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

D10.1

Exploitation Strategy

(Version 1)

WP10 – Exploitation Activities, Route to the Market and Project Sustainability
Task 10.1 "Exploitation and Business Plan-Development"

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Summary

This document presents Deliverable **D10.1 Exploitation Strategy (Version 1),** prepared as part of the task T10.1 **"Exploitation and Business Plan-Development"** activitites and it is a main outcome of the Work Package 10 namely, "**Exploitation Activities, Route to the Market and Project Sustainability**". The scope of this deliverable is to Identify sound business models, replicable to other markets and develop new resources activation techniques. This will support a gradual transition to a leading market position for the euPOLIs paradigm.

The specific task "Exploitation and Business Plan – Development" is led by 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 document and the organization of the exploitation workshops.

In more details, this task aims to develop a common and efficient strategy for exploiting the project findings (in individual and collective ways), so as to ensure that these are taken up by the relevant stakeholders during and after the project lifetime. This task began with a detailed state-of-the-art review on the NBS scaling-up and related good practices. The current first version of Exploitation Strategy will be further updated by the consortium and the final version will be delivered in M48 (end of the project).

This first version of Deliverable **D10.1 Exploitation Strategy**, is a comprehensive description of the relevant activities that have taken place so far as well as those that are planned, to ensure the Exploitation and Business Plan-Development of the euPOLIS results beyond the end of the project focusing on the preliminary strategies to be followed and the identification of key assets for exploitation. The strategic target of all exploitation activities is to pave the way towards the widespread adoption and sustainability of the euPOLIS results and the maximization of their impact. This constitutes a major priority and challenge for our consortium, given the high potential that the euPOLIS results hold for bringing the EU into the forefront of the NBS solutions and the Blue Green regeneration. Further more, this version highlights the Sector Skills Strategy as an actionable mechanism for leadership and developing the capacity by fostering the uptake and integration of the euPOLIS results from the various cross-sector technologies as well as the cities case studies. Last but not least, the economic, environmental, regulatory, innovation & entrepreneurship, science and societal benefits that euPOLIS is serving are highlithed.

This document is organized in 4 chapters and a detailed annex. The first section gives and introduction about the scope of this document, while the second one provides the necessary definitions and the methodological scheme. The third chapter is devoted on the overall business plan and the exploitation strategy, that started being formulated within the context of Task 10.1. Lastly, the fourth chapter concludes the results of this task and lays out the future plans.

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List of Acronyms / Abbreviations

Table 1. Acronyms

Abbreviation	Explanation
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
ORTM	Optimizing routes-to-market
SWOT	Strengths, weakness, opportunities and threats
WP	Work Package

Glossary of Terms

Table 2. Glossary of Terms

Term	Explanation
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)
Stakeholder	A stakeholder is an individual, group of persons or organisation that can affect or is affected by the decisions of another organisation. This definition also includes interest groups related to the organisation. A stakeholder's relationship with the focal organisation is generally determined by three main attributes: the power to influence the organisation; a legitimate relationship with the organisation; and an urgent claim on the organisation. (EuroFound, 6 August 2019)
Business Plan	A business plan is a formal written document containing the goals of a business, the methods for attaining those goals, and the time-frame for the achievement of the goals. It also describes the nature of the business, background information on the organization, the organization's financial projections, and the strategies it intends to implement to achieve the stated targets. In its entirety, this document serves as a road-map (a plan) that provides direction to the business. (Horizon Europe Glossary)

1   Introduction

European cities face major social challenges due to global geopolitical, economical, climate and other changes; this puts urban areas under a lot of stress to provide robust environments that support Public Health (PH) and Wellbeing (WB). The conventional approach to urban and revitalization planning is based mostly on profit criteria with routine methodologies, often lacking advanced integrated methods and concepts with emphasis on PH, WB, cultural, economic, and societal aspects. Hence, the needs of local communities are not recognized, or neglected and cities end up with costly investments that are not embraced by local communities and therefore lack sustainability. To address these challenges, euPOLIS NBS Urban Planning methodologies enriched with cultural and societal aspects offers the synergy of people-centered approach with significant environmental and economic benefits of Nature Nased Solutions.

euPOLIS aims to replace the traditional perception in which traditional engineering systems are built to protect the environment at significant costs. It aims

(a) to deploy NBS systems to simultaneously enhance Public Health (PH) and Well-Being (WB), and create resilient urban ecosystems at lower Life-Cycle Costs;

(b) propose a structured approach to activate the hidden possibilities 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;

(c) regenerate and rehabilitate urban ecosystems, while in parallel addressing key challenges such as low environmental quality, fragmentation and low biodiversity in public spaces, water-stressed resources, undervalued use of space in deprived areas and therefore we improve urban livability;

(d) improve urban resilience (operational, social and economic) through interventions designed using a set of proper urban planning matrices, which catalyse stakeholder participation, with a special attention to gender, age and disability perspectives within the process;

(e) create inclusive and accessible urban spaces by systematically implementing gender mainstreaming strategies and novel participatory tools into all phases and processes of project development to ensure that the needs of diverse groups are considered. We aim to stimulate active communities' participation throughout the process;

(f) to improve citizens' quality of life providing them with pleasant socializing open areas that stimulate social exchange and inclusivity; and

(g) monitor and validate the impact of all interventions to PH and WB of citizens.

euPOLIS solutions will be demonstrated in 4 European cities: Belgrade, Lodz, Piraeus and Gladsaxe. Four follower cities (Bogota, Palermo, Limassol and Trebinje) have been also included in order to replicate and demonstrate the advantages of the euPOLIS innovations via mentoring and coaching.

This deliverable outlines the range of those exploitation actions that took place, but also the ones that are scheduled within this project in order to capitalize the knowledge developed and the utilized technological advancements, as well as for bringing the value generated to both market and society. These activities are a great chance to **connect the SMEs priorities with the priorities of the cities**, create **new business opportunities**, discover new **innovations** and **interact with the market**. In particular, this deliverable describes the first version of the exploitation strategy as based on the project activities and products according to the boosting recommendations suggested in the Plan for the Exploitation and Dissemination of Results in Horizon 2020. The exploitation is based on an

innovative scheme that will be reviewed in three versions of this document during the project so that it incorporates the latest understanding of the project achievements that could be further exploited. Expolitation needs interactions with the end users and potential customers that currently, due to the COVID restrictions, take place in remote/digital form. Logically during this period, interest and demand has dropped significantly and remain uncertain. This period effort, guided us to a unique opportunity to holistically reevaluate the exploitation actions we defined the need to reevaluate where euPOLIS can play as solution, how we can win, and how these and customer behaviors may change. Those activities include: Operational resources (e.g., remote collaboration tools), expanded coordination and personalized support for partners and customers, thinking as key enabler the data sharing.

1.1   Relationship with other work packages

It should benoted that all work packages are related with WP10 and D10.1, creating a comparative advantage over other urban development methods in terms of scientific and technological excellence. The following list breafly illustrates the connection between WP10 and the rest WPs.

- **WP3** Initiation of Goals Driven Planning Matrix.
- **WP4** measuring the NBS' health, WB, social, economic and behavioral impacts.
- **WP5** filling the existing technology gaps in using NBS.
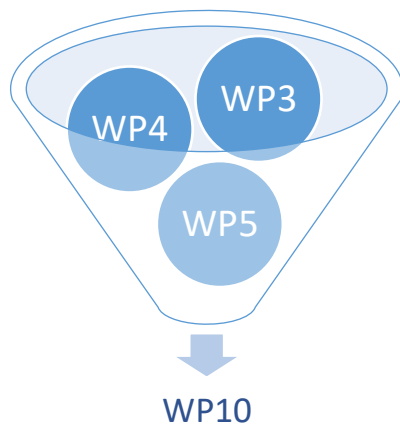
Figure 1: Connection with other work packages (1)

• **WP2** serves as a stakeholders' engagement plan and receptor of several workshops which all of them are crucial in order the results of the euPOLIS to be exploited after the project lifetime.

• **WP8** develops a solid evidence base demonstration that BG/NBS are superior to current the 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 increase the acceptance rate of proposed implementations.

- **WP9** creates and enhances the visibility of the project and its most important outputs to pave the way for wide-spread acceptance and implementation of project results, while fully respecting security and confidentiality matters with regard to sensitive project outcomes, is a parallel WP effort to WP10. The Pre-normative and pre-standardisation activities - Contribution to European regulations and research serves the standardisation and

Figure 2: Connection with other work packages (2)

interoperability of the euPOLIS solution and methodology and the Clustering Activities servres the visibility.

2 Exploitation Strategy

2.1 Definition

Exploitation is defined as the utilization of results in developing, creating and marketing a product or/and process, or/and in creating and providing a service, or/and in standardization activities (European Commision).

