Network Nature

Annual Event Report

Upscaling nature-based solutions in policy and practice

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Introduction

Upscaling nature-based solutions in policy and practice

Objectives and themes

The NetworkNature Annual Event took place on 27th September 2022, at the Museum of Natural Sciences of Brussels.

Nature-based solutions (NBS), if designed and implemented well, can produce a multitude of benefits simultaneously, including for health and wellbeing, agriculture, water, food and energy production, climate change, economic development, and more. Mainstreaming these solutions through agreed (quality) standards and best practices can help maximise the impact and uptake of nature-based solutions.

The event provided the opportunity to learn more about the state-of-the-art developments in NBS evidence, practice and policy, and focused on:

- *The Network Nature semester theme "Nature-based solutions and Standards", to ensure the quality, effectiveness and scale of implementation that helps deliver the European Green Deal and the challenges related to biodiversity, climate change and socio-economic development.*
- *The role of key stakeholder groups in a successful implementation of the EU Nature Restoration Law*
- *The outcomes and lessons learnt from some of the EU NBS projects*

Exchange of knowledge, capacity building and dialogue across stakeholders and sectors is key to developing joint action for upscaling NBS. NetworkNature hosted an annual event to take stock of achievements across EU-funded projects (mainly H2020, Horizon Europe) and provide the opportunity to learn more about the state-of-the-art developments in NBS evidence, practice and policy.

The event gathered the nature-based solutions community and other interested stakeholders from all target groups, including policymakers, scientific experts, civil society as well as investors and financing institutions, infrastructure planners and builders, landowners and natural resource managers to share and learn about the ways through which nature-based solutions can be upscaled, through policy and practice, how different sectors can contribute, and the role of standards.

Opening plenary

Introduction

The opening plenary of the NetworkNature Annual Event started with a welcome and introduction by David Maddox from the Nature of Cities, moderator of the event.

He introduced the NetworkNature project, stressing the important collaborations with EU NBS projects (H2020 and Horizon Europe), as well as the structure and objective of the day, to learn more about the state-of-the-art developments in NBS evidence, practice and policy.

Network Nature: achievements and plans for the future

The first session of the day introduced some of the NetworkNature partners to explain the latest achievements in the project and plans for the future.

Jonathan Porter, Oppla coordinator, explained the different features of the NetworkNature platform, including the case studies repository, the NBS resources, and the projects container, where all NBS projects can add their information and resources.

Mariem El Harrak, Scientific officer at Biodiversa+, introduced the work carried out in relation to the NBS knowledge gaps database and NBS Research & Innovation (R&I) Roadmap. She explained that for sustainable and effective NBS, knowledge is needed on all levels, to innovate and to best implement NBS. Helping to bridge those knowledge gaps is one of NetwokNature's missions. With this main goal in mind, NetworkNature developed a mapping of European research, innovation and implementation project working on NBS (BiodivERsA, Horizon 2020 and Interreg). This work (which is still being extended) is a key tool for R&I but also for policy and practice to better understand what has been done already. In addition, NetworkNature focused on gathering knowledge gaps on NBS and developed a database available on the NetworkNature platform with key knowledge gaps on the topic for researchers to relate their works and also for policy and practice to see where the frontiers are. Lastly, building on all this knowledge, NetworkNature is facilitating the development of the future European R&I Roadmap on Nature-based solutions.

Anna Bruen, Officer for Sustainable Resource Management and Integrated Service Solutions at ICLEI, explained that one of the focus-points of the NetworkNature project for upscaling NBS is creating ‘NBS hubs’. Such hubs are aimed at further upscaling NBS by fostering multi-level, vertical, collaboration between cities, regions, and national governments. Two NetworkNature hubs have been recently launched in October 2022 (the Nordic Hub and the Hungarian Hub), while a Portuguese Hub will be launched soon. The previous and first day of this event, the 26th of September, was dedicated to the NBS Hubs: all the representatives of the NBS Hubs got together to have an exchange with other existing Hubs about how it is going with NBS in the different regions, with the purpose of clarifying how to establish a hub, and looking on how to upscale NBS.

Bettina Wilk, Senior Project Officer for Nature-Based Solutions and Biodiversity at ICLEI and NetworkNature project coordinator, added that one overarching objective of NetworkNature is to identify key transversal themes (called semester themes) driving NBS development in communities. It is important to gather NBS resources considering different stakeholders' perceptions to discuss targeted themes: the current semester theme is focusing on defining standards for high quality NBS.

Susanna Gionfra, the European Programme Officer for Nature-Based Solutions at IUCN, mentioned that NetworkNature also aims to reach different target audiences. This is pursued through sharing resources on the NetworkNature digital platform, enabling dialogues and creating NewtorkNature fact-sheets and knowledge briefs targeting different groups of stakeholders, focusing on key topics of relevance to the global NBS discourse. In addition, she explained the work carried out through the five NetworkNature TaskForces, gathering representatives of different EU NBS projects to collaborate on joint actions and products.

