solve his/her problem better than alternative solutions, what distinguishes the KER from the competition/current solutions?* |
| **Description** | *Describe in a few lines your result and/or solution (i.e., product, service, process, standard, course, policy recommendation, publication, etc.). Use simple wording, avoid acronyms, make sure you explain how your UVP is delivered.* |
| **"Market" – *Target market*** | *Describe the market in which your product/service will be used/can "compete", answering the following questions:*<br>*- What is the target market?*<br>*- Who are the customer segments?* |
| **"Market" – *Early Adopters*** | *Early adopters are the "customers" you are willing to address first. They are usually the ones that feel the problem harder than all the others (they are not the project partners).* |
| **"Market" - Competitors** | *Who are your "competitors" (note: they are the ones offering "alternative solutions")?*<br>*What are their strengths and weaknesses comparing to you?* |
| **Go to Market – Use model** | *Explain what is your "use model", how the KER will be put in use (made available to "customers" to generate an impact). Examples of use models: manufacturing* |

[1] https://www.horizonresultsbooster.eu/

| | |
|---|---|
| | *of a new product, provision of a service, direct industrial use, technology transfer, license agreement, contract research, publications, standards, etc.*<br>*Note training is a service.* |
| **Go to Market - Timing** | *What is the time to market?* |
| **Go to Market – IPR Background** | *What is the Background (type/ partner)?* |
| **Go to Market – IPR Foreground** | *What is the Foreground (type/ partner)?* |

**Exploitation Roadmap**

The roadmap is a tool designed to help the consortium to identify and plan activities to be performed after the end of the project. The highest risk a consortium faces is not being able to implement the exploitation and dissemination plan and increase the TRL level or go to market, due to lack of resources. The exploitation roadmap is designed to address this risk, mitigate it and pave to way toward use and a stronger impact.

| **Exploitation roadmap** | |
|---|---|
| **Actions** | *Briefly describe actions planned to be executed 3-6 months after the end of the project.* |
| **Roles** | *Roles of partners involved in the actions defined above.* |
| **Milestones** | *List the milestones and KPIs to be used for monitoring the implementation of the actions listed above. Add timeline.* |
| **Financials Costs** | *Cost estimation to implement planned activities (1 year, 3 years).* |
| **Revenues** | *Projected revenues and eventual profits once the KER will be used (1 and 3 years after use).* |
| **Other sources of coverage** | *Resources needed to bridge the investment needed to increase TRL and ensure the result is used.* |
| **Impact in 3-year time** | *Describe impact in terms of growth/benefits for the society.* |

**Use options**

This table depicts the commercialisation route, either directly or indirectly and from which partners.

| KER's Exploitation route (how the KER will be further exploited) | | | |
|---|---|---|---|
| **Selected route** | | **Implementing actor** | **Yes** |
| **DIRECT USE** | Commercialisation: *deployment of a novel product/service (offered to the target markets)* | One partner[2] | |
| | | A group of partners[3] | |
| | Contract research (*new contracts signed by the research group with external clients*) | A partner | |
| | | A group of partners | |
| | A new research project (*application to public funded research programmes*) | A partner | |
| | | A group of partners | |
| | Implementation of a new university – course (*Note that a training course is a service*) | A partner | |
| | | A group of partners | |
| | | A new partnership | |
| **INDIRECT USE** | Assignment of the IPR | A partner | |
| | | A group of partners | |
| | Licensing of the IPR | A partner | |
| | | A group of partners | |
| | Development of a new legislation/standard | A partner | |
| | | A group of partners | |
| | Spin- off | A partner | |
| | | A group of partners | |
| | | By assignment | |
| | | By licensing | |
| | Other (*please describe*) | | |

[2] Partners identifies the partners of the project receiving the ESS, not third parties that may be partner in the future.

[3] Provide the names of the partners.

# 5 Integrated NBS Urban Planning Methodology for Enhancing the Health and Well-Being of Citizens

## 5.1 Project Main Data

| | |
|---|---|
| TITLE | Integrated NBS Urban Planning Methodology for Enhancing the Health and Well-Being of Citizens |
| ACRONYM | EuPOLIS |
| CONTRACT NUMBER | 869448 |
| BUDGET | 11 358 637,39 |
| COORDINATOR | ETHNICON METSOVION POLYTECHNION |
| STARTING DATE | 1 September 2020 |
| ENDING DATE | 31 August 2024 |

## 5.2 Project Abstract

Urban planners and engineers are integrating nature-based solutions (NBS) to address contemporary environmental, social and economic challenges. The EU-funded EuPOLIS project deploys natural systems to enhance public health and well-being and create resilient urban ecosystems. It designs a structured approach that integrates existing natural and engineered urban systems and defines their joint social, cultural and economic effects. The project aims to regenerate and rehabilitate urban ecosystems to create inclusive and accessible urban spaces. It addresses key challenges such as low environmental quality and low biodiversity in public spaces, water-stressed resources and undervalued use of space. The project's solutions are tested in four cities: Belgrade, Lodz, Piraeus and Gladsaxe.

## 5.3 KERs considered at the ESS

The Consortium has identified 3 Key Exploitable Results to discuss at the ESS. The first 2 have been included in this Final Report because they are the ones analysed and discussed.

| No. | Name of the KER |
|---|---|
| 1 | EuPOLIS visualization platform |
| 2 | Goal Driven Planning Matrix (GDPM) |
| 3 | Preliminary Selection tool |

# 6 Improved Exploitation Strategies for Key Exploitable Results in Integrated NBS Urban Planning Methodology for Enhancing the Health and Well-Being of Citizens (D1.3)

The Characterisation Table and the Exploitation Roadmap were drafted by the beneficiaries with feedback and suggestions from the expert. The final version is the result of several iterations, brainstorms and discussions during the webinars and coaching sessions. Some final feedback and pointers from the expert have been included in *red and italic*.

## 6.1 KER No.1 – EuPOLIS visualization platform (KER leading beneficiary: ENPLUS)

### 6.1.1 Characterization of the result

| EuPOLIS visualization platform | Input from the Beneficiary | Output and comments/suggestions for improvement by the Expert |
|---|---|---|
| **Problem** | The euPOLIS Visualization Platform addresses the need for effective monitoring and evaluation of Nature-Based Solutions (NBSs) in urban areas. The problem being addressed is the lack of comprehensive tools and systems that allow stakeholders, such as policymakers and urban planners, to assess the spatiotemporal impact of NBS interventions on the urban environment and the well-being of citizens. Existing solutions may not provide the necessary capabilities to explore, comprehend, and evaluate the optimized euPOLIS solutions in a dynamic and easily accessible manner, hindering the understanding of the effectiveness of NBS interventions in promoting sustainable urban development. | *Use problems solved to formulate your Unique Value based on:*<br>*Effective monitoring, based on Sensors*<br>*Ease of information*<br>*Compilation of info on citizens*<br>*Collection of data in an aggregated form* |

| | | |
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| **Alternative solution** | Policymakers and Urban Planners: Currently, policymakers and urban planners may rely on traditional methods of data collection, analysis, and evaluation to assess the impact of NBS interventions in urban areas. This could involve manual surveys, limited sensor data, and subjective assessments. They may also consult scientific studies and research papers to gain insights into the effectiveness of NBSs. However, these methods might lack the comprehensive and real-time information provided by the euPOLIS Visualization Platform<br>Environmental Agencies: Environmental agencies may use a combination of monitoring stations, such as weather conditions and air pollution stations, to gather data on the environmental impact of urban areas. They might employ data analysis techniques and models to understand the effectiveness of NBSs. However, these approaches may not offer a holistic view of the spatiotemporal impact of NBS interventions or provide interactive visualization capabilities like the euPOLIS Visualization Platform.<br>Research Institutions and Academia: Research institutions and academia likely utilize their research projects and studies to investigate the impacts of NBS interventions. They may conduct field surveys, collect data through various research methods, and analyze the results using specialized software or statistical tools. While these efforts contribute to scientific knowledge, they might lack the integrated and user-friendly visualization features offered by the euPOLIS Visualization Platform. | *Alternative solutions are important to benchmark the proposed innovation and to get a better insight on competition.* |
| **Unique Selling Point USP - Unique Value** | The euPOLIS Visualization Platform offers several competitive advantages and innovative aspects compared to alternative solutions, providing unique benefits to its users/customers. Here are some key points that distinguish the euPOLIS Visualization Platform (KER) from the competition/current solutions:<br>Comprehensive Monitoring and Evaluation: The euPOLIS Visualization Platform offers a comprehensive solution for monitoring and evaluating the | *It is important that the UVP is validated and backed with facts and data.* |

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| **Proposition UVP** | spatiotemporal impact of Nature-Based Solutions (NBSs) in urban environments. It provides users with 2D and 3D views of the city environment, enriched with temporal data from various sources. This comprehensive approach allows stakeholders to gain a holistic understanding of the effectiveness of NBS interventions and their impact on the urban environment and citizens' well-being.<br>User-Friendly Interface and Accessibility: The platform features a dynamic and user-friendly interface that can be easily customized to meet the specific requirements of different users, such as policymakers, urban planners, and researchers. It provides an easily accessible means of exploring and evaluating the effects of NBSs, making it easier for users to navigate through the platform, access relevant information, and derive meaningful insights from the data.<br>Integration of Cutting-Edge Technologies: The euPOLIS Visualization Platform leverages cutting-edge technologies to provide an innovative solution. It integrates various data sources, including measurements from weather conditions and air pollution stations, modeling and sensor information, and advanced analytical, numerical, and time-based data. This integration enables users to have a comprehensive and accurate understanding of the impact of NBS interventions on the urban environment and human well-being.<br>Unique Combination of Features: The euPOLIS Visualization Platform stands out by offering a unique combination of features that are not readily available in alternative solutions. These features include spatiotemporal visualization capabilities, comprehensive data integration, a user-friendly interface, and the ability to generate valuable insights for stakeholders. The platform's ability to combine and leverage these features sets it apart from existing solutions, providing a more robust and effective tool for monitoring and evaluating NBS interventions in urban areas. | |

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| | Stakeholder Engagement and Decision Support: The platform is designed to support evidence-based decision-making by engaging stakeholders such as policymakers and urban planners. It provides them with the necessary insights and data to assess the effectiveness of NBS interventions, thus enabling them to make informed decisions regarding sustainable urban development. The platform's analysis results are of great value to stakeholders who are interested in understanding the impacts of NBS interventions and promoting citizen well-being.<br>Local Gateway: A strong UVP is the possibility of installing a local gateway (edge computing device) that performs data collection and preprocessing, and more specifically, local calculations and thresholds set through a rule-engine | |
| **Description** | The euPOLIS Visualization Platform is an innovative web-based application that addresses the need for effective monitoring and evaluation of Nature-Based Solutions (NBSs) in urban areas. Our solution provides a user-friendly interface where stakeholders, such as policymakers and urban planners, can explore, comprehend, and evaluate the impact of NBS interventions on the urban environment and citizens' well-being. With its cutting-edge 2D and 3D visualization capabilities, comprehensive data integration, and advanced analytics, our platform delivers valuable insights and supports evidence-based decision-making for sustainable urban development. Our unique value proposition lies in providing a comprehensive and easily accessible means of monitoring and understanding the effects of NBSs, empowering stakeholders to create greener, more livable cities. | *Use simple description to explain to non experts: Platform to monitor urban health using nature related solutions.*<br>*Using examples from nature to improve everyday life of citizens.*<br>*Introducing a whole set of NBSs to improve conditions of everyday life from citizens.*<br>*Functional NBS to improve social, environmental conditions of citizens life.* |
| **"Market" – *Target market*** | **Target Market:**<br>The target market for the euPOLIS Visualization Platform is the domain of urban development and sustainability. It encompasses stakeholders involved in planning, implementing, and monitoring Nature-Based Solutions (NBSs) in | *Please consider that geography matters in terms of the market that you want to serve.* |