With D10.1 and all related key performance indicators (KPIs) that have been set in the project proposal alongside with the WP9 "Communication, Dissemination and Standardisation Activities", the exploitation strategic plan and exploitation activities of the euPOLIS aim to pave the way towards a wide adoption of the project findings, thus maximising the euPOLIS impact. Project partners can exploit results themselves, or/and facilitate exploitation by others (e.g. through making results available under open licenses).

The main targets of D10.1 are to:

- Understand the project findings and the ways these can be used; identify the exploitable results and their stakeholders.
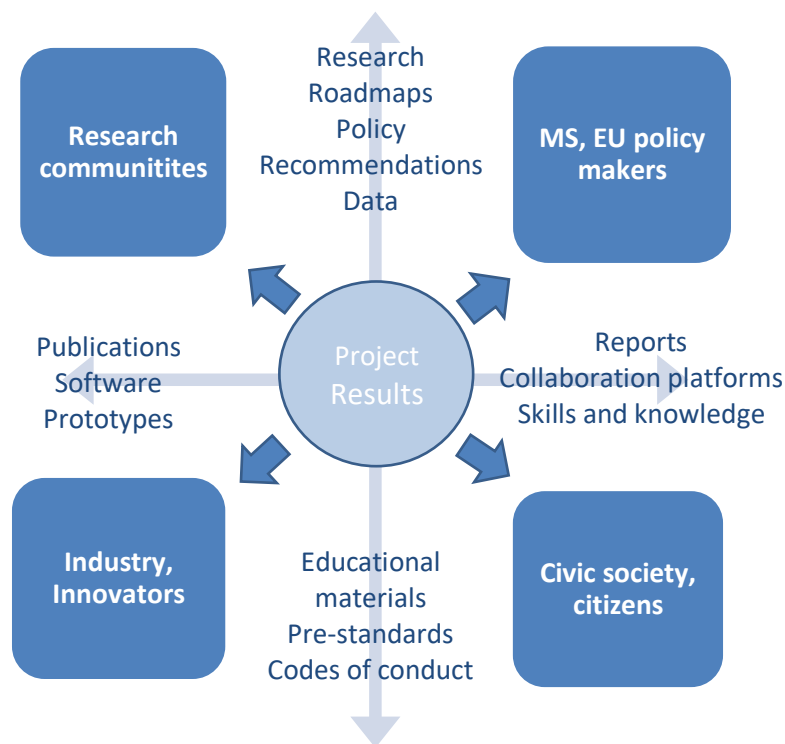- Showcase the value and impact of the R&I activities for addressing societal challenges.

Figure 3: Dissemination and Exploitation Activities in Horizon 2020, European Commission

There is also a plan for using the EU tools for exploitation according to the dissemination and exploitation obligations and opportunities beyond the end of the grant duration. Guidance on how to make full use of the results of your project (see Annex A.4)

2.2 Methodology

The Exploitation Methodology is recognized by the euPOLIS consortium as the key driver for any future commercial success. The commercial exploitation plan is always based on a study that shall deal with the Background and Foreground Rights, the Patents, trademarks and IPR issues. This will be in the base of the future euPOLIS' products, taking account of the EU policies, including those to foster the transfer of technology to SMEs, and promoting the use of generic, non-proprietary technologies, as well as the overall European security framework. In order to design a successful Exploitation strategy, the exploitation document will be developed on the basis of the Business Model Generation, that was proposed by Osterwalder and Pigneur (2010).

The commercial exploitation methodology is defined as an "agile strategic planning and execution method" that shall drive organizational agility by aligning effort and resources, bringing value to activity and producing strategic and operational results. The euPOLIS Consortium by adapting the Agile strategic direction is "sending" a response to changing environmental conditions, with the aim of maintaining competitiveness, increasing market share and meeting customer needs and requirements. The euPOLIS agile process (in the agile process, the euPOLIS team should be able to deliver a detailed state-of-the-art on the NBS scaling-up and related good practices that should affect socio-economic aspects, e.g., job creation, effects on GDP) is one that is able to continuously maximize its strengths and expand its options to provide the appropriate service at the right time in a "scalable way" that meets the customers' requirements. euPOLIS needs to ensure both short-term impact and permanent legacy, as (a) a "turnkey" solution, (b) a scalable – partial, but digital solution (since digitalization brings economy and eco-friendly result), and (c) a scalable solution that can break euPOLIS solution down into monthlong or yearlong sprints. Sprints can be an ideal way to incorporate euPOLIS vision, improvisation, imagination, and experimentation.

This could have been an exciting chance to follow the agile approach and to connect with others, create new business opportunities, discover new innovations disrupting industries across the globe and interact in person with the community. But in the COVID-19 era all actions are transfored to remote/digital. This situation forced the euPOLIS group, to define an "Optimizing routes-to-market" (ORTM) method that will be further evaluated in order to accelerate the exploitation plan. During this effort, the plan is to discuss how companies can extend their support to targeted customers and partners, and how companies can optimize the whole ORTM assessment approach to position themselves for the new reality following the COVID-19 recession. A major step will include how the companies involved will re-assess and enhance their euPOLIS ORTM and use a data-driven method to determine the right combination of direct and indirect sales channels. The new strategy and forecasting approaches involve a segmented evaluation of the market and customer sensitivity and opportunity, churn patterns and risks, and what-if scenario-based plans. With this thoughtful analysis of past performance, current dynamics on European Green Deal into citizens' lives and living spaces and strategic potential, it is necessary to find the right balance to optimize the euPOLIS efficiency and effectiveness in the new landscape that might also give new serviceable needs and opportunities that may shift product and offering decisions, support mechanisms, focus areas and buying centers. Thoughts on :

    (a) widespread participation of citizens, (e.g., new and/or existing associations/groupings of citizens' observers) in the monitoring, observation, and protection of the urban environment, complementary to the euPOLIS initial thoughts;

    (b) availability of qualitative and quantitative in-situ data, contributing to the in-situ component of existing observation systems and

(c) broader use of data and information collected by citizens in policy and research, acknowledged as valuable information complementary to authoritative observations.

euPOLIS shall contribute to the New European Bauhaus initiative by supporting the green and digital transitions in communities' living environments through merging sustainability, inclusiveness and quality of experience.
euPOLIS shall also: (a) emphasize on its ritualistic nature, (b) emphasize on its scalable nature, and (c) introduce constraints, a "mission impossible".

A comprehensive plan will be developed to analyse the cost/benefit of continuing the development and seeking ways to reach the market. The plan will include tools for auditing and analysis of the market potential of the project results (SWOT, PEST and Five-Force analysis), an analysis of the required research activities and a related budget, a clear time-plan and the contribution required by each partner and IPR management.

2.2.1 Intellectual property rights strategy

The main step to be taken at the beginning of an Exploitation Strategy is to protect the Intellectual Property (IP). IP includes intangible creations of the human intellect and the connection with the Exploitation strategy may be interpreted in many ways. To better understand how the exploitation strategy and the IP are interconnected and how organ isations are affected by an IP strategy[1], we try in detail to explain as follows. We need to underline that Intellectual Property Rights (IPRs) are business assets and may be categorised[2] as illustrated on Figure 4 below.

Trademarks	Patents	Design
Signals the origin of products to consumers	Rights granted for inventions, that are either products or a processes offerring new technical solutions	Protects the external appearance of the product

Utility mode	Copyrights	Trade secrets
Rights for technical inventions for a shorterperiod than patents	Are relative to artwork and audiovisual creations (i.e. books, music, paintings) aswell as scientific works	Valuable information not tobe publicly disclosed

Figure 4: IPR categories
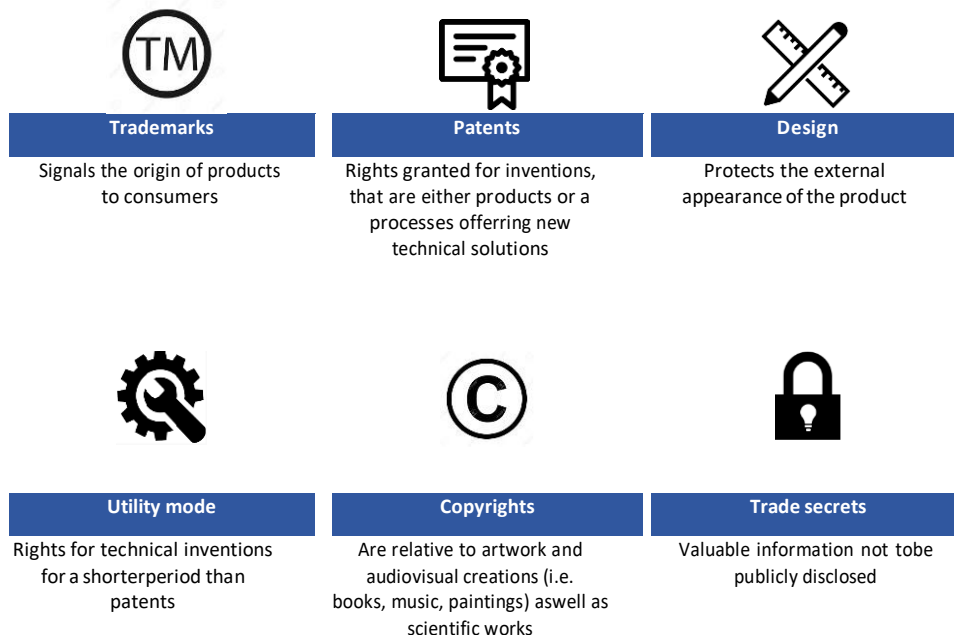
In the first month of the project implementation a google sheet was prepared so as to recheck the background IP that was declared by each partner in the GA. This file was examined also during a partners' workshop (see section A.2. of ANNEX). The above mentioned IPRs are the core ones are