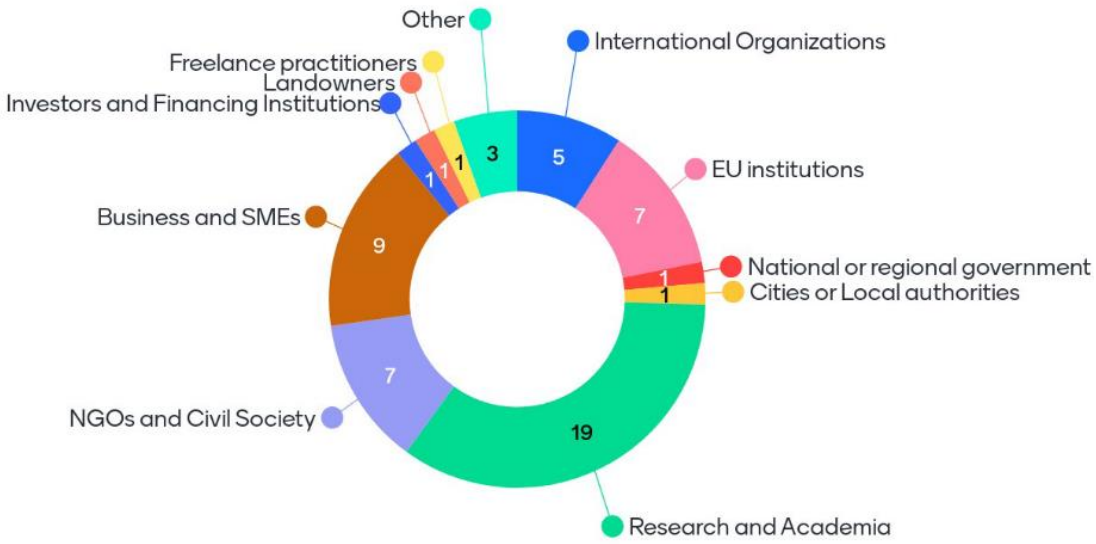
Dorsa Sheikholeslami, the Programme Officer for Nature-Based Solutions at IUCN, concluded this session mentioning the NBS resources database, currently being built on the NetworkNature website, to contain reports, knowledge briefs, podcasts, documents, and any other informative material which can contribute to the understanding of NBS.

Interactive session

An interactive session to engage the audience was run through the use of mentimeter.

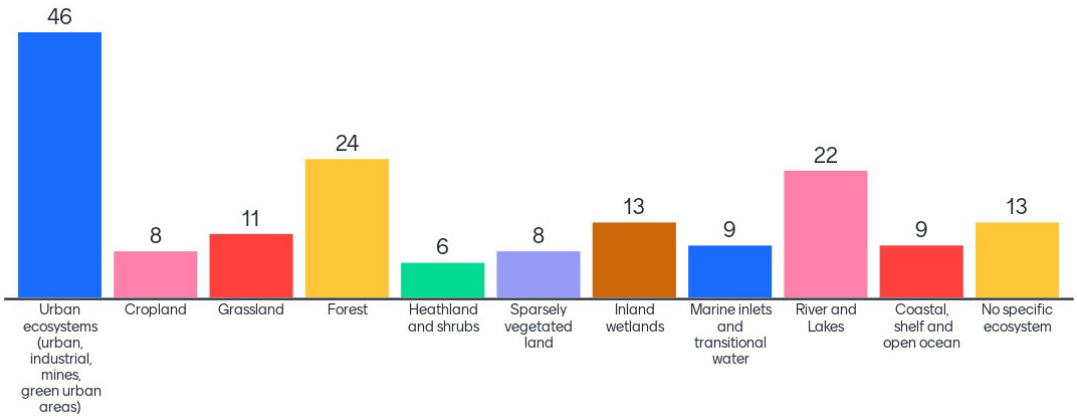
Firstly, the results of the mentimeter poll questions provided information about the composition of the audience. The most represented group in the audience was Research and Academia, followed by Business and SMEs, EU Institutions, and NGOs and Civil Society (**Figure 1**).

Figure 1 - Mentimeter answers to the question: "Which stakeholder category do you represent?"



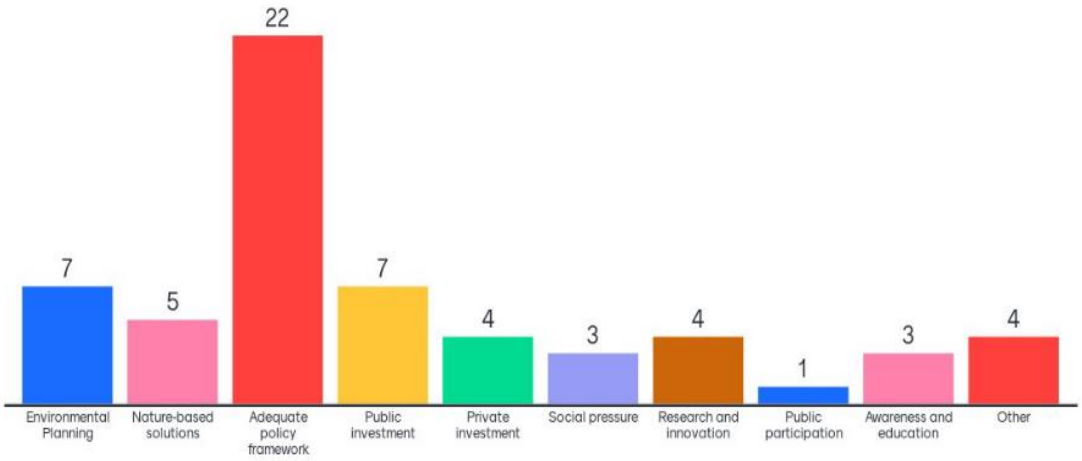
Furthermore, most of the audience is currently involved in one or more EU NBS projects, and the most popular type of ecosystem addressed through the work and projects of the audience are urban ecosystems, followed by forests, rivers and lakes (**Figure 2**).

