Report

on the Launch Event of TeAM HUb - the Hungarian Network Nature Hub for Nature-based solutions

18 October 2022

Content

Introduction

The launch event of TeAM HUb[1] - the Hungarian Network Nature Hub for Nature-based solutions took place at the Budapest Congress Centre on 18 October 2022.

The aim of TeAM Hub is twofold:

- to provide a forum for sharing national and international knowledge, experiences and good practices on nature-based solutions;
- to encourage dialogue and cooperation between governmental, municipal, professional and civil actors to promote the widespread practical application of nature-based solutions.

The primary target group of the event were local authorities, focusig mainly on nature-based solutions and funding opportunities available to them. Nature-based solutions must be adapted to local specificities to respond to local challenges and be designed and implemented with the broad involvement of local stakeholders and based on local resources. Ultimately, they serve the local community, economy and environment. Therefore local authorities have a crucial role in promoting the widespread uptake of nature-based solutions and can be catalysts for change that will shift the focus from classic grey infrastructure solutions to blue and green solutions.

At the same time, nature-based solutions require a systematic and holistic approach and thus need broad, cross-sectoral and multi-disciplinary cooperation. We are delighted that besides representatives of local authorities a large number of environmental, climate, geological, horticultural and agricultural experts, representatives of national parks and forests, spatial development experts, planners and consultants, and academics from higher education institutions attended the event in person or online.

The launch event of TeAM HUb was supported by the Deputy State Secretariat for the Implementation of Transport, Environment and Energy Efficiency Development Programmes of the Prime Minister's Office and ICLEI - Local Governments for Sustainability, with funding from the European Union.

[1] TeAM is an abbreviation of the Hungarian term for Nature-based Solutions, i.e. **Te**rmészet-**A**lapú **M**egoldások

Agenda of the event

TIME	LECTURE
9:30 - 10:45	Welcome speeches & Keynote presentations
	» **Csaba Latorcai PhD**, Deputy Minister for Regional Development, Prime Minister's Office » **Miklós Dukai PhD**, State Secretary for Local Governments, Ministry of Interior » **Judit Rózsa**, Director, European Commission, DG REFORM » **Jo Tyndall**, Environmental Director, OECD (online) » **Holger Robrecht**, Deputy Regional Director, ICLEI European Secretariat (online) » **Lajos Kovács**, Chairman, Association of Climate Friendly Municipalities
10:45 - 12:30	Introduction to nature-based solutions
	Complex case study simulation: » **Réka Ildikó Báthoryné Nagy PhD**, landscape architect, associate professor at the Department of Urban Planning and Municipal Green Infrastructure, Hungarian University of Agricultural and Life Sciences; » **Márton Vona PhD**, environmental protection, nature conservation and soil protection expert, hydrological engineer, managing director of GEO-SIVO Construction, Environmental Planning and Construction Ltd.
	Municipal good practices and solutions presented in the case study with the participation of beneficiaries of national and transnational projects (LIFE, INTERREG, URBACT): » **Orsolya Barsi,** Municipality of Budapest - Urban Stormwater Management (LIFE in Runoff project); *in her absence: Zoltán Rózsa* » **Gábor Csete,** Székesfehérvár City Service Ltd. - Rehabilitation of the Sóstó Nature Protection Area in Székesfehérvár » **Veronika Csuka,** Magnólia Art Landscaping Ltd. - Public park development with SUDS stormwater drainage system (GINOP project); *in her absence: Réka Ildikó Báthoryné Nagy PhD* » **Kata Farkas Barta,** Green Mission Association, Kecskemét - Establishment of rain gardens by citizens' initiative » **Ágnes Gulyás PhD,** University of Szeged - Climate-and bird-friendly transformation of a school garden (Nature4Cities H2020 pilot project) » **Zsuzsanna Király,** Mayor's Office of Zugló, Budapest 14th district - Rainwater and greywater utilisation in a municipal kindergarten (City Water Circles - Interreg Central Europe project) » **Tibor Klement,** BorsodChem Zrt - Climate adaptation measures through public-private partnership (LIFE CLIMCOOP project) » **Nóra Laki,** Municipality of Hegyvidék, Budapes 12th district - Urban apiculture (BeePathNet URBACT project)