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[1] http://www.iphandbook.org/handbook/ch05/p01/
[2] https://www.wipo.int/portal/en/index.html

expected to be further for the euPOLIS IPR and proper application form and a statement explaining euPOLIS unique characteristics. It is commonly considered that IP rights are simply the means to protect innovation for the innovator's benefit. In our view the IP rights give a balance between what is to be kept between public and private. Following IP rights identification and their integration into strategic management, the IP strategy requirements for making the best use of them as resources need to be further explored.

2.3   Clustering Activities

Collaboration with sister and other projects provide an excellent opportunity for exhange of knowledge in multiple fields. The euPOLIS involved partners can understand and evaluate status of achievements in similar, or parallel scientific and technical topics, that possible can be exploited from euPOLIS. H2020 Clustering activities under the umbrella of EU support, provide all the necessary communication bridges. This strategy will fill up the gap that possible exists in the scientific, or industrial sector, presenting the outcomes and tools that euPOLIS will have achieved in NBS market place.

The clustering activities and meetings will create a place for ideas exchange and collaborations for common aims and objectives. These achievements, at the end of the project period, may be forwarded and provided through our exploitation project strategy to SMEs and NBS related firms for further end products design and developments.

This deliverable version and forthcoming updates will monitor the clustering activities of euPOLIS and "*select*" the interesting outcomes that could fit into the exploitation strategy. In parallel, attractive ideas and consortium clustering achievements will be evaluated through the below basic questions for further exploitation

- What benefits can the business generate?

- What benefit can and what competences is the business prepared to bring in NBS field?

- What business can it generate, exploiting the results gained from the project for the benefit of the European NBS field?

3   Business Plan and Overall Strategy

The development of a complete and consolidated euPOLIS' business plan is executed in the framework of WP10 and takes place in three distinct steps as identified below:

3.1   Feasibility Study guidelines

This is the first step towards the definition of the euPOLIS business plan framework with the aim of finding out the workability and profitability of the business case. Each demonstration site team contribute to the projected estimations of the business opportunity to identify the actual potentials towards euPOLIS commercialization. The feasibility study is based on relevant to green/blue growth, climate change and wellbeing aspects, including the description of the outcomes to be commercialized, the market identification and analysis, the exit strategies, as well as the personnel and organizational requirements. Provided that this first step proves the actual potential for the commercialization of the project's outcomes, the consortium will proceed to the next step. euPOLIS team experts analyse in depth the practical reasons for the numerous urban living problems e.g. NBS and greenish species selection and monitoring vs air quality sensor indification and air quality data selection. The value of using multiple technological assets used, gives a great benefit. Planning shortcomings have been identified in single and integrated forms and mitigation measures are introduced in a form of innovative planning methodologies and Space technologies (EO and telecommunications) applied. With this approach new avenues for the practical, wider improvements of innovation capacity are created.

The euPOLIS team systematically works to integrate the knowledge from Earth Observation (EO), Internet of Things (IoT), engineering, health, physical, social and biological sciences with urban planning and ICT to strengthen the competitiveness and growth of companies, both inside the consortium and in global networks. This will be achieved through the development of new EO and IoT integrated methods for monitoring the implementation of NBS urban planning and tools to support it as well as novel technologies to be deployed as part of it, meeting the needs of mainly European and then at second level global markets attempting to keep up with ubiquitous urbanization trends within a context of climatic, social and economic pressures and uncertainties. Using the agile approach, the planning includes several steps to achieve market success. The consortium defines the preliminary technical solutions in an agile approach, including a justified initial selection of technologies each of the considred demonstration sites (i.e., in the front runner cities), along with the principle EO and IoT monitoring and evaluation evidence for their technical feasibility. A short description of these preliminary technical solutions is provided below:

1. The euPOLIS "green neighborhood" consists of infrastructure, such as rainwater recycling, the protection and use of natural resources and the application of green technology and green energy production systems. The pillar of a "green neighbourhood" is to design an urban space which is ultimately carbon –neutral meaning that either the carbon dioxide emissions are balanced with the carbon removal of the same quantity, or that the carbon emissions are eliminated altogether.
2. Practices which need to be performed to requalify the urban areas, in order to make them green, include: small municipal gardens in the pedestrian areas, green roofs, vertical gardens, reuse of water to reduce carbon footprint.
3. There are a number of green spaces and corridors in urban areas. If appropriately designed, green corridors can improve urban ventilation, allowing for cooler air from outside to penetrate into the more densely built areas, and reducing thus the urban heat island effect. Urban green areas can also have positive effects for human health and climate change

adaptation. The capacity of vegetation to retain water is an important flood prevention feature that can reduce peak discharges.

4. For optimizing plant irrigation, we plan to use rainwater recycling or recycling "clean" water from the restaurants/shops.
5. Energy production will be optimised with proper installation of the solar panels, so as not to be visible from the pedestrian areas and coastline, but also to have an optimum line of sight with respect to the sun angle coverage.

In the case of Piraeus, we also face the Blue Blue Green populating near shore underwater environment.

The approach can include three phases of actions:

➢ Phase I - Status and Project & Requirements based on the following: (1) Critical analysis of present state (i.e., baseline) for introduction of Blue Green Solution (BGS) interventions; (2) Citizens as city owners - Critical analysis of present state of issues related to awareness of the importance of their involvement in the creation of "Their Urban Environment"; (3) Detailed analysis of the project, with regard to series of applicability indicators; (4) Introduction of an innovative master plan design: pilot project to establish required functions and supporting programs; (5) Inclusion of wider city stakeholders / population - Knowledge generation – processing of stakeholders' inputs – definition of the pathways to meet citizen friendly and CC resilience targets;

➢ Phase II – Introduction of the euPOLIS solution performance by using the following actions monitored and evaluated with Space Solutions (EO and telecommunication tools): (1) Identification of potential interventions to the existing running projects (to be developed for the euPOLIS TEAM project Goal); (2) Definition of NB/BGS/Space Technologies for particular project areas; (3) euPOLIS team applies NBS Matrix of functional Interactions between urban components; (4) euPOLIS team applies Resilience to weather extremes matrix; (5) Identification of potential savings, Capital and operational cost interactions Matrix; (6) euPOLIS team introduces innovative planning criteria: Blend in matrix, as well as, (7) euPOLIS team applies Business activation module; (8) Modelling of alternative NBS/Space Technologies and completion of concept solution scenarios based on following strategic parameters: (a) Indoor and outdoor Environment Quality to be lifted to next quality level; (b) Bring nature to People; (c) Project Metabolism Analysis; (d) Optimized project efficiency level.

➢ Phase III – Implementation of NBS under euPOLIS solution, involving: (1) The previous phases' results to be discussed with stakeholders, optimal solutions selected and converted into the final proposal implementation; (2) Definition of preliminary design brief & concept solutions; (3) Identification of barriers to meet agreed targets as well as development of proper mitigation measures; (4) Development of the Detailed Design Brief.