Figure 2 - Mentimeter answers to the question: "What ecosystems are targeted through your work/project?"



In addition, the mentimeter questions explored the different opinions contributing to nature restoration and biodiversity net gain. According to the attendees, an adequate policy framework is the most important driver for achieving biodiversity net gain and ecosystems restoration (**Figure 3**).

Figure 3 - Mentimeter answers to the question: "Which of the following options most contributes to nature restoration and to achieving biodiversity net gain?"



According to the audience viewpoints, the lack of political will, funding, and awareness, were evaluated as the most important barriers for restoring ecosystems at scale (**Figure 4**), while politicians, citizens, and businesses should be more included in conversations about NBS (**Figure 5**).

Figure 4 - Mentimeter answers to the question: "What do you consider the most important barrier for restoring ecosystems at scale?"

Figure 5 - Mentimeter answers to the question: "Which category of persons should be involved in conversation about NBS but typically is not?"

Driving NBS standards and quality

Efrén Feliu & Dora Almassy, the NetworkNature experts for the semester theme on NBS and standards, provided an overview of the results obtained during the semester theme. First, Dora Almassy, sustainability researcher and PhD in Environmental Sciences and Policy, explained the process followed by the experts during the semester theme, which can be summarised in

4 steps: (1) review of the state-of-the-art knowledge, (2) questionnaires on high quality NBS, (3) workshop on NBS quality and standardisation, (4) creating a knowledge-brief on high quality NBS.
Successively, Efren Feliu Torres, the Climate Change Adaptation Manager at Tecnalia Research & Innovation, in the City, Territory and Environment Area, talked about Standardisation of NBS.

The semester theme explored what is intended with high-quality nature-based solutions, and how they can be defined and translated into standards. The literature review, questionnaire, workshop, and final review have the scope of defining categories, such as finance, communication, terminology, process, impact assessment, NBS design, technology contribution. These categories allow to create a list of preliminary standards which can address the terminology, the technical design, the economic perspective. Then, a ranking was established to evaluate these different criteria in terms of importance. It is important to underline that the purpose of standardisation is to facilitate local governments, implementers, and other stakeholders involved in the implementation of NBS, while also avoiding the risks to limit development and innovation of these concepts. It is still necessary to convince stakeholders of the advantages of NBS, with their simultaneous delivery of benefits, in comparison to grey-infrastructure. Once this concept becomes part of the common knowledge, it would be easier to define high quality NBS.

For targeting NBS Quality, climate challenges and biodiversity loss should be addressed, together with social benefits provision, aiming for a comprehensive and adaptive implementation process. In addition, a long-term vision should be adopted, considering maintenance as well as post-implementation monitoring, and integrating education and capacity building. Finally, the Standardisation of NBS should count on a solid structure, which can be based on a European Standardisation Roadmap. This has to be accompanied by the development of standards for NBS terminology, while aiming for public engagement and dissemination. More information on the semester theme is available here.

Towards the next EU roadmap for R&I on NBS: overview of the landscape and knowledge gaps

Gilles Doignon, Team Leader of Biodiversity and Nature-based Solutions at DG Research and Innovation of the European Commission, and Frédéric Lemaitre, Science-policy-society interface Manager at Biodiversa+, engaged in a conversation about the next EU Roadmap for Research and Innovation on NBS, being developed within NetworkNature.

Firstly, the new definition of NBS by the 5th UN Environment Assembly, which integrates the IUCN and EC definitions, was introduced. The aim is to simplify the message of NBS, so that it can reach a wider range of stakeholder groups, as “working with nature, for nature and for people”.

Then, the process of mapping of Research and Innovation projects was explained. Fortunately, the financial support in this type of projects is improving overtime. Yet, to optimise the allocation of funding, it is important to create more specific profiles of the various projects, in terms of

locations, targeted ecosystem, or corresponding land use. Starting from these, determining the correspondence between NBS and implementation methods becomes a more straightforward process. Finally, it is also relevant to consider societal challenges tackled in NBS projects. The datasets used for mapping NBS projects can be a resourceful tool for connecting these projects and empowering communities.

The scientific research about NBS is growing significantly, also thanks to the support of EU Horizon 2020 and Horizon Europe funding. An ongoing study commissioned by the EIB is exploring how to finance and implement NBS, as investors are still reluctant to invest significantly on NBS implementation. A possible response is shifting towards a Nature-positive Economy, which can be achieved through three actions: NBS, bio-economy practices, and circular economy practices. The goal is to integrate knowledge on NBS into common knowledge, as it happened for the concept of circular economy. This is one of the goals of the Roadmap, which is based on four main pillars: advancing knowledge on NBS, carrying out research and applying it in demonstration projects, supporting favourable policy-making, and raise awareness for empowering society.

In conclusion, it is important to change priorities and perspectives in spatial planning, aiming for a greener urban development. In order to achieve this, it is crucial to involve, empower, and educate communities.

