euPOLIS

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§ INTRODUCTION

euPOLIS vision for enhancing Health and Well-being

AUTHOR: **Prof. Čedo Maksimović (ICL)**

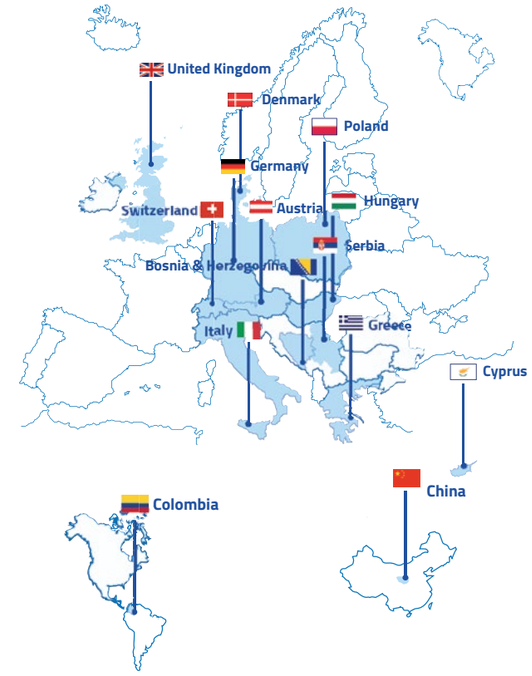
The aim of the euPOLIS project is to assist both city planners and citizens by creating a guide or a "Holy Grail" for a **healthy city full of happy people.** To reach this goal we embrace the achievements of the Blue Green Dream (BGD) project, where NBS- Nature-based solutions yield a Blue Green Solution. Instead of "protecting nature" we incorporate various BLUE (water) and GREEN (plant life) aspects of nature into urban open spaces (parks, squares, streetscape) where we can harness their multitude of benefits (impacts) on urban micro-environment and on people's / public health and wellbeing (PH&WB). We will introduce multiple carefully selected and properly positioned NBS at demo sites (DS) in 4 euPOLIS Front Runner (FR) cities (Belgrade, Gladsaxe, Łodz and Piraeus). These cities were chosen to cover a variety of climate, ecological and socio-economic conditions. We will implement NBS, which are optimised for their individual micro-climate conditions, and document relevant indicators that demonstrate how the various solutions impact PH&WB.

The impact of PH&WB will be monitored and quantified based upon a select group of volunteers, who will be observed throughout the project. These volunteers will be motivated to spend more creative and recreational time at these sites for gathering data on the NBS' positive impacts on their health. Acquired and processed IT data, along with knowledge and information obtained through artificial intelligence (AI) and machine learning (ML) on positive impacts on PH&WB will be used (extrapolated) for modelling full-scale NB interventions. These full-scale NB interventions can be applied in the future planning of similar projects locally and in other cities throughout the host country and throughout all of EUROPE and beyond.

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

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

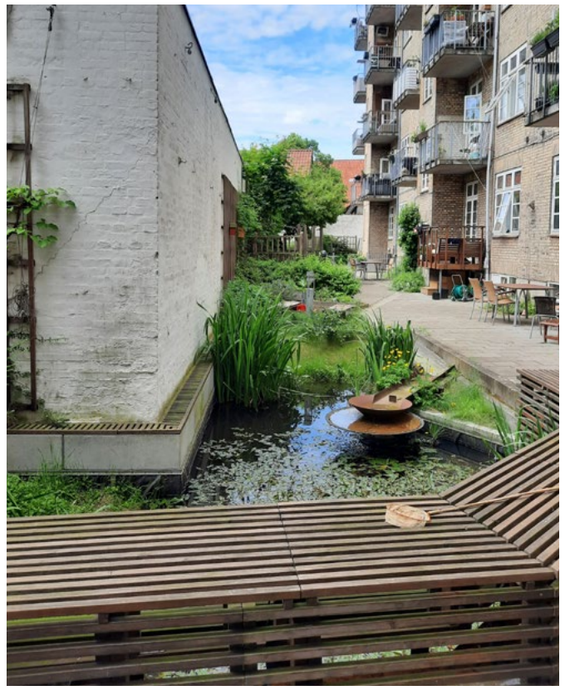
This concept of monitoring and processed IT data and information for enhanced planning requires the support of several groups of euPOLIS partners from a broad spectrum of background and expertise. These include: manufacturers and supporters of diagnostic wearable devises, specific sensors and remote sensing equipment for assessing environmental and health-related conditions and indicators; PH&WB medical and socioeconomic experts; communication and knowledge dissemination experts; and business development experts. In their interactions and cross-fertilisation, euPOLIS will develop a new range of multidisciplinary products and methodologies, that supports the urban population in developing a proactive and healthy lifestyle resilient to the numerous challenges of the future, including climate change, resources scarcity and socio-economic uncertainties.



§ NATURE BASED SOLUTIONS TECHNOLOGIES

Re-introducing the Power of Nature into the Cities

AUTHORS: **Alix Aliaga, Lars Briggs, Alfred Figueras Anton, Iwona Wagner (AMPHI)**



Biowater Climapond in a courtyard in the city of Aarhus, Denmark (implementation)

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 Glasaxe 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 well-being 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.


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.


Back view of the Green Bus Stop

§ SUPPORTING TECHNOLOGIES

Cutting-edge Supporting Technologies behind the euPOLIS Philosophy

AUTHORS: **Athanasia Kazantzi (RG), Paris Gallos (BIO), Elsa Katsorida (SENT)**

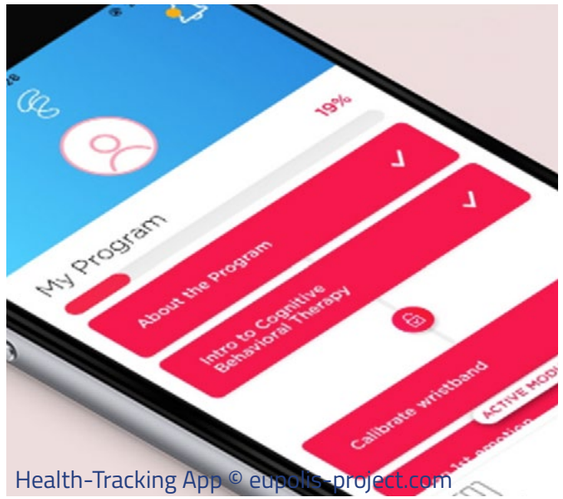
To demonstrate and quantify the impact of the euPOLIS holistic NBS urban planning methodology on the citizens Health & Well-Being, as well as on several other societal aspects, a spectrum of state-of-the-art supporting technologies is utilised and further developed to serve the project needs. Our approach for showcasing the positive effect stemming from the informed improvement of the urban environment by means of Nature-Based interventions is unique. The proposed process is built upon the systematic implementation of innovative participatory planning tools to improve both environmental and economic conditions for the benefit of all social groups, encompassing gender, age and disability perspectives. The experts of the euPOLIS team will map the critical challenges encountered by the selected demo-sites Front Runner cities, to provide holistic solutions and to measure their positive impact on the quality of the citizens' lives, considering overall wellbeing as well as physical, mental, and emotional health. In the envisioned euPOLIS era, urban planners will be able to deliver fully goal-driven resilient plans of proven and measurable short and long-term impacts.