3.2 Business Modelling

This will be based on the utilization of the Business Model Canvas-BMC approach. The business modelling will also ensure proper positioning of the outcomes in the market through the elaboration of an effective business cycle involving all project partners and stakeholders. First Outline of Economic/Non-economic Viability Analysis demonstrating the potential sustainability, including an initial version of a business model canvas per targeted service (http://www.businessmodelgeneration.com/canvas/bmc), that will be enriched during the euPOLIS team project implementation:

Table 3: euPOLIS team first Economic/Non-economic Viability Analysis

Key Partners	Key Activities	Value Propositions	Customer Relationships	Customer Segments
Satellite downstream services AI & Sensors integrators App & software developers Construction sector	Data-driven assesment of urban design Re-thinking for green urban landscape -------------------- **Key Resources** Landscape architects Engineers Software Developers Datra Analysts	Enhanced citizen experience Green Cities/Buildings Public health improvement Sustainable energy sources	Motivation to act Tangible results Personal interaction	Regions and Municipalities Public Services/Corporation Buildings Citizens Buildings

Cost Structure	Revenue Streams
IT & Infrasture installation Software System update and maintenance	Energy cost savings Alignment with EU regulations Public healthcare cost savings All-year tourism

The motivation of our group is to engage in the activity information on the envisaged future euPOLIS team service provider. In this respect, information on the capabilities of the consortium regarding system and service development, service provision or existing operational services that will be presented, as well as the vision regarding position and role in the operational stage.

Preliminary roadmap towards implementation of operational services, including the envisaged project timeline of the feasibility study needed to the operational service roll-out, the expected major technical and commercial achievements at the various stages, that foreseen partnership agreements amongst consortium members, as well as access to capital for further required investments.

3.3   Business Plan

Following the above two steps, the complete business plan of euPOLIS shall define the way that the project outcomes will be brought to the market including the steps needed during and after the project end. The business plan shall include funding opportunities, including private funds, funding

through other national and/or regional R&I programmes, etc. A good opportunity is deemed to be the NextGenerationEU[3] recovery plan. It is an "opportunity" to emerge stronger from the pandemic, transform our economies, create opportunities and jobs for the Europe where we want to live. The aforementioned recovery plan is a temporary instrument designed to boost the recovery of the post-COVID-19 Europe and will be the largest stimulus package ever financed in Europe (a total of €2.018 trillion in current prices). It is envisioned that the Europe in the post COVID era will be greener, more digital and more resilient.

Also, "fair climate and digital transitions", will be funded and implemented using the Just Transition Fund and the Digital Europe Programme which are funding tools for fighting climate change, with a percentage of 30% of the EU funds, which seems the highest share ever of the European budget which includes also as iniatives the biodiversity protection and gender equality. This is crucial to be used as funding when implementing NBS to support vulnerable communities and regions to cope with transformative change in old-industrialised, low-income, outermost or disaster hit areas. NBS can also contribute to addressing inequities and well-being in communities and regions who need it most, especially in terms of the post-COVID19 recovery.

Also, national funds can be considred (e.g. Greek Green Fund [4]) and of course Horizon Europe opportunities (e.g., HORIZON-CL6-2021-BIODIV-01-05: The economics of nature-based solutions: cost benefit analysis, market development and funding, HORIZON-CL6-2021-BIODIV-01-06: Nature-based solutions, prevention and reduction of risks and the insurance sector, HORIZON-CL6-2022-BIODIV-01-03: Network for nature: multi-stakeholder dialogue platform to promote nature-based solutions, HORIZON-CL6-2022-ZEROPOLLUTION-01-03: EU-China international cooperation on nature-based solutions for nutrient management in agriculture, HORIZON-CL6-2022-COMMUNITIES-01-05: Assessing the socio-politics of nature based solutions for more inclusive and resilient communities).

The euPOLIS team wishes to establish a dialogue between the cities implementing NBS (e.g., through twinning, peer exchanges, etc.) so as to encourage NBS knowledge sharing, experience exchange and access to best practices in the Member States, and to establish links with other networking initiatives such as ICLEI or the Covenant of Mayors.

The main focus of the business plan will be to maximize the impact of the project outcomes that follow: (a) Propose means to facilitate an increase of the market-readiness of NBS applications, innovative eco-system services and new urban planning methodologies especially in terms of technological validation outside the laboratory; (b) Identify mechanisms to lower the market entry barriers of the developed euPOLIS' outputs, thus potentially contributing in increasing industrial and commercial investment in Europe in the specific sector; (c) Positioning the project outputs as a means of contributing to the growth of competitive small and mid-scale companies in Europe.

During a series of bilateral meetings between euPOLIS partners a list of potentional customers was created, which is illustrated in the following table 5. The list covers both public and private sectors identifying opportunities in several financial sectors like tourism and real estate.

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[3] https://ec.europa.eu/info/strategy/recovery-plan-europe_en
[4] https://prasinotameio.gr

Table 4: List of potential customers

Other neighborhood,- same municipality	Other municipalities, starting from twinning - developing between themselves closer and closer ties of friendship
Real Estate investor/banking eg. Elliniko complex, Pirkal Development **Costa Navarino (well-being resort)** **Insurance (health) - coaching** **Insurance for Real Estate**	**Tourist investor-operator eg. Leptos villages, Aldemar hotel complex** **Elder People Facilities** **Smart Green Building (e.g., type Bosco Vericale)**
Governmental Hospital Complex	**Private Hospital Complex**

3.4   Challenges and Competitors

The road to realization passes through a number of obstacles that are worth mentioning. Moreover, awareness of potential issues from the design project phase helps to mitigate risk regarding the effective application of the proposed solution. One of the main concerns has to do with the customers' budget limitations. For instance, it is questionable whether the municipalities or regions, which are among the main customers, have the necessary financial resources to aford the proposed solutions/developments. The same applies to private entities, e.g., elderly care homes, private hospital complexes, etc. A thorough cost-analysis is required in order to determine margin of cost reduction for the offered novel development. An applicable solution is the one that is also cost-effective for the target customer. Cost effectiveness could also be a solid motivation for adoption for the targeted customers.

The agile approach can be part of the decision-making tool to optimize the urban landscape design. The justification for the investment on such a system, implies motivation to actually proceed to the variations in urban landscape in order to improve PH and WB. Although this is not directly linked to the implementation of the euPOLIS solution system itself, it is expected to impact its life-cycle application and the resulting business cases in the future. Apart from the financial reasons, the decision for public areas or building interventions is also political and thus dependent to the pre-determined priorities of the decision-makers. From concept to project commercial realization, a large number of third-parties, spanning across public services, councils and individual citizens, must come to an agreement, when it comes to significant changes in the public areas, but also in large buildings. For the former, a number of organizations and councils will be typically involved, while for the latter multiple building owners, must comply. In all cases, agreement conclusion is not guaranteed and thus further time and effort is required. To remedy the aforementioned issues, strong and impactful advertising of the project results through the role-model cities should be implemented. This way the reluctance regarding the expected revenues from this investment will be minimized and the decision for re-designing a city would be based on solid evidence and therefore facilitated. Moreover, campaigns to encourage a healthy way of living, including outdoor activities within the reach of city limits would help citizens to prioritize "green and blue growth" thinking, where euPOLIS actually applies. The directness and appeal of social media and content creators should be utilized towards

this mind-set change that would eventually lead to better awareness from the side of the citizens. For better and faster familiarization, a degree of personalized access of the individual to the system could also positively motivate citizens. An illustrated and interactive map, e.g. the routing of a citizent walk in the form of a mobile application, personalized journeys or walking map details, and human interactions following the green / blue growth (eg. Paper Recycling) in the midst of urban technological transformation, promotes the active participation and can promote a new style of living. For "pushing" the citizents involvement, financial motivation for clean-environment achievements, in the form of tax relief for example, could be implemented. This can be measurable, either as a person, or as the energy footprint of the building block, the neighborhood or the whole area. Is true that "walkable cities" can generate wealth and small local buisnesses can have bigger sales. Also, new jobs creation and enternepreship can have growth.

Among others a significant competitor of euPOLIS can be assumed the Ellinikon Project which is located in Athens, Greece.

The Elliniko Project[5] is situated at the 6,200,000 sqm[6] of Athens' former international airport site that started constructions to be transformed into a unique ecosystem comprising several distinct communities. At the southern edge of The Ellinikon site there will be over 3.5 km of coastline, upgraded and enhanced for luxury living and public enjoyment.
At the center of it all lies the 2,000,000 sqm The Ellinikon Park, just started being available to visitors, the largest coastal park in Europe and a true landmark of 21st-Century Greece. The Elliniko Experience Park offers a range of possibilities for people of all ages and interests. It's been designed to create a new green oasis for the Athenians, while being a model of sustainable living and recreation. At this stage of development, there is a social hub and centrepiece of the Park. Become part of a captivating experience with aquatic music choreographies.