TIME	LECTURE
	» **Balázs Temesvári PhD,** Veszprém Public Utility Services Ltd. - Climate-adaptive grassland management » **Sándor Tordai**, Municipality of Püspökszilágy - Natural water retention solutions (LIFE MICACC project) » **Zoltán Rózsa**, Association of Climate Friendly Municipalities, Small-scale projects for climate adaptation and natural water retention (LIFE LOGOS 4 WATERS project)
12:30 - 13:30	Lunch
13:30 - 14:30	Introduction of TeAM HUb - The Hungarian Hub for Nature-based Solutions » Anna Bruen, Officer, Sustainable Resource Management, Climate and Resilience Unit, ICLEI European Secretariat » Péter Szuppinger, environmental expert at BURST - Bright Urban Solutions Team Nonprofit Ltd., founder of TeAM HUb » Lajos Kovács, Chairman of the Association of Climate Friendly Municipalities, co-founder of TeAM HUb » Mónika Németh, Senior Expert at Grants Europe Consulting, coordinator of TeAM HUb
14:30 - 16:00	Parallel workshops
	Project generation for EEEOP Plus[2] » moderator: Noémi Dálnoky, Head of Unit, EEEOP Managing Authority, Prime Minister's Office
	Project generation for direct and transnational EU Funds (INTERREG / URBACT / LIFE) » moderator: Albert Ferenc Szigeti, Managing Director of BURST - Bright Urban Solutions Team Nonprofit Ltd.
16:00 - 16:30	Summary of the workshops & Closing remarks » Noémi Dálnoky, Head of Unit, EEEOP Managing Authority, Prime Minister's Office » Albert Ferenc Szigeti, Managing Director of BURST - Bright Urban Solutions Team Nonprofit Ltd.

[2] EEEOP stands for the Envionment and Energy Efficency Operational Programme of Hungary in the 2021-2027 funding period

Welcome speeches

The opening session of the event featured welcome speeches and keynote presentations from executives of governmental, municipal and international organisations, who play a key role in promoting nature-based solutions in Hungary through their activities, policies, knowledge transfer, and active participation in and support to projects.

Csaba Latorcai PhD, Deputy Minister for Regional Development of the Prime Minister's Office, highlighted that Hungary earmarked HUF 71 billion in the 2021-2027 programming period to promote green and blue infrastructure and NBS. These solutions are cost-effective means for municipalities to improve resilience to climate change and to address environmental problems exacerbated by climate change. Moreover, green and blue infrastructure investments and nature-based solutions are widely applicable in Hungarian municipalities. Funding for such interventions will be available from several Hungarian operational programmes as well as other EU programmes.

Miklós Dukai PhD, State Secretary for Local Governments at the Ministry of the Interior, confirmed that the Government's priority is to preserve biodiversity and provide a liveable environment for the population. To achieve this goal, small-scale and low-cost nature-based solutions are essential as they provide a greener and more liveable environment and improve the image of settlements. Nature-based solutions also provide habitats to various plant and animal species and strengthen the cohesion of local communities. Climate change is a global problem, but the Ministry of Interior sees excellent potential for adaptation at the individual, municipal and state levels and supports the development of nature-based solutions in cities relying on local resources and using local materials.

Judit Rózsa, Director of DG REFORM of the European Commission, underlined that environmental protection is a crucial policy priority of the EU even in the current crisis and the war in Ukraine. DG REFORM supports Member States by providing technical assistance to promote the uptake of nature-based solutions through knowledge sharing. Nature-based solutions allow for the protection of the natural environment and biodiversity and help adaptation to man-

made climate change. DG REFORM supported the project "Promoting Nature-based Solutions in Hungary", under its Structural Reform Support Programme (SRSP). The project experts coordinated by the OECD compiled a comprehensive state-of-play report of nature-based solutions in Hungary and formulated a complex set of recommendations to promote their future use.

Jo Tyndall, Environmental Director of OECD, welcomed the launch of TeAM HUb, the Hungarian Hub for Nature-Based Solutions in her online speech. She highlighted the loss of species and biodiversity due to human activities, especially in urban environments, and underlined the crucial role of green and blue infrastructure in environmental protection. Planning and maintenance of integrated water and land management should therefore have strategic importance.

Holger Robrecht, Deputy Regional Director of ICLEI's European Secretariat, also joined online and highlighted the role of local authorities in his speech. Climate change is a civilisational crisis, hence greening the urban environment and creating a more liveable urban environment is critical. He stressed that EU legislation aims to help climate adaptation and lay the foundations for spreading NBS. Cities must be close partners with governments and the EU Commission in its effective implementation. In conclusion, he highlighted the crucial role of ICLEI and the NetworkNature project in disseminating blue-green infrastructure solutions and expressed the hope that TeAM HUb will play the same role in Hungary.

Lajos Kovács, President of the Association of Climate-Friendly Municipalities (ACFM), closed the keynote speeches by linking to the ICLEI Deputy Regional Director, highlighting the role of local governments and local initiatives. The Association of Climate-Friendly Municipalities can play an essential role in promoting the use of nature-based solutions in cities, as demonstrated by the LIFE projects implemented by the ACFM so far.

Complex case study simulation and good practices

The case study simulation was moderated by Ildikó Réka Báthoryné Nagy PhD, landscape architect, and Márton Vona PhD, environmental, nature and soil conservation expert and water planner, who presented a fictional city, Vásárvár. Vásárvár includes flat and hilly parts, arable land, farmland, forest and nature reserves, a historic city centre, parks, an industrial park and residential areas. The model aimed to illustrate the most common potential problems of settlements in a fictitious city structure. The two facilitators presented the main potential conflicts between public and private land use and their impacts, problems caused by paved surfaces, the role of water retention in cooling and heat island effect mitigation. They highlighted that using nature-based solutions is an excellent tool for water retention and that pavement retrofitting and building stock improvements are needed to make the urban environment more liveable. However, engineering knowledge and technical standards are required to apply appropriate nature-based solutions. Embedded into the case study simulation, good practices were presented along five main topics. These good practices will also be presented in a separate publication.