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| | urban areas. The platform aims to serve both public and private entities that seek to enhance the well-being of citizens, promote sustainable urban development, and address environmental challenges through the adoption of NBS interventions.<br>**Customer Segments:**<br>Policymakers and Urban Planners: These are key decision-makers responsible for formulating policies and strategies related to urban development and sustainability. They require comprehensive insights into the impact of NBS interventions to make informed decisions and shape urban policies that promote environmental sustainability and citizen well-being.<br>Environmental Agencies: Organizations and agencies focused on environmental protection and monitoring are an important customer segment. They need tools and data to assess the effectiveness of NBS interventions in addressing environmental challenges, such as air pollution, water management, and climate resilience.<br>Research Institutions and Academia: Research institutions and academic entities involved in studying urban planning, environmental science, and sustainability will benefit from the platform. They can utilize it to gather data, conduct analyses, and contribute to scientific knowledge in the field of NBSs and urban development.<br>Non-Governmental Organizations (NGOs): NGOs working in the areas of urban development, environmental conservation, and citizen well-being can utilize the euPOLIS Visualization Platform to assess the impact of NBS interventions. They can advocate for the adoption of sustainable urban practices and engage with policymakers and communities to promote positive change.<br>City Officials and Administrators: Municipal authorities and city administrators responsible for implementing NBS interventions and monitoring their |  |

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| | effectiveness are an important customer segment. They can utilize the platform to monitor the performance of NBS projects, optimize resource allocation, and make data-driven decisions to enhance the quality of life for urban residents. | |
| **"Market" – *Early Adopters*** | Progressive City Governments: Cities that have recognized the importance of NBS interventions and are actively working towards sustainable urban development. These forward-thinking local governments may have already initiated NBS projects and are seeking a comprehensive platform to monitor and evaluate their impact.<br>Environmental NGOs: Non-governmental organizations focused on environmental conservation and sustainability. These organizations are often at the forefront of advocating for NBS interventions and may have firsthand experience of the challenges in monitoring and evaluating the effectiveness of such initiatives.<br>Research Institutions and Think Tanks: Academic institutions and research organizations specializing in urban development, sustainability, and environmental studies. These institutions may have ongoing research projects related to NBS interventions and require a robust platform to gather data, analyze results, and contribute to scientific knowledge.<br>Innovators and Technology Enthusiasts: Individuals or companies developing innovative technologies or solutions in the realm of urban development and sustainability. These early adopters may be interested in integrating the euPOLIS Visualization Platform into their products or services to enhance their offerings and address the monitoring and evaluation challenges associated with NBS interventions. | *To develop the exploitation model, it is important to look at early adopters and how to go from early adopters to "early majority". You should be as much precise as you can. Being the early adopters the first ones you would like to reach out with your innovative solution it will be important to be able to connect with them. E.g.:*<br>*Architects and*<br>*Landscape architects* |
| **"Market" - Competitors** | Nothing similar exists | *"Competitors" may be different if you envisage licensing as use model rather* |

| | | |
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| | | *than directly providing a service or producing and selling a device.* |
| **Go to Market – Use model** | The use model for the euPOLIS Visualization Platform involves the provision of a service to customers, enabling them to access and utilize the platform to monitor and evaluate Nature-Based Solutions (NBSs) in urban areas. The platform will be made available as a web-based application that customers can access through their internet browsers.<br>Access and Subscription: Customers interested in utilizing the euPOLIS Visualization Platform can subscribe to the service. They will gain access to the platform by registering and creating an account, either through a subscription-based model or through a free access program, depending on the specific implementation strategy.<br>Data Integration and Setup: Once customers have access to the platform, they can integrate relevant data sources into the system. This could include data from weather conditions and air pollution stations, modeling and sensor information, as well as any additional data specific to their NBS projects. Customers will set up and configure the platform based on their requirements and project parameters.<br>Data Visualization and Analysis: Customers can then utilize the platform's 2D and 3D visualization capabilities to explore and analyze the impact of NBS interventions. They can navigate through the city environment, view spatial and temporal data, and derive insights about the effectiveness of the NBS interventions on the urban environment and citizen well-being.<br><br>Continuous Support and Updates: As customers utilize the platform, they will receive ongoing support from the euPOLIS team. There is also a User Manual inside the platform available for download to make sure the Users experience optimal navigation. Apart from the manual, es assistance with any technical | *Use model and target market, customers need to be consistent.* |

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| | issues, platform updates, and access to new features or improvements that are introduced over time, will be provided. (TBD) | |
| **Go to Market - Timing** | The eupolis visualization platform is considered to be in the development phase: The development phase involves designing, building, and testing the platform. This phase can vary in duration depending on the complexity of the platform and the availability of resources. It includes activities such as software development, data integration, user interface design, and testing. | *How long it will take, from the end of the project for the result to be fully usable.* |

### 6.1.2 Exploitation Roadmap

| EuPOLIS visualization platform | Input from the Beneficiary | Output and comments/suggestions for improvement by the Expert |
|---|---|---|
| **Actions** | Refinement and Optimization: The euPOLIS team may continue refining and optimizing the platform based on user feedback and lessons learned during the project. This could involve addressing any identified bugs or issues, improving the user interface, and enhancing the platform's performance and functionality. Dec 2024<br>User Engagement and Adoption: Efforts would be made to promote the euPOLIS Visualization Platform to potential users and encourage its adoption. This could involve marketing and outreach activities, such as conducting awareness campaigns, showcasing success stories, and engaging with relevant stakeholders through targeted communication channels. Dec 2024<br>Partnership and Collaboration Development: The euPOLIS team may explore partnership opportunities with organizations and stakeholders in the field of nature-based solutions, urban planning, or sustainability. Collaborations could involve integrating additional data sources, expanding the platform's functionalities, or exploring joint research initiatives to further enhance the platform's capabilities. Summer 2024<br>Commercialization Strategy: If the euPOLIS Visualization Platform has commercial potential, the team may develop a commercialization strategy. This could involve conducting market research to identify potential customers, defining pricing models, and exploring business partnerships or licensing agreements to make the platform commercially available.<br>Support and Maintenance: The euPOLIS team would likely establish mechanisms to provide ongoing support and maintenance for the platform. This could include setting up a helpdesk or support system to address user queries, providing regular updates and bug fixes, and ensuring the platform's continuous operation and data integration. | *Make sure you do not just focus on technical activities but also consider the finalisation of a business plan, the protection of intellectual property, the collection of authorisations, pricing policy, all it will be needed to start implement what is in your exploitation plan* |

| | | |
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| | Impact Assessment and Reporting: A comprehensive assessment of the impact of the euPOLIS Visualization Platform would be conducted. This would involve collecting feedback from users, analyzing data on platform usage, and evaluating the platform's contribution to the field of nature-based solutions and urban planning. The findings would be documented in impact reports to showcase the value and effectiveness of the platform. | |
| **Roles** | GSH is currently the main responsible for the platform | *Make sure there will be no conflict of interest on IPR with other partners* |
| **Milestones** | No. of visits – users<br>No bugs<br>Number of urban planners to use it | *Quantify and add timeline* |
| **Financials Costs** | Costs that should be taken under consideration include:<br>• Personnel<br>• Rent<br>• Operational costs<br>• Maintenance<br>• Servers<br>• Storage<br>• IT support<br>• Insurance | *Make sure not to forget any costs. Provide information on the costs/investments needed to bridge the end of the project to the next steps planned and increase TRL or go to market (you may invest in a patent, in the realisation of a prototype, etc.).* |
| **Revenues** | Potential sources of revenues would be:<br>• Subscriptions<br>• Other grants<br>• Training workshops<br>• Data management | *Consider revenues you will expect to collect by service provision or sale of devices. They generate the cash flow that will make the use of the result sustainable over time.* |
| **Other sources of coverage** | Grants<br><br>Accelerator - Pathfinder | *Make sure to obtain them at the right time.* |

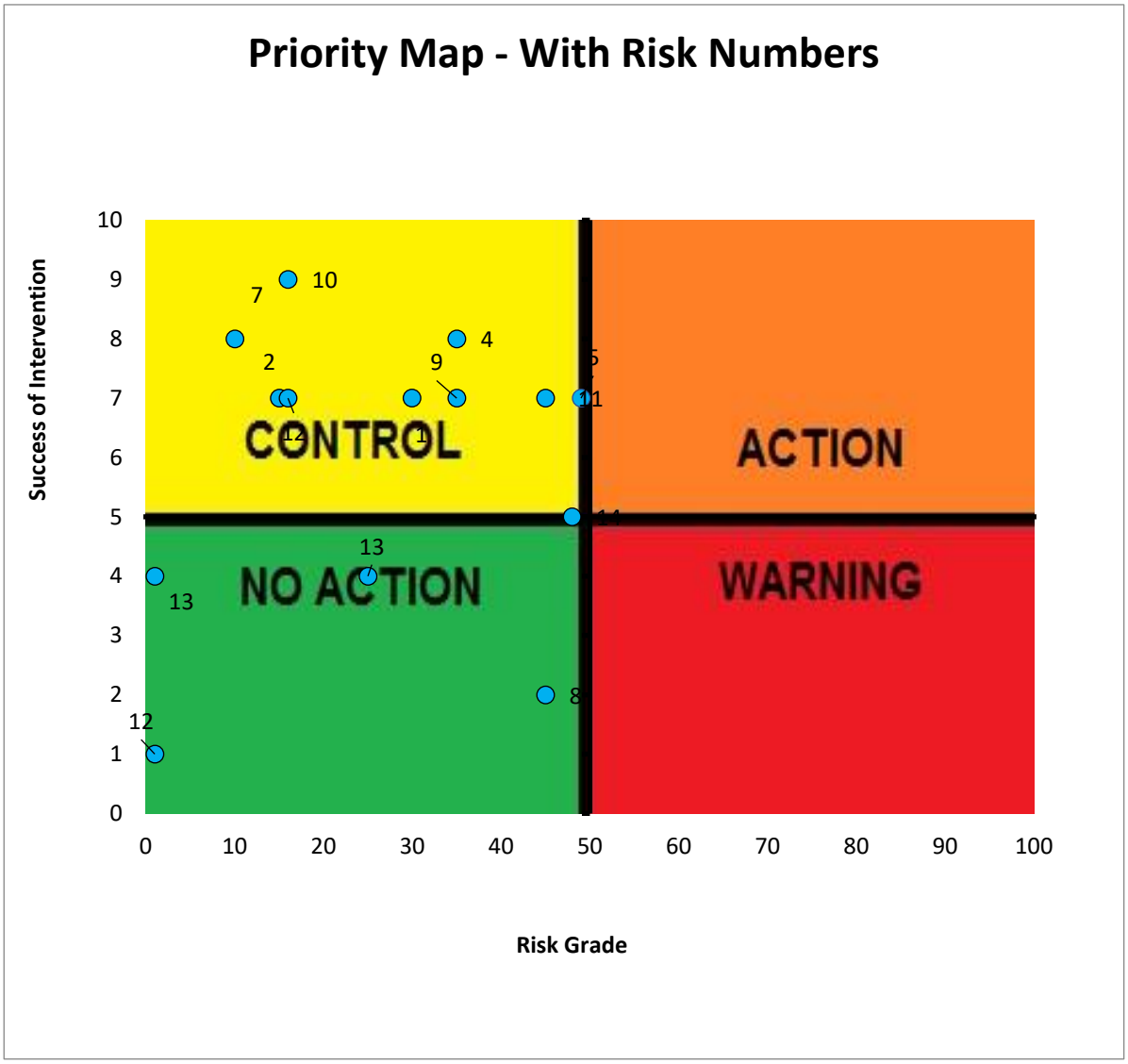
| | | |
|---|---|---|
| | Fast track to innovation<br><br>National/Regional/Local grants | |
| **Impact in a 3-year time** | 1. Enhanced Quality of Life<br>2. Sustainable Urban Development<br>3. Business Growth and Turnover<br>*4.* Investment Mobilization<br>*5.* Job Creation | *Impact is the objective of H2020. Be specific and quantify.* |

