



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

D9.9

Annual Magazine issued (Version 1)

WP9 – Communication, Dissemination and Standardisation Activities



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Table of Contents

Legal Disclaimer	3
Executive Summary	5
List of Figures	6
List of Tables	6
List of Acronyms / Abbreviations	6
1 Introduction	7
1.1 About the euPOLIS Magazine (issue 1)	7
1.2 Contents of the euPOLIS Magazine (issue 1)	7
2 Conclusion	12
3 Acknowledgment	13

Executive Summary

The Deliverable D9.9 Annual Magazine issued (version 1), developed within WP9 – Communication, Dissemination and Standardisation Activities presents the overall project progress to the wider public and to the target audiences mentioned in D9.3 Communication and Dissemination Plan (version 1). The euPOLIS Magazine (issue 1) is focused on increasing the visibility of the project by introducing its philosophy and by disseminating its outcomes to the readers and visitors of the euPOLIS Website.

The Deliverable D9.9 Annual Magazine (M18) is the first of three planned issues in the course of the project's lifespan. The second one is planned for M36 and the third one for M48.

List of Figures

Figure 1: Introduction	8
Figure 2: Nature Based Solutions Technologies	8
Figure 3: Supporting non-NBS Technologies	9
Figure 4: Front Runner Cities (1)	9
Figure 5: Front Runner Cities: Gladsaxe and Lodz	10
Figure 6: Front Runner Cities: Belgrade	10
Figure 7: Front Runner Cities: Piraeus.....	11
Figure 8: Connecting Horizons.....	11

List of Tables

Table 1. Acronyms.....	6
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List of Acronyms / Abbreviations

Table 1. Acronyms

Abbreviation	Explanation
NBS	Nature Based Solutions

1 Introduction

euPOLIS Deliverable D9.9 Annual Magazine Submitted introduces the euPOLIS Magazine (issue 1) on Integrated NBS-based Urban Planning Methodology for Enhancing the Health and Well-being of Citizens. The publication is meant to ensure the visibility, accessibility, and promotion of the project and its results.

1.1 About the euPOLIS Magazine (issue 1)

A first issue of the Magazine is created to ensure that the project generates stronger awareness among the target groups and achieves the full potential impact.

The Deliverable 9.9 Annual Magazine is adapted to reach different types of audiences (Industry, scientific community, institutions, the general public), followed by a complete overview of the magazine contents. The wide range of euPOLIS dissemination activities will inform audiences on available project results, aiming to raise awareness on project related issues and promote a deeper understanding, as well as to further motivate their involvement. Articles in the Magazine were designed to provide effective dissemination of results that will ensure long-term impact and exploitation, but also to communicate project outcomes in a “human” language, thus making them understandable to the wider public/citizens.

1.2 Contents of the euPOLIS Magazine (issue 1)

euPOLIS Magazine contains following sections:

- Introduction (opening statement by prof. Cedo Maksimovic)
 - ✓ euPOLIS vision for enhancing Health and Well-being
- Nature Based Solutions Technologies
 - ✓ Re-introducing the Power of Nature into the Cities
- Supporting Non-NBS Technologies
- FR Cities
 - ✓ Front-Runner cities: euPOLIS living labs
 - ✓ Gladsaxe
 - ✓ Łódź
 - ✓ Belgrade
 - ✓ Piraeus
 - ✓ Fun facts about FR cities
- Connecting HORIZONS
 - ✓ NBS Strengthening through Connecting – the euPOLIS Clustering (by Emanuel Sardis)
- News
- Interview

The following figures present certain sections in the [work file](#) of the final version of the Magazine. The existing texts will be combined with graphic solutions and further perfected before publishing.

§ INTRODUCTION

euPOLIS vision for enhancing Health and Well-being

AUTHOR: prof Cedo Maksimovic (ICL)



The euPOLIS project is to assist both city planners and the citizens to "capture a Holy Grail" of everlasting healthy city for happy people. To reach this goal we embrace the achievements of the Blue Green Dream (BGD) project, Blue Green Solution also called NBS - Nature based solutions. Instead of "protecting nature" we bring the nature, wealth of combined items of the BLUE (water) and GREEN - vegetated contents into urban open spaces (parks, squares, streetscape) and harness their multitude benefits (impacts) on urban micro-environment and on people's (public health and wellbeing (PH&WB)). By introducing the richness of carefully selected and properly positioned multiple NBS in the devoted demo sites (DS) in the 4 euPOLIS Front Runner (FR) cities (Belgrade, Gladsaxe, Lodz and Piraeus) covering the variety of climate, ecological and socio-economic conditions. In these sites we implement blends of NBS to create optimised micro-climate conditions, documented by the relevant indicators, thus the beneficial impact on PH&WB can be demonstrated, monitored, quantified on the selected groups of volunteers. These volunteers will be motivated to spend more creative and recreation time at these sites

for gathering data on the NBS' positive impacts on their health. Acquired and IT processed data, knowledge and information obtained through artificial intelligence (AI) and machine learning (ML) on positive impacts on PH&WB will be used (extrapolated) for modelling of full-scale NB interventions in the future planning for similar projects in the same and other cities, throughout the host country and other countries in EUROPE.