Panel: „Joining forces towards a successful implementation of the EU Nature Restoration Law“

A lively panel gathered key stakeholders representing research, business, EU institutions, and urban networks to debate the requirements for a successful implementation of the EU Nature Restoration Law. The panel included Laura Wendling (VTT Technical Research Centre of Finland), Yann Verstraeten (ICF International and Business@Buiodiversity Platform), Luisa Samarelli (DG Environment – European Commission), Martin Grisel (European Urban Knowledge Network – EUKN), and Holger Robrecht (ICLEI).

Yann Verstraeten (Business@Buiodiversity Platform) brought an economics viewpoint to the discussion, pointing out that NBS are achieving consensus among businesses. As several businesses are increasingly recognising the potential of investing in NBS and the opportunities that would come with it, it is relevant to analyse current bottlenecks. Firstly, natural capital is very location-specific or also business-specific. Secondly, NBS are often referred to with different terminology in the business sector, yet it is clear that the goals are very similar, calling for better communication and information flow with different stakeholder groups.

Martin Grisel (EUKN) mentioned an additional challenge brought by the fact that initiatives at the European Commission level and Member States are not always aligned. However, there are some success stories, such as the European Restoration Plan. In order to gain momentum for NBS projects, it is important to continue supporting prototyping, testing, and experimentation on the field. Nowadays, challenges and problems are very tangible also for urban inhabitants, and NBS can make cities a better place to live.

The vision for nature restoration is simultaneously tackling other challenges we are facing, according to Luisa Samarelli (DG Environment). When restoring an ecosystem, there are

challenges and opportunities to be considered, which require appropriate planning and well-developed administrative capacities. The restoration plans are a key tool that enables Member States to apply the necessary strategic planning. The fact that land, sea, and resources are limited is very clear to businesses as well.

Holger Robrecht (ICLEI) underlined that a large variety of plans already exist, yet urban greening plans are missing and they could be potentially the most inclusive, crossing also with other development plans.

However, any NBS action is very context-specific, added Laura Wendling (VTT). In fact, the Handbook on evaluating the impact of NBS provides 450 measurable indicators, which are meant to create a background structure which gathers all the fundamental parts of NBS.

Indeed, planning is not a substitute of implementation, and it is crucial to take restoration plans to the field, according to Luisa Samarelli (DG Environment). In addition, it is necessary to involve local stakeholders, and all governance levels, because of the specificity of restoration plans.

A final point added by Yann Verstraeten (Business@Biodiversity Platform) was about monetising NBS, which is always risky because it implies placing a price-tag on nature. It would be more appropriate to place other types of values into NBS, even if focusing on financial returns can be very effective in the business field. Luisa Samarelli (DG Environment) suggested quantifying these benefits could be a valid term to monetising.

It was concluded that when developing plans and strategies, it is crucial to tailor the approach to the landscape.

Panel: „EU Nature-based solutions Hubs“

A panel gathered three representatives of the NetworkNature NBS Hubs - the Portuguese, Hungarian and Nordic Hubs – to discuss the role and opportunities for their hubs and the multi-scale collaboration arising from them.

Américo Mateus introduced the motivation behind the soon-to-be launched Portuguese Hub. He explained that a citizen-centered, bottom-up approach is crucial for awareness-raising on nature-based solutions towards the wider public. The Hub is expected to facilitate a co-creative knowledge transfer from key stakeholders, at national and local level, on ecosystem restoration and nature-based solutions. Further, the Hub will initiate collaborations also with the private sector.

Mónika Németh introduced the Hungarian Hub, which has been launched in October 2022. The Hub aims to stimulate dialogue and cooperation between governmental, municipal, professional and civil actors for the widespread practice of nature-based solutions. In particular, the main topics of interest concern urban regeneration and blue and green infrastructure.

Leonard Sandin introduced the Nordic Hub, which has been launched in October 2022. The Hub is run by the Nordic Council of Ministers and is building on momentum from research projects in all 8 Nordic countries. The Hub supports the actions of the Nordic NBS programme, focusing on restoration, climate adaptation, and green blue infrastructure. In addition, the Hub will focus on removing barriers for local politicians and administrations to implement NBS. It is a platform providing a space for creating partnerships and sharing knowledge.

Parallel sessions

Nature-based solutions: Exploring the role of Landscape Architecture in policy and practice

Key messages

- *Landscape architecture can turn infrastructure into cultural landscapes, stressing the need to promote the story of landscapers and the link between people and culture, and the potential of using the general public for promoting landscape knowledge*
- *There is a need to integrate NBS into the academic curricula, as well as into policies and regulations to increase understanding and commitments*
- *The magnitude of the problems we are facing require more that problem-based system, towards nature-based solutions, focusing not only on risk mitigation but also on the benefits.*

Main objectives

In design, planning and management of landscapes, landscape architects face a contemporary challenge: to design with nature and introduce a more natural shape for cities, utilizing nature-based solutions and thus bringing cities‘ function closer to the cycles of nature. As a creative discipline, landscape architects bring expertise on nature-based solutions, technological innovation, and strategic thinking that deliver for nature and people, since they are dealing with interactions between natural and cultural ecosystems, such as adaptation and mitigation related to climate challenges, socio-economic improvements, community health and welfare. This session, organized by IFLA Europe, aimed to illustrate the value of NBS through a sustainable Landscape Architect’s approach and thinking.

24 people participated in this session.