### 6.1.3 Risks Assessment and Priority Map

| | Description of Risks | Criticality (1 low- 10 high) | Probability (1 low - 10 high) | Risk Grade | Potential intervention | Intervention (1 low- 10 high) | Conclusion |
|---|---|---|---|---|---|---|---|
| | **Partnership Risk Factors** | | | | | | |
| **1** | Disagreements | *6* | *5* | **30** | Arrange detailed analysis of products' combination potential effects. | *7* | **Control.** |
| **2** | Partner leaves the market | *3* | *5* | **15** | Analyse mid-term plans with involved partners; include relevant points into contract. | *7* | **Control.** |
| **3** | Partner breaks and create competition | *5* | *5* | **25** | Adress it in the contract. | *7* | **Control.** |
| | **Technological Risk Factors** | | | | | | |
| **4** | ill-timed disclosure | *7* | *5* | **35** | Make sure that presentation to the client does not interfere with their interests. | *8* | **Control.** |
| **5** | Result aiming at replacing existing,…. | *7* | *7* | **49** | Prepare convincing replacement argumentation and/or make use of euPOLIS project results. | *7* | **Control.** |
| **6** | Better technology exists | *3* | *5* | **15** | Make market analysis | *8* | **Control.** |

| | Description of Risks | Criticality (1 low- 10 high) | Probability (1 low - 10 high) | Risk Grade | Potential intervention | Intervention (1 low- 10 high) | Conclusion |
|---|---|---|---|---|---|---|---|
| | **Market Risk Factors** | | | | | | |
| **7** | Exploitation disagreement: Partners on the same market | *2* | *5* | **10** | Make agreement on leadership in this case | *8* | **Control.** |
| **8** | Unsuitable sales force | *5* | *9* | **45** | euPOLIS approach requires multidisciplinary experts, presently non-existent. Engagement and activation of more experts at the same time might be difficult to arrange | *2* | **No Action'** |
| **9** | The project hits against monopoly | *5* | *7* | **35** | Monopoly is usually connected to client interests. If our regular presentation does not overcome it will be difficult to proceed | 5 | |
| | **IPR/Legal Risk Factors** | | | | | | |
| **10** | Combination of patented and non-patented products | *2* | *8* | **16** | Make legal agreement on handling rules in this case | *9* | **Control.** |
| | **Financial/Management Risk Factors** | | | | | | |

| | Description of Risks | Criticality (1 low- 10 high) | Probability (1 low - 10 high) | Risk Grade | Potential intervention | Intervention (1 low- 10 high) | Conclusion |
|---|---|---|---|---|---|---|---|
| **11** | No resources (human) secured to make the next step towards exploitation | *5* | *9* | **45** | euPOLIS approach requires multidisciplinary experts, presently non-existent. Engagement and activation of more experts at the same time might be difficult to arrange. Pre-contract agreements and strict contract conditions required to support activities. | *7* | **Control.** |
| **12** | Inadequate communication among partners | *8* | *2* | **16** | As above item 11 | *7* | **Control.** |
| **13** | Inadequate business plan | *5* | *5* | **25** | Detailed business plan required coordinating interactive interests from partners with market requirements | *4* | **No Action'** |
| | **Environmental/Regulation/Safety risks:** | | | | | | |
| **14** | Influence of laws and regulations | *8* | *6* | **48** | Use euPOLIS test results to instigate regulations change or introduction of additional regulative clauses within existing documents | *5* | **Between Control & No Action** |




At these points all risks have low criticality and medium probability of occurrence with a high potential for mitigation. Therefore, they are in the Control quadrant. Some situations are identified where it would be preferable to keep an eye on, monitoring regularly (Control) to be ready to act. It's been discussed that a public intervention in expanding and reinforcing the market would be helpful.

### 6.1.4 Use options

| KER's Exploitation route (how the KER will be further exploited) | | | |
|---|---|---|---|
| **Selected route** | | **Implementing actor** | **Yes** |
| **DIRECT USE** | Commercialisation: *deployment of a novel product/service (offered to the target markets)* | One partner[4] | |
| | | A group of partners[5] | X |
| | Contract research (*new contracts signed by the research group with external clients*) | A partner | |
| | | A group of partners | |
| | A new research project (*application to public funded research programmes*) | A partner | |
| | | A group of partners | X |
| | Implementation of a new university – course (*Note that a training course is a service*) | A partner | |
| | | A group of partners | |
| | | A new partnership | |
| **INDIRECT USE** | Assignment of the IPR | A partner | |
| | | A group of partners | |
| | Licensing of the IPR | A partner | |
| | | A group of partners | |
| | Development of a new legislation/standard | A partner | |
| | | A group of partners | |
| | Spin- off | A partner | |
| | | A group of partners | |
| | | By assignment | |
| | | By licensing | |
| | Other (*please describe*) | | |

Direct commercialisation and a new research project would be the immediate routes to exploitation.

[4] Partners identifies the partners of the project receiving the ESS, not third parties that may be partner in the future.
[5] Provide the names of the partners.

## 6.2 KER No. 2 Goal Driven Planning Matrix (GDPM) (KER leading beneficiary: NTUA – UWMH Group)

### 6.2.1 Characterization of the result

| Goal Driven Planning Matrix (GDPM) | Input from the Beneficiary | Output and comments/suggestions for improvement by the Expert |
|---|---|---|
| **Problem** | 1. Standard urban planning technology is based on knowledge and experience and not a systemic analysis. Thus, number of potential synergies are missed.<br>2. Cities and big developments do not have developed methodology for systemic enhancement of citizens PH&WB by organized, increased exposure to the NBS entities.<br>Due to the multiple and diverse benefits Nature-Based Solutions (NBS) offer, there is an ever-increasing demand for structured methodologies and easy-to-implement urban design tools to facilitate their adaptation in standard urban policies and modern practices with the aim of improving urban environments through NBS.<br>More specifically, urban planners, city authorities and practitioners need methodologies and tools to assist them in selecting appropriate NBS interventions for a specific site of interest.<br>These tools/methodologies need to provide an option for quantifiable analysis, so that the selection of NBS is not based solely on subjective criteria and best practices. | *EuPOLIS gives emphasis on PH&WB into planning criteria. Demand for nature-based solutions, compiling many different issues including economic aspects (property value, jobs creation) Spillover effect of other NBSs Make sure that the problems described are the actual problems. Identify and validate them together with your "customers" (problem/ "customer" fit).* |

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| **Alternative solution** | Sporadically, by creating blue green entities without clear functional determination of relevant components. Each city improves certain elements. Not a holistic approach<br>Conventionally the selection of NBS by urban planners and cities is carried out through past experience and best practices using subjective criteria. Alternatively, specific simulation models might be used to assess different NBS interventions in terms of very specific and mostly technical impacts (i.e., stormwater runoff, UHI effect mitigation). However, all the diverse impacts NBS could have (social, economic, PH & WB, etc.) cannot be assessed through simulation models. | *Alternative solutions are important to benchmark the proposed innovation and to get a better insight on competition. Having a picture of the weaknesses and strengths of the alternative solutions, will help you to compare and to quantify the added value of your solution and to have insight on how the alternative solutions are delivered (who is providing them and at which conditions).* |
| **Unique Value Proposition UVP** | Citizens **PH&WB** systemic and organized improvements by introducing GDPM innovative urban planning criteria, also as a precondition for project approval. | *Get into a Win Win Situation. Beneficial for citizens and politicians. Emphasize on Less hours and costs lost from Health issues and Reduction of Public health expenses.* |
| **Description** | A simple, yet systematic, methodological framework has been developed for providing an initial assessment of candidate NBS interventions considered for a specific site through, by means of a preliminary multi-dimensional impact analysis, as well as a standardised site screening process that exploits readily available data to quantify the identified main Contextual Indicators (CIs) and assess the severity of the associated Concerns at the site. The developed methodology provides a quantifiable analysis, that is not based solely on subjective criteria and best practices, and consequently formulates a practical tool for complementing and augmenting the implementation of other important urban planning practices and methods. A key innovation of the proposed methodology is the simultaneous consideration of the severity of the Concerns that are faced by the investigated urban site with the ability of a certain NBS to | *Tailor made solutions for a specific site taking into account citizens priorities for well-being urban planning involving NBS* |

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| | resolve them so as to provide a site-specific scoring and ranking for the potential NBS. This Preliminary Site Screening & NBS Selection Methodology, that has also been developed as an online tool, is therefore considered to offer a useful and practical decision support tool for enabling a first-order site-specific selection of the most effective NBS, prior to any in-depth analysis and modelling that might be carried out for the final selection and NBS design. | |
| **"Market" – *Target market*** | - *What is the target market?* – Urban construction<br>- *Who are the customer segments?* – Municipalities and big developers<br>The tool is primarily intended for **urban planners, researchers and other related practitioners**, as well as cities/municipalities departments.<br>Civilians could be interested in the report. Simplified app as a game for individuals. | *Collect data and consider decision makers in governmental level* |
| **"Market" – *Early Adopters*** | - EuPOLIS project Frontline Cities<br>Urban planners / cities that need to select and prioritise the implementation of different NBS interventions | *Being the early adopters the first ones you would like to reach out with your innovative solution it will be important to be able to connect with them.* |
| **"Market" - Competitors** | - Competitors: big, well-known consultants<br>- Their strengths: good name, trusted in quality, cost and timing<br>- Their weaknesses: not offering GDPM advantages | *Similar projects do not include all those indicators.*<br>*Be ahead of competition by upgrading the tool.* |
| **Go to Market – Use model** | Use model: use of euPOLIS project results, market education - first with publications, workshops, **training** and later customization of this tool to local conditions. This is brain storming type of exercise.<br>Directly commercialise. Be careful on training because trainees may copy the ideas. | *Delivering a service entails the presence of a "competent" organisation with procedures, ready to offer the services according to the expectations of the potential users. Other means could be the* |

| | | |
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| | Possible examples: Detailed step-by-step manual, application examples, consultancy as a service, **hands-on training for the use of the tool**. Interactive Smartphone App | *Freemium model. Create more impact by giving it for free. Also Training courses and Consultancy services* |
| **Go to Market - Timing** | We will be able to answer this once the processes with euPOLIS project cities are completed and relevant lessons learned. **Already on the market** | *At the end of the project? By end of 2024 further development* |
| **Go to Market – IPR Background** | *NTUA Know how* | *Check Consortium Agreement.* |
| **Go to Market – IPR Foreground** | *Use copyright protection before disclosing any information.* **Clarify IPR before commercialisation.** | *If necessary, update the Consortium Agreement. Maybe Have an IPR workshop. Link for the epo.org* |