To enable this transition, among others, we have utilized two bespoke health monitoring technologies, in an attempt to provide solid evidence for the NBS effect on citizens physical and mental health. These technologies are represented at the euPOLIS project by our partners Sentio Labs and BioAssist, both sharing substantial experience and know-how in the emerging fields of biosensors and e-health applications.

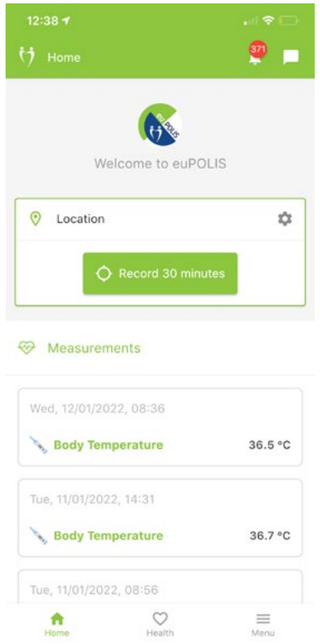
Wearable Emotion Sensor © sentio labs

FEEL THE EMOTIONS

Feel®, provided by the euPOLIS partner, Sentio Labs, is the world's first emotion sensor and mental health advisor, providing 24/7 ubiquitous, unobtrusive and objective monitoring and real-time interventions to help people improve their emotional wellbeing.
Sentio Labs collaborates with the euPOLIS partner cities to define eligibility and recruitment criteria of volunteers, and will train the customer support agents to provide proper assistance to the citizens during their participation in the project.
Feel® uses a combination of evidence-based behavioural practices and its emotion sensor (wristband) to enable people monitor and manage their emotional wellbeing. Additionally, it helps developing better coping skills leading to better emotional mental health over time. Feel® includes continuous, unobtrusive monitoring of the wearer's emotional states and real-time support through the Feel® mobile application utilizing biometric data collected from the wristband. It contains multiple features for optimizing and improving mental health, such as an emotion-tracking calendar and a mood diary, which help users to get a better understanding of their emotional status and events.



Health-Tracking App © eupolis-project.com



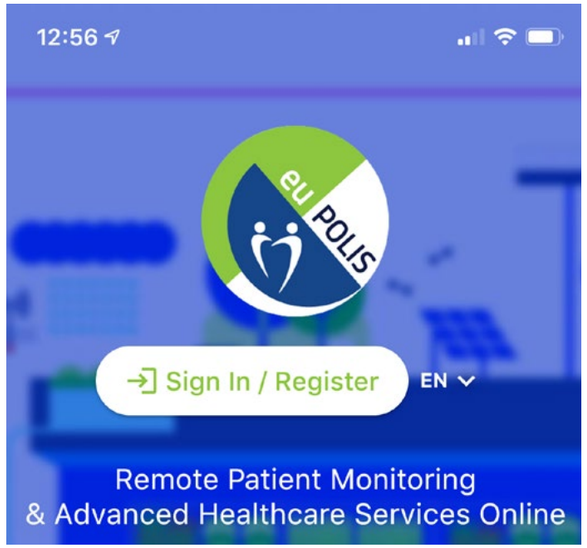
[redacted] eupolis-project.com

HEALTH ASSISTANT WITHIN THE REACH OF A HAND

BioAssist S.A. a Small & Medium Enterprise is focusing on the development of the project's remote health monitoring solution, namely euPOLIS by BioAssist which is based on BioAssist platform. This platform is a complete solution for the provisioning of modern telemedicine and remote monitoring services over the internet. Combining innovative e-health and communication technologies, the applications are adapted to the needs of users and health professionals and their comprehensive support at any time, from any place. In the context of the euPOLIS project, a mobile application has been developed to monitor the users' daily physical activity and other variables related to citizens' well-being in areas with NBSs. This app is currently available for Android and iOS devices, and it is compatible with most commercially available smart devices and wearables. The BioAssist platform has been tailored to cover all the requirements of the euPOLIS project. The role of the platform is the acquisition of measurements takes place via services supported by the cloud platforms of the device manufacturers (i.e., Apple Watch, Fitbit, Garmin, Polar, Withings, Xiaomi, Huawei, etc.). In terms of security and safety, international standards have been adopted to ensure the validity and the reliability of the system.

Users can activate the location tracking feature any time they visit the project's demo-sites, and they can also respond to related questionnaires, which are available through the mobile application. In addition, the application offers a timeline of data related to the user's physical activity and vital signs measurements. Users have access to their historical data through the timeline and can also apply filters and view the information if graph format.

The *euPOLIS by BioAssist* application can be used as a health and other data collection tool to investigate the potential improvement of citizen's well-being in areas with NBS. The expected value of the proposed application is to collect reliable and accurate data to examine citizens' well-being in an easy-to-use and relatively non-intrusive manner.



§ FRONT -RUNNER CITIES

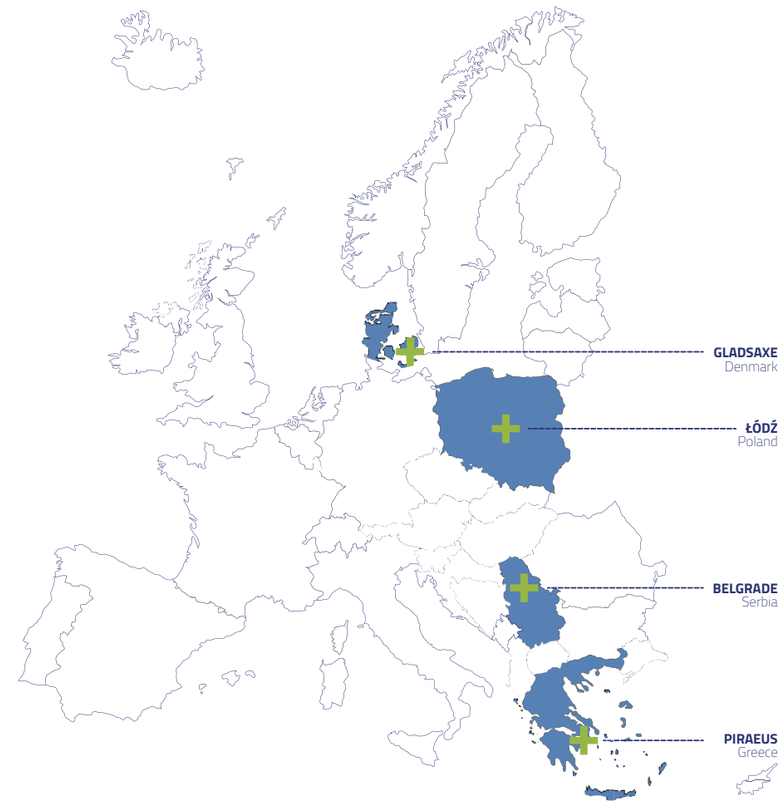
Front-Runner cities: euPOLIS Living Labs

The euPOLIS project chose four Front-Runner (FR) cities to prove that the innovative and holistic planning methodology of bringing nature back into cities can provide sustainable and humane living conditions i.e., improvement of public health (PH) and wellbeing (WB). This innovative lifestyle concept, which will be 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, can then be applied and expanded to other European and global cities.