Resilience of buildings

Green roofs and green facades can ensure the resilience of buildings. Green roofs are excellent rainwater harvesters and insulators, reduce heat stress, and increase habitat and species diversity. Green, vegetated facades provide natural water replenishment, reduce facade heating, provide good insulation and evaporation, improve air quality, provide habitat and manage stormwater. They also have minimal maintenance requirements, are resilient, self-contained systems and have a low installation cost.

Water damage prevention, water management

Cities and local businesses working together for climate adaptation

Tibor Klement, BorsodChem Zrt.

The overall goal of the ***LIFE-CLIMCOOP*** (Life) project is to develop, test and demonstrate collaborative actions between a city government and a multinational company to reduce local climate risks and enhance joint climate change adaptation measures for vulnerable urban and industrial areas in the selected region, and in areas having a similar socio-economic context. The project is based on a joint initiative led by the University of Miskolc and will implement small-scale pilot interventions to promote water saving and water retention.

Project website: *life-climcoop.hu*

Ecologically sound small-scale natural water damage prevention and water retention measures

Sándor Tordai, Municipality of Püspökszilágy

LIFE-MICACC (Life) project aims to improve the climate resilience of vulnerable municipalities in Hungary by reducing the risks stemming from climate change. The project enables cities to learn, test and promote the integration of sustainable ecosystem-based water management approaches into local environmental management strategies and land use planning practices. The project also aims to strengthen the coordinating role of local authorities in climate change adaptation planning and risk identification.

Project website: *vizmegtartomegoldasok.bm.hu/hu*

Small-scale water retention

Zoltán Rózsa, Association of Climate Friendly Municipalities

The ***LIFE LOGOS 4 WATERS*** (Life) project aims to improve local municipalities' climate adaptation and coordination capacities, support the mobilisation and efficient use of related funding, and promote natural water retention solutions. The project encourages the dissemination of good practices of Natural Water Retention Measures (NWRM) at the municipal and river basin level coordinated by local authorities. The project has also provided the opportunity to support small-scale water retention solutions in municipalities via a dedicated third-party funding scheme.

Project website: *lifelogos4waters.bm.hu*

Urban stormwater management

Zoltán Rózsa, Association of Climate Friendly Municipalities

The main objective of the ***LIFE in Runoff*** (Life) project is to support urban climate adaptation in stormwater management by finding and strengthening synergies between green and blue infrastructures. Combining nature-based and technological solutions can effectively reduce the harmful consequences of sudden rainfall events. Vulnerability assessments will identify intervention points in three districts of Budapest, followed by demonstration elements to showcase urban stormwater management options to professionals, decision-makers and city residents. The aim is that by the end of the project, the target groups will treat rainwater as an asset while at the same time being aware of and implementing solutions to reduce and prevent the adverse consequences of sudden rainfall events.

Project website: *varosieso.hu*

Rain and grey water recycling in a kindergarten in Zugló

Zsuzsanna Király, Municipality of Zugló, Budapest XIV. district

City Water Circles - CWC (Interreg Central Europe) project aims to help municipalities to refurbish outdated urban water infrastructure systems by applying a circular economy approach, which has several economic and environmental benefits. The project results enable European cities to achieve more efficient water management. The project has developed model strategies and pilot investments. A knowledge base to support professional and decision-making activities will make technologies, financial and policy tools that stakeholders can apply. One of the pilot sites of the project is the Hétszínvirág Kindergarten in Zugló, where rainwater runoff from the roof is filtered and purified using a gravel bed and root zone and then recycled for irrigation; grey water from hand washing is used for toilet flushing.

Project website: *Urban Water Circle (mizuglonk.hu)*

Increasing the permeability of insulated surfaces

Establishment of rain gardens by citizens' initiative

Kata Farkas Barta, Green Mission Association, Kecskemét

The Green Mission Association has taken up a ***local initiative*** to solve stormwater drainage problems in one of Kecskemét's streets by creating a rain garden. Water drained from the

roofs of the apartment buildings was flowing to the base of the buildings, soaking the walls of the apartments and causing mould. Meanwhile, the small area between the condominiums did not have any vegetation, and the drought caused the grass on the sandy soil to burn out quickly. The association created a rain garden with the active participation of the residents and a little support from the municipal council's budget.