### 6.2.2 Exploitation Roadmap

| Goal Driven Planning Matrix (GDPM) | Input from the Beneficiary | Output and comments/suggestions for improvement by the Expert |
|---|---|---|
| **Actions** | The product will be disseminated in several scientific conferences during and following the project completion. A documentation of the tool / manual is planned to be produced to assist interested users in implementing the tool in actual urban design projects. Input files from euPOLIS case study applications can also be offered to the registered users, as preliminary design examples. Access to the online tool will be free of charge and the main market goal is to offer it as a) a service/consultancy to potential clients or b) detailed documentation/guide with example input files. | *Define products with commercial potential - Dec 2023*<br>*Business Plan*<br>*Apply for new grants.*<br>*EEIG company. Maybe a start-up.* |
| **Roles** | NTUA will be the main partner for carrying out the exploitation of the tool and for implementing any future upgrades to the tool (e.g., expand the tool to account for other aspects such as for instance budget constraints that might affect the final selection of NBS or inclusion of other indicators). RG will assist in the future tool upgrades, as well as in the exploitation actions and especially in the organisation of related workshops and training courses. | *Partners must determine and declare their involvement.*<br>*The process has been instigated in recent workshop No.2.*<br>*We are now waiting for their response to make relevant decisions at workshop no. 3.*<br>*Describe roles also for after the end of the project* |
| **Milestones** | - *Develop a detailed exploitation strategy & action*<br>- *Develop documentation of the tool (manual, example files & applications)*<br>- *Develop material for hands-on training*<br>- *Do a plan for the further development of the tool and ways to finance this*<br>- *Tool development* | *Include all disciplines in creating the indicators.*<br>*Brainstorm to a joint market approach*<br>*GA Milestone*<br>*Clarify products*<br>*Define Legal framework* |

| | | |
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| **Financials Costs** | The expected costs refer mostly to the promotional activities (presenting the online tool in conferences, municipalities, policy makers, promotional training, etc.). Also, the online tool is currently hosted in NTUA server. There might be a need to use another server, external to the university infrastructure. The further tool development will most probably require securing additional funding / investment. | *Provide information on the costs/investments needed to bridge the end of the project to the next steps planned and increase TRL or go to market (you may invest in a patent, in the realisation of a prototype, etc.). There should not be additional costs at any preparation phase. That is at the partner risk.* |
| **Revenues** | Future revenues are expected from the following sources:<br>• Selling of the tool's documentation (manual, example application files)<br>• Training courses to municipalities and/or companies<br>• Consultancy services (application of the tool/methodology to a specific site of interest)<br>The tool itself is open to the public and its use is free of charge. | *The revenue calculation end distribution will have to be defined between partners at the offer preparation stage. Networking with public decision makers* |
| **Other sources of coverage** | Each partner should develop own product to the level required to interact with other partners products, as a basis for market approach. | *The most probable sources for additional financial resources are considered to be project grants and national/regional incentives.* |
| **Impact in 3-year time** | - *PH improvement: euPOLIS results should be available.*<br>- *Public WB improvement: euPOLIS results should be available.*<br>- *Investments mobilized: Once accepted by cities we will propose to cities to enlarge their NBS budgets for at least 5%*<br>- *Jobs created: result from the above*<br>Investments in NBS interventions, green development, improvement of the urban environment, improvement of PH & WB of citizens, optimization of public spending in terms of benefits (environmental, urban, social, economic, PH & WB), provision of ecosystem services, creation of related jobs. | *Quantification - Quantify impact*<br>*Impact assessment based on expert judgement.*<br>*Multidimensional Analysis*<br>*Collection of data important for marketing purposes* |

### 6.2.3 Risks Assessment and Priority Map

| | Description of Risks | *Criticality (1 low- 10 high)* | *Probability (1 low - 10 high)* | *Risk Grade* | Potential intervention | *Intervention (1 low- 10 high)* | Conclusion |
|---|---|---|---|---|---|---|---|
| | **Partnership Risk Factors** | | | | | | |
| **1** | Disagreement on ownership rules (the role of each partner might not be clear, the ownership of an updated tool version) | *6* | *5* | **30** | Discussions between NTUA and RG prior to the development of a future version or development of supplementary material | *3* | **No Action'** |
| | **Technological Risk Factors** | | | | | | |
| **2** | Maybe a better technology/methodology is developed in the near future | *8* | *7* | **56** | Investigate further available technologies and stay up to date with new tools and methodologies to potentially upgrade the tool if necessary. | *8* | **Action!** |
| **3** | Dependence on other technologies and data sources | *5* | *4* | **20** | Choose alternative data sources | *5* | **Between Control & No Action** |
| | **Market Risk Factors** | | | | | | |
| **4** | Nobody buys the product. Nobody needs it. Maybe municipalities/practitioners continue with the business-as-usual practices and are not interesting in spending money for this service. | *10* | *5* | **50** | Further promote the tool through free of charge workshops and training courses. Further development of the tool so that it provides even further advantages and becomes easier to use. | *8* | **Between Control & Action** |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **5** | Difficulty to get financing before starting having revenues | *8* | *8* | **64** | Apply early for new projects | *8* | **Action!** |
| | **IPR/Legal Risk Factors** | | | | | | |
| **6** | Copy of the source code | *4* | *4* | **16** | publish the code2 | | **No Action'** |
| | **Financial/Management Risk Factors** | | | | | | |
| **7** | No resources (human and/or financial) for adequately marketing the product | *8* | *6* | **48** | Attempt to secure additional funding / investment and liaise with existing project partners and clusters to promote the tool. Develop coherent roadmap and business plan. | *9* | **Control.** |


**Legend**

**Partnership, , IPR/legal and Financial/Management** Risk Factors are in the Control and No Action Quadrants where the probability and criticality of these risks are low. .

**The Technological Risk Factor** of a better technology to be developed in the near future needs to Investigate further available technologies and stay up to date with new tools and methodologies to potentially upgrade the tool if necessary.

**The Market risk factors** with the Difficulty to get financing before starting having revenues can be administered by Applying early for new projects

**The Environmental risks** can only be positive.

### 6.2.4 Use options

| KER's Exploitation route (how the KER will be further exploited) | | | |
|---|---|---|---|
| **Selected route** | | **Implementing actor** | **Yes** |
| **DIRECT USE** | Commercialisation: *deployment of a novel product/service (offered to the target markets)* | One partner[6] | X |
| | | A group of partners[7] | X |
| | Contract research (*new contracts signed by the research group with external clients*) | A partner | |
| | | A group of partners | |
| | A new research project (*application to publicly funded research programmes*) | A partner | |
| | | A group of partners | X |
| | Implementation of a new university – course (*Note that a training course is a service*) | A partner | |
| | | A group of partners | |
| | | A new partnership | |
| **INDIRECT USE** | Assignment of the IPR | A partner | |
| | | A group of partners | |
| | Licensing of the IPR | A partner | |
| | | A group of partners | |
| | Development of a new legislation/standard | A partner | |
| | | A group of partners | |
| | Spin- off | A partner | |
| | | A group of partners | |
| | | By assignment | |
| | | By licensing | |
| | Other (*please describe*) | | |

The exploitation route will be direct by the partners that have produced the foreground.

[6] Partners identifies the partners of the project receiving the ESS, not third parties that may be partner in the future.
[7] Provide the names of the partners.

# 7 Recommendations

| Issues | Recommendations |
|---|---|
| **Technology transfer** | Keep in mind the following parameters that affect exponentially life: Tourism, huge buildings complexes, migration, villages managed, urbanism, smartphone apps, green certifications and governance. |
| **next step towards exploitation** | Analyse midterm plans with involved partners; include relevant points into contract. euPOLIS approach requires multidisciplinary experts. Engagement and activation of more experts at the same time might be difficult to arrange. Pre-contract agreements and strict contract conditions required to support activities. |
| **IPR** | Look at epo.org and Have an IPR workshop |
| **Commercialisation timing** | Consider intermediate products and minor customers like hospitals and big housing complexes. |
| **Financials** | Make sure not to forget any costs or potential sources of revenues when you make the financial analysis. Involve experienced personnel from accounting and sales. |
| **Horizon Results Platform** | It is strongly suggested for Dissemination purposes to upload each key Exploitable result on the EC Horizon Results Platform https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-results-platform<br>Detailed step-by-step instructions here: https://webgate.ec.europa.eu/funding-tenders-opportunities/display/IT/Managing+Project+Results+in+the+Horizon+Results+Platform<br>Please note that to be authorised to upload you should have granted one of the following roles for the project: PCoCo (Primary Coordinator Contact), CoCo (Coordinator Contact) or PaCo (Participant Contact) roles in the project. This is all explained in the instructions in the link above. |
| **Further exploitation related support service** | Hold a Business Plan (BPD) workshop. After the PDESC/BPD service will be delivered, it would be important to finalise the fruitful work done with BPD/Go-to-Market services that can be requested at https://www.horizonresultsbooster.eu/<br>The aim of Go-to-Market services is to address one or more specific aspects for the implementation of the business/action plan:<br>• Pitching (capacity to present in front of interested stakeholders)<br>• IPR support (orientation in the IPR landscape)<br>• Innovation Management (specialised training)<br>• Exploitation options (exploration and in-depth analysis of the different options)<br>• Business services (one among commercialisation plan, evaluation of business plan potential, creation of start-up)<br>• Access to non-EU funding (analysis of funding options for follow-on financing) |

# 8 Annex 1: Related information

This chapter reports the results of specific project related to specified key words on the Internet, also a list of projects (found on Cordis) of similar interest with a brief description and related patents.

## 8.1 Related Links

**Key Words: «** sustainable urban planning **»**

Examples:

Curitiba, Brazil: Curitiba is often cited as a model for sustainable urban planning. It has a well-integrated public transportation system, extensive green spaces, and effective waste management.

Copenhagen, Denmark: Copenhagen has prioritized cycling infrastructure, with an extensive network of bike lanes and bike-sharing programs. The city also aims to become carbon neutral by 2025.

Freiburg, Germany: Freiburg is known for its commitment to renewable energy, energy-efficient buildings, and pedestrian-friendly neighborhood. The city has set ambitious goals to become carbon neutral.

Vancouver, Canada: Vancouver focuses on sustainable development, with initiatives such as green building practices, efficient public transportation, and extensive parkland. The city aims to be the greenest city in the world.

Portland, United States: Portland has a strong emphasis on urban planning that promotes walkability, public transportation, and bicycle infrastructure. The city has also prioritized green space preservation.

Stockholm, Sweden: Stockholm aims to be fossil fuel-free by 2040 and has invested heavily in public transportation, renewable energy, and waste management. The city also promotes compact urban development.

Singapore: Singapore is known for its efficient land use planning, integrated transportation system, and commitment to green building practices. The city-state has implemented measures to improve air and water quality.

Amsterdam, Netherlands: Amsterdam prioritizes cycling and pedestrian infrastructure, with a comprehensive network of bike lanes and car-free zones. The city also promotes sustainable transport and renewable energy use.

Curridabat, Costa Rica: Curridabat is a small city that has focused on sustainable urban planning, emphasizing green spaces, urban agriculture, and sustainable mobility. It aims to be carbon neutral by 2050.

Reykjavik, Iceland: Reykjavik has set ambitious goals to become carbon neutral by 2040. The city has invested in geothermal energy, sustainable transport, and energy-efficient buildings.

These cities serve as notable examples of sustainable urban planning and can inspire others to implement similar strategies for a more sustainable future.

## 8.2 Related projects

Inspiring and activating European cities in the energy transition

An EU-funded project is building and promoting capacity on integrated urban planning. It features best-practice examples in the fields of transport, energy and land-use.
Project: MULTIPLY (ID: 785088)

European cities join forces to plan their urban and energy future together

Large urban areas throughout Europe are trying to strike a balance between their rapid growth and the need to significantly reduce fossil energy consumption and CO2 emissions. Cities need efficient and effective planning practices to cope.

Project: URBAN LEARNING (ID: 649883)

Biodiversity loss and enhancing ecosystem services in urban and peri-urban areas

Cities with their peri-urban areas have a vital role in protecting and enhancing nature and nature contribution to people in urban areas across EU, such as health, well-being, and climate resilience. They are also key in delivering global and EU biodiversity objectives and...

Urban greening and re-naturing for urban regeneration, resilience and climate neutrality

Cities are at the forefront of tackling climate change and pollution and managing impacts through mitigation and adaptation measures. However, while in the last decade local and regional authorities gained a better understanding of the inter-related climate challenges and...

Urban planning and design for just, sustainable, resilient and climate-neutral cities by 2030

Global challenges such as climate change, biodiversity loss, pandemic, pollution and irreversible depletion of natural resources demand cities to engage in urgent and decisive systemic transitions towards climate neutrality, sustainability and resilience in line with the...

New governance, business, financing models and economic impact assessment tools for sustainable cities with nature-based solutions (urban re-naturing)

Actions should: map and analyse existing experiences and practices and recommend innovative business models, financing mechanisms (e.g., crowd funding) and governance arrangements to develop socially acceptable urban 're-naturing' planning through participatory...