From the Municipality of Gladsaxe situated in Northern Europe, via Łodz in Central Europe, Belgrade in the Balkans, and Piraeus in Europe's South, these four cities will exercise the euPOLIS urban planning methodology to achieve more appealing public spaces, improving the happiness and well-being of their citizens, thus helping to boost public health while also making positive impacts to the local economy and to the social status of its citizens. Customized, local nature-based solutions will be implemented at the sites in order to reduce air, water, and noise pollution, and to lower the risk of flooding and excessive temperature.

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

The euPOLIS' unique planning methodology can be used for (a) redesigning, transforming, and improving existing public spaces and as an (b) innovative planning tool to create new urban spaces designed with NBS in mind. The sense of ownership of the new spaces will be enhanced by including the local community in the planning process. In this way, the



euPOLIS professionals receive local citizens' unbiased views regarding their genuine needs and desires for a better and healthier neighborhood.

Experts' teams in all nine cities conducted surveys to inquire about the local atmosphere, and to question the community regarding their current health status, what they see as existing community challenges, and to share their vision of NBS, which can be implemented in their area. In the next step, selected inhabitants (volunteers) of the demo sites will be given wearable health tracking devices to compare their health pre and post euPOLIS interventions and to assess the impacts of the new NBS. A review of the socio/economic dimensions associated with the NBS will also be completed as part of the project.

In short, euPOLIS will create "open-air living, learning labs" of NBS with IT-supported evidence of their impacts. As part of the project, euPOLIS will help citizens develop a sense of ownership of the NBS implemented through euPOLIS and they will also be taught how to add value, or how to expand or create new NBS in order to nurture and enjoy their new lifestyle. This will include a multitude of new features including: shaded/cooler pedestrian and cycling routes, a richness of flora, fauna (biodiversity), the healing aspects of water features, common urban vertical farms, and open-air spaces for cultural and educational performances. These and other features will help citizens enjoy and relax within a blue-green atmosphere enjoying a better life quality due to reduced allergies, reduced risk of air and water pollution and surface flooding, and a potential for richer recreation and cultural fun.

Despite relatively good environmental quality and systematic support by the local government towards blue-green development and the adaptation to climate change threats, the biggest challenges within the **Municipality of Gladsaxe's district** Pileparken (neighboring Copenhagen's northern perimeter) are social cohesion. The Gladsaxe team's task is to use NBS as a social glue and as an innovative way to tackle climate change. The hope is that by bringing nature back into the city, the environmental qualities of the space will be significantly enhanced and at the same time it will help empower neighborly bonding, thus improving the quality of life, and mental health of the citizens.

The demo site in Gladsaxe has different conditions from the other FR cities. It's located within the Northern Europe climate, where the area, which is the result of city strategy is part of a local development project with a particular housing characteristic. These conditions at the site predefine a framework for implementation of the euPOLIS Urban Planning Methodology. Mørkhøjvej is the largest road in the area. The area is sometimes perceived as unsafe because of the lack of lighting and crimes happening nearby, making some of the neighbors feel scared during nighttime.

Gladsaxe visitors can already spot the DAMP project in Gladsaxe, which is an urban climate adaptation demonstration program launched by the Municipality of Gladsaxe in 2018 with scalable green solutions to handle rainwater by evaporation. This on-going urban project is what the euPOLIS activities will be built upon. The existing DAMP techniques will be enhanced with additional NBS and demonstrated in within a full-scale design developed in conjunction with euPOLIS. The plan consists of a new playground, vertical evaporation gardens, and a small spring. All NBS interventions will be equipped with sensors, data processing, and visualization features.

Author: Alfred Figueras Anton

The **Łódź** demo-site, Pasaz Anny Rynkowskiej, is a pedestrian street most commonly used as a shortcut between two more active neighborhoods with more vibrant social aspects. Most of its users do not spend more time there, than what their daily commute requires of them. They either visit the demo site on their way to work or while they drop their kids off at the kindergarten, which is located there. The area is dark with devastated urban furniture and unattended greenery. Neither the presence of the kindergarten nor the fact that the area is mostly inhabited by older residents creates a vivid and welcoming atmosphere.

Under the euPOLIS, program, the existing green infrastructure will be redeveloped, and new Nature-Based Solutions will be added to activate the local community, i.e., community garden. By doing so we will accommodate the needs of people already using the space and also hopefully attract new users. In its current conditions, the space is unattractive, and especially in the evenings it invokes negative and unpleasant feelings. Therefore, the goal for the site is to develop infrastructure that serves the functions and requirements of the users, but also one that creates an environment that feels safe and secure, and instills a feeling of positivity.