Brainstorming on how euPOLIS outweighs Ellinikon project, based on public commercial information.
- Compared to euPOLIS does not include the social aspect of the interventions neither any participatory process.
- Compared to euPOLIS does not include any form of pervasive technologies in terms of location- based apps and technologies meant to improve public health and well- being.
- Heat island is not being addressed effectively and all horizontal and vertical construction elements are exposed to the sun.
- The public health and wellbeing aspects are not included in the designing process.
- The concept of urban metabolism is not taken into consideration

The Table 6 is a preliminary SWOT analysis which examines both internal and external factors concerning the business aspect of euPOLIS project. The SWOT analysis is helping the examination of different aspects of potential euPOLIS team business, and organizing discoveries into a simple 2X2 grid template. Each quadrant of the grid corresponds to one letter of the acronym SWOT. The acronym stands for **strengths**, **weaknesses**, **opportunities**, and **threats**. Since the information is presented in an easy-to-read grid, SWOT analyses is a quick and straightforward assessment. This is a prelimary phase but helps in the euPOLIS strategic planning. The strategic planning involves new initiatives and the SWOT helps to know the current condition and the forward-looking decisions. Will be updated on a scheduled basis**,** most probably on a semi-annual basis.

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[5] https://theellinikon.com.gr/en/the-destination/
[6] https://www.fosterandpartners.com/projects/ellinikon-masterplan/

Table 5: Prelimary SWOT analysis

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 provision of eco-system services in cities. • High tech solutions with easy implementation within existing systems and facilities. • Capacity to harmonise with other technologies and existing platforms. • 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 (particularly in the South and South / East Europe). • Need special training if the NBS operators. • Speed of technical evolution in the domain which blocks some end-users fearing communities in euPOLIS multidisciplinary approach. • Difficulties among different communities in euPOLIS multidisciplinary approach. • 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 and CC. • Successful implementation may be applicable to other domains, e.g. transport infrastructure. • Real necessity of upgrading existing services to meet the EC standards, as well as the worldwide NBS trends. • May open up markets also in US, Canada, the rest of Asian countries (through international partnership as well)	• International (mainly US-based) competitors are already strong in the industrial NBS market. • Big players (worldwide) are (generally) against initiatives driven by smaller players (SMEs), in particular Europe. • Heterogeneous legislation/policies per country. • Significant differences in country development, size and number of cities. • Competition for low cost NBS management tools.

4   Conclusions

This document is a working document, meaning that the overall strategy will be evaluated frequently in a 4-month basis according to specific success criteria. If needed, the strategy will be adapted to better suit the project's needs and the latest opportunities offered in the future.

5   Bibliography

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6   Annexes

A1. Bilateral Meetings to define existing products/solutions/workflows and colaborations

A2. Background IPR

A3. Questionnaires

A4. EU tools for exploitation

A1.   Bilateral Meetings to define existing products/solutions/workflows and colaborations.

Meeting No	Meeting	Collaboration with partners and parts of euPOLIS product/solution	Notes
1	RISA	RG, ENPL	Complete system analysis with the necessary software, special software adaptation, mathematical and statistical methods development including the development of the tree analysis tools for business continuity management tailored to its client needs & thoughts for the digitalization/ICT development of the GDPM – planning system with supporting planning matrixes (Matrix related to PH&WB)
2	RG	RISA, ENPL	Standardization of the development of the tree analysis tools for business continuity management embedded in the complete system analysis with the necessary software, special software adaptation, mathematical and statistical methods development & thoughts for the digitalization/ICT development of the GDPM – planning system with supporting planning matrixes (Matrix related to PH&WB)

3	AMPHI	Biopolus, VFI	Testing a) water "cleaning" / gray water, b) rainwater from roof redirected to another system – Standardization of the green bus stop and bio water
4	BIOASSIST	SENTIO	Integrated platform that enables services for personal health monitoring/Quantified Self, Remote Health Monitoring and Chronic Disease Management. Solution upgrade with GPS tracking and location-based services, focusing on users on the move. In addition, emotional status monitoring will take place to assess the users' well-being - B2B/B2G business model
5	PLEGMA	RISA	PLEGMA Gateway (collect data, perform compression, pre-processing, enhance real-time observations with local calculations & thresholds) NBS- sensors – smart buildings (Bosco Verticale) – green smart city ICT enable/ turnkey solution
6	VFI	Biopolus, GSH, Mikser	Urban vertical food production or innovative building typologies/ visualization with EO tools and social platform development

7	Mikser	ICL, ISS, NTUA, ENPL	ICT Social Platform development : solutions enhancing social inclusion, improving citizens' involvement and for communication and interaction between local community, urban and environmental professionals, artists and activist, local authorities and media through co-creation with ICT Partners and by joining knowledge and experience towards the development of comprehensible digital solutions for personal devices (app) & improvements combining meeting 1+2 results
8	ENPL	RG	GDPM – planning system with supporting planning matrixes & development of Matrix related to PH&WB in digital
9	Byspektrum	BIOPOLUS	Water evaporation and transfer / manual mechanical system to digital. Interest on circular urban water treatment
10	Sentio	BIOASSIST	First emotion sensor and mental health advisor that provides 24/7 continuous objective monitoring and real-time coaching to help people improve their emotional well-being. Feel consists of 3 parts: The Feel Emotion Sensor, Proprietary Algorithms, and the Feel Mobile Application. Measure emotional status and mental wellbeing. An API will be developed for the efficient integration of the Feel data and outputs with the euPOLIS Data Management System & include Remote Health Monitoring and Chronic Disease Management

11	GSH	All	Include EO tools (enhance Copernicus Services) and state of the art visualization of the NBS result.
12	BIOPOLUS	VFI	Circular urban water treatment and management. Space for community functions and urban food production, can all be integrated and housed in the Biopolus BioMakery, creating a true hub for nature-based urban circularity. The MNR technology of the BioMakery produces intermediary products from wastewater and organic waste.

A2.   Background IPR

	Name	City	Product	page in GA
	COMPANIES			
1	AMPHI		1) Biowater Climapond, 2) Green bus stop, 3) Water Box	175, 225
2	GEOSYSTEMS	Piraeus, Limassol	5DMUPLIS	-
3	RISA		1) COODEXX Integration Platform, 2) COODEXX-SOS, 3) COODEXX-FT	243
4	RG			
5	EnPlus		GDPM	174, 252
6	BioAssist		1) "The "BioAssist" platform (previously marketed as "HeartAround")and its components, including but not limited to: • BioAssist app for Android • BioAssist app for iOS • BioAssist web app • BioAssist Helpdesk app • BioAssist Cloud back-end (web services) 2) Framework for communication with wireless biosensors and wearables 3) Videoconferencing tool based on the WebRTC protocol 4) BioAssist emotion analysis service 5) BioAssist serious games service 6) BioAssist infotainment service	174, 254

7	Sentio Labs		Feel technology 1) Feel emotion sensor, 2) Emotion recognition and mental health assessment machine learning modules, 3) Mobile app for the collection and transmission of the user's biosignals, 4) Sufficient number of wristbands for trials and tests, along with all the required components --- 1) The Feel emotion sensor 2) Mobile app for the collection and transmission of the user's biosignals 3) "number of wristbands for trials and tests, along with all the required components (e.g. different sensors, electrodes, electronics, packaging, etc.)." 4) Emotion recognition and mental health assessment machine learning modules	174, 259
8	byspektrum	Gladsaxe	1) Modules to force evaporation based on NBS 2) Hydraulic system to harvest, circulate and store rainwater local in urban context	
9	Mikser	Belgrade	Mikser House	174
10	PLEGMA LABS			
	ACADEMIA			
1	Imperial		1) LES based UFM modelling system for multi-scale CFD, 2) Short -term, fine scale, rainfall and urban pluvial flood prediction/management/modelling system., 3) IMS	238
2	NTUA		UWOT	174
3	UNIWARSAW / ISS			
4	FCEBG	Belgrade	1) 3DNet, 2) MPiRe	223
5	UNIANDES	Bogota		
	INSTITUTES & NON PROFITS			
1	ERCE PAN (research institute)	Lodz	1) Tool DAPSET, 2) Know-how and patented solutions, 3) A sequential sedimentation-biofiltration system for rivers and reservoirs	228
2	vfi (institute)		1) For internal use: simulation definition based on graphic algorithm, for energy simulation, climate analysis and daylight calculations 2) Prototype VF750	230

3	BIOPOLUS (Institute is a privately owned non-profit research and development organization)		1) BioMakery, 2) Metabolic Network Reactor technology, 3) Metabolic mapping, 4) aero.green	240
4	CDP WW Europe (Carbon Disclosure Project, is a charity established in Berlin)		CDP platform	249
	CITIES			
1	GRAD BEOGRAD			
2	CITY OF LODZ			
3	City of PIRAEUS			
4	GLADSAXE			
5	City of PALERMO			
6	Demos Lemesou			
7	TREBINJE			
8	FENGXI NEW CITY			
9	BOGOTA			