URBAN LEARNING Integrative energy planning of urban areas: collective learning for improved governance
ID: 649883
From: 1 March 2015 to: 30 November 2017

URBAN LEARNING gathers capitals and other large cities across Europe facing the common challenge of considerable population growth while being committed to significantly reduce fossil energy consumption and CO2 emissions. E.g., Stockholm grew by more than 12.000 people / a...

Coordinated in: Austria
Programme: SOCIETAL CHALLENGES - Secure, clean and efficient energy, Market uptake of energy innovation - building on Intelligent Energy Europe

## 8.3 Related patents

**Real-time traffic simulation analysis system and method based on internet big …**
**CN CN111275965A**
**Priority 2020-01-20 • Filed 2020-01-20 • Published 2020-06-12**
**Similarly, The invention relates to the technical field of traffic simulation, in particular to a real-time traffic simulation analysis system and method based on internet big data, which comprises a data storage module, a data processing module, a simulation management module and a user terminal module; the …**

**A kind of grid equipment inspection route Intelligent planning method**
**CN CN109269505A**
**Priority 2018-10-24 • Filed 2018-10-24 • Published 2019-01-25**
**Similarly, The present invention provides a kind of grid equipment inspection route Intelligent planning method, when departure place and destination are all at city, directly gives city inspection route ; When departure place is in city, destination is at suburb, route is divided into two parts by system, …**

**Traffic demand control device**
**WO EP CN JP WO2014199503A1**
**Priority 2013-06-14 • Filed 2013-06-14 • Published 2014-12-18**
**Similarly, The purpose of the present invention is to provide control information so that each traffic means is used at a desired usage rate in a traffic network in which multiple traffic means exist. In order to fulfill said purpose, the present invention has: a storage unit for storing traffic operation …**

**Method, device and storage medium for obtaining map data and map, CN CN110779535B**
**Priority 2019-11-04 • Filed 2019-11-04 • Granted 2023-03-03 • Published 2023-03-03**
**Similarly, The application relates to the technical field of data processing, in particular to a method, a device and a storage medium for obtaining map data and a map, which are used for improving the efficiency and the accuracy of obtaining the map data, wherein the method comprises the following steps: …**

**City control management system based on wisdom street lamp, CN CN110876126B**
**Priority 2020-01-17 • Filed 2020-01-17 • Granted 2020-04-24 • Published 2020-04-24**

**⋯ of urbanization, and the problem of urban diseases in partial areas is increasingly severe. In order to solve the urban development problem and realize urban sustainable development, the construction of smart cities becomes the irreversible historical trend of urban development in the world.**

# 9 Annex 2: Memorandum of Understanding (MoU)

**1. Valorisation and exploitation of … (please refer to the specific KER)**

**1.1 Agreement between partner, partner, partner ……**

**1.2 The following Memorandum of Understanding is made on the dd/mm/yyyy by and between**

- **Partner a**, VAT …, registered in …, hereinafter referred to as …
- **Partner b**, VAT …, registered in …, hereinafter referred to as …
- **Partner c**, VAT …, registered in …, hereinafter referred to as …
- **……..**

Individually referred to as a "Party" or collectively as the "Parties".

**1.3 Background of the Agreement**

During the CLEANKER project's life the KER was developed… *(clearly describe the KER)*

As per consortium agreement of the Project signed by the Parties, [number of Section]: Results, … Results are owned by the Party that generates them.

Partner a, b, c, x, y and z contributed to the generation of the KER. Each one contributed in the following way:

- **Partner a, …**
- **Partner b, …**
- **Partner c, …**
- **Partners x, …**
- **Partner y, …**
- **Partner z, …**

Upon successful conclusion of the project activities, Parties agreed to jointly define the best way to exploit and valorise the KER.

Partners a, b, c, … expressed the willingness to further valorise and exploit the above-mentioned KER, securing the needed resources, while partners x, y, and z agreed to give to partners a, b, c, … the full right to exploit declaring to have nothing to claim.

Given the uniqueness and further impact potential of KER/s above mentioned, all Parties through this agreement aim to define clear roles and modalities to exploit the programme beyond the grant received from the European Commission.

**1.4 Purpose of the Agreement**

The agreement is therefore aimed at clarifying and regulating

A. Scope and objectives of KER
B. Use of the brand *(example)*
C. Use of the data collected via the platform *(example)*
D. Use of the DB (software) *(example)*
E. Procedures and Roles of the Parties *(example)*

**2. Scope and objectives of KER ……**

The Parties agree that KER is …(KER description)

The KER is built around… and it is implemented through:

A. A network(s)-based outreach approach; *(example)*
B. …;
C. …;
D. ….

**3. Use of the brand**

….

**…**

**4. Use of the data collected**

…The registered data are the property of each of the Parties, who can use them for other activities in respect of GDPR and only for non-competing purposes with the current agreement (to be finetuned by partners' legal offices).

**5. Use of the ….**

**5.1 Procedures and Roles of the Parties**

All Parties shall appoint 1 person within their respective organisation as the first and foremost contact point for ensuring swift and clear communication between the Parties and for implementation of the exploitation plan for this KER as approved by CLENKER and annexed to this MoU.

The initial persons responsible for being the contact point are:

- Partner a: Name, email address, telephone number
- Partner b: Name, email address, telephone number
- Partner c: Name, email address, telephone number
- Partner ……..

All partners will be informed of changes in the contact points in a timely fashion, not exceeding 5 working days from the moment the appointment from the organisation.

Partners a, b, c, … who expressed the willingness to further valorise and exploit the KER will proactively look for potential business development opportunities. Each time one of the Parties is clearly informed by a potential customer, the Party must inform the other Parties' relevant contact points and receive organisational approval (X out of X) to proceed.

It is the responsibility of each Party to ensure the contact points of the other Parties are informed using, if necessary, more than one communication channel (*e.g., email, WhatsApp, phone, etc*). It is the responsibility of the other Parties to ensure the approval to proceed (or denial thereof) is communicated back to the Party in a timely fashion, not exceeding 1 working week (5 working days) from the moment the latter's communication has reached them.

**5.2 Dedicated KER management (in the case of a horizontal governance set-up – to be finetuned according to the governance set-up chosen by the concerned partners, before the end of the project))**

The Party in charge of any new contract will inform all partners about the client, the scope of the contract and foreseen role of each partner (if possible and to different degrees). In order to progress with a new programme, partners must agree on its relevance and viability. Parties have 5 working days to register non-agreement, otherwise the proposal will be considered suitable.

When the contract is finalised, agreed by all Parties and the service is sold to the client, the Party in charge will act as the main contract manager and coordinator, responsible and liable for the smooth implementation of the envisaged activities throughout all phases.

The partner who secures the contract should also perform a "client financial check" and all Parties will be paid promptly upon payment from the client according to the payment schedules agreed upon.

The Party will be the interface between the client and the Parties and will also be responsible for proposing the allocation of resources among partners.

### 5.3 Promotion and marketing

Parties a, b, c, … who expressed the willingness to further valorise and exploit the KER will ensure the proper outreach, using their networks and contacts (social media, newsletters, websites) to promote the KER toward the target markets and early adopters initially identified in the exploitation plan annexed to this MoU.

The most suitable party to deliver the communication activities will be decided on the basis of the scope of the contract and the main target audience.

Cost of marketing and sales activities will be split among partners according to the provisions of the exploitation plan for the current KER.

### 5.4 To summarise:

| *Activity* | *Party responsible* | *Cost split between parties (%)* |
|---|---|---|
| *Programme management and coordination* | *Party who secured a contract* | |
| *KER and methodology management* | *…* | |
| *Innovation and IPR management* | | |
| *KER update* | | |
| *Outreach and communication* | *…* | |
| *…* | *…* | |

## 6. Intellectual Property Rights and NDA

The Parties acknowledge that nothing in this Agreement shall affect any pre-existing (background) and future (foreground) ownership of any intellectual property rights.

Dedicated NDA will be developed and signed between Parties and customers every time needed.

## 7. Miscellaneous

In the event of further participation in the call for proposals covering actions that fall in the scope of this Agreement, the parties mutually recognize a first right of information and best effort to bid together

This Agreement is at-will and may be modified by mutual consent of all the Parties. This Agreement shall become effective upon signature by the authorised officials and will remain in effect until modified or terminated by any one of the Party by mutual consent. In the absence of mutual agreement by the Parties, this Agreement shall remain in force for twenty-four months.

Any dispute that might arise concerning this Agreement shall be settled amicably.

### 8. Date & Signatures

FOR [please insert name of participant or potential or current partner]

Partner a: Name, Position
Partner b: Name, Position
Partner c: Name, Position
Partner x: Name, Position
Partner y: Name, Position
Partner z: Name, Position

# 10 Annex 3: The Lean Canvas

## 10.1 How to approach the business model

The Business Model is the plan for the successful operation of any "business", identifying, the intended "customer" base, products/services, sources of revenue and details of financing. It describes the way in which "value" can be extracted from an exploitable R&D result.
When working on the "business" model it is important to focus on the following elements:

<table>
<tr><td colspan="2">Your ultimate goal<br>• Why am I doing this thing?<br>• Which are my goals? (Best and worst scenario)<br>• Am I really better?</td></tr>
<tr><td>Global market<br>• Competitors<br>• Incumbents<br>• Investors (geography matters)<br>• Level of investment</td><td>Local market<br>• Competitors<br>• Incumbents<br>• Investors<br>• Peculiarities</td></tr>
<tr><td colspan="2">6-12-18 months plan<br>• KPI<br>• Product roadmap<br>• Cashflow<br>• Valuation target<br>• Next step</td></tr>
</table>

**Every customer has a problem, every problem has a solution**

When working on the business model, it is crucial to start from the problem not from the solution. New initiatives, including spin-offs, fail because their offer (a product, a service, a license) is not designed for the customers. Every customer has a problem; every problem has a solution. Vice versa, not every solution has a problem, not every problem has a customer. Brainstorm and identify the problem (forget the solution) focus on the problem, and identify a common definition.

**Early Adopters**

To develop the exploitation model, it is important to look at early adopters and how to go from early adopters to the "early majority". Innovators are the ones that "use" the "alfa" version (2,5%, often the industrial partner in an R&D project); early adopters are the customers ready to "use" the "beta" version (13,5%). Next step is to reach the "early majority" (34%). New initiatives fail before reaching out to the early majority and this is connected with the capability to reach early adopters.

Identify the "customers", who will pay, focus on the riskier ones and describe them in the most specific way. Why that customer has that problem is the way to select the assumptions (how they deal with the

problem, what are they looking for). Focus on the most important one, the one that, if not validated, will make everything fall.

**UVP**

The Unique Value Proposition, or Unique Selling Proposition (USP), is a clear statement describing the benefits of the novel offer, how you solve your customer's needs and what distinguishes you from the competition. It is clearly related to the customers' needs and how their problems are solved so far.
In defining the UVP you do not want a "point of parity" when your features are similar to the ones of the competitors". What counts are the points of difference, what you do, that the others do not and that matters to the customers. You do not want to be better than your competitors, you want to be better for your customers. Do not imitate/mirror competitors. Keep in mind customers, not competitors.

## 10.2 How to approach the Lean Canvas

For preparing the Exploitation Plan (your business plan) of a R&D result it is useful to use Lean Canvas. The Lean Canvas is an adaptation of Business Model Canvas by Alexander Osterwalder which Ash Maurya8 created in the Lean Startup spirit (Fast, Concise and Effective Startup). Lean focuses on problems, solutions, key metrics and competitive advantages.
The canvas is a good tool to focus on the exploitation model and start collecting information for the exploitation plan. Among the different types of canvas, the lean business model canvas, by Ash Maurya, is the most suited for R&D projects. It is a powerful tool to be used by the partners to further develop the characterization of their KERs, prepare the materials to be discussed at consortium meetings and draft the exploitation/business plan for a KER.
The lean canvas helps to fine-tune and develop the exploitation strategy for a KER having in mind four questions:

1) Who is "my customer"?
2) What is "her/his" problem?
3) How does "She/he" solve the problem now?
4) Is our solution more efficient than the current one?

