

Water Project Europe- MULTISOURCE

02 June 2022

Workshop on Natural Based Solutions for water security and ecological quality in cities. Challenges, pressures and opportunities.



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Introduction

The workshop on “Natural Base Solutions for Water Security and Ecological Quality in Cities” was organised online on 2nd June 2022 as a Water Projects Europe event, in the framework of the clustering activities of the Horizon 2020 MULTISOURCE Project¹.

The EU-funded MULTISOURCE project intends to demonstrate enhanced natural treatment solutions (ENTS) for a wide range of urban waters and enable users to identify multiple sources for local water reuse, promote increased uptake of nature-based solutions and minimise the discharge of inadequately treated water. The project includes seven pilots treating a wide range of urban waters

This workshop is part of Water Project Europe (WPE) that is a series of events of Water Europe made to learn from and build on the experience of innovating projects working on converging topics. WPE aims at clustering water-related projects by thematic areas to allow them to interact, mutually build on the respective experience, support policy development and stimulate the market uptake of innovations. The workshop session was co-hosted by Jaime Nivala INRAE. - coordinator of MULTISOURCE – and Andrea Rubini Director of Operations of WE.

The event invited five different NBS projects funded by Horizon 2020 and LIFE Programmes to give their view and experience on the NBS challenges and opportunities. There was a mixture of projects that started fairly recently and projects that are nearing to the end.

The event was opened with a key not, followed by the presentations of the projects and their objectives. Next, projects were asked to give an overview of their involvement in the biodiversity and climate strategies. The projects were also requested to provide input on the three dimensions of sustainability of NBS for cities: Environmental, social, financial specifically relating to their work as well as insight on supporting and hindering factors of existing regulations and directives. An overview of their contribution to achieving a Water-Smart Society was also mentioned and each project had the opportunity to name discussion statements they would like to talk about.

The workshop on “Natural Base Solutions for Water Security and Ecological Quality in Cities” culminated in an inspiring and participated discussion between the panellists, and then closed by the hosts with the take-away session.

The event was participated by more than 200 registered persons and web streamed on social media.

The participating projects were:

- MULTISOURCE (<https://multisource.eu/>)
- NICE (<https://nice-nbs.eu/>)
- HYDROUSA (<https://www.hydrousa.org/>)
- UNaLaB (<https://unalab.eu/en>)
- Connecting Nature (<https://connectingnature.eu/>)

The panellists:

Kamal Arzague (SINTEF), Frederic Cherqui (INSA), Maria Wirth (Alchemia Nova), Daiane Trevisan (CETIM), Simos Malamis (NTUA), Laura Wendling (VTT) and Antonia Lorenzo (Bioazul), Panagiotis Balabanis Head of Sector (EC -DGRTD Water - RTD.B.1.001)

All presentations are available at: [Water Projects Europe NBS MULTISOURCE](#)

¹ ModULar Tools for Integrating enhanced natural treatment SOLUTIONs in URban water CyclEs



Workshop Agenda



START	END	SUBJECT
14:00	14:05	Welcome from Water Europe Andrea Rubini (Water Europe)
14:05	14:10	Welcome from MULTISOURCE Jaime Nivala (INRAE)
14:10	14:30	Keynote speech on NBS Kamal Arzague (SINTEF)
14:30	14:45	Presentation MULTISOURCE Maria Wirth (Alchemia Nova)
14:45	15:00	Presentation NICE Daiane Trevisan (CETIM)
15:00	15:15	Presentation Hydrousa Simos Malamis (NTUA)
15:15	15:30	Presentation UNaLaB Laura Wendling (VTT)
15:30	15:45	Presentation Connecting Nature Antonia Lorenzo (Bioazul)
15:45	16:20	Panel discussion (moderated) (Projects' Speakers and POs) and Q/A session
16:20	16:30	Takeaways and conclusions Jaime Nivala and Andrea Rubini



Keynote Speech on Natural Based Solutions

The Keynote speech was prepared by Kamal Arzague from SINTEF in collaboration with Frederic Cherqui from INSA, respectively Leader and Co-Leader of the Water Europe WG NBS.

Kamal Arzague, gave an overview of how Natural Based Solutions can contribute to a Water-Smart Society by addressing different challenges, especially societal challenges such as: unsustainable urbanisation, climate change, biodiversity loss, degradation of the ecosystem services.