Author: Mikołaj Biesaga

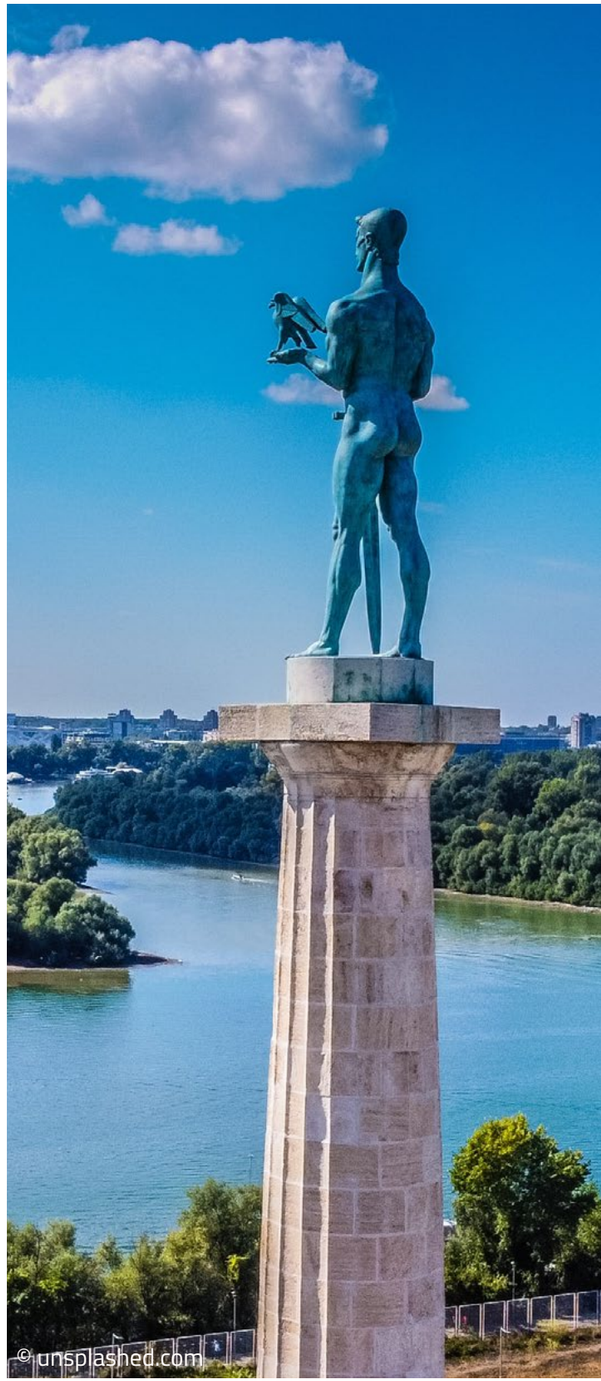
Belgrade (Serbia)

There are two euPOLIS demo-sites in **the Serbian capital:** Linear Park (LP) and Zemun/Danube Quay (ZDQ). The interaction of euPOLIS experts with the locals interviewed so far has revealed their preparedness, their knowledge of basic concepts, and their overall interest to take part in future planning and implementing nature-based solutions at these sites. Even though many of the participants have some basic knowledge of NBS and its possible impact on environment, the majority of the people lack this information. The next phase of raising awareness and involvement in demo-site activities is under preparation,

The Linear Park (LP) is an urban route/space created by the transformation and reuse of abandoned railway tracks that run from the Sava River harbor to the Pančevo bridge on the Danube. The Linear Park passes through diverse urban zones, ranging from relatively well-established and active residential, sports and recreation zones located at the foothill of the Kalemegdan fortress, to the decaying informal settlements and a former industrial zone. A complete transformation of the surrounding urban tissue has already started. Although most parts of the LP are planned with NBS intervention, some surrounding buildings and one reach are devoted to euPOLIS's "showcase", which will feature shaded bicycle and pedestrian routes, biofilters, rain gardens, porous pavements, and an urban farm. About one-third of the LP solution will be devoted to a line of trees, which will be selected based on their beneficial impact on people suffering from cardiovascular, respiratory, and metabolic problems. This will encourage frequent visits of both groups of people: those who already have these problems and the ones who want to prevent them.

The Zemun/Danube Quay (ZDQ) park, which is located close to the junction of the Sava and the Danube River, is one of the favorite recreation areas of Belgradians. It already contains a running track, bicycle, and pedestrian paths along the Sava and the Danube River embankment. The adjacent riverbanks of the Sava and the Danube contribute to this demo-site's potential to be enhanced by euPOLIS's NBS interventions, which will be clustered around (a) the Eco-Edu Hub (EEH) and (b) a Mini (pocket) park (MPP). The broad spectrum of innovative NBS at the site will serve as a living showcase for the planning of the future parks. The EEH is being designed and will be maintained with euPOLIS methodology, and will include rich NBS contents on its roof, façade, and around its immediate surroundings. It will also include a system for "natural purification" and recycling of all sorts of water (surface, ground, rain, grey, and wastewater). After the euPOLIS project is finished, both the EEH and MPP will be used as a permanent outpost urban blue-green laboratory, open to researchers, voluntary eco-based NGOs, and the local population, where they can see first-hand nature-based solutions at work. The park is very well connected to the rest of the city via public transport.

Authors: Prof. Čedo Maksimović,
Aleksandra Malušev



In Piraeus, the euPOLIS experts concluded that the demo site area is of a hyper-local interest area and many visitors are using the demo site facilities for education, sports, and entertainment activities. Piraeus pilots three demo locations which are linked: Mikrolimano, Akti Dilaveri, and Ralleion Complex Pilot school. Neighbors and by-passers gasp over the lack of cleanliness, 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.

Furthermore, neighbors claim they could use a little additional cultural, athletic, eco-educational, and community activities nearby. Project partners have identified an additional issue: planning legislation is in the need of updating and including contemporary concepts of integrated planning for implementation of blue green solutions (or NBS) and principle of circular economy for enabling local planners to be less restrictive in implementing euPOLIS innovative solutions.

As for now, demo sites have street planting and are somewhat pleasant for socializing. There is already a renovation in Mikrolimano area, which is in the final phase of construction, and the merging of the Mikrolimano and Akti Dilaveri will build a continuous coastal front. A long pathway will also be created, at both sides of the canal in Akti Dilavreri, and two wooden bridges connecting those. Moreover, an extension of the metropolitan cycling road is said to be created on the eastern side of the canal that will also bring more visitors to that area.
Our euPOLIS concept is working on possible "added value" to this location, to provide more space which would be pleasant for socializing in both public and private areas and in the promenade.
This is a unique opportunity to implement NBS in this area which will also be upgraded to an attractive eco-friendly space and add value to what the City of Piraeus has already done.
The Ralleion School will make home to various NBS, which would upgrade its NBS status and serve as a permanent euPOLIS's legacy in the form of ecological-educational centre, thus encouraging both students and visitors to commit even more to proactive use of natural solutions to create a "healthy city for happy people".

Author: Anastasia Zerva

Fun facts about FR cities

Belgrade, Serbia

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.

Piraeus, Greece

Landmark Theater The Municipal Theater is a landmark of the City of Piraeus. It was founded in 1884 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.

Łódź, Poland

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.

Gladsaxe, Denmark

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.

§ CONNECTING HORIZONS

NBS Strengthening through Connecting – the euPOLIS Clustering

AUTHORS: **Emmanuel Sardis (NTUA), Prof. Nicolaos Doulamis (NTUA)**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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 **to improve the innovation eco-system in a territory that facilitates follow-up to successful RDI activities**

* Give an opportunity **"to explore" the potential for synergies between partners of different consortiums,** but with common research or business activities in local or EU territory.

* Also important is their **international presentation and cooperation with similar institutions globally,** by promoting the pan-European Strategic Cluster Partnerships

* **Highlight the importance of EU funding programs** in supporting European Research and Innovation

* **Fulfil the European Commission's expectation** of an integrated collaborative approach between the H2020 projects.

euPOLIS aims in creating an Expert Group that will discover possible synergies, between the European programs for better supporting research and innovation.