## 10.3 How to fill out a Lean Canvas for a KER

The end goal of the lean canvas is that an unknowing third party will be able to review it from start to end and, through this revision, understand what your KER is about. They will understand the problem in focus, the customer groups that you target, the solution you provide, how it differentiates from competitors, how you intend to create value, etc. Due to this, it is very important to avoid the use of highly technical language, abbreviations etc. They can result in third parties not understanding the nature of your KER.
Below is a description of the main steps to draft the canvas.

1) **PROBLEM** - find 3 main problems you are addressing.

[8] For more information about this canvas, please refer to the blogpost explaining Lean Canvas and the ideas behind it on his website: http://www.ashmaurya.com/2012/02/why-lean-canvas/

Explain: ***What*** is the problem and ***why*** is it a problem.

Additionally, attempt to add numbers or quantifiable measures that will clearly highlight the scale of the problem.

Describe EXISTING ALTERNATIVES - Find out how they are solving the problem now (today's alternatives)

2) **CUSTOMER SEGMENT** - identify who has the problem, and define target customers (do not confuse with users).

Be clear in explaining the geographic location of your customers, and the industry in which they are operating, as well as connecting them to the problem in question.

EARLY ADOPTERS - find a small niche that is having the biggest problem, the ones that suffer the most (early adopters).

These will be the first customers of your solution; Be sure to find as much information about these as possible. Explain the geographic location, connect them to the problem, explain exactly why these will be the first adopters, clarify your current connection to them etc.

3) **UNIQUE VALUE PROPOSITION**

Define your UVP based on today's alternative, what makes your product/service more efficient for your customers, and a single and compelling sentence that makes everybody understand why you are far better (your features need to be compelling to the customers' needs, otherwise are irrelevant to clients).

Ensure that you clearly define how you differentiate from alternative solutions, and why the customer will come to you; Explain the ***uniqueness*** of your solution.

Provide facts and data, explaining the performance of your product compared to alternative solutions (efficiency increase of 20%, decreased energy consumption of 10%, 30% fewer development costs etc.).

4) **SOLUTION** – outline the main features of your solution.

When your features are similar to the ones of the competitors, this is equality. What matters are the points of difference! What you do, that the others do not do are what matters to the clients.

Be sure to explain the format of your solution (machine, equipment, software, service, process, etc.), what it does, and how it does it.

5) **UNFAIR ADVANTAGE** – what is it that gives you an advantage in front of the competition? Something that can't be easily copied or bought.

This could be IPR, being the first movers on new technology that takes years to develop etc. Be sure to explain, *why* the listed points provide you with an advantage. It can be difficult for third parties to understand if they do not have a wide array of knowledge regarding your industry.

6) **CHANNELS** – How will you reach your customers?

Be sure to investigate whether the chosen channels are suitable for your choice of customers and consider whether they will be enough to establish the needed reputation on the market.

**7) REVENUE STREAMS**

Which will be the main revenue streams when the solution is ready for the market. Explain how each of them will generate revenue and how much you expect to generate from each stream.

Estimate revenues for the seed stage after 6 months and after 3 years. Quantify amounts and prices by detailing, for example, the expected number of services provided and paid, the number of licenses sold at which prices etc.

8) **KEY METRICS** – key activities you will measure to track the success (e.g., units sold, users registered, retaining users, paying customers, number of complaints …)

9) **COST STRUCTURE** – which will be the main costs when the solution is ready for the market (e.g. customer acquisition costs, distribution costs, hosting, people etc). As with revenues, estimate the total costs issued after 6 months and 3 years along with the estimated cost of each "cost-entity". This will connect your revenues to your costs.

After you finish the exercise, test your hypothesis "out the lab", with at least 2 to 3 real potential customers. Validate the following assumptions:

- Are the problems you assume the ones? Is your solution to solving their problem?
- Are the features your solution is offering the ones the market needs and looks for?
- Are the explanations provided in the canvas enough to provide the customer with an understanding of your project?

Write down the feedback and update, revise, and iterate the Canvas accordingly.

## Lean Canvas by Ash Maurya

<table>
<tr>
<td rowspan="2">Problem<br>1)<br>Top 3 problems<br><br>His main problem<br>Which job has to accomplish<br><br>What and why?<br><br><br><br><br>4)<br>Existing alternatives to address the same problems</td>
<td>Solutions<br>6)<br>Top 3 features<br>Based on the VP<br>(why it is better than others)<br>Use MVP to test assumptions<br><br>Remember: the first sentence should clarify what it does, and how it does it.</td>
<td rowspan="2">Unique Value proposition<br>5)<br>Why you are different and worth buying<br>(How you help a customer do his job, accomplish his mission<br>Improve his position<br>…. better than others.<br>Provide<br><br>Explain how you differentiate from alternative solutions and thus the uniqueness of your solution.<br>Provide numbers for the performance of your solutions (see earlier explanation).</td>
<td>Unfair Advantage<br>7)<br>Can it be easily copied or brought?<br>What is the customer retaining costs?<br>Acquisition costs<br>Switching costs<br><br>See the earlier explanation for clarification.<br>….</td>
<td rowspan="2">Customer segment<br>2)<br>Who are they?<br><br>Distinguish between users and customers (customers buy, users “use”)<br>Split into vertical segments<br>Pick the strongest customer segment<br><br>Remember geographic location, Industry and<br>connection to the problem.<br><br>3)<br>Early adopters<br><br>Remember geographic location, Industry and<br>connection to the problem.<br>+ Why are they early adopters? What is your relation to these etc?</td>
</tr>
<tr>
<td>Key Metrics<br>9)<br>Key aspects/activities you need to measure for feedback</td>
<td>Channels<br>8)<br>How do you contact your customers/early adopters,<br>How you deliver value<br>How you promote value</td>
</tr>
<tr>
<td colspan="3">Cost structure<br>11)<br>Prototyping<br>HR costs, Eng. costs, MFG costs, marketing costs etc.<br>Estimate costs for each “cost-entity”<br>Estimate costs after the seed stage 6 months and 3 years.</td>
<td colspan="3">Revenue Streams<br>10)<br>The different revenue streams How each stream generates revenue Estimation of how much each stream will generate Estimation of revenue at seed stage 6 months and 3 years.</td>
</tr>
</table>

# 11 Annex 4: Commercialisation options and examples of contracts

## 11.1 Licensing

Exclusive:
Only the licensee can use the licensed IP or technology (the licensor cannot use or license it);
Sole:
The licensor agrees not to grant any additional licenses but retains the right to make use of the licensed IP.
Non-Exclusive License:
The licensee and the licensor can both use the licensed intellectual property or technology. The licensor is also allowed to negotiate further non-exclusive licenses with other companies.

## 11.2 Franchising

While on the one hand, franchising helps franchisors to expand their business with the need for less investment, on the other hand, it enables franchisees to enter into a market more easily since the business is based on an established brand and/or on a proven business model. Franchising means less risk and low costs for both parties with higher chances of surviving within the first years of business.
In Europe, the regulation of franchising is not harmonized. Also, in most EU Member States there are no independent codes establishing all the rules for this particular partnership. However, this sector has the particularity of being self-regulated in the EU through the European Code of Ethics for Franchising establishes a set of guidelines and principles for both franchisors and franchisees. Therefore, potential franchisors and franchisees need to get to know the requirements that they must meet under their national law and become familiar with the European Code of Ethics for Franchising.
Due diligence: potential franchisees should carry out due diligence to detect potential risks, which may arise during the franchise. Such an audit may include verification of the related IP, financial and business information about the franchisor, sufficiency of the goods/services, training and assistance to be provided by the franchisor, etc.

## 11.3 Joint ventures (JVs)

JVs are business alliances of two or more independent organisations (ventures) to undertake a specific project or achieve a certain goal by sharing risks. IP has an important role in the creation of such collaborations, since venture bring their intellectual assets for the success of a JV and they should agree on their initial contributions, responsibilities and obligations within the alliance as set out in JV agreements.
Advantages

- Allows exploiting and sharing IP assets with reduced financial investment.
- Allows companies to access new markets by sharing risks.
- Creates possibilities to leverage existing technologies and patents developed by each venture.
- Provides companies with the chance to develop new IPs with less investment.

- Allows utilization of unused IP assets.

Disadvantages

- There may be an imbalance in expertise, intellectual assets and investment brought into the JV by the ventures.
- Coping with different management cultures in IP management may be difficult.

Key terms in the JV agreements: Background, foreground and access rights

In JVs, the ventures bring into the project their previously owned IP assets - which are known as background - and they should decide on the access rights to their background for other ventures. Furthermore, the project implementation will also generate IP, which is referred to as IP foreground or results. The ownership of foreground/results and determination of access rights should be clarified before entering a JV partnership together with compensation for IP registration and/or maintenance costs.

## 11.4 Spin-off (newco)

A Spin-off (or newco) is a separate legal entity created by a parent organisation (PO) to bring its IP assets into the market. It is generally an efficient solution for the parent organisations, which may not be fully capable of commercialization of their IP assets, such as universities and research institutions. Spin-offs are an important means of technology transfer since they are acting as an intermediary between the research environment and industries while putting research results into the commercial market with a marketable product. Moreover, through spin-offs, research organisations can focus on their main task of "research" instead of "marketing", which is the main task of commercial companies (spin-off).

A spin-off company can be formed by a person external to the PO for the exploitation of the IP asset created by the parent organisation. In this type of spin-off, as the new company is owned by an external professional, the IP assets to be exploited by the new company (spin-off) are generally transferred by licensing, to allow the PO to keep control over them. The external professionals can also be venturing capitalists, who foresee a market potential in commercialisation of IP.

Conducting due diligence

A due diligence study allows the investors to ascertain the ownership of the IP to be transferred and any obligations affecting the transfer.

## 11.5 Material Transfer Agreements (MTAs)

MTAs are used when exchanging tangible materials between parties to secure the IP rights of the material provider against possible disclosure by the recipient party. The material exchanged can take many forms, such as product samples, prototypes, software, chemical compounds or biological materials etc. Generally, such a transfer occurs during:

- feasibility studies to check whether the material is compatible with the recipient facilities,
- research activities on the material in R&D partnerships,
- provision of samples or prototypes to future clients for trials, etc.

# 12 Annex 5: Follow-up funding opportunities

## 12.1 European Investment Project Portal (EIPP)

The European Investment Project Portal (EIPP) is the EU matchmaking portal, enabling EU-based project promoters – public or private – to reach potential investors worldwide. The Portal is a free service offered by the European Commission and is part of the Investment Plan for Europe, which aims to mobilise investment, boost economic growth and create jobs across the EU.

For more information check here: https://ec.europa.eu/investeuportal/desktop/en/index.html

## 12.2 The InvestEU Programme

The InvestEU Programme builds on the successful model of the Investment Plan for Europe, the Juncker Plan. It will bring together, under one roof, the European Fund for Strategic Investments and 13 other EU financial instruments. Triggering more than €372 billion in additional investment over the period 2021-27, the InvestEU Programme aims to give an additional boost to sustainable investment, innovation and job creation in Europe.

The Programme consists of:

- The InvestEU Fund aims to mobilise more than €372 billion of public and private investment through an EU budget guarantee of €26.2 billion that backs the investment of implementing partners such as the European Investment Bank (EIB) Group and other financial institutions.
- The InvestEU Advisory Hub which provides technical support and assistance to help with the preparation, development, structuring and implementation of investment projects, including capacity building.
- The InvestEU Portal which brings together investors and project promoters on a single EU-wide platform, by providing an easily accessible and user-friendly database of investment opportunities available within the EU.

https://europa.eu/investeu/home_en

## 12.3 CASCADING GRANTS

Cascade Funding, also known as Financial Support for Third Parties (FSTP), is a European Commission mechanism to distribute public funding in order to assist beneficiaries, such as start-ups, scale-ups, SMEs and/or mid-caps, in the uptake or development of digital innovation.