The presenter started with a brief introduction of Water Europe's NBS Working Groupe that tries to foster the research, development and implementation of NBS, threw various activities. Some of these activities include:

- Exchanging information and results with different members,
- Discussing different classes and several NBS,
- Providing input in national and European research and innovation programs in the form of white papers, workshops and various communications, exc.
- Facilitate joint research and innovation activities.

Next, the presenter explained the two key terms connected to the workshop which were: **Water-Smart Society** and **Natural Based Solution**, where he also highlighted the different types, ways of implementation and the numerous benefits they provide that include:

- coastal resilience, climate resilience, biodiversity enhancement,
- green space management, air quality, health and well-being, new economic opportunities and green jobs,
- urban regeneration, social justice and social cohesion, participatory planning
- governance and knowledge building for sustainable urban transformation.

The presenter decided to focus on 5 main NBS in Urban water management, that were:

- open spaces and waterbodies,
- constructed wetlands,
- bioretention areas,
- green roofs
- permeable pavements.

He explained that all of those are to improve the hydrological response of the urban areas and obtaining additional benefits in terms of water quality, increase of biodiversity and use of public area. They are used in order to manage stormwater runoff close to its source, improve the hydrological response of urban areas and reduce pollutant loading, flood risks, stream erosion & negative effects on groundwater.

Finally, the presentation was raped up with examples of lessons learned from past project and an introduction of the EU strategy for NBS.



Natural based solutions for Demo Cases- challenges, pressures and opportunities: Projects Presentation

MULTISOURCE



Who: Maria Wirth (Alchemia Nova)

Presentation Title: MULTISOURCE (ModULar Tools for Integrating enhanced natural treatment SOLutions in URban water CyclEs)

MULTISOURCE stands for ModULar Tools for Integrating enhanced natural treatment SOLutions in URban water CyclEs. INRAE (France) is the lead partner of the Consortium. It is a Horizon2020 funded program, that started in June 2021 and will last until May 2025. The main objectives of the project are to demonstrate enhanced natural treatment systems (ENTS) pilots in operational environments in order to:

- establish policy-oriented risk assessment for NBS for water treatment (NBS^{WT})
- foster increased financial investments into NBS^{WT}
- increase transfer of international know-how and technical understanding of ENTS

as well as create a basis for the identification of the most suitable NBS^{WT} for a given context; enable water stakeholders to assess and compare different spatial environmental and economic scenarios (both with and without NBS^{WT}) on a city-wide scale; increase urban water stakeholder engagement in NBS^{WT} planning, implementation & maintenance; improve urban governance and policies for implementation of NBS^{WT}, and facilitate processes to update existing standards.

Next, the presenter showed an infographic representing the concept and approach that is used in MULTISOURCE to promote their main objective and introduced its 8 WP.

Then the presenter moved on to answer the question of how MULTISOURCE contributes to climate change mitigation and adaptation explaining that MULTISOURCE contributes to climate change mitigation, by promoting nature-based solutions, which can capture CO₂. It also contributes to climate change adaptation, by promoting NBS that are designed to

- reduce the pressure on urban sewage systems and the environment through local stormwater/rainwater retention and treatment. MULTISOURCE solutions are modular and enable to cost-effectively adapt and expand urban water infrastructure to increased heavy rainfall events.
- increase water availability by capturing and treating stormwater, greywater and wastewater for reuse. MULTISOURCE solutions enable decentralized treatment and reuse, and thereby to close water cycles locally.

MULTISOURCE also contribution to building sustainable urban NBS in 3 dimensions (environmental, Social and financial) by the following activities:

- 1) Risk assessment Technology adaptation for:
 - enhanced treatment capabilities
 - ability to capture and treat previously untreated discharges
 - water reuse
 - LCA
- 2) Stakeholder engagement framework, which can be used for cities to incorporate NBS into their own urban environments
- 3) Inclusive and gender-sensitive research, design, implementation and evaluation



- 4) Co-development of new, partnerships-based financing and management models for long-term continuation of pilots (O&M) and replication (long-term)
- 5) Cost-benefit analyses for public and private business models

The presenter also highlighted 3 main needs that they had seen in terms of institutional or policy instruments that could ensure long term sustainability and scalability of NBS for water treatment as well as some recommendations relating these needs. The areas that were identified include: Policy and financing instruments, Awareness and information as well as Bridge organizational silos.

A short description of the contribution of the project towards achieving a Water-Smart Society was also given. They do this by enhanced natural treatment systems for treatment, retention, recovery of rainwater and wastewater for safe reuse – pilots and evaluation; stakeholder engagement frameworks based on needs, relevant interests and opportunities; tools that enable integrated technology selection and city-wide planning for a Water-Smart Society;.