The association's website: *zoldkuldetes.hu*

Green infrastructure development, green space management

Public park development with Sustainable Urban Drainage System

Ildikó Réka Báthoryné Nagy PhD, landscape architect

The Municipality of Zalakaros developed a public park implementing a Sustainable Urban Drainage System (SUDS) within the ***Complex tourism development of Zalakaros health resort*** (GINOP) project. The city created a high quality, beautiful environment through landscaping and planting, and the development positively impacts local climatic conditions and increases biodiversity. Permeable pavements, terrain mounds and depressions retain rainwater and infiltrate it into the subsoil to ensure adequate water circulation, while woody and herbaceous plants increase the evapotranspiration surface. The development initially intended to treat water from about 1,100 m^2 of surface area, but eventually, it was diverted from several other locations.

The city's website: *zalakaros.hu*

Wildflower Veszprém - sustainable grassland management

Balázs Temesvári PhD, Veszprém Public Utility Services Ltd.

The ***Wildflower Veszprém*** programme aims to identify and strengthen opportunities in current green space maintenance practices to introduce different maintenance and management technologies for public lawns. These will increase the efficiency of green space maintenance, improve the adaptation of the grassland to the urban climate, increase the habitat and species diversity of the urban green space, increase the aesthetic value of grassland with wildflower meadow effects, and change the image of the municipality. The programme's impact is multiplied by informing and involving the public and environmental education.

Publication on climate-adaptive grassland management on *NetworkNature website*

Improving natural habitats and urban biodiversity

Bee-friendly district

Nóra Laki, Municipality of Hegyvidék Budapest XII. district

The ***BeePathNet*** URBACT project launched the BeeFriendly District programme recognising that pollinating insects must be protected, helped, and befriended in the urban environment. The district has many gardens and shared green spaces, presenting an opportunity to open up these areas and bring them closer to nature. The city learned from the experience of Ljubljana, the lead partner of BeePathNet project, and adapted the good practices of the Slovenian capital to its own needs. As a result, the district established a successful urban beekeeping network. In addition, the project has gathered and shared knowledge and experience with four other European cities participating in the project.

The Bee Network's website: *zold.hegyvidek.hu/mehbarat-halozat/halozat*

BeePathNet URBACT project website: *urbact.eu/networks/beepathnet*

Rehabilitation of the Sóstó Nature Protection Area in Székesfehérvár

Gábor Csete, Székesfehérvár City Service Ltd.

The project was initiated by the Municipality of Székesfehérvár, in cooperation with the Duna-Ipoly National Park Directorate, as part of the ***renovation programme of Mol Arena Sóstó,*** the city's football stadium and its surroundings. The 218-hectare site, 121 hectares of which are nationally protected, was previously degraded as a habitat, biodiversity had declined, and visitor access was limited. The intervention has breathed life into the area by managing stormwater and treated wastewater runoff from the Mol Arena site. New habitat zones have been created by dredging, bank reinforcement, and keeping the excavated material in place. While maintaining and reinforcing the nature reserve status, the lake has been made accessible to all, and the existing nature trail has been improved and extended. Visitors can learn about the importance of wetlands, conservation issues, active nature conservation, and the many protected and endangered species of flora and fauna.

Sóstó Nature Protection Area's website: *sostoszekesfehervar.hu*

Climate-and bird-friendly transformation of a school garden

Ágnes Gulyás PhD, University of Szeged

The renovation of the courtyard of the Arany János Primary School in Szeged was a mini-project implemented as a ***grassroots initiative***. The intervention's impact was monitored in the ***Nature4Cities*** H2020 project. The large courtyard was rather barren despite the many trees and suffered from many problems, such as high noise and air pollution due to its location and poor water balance. The courtyard was transformed through several stages of improvement by composting, planting shrubs and perennials, protecting pollinators and birds, and collecting rainwater with the involvement of the pupils and their parents.

Project website: *nature4cities.eu*

A short video about the pilot project:: *Nature-Based Solutions pilot site - Bird friendly garden in Szeged (HU) - YouTube*

TeAM HUb - Presentation of the Hungarian Network Nature Hub for Nature-based Solutions

Anna Bruen from the Sustainable Resource Management, Climate and Resilience Unit of the ICLEI European Secretariat presented the NetworkNature project. NetworkNature is a H2020-funded umbrella project that brings together 46 H2020 and Horizon Europe projects on nature-based solutions into one platform. It aims to gather and share resources, projects, best practices and tools to to support the nature-based solutions community and promote the uptake of nature-based solutions. The project has set up task forces to draft policy papers and thematic publications along transversal topics and supports the creation of platforms (hubs) at the regional or national level. The NetworkNature project has helped the creation of TeAM HUb and launched another in Northern Europe. More hubs will follow, the next one in Portugal, and possibly hubs in Germany, Italy and outside Europe.

Péter Szuppinger, BURST - Bright Urban Solutions Team Nonprofit Ltd.'s environmental expert, founder of TeAM HUb presented the motivations and background of establishing the Hub. An important antecedent has been BURST's involvement in the UPSURGE (Horizon2020) project[3], which aims to promote urban regeneration by creating a "lighthouse" to facilitate the development and availability of knowledge, experts and technology for nature-based solutions.