The euPOLIS innovative planning methodology will introduce several analytical procedures, including GDPM (Goal Driven Planning Matrix), making thus the whole planning process more transparent, open for stronger IT support (modelling, visualisation of results, open for broader public to be involved in participatory planning). One of the unique specialties of euPOLIS is planning of urban spaces which will be populated with the vegetation species with proven beneficial impact on particular groups of non-communicable diseases (NCD), including cardiovascular (CVD), respiratory (RSP) and metabolic ones.

The immediate beneficiaries of these innovative planning methodologies will be the 5 follower (FJ) cities (Bogotá, Fengxi New City, Limassol, Palermo and Trebinje) which will test the applicability of the euPOLIS planning methodologies at their demo cases (DC).

Such a concept of monitoring and IT processed data and information enhanced planning process requires support from several groups of euPOLIS partners from broad spectrum of 'background and expertise such as manufacturers and supporters of diagnostic wearable devices, specific sensors and remote sensing equipment for assessing environmental and health-related conditions and indicators, PH&WB medical and socio-economic experts, communication and knowledge dissemination and business development experts. In their interactions and cross-fertilisation, euPOLIS develops a new range of multidisciplinary products and methodologies and opens a new era in supporting urban population in creation and




mastering a new proactive and healthy lifestyle resilient to numerous challenges of the future. Including climate change, resources scarcity and socio-economic uncertainties.

Figure 1: Introduction

§ NATURE BASED SOLUTIONS TECHNOLOGIES

Re-introducing the Power of Nature into the Cities

AUTHOR: Alix Allaga, Lars Briggs, Alfred Figueras Anton, Iwona Wagner (AMPHI)
PHOTOGRAPHS: Amphi Consult (AMPHI), FPP Enviro

euPOLIS' approach connects Nature-Based Solution interventions for open public spaces with citizens' needs for improved public health and Well-Being. These technologies will be implemented in four Front Runner Cities: Gladsaxe in Denmark, Lodz in Poland, Belgrade in Serbia, and Piraeus in Greece, adapting them to the differences in climate, geographical, social, and spatial magnitude and properties of each city. In this first issue of euPOLIS magazine, we present you with two technologies developed and already practically implemented by Amphi.

Amphi International Aps (AMPHI) is one of the Small & Medium Enterprises (SMEs) partners in the euPOLIS project covering two major roles; (a) supporting/advising the local stakeholders of the demo-site Gladsaxe and (b) developing its NBS products which can be used in the other demo-sites. Our two products, suitable for application in the euPOLIS project are (1) **BIOWATER Climapond** and (2) **Green Bus Stop**, characterized by their multifunctionality and adaptability.




THE BIOWATER CLIMAPOND is an NBS acting as an advanced multifunctional open-air stormwater retention pond, collecting rainwater from the surrounding buildings' roofs. It establishes new habitats for various plant and animal species by using selected native aquatic and semi-aquatic vegetation supporting particular groups of fauna (e.g. dragonflies, amphibian species, butterflies, etc.). This type of NBS intervention supports the health and wellbeing of residents through daily contact with natural elements beneficial for the psychological well-being of residents, especially by the effects of lush vegetation and water sounds. It may also contribute to the cooling down of the local ambient and increasing air humidity.

"EuPOLIS' approach connects Nature-Based Solution interventions for open public spaces with citizens' needs for improved public health and Well-Being."



Figure 2: Nature Based Solutions Technologies



Back view of the Green Bus Stop

THE GREEN BUS STOP (GBS) is an element of urban street furniture serving different functions: (a) providing shelter for passengers, (b) stormwater retention, (c) greenspace provision for socializing, (d) stepping-stone habitat for biodiversity (e.g., insects and bird species), (e) urban heat island reduction and (f) space to park bicycles.

The shelter's roof of the GBS is covered with a vegetated layer and a water-retaining layer which can retain 90% of the rainwater falling on its surface. A retention-infiltration box that sits in the back of the shelter, stores the excess water and supports the back-wall vegetation (climbers).

The GBS shelter has an innovative design and materials like galvanized steel and tempered glass. Its green roof consists of vegetation mats established on top of a substrate and a drainage layer. The walls are covered with evergreen and blooming climber plants that grow in retention-infiltration boxes, capturing the access roof runoff for plant irrigation. Urban challenges tackled: air pollution, heat island effect reduction, rainwater capturing for runoff/surface flood reduction, tackling water scarcity, ecological connectivity & urban upgrading.