A short overview the impact of regulations and directives have on the implementation (and further upscaling) of NBS in urban areas regarding the MULTISOURCE project was given. These were split into two categories:

Supporting factors:

- EU Water Reuse Regulation: Opens the possibility for acceptance, permitting and demonstration of innovative technologies that can recover water for reuse in agriculture, e.g., permits of 'water reuse units' (as opposed to strictly normed wastewater management).
- EU Water Framework Directive: opens markets for NBS, e.g., Italian pilot - treatment of combined sewer overflow, potential for application to widely improve water quality in rivers in Lombardia region).

Hindering factors:

- EU Water Reuse Regulation:
 - Monitoring is costly, limits small-scale decentralized water reuse in particular. Potential solution: development of low-cost sensors (probes) for improved operational control, automation.
 - Only covers reuse for agriculture → limiting in its scope, in particular for urban areas.
- Both not specific to NBS, but NBS can be applied to achieve compliance.

The presentation ended with an introduction to two discussion statement:

How could EU policies promote the planning, implementation and operation & maintenance of decentralized water treatment, storage and reuse?

In a context where water management is planned centrally, which governance practices, measures, projects and tools are needed to facilitate the integration of decentralized, nature-based stormwater management technologies into existing urban environments?



NICE

Who: Daiane Trevisan (CETIM)

Presentation Title: Innovative and Enhanced Nature-based Solutions for Sustainable Urban Water Cycle

The presentation started with a short introduction to the project that included an explanation of the name (NICE stands for INnovative and EnhanCed NaturE-based Solutions for Sustainable Urban Water Cycle), the name of the lead partner of the consortium (CETIM Technological Center), funding program and a call identifier (H2020- SC5-27-2020), budget (~ 5 M€), duration of the project (: 48 months (1st June 2021 to 31st May 2025)), number and type of partners (14 (7 research organizations, 2 big companies, and 5 SMEs) and key objective. The key objectives of the project are:

- 1) To widen the availability of enhanced NBS to provide circular urban water solutions
- 2) Provide key knowledge for the design and implementation of NBS that will help achieve the goal of closing urban water loops.

Next, the presenter explained the project's relationship between NBS, the Biodiversity Policy and the Climate Policy, explaining their contributions to achieving the goals of the two policies. NICE contributes to the goal of the biodiversity strategy by Innovative and improving NbS at laboratory scales and Urban Real Labs; Implementation scaling up of NBS across Europe to capture, repurpose and treat water; implement at least 9 NbS in Europe, Guidelines and methodologies for NbS implementation as well as Identify obstacles and opportunities for the current regulatory framework Sharing expertise and Enhanced local biodiversity.

Regarding the climate change policy NICE will contribute to the COP25, the EU 2050 climate-neutrality objective, IPCC and SDG 13 'Climate Action'. They aim to increase water available for reuse for different purposes, mitigate the diffuse pollution associated to Stormwater and CSO and Reducing flood risks and urban heat island.

One of the technical objectives of the Nice project is to facilitate technological solutions on NBS for different places. To achieve this they will first evaluate some barriers and social conditions that are related to the implementation of these technologies. Next they will develop Models to maximize the co-effectiveness and co-benefits for the environment, economy and society as well as develop a comprehensive portfolio of attractively integrated NbS. Other actions include: creating Modelling software with data bank of NbS, Reach NbS with lower cost and Increased business opportunities for installation NbS for water treatment.

By the end the project strives to contribute to the concept of Water smart city and Contribute towards adaptation to climate change by Integrating NbS into urban water cycle, reducing pressure on existing freshwater resources, Increased investments into natural water treatment solutions, Improving the quality of urban water bodies, creating sustainable urban water management, Water for reuse and availability.

The main challenge that the project is facing at the moment are the Different requirements and standards (environmental and health) for the safe reuse of treated urban.

The presentation ended with an introduction to two discussion topics:

- 1) What are the main drivers and barriers towards NBS for Water Management.
- 2) Which aspects are related to replication and implementation of these types of technologies.



HYDROUSA



Who: Simos Malamis (NTUA)

Presentation Title: Demonstration of water loops with innovative regenerative business models for the Mediterranean region

HYDROUSA project demonstrates the implementation of low-cost, nature-based and other engineered solutions for the recovery of non-conventional water sources (wastewater, seawater, rainwater and vapour water) to be used in agriculture and for domestic use in the Mediterranean region.