Lajos Kovács, Chairman of the Association of Climate Friendly Municipalities and co-founder of TeAM HUb, highlighted that TeAM HUb could play a significant role in spreading nature-based solutions by collecting and sharing information, good practices and experiences, building an expert network, as well as pursuing advocacy.

Mónika Németh, a senior expert of Grants Europe Consulting and coordinator of TeAM HUb, highlighted the role of Grants Europe Consulting in the development and implementation of some of the international projects presented in the case study simulation, as well as in providing expertise in the framework of the SRSP project supported by DG REFORM. This project was an important milestone and starting point for establishing the Hungarian Hub for Nature-Based Solutions. It facilitated a broad dialogue between governmental and professional stakeholders and developed a comprehensive set of recommendations to promote the uptake of nature-based solutions. Mónika Németh then presented the founding of TeAM HUb, its objectives, activities and long-term vision.

[3] UPSURGE – The EU Regenerative Urban Lighthouse Project: *upsurge-project.eu*

TeAM HUb is a professional community of organisations and individuals committed to the widespread use and dissemination of nature-based solutions in Hungary

The aims of TeAM HUb are:

- expanding and sharing knowledge and information on nature-based solutions;
- promoting the implementation of more nature-based solutions in Hungary;
- via promoting the cooperation of all relevant stakeholders;
- and by making maximum use of the contacts and knowledge available via being embedded in an international network.

The main activities of TeAM HUb are:

- Knowledge sharing by creating an online platform with information, case studies and articles in Hungarian language.
- Professional community building by sharing news, information via the TeAM HUb facebook page.
- Joint initiatives: events, joint projects, trainings, etc.

Mónika stressed that the future goal of TeAM HUb is to establish an advisory group of government officials and experts, building on the foundations of the SRSP project. This group could play an active role in shaping the policy environment for nature-based solutions. Besides, the HUb aims to establish a group of knnowledge providers who are able to promote the preparation and implementation of more successful NBS-related projects. She thanked the support of the Prime Minister's Office and the EEEOP Managing Authority.

TeAM Hub's contacts:

- E-mail: *teamhub@burstgroup.eu*
- Facebook: Természet-Alapú Megoldások HUB: *facebook.com/TEAM.HUB.BURST*
- Website: *networknature.eu/team-hub*
- Linktree: *linktr.ee/team_hub*

Following the presentation of TeAM HUb, Mónika invited on-site and online participants to participate in an interactive exercise to learn about the expectations towards TeAM HUb and its activities. The responses received are summarised in the diagrams below.

Figure 1: How useful do you find the following types of knowledge sources on nature-based solutions?

On a scale from 1 to 5, where 1 means "not useful" and 5 means "very useful":

- *Case studies on Hungarian good practices scored 4.7;*
- *Case studies on international good practices scored 4.1;*
- *Technical guidance documents scored 4.4;*
- *Information leaflets on funding opportunities scored 4.6;*
- *Information leaflets on legal, regulatory, policy framework scored 4.4;*