§ CONNECTING HORIZONS

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, RECETAS, 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 to improve wellbeing and health in cities". These four projects started their activities in September 2020 and had already clustering meetings, where several joint actions and deliverables have been agreed upon.

Additionally, the euPOLIS in collaboration with the HEART project will participate and lead the TF 2 – work level of commitment stream "Health and NBS (pandemic preparedness)". The outcome was the report on health topic from the URBANOME project.

An important outcome from the above meetings was a first set of indicators from sister projects to euPOLIS, a significant material that was evaluated per project to merge into a common document after the end of the projects and be a guideline for NBS interventions in cities transformations.

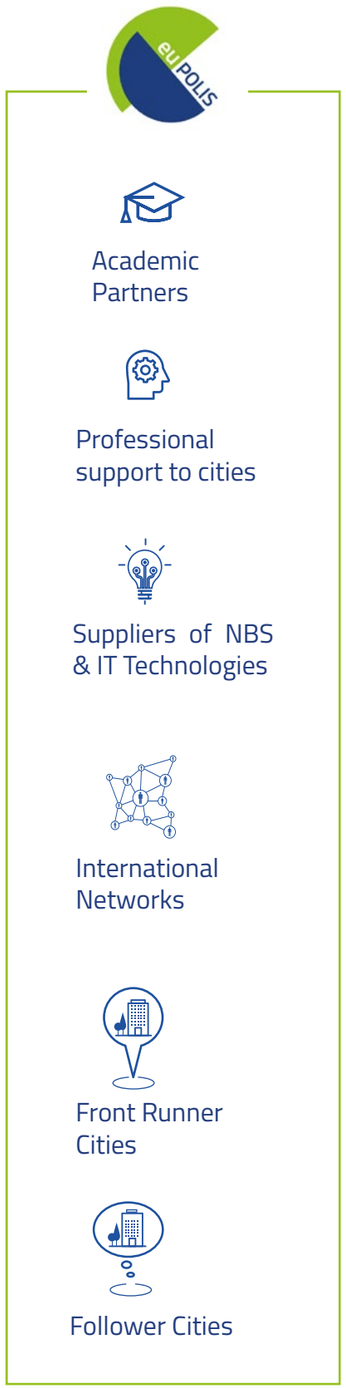
In October 2021 euPOLIS started implementing the organization of all clustering activities, involving research and dissemination actions, through a commonplace, a common repository, where all related data will be inserted and announced to the involved partners. Bogota City Team (euPOLIS partner) organized A Webinar with the participation of IN-HABIT and other related projects (CONEXUS, URBAN GREEN UP, INTERLACE).

Finally, a Joint Scientific Paper from four Clustering sister projects GOGREEN ROUTES, VARCITIES, euPOLIS, and IN-HABIT have agreed to be submitted in a joint symposium at the 17th European Congress of Psychology. The paper title is "Urban Health Projects Putting Nature at the Centre of Our Lives: An Exploration of the Transdisciplinary Approaches to Promote Well-Being", Ljubljana, Slovenia

Useful links

Horizon Europe Cluster 1 Health
European Cluster Collaboration Platform
New European Bauhaus
EU Task Forces

PARTNERS ROLES



Austria
Vertical Farming Institute

Bosnia and Herzegovina
City of Trebinje

China
Fengxi New City Development

Colombia
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Denmark
Gladsaxe Municipality
Amphi International ApS
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BioAssist
GeoSystems
National Technical University of Athens
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Sentio Labs

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§ INTERVIEW

To Move a Society Up a Notch, You Have To Be a Front-Runner Yourself

AUTHOR: **Aleksandra Malušev (MIKS)**

The trust citizens are willing to put in their system and the government plays the key role in overcoming all sorts of issues, be it time to listen to new ideas, engaging around them, or moving on after global hardships. But, trust is earned by repeated good experience citizens get in contact with their decision-makers...

The Mikser team recently visited Copenhagen, and the euPOLIS demo location in Pileparken, Gladsaxe, and got the opportunity to get acquainted with both, the situation on the field, and the residents of the demo area. A special treat was meeting the Danish euPOLIS, and HEART team: Morten Rask(Byspectrum), Alix Aliaga, Alfred Figueras, Frida Seidelin (Amphi), and Nicolas Jespersen (Mørkhøj, Gladsaxe Kommune).

To get an idea of the care and attention Danes pay to the environment, and the efforts they put into improving it, even more, the Mikser team seized the opportunity to wander across Copenhagen in search of good, inspiring examples of citizens involvement, and interventions in making their neighborhoods more liveable, likable, and friendlier to all social groups. It goes without saying, Mikser is grateful to their kind local guide, Morten Rask.

So, to touch base with a genuine Copenhagen experience on introducing the NBS into urban environments, and tackling the issue of citizens' engagement, we had a chat with **Nicolas Jespersen**, a social innovator from Denmark's capital who works closely with the neighbors of the Pileparken.

Nicolas Jespersen © eupolis-project.com

From his point of view, engaging and gaining trust from the citizens has a lot to do with the personality.

I bring my personality when I go to work and try to make a great, cozy atmosphere, inclusive, with not too many codes. You know, it has to be easy to get involved, and that should create a safe space for everyone.
You could always mobilize people through formal calls or organizations, but I prefer this, so to say, a more intimate way, where you can socialize and create a friendly environment, make sure people go home with a good feeling inside. And that takes time and physical presence, Jespersen points out.

AN URGE TO RE-CONNECT

Being called one of the happiest nations in Europe at least, the question about the lack of social contacts pops up naturally: there is plenty of space, greenery and the neighborhood is lively in terms of age, but also, cultural backgrounds.

Parents of small children would maybe hang out on the playground, but it is essential to facilitate some meetings and relations. We made this midsummer party, pulled out some barbeques, made food and drinks, and like that is much easier to go. Also, when you are physically present, people can spot you from their balconies, realize something is happening, and they might not participate from the very first day, but step by step, they'll join, says Jespersen.

Even though to many may seem that Pileparkens have it all, there are always some issues and challenges to tackle as a community, with joint, not forces, but intentions, and ideas. And Danes have quite an a long and established „tradition" of citizen's participation, and engagement when it comes to making decisions and shaping their environments. But, what moves them?

Depends on whom you're asking and at what point in their lives. Many generations are living there, with


The Copenhagen and Belgrade Partners First Meet-Up © eupolis-project.com

different cultural backgrounds. I think every person there cares about the creation of space, and how to use it better. Now, there's just plain grass there, no recreational functions. So we need to create a space where people would wanna go and do various things. We need to facilitate more meetings to shape the idea of what is it that they need, says Jespersen.