The demo case called HYDRO1&2 for decentralized wastewater treatment plants (WWTP) in Lesbos Greece, shows that energy production in the main treatment line make sense even at small scale (with the capacity of WWTP < 2000 p.e.). It is possible to reduce energy consumption by 15% for plants with < 2000 p.e.; further energy reduction is expected by at least 20% due to optimized operation and energy recovery.

The advantages highlighted in the presentation included: low-cost treatment, nutrient recycling, versatility (fertigation or irrigation), composting of sludge and green biomass and diversified agricultural production (agroforestry). On the other hand some challenges were also identified. These include: community engagement, dealing with variable flow rates and evidence of cost efficiency.

The project support the Biodiversity strategy by using of fertigation & recycled nutrients, reducing pollution from excess nutrients, Multi-cropping practices e.g. agroforestry, organic farming and permaculture practices, biodiversity assessment as well as fertigation, agroforestry and CWs.

Regarding climate mitigation and adaptation the HYDRUSA project tackles water scarcity by valorizing non-conventional water sources, contributes to the protection against floods through bioswales and addresses desertification by restoring barren land. It also monitors greenhouse gas emissions and energy consumption within the HYDROUSA water loops, implements measures to decrease the energy and carbon footprint of NBS and other systems and produces green energy.

HYDROUSAs contribution to building sustainable urban NBS focuses mostly on the replication of their demo sites. The project helps achieve a WSS by providing: Data/ Control, Autonomy /off grid, Water Quality, Soil moisture/ Automated precision irrigation, Water Quantity/ Valves, and Meteorological station.

HYDROUSA analysed the current policy and legislations related to water supply, wastewater treatment, water reuse and resource valorisation within the context of decentralized state-of-the-art technologies applied in rural areas. It is concluded that the current EU legislative framework does not provide ad-hoc guidelines to close the water loops for a small decentralized system. The table below shows a summary of the parameters to be considered and the link to the relevant EU legislation for different types of wastewater application fields.

The presentation ended with an introduction of two ddiscussion statements.

- 1) Downscaling circular, rural NBS to support their implementation in an urban environment (sewer mining concept, stormwater management, water reuse, urban farming)
- 2) Inclusive water governance to support NBS implementation in cities. Support NBS integration through stakeholder engagement and co-creation



UNaLaB

Who: Laura Wendling (VTT)

Presentation Title: UNaLab & the Story of Stormwater Management in Tampere, Finland



UNaLab is an innovation action that focuses on NBS to enhance climate and water resilience of urban areas with the main objective to develop, via co-creation with stakeholders & implementation of 'living lab' demonstration areas, a robust evidence base & European framework of innovative, replicable, & locally-attuned nature-based solutions to enhance the climate & water resilience of cities.

The presenter identified 4 core ways in which the project contributes to achieving a Water-Smart Society; stakeholder engagement, knowledge & capacity building, collaborative development & implementation of stormwater management solutions and adaptive management informed by modelling, monitoring & scenario building.

The participants learned about how a housing company in Finland used the opportunity of "innovation voucher programme to support small-scale NBS" to partially finance the creation of community gardens. These gardens were vegetable gardens that have rainwater tanks to support plant growth during the summer. The idea behind the "innovation voucher programme" was to encourage people to create solutions by supporting them financially so that they do not have to wait for a public party to finance something for them.

The presenter mentioned that the community engagement has been really important. The project has carried out the following activities relating to the EU Biodiversity strategy: biodiversity surveys, citizen observations and citizen science monitoring activities. For the future they are planning to have a Pollinator Bioblitz monitoring challenge that is planned for summer 2022, additional river restoration and water monitoring projects as well as outcomes informed preparation of city roadmap for green areas and stormwater management.