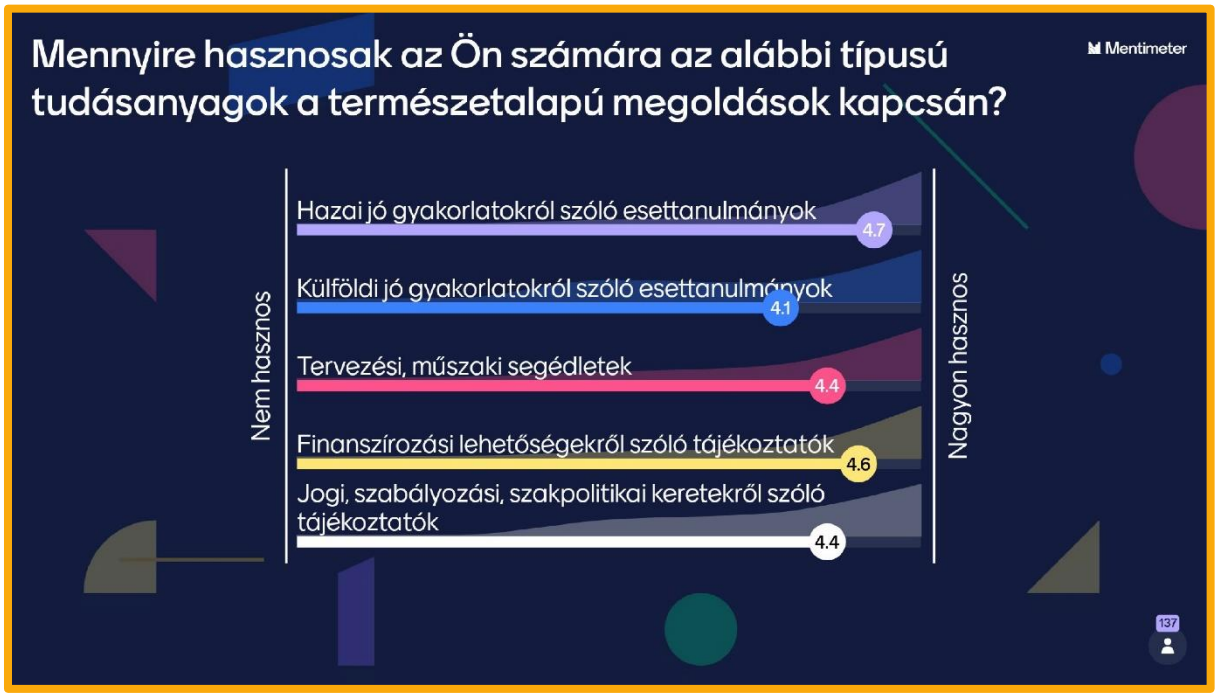

Figure 2: Who do you think it would be most useful to cooperate with?

- *Water management organisations have been selected by 92 voters;*
- *Engineering companies and landscape architects have been selected by 92 voters;*
- *Nature protection experts / ecologists / etc. have been selected by 73 voters;*
- *followed by NGOs (38 votes), actors of the construction sector (35 votes), agriculture sector (34 votes), forestry (20 votes), national park directorates (17 votes), disaster management organisations (15 votes) and other (7 votes)*

Figure 3: Which channels would you prefer to receive news about TeAM HUb?

- *Facebook ranked highest amongst respondents;*
- *Communication in e-mail is 2nd most popular channel;*
- *followed by regular newsletters, closed online community platforms and LinkedIn.*

Figure 4: Which TeAM HUb activities would help your work the most?

On a scale from 1 to 5, where 1 means "least useful" and 5 means "most useful":

- *Professional / thematic conferences scored 3.7;*
- *Smaller-scale workshops scored 3.8;*
- *Online trainings, webinars & podcasts scored 3.5;*
- *Support to project development scored 4.1;*
- *Support to professional networking scored 4.3.*

In summary, the survey resulted in the following conclusions:

- The most useful knowledge source are case studies on good practices implemented in Hungary and information sheets on funding opportunities.
- Water management organisations, engineering companies and landscape architects are the most preferred collaborating partners.
- In a separate question, participants were also asked to name specific organisations, with the Hungarian General Directorate of Water Management (OVF) and regional water directorates coming up by far the most frequently. Other organisations mentioned more than once were chambers of commerce, universities, the Hungarian Urban Society, WWF, Lechner Knowledge Centre, National Park Directorates, Ministry of Construction and Investment, water utility providers, Hungarian Association of Landscape Architects, Hungarian Permaculture Association, Hungarian Association of Nature Conservationists, Hungarian Geographical Society, etc.
- The preferred communication channels are Facebook and email.
- The most preferred activities activities from TeAM HUb are support for professional networking and support for project development.

Paralell Workshops

Project generation workshop for EEEOP Plus

Dálnoky Noémi, Head of unit at the EEEOP Managing Authority of the Prime Minister's Office, started the workshop with an introductory presentation. She shared information on the main objectives, intervention priorities, and measures of the expected green-blue infrastructure scheme under the Environment and Energy Efficiency Operational Programme Plus (EEEOP Plus), which is still under preparation. She also provided concrete examples of indicators to measure the results. Her presentation provided information on the funding logic and the scale of funding available to municipalities of different sizes, including under-developed villages and beneficiary municipalities of the Economic Recovery Programme.

Noémi outlined practical considerations for designing projects for calls for proposals, such as the need to support the operation of the water utilities, links to previous projects, and applying a complex approach. Maintenance costs for the first year of operation may be be eligible. Still, low-maintenance projects are encouraged (e.g. grass-cutting and irrigation are costly items). Projects that are purely touristic or aesthetic will not be funded; however, a multi-legged approach may help with maintenance. Consortium partnerships can be broad, involving almost anyone, as long as they have relevant references. However, applying local knowledge is more than recommended. An important principle is focusing on real problems. When designing a project, beneficiaries should dedicate at least 80% of the resources to the main issue. In comparison, about 20% should be used for small complementary interventions, research or awareness-raising. An excellent municipal approach is to put nature first and people second, who benefit from nature.

Afterwards, the participants continued the discussion in three groups. The groups comprised of representatives of municipalities of the (1) capital and large cities, (2) medium-sized settlements and (3) small towns and experts, consultants and NGOs joined them.

Problems and barriers

All three groups identified environmental and water management problems that need to be addressed in short to medium term. These problems affect all municipalities depending on their topography, regardless of their size.

Most common problem:

- Municipalities lack data, surveys and related maps.

Water treatment and retention:

- increasingly frequent flash floods,
- damage caused by inland flooding,
- increasing droughts,
- frequent flooding and flooding of water courses,
- difficulties reconciling the interests of the population of different settlements (especially those living in hilly areas and the lower parts).

Intensifying urban heat island effect:

- growing heat islands in dense residential developments;
- little or no green space in densely populated central areas;
- challenges of historic districts.