That being said, the idea of euPOLIS changing their environment, not only in terms of introducing nature-based solutions into their daily lives but also creating socially compelling, welcoming, and inspiring environments, sparked curiosity into Pileparkens' souls.

The responses are colorful: some are interested in getting more cultural events and content in here, some mentioned some sort of communal dining, getting around one table, sharing food, and conversation. Others just wanted a cozy place to get out of the apartment and hang out with neighbors. These are very small apartments, so there's an opportunity for utilizing the area much better, Jespersen explains.

And to put all these in a bit broader, European context, where citizens are much consumed by daily struggles of keeping their jobs, caring for the family, then the pandemic breakout… It wasn't easy at all engaging people into discussions that, yes, affect their lives, but may not seem as existential as those just mentioned.

It has been tough during the covid times, no doubt – to host all those meetings online all of a sudden, and we weren't exactly geared for that digital moment. So, we could meet outside, putting up this wagon, to serve as an info point, and it got easier…, Jespersen continues.

The entire global situation made us all adopt a pipe view approach to life and everything that's been going on, but Jespersen keeps a positive outlook. He sees things moving for the better, people are more open, and now with an obvious desire to reestablish social contacts that had to be restrained during the pandemic.

TEACH BY OWN EXAMPLE

No doubt, the trust citizens are willing to put in their system and the government plays the key role in overcoming all sorts of issues, be it time to listen to new ideas, engaging around them, or moving on after global hardships. But, trust is earned by repeated good experience citizens get in contact with their decision-makers, and this trait is deeply rooted in a relationship between citizens, parliament, government, local authorities… not only in Denmark but the entire Nordic region.

Thanks to this, Denmark got out of the covid regime so easily. All the debates were public, many citizens were keeping up with it, so they got informed, got to know the process, and confirmed the trust they put into their representatives, Jespersen said.

And to conclude, to make a change in any society, no matter the political, economic, cultural, or any other implications, Jespersen recommends:

You have to be a front-runner yourself! You have to be there, listen to all kinds of opinions. But also, sometimes, you have to let go and sort of, lose control because, from the office, you might get a certain impression that doesn't necessarily reflect in reality. It is a gift to hear from the neighbors, because, you may spend your working day getting acquainted with the matter, but they are the real experts, and their energy is invaluable when employed in different endeavors and organizations, shouts Jespersen.

You have to be a front-runner yourself! You have to be there, listen to all kinds of opinions. But also, sometimes, you have to let go and sort of, lose control because, from the office, you might get a certain impression that doesn't necessarily reflect in reality.


Pileparken in Gladsaxe © eupolis-project.com

§ NEWS

Urgent Switch from Dark and Unfriendly, to Vivid and Inviting: Łódź Experience

AUTHOR: **Aleksandra Malušev (MIKS)**

Location of the future linear park © eupolis-project.com

The Łódź demo location is mostly used as a shortcut to connect more active neighborhoods with higher social frequency. Even though there is a kindergarten, and a population of older people lives nearby, the furniture is rundown, and the area may seem unfriendly to most visitors, especially during nighttime.

The Łódź demo location is nowadays mostly used as a shortcut between more active neighborhoods with vibrant social life. Most of the users do not spend there more time than the daily commute requires from them. They either visit the demo location on their way to work or drop their kids at the kindergarten located there. That is because neither the presence of the kindergarten nor the fact that the area is mostly inhabited by older residents create a vivid and welcoming atmosphere. In fact, at the first glance, the demo location makes quite the opposite impression. It is dark with devastated urban furniture (i.e. old benches disfigured with graffiti) and unattended greener (i.e. trees in need of dendrologist attention and bushes asking for a trim). Moreover, the area is often occupied by people drinking alcohol in public (which is prohibited in Poland) who at times, create an unsettling atmosphere.

The concept of a linear park in the center of Łódź is based on the positive experiences of other cities that had opened urban space to the needs of residents in the past. The linear park is meant to follow a more general trend of surface growth of green areas inside cities with the simultaneous retention of rainwater. To reach both of these ambitious participatory and ecological goals the Łódź's euPolis team asked the residents to voice their opinions regarding the current state of the linear park and their preferences about the directions the planned intervention should take.

DULL AND UNSAFE

-[...] I hope that some sensible plantings and lighting will just happen there, not concrete.

-20 minutes, there is nothing to do any longer

-15 minutes plus-minus. as long as it takes time to move on

Other respondents mention the lack of a sense of security as one of the main reasons why the passage is rarely used for relaxation. They list the need to change the lighting infrastructure as the top priority that would improve the general perception of safety in the demo location and potentially discourage troublemakers:

"As a rule, I go through this area from ul. Gdańska heading towards ul. Piotrkowska. Apart from the walkway, I don't spend any more time there, mainly because of the suspicious company. "

The respondents also draw attention to the problem of people abusing alcohol in the area of the passage, through which they usually take the shortcut, as the quality of the sidewalks in the streets surrounding the square is very low. Passers-by are in a way forced to walk through the passage, exposing themselves to unfriendly and often aggressive comments from people under the influence who occupy the benches.

"The place is not very friendly, especially when drunk men spend their time there. However, unfortunately, alternative pedestrian routes are not better, e.g. sidewalks along ul. Gdańska and ul. Zamenhofa are in a very bad condition, while on ul. Zamenhof, there is also a lot of car traffic and the company can be uninteresting. "

Location of the future linear park © eupolis-project.com

Subsequent questions about the assessment of such aspects as air quality, cleanliness of the air and the surrounding area, noise level, lighting, safety or temperature level, and the related amount of green areas reveal a rather pejorative perception of the passage by the surveyed inhabitants of Łódź. Collective opinions indicate that the passage is rather not a "friendly" place, there are no plantings that would reduce the temperature and noise level in this place, as well as improve the cleanliness of the air. Consequently, in the opinion of the respondents, this place is not considered to be welcoming for children or seniors. Also, the relatively poor infrastructure (mainly benches are used – 46 votes) determines the marginal interest in the passage, which mainly serves as a place for pet walks (19 votes).

THE REVITALIZATION URGE

When asked about their preferences in terms of the use of the passage, citizens clearly opted in favor of "greening" this area, pointing to its future eco-educational function (23 votes) and the implementation of urban agriculture (30 votes). These aspects, in turn, determine the recreational function of the arcade (31 votes) postulated by the respondents, and then the sports (19) and cultural (18) functions. The respondents see new plantings as an opportunity to reduce pollution, noise and lower the temperature, which will significantly increase the attractiveness of the area and enable the development of further possibilities of its use following the preferences of the inhabitants. The possible friendly environment prompted the respondents to develop the vision of the arcade as a kind of culture incubator:

"Exhibition of sculptures, artistic work of students of the Academy of Fine Arts", someone proposed.