A3.   Questionnaires

No. 1		Biopolus
1	Creation Date	12/04/2021
2	Name Surname	Ágnes Gyuró
3	Company Description	Biopolus
4	What are your company's products/solutions that are to be used in the euPOLIS project development.	Using advanced biological engineering, Biopolus has created a modular, high-tech living system for complex circular urban water treatment and management. The technology can also be used to recover valuable products - energy, nutrients, and minerals from organic waste. These solutions, along with additional available space for community functions and urban food production, can all be integrated and housed in the Biopolus BioMakery, creating a true hub for nature-based urban circularity.
5	Do you expect further development of those products/solutions? If yes please describe.	✓ yes • no description: Biopolus is seeking universities, research institutions, individuals, etc. to cooperate in a joint R&D or cross-licensing setup to adapt and integrate their own technologies into the BioMakery.
6	Do you plan to development new products/solutions during the euPOLIS project?	• yes ✓ no
7	Do you think that your product/solution can be combined with other product/solution of partners involved? If yes, please name.	✓ yes • no note: The MNR technology of the BioMakery produces intermediary products from wastewater and organic waste. These can be further processed through various production modules to produce valuable end products. Biopolus welcomes partners to adapt and integrate separate, independent technologies into the BioMakery.
8	Do you think that this combination can help you expand your customers list and make new sales?	✓ yes • no
9	How do you think investments of your company based on euPOLIS are likely to develop in the next twelve months? (of	• higher ✓ about equal • lower • no investements

	course this will depend on euPOLIS actual results)	
10	Do you have a specific customer list / group of customers, using your products/solutions, that are already informed for the development progress of new products/solutions during the euPOLIS project? (we plan to instruct partners to enter into such an action during the first meeting)	• yes ✓ no
11	Please name the group of customers (if any)	
12	Do you envigage new sales coming from your involvement in euPOLIS – group of customer's enlargement? (do you have first thoughts?) If yes please describe.	✓ yes • no describe: If there will be a high potential for scaling up the Belgrade demo case and we can define a successful route to market strategy, then hopefully more and more cities/municipalities will be interested in the BioMakery. It may become a best practice in sustainable urban development.

No. 2	RISA	
1	Creation Date	20/03/2021
2	Name Surname	Stephanos Camarinopoulos
3	Company Description	RISA offers its clients full service including complete system analysis with the necessary software, special software adaptation, mathematical and statistical methods development and supply and installation of the accompanying hardware and software.
4	What are your company's products/solutions that are to be used in the euPOLIS	Coodexx integration platform, Data managment system, Chatbot

	project development.	
5	Do you expect further development of those products/solutions? If yes please describe.	✔ yes • no description : advance the development of our DMS and Chatbot framework
6	Do you plan to development new products/solutions during the euPOLIS project?	• yes ✔ no
7	Do you think that your product/solution can be combined with other product/solution of partners involved? If yes, please name.	✔ yes • no name : We might collaborate with RG on developing event tree analysis tools for business continuity management tailored to its client needs.
8	Do you think that this combination can help you expand your customers list and make new sales?	✔ yes • no
9	How do you think investments of your company based on euPOLIS are likely to develop in the next twelve months? (of course this will depend on euPOLIS actual results)	• higher ✔ about equal • lower • no investements
10	Do you have a specific customer list / group of customers, using your products/solutions, that are already informed for the	• yes ✔ no

	development progress of new products/solutions during the euPOLIS project? (we plan to instruct partners to enter into such an action during the first meeting)	
11	Please name the group of customers (if any)	
12	Do you envigage new sales coming from your involvement in euPOLIS – group of customer's enlargement? (do you have first thoughts?) If yes please describe.	• yes ✓ no describe: Not yet

No. 3	Resilience Guard GmbH	
1	Creation Date	01/04/2021
2	Name Surname	John Zeppos, Managing Director of RG
3	Company Description	Resilience Guard GmbH
4	What are your company's products/solutions that are to be used in the euPOLIS project development.	RG is not a technical partner in euPOLIS. RG will mainly provide guidance and support actions that are relevant to the stakeholders mapping, data management, GDPR issues, capacity building and pre-standardization activities. The RG services that are relevant to the euPOLIS project are: business continuity management, project management, organizational resilience and training, GDPR as well as standardization and planning.
5	Do you expect further development of those products/solutions?	✓ yes • no description : RG is looking at further expanding its services in certification and standardization.

	If yes please describe.	
6	Do you plan to development new products/solutions during the euPOLIS project?	✓ yes • no RG plans to expand towards R&D consultation, urban and personal resilience consultation, potentially including market research and identification of financing schemes.
7	Do you think that your product/solution can be combined with other product/solution of partners involved? If yes, please name.	✓ yes • no name : RG might collaborate with RISA on developing event tree analysis tools for business continuity management tailored to its client needs
8	Do you think that this combination can help you expand your customers list and make new sales?	✓ yes • no
9	How do you think investments of your company based on euPOLIS are likely to develop in the next twelve months? (of course this will depend on euPOLIS actual results)	• higher ✓ about equal • lower • no investments
10	Do you have a specific customer list / group of customers, using your products/solutions, that are already informed for the development progress of new products/solutions during the euPOLIS project? (we plan to instruct partners to enter into such an	• yes ✓ no

	action during the first meeting)	
11	Please name the group of customers (if any)	
12	Do you envigage new sales coming from your involvement in euPOLIS – group of customer's enlargement? (do you have first thoughts?) If yes please describe.	✓ yes • no describe: Companies already active or interested in R&D, standardization

No. 4	EnPlus	
1	Creation Date	24/03/2021
2	Name Surname	Ranko Bozovic
3	Company Description	EnPlus – sustainable environment consultant
4	What are your company's products/solutions that are to be used in the euPOLIS project development.	GDPM – planning system with supporting planning matrixes
5	Do you expect further development of those products/solutions? If yes please describe.	✓ yes • no description : each project ads value to the planning matrixes
6	Do you plan to development new products/solutions during the euPOLIS project?	✓ yes • no Matrix related tp PH&WB should be enhanced with euPOLIS results
7	Do you think that your product/solution can be combined with other product/solution of partners involved? If yes, please name.	✓ yes • no name : All partners products and/or expertize

8	Do you think that this combination can help you expand your customers list and make new sales?	✓ yes • no
9	How do you think investments of your company based on euPOLIS are likely to develop in the next twelve months? (of course this will depend on euPOLIS actual results)	• higher ✓ about equal • lower • no investements
10	Do you have a specific customer list / group of customers, using your products/solutions, that are already informed for the development progress of new products/solutions during the euPOLIS project? (we plan to instruct partners to enter into such an action during the first meeting)	• yes ✓ no
11	Please name the group of customers (if any)	
12	Do you envigage new sales coming from your involvement in euPOLIS – group of customer's enlargement? (do you have first thoughts?) If yes please describe.	✓ yes • no describe: Cities, private developers and large corporations

No. 5	PLEGMA LABS	
1	Creation Date	20/03/2021
2	Name Surname	Stelios Kalogridis
3	Company Description	PLEGMA LABS
4	What are your company's products/solutions that are to be used in the euPOLIS project development.	PLEGMA Gateway (collect data, perform compression, pre-processing, enhance real-time observations with local calculations & thresholds)
5	Do you expect further development of those products/solutions? If yes please describe.	✓ yes • no

		description: (i) Develop new APIs to communicate with sensors, other data loggers, monitoring devices and systems. (ii) Further customization of rules (thresholds etc.)
6	Do you plan to development new products/solutions during the euPOLIS project?	• yes ✓ no
7	Do you think that your product/solution can be combined with other product/solution of partners involved? If yes, please name.	✓ • no Yes data may be collected by already installed monitoring stations/devices/systems. We may collaborate with other technology providers of eupolis and offer a product as a turn-key solution for NBS or smart buildings. name :
8	Do you think that this combination can help you expand your customers list and make new sales?	✓ yes • no
9	How do you think investments of your company based on euPOLIS are likely to develop in the next twelve months? (of course this will depend on euPOLIS actual results)	• higher • about equal • lower ✓ no investements
10	Do you have a specific customer list / group of customers, using your products/solutions, that are already informed for the development progress of new products/solutions during the euPOLIS project? (we plan to	• yes ✓ no

	instruct partners to enter into such an action during the first meeting)	
11	Please name the group of customers (if any)	
12	Do you envigage new sales coming from your involvement in euPOLIS – group of customer's enlargement? (do you have first thoughts?) If yes please describe.	✓ yes • no describe: as in q7, we may scale up from smart building to smart city solutions, especially if we collaborate with other technology partners of eupolis and offer a turn key soolution for cities