Summary of the session

Interventions by Michiel Van Driessche and Nadya Nilina (Felixx Landscape Architects), Etienne Aulotte (Bruxelles Environment), Katarina Gkoltsiou and Didier Vancutsem (IFLA Europe) and Benjamin Caspar (DG Environment of the European Commission) provided inspiring examples and perspectives on the role of landscape architects in upscaling the use of nature-based solutions.

Throughout the presentations at this session, examples of the Czech Republic, Belgium, Germany, United Kingdom, Spain, Finland, France, Norway and Portugal were shared that

highlighted the use of nature for clean water, food security, flood and erosion prevention and protection and human well-being alongside biodiversity protection and restoration. It was also discussed during the session that landscape architecture could be transformed into ecosystem architecture.

The session shed light on the main risks, with highest impact and probability, resulting from controlling nature, indicating the need to work with, and not against, nature. In this context, landscape architecture is turning infrastructure into cultural landscapes. However, the magnitude of the problems we are facing require more that problem-based system, towards nature-based solutions, focusing not only on risk mitigation but also on the benefits.

Nature-based systems were intended as categorizing natural elements into existing landscape components that need protection; those that need enhancement and rehabilitation; and creation of new NBS. Nature-based systems can be organized into:

- *resilient (climate change, natural disasters, etc.),*
- *productive (lack of resources, food security, etc.),*
- *cultural (equity, environmental justice, etc.).*

It was stressed that landscape architecture needs to go beyond the scope of climate change. In particular, the multi-functional nature of NBS shows how different challenges can be addressed through such solutions. For instance, green roofs can capture water, contribute to climate change mitigation and adaptation and add to biodiversity. However, it was also pointed out that interventions are not needed in certain cases, and that we should also let nature recolonize.

Cities play an important role in increasing the connection with nature, as they offer the potential to be considered as habitat for all species, rather than just for people, contributing to species co-existence and higher symbiosis with nature.

In order to increase the understanding and uptake of NBS, knowledge and educational efforts are needed. In particular, the need to integrate NBS into the academic curricula was discussed, as well as using various platforms for knowledge preparation, dissemination and transfer. From the policy perspective, the integration of the concept of NBS into policies and regulations is crucial to increase commitments towards nature, by aligning targets and bringing biodiversity, climate and other existing actions together.

The importance of using best practice cases and research was highlighted on how to inform policies for halting and reversing biodiversity loss – identifying mechanisms that can take actions and interventions to scale. It is very important to identify the minimum actions that everyone should take to address the existing crises.

It was highlighted that public awareness has been increasing noticeably in recent years – biodiversity, nature and the Green Deal are on top of the agenda at the EU level. However, while awareness can encourage behavioural changes, legally binding targets are needed to facilitate implementation.

The session closed with discussions around the development process of the EU policies and the new EU Restoration Law by Benjamin Caspar (European Commission, DG Environment). He provided a short reflection on the role of the Green Deal policy and the current and future role of landscape architects in the implementation of the EU policies and the NBS principles.

Informing and supporting policy while ensuring the lasting legacy of NBS projects

Key messages

- *There is a great desire to embed NBS in strategies, among the cities with the greatest level of political will, and funding can be a significant incentive to get political will*
- *Co-creation is crucial to facilitate a sense of ownership of planned NBS and represents an integral part to the success of NBS interventions.*
- *Financing will get more challenging in the public sector, and there is a need for increased private sector investment in NBS*

Main objectives

The session covered policy relevant findings and considerations for legacy of four Horizon 2020 nature-based solutions (NBS) projects that are ending; URBAN GreenUP, Connecting Nature, UNaLab and GrowGreen. All the projects had a similar structure with demonstration sites for nature-based solutions in some cities, with additional cities following to learn from the process. The presentations were followed by a discussion and workshop on future avenues for ensuring the policy impact and lasting legacy of NBS interventions.

The session was organized by Laura Wendling, UNaLab project coordinator.

25 people participated in this session.

Summary of the session

URBAN GreenUP focused on the following NBS to improve the sustainability of cities: planting and renewal of urban trees, cooling trees, shade trees, arboreal areas, trees re-naturing parking, parklets, urban carbon sinks, green resting areas and cycle and pedestrian green routes. **The project partner Raúl Sánchez, Head of Natural Resources Area at Fundación CARTIF** highlighted the importance of engagement and awareness in projects implementing NBS, which can be facilitated by creating operative groups in cities. Potential barriers to NBS implementation should also be taken into account at an early stage. These, in the URBAN GreenUP experience entailed technical requirements, adaptation of functionality, durability, regulation, bidding processes, financing, maintenance, jobs, aesthetic expectations and government seasonality. Lessons learned in the project for addressing these barriers included: flexibility, having a buffer for time and resources, relying on support from experts, carefully planning finances, planning the schedule of implementation of NBS to match the procurement processes. The project partners had wishes for public entities issuing NBS projects; encouraging calls for more long-term approaches for NBS, and to involve private sector more, by make public tendering easier for companies. URBAN GreenUP results can be explored to learn how to develop and replicate Renaturing Urban Plans.