The planned changes, in the opinion of the inhabitants of Łódź, should also be aimed at reducing anti-social behavior and discouraging people whose behavior is perceived by the inhabitants as socially undesirable:

"Anything that will make it not a place that attracts alcohol abusers. I don't know what functions deter them, but lighting and monitoring can probably help. In the past, from the side of ul. Kościuszko, the problem was prostitution, here the police should know to what extent the situation is resolved".

People participating in the study indicated the need for new plantings of ornamental plants, trees, and water infrastructure (water jets, drinkers, fog boxes). Along with the implementation of "green" solutions, the residents also call for taking care of the sports and recreational infrastructure (benches, seats, playgrounds, and educational squares). In the opinion of the respondents, stationary and mobile food outlets, a community garden, and a stage should also appear in the arcade, which will attract the attention of the local community.

§ INTERVIEW

Stelios Prassas: Clear Skies Excite Me, Not Fancy Restaurants

AUTHORS: **Stelios Kalogridis (PLEG), Aleksandra Malušev (MIKS)**

Most people left behind their birthplaces, crops, their villages and moved to the large cities, mainly Athens in Greece. With the evolution of technology, each kid now wants to study, and the whole world is moving towards strict education. But we are not eternal, and we should all have a job that pleases us.

Born in the thirties in Athens, growing up in Greece occupied by Nazis, famine, and poverty, life fed Stelios Prassas "bread with seven crusts". But he doesn't give in! The absolute star of the 2021 Athens Marathon, the 90-year-old Prassas used to practice soccer barefoot since he was ten, on dirt, in the fields just around the Temple of Olympian Zeus. Even though his hometown changed dramatically since he made his first steps, Stelios keeps nothing but a positive outlook on things, radiates love for all people, known or unknown, and passionately advocates living life to the fullest in each breathing moment. Besides sports, he's devoted to his grandchildren and family with whom he runs a small jack-of-all-trades shop in Vyronas.

At the finish line of this year's marathon in the capital of Greece, he praised nature, clear skies, and high spirits. We immediately recognized that Mr. Stelios' wisdom and strength of the Olympian Titan, entwine naturally with the entire euPolis philosophy. Thanks to the kind help of SEGAS we got in touch with this hero.

Stelios Prasses © eupolis-project.com

Learning that the initial call for an interview came from Serbia, Stelios cheerfully "marks the territory": Oh, I've been there, I've run a marathon!"

In which and how many places have you run a marathon?

Slovenia, Croatia, Albania, Constantinople, Yugoslavia, Romania, Bulgaria, Ismir, Munich, Australia, Buffalo, Newcastle, Finland, Norway, Sweden, Madrid, Rome, Seychelles, Thailand, Toronto…We have traveled because we were (10 years ago) members of the Athens Health Runners Association, and we traveled for runs throughout the world, both for marathons and smaller distances. And we continue, we do not stop of course, as I am only 90 years old at the moment, I still have a lot of time, the future is ahead of me!

First of all, congratulations on your result, but above all, impressive persistence and willpower!

Please do not congratulate me, as the result was not what I hoped it'd be… I did not make the time I expected as I made a mistake. But if you call SEGAS (Hellenic Amateur Athletic Association), they can tell you about the times I achieved during the previous, much better years. This time it took a bit longer but I enjoyed it, and I will keep on. I'm not stopping.

What motivates you, year after year, city after city, to conquer all those kilometers?

It is a really nice hobby. There is nothing to separate you from the other athletes. You just make use of the health you have. I perform checkups two times a year, and as soon as I get the green light, I take part in these runs. It's been like this for 30 years now. The Greek marathon is the most beautiful of all the countries I have run, even though each country does have its unique beauty. I prefer the Greek one because you do not run next to skyscrapers or apartment buildings.

You must have made many sacrifices to be able to achieve this?

I've been running since I was 10, barefoot, when the German Nazis occupied Greece in 1941. I was

Stelios Prassas and Sofia Sakorafa, the President of SEGAS© eupolis-project.com

born near the Temple of Olympian Zeus and we made it through these difficult times, during which we continuously exercised. By the time I was 59, I enjoyed playing soccer and then started running. Of course, the stadiums then had no grass, just the soil, so it was much more difficult.

During the past 30 years, do you have any special habits that help you with your runs?

No, I am just enjoying each day that dawns, I am happy to have my hobby, I must keep doing it because athleticism is the thing that makes me fulfilled every day. I like to move all day.

Knowing that the euPOLIS project aims to improve the health and wellbeing of the citizens in urban areas, what do you, as an athlete, notice to be the main health and wellbeing issues for people living in cities?

I am thrilled each day to go out and see nature, the sky, clouds, the mountains, and it makes me full to witness the beauty of this land, as each one of us will go away one day. We are not eternal, and we should enjoy each dawning day. I love nothing more than a plate of food, having my family around, and observing the beauty of this land. I have nothing against any person, and I love each person living on earth, it is the most important thing, and I never had any quarrel with anyone in my whole life.

It seems that new generations will have a hard time finding these natural beauties with all the pollution, overcrowded cities… What do you see as the main issues?

Athens was a really pretty village once! We could walk around and enjoy it. There were some fascinating neighborhoods like Kaisariani, Ilissia Pedia, Agios Artemios, Vouliagmeni, Nea Smirni… And there were no issues between people, just love and respect. We could sleep in our backyards and live a natural life, liberated, like animals. Free, like horses or donkeys.

But now, there are some real problems compared to 20-30 years ago. For example, I run the 21km run around Athens each year besides the marathon. This year was significantly more difficult. The very atmosphere made it much harder. The 21km run was more taxing on me than the actual marathon because of the pollution. I could not breathe clearly. I can't believe Athens has come to this! We used to visit Acropolis and train under the famous rock, where now all the cafes and restaurants are. We people now destroy the beautiful nature that we used to have. I think that technology evolution has these kinds of outcomes, unfortunately.

I am only 90 years old at the moment, I still have a lot of time, the future is ahead of me!

Stelios Prasses © eupolis-project.com

Do you think all these cities provide an equal feeling of safety, belonging, and respect to all citizens?

We will face much more issues as time passes, I am afraid. I am not educated, you know, I didn't even make it through elementary school because of the German Nazis occupation in Greece in the early 40s. We just got a certificate at some time that we had some basic education.

But things were not always like that – in your opinion, what brought us here, what made cities such hostile, unhealthy places?

Most people left behind their birthplaces, crops, their villages and moved to the large cities, mainly Athens in Greece. With the evolution of technology, each kid now wants to study, and the whole world is moving towards strict education. But we are not eternal, and we should all have a job that pleases us.