No. 6		BioAssist
1	Creation Date	02/04/2021
2	Name Surname	Christos Panagopoulos
3	Company Description	BioAssist develops innovative commercial services and products in the fields of IoT, mHealth and assistive care
4	What are your company's products/solutions that are to be used in the euPOLIS project development.	BioAssist has developed an integrated platform that enables services for personal health monitoring/Quantified Self, Remote Health Monitoring and Chronic Disease Management. The system incorporates communication and social networking, as well as a Personal Health Record for its users, and includes both web and mobile apps for all involved parties (patients, relatives, doctors etc). The solution supports vital signs monitoring using off-the-shelf medical sensors and wearables and integration with popular 3rd parties, such as Withings, Huawei Health, Google Fit, Apple Health, etc.
5	Do you expect further development of those products/solutions? If yes please describe.	✓ yes • no Description: The system will be extended with GPS tracking and location-based services, focusing on users on the move. The solution will also be adapted to support features based on the pilot sites' requirements (e.g., devices, custom questionnaires, multimedia content) and integrated with the euPOLIS platform.
6	Do you plan to development new products/solutions during the euPOLIS project?	• yes ✓ no

7	Do you think that your product/solution can be combined with other product/solution of partners involved? If yes, please name.	✓ yes • no name: There is some complementarity between our solution and Sentio's product. Other potential combinations may become apparent as the project progresses.
8	Do you think that this combination can help you expand your customers list and make new sales?	✓ yes • no
9	How do you think investments of your company based on euPOLIS are likely to develop in the next twelve months? (of course this will depend on euPOLIS actual results)	✓ higher • about equal • lower • no investements
10	Do you have a specific customer list / group of customers, using your products/solutions, that are already informed for the development progress of new products/solutions during the euPOLIS project? (we plan to instruct partners to enter into such an action during the first meeting)	✓ yes • no
11	Please name the group of customers (if any)	We are currently offering our solution to a number of healthcare service providers, including private and public hospitals. Most of these partners and customers have been made aware of our activities within the project

12	Do you envigage new sales coming from your involvement in euPOLIS – group of customer's enlargement? (do you have first thoughts?) If yes please describe.	✓ yes • no describe: We believe that through euPOLIS we will be able to raise awareness of our product, create new value-added services targeting mainly the public sector and explore strategic synergies to pursue exploitation of joint results with a sustainable B2G business model.

No. 7	Sentio Labs	
1	Creation Date	30/03/2021
2	Name Surname	Elsa Katsorida
3	Company Description	Sentio Labs is the Greek branch of Sentio Solutions Inc., where the entirety of the company's research and development (R&D) activities are conducted. Sentio Solutions is a San Francisco based startup which develops artificial emotional intelligence that changes the way we monitor and manage mental health. Sentio's first technology product, Feel, is the world's first emotion sensor and mental health advisor that provides 24/7 continuous objective monitoring and real-time coaching to help people improve their emotional well-being. Sentio has received multiple awards including the "Insurance Shaper of the Year" award by EXECinsurtech and 2016 & 2017 "Transformative Technology company" recognition by Transtech.
4	What are your company's products/solutions that are to be used in the euPOLIS project development.	Sentio Labs will provide Feel, the world's first emotion sensor and mental health advisor that provides 24/7 continuous objective monitoring and real-time coaching to help people improve their emotional well-being. Feel consists of 3 parts: The Feel Emotion Sensor, Proprietary Algorithms, and the Feel Mobile Application. The Feel Emotion Sensor is a wristband that has integrated bio-sensors which monitor a variety of end user's physiological signals throughout the day, while in the background, proprietary algorithms analyze these signals to recognize the wearer's emotions. Sentio Labs has designed and produced an advanced biosensor (Galvanic Skin Response sensor) integrated in the only wristband that can continuously measure 2 additional bio-signals (Heart Rate Variability and Skin Temperature), along with additional signals (i.e. ambient temperature, ambient humidity). When Feel detects an emotion, the participant that wears the Feel Emotion Sensor is notified and can then log the detected emotion

5		along with a variety of details, such as the feelings that were experienced, the emotion intensity, the emotion trigger, her thoughts, physical sensations among others, within the Feel Mobile Application that is connected to the wristband. The participant can access any logged emotion journal any time. The Feel monitoring platform will be used in euPOLIS to collect, process and assess data related to the individuals' emotional status and mental wellbeing. An API will be developed for the efficient integration of the Feel data and outputs with the euPOLIS Data Management System.
5	Do you expect further development of those products/solutions? If yes please describe.	✓ yes • no description : To generate further real-world evidence, clinically validate our solutions, and promote innovation, we have partnered with prestigious medical institutions and universities across the US and Europe to conduct research studies. During the last six years, we have been exploring several behavioral health application areas that can benefit from our solutions to improve the current diagnosis and treatment methods. Therefore, data-driven diagnostic and disease management approaches for Attention deficit hyperactivity disorder (ADHD), generalized anxiety disorder (GAD), major depressive disorder (MDD), post traumatic stress disorder (PTSD), Suicidal Ideation (SI), and eating disorders are some examples of the areas that we are currently exploring. At the same time we seek to innovate further in the use of our technology in supporting mental health as a comorbidity to other chronic conditions, like cancer, respiratory conditions, heart disease, and diabetes.
6	Do you plan to development new products/solutions during the euPOLIS project?	✓ yes • no
7	Do you think that your product/solution can be combined with other product/solution of partners involved? If yes, please name.	✓ yes • no name : BioAssist
8	Do you think that this combination can help you expand your	✓ yes • no

	customers list and make new sales?	
9	How do you think investments of your company based on euPOLIS are likely to develop in the next twelve months? (of course this will depend on euPOLIS actual results)	• higher • about equal • lower ✓ no investments So far, no investments as a result of euPOLIS are expected.
10	Do you have a specific customer list / group of customers, using your products/solutions, that are already informed for the development progress of new products/solutions during the euPOLIS project? (we plan to instruct partners to enter into such an action during the first meeting)	• yes ✓ no
11	Please name the group of customers (if any)	
12	Do you envigage new sales coming from your involvement in euPOLIS – group of customer's enlargement? (do you have first thoughts?) If yes please describe.	✓ yes • no describe: We strongly believe that the euPOLIS project is a great opportunity to increase our company awareness within the EU ecosystem and, therefore, enlarge our group of customers by cooperating with cities to help them discover the current state of citizens happiness and well-being, but also to improve people's mental health.

No. 8	Vertical Farm Institute GmbH	
1	Creation Date	09.09.2020
2	Name Surname	Daniel Podmirseg
3	Company Description	vertical farm institute GmbH
4	What are your company's products/solutions that are to be used in the euPOLIS project development.	For the setup, the design development, especially specific function- and space programmes for urban vertical food production or innovative building typologies, vfi will participate to identify specific requirements for the cities.
5	Do you expect further development of those products/solutions? If yes please describe.	✓ yes • no description : euPOLIS' participation of vfi from municipality side should be used as trigger point for long term development
6	Do you plan to development new products/solutions during the euPOLIS project?	✓ yes • no
7	Do you think that your product/solution can be combined with other product/solution of partners involved? If yes, please name.	✓ yes • no name : Biopolus, geosystems, mikser
8	Do you think that this combination can help you expand your customers list and make new sales?	✓ yes • no
9	How do you think investments of your company based on euPOLIS are likely to develop in the next twelve months? (of course this will depend on euPOLIS actual results)	✓ higher • about equal • lower • no investements

10	Do you have a specific customer list / group of customers, using your products/solutions, that are already informed for the development progress of new products/solutions during the euPOLIS project? (we plan to instruct partners to enter into such an action during the first meeting)	✔ yes • no
11	Please name the group of customers (if any)	Municipalities, Universities, food traders, urban / architecture developers
12	Do you envigage new sales coming from your involvement in euPOLIS – group of customer's enlargement? (do you have first thoughts?) If yes please describe.	✔ yes • no describe: We're convinced that cooperations with front runner cities will lead to increase in interest and actions from more municipalities and developers by understanding positive externalities on several levels of urban vertical farming.