Regarding the Climate Policy the project has contributed to reducing carbon emissions, and mitigating and adapting to climate change and its impacts. In addition, the project has informed relevant local policy actions. Other significant actions include:

- Reduced energy use/CO₂ emissions from centralized treatment of stormwater and seepage water
- Reduced flood peak height and extent of flooding
- Improved quality of stormwater entering receiving surface waterbodies
- City of Tampere has targeted carbon neutrality by 2030
- Carbon footprint calculations of UNaLab NBS highlight significance of material selection
- Full carbon accounting in progress to account for C storage and sequestration in soil and vegetation

Key Lessons Learned relating to Policy Implications had been highlighted by the presenter. These included:

1. Embedding NBS within existing regulations and work processes can be challenging
2. Collaborative, inclusive processes underpinning NBS actions build trust and commitment

Finally the presentation ended with an introduction of three discussion statements:

- 1) How can we more effectively gather & exploit existing knowledge from preceding related concepts whilst fully acknowledging and integrating the unique aspects that differentiate NBS and add value?
- 2) How can we better understand and convey to stakeholders the concept of adaptive management, and how can the process of NBS management in the longer term be supported by advanced digital technologies?
- 3) How extensively should NBS be managed to maintain ES over time?



Connecting Nature

Who: Antonia Lorenzo (Bioazul)



Presentation Title: Connecting Nature - COproductionN with NaturE for City Transitioning, INnovation and Governance

Connecting Nature is a H2020 project with a consortium of more than 30 partners within 16 European countries, and additional scientific hubs. They have been co-working with local authorities, communities, industry partners, NGOs and academics who are investing in the large-scale implementation of nature-based projects in urban settings.

NBS and Biodiversity Policy:

10 city NBS exemplars about re-naturing urban areas.

Measuring impact on biodiversity remains a big challenge.

Resources produced by the project that can help in assessing the impact of NBS :

- i) Technical solutions guidebook
- ii) Impact assessment guidebook
- iii) Review of 93 environmental indicators
- iv) Evaluating the Impact of Nature-based Solutions: A Handbook for Practitioners
- v) CO-IMPACT tool

NBS and Climate Policy

The potential for alignment of NBS with other mainstream policy fields is vast. In climate change policy there is clear evidence of the contribution of NBS to reducing carbon emissions, climate adaptation and mitigation. Resources:

Institutional embedding and alignment of NBS with city strategic policies and priorities, and the United Nations Sustainable Development Goals (SDGs)

Governance guidebook

Co-production guidebook

The three dimensions of sustainability of NBS for cities: Environmental, social, financial

Large-scale public and private investment at institutional level and policy instruments can play an important role in incentivising landowners, infrastructure owners and planners, and citizens to invest in NBS and contribute to the protection and resilience of water urban ecosystems. Resources:

- Connecting Nature Framework
- Finance and Business Models Guidebook
- NBS Business Model Canvas
- CN Enterprise Platform – “Community on NBS for Water Management” (50 NBEs - 15 countries 525 users)

Present how regulations and directives impact (e.g., support or hinder) the implementation (and further upscaling) of NBS in urban areas.

“The vital role of nature-based solutions in a nature positive economy, 2022, European Commission, Directorate-General for Research and Innovation, <https://data.europa.eu/doi/10.2777/307761>”

- Key issues and recommendations:

Standards, Measurement and valuation, Public policy, Economic opportunities, Capacity building and awareness raising

The presentation ended with an introduction to two discussion statements:

- 1) Public procurement as a powerful driver for market stimulation of Nature-based Solutions
- 2) Nature-based Solutions playing a relevant role to contribute to circularity challenges in cities



Discussion Highlights

Andrea Rubini:

Can public procurement facilitate the adoption of NBS?

Laura Wendling:

Absolutely. In UNaLab we have established Nature Based Solutions in some Living Lab areas so that the procurement rules are relaxed compared to the public procurement processes that are standard within the cities. That has really helped in getting the stakeholders involved in defining solutions and some of the local material producers.

Andrea Rubini:

How can we see the leverage to putting better together the public and private sector of NBS?

Maria Wirth:

There are many different ways. One example is the real estate development process where there are a lot of public housing agencies who are often more sustainability oriented as part of their policies but often lack the know-how and the network compared to private companies that have both the know-how and the technologies. Evidently there is a need for a partnerships here. Knowledge exchange and the consultations processes related to the tendering for the construction companies or the architecture firms ect. is also something to be taken into account.

When it comes to financing in the long term, the operation and maintenance of NBS is something that in the private sector plays a key role. Regarding urban development, planning the sites and implementing the construction it is really the maintenance that has a huge impact and constitutes the main barrier. Even if someone from the construction sector understands that it would be good to have more green spaces and more innovative greening, it is simple very costly to maintain as compared to concrete. This is why more often than not they concrete will be chosen, allowing the investor to make a profit bigger financial profit. This requires a lot more involvement steering from the public sector.