Supporting non-NBS Techniques

Nancy Kazantzy (RG) + ICL?

// location, preferably before and after the implementation, visuals and/or photos explaining the transformation process... - assigned //

1. Front Page: Key visuals + Key topics announcements

2-3. Introductory text: NBS, BGD, euPolis philosophy, why, and how, through the prism of the following content; tackling technologies, FR and FL cities, the importance and potency of such methodology on improving citizens' health and wellbeing, what is Horizon 2020 – assigned partner prof Cedo Maksimovic (ICL) 3.000 characters with spaces + visuals + partners map (with QR code)

4-6. NBS: In-depth intro of the NBS technologies behind the euPolis, explaining the differences of technologies to be implemented in each city, depending on the climate and other social/natural/geographical differences between them + description of two NBS technologies already implemented by Amphi (before/after effects, expectations, first results, the reception within the citizens, further implementation...) + RL photographs of the

VISUAL

Figure 3: Supporting non-NBS Technologies

FR CITIES

Front-Runner cities: euPOLIS living labs

AUTHOR: Aleksandra Malusev (MIKS)
PHOTOGRAPHS: Amphi Consult(AMPHI), FPP Enviro

The euPOLIS project chose four Front-Runner (FR) cities to prove that the innovative/holistic planning philosophy i.e., methodology of bringing nature back to cities can provide sustainable and humane living conditions i.e., improvement of public health (PH) and wellbeing (WB). This innovative lifestyle concept, tested and proven in 4 in European FR and further perfected in 5 other FL (follower) cities, under a variety of environmental, climate, geographical, socio-economic conditions will apply to other European and global cities.

From the Municipality of Gladsaxe situated in Northern Europe, via Lodz in Central Europe, Belgrade in the Balkans, and Piteasus in Europe's South, these four cities will exercise the euPOLIS urban planning methodology to achieve more appealing public space, improving the well-being of citizens, their happiness, thus help raise public health stats, with positive impacts on the local economy and social status of its citizens. This means implementing locally customized nature-based solutions into open urban spaces to reduce air, water, and noise pollution, lower the risk of

flooding and excessive temperatures. The five Follower (FL) Cities will embrace and further perfect the euPOLIS planning methodology. The cities of Trebinje, Palermo, Limassol, Bogota, and Fenghui New City (China), will spread the NBS inspired methodology across Europe and the Globe. The analysis of implementation and impact of the NBS applied will be presented in the third issue of the euPOLIS magazine.

The euPOLIS' unique planning methodology goes for both (a) redesigning for transforming and improving the existing public spaces and (b) innovative planning of the new ones into appealing friendlier areas. Sense of ownership of new spaces is to be enhanced by including participatory planning processes within the local community. In this way, the euPOLIS professionals are getting straight from the local citizens' unbiased views on their genuine needs and desires for a better healthier neighborhood.

Experts' teams in all nine cities conducted surveys to probe the neighborly atmosphere, their health status, communal challenges, and their visions of the future implementation of NBS in their area. In the next step, selected inhabitants (volunteers) of the demo sites will be given wearable health tracking devices to compare the difference in impacts of the pre and post euPOLIS interventions. The dialogue on socio-economic dimensions will also be included.

In simple words and a pretty picture, euPOLIS will provide open-air labs with IT-supported evidence of the positive impacts of the NBS interventions. It will instruct the citizens on how to both develop the sense of ownership of what was achieved by euPOLIS and to add value, expand to new NBS, nurture and enjoy such a new lifestyle. This will include a multitude of new contents (shaded/cooler pedestrian and cycling routes, richness of flora, fauna (biodiversity), healing aspects of water features, common urban vertical farms, open-air spaces for cultural and educational performances and alike), to have a fun and relaxed day within blue-green features with better life quality: allergy-free, reduced risk of air and water pollution and surface flooding), richer recreation and cultural potential.