Do you believe we can bring nature back to the cities, and do you believe that the joint will of citizens could turn around the decision-making process so that needs of citizens are reflected in their cities?

Of course, I do. A person can try to enjoy their life as time passes by. I cannot believe I am 90 years old. The years passed like the water which is flowing.

And what do you enjoy in these cities, what do you do when you are not in training?

I couldn't care less about the nice shops or restaurants. I have been in so many countries that none of that moves me anymore. I enjoy long walks by the sea, for example, walking 10-15km in Nea Makri by the sea. That is what makes me happy. I also used to swim with my son until he was 15, now he is 46.

§ NEWS

Augmented NBS for Cities: Embedding Technologies and Fostering Social Inclusion in Urban Strategies

AUTHOR: **Elsevier Journal**

The experience of NBS in place is now mature with numerous applications. However, the question of the added value in terms of innovation in the so-far applied solutions arises. The special issue of Open Access Elsevier Journal aims to collect best practices on how technologies, in different ways, can enhance the performance and impact of NBS.

Specifically, can technologies augment NBS, towards a more radical symbiosis of green and digital cities? Can we benefit from measuring NBS for developing successful and innovative management and business models of urban green, and support sound decision- and policymaking, which is often problematic to local government? What are the multiple impacts delivered by hybrid green and digital solutions, how to measure them, and eventually how to monetize them?
In particular, the following explorations around technology in and for NBS are relevant for this session:

Technology in Green: Embedding technologies inside NBS could increase its environmental performance and social impact; for instance, environmental sensors measuring the health of nature and biodiversity; green as urban displays and communication interfaces to people for communicating relevant messages; sensors for co-monitoring campaigns, as part of citizen-science activities around urban greening.

Technology for Green: outside and beyond NBS per se, technologies can be applied to enhance the impact of NBS in cities; ICT can be used to

Title page of Open Access Elsevier Journal © Elsevier Journal

engage citizens in co-producing and taking care of green (co-maintenance, co-monitoring), thus generating stronger sense of belonging and social bonds within communities, with emphasis on the inclusion of marginalised and vulnerable groups; moreover, mapping technologies such as remote sensing, LiDAR applied to urban green, can support monitoring the overall progress towards greener cities, contributing to assessing the global targets of the 2030 Agenda at the local scale (e.g. localizing SDGs in cities) and reporting on ESG criteria.

Starting from the ongoing applications of two European Projects, CLEVER Cities and VARCITIES, we look for papers presenting scientific methods and innovative products and services enhancing the potential of NBS in the urban context.

You can submit your papers HERE.

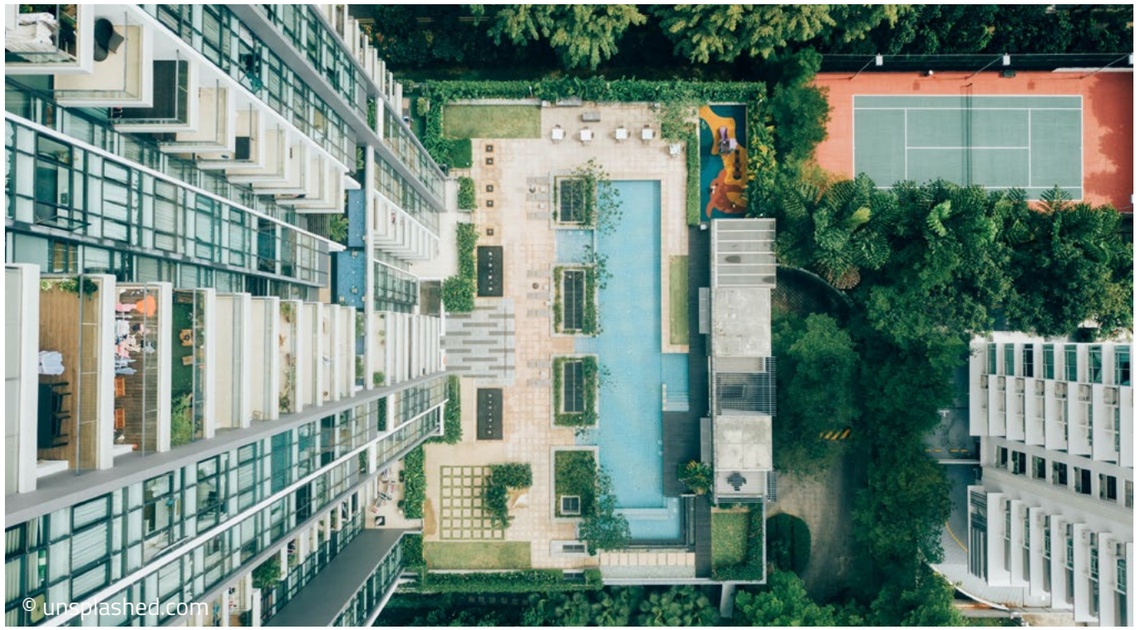
Important dates:

The submission portal opens on May 1st, 2022
Full paper submission deadline January 31st, 2023

Short title to select during submission:
Augmented NBS for Cities

Currently, the CLEVER Cities project is developing the co-design and co-monitoring phases of the interventions in all Front Runner cities. Possible contributions from this side would look at the use of different technologies in green strategies such as the use of digital surveying in measuring public participation and virtual reality acceptance for the interventions. In one of Milan ULL for instance, a green noise barrier is built up around a train station that will eventually increase environmental and acoustic comfort for the residents around this area. The usage of citizen-science around NBS themes is hence to be looked more in-depth regarding the increase of health, wellbeing, and general public spaces interventions.

The H2020 project VARCITIES is aiming to implement visionary solutions bridging NBS and



digital technologies into 8 European cities. The redesign of open public spaces and green areas will be done through co-design and co-creation processes by involving local stakeholders and experts. Every demo case is going to develop a dedicated monitoring system, to collect KPI addressing a wide range of parameters, from microclimate conditions to socio-economic changes or psychological well-being of users. All data from demos, combined with spatial info are going to build digital twins, and the so-called Health and Wellbeing City Platform, to share experiences and insights with other cities. The use of AR/VR and gamification is also foreseen to engage people in societal change towards sustainable behaviors and acceptance of such Visionary solutions, by leveraging the concept of multiple benefits.

Potential topics:

The session of the conference is allocated to the third track of the conference: Tackling what remains to be done: environmental sustainability in cities and regions. Hence, potential topics would look more into environmental sustainability, local governance and possible advancements in citizen-science using technology in urban greening.
The focus of special issue related to urban technology used in the field of Nature-based solutions implementation in cities. It expects to attract an international audience of professionals and practitioners that use NBS in the greening strategies in their cities. Moreover, the academics and students can deepen their knowledge around the same topics using the augmented reality techniques for instance towards improving the academic participation in stakeholders' engagement from a methodological perspective.

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