No. 9		Mikser Association (CSO)
1	Creation Date	20/03/2021
2	Name Surname	Maja Lalic
3	Company Description	Mikser Association (CSO)
4	What are your company's products/solutions that are to be used in the euPOLIS project development.	-Mikser House - Innovative model of Cultural/Social Community Hub for urban revitalization, enhancing social inclusion, improving citizens' involvement and for communication and interaction between local community, urban and environmental professionals, artists and activist, local authorities and media. -The set of solutions concerning citizens participation and co-creation in demo sites/case locations, based on previous experiences gained in number of projects on urban revitalization and social cohesion processes (Savamala, Urban Cooks); -Toolbox for gender responsive urban planning; participatory practices implemented through the social platform of Mikser

		Festival and its broad range of audiences (academic, scientific, general, local authorities, CSOs...).
5	Do you expect further development of those products/solutions? If yes please describe.	✓ yes • no description: We expect further development of our solutions through co-creation with ICT Partners and by joining knowledge and experience towards the development of comprehensible digital solutions for personal devices (app).
6	Do you plan to development new products/solutions during the euPOLIS project?	✓ yes • no
7	Do you think that your product/solution can be combined with other product/solution of partners involved? If yes, please name.	✓ yes • no name : ICL, ISS, NTUA, ENPL
8	Do you think that this combination can help you expand your customers list and make new sales?	✓ yes • no
9	How do you think investments of your company based on euPOLIS are likely to develop in the next twelve months? (of course this will depend on euPOLIS actual results)	✓ higher • about equal • lower • no investements
10	Do you have a specific customer list / group of customers, using your	✓ yes • no

	products/solutions, that are already informed for the development progress of new products/solutions during the euPOLIS project? (we plan to instruct partners to enter into such an action during the first meeting)	
11	Please name the group of customers (if any)	Cities, municipalities, developers, investors, researchers, international organizations (UN, EU, etc)
12	Do you envigage new sales coming from your involvement in euPOLIS – group of customer's enlargement? (do you have first thoughts?) If yes please describe.	✓ yes • no describe: By demonstrating the benefits of participatory approach to urban planning and other processes, we envisage higher demand by cities, municipalities, developers and investors for informed preparatory process and win-win urban solutions.

| No. 10	Amphi International ApS	
1	Creation Date	20/03/2021
2	Name Surname	Alix Eva Aliaga
3	Company Description	Amphi International ApS
4	What are your company's products/solutions that are to be used in the euPOLIS project development.	Biowater Climapond and Green Bus Stop
5	Do you expect further development of those products/solutions? If yes please describe.	✓ yes • no description: We aim to implement the solutions in different project sites and adapt it to the local conditions.

6	Do you plan to development new products/solutions during the euPOLIS project?	• yes ✓ no
7	Do you think that your product/solution can be combined with other product/solution of partners involved? If yes, please name.	✓ yes • no name: Vertical farming, Biopolus and maybe others?
8	Do you think that this combination can help you expand your customers list and make new sales?	✓ yes • no
9	How do you think investments of your company based on euPOLIS are likely to develop in the next twelve months? (of course this will depend on euPOLIS actual results)	• higher ✓ about equal • lower • no investements
10	Do you have a specific customer list / group of customers, using your products/solutions, that are already informed for the development progress of new products/solutions during the euPOLIS project? (we plan to instruct partners to enter into such an action during the first meeting)	☐ yes ☐ no We have a list of customers but this needs to be updated. These customers have not been informed about the project yet.
11	Please name the group of customers (if any)	
12	Do you envigage new sales coming from your involvement in euPOLIS – group of customer's enlargement? (do you have first thoughts?) If yes please describe.	✓ yes • no describe: If we manage to show the benefits of such NBS solutions related to PH and WB, we could target new clients such as hospitals.

No. 11		Byspektrum
1	Creation Date	17/01/2022
2	Name Surname	Morten Rask Madsen
3	Company Description	Byspektrum
4	What are your company's products/solutions that are to be used in the euPOLIS project development.	DAMP is a Nature based system using plants and exposed surfaces to force evaporation. The system provides a solution for local stormwater management. The solution relives the central sewage system and creates a starting point for work on increasing urban biodiversity, local temperature management based on evaporation and in general the system will provide a better urban environment.
5	Do you expect further development of those products/solutions? If yes please describe.	✓ yes • no Climate change create an increasing amount of precipitation and new precipitation patterns. In order to meet this challange new solutions is needed to interact with existing solutions. Using evaporation for local surfacewater management will be a new technology on the market. The system implementet in the euPOLIS project will be a first demonstration and is expected to give us a lot of new knowledge to help to develop the system further.
6	Do you plan to development new products/solutions during the euPOLIS project?	✓ yes • no
7	Do you think that your product/solution can be combined with other product/solution of partners involved? If yes, please name.	✓yes • no name: Biopolus note: An ongoing dialogue with Biopolus will uncover if there is a potential to combine the two solutions.
8	Do you think that this combination can help you expand your customers list and make new sales?	☐ yes ☐ no That ist to early to say

9	How do you think investments of your company based on euPOLIS are likely to develop in the next twelve months? (of course this will depend on euPOLIS actual results)	• higher ✓ about equal • lower • no investements
10	Do you have a specific customer list / group of customers, using your products/solutions, that are already informed for the development progress of new products/solutions during the euPOLIS project? (we plan to instruct partners to enter into such an action during the first meeting)	✓ yes • no
11	Please name the group of customers (if any)	OK Nygaard, www.oknygaard.dk Byggros, www.byggros.dk Nature Impact, www.natureimpact.com Solum, www.solum.dk Pilebyg, www.pilebyg.dk
12	Do you envigage new sales coming from your involvement in euPOLIS – group of customer's enlargement? (do you have first thoughts?) If yes please describe.	• yes ✓ no Describe:

A4. EU tools for exploitation

euPOLIS results will be promoted via the Horizon Results Platform (HRP), which is a matchmaking tool allowing to publish the Key Exploitable Results to promote them vis-à-vis your targeted audiences – investors, stakeholders, policy makers, potential business partners, etc. As Jacopo Losso, Director European Business Angels Network (EBAN) said this is **"*The place to find all of the EU supported innovations... So Angels are now able to find companies that have received a lot of funding to advance their ideas to a level where hopefully it can benefit from (further) investment."*** The euPOLIS results will be promoted with a one-page exploitation brochure, with some key technical points describing the euPOLIS products/ solutions showing the impact of euPOLIS products/solutions.
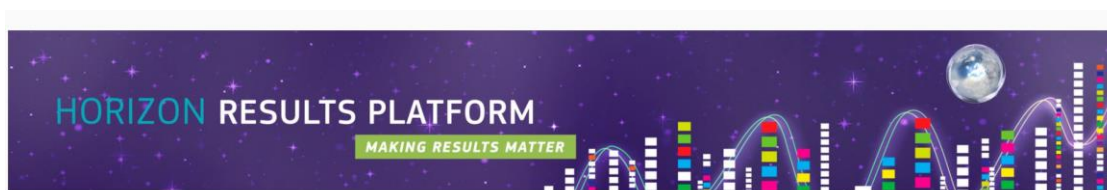

Alongside the HRP, we expect to use the upcoming HRP TV website as an informative audio-visual material on the various topics, e.g. how to prepare to meet investors, how to manage your Intellectual Property, etc. Beyond the above methods, euPOLIS will be promoted via the Horizon Results Booster, free consulting services. Those services include clustering of projects for common dissemination, enhanced exploitation plans, business plans for R&I results and commercialization services for the more mature results. Horizon Results Booster is a new package of specialised services to maximise 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. It will help us to speed up. euPOLIS will benefit from "à la carte" tailor-made services designed to build the capacity for disseminating research results. euPOLIS will get support, to increase the project results' exploitation potential and improve the access to markets.

Assuming that the following actions are on going from M1:
* a market analysis,
* a business strategy,
* operations plan,
* competitor identification and analysis,
* a clear action plan to be implemented by the project and an estimation of time to market.

The use of the booster services is valuable.
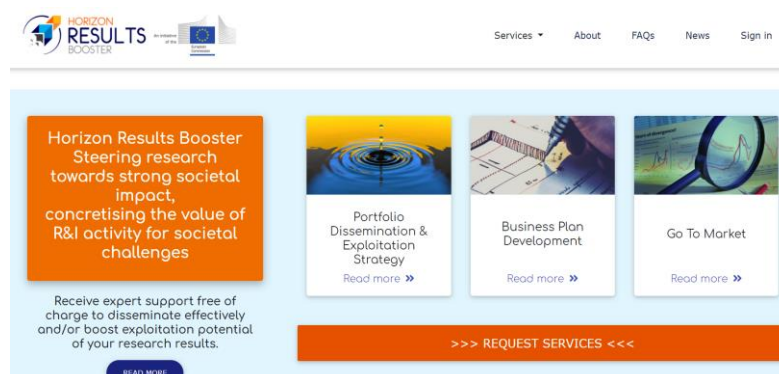
Service 1 to be used – proposed for starting on M30: Portofolio Dissemination & Exploitation Strategy, Module C:

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 to be used – proposed for starting on M34: Business Plan Development. The service guides and supports euPOLIS project beneficiaries in preparing their project result(s) for the market.

Project beneficiaries receive tailor made training assistance to identify solutions for implementation in terms of:
- start-up operations (e.g. identification of incubators, third party support for management – 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 which have a developed exploitation plan and a draft business plan (or completed service 1 module C).

Service 3 to be used – proposed for starting on M38: Go to market: This service prepares project beneficiaries to take their project results to the market. The service provides assistance, coaching, mentoring, 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, 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).

Acknowledgment