This funding method aims at simplifying the administrative procedures, creating a light, SME-friendly application scheme, by allowing some EU-funded projects may issue, in turn, open calls for further funding.

This scheme is based on the model of Erasmus students and was first introduced by the European Commission in Horizon 2020, the Framework Programme for Research and Innovation (2014-2020). It will be used also in the new Horizon Europe Framework Programme for Research and Innovation (2021-2027).

More information and open calls are available here: https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/competitive-calls

## 12.4 Access to finance in Europe

University technology transfer offices (UTTOs) often perform the function of transferring technology and commercialising innovations emerging from the University sector to the marketplace.
For more information check here:
http://europa.eu/youreurope/business/funding-grants/access-to-finance/index_en.htm
This site can help to apply for loans and venture capital supported by the European Union.
Click on your country to locate banks or venture capital funds that provide finance supported by the EU.

## 12.5 Ad hoc grants for EIC Pathfinder and EIC Transition grant holders

The grant holders of EIC Pathfinder projects (including grants resulting from certain EIC pilot Pathfinder, FET-Open and FET-Proactive calls) and of EIC Transition projects are eligible to receive ad hoc grants with fixed amounts of up to EUR 50 000, as specified in the relevant call sections of the EIC work programme.
In line with Article 47(3)(b) of the Horizon Europe Regulation, the ad hoc grants are not subject to any call. They reflect the necessity and hence the possibility for the EIC to proactively support, at any stage of a project implementation, the assessment of any potentially innovative lead stemming from an EIC Pathfinder project, or reinforce the coordination and management of a Portfolio where needed.
These ad hoc grants fund either complementary activities to explore potential pathways to commercialisation (for EIC Pathfinder grant holders) or portfolio activities (for EIC Pathfinder and EIC Transition grant holders).
These ad hoc grants do not fund research or activities that were already foreseen in the original project. A maximum of three ad hoc grants can be awarded for each EIC Pathfinder project and more than three may be awarded in exceptional and duly justified cases. A maximum of one ad hoc grant can be awarded for each EIC Transition project. Any such ad hoc grant can be awarded to an individual grant holder or a group of grant holders.
EIC grant holders, after discussion with an EIC Programme Manager or following a project review, can apply for such an ad hoc grant.

## 12.6 Fast Track scheme to apply for the EIC Accelerator

The ‘Fast Track’ scheme is a novelty under Horizon Europe and a specific process applicable to the EIC Accelerator. It provides for specific treatment of applications that result from existing Horizon Europe or Horizon 2020 projects.

Under the Fast Track scheme, applicants do not apply directly to the EIC Accelerator call. Instead, a project review is carried out by the responsible funding body to assess the innovation or market deployment potential of an existing project, to decide whether the project is suitable for support under the EIC Accelerator.

The responsible funding body can submit the outcome of the review of the project to the EIC Accelerator if the project review concludes that the following conditions are met:

- the proposal meets the two first criteria of the EIC Accelerator (excellence and impact),
- there is no duplication of funding of activities to be supported under the EIC Accelerator with the existing grant, and
- the applicant meets the eligibility criteria for the EIC Accelerator.

The applicant will then be invited to prepare a full application for the EIC Accelerator to one of the cut-off dates within the next 12 months following the initial review. They will receive support through the EIC artificial intelligence-based IT platform and coaching.

## 12.7 EIC Transition

The EIC Transition funding scheme builds on promising research results to demonstrate and mature the technology and develop business plans.

EIC Transition funds innovation activities that go beyond the experimental proof of principle in the laboratory to support both:

- the maturation and validation of your novel technology in the lab and relevant application environments
- the development of a business case and (business) model towards the innovation's future commercialisation.

Grants of up to €2.5million and more are available to validate and demonstrate technology in application-relevant environments and develop market readiness.

EIC Transition has open funding for projects in any field of science or technology as well as challenge-driven funding for specific strategic fields.

Single applicants (SMEs, spin-offs, start-ups, research organisations, universities) or small consortia (max 5 partners) may apply.

https://eic.ec.europa.eu/eic-funding-opportunities/eic-transition_en

## 12.8 EIC Accelerator

The EIC Accelerator supports individual Small and Medium Enterprises (SMEs), in particular, Startups and spinout companies to develop and scale up game-changing innovations. In some cases, small mid-caps (up to 500 employees) are supported.

The EIC Accelerator provides substantial financial support with:

- Grant funding (non-dilutive) of up to €2.5 million for innovation development costs,

- investments (direct equity investments) of up to €15 million managed by the EIC Fund for scale-up and other relevant costs.

In addition, EIC selected companies to receive coaching, mentoring, access to investors and corporates, and many other opportunities as part of the EIC community.

Applications can be submitted at any time through the EIC platform. Applicants have to submit a video pitch, a slide deck and respond to a short set of questions about their innovation and their team.

Applications that meet all the criteria at the remote evaluation stage and are assessed positively by the EIC jury but not recommended for funding, will be awarded a Seal of Excellence to help them secure funding from other sources. Companies with a Seal of Excellence can also get support from EIC Business Acceleration Services.

https://eic.ec.europa.eu/eic-funding-opportunities/eic-accelerator_en

## 12.9 EIC Prizes

The EIC Prizes are awarded to whoever can most effectively meet a pre-defined challenge, without prescribing how that challenge should be solved. These will boost breakthrough innovation across sectors by fostering cutting-edge solutions which bring major benefits to citizens and society.

In 2021 the following challenges are defined:

- EU Prize for Women Innovators (3 prizes of €100k, 1 prize for 'Women Innovators' main category, 1 prize of €50k for 'Rising Innovator' category)
- The European Capital of Innovation Awards (iCapital) (total budget €1,8 million, European Capital of Innovation winner €1 million)
- The European Innovation Procurement Awards (total budget €300k)
- The European Social Innovation Competition (total budget €200k)

## 12.10 EUREKA and Eurostars funding

Eurostars supports international innovative projects led by research and development-performing small- and medium-sized enterprises (R&D-performing SMEs). With its bottom-up approach, Eurostars supports the development of rapidly marketable innovative products, processes and services that help improve the daily lives of people around the world. Eurostars has been carefully developed to meet the specific needs of SMEs. It is an ideal first step in international cooperation, enabling small businesses to combine and share expertise and benefit from working beyond national borders.

Eurostars applies a decentralized funding procedure; participants do not receive funding directly from the EUREKA Secretariat or the EU. All funding to participants in approved projects is managed by their respective funding bodies and according to their national funding rules and procedures. These rules and procedures are dependent on the member countries involved in the project. Project partners are strongly advised to contact their National Project Coordinators (NPCs) and browse the Eurostars in each country. https://www.eurostars-eureka.eu/

## 12.11 Entrepreneurship and Small and medium-sized enterprises (SMEs)

The dedicated section on the EU portal offers a wide focus dedicated to information on possible EU funding opportunities for SMEs and in general on what the EU does for SMEs: https://ec.europa.eu/growth/smes
Furthermore, to know if a programme is relevant to your particular case, we strongly suggest that you contact your local Enterprise Europe Network partner, who can give you one-to-one advice and support in applying for EU funding.
Contact details of the Enterprise Europe Network members: http://een.ec.europa.eu/about/branches/

## 12.12 Seal of Excellence – EuroQuity Initiative

This initiative is dedicated to those companies who have received the Seal of Excellence from the EU Horizon 2020 SME Instrument Programme. Matchmaking activities and support services will be provided in order to facilitate their access to risk finance and enhance their visibility, through a specific online community based on the EuroQuity platform.
Each "Seal of Excellence" SME will gain in this way instant visibility among different actors: the main EU business angels' networks, VCs, corporate investors, and new business partners, at the same time investors will be guaranteed the quality of SMEs' projects and their innovation potential. Free services will also be offered to these companies allowing them to grow on a European level:

- Visibility and access to European investors
- Possibility to pitch online in front of investors during e-pitch sessions
- Connections with National Contact Points of your Country

More information is available here https://www.euroquity.com/fr/community/Access4SMEs--Seal-of-Excellence-5bb56459-4f88-4d3c-a2eb-8e4b6e865ea5/

## 12.13 Contracts and grants - access to business opportunities

Several different contracts and grants are regularly made available for companies or organisations who want to work with Directorate General (DG) for Internal Market, Industry, Entrepreneurship, and SMEs or apply for funding.
In the framework of public procurement contracts, DG Internal Market, Industry, Entrepreneurship, and SMEs regularly organize calls for tenders. Calls for tenders are special procedures to generate competing offers from different businesses looking to obtain works, supply, or service contracts.
Those tenders/calls also give an insight into competitors' activities as well as ideas for partnerships and stakeholders. Furthermore, there are possibilities for winning contracts.

## 12.14 Tenders Electronic Daily

TED provides free access to business opportunities from the European Union, the European Economic Area and beyond.
Every day, from Tuesday to Saturday, a further 2,000 public procurement notices are published on TED.
You can browse, search and sort procurement notices by country, region, business sector and more.
Information about every procurement document is published in the 24 official EU languages. All notices from the EU's institutions are published in full in these languages. For more information check here:
http://ted.europa.eu/TED/search/search.do

## 12.15 Innovaccess - Intellectual Property Portal

Innovaccess aims to enhance Intellectual Property (IP) support services to Small and Medium-sized Enterprises (SMEs) to turn their Intellectual capital into commercial values and competitiveness.
The portal helps to protect IP rights and to understand IP security rules. For more information check here:
http://www.innovaccess.eu/.

## 12.16 European Green Deal

**Background**

On 11 December 2019, the Commission presented the European Green Deal, with the ambition of becoming the first climate-neutral bloc in the world by 2050. Europe's transition to a sustainable economy means significant investment efforts across all sectors: reaching the current 2030 climate and energy targets will require additional investments of €260 billion a year by 2030.
The success of the European Green Deal Investment Plan will depend on the engagement of all actors involved. The Member States and the European Parliament must maintain the high ambition of the Commission proposal during the negotiations on the upcoming financial framework.
A swift adoption of the proposal for a Just Transition Fund Regulation will be crucial.
The Commission will closely monitor and evaluate the progress on this transition path. As part of these efforts, every year the Commission will hold a Sustainable Investment Summit, involving all relevant stakeholders, and it will continue to work for promoting and financing the transition. The Commission invites the investment community to make full use of the enabling regulatory conditions and ever-growing needs for sustainable investments, and authorities to take an active role in identifying and promoting such investments.

**The Just Transition Mechanism**

The Just Transition Mechanism (JTM) is a key tool to ensure that the transition towards a climate-neutral economy happens in a fair way, leaving no one behind. While all regions will require funding and the European Green Deal Investment Plan caters for that, the Mechanism provides targeted support to help

mobilise at least €100 billion over the period 2021-2027 in the most affected regions, to alleviate the socio-economic impact of the transition. The Mechanism will create the necessary investment to help workers and communities which rely on the fossil fuel value chain. It will come in addition to the substantial contribution of the EU's budget through all instruments directly relevant to the transition.

**The Just Transition Mechanism will consist of three main sources of financing:**

1) **A Just Transition Fund**, which will receive €7.5 billion of fresh EU funds, coming on top of the Commission's proposal for the next long-term EU budget. In order to tap into their share of the Fund, Member States will, in dialogue with the Commission, have to identify the eligible territories through dedicated territorial just transition plans. They will also have to commit to matching each euro from the Just Transition Fund with money from the European Regional Development Fund and the European Social Fund Plus and provide additional national resources. Taken together, this will provide between €30 and €50 billion of funding, which will mobilise even more investments. **The Fund will primarily provide grants to regions. It will, for example, support workers to develop skills and competencies for the job market of the future and help SMEs, start-ups and incubators to create new economic opportunities in these regions. It will also support investments in the clean energy transition, for example in energy efficiency.**
2) A dedicated **just transition scheme under InvestEU** to mobilise up to €45 billion of investments. It will seek to attract private investments, including in sustainable energy and transport that benefit those regions and help their economies find new sources of growth.
3) **A public sector loan facility with the European Investment Bank** backed by the EU budget to mobilise between €25 and €30 billion of investments. It will be used for loans to the public sector, for instance for investments in district heating networks and renovation of buildings.