GrowGreen utilised various NBS to create climate and water resilient, healthy and livable cities. **The project partner Michelle Oddy, Project Coordinator at the Manchester City Council** showcased the impressive demonstration results from the project which included improved

thermal control, biodiversity net gain, surface water runoff reduction, water quality improvements, positive economic impact and improvements in social cohesion and health & wellbeing (especially during the pandemic). During the GrowGreen project, the local level focus and engagement was also found to be crucial to success. A good avenue to engage stakeholders and ensure uptake of NBS, is to showcase the outcomes and results on site. Manchester was a success story where through active work in influencing agendas in the municipality, mainstreaming and embedding NBS and landscape-led projects, has led to 150million pounds committed to this kind of work in the future. The Mayfield Park in Manchester is a direct result of the project embracing river habitats in a former brownfield site. The city's 'Our Rivers, Our City Strategy' for river restoration is an impressive feat funded by GrowGreen. Valencia, another project city saw the green and biodiversity plan of the city incorporate NBS. To learn more about the multitude of project outcomes in all cities explore GrowGreen resources.

Connecting Nature worked on communities of cities that foster learning and capacity building on NBS. Further, the project had a focus on developing policy and practices using nature-based solutions through collaboration across different sectors. **Project coordinator Siobhan McQuaid, director of Horizon Nua,** introduced the contribution of the project to local, national and global policies through its work in 10 cities in Europe. The project's aim was to find a pathway to mainstream NBS, essentially aiding and scaling-up NBS in local policies. The project achieved this through the creation of co-creation plans to embed NBS into cities climate action and biodiversity plans through the connecting nature framework. Throughout the project, the partners have worked with cities to develop strategies to include NBS that are tailored to the local context and produced practical guidebooks to help cities outside the project uptake NBS as well. Connecting Nature has also been active on an EU-level - focusing on economic development and the potential of NBS to contribute to job creation and new economies; they collaborated with 15 other projects on the European Commission publication: The vital role of nature-based solutions in a nature positive economy and Evaluating the impact of nature-based solutions – a handbook for practitioners. There have been many spin-offs enterprises and innovations from the project, such as UrbanByNature, Connecting Nature Enterprise Platform and many more. All Connecting Nature resources can be explored for project insights.

UNaLab implemented a myriad of targeted NBS for sustainable management of water resources. Project Coordinator Laura Wendling, Research Team Leader at VTT, discussed how the project successfully reduced flooding and improved water quality in the cities testing the NBS. Specifically, there was improved quality of surface water runoff to receiving surface water bodies. The project cities also saw lasting changes: project city Tampere invested in water monitoring services, and a significant increase in biodiversity was documented in Eindhoven and Tampere. All cities saw positive community engagement in the topics through campaigns, and by innovative measures, such as involving students involved in sampling missions. Overall, UNaLab has contributed to increased green and blue space within cities, reducing carbon emissions, and mitigating and adapting to climate change and its impacts. In addition, the project has informed relevant policy actions. The UNaLab resources can be explored to learn more about the project and its results.

For a policy perspective on NBS integration, **Peter Löffner, Policy Officer at the European Commission DG Clima, presented the EU Adaptation Strategy**, which has been revamped in 2021, setting out challenges and actions to make adaptation smarter, faster and more systemic. The strategy includes nature-based solutions as key components to adaptation – with dedicated sections on NBS scale-up under the chapter on urban areas. Further EU initiatives that can support the uptake of NBS are Urban Agenda for the EU (UAEU), UIA (Urban Innovation Actions), URBACT and The Urban Development Network. Other relevant initiatives are EU Missions, Covenant of Mayors, EU Climate Pact, LIFE Programme and 3 billion trees pledge (among many more). EU-funded NBS projects are encouraged to utilise the EU's Climate Adapt Platform that showcases findings and actions supporting climate adaptation in Europe, providing a transversal resource base across various environmental fields to ensure findings remain in the sphere. A great resource for the cities is the Urban Adaptation Support Tool under the platform.

The upcoming actions under the UAEU and the role of intergovernmental cooperation was brought to the fore by **Federica Risi, a Policy & Project Officer at European Urban Knowledge Network.** She called for multi-level governance, as there is a need to embed nature into policy, and to think in nature inclusive terms in policymaking in different sectors. There are already many different agreements that support intergovernmental cooperation in place e.g. the Leipzig charter and the 2016 UAEU Partnership on SUL & NBS. Many actions are upcoming under the UAEU; there are plans for the integration of green actions and nature into other thematic partnerships, better regulation, funding and knowledge on NBS, 2020 renewed commitment to the integrated approach, 3 dimensions of cities, place-based, integrated, multilevel, multi-stakeholder urban governance for the common good, and many more. Bridging the science-policy interface is underway, there is a plethora of networks and cross-border initiatives supporting exchange and transferability of results, knowledge defragmentation and consolidation of NBS evidence-base for policy & linking projects outputs to relevant sub-national, national, EU and international policy frameworks, and engagement of intermediary agents that can support knowledge translation or repackaging for policy.

The presentations from representatives was followed by discussion and a workshop on how NBS findings from projects can be taken further.

"*What we have seen is a greater desire to embed NBS in strategies, among the cities with the greatest level of political will*", stated Laura Wending (UNaLab), highlighting how high political will often correlates where the perceived threat of climate change is strong. Siobhan McQuaid (Connecting Nature) reminded participants of the importance of incentives: "*funding can be a significant incentive to get political will*". Participants discussed how the EU affiliation, funding and support itself is often an incentive, cities benefit from being able to showcase they are partaking in larger political processes. This is why practitioners should keep an eye on how to utilise and promote such larger scale processes to garner political will.