The state of public utilities is a major concern in some cities:

- The rapidly increasing population demand cannot be met by an ageing, outdated utility system;
- Utility upgrades are lagging behind;
- Water utilities have deteriorated, and sewage and wastewater networks are in critical condition;
- Stormwater drainage and seepage ditches are sometimes illegally filled in by property owners;
- Special technical solutions are required because of the excessive difference in level.

Financial difficulties:

- Availability of own municipal resources to carry out the necessary improvements is very limited,
- The available EU and national funding is insufficient to finance the necessary interventions in the short, medium and long term;
- Following a disaster, government support from the force majeure fund is typically sufficient only to restore the previous poor structures and does not address the root of the problems;
- Municipalities typically do not have sufficient resources to maintain (conservation and maintenance) existing green areas.

Communication:

- Different organisations responsible for or concerned with the management of a given problem (local government, county government, public authorities, institutions, NGOs) do not communicate with each other or only to a limited extent;

- Good practices are not shared;
- The involvement of NGOs and citizens in green/blue issues should be increased.

Regulation:

- In many cases, there is no established implementation protocol for the regulations and ordinances adopted; there are no uniform administrative procedures in practice.

Public procurement:

- Green public procurements are too complicated, and often, there are no suitable (local) experts.

Project ideas and recommendations

Participants would like to receive funding for the following project ideas - preferably with a minimal co-financing, not exceeding 10%:

- reducing heat islands in housing estates through nature-based solutions (see creating Miyawaki forests and community gardens, increasing green spaces);
- creating rain gardens;
- stream bed revitalisation;
- creating stormwater reservoirs;
- installing near-natural flood managament facilities;
- development of a network of stormwater drainage and seepage ditches.

Participants highlighted that projects should allow more extended project preparation periods and preparation costs should be eligible.

Access

It would be helpful for project planning if local authorities could obtain satellite images (free of charge) from universities and research centres.

Cooperation between sectors

Municipalities are willing to work with universities for mutual benefits as that would allow the involvement of local expertise. On the other hand, students can be motivated by the possibility of finding solutions to real problems through actual fieldwork (e.g. in the form of a guided thesis or project work). There are many cases of good practices, and cities would be glad to continue and expand cooperation in joint projects.

Funding, own sources

The financial situation of local authorities is extremely challenging at present. Many cities are forced to close institutions, and they will not be able to allocate more than 10% of the costs to projects as an own contribution. At the same time, many believe they will be only able to apply for 100% non-reimbursable grants (although they know that such schemes are very rare for infrastructure developments). They also agree that they can not apply for loans in the current situation, and it is implausible that banks consider the municipalities creditworthy. It would be helpful if the EEEOP Plus would allow in-kind contributions and in-house procurement. If the demonstration of compliance with the Integrated Municipal Water Management Plan (IMWMP) is required, the preparation of this document should be eligible.

Project generation workshop for direct and transnational EU Funds

The workshop aimed to present how Urbact, Interreg Central Europe and Life programmes can support nature-based solutions and generate project ideas that could fit into these programmes.

At the beginning of the workshop, **Ferenc Szigeti**, Managing Director of BURST - Bright Urban Solutions Team Nonprofit Ltd., summarised each programme's specificities based on a case study of the Municipality of Budapest XIIth District. The district first participated in the ***Urban Green Belts*** project, supported by Interreg Central Europe. The project aimed to develop the planning, management and decision-making capacities of the municipality concerning green spaces. The next project was the ***BeePathNet*** Urbact Transfer Network project on urban pollination. That was followed by ***Health and Greenspace*** Urbact Action Planning Network project, targeting a healthier environment for city dwellers. Ultimately, the district initiated the ***Life in Runoff*** project to mitigate the damage caused by flash floods in the urban environment. Finally, Ferenc presented a table summarising the main criteria for selecting the right funding programme by potential applicants.

1. Table: Summary of the main criteria for choosing the adequate funding programme

	Urbact	Interreg Central Europe	Life
Do we know exactly what we want to do?	We are just trying to find out	We want to try it out on a small scale, to understand the mechanisms of operation	Yes, we have already tested or would take over an idea that has been tested elsewhere - to introduce or measure its impact
What is the focus of the project?	Good governance, building a thematic network of likeminded municipalities	Policy, testing technical options, transnational comparison, cooperation	Thematic environmental objectives, assessing their technical, socio-economic impacts
We have an idea, what can we do with it?	Planning, strategy-making	Pilot implementation, monitoring	Introduction of an innovative solution or dissemination of mature solutions
Who is responsible?	Focuses specifically on urban management and municipal tasks	Cities, public authorities, NGOs, universities and other actors can also apply	The ideal applicant will be the owner of the site or the operator in charge of the task targeted
Who will we work with?	We can build up local partnerships and learn from other cities in the process	Mirror competences from other countries (e.g. city + water partnerships) or complementary competences between countries (e.g. a German landscape architect or Polish engineering company will work on our pilot too)	Typically with relevant local actors (possibly 1-2 foreign partners too)
How will the project help us decide which solution to choose?	We can get examples from abroad and get in touch with local experts	We can implement a pilot action, test on a small scale how it works, how much it would cost	We can implement concrete solutions, calculations, monitoring of the sustainability of the solution