   The Commission will come up with a legislative proposal to set this up in March 2020. **The Just Transition Mechanism is about more than funding: relying on a Just Transition Platform, the Commission will be providing technical assistance to Member States and investors** and make sure the affected communities, local authorities, social partners and non-governmental organisations are involved. **The Just Transition Mechanism will include a strong governance framework centred on territorial just transition plans.**

**More information is available here** https://ec.europa.eu/info/research-and-innovation/strategy/european-green-deal/call_en

## 12.17 European Institute of Technology and Innovation

Under EIT's Knowledge and Innovation Communities (KICs) are partnerships that bring together businesses, research centers and universities. Through the KICs, EIT strengthens cooperation among businesses (including SMEs), higher education institutions and research organisations, forms dynamic pan-European partnerships and creates favourable environments for creative thought processes and innovations to flourish. These partnerships are called Innovation Communities and each is dedicated to finding solutions to a specific global challenge, from climate change and sustainable energy to healthy living and food.

There are 8 Innovation Communities and each focus on a different societal challenge:

- EIT Climate-KIC
- EIT Food
- EIT Health
- EIT Digital
- EIT Manufacturing
- EIT Innoenergy
- EIT Urban Mobility
- EIT Raw Materials

## 12.18 LIFE Programme

LIFE programme is the EU's funding instrument for the environment and climate action. The programme is divided into two sub-programmes, one for the environment (representing 75% of the overall financial envelope) and one for climate action (representing 25% of the envelope).

- The programme includes large-scale demos/pilots with a focus on Environment and Climate Action; clear impact aims during the project; and a clear environmental/climate problem baseline (de-risk).
- Projects start at TRL 6-7 aiming up to 9 to bridge the valley of death (income allowed – end-user important).
- The funding programme uses a bottom-up approach (call topics are broad) allowing proposers to define the solutions needed for their environmental context/problem.
- Focus is on making Environmental impacts in the EU.
- Even proposals from single EU beneficiaries are allowed.
- Proposers can apply in their own language.
- There is no set proposal budget limit.

## 12.19 Dealflow

Dealflow is sponsored by the European Commission to support EU-funded innovations with fundraising, venture building and networking. It supports EU-funded projects from H2020.
Three typologies of support are foreseen:

- Venture-building: giving tailored support on challenging business topics (e.g., sales strategy, market sizing & research, organizational structure, and pitching);
- Fundraising (preparation): preparing investor materials and providing access to investor networks;
- Networking: introductions to industry experts, potential clients and new partners through their matchmaking platform, community & events.

https://dealflow.eu/

## 12.20 Accelerators and Incubators

If you have the intention to create a startup/spinoff, you are suggested to check Accelerators/Incubators in your area.

Here below there is a non-exhaustive list of international and pan-European Accelerators/Incubators networks:

- Startup Bootcamp: founded in 2010, Startup Bootcamp is a well-known global network of startup accelerators that offer an intense 3-month program. After Selection Days, 10 startups join diverse accelerator programs (Amsterdam, Istanbul, London, Barcelona, Copenhagen, Berlin, Eindhoven and Haifa) where they receive mentoring, free workspace, great networking opportunities, and pitching opportunities to over 400 investors on Investor Demo Day.
- Startup Weekend: Startup Weekend brings together developers, designers, product managers, aspiring entrepreneurs, marketers and tech enthusiasts to launch a startup in 54 hours. These weekend-long events are focused on learning through creating, building professional relations and networking.
- StartupBus Europe: is a unique project founded in 2010. It is a hackathon for European tech entrepreneurs ("buspreneurs") where they compete over the course of a 3-day bus ride on the way to Vienna.
- IMPACT Accelerator: (Internet Mobile Projects Accelerator) offers premium acceleration services for European mobile start-ups and small and medium-sized businesses for a period of six months. It operates in several locations in Spain and Italy and given it is one of the 16 consortia selected by the European Commission within the framework of the Seventh Framework Programme, the selected start-ups in the extended phase can count on the Buongiorno Headquarters in 14 countries.
- Wayra: launched in 2011, Wayra is a startup accelerator financially backed by Telefonica, one of the biggest telecommunication companies in the world.

Here below is a non-exhaustive list of Accelerators/Incubators in the Member States:

- Austria: i5invest, INiTS, Up to Eleven, Kubator
- Belgium: Telenet Idealabs, NEST'Up
- Bulgaria: 3Challenge, Eleven, LAUNCHub
- Croatia: Zip
- Czech Republic: StarCube, Startup Yard
- Denmark: Accelerace
- Estonia: GameFounders,Garage48, Startup Wise Guys
- Finland: Startup Sauna
- France: TheFamily, Numa (Le Camping)
- Greece: OpenFund
- Germany: Axel Springer Plug & Play, hub:raum
- Hungary: iCatapult
- Italy: H-Farm, LuissEnLabs
- The Netherlands: Rockstart
- Norway: betaFACTORY
- Lithuania: StartupHighway

- Portugal: The Lisbon Challenge
- Poland: Gamma Rebels
- Romania: SeedForTech, Innovations,
- Spain: SeedRocket, Tetuan Valley

## 12.21 InnovFin

InnovFin – EU Finance for Innovators is a joint initiative launched by the European Investment Bank Group (EIB and EIF) in cooperation with the European Commission under Horizon 2020. InnovFin aims to facilitate and accelerate access to finance for innovative businesses and other innovative entities in Europe.
InnovFin makes available specific instruments for different typologies of financing.

**Start-up and SME financing**

- InnovFin Equity provides equity investments and co-investments to or alongside funds focusing on early-stage financing of enterprises operating in innovative sectors covered by Horizon 2020, located or active in the EU or Horizon 2020 Associated Countries. InnovFin Equity is available via four products: InnovFin Technology Transfer, InnovFin Business Angels, InnovFin Venture Capital, and InnovFin Fund-of-Funds.
- InnovFin Guarantee SME guarantee provides guarantees and counter-guarantees on debt financing between EUR 25 000 and EUR 7.5 million, in order to improve access to loan finance for innovative small and medium-sized enterprises (SMEs) and small mid-caps (up to 499 employees).

**Corporate finance**

- InnovFin Emerging Innovators offers a range of tailored products which provide financing in support of R&I by small, medium-sized and large companies and the promoters of research infrastructure. It provides loans or guarantees directly or indirectly via financial intermediaries.
- InnovFin MidCap Guarantee provides guarantees and counter-guarantees on debt financing of up to EUR 50 million, in order to improve access to finance for innovative midcaps (up to 3 000 employees) which are not eligible under the InnovFin SME Guarantee.
- InnovFin Corporate Research Equity (in collaboration with EFSI) increases the supply of equity-type financing under the European Fund for Strategic Investments (EFSI) to large research and innovation (R&I) programmes and innovative large mid-caps and small or medium-sized enterprises (SME). It addresses the market gap for large equity-type investments in the form of contingent loans, in particular with mid- to long-term repayments profile that are directly linked to product development cycles.

**Science**

- InnovFin Science (for research institutions and universities) aims at supporting research and innovation (R&I) investments by public or private research institutes/organisations and universities, including the financing of buildings and other infrastructure directly related to R&I activity. It provides different forms of debt or equity-type financing.

**Thematic financing**

- InnovFin Energy Demo Projects provides loans, loan guarantees or equity-type financing to innovative demonstration projects in the fields of energy system transformation, including but not limited to renewable energy technologies, smart energy systems, energy storage, carbon capture and storage or carbon capture and use, helping them to bridge the gap from demonstration to commercialisation. The product is deployed directly by the EIB.
- InnovFin Infectious Diseases provides financial products ranging from standard debt to equity-type financing for amounts typically between EUR 7.5 million and EUR 75 million, to innovative players active in developing innovative vaccines, drugs, medical and diagnostic devices or novel research infrastructures for combatting infectious diseases. The product is being made available directly through the European Investment Bank.

## 12.22 Startup Europe

STARTUP Europe is an initiative of the European Commission to connect high-tech startups, scale-ups, investors, accelerators, corporate networks, universities and the media. The 4 main objectives of Startup Europe are to:

- Connect people
- Connect local start-up ecosystems
- Help start-ups soft land in other markets
- Celebrate entrepreneurs' success

In order to help build a strong European ecosystem where startups can thrive, Startup Europe is empowering 7 projects, funded under Horizon 2020, that are connecting local ecosystems across Europe. These projects will connect deep tech startup ecosystems and support cross-border activities for startups and scale-ups. The cross-border activities include the following: connecting tech entrepreneurs with potential investors, and business partners, accessing skills, and services helping startups soft land in new international markets.

- Scaleup4Europe: The Scaleup Labs will provide deep tech start-ups with a structured open innovation approach in which they can achieve cross-border market success, through first successful collaborations with corporate customers, investors and/or public institutions.
- B-HUB FOR EUROPE: Will target deep tech vertical startups in the blockchain domain. The initiative is aimed at: discovering high-potential innovations, shaping suited proof of concepts and business models, providing specialised acceleration services to overcome current market barriers and assist the go-to-market process, unlocking new market channels with potential private/public customers, scaling up innovative businesses across five startups ecosystems in Europe: IT (Rome), FR (Paris), DE (Berlin), LT (Vilnius) and RO (Cluj-Napoca).
- The Scale-up Champions: The project builds on the premise of equalising opportunities of scaling up for startups across five countries represented through the partners of the consortium: Estonia, Lithuania, Poland, Denmark and Spain. Main activities targeting: corporate-startup collaboration, investment readiness and internationalization
- STARTUP 3: Will scout for top founding teams to identify (uptake) breakthrough innovations from deep tech verticals (i.e., built on tangible scientific discoveries or engineering/ technical advances). Then STARTUP3 will help them fine-tune (upgrade) their technologies/ business models and align their value proposition to the actual market demand (the so-called Key Performance Areas – KPAs).

Finally, STARTUP3 will bring together top deep tech startups/ SMEs and the most prominent corporate innovators – CVC arms, incubators and accelerators, and innovation labs (facilitated by clusters and digital innovations hubs – DIHs) to catalyse productive interaction (upscale).

- X-Europe: Brings together leading training, acceleration, events, and media companies from across Europe. Through the delivery of training, matchmaking & promotional services X-Europe will support 150 deep tech startups and help them to internationalize, grow across borders, and into developing frontiers.
- INNODEC - (Innovation Radar Data-based Identification & Commercialisation): Aims to close the gap between investors and research projects from both sides. On the one hand, this is achieved through placing investors/partners in contact with the research projects with the highest potential, and then on the other, coaching the projects on raising capital, identifying a business model and developing a sound go-to-market strategy. This approach will ensure scalability while simultaneously catering to the large diversity between projects and their needs.
- MediaMotorEurope: This will boost solutions that can address challenges. Its goal is to nurture high-potential European deep tech innovators, solving today's most prominent media industry challenges and supporting them in building the media solutions of tomorrow such as misinformation, accessibility, user interfaces and use of data. A large focus will be on deep tech solutions, such as AI and machine learning, and their potential application in the domain of media and creative industries.

## 12.23 INTERREG EUROPE

Interreg Europe can help in the following ways:

- **Financial support** – funding is available for interregional cooperation projects, which have the potential to lead to longer-term collaborations and partnerships
- **Expand your network** – meet new like-minded partners, stakeholders, and business colleagues across Europe.

The DG also allows organisations to get some grants through calls for proposals. These are invitations for suppliers to submit a proposal on a specific commodity or service. A grant or a subvention is a direct financial contribution from the European Commission to support a specific action or project of a non-commercial nature, to cover eligible costs directly incurred by the beneficiaries.

For more information check here: http://www.interregeurope.eu/

booster@meta-group.com
www.horizonresultbooster.eu

HORIZON RESULTS BOOSTER

An initiative of the European Commission