On a practical level, co-creation is crucial (with all stakeholders) to facilitate a sense of ownership of planned NBS. Financial incentives and showcasing results can help get people on board. Co-governance is integral to success of NBS interventions; projects can support cities manage and gather data. NBS practitioners should keep in mind that targets and measurable

indicators are different in policy making, and adapt theirs accordingly if influencing policy is the goal.

A concern among participants, was *how the interest in the green transition can be maintained in an economic crisis*? One path may be finding avenues to include NBS in the interventions that will in any case be made during the crisis, or by making NBS projects profitable. However, *if one cannot borrow capital at a low interest, how can it be paid back with nature*? Financing will get more challenging in the public sector, and there is a need (and has been a call for) increased private sector investment in NBS. A good reminder underlying the discussion was that policies are often *not implemented or seen through* as there is little to no monitoring and accountability, so being practical about *what can be achieved with the actual resources and context* when aiming to integrate NBS might be a sound path to ensure policies are implemented.

Figure 6 - Group discussion on Informing and supporting policy while ensuring the lasting legacy of NBS projects

Participants discussed the solutions to these problems: a need to place resources to policy enforcement, long-term education and projects, starting with existing policy narratives and '*sneaking in NBS'* to those upscaling and replicating from the micro scale, engaging local communities and societies (in local languages and with consideration/respect to local context, remembering NBS is a rather top-down concept), creating models for NBS, and making a business case for these models and mainstreaming NBS in EU green policy.

The involvement of SMEs in developing and supplying impactful nature-based solutions

Key messages

- *A special focus on SMEs is needed to support them, as policies often favour big companies over SMEs*
- *Measuring NBS and quantifying their impacts is crucial to secure financing*
- *Use of appropriate language around NBS which is widely understood, in this way everyone can be educated and change is initiated bottom-up*

Main objectives

In this parallel session, the goal was to gather experiences and knowledge on the enabling factors that help SMEs be active and successful in the field of NBS. To that end, a group discussion was done around barriers and enablers which were identified in a previous PESTEL analysis, focusing on any missing ones. Based on these results, enablers were discussed in more detail, including specific examples. The session was organised by Steinbeis.

16 people participated in this session.

Summary of the session

Basis for the discussion was the previous work by McQuaid et al. (2021), specifically their PESTEL analysis of the key factors which influence NBEs. This analysis included both barriers and enablers. The participants were divided in two groups, with each group discussing three of the six factors. Group 1 discussed the legal/regulatory, environmental factors and technical/technological factors, and Group 2 discussed the political, economic and social factors.

The discussion started by asking participants to consider the barriers and enablers identified for their allocated factors. The first discussion point was: are there any barriers or enablers that you know of, which are missing in this analysis?

Next, the discussion focused on how enablers work in practice. Participants were asked how they thought those need to look like in detail, and if they knew of any concrete examples where enablers supported SMEs in NBS successfully.

Group 1: Legal/ Regulatory, Environmental, Technical/ Technological

Group 1 had interesting discussions about the Legal/ Regulatory, Environmental, Technical/ Technological Barriers and Enablers. The focus of the discussion was mainly on general enablers to generate better market conditions for SMEs. The main discussion points from the barriers and enablers are the following:

Barriers:

- *Market conditions: Big companies buy out SME's*

- *Risk: Lack of standards in measuring NBS, Trade-offs for biodiversity (or climate), Uncertainty of natures, biophysical and social uncertainties*
- *Quantifying of value – is different based on the context and the people*
- *Complexity of education system to adapt to change, weakly connected to needs of sustainability*
- *Language barriers around NBS*
- *How are NBS put in to use?*
- *Legal Protection is more shaped for big companies*
- *Fragmentation of policies & governance*
- *Not clear how to put technology in to use*

Enablers:

- *Conditions for entrepreneurs, bottom up support, there should be a local variation*
- *Economic rewards as incentives for landowners (payments, contracts)*
- *Incentives to invest in NBS*
- *Governance as enabler*

Group 2: Political, Economic, Social

In Group 2, regarding economic barriers and enablers, risk was discussed at length. Who carries the financial risk of employing NBS? An example which was discussed in detail regarding risk was employing NBS in agriculture. This could potentially lead to lesser yields. Enablers are therefore mechanisms which address these risks, and four specific ones were identified:

- Monetary compensation for losses, e.g. subsidies, insurance
- Spreading the risk across many, e.g. cooperative structures
- Flip the risk, e.g. have supermarkets buy without guaranteed yields
- *A further economic enabler is a suitable quantification of impacts, as this is crucial for making a case for investing in NBS.*

Regarding social enablers, one important role is that of scientists and how they work with society. Managing awareness raising and using appropriate language leads to an education of everyone which in turn leads to positive change because it is requested bottom-up. The right top-down policy can help support bottom-up changes.

Designing policy this way is also a political enabler. Other political enablers are local funding mechanisms and policy designed to specifically support SMEs. For NBS related to agriculture, agricultural policies can support their implementation tremendously. In terms of inspiring local policy makers, it was noted that examples in the region were key to supporting NBS.