Figure 4: Front Runner Cities (1)



Figure 5: Front Runner Cities: Gladsaxe and Lodz



Figure 6: Front Runner Cities: Belgrade

FR CITIES



Piraeus (Greece)

The euPOLIS demo-site in Piraeus, a port city within the Athens urban area ("Greater Athens"), in the Attica region of Greece, consists of three linked demo locations: Mikrolimano, Akti Dilaveri, and Rallion Complex Pilot school. This demo-site area is of high importance to both residents and many visitors. These areas are already used for tourism, education, sports, and entertainment activities. Initial consultations with residents and other stakeholders as well as visitors identified the major challenges in this area: the lack of cleanliness (untidiness), green spaces and recreation areas (parks, meeting places, etc.), unsustainable urban mobility, ruined sidewalks, lack of pedestrian and bike lanes, lack of parking spaces, non-utilization of inactive public spaces and buildings, traffic and noise pollution.

euPOLIS project will upgrade some of these places. Some improvements of these sites have been made recently: street planting and are somewhat pleasant for socializing. Renovation in the Mikrolimano area, which is in the final phase of construction of a wooden walking promenade along the sea frontline is in the final phase, and the merging of the Mikrolimano and Akti Dilaveri will build a continuous coastal front. As a part of

Fun facts about FR cities



The Clock-Making Tradition. The Serbian clock-making industry is even older than the world-famous Swiss one. The Serbs had their own clock at least 200 years before the Swiss did.



The White Fenix. Belgrade is also known as the White Fenix or the House of War for being fought over in 115 wars and demolished and rebuilt 44 times during history.



Landmark Theater. The Municipal Theater is a landmark of the City of Piraeus. It was founded in 1886 and started operating in 1895. It is considered the most important neoclassical building in the city and one of the most important theaters of the country. The establishment of the Municipal Theatre of Piraeus expressed the vision of the emerging bourgeoisie and the intellectuals of that time to designate the city as a cultural international center.



Greenest point of Europe. Lodz is one of the greenest cities in Europe. Since the city expanded rapidly, they didn't have the time to cut down all the surrounding woods. Thus, you will find not only parks but also forests within city borders.



Library playground. The playground in Bibliotekshaven by Gladsaxe Main Library is Denmark's first literature playground. It is an example of an outdoor space that links play, learning, and movement. It also represents an idea as to how libraries can make their offers visible outside the building's walls, while at the same time contributing to the development of urban spaces.

Figure 7: Front Runner Cities: Piraeus

CONNECTING HORIZONS

NBS Strengthening through Connecting – the euPOLIS Clustering

AUTHOR: **Emmanuel Sardis (NTUA)**

EU clustering activities are focused on the engagement of the triple helix actors in dialogue and action to strengthen competitiveness. Additionally, as autonomous communities with often common aims and goals, clusters aim to follow a policy-based route and achieve a common path, to increase the effectiveness of their policies in areas from regional research, development, and investment attraction to skill development and innovation through exchanging ideas and common activities.

Clusters are a major part of the European industrial landscape [3], playing a crucial role by boosting collaboration, connecting enterprises, especially SMEs, and building bridges across Europe's ecosystems. Clusters support innovation take-up, internationalization, and scaling-up of SMEs, as change agents in the digital and carbon-neutral 'green' transformation.

The clustering centers on sharing concepts, ideas, and issues, meetings with project representatives, cooperating in specific calls and events, and collaboration in common research topics and dissemination activities. These clustering activities will be in particular carried on with other projects funded under the call H2020 SC5-14-2019 and SC1 Health, demographic change, and wellbeing.

Clusters can benefit from synergies between H2020 projects, and specifically:

- * **Exchange technical information between the projects** to contribute to a more accurate vision of the NBS expectations.
- * **Maximise the impact of the communication and dissemination**
- * **Improvement of social capital** as assistance for building networks, clusters, and new consortia
- * H2020 project results are used or further developed with subsequent investments

Highlights of clustering activities from euPOLIS

The euPOLIS project collaborates with four sister projects (IN-HABIT, VARCITIES, and GOGREEN ROUTES) and with H2020 SC1 projects (Health) (URBANOME, HEART, RECENTAS, eMOTIONAL, ENLIGHTENme, EMOTIONAL CITIES, WELLBASED). Further possible collaborations are the SC5 related projects (T-Factor, HUB-IN, CENTRINNO, TERRIFICA, INTERLACE, CONEXUS).

euPOLIS has participated in online events organized by EU Clustering Task Force Team TF2 (NBS Impact Evaluation Framework) and Nature of Cities Festival (TNOC).

22.03.2021, NBS Impact Evaluation Framework – euPOLIS cooperated with EU sister projects (GO GREEN ROUTES; IN-HABIT and VARCITIES), funded under the H2020 call SC5 14 "Visionary and integrated solutions

Figure 8: Connecting Horizons

2 Conclusion

Deliverable D9.9 Annual Magazine Submitted aims to organize, disseminate and communicate all euPOLIS Project outcomes so far. Promotion and diffusion of euPOLIS results and benefits is carried out through sections targeting diverse audiences by conveying the key messages in a “human” language and also by tackling the NBS-related topics to create interest of scientists working on different fields with the objective of enhancing the multidisciplinary approach in the enhancement of citizens’ wellbeing in Europe and around the world.

3 Acknowledgment

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