	Urbact	Interreg Central Europe	Life
How do we measure the results of the project?	Collaboration, meetings and resulting action plans	Pilot implementations, tested solutions, strategies	Results on climate change, measurable by environmental and social indicators

After the introductory presentation, participants were invited to discuss in smaller groups what they considered to be the main barriers for the use of nature-based solutions according to the following criteria:

- What knowledge and competencies does a local government need to be able to properly assess the local applicability of a given solution?
- From whom can this knowledge be obtained? Who are the local stakeholders and local/international partners to be involved?
- What are the potential regulatory barriers or gaps in implementing the solution?
- What supporting strategic, policy, planning, technical, and impact assessment documents are needed to prepare the development?
- What small-scale investments are needed to test the solution in practice?

Problems and barriers

The main problems that emerged during discussions were the following.

General comments and problems:

- It would be necessary for municipalities and NGOs to have data, measurements and research to support the effectiveness of nature-based solutions. Currently, cities lack evidence-based data, surveys and related maps.
- Municipalities need long-term strategic thinking to get involved in international projects, as these projects do not provide immediate, quick solutions. Knowledge and commitment are often lacking. Especially in the case of Life projects, cities must have the competence and a clear commitment already at the beginning of the project development.
- Interventions must extend to larger areas or reach a critical mass that can significantly impact the municipal level.

Support and financing:

- Hungarian Operational Programmes should capitalise on lessons and good practices from international projects.
- Smaller municipalities should easily apply for small-scale interventions.

- Transfer networks such as Urbact's ones should be supported to disseminate good practices.
- The involvement of NGOs and small grants for NGOs could be very effective. NGOs could implement many useful projects even with small grants.

Cooperation, learning, and communication:

- Dialogue between the main players (municipalities, institutions, NGOs, experts) and sharing good practices, experiences and difficulties are essential.
- There is great potential for cooperation between local authorities and NGOs, as the NGOs knowledge and organisational skills can greatly help implement small-scale interventions and gain public acceptance. The involvement of NGOs also has a significant multiplier effect.
- The Urbact methodology can be a handy tool for developing a conflict area or for the large-scale design of a nature-based solution and is an excellent tool for co-creation based on the cooperation of municipalities, experts, civil society, citizens and private actors.
- The lack of courage of municipalities is a real problem. Cities often avoid unpopular measures, holding citizens accountable for their responsibilities (e.g. the maintenance of stormwater drainage ditches) or using disincentives (penalties) because of negative communication.
- A problem related to the above is the force of habit favouring grey infrastructure. It would be necessary to promote nature-based solutions to counter this mentality and break habits when addressing local authorities, institutions and the public.
- It is crucial to educate the population. For example, the distribution of water reservoirs has failed in many places because it has not been accompanied by education. As a positive example, the 12th district of Budapest will link the distribution of free water containers to participation in a one-day workshop.

Regulation:

- In many cases, existing or newly enacted regulations do not encourage nature-based solutions, and there is no way to influence these decisions.
- Engineering is also essential when applying nature-based solutions.

Project ideas and recommendations

Water treatment and conservation projects:

- Flash flood mitigation (LIFE)
- Management of flash floods in hilly settlements (LIFE, KEHOP)
- Stormwater retention reservoir pond (LIFE)

- Retention of stormwater runoff (LIFE)
- The revitalisation of Tápió stream, Rákos stream in the inner settlement area (LIFE)
- Watershed-level cooperation between municipalities of Homokhátság to address both water scarcity and water surplus (LIFE)
- Residential rain gardens (INTERREG CE)
- Sharing water conservation practices (URBACT)

Projects to improve green spaces:

- Development of pocket gardens (URBACT)
- Green spaces, eco-groves - creating community spaces (URBACT)
- Climate-friendly shore for education and recreation (INTERREG CE)
- Urban gardening (URBACT)
- Urban green space network (URBACT)

Other projects:

- Nature therapy
- Soil protection, soil management, soil fertility (INTERREG CE)
- Heat island and heat wave mitigation in cities (INTERREG CE)

Comprehensive projects promoting cooperation:

- Optimisation of water use in institutions and households (INTERREG CE)
- Public rain gardens, collection of foliage in public parks, visualisation and presentation of nature-based solutions, street art, led by civil associations (Creative Europe)
- Sustainability round table, green office, green centre (URBACT, INTERREG CE)
- Support for urban communication on climate change (URBACT)
- A project similar to Urbact's transfer networks, building on the lessons learned from international projects, to support the dissemination of good practices in Hungary (LIFE, KEHOP?)

Photos: Prime Minister's Office, Petra Horogh

TeAM HUb.

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