Finally, it was discussed what SMEs specifically need to be successfully in developing and supplying NBS. Key points were:

- *Guidance, assistance*
- *Market analysis, especially if SMEs are doing something innovative*

Points of relevance for policy recommendation were also identified:

- Protection of small companies, more need for IPR and protections for SME's
- Policy favouring "big" companies and penalizing NBEs
- Support needed for landowner's to implement measures that benefit for everyone
- Governance should work as enabler, incentives to implement NBS should be used (payments, contracts, etc.)
- Design top-down policy so it can help support bottom-up changes.

Figure 7 - Mind Mapping of the second group

Towards a European R&I Roadmap for NBS

Key messages

The session gathered inputs on key coordination and/or collaborative activities for the implementation of the Roadmap, including:

- *Increasing the timeline of EU projects and revisiting old NBS sites to analyse their development*
- *Enabling bottom-up NBS learning*
- *Integrating NBS requirements in construction*
- *Adapting to the local context and needs*

Main objectives

NetworkNature is facilitating the development of the EU R&I Roadmap for Nature-based solutions. This Roadmap aims to bring forward key levers for R&I to help achieve EU goals for NBS development and deployment, further bridge knowledge needs and implementation gaps, and contribute to facilitating synergies and complementarities between the multiple on-going and planned European R&I activities on NBS.

The current draft of this roadmap has been co-constructed with many experts and actors, together with the European Commission DG R&I team on NBS and builds notably on a mapping of EU R&I projects on NBS conducted by NetworkNature, as well as its work on collecting knowledge gaps which resulted in the NetworkNature database of knowledge gaps.

The main objective of this session was to retrieve feedback from the multiple actors in the field of NBS and to work with the participant on further developing the next steps for the European Research & Innovation Roadmap for Nature-based solutions. The session was organised by Biodiversa.

16 people participated in this session.

Summary of the session

The session started with a presentation by Mariem EL Harrak and Frédéric Lemaitre (Biodiversa) on the development of the First Draft Roadmap. The presentation was followed by a time for feedback and questions. The participants added overall positive feedback on the structure and content of the draft roadmap.

The session was then followed by a collaborative mapping of initiatives to engage in the co-implementation of the EU research & Innovation Roadmap. Participants were asked to reflect on "*What would be in your view additional initiatives to engage around the development and/or implementation of this roadmap?"* and class each initiative per type of stakeholder:

Figure 8 - Stakeholders types

This activity was followed by a collaborative session around the identification of implementation pathways for the R&I sector and by other stakeholders. Participants were divided into groups and asked to identify high impact coordination and/or collaborative activities for the implementation of this roadmap for each of its pillars.

Group 1:

1. *For whom is relevant the term NBS? We need to apply different languages and activities.*
2. *Nature Summer School*
3. *Increase the time (more than 4 years) for EU projects*
4. *Focus at local level, speak to their needs*
5. *Technological research for activities based on NBS*

Group 2:

1. *NBS is not integrated in a global level*
2. *Need to find a common ground*
3. *Establish national hubs*
4. *Side event in Switzerland business forum to explain what NBS means*
5. *Have NBS integration legalised every time you do some construction*
6. *Bottom-up NBS learning*

Group 3:

1. *Revisit what has been produced on NBS; Revisit old case study sites to see their development*
2. *Increase of the project timeline*

Closing plenary

Closing remarks from the European Commission

Benjamin Caspar, Team Leader of Urban Environment Policy at DG Environment of the European Commission, provided some closing remarks to the event. He stressed the role of NBS, as a fantastic novelty with multiple co-benefits, which are being increasingly recognised.

Nowadays, the Environmental Policy is finally gaining relevance and making a few promising steps towards the spotlight of EU policies. There is an increasing attention for biodiversity and agriculture funds in the upcoming Cohesion policy, which should translate into NBS. The new European Nature Restoration Law is the first of its kind in history: an international piece of legislation considering multiple ecosystems, which sets mandatory restoration targets to achieve. The Nature Restoration Law will have a very favourable impact on NBS, he mentioned, and that is why this is the best moment to invest in NBS.

Closing remarks from NetworkNature

The event concluded with final remarks from ICLEI and IUCN, representing NetworkNature.

Alice Reil (ICLEI) started this closing session emphasising the role of researchers in this context, which is to ‘package’ the available evidence on NBS in an efficient way to achieve an appropriate standardisation. Research should act as a support for policy-makers, leading to an improved and more inclusive stakeholders' engagement.

In fact, multilevel governance is important to underpin implementation, added Bettina Wilk (ICLEI). Yet, channelling processes towards the right direction requires a solid structure, multi-stakeholder engagement at any level, and going beyond the dissemination term aiming for citizen-led processes. A good example of this is the NBS Hubs, which are characterised by a bottom-up approach, involving local politicians and citizens. Another crucial concept is Nature-Positive Economy, which allows to regenerate revenues from NBS and to create a regenerative economy.

The key objectives of the Network Nature Annual Event were finally summarised by Susanna Gionfra (IUCN). The event gathered the NBS community, bringing forward the development of NBS, finding options for upscaling such solutions. Overall, this event intended to gather this community to collectively reflect on what is missing for mainstreaming NBS, to observe and discuss the challenges encountered and the lessons learnt for moving forward.

Network Nature

NetworkNature is a resource for the nature-based solutions community, creating opportunities for local, regional and international cooperation to maximise the impact and spread of nature-based solutions. The project is funded by the European Commission under the Horizon 2020 programme.

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