Andrea Rubini:

If we have to make a choice between grey infrastructure and green infrastructure, that we can include in NBS, then the choice of grey infrastructure might be even more costly because nature is able in principle to maintain itself, using the nature cycle. At the same time to invest in grey infrastructure means to invest in concrete and steel infrastructure that cannot repair itself. So we need a lot of investments. Maintenance is a big question mark when it comes to decide on what to invest in.

Antonia Lorenzo:

The experience of Bioazul in the implementation of vertical green structures on the city buildings can be seen as a winning modality for a sustainable balance between the investments for the green structures – where the public sector plays a vital role - and the costs for the maintenance that can create the necessary leverage to involve the private sector and the users.

Laura Wendling:

When we think of water management alone it is tempting to only look only at the cost or the benefit for water management regarding the infrastructure. On the other hand, when we start to add the co benefits we consider that Nature Based Solutions or blue-green-grey integrated infrastructures can provide all sorts of benefits some of which are more tangible, much more difficult to measure.



Taking into account what makes our urban areas pleasant and liveable and what are the potential long term cost of health care, particular to mental healthcare issues is also an important point. During the Covid pandemic we saw a lot of this which underlined how important our green spaces became. So on the one hand we can consider our green spaces as places for water management, to reduce run off, increase infiltration, recharge our aquifers and improve the quality of the water that is running to the water surface bodies. On the other hand these green spaces provided a place for stress release and recreational opportunity as well as reportedly improved the mental health of individuals during a really difficult time in all of our lives. That is just a really tiny example of why we need to consider the full range of benefits when we talk about the costs and benefits and making comparisons.

Maria Wirth:

When we are making cost benefit comparisons it is really important to consider the multiple benefits that NBS can have. If we compare over a long time the operational costs of NBS to that of concrete, the second will be much cheaper. If we factor in all the maintenance of peoples wellbeing or public health or even just building, cooling or infrastructure maintenance from flooding ect., NBS becomes potentially more financially attractive and that is definitely a calculation we need to make and publicise much more.

Simos Malamis :

I come from a country where the public procurement is usually the one that bids the lowest and the cheapest gets the work so I think that integrating in the public procurement co-benefits not favouring per say NBS building on the benefits like energy efficiency, water circularity, water re use, decreasing the heat waves ect. All these important aspects could be integrated and provide an advantage to the one that select these solutions. Also NBS can be low cost solutions. There are also hybrid solutions that could also reduce the footprint of NBS.

Andrea Rubini:

Making a choice between centralised and decentralised solutions is something that we saw today as well as the matter of investment, the cost of maintenance and also over coming this culture problem about the adoption of NBS in a new vision about bringing back nature to cities. It is a cultural change and an investment challenge. There are policy implications in terms of how policy and legislation can support this important change. Can the choice between centralised solutions and decentralised solutions support the adoption of NBS in the long term?

Panagiotis Balabanis :

It is important to bring different types of views and different types of projects. Here we have a really nice example of projects which have been funded within the biodiversity nature based solutions part of environmental program but then the projects are working more on water, sustainable management of water resources. There you can see really good examples the world of NBS has really large range of type of activities that sometimes might not have the term of NBS per say.

NBS can support finding a better balance between the centralised and decentralised solutions for urban areas. Projects can also provide guidance to the actors in charge of the implementation of NBS which nature goes beyond the pure technical areas.

The EU Missions of Horizon Europe are also important to mobilise new policy tools and financing resources for NBS. Several of the Missions are water related and hence represent important opportunities for the NBS sector to improve and expand.

Additional opportunities for NBS are represented by the work programs of Horizon Europe and the NextGenerationEU Programme that deploys important resources at national level in the EU MS.



Take aways

Andrea Rubini:

- We really need to work in a systemic approach and all forces and resources need to join hands to bring really back nature to cities, to our societies in general.

Jaime Nivala:

- It is clear that there is a wide range of perspectives to take into account when we are looking into NBS especially in the urban environment and those related to water management.
- There is calls for dealing, identifying the full range of co-benefits that are available in these systems. This still seems to be an obstacle that we are yet to overcome taking into account both the tangible and the intangible benefits.
- Technology development needs intensification specifically for urban areas. Among other things looking towards as a collateral group providing guidelines and recommendations for policy makers.



Relevant EU Policy, Strategies and Regulations

Biodiversity Strategy

https://ec.europa.eu/environment/strategy/biodiversity-strategy-2030_en

FR Fertilising Products Regulation (EU) 2019/1009

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019R1009>

European Green Deal

<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1596443911913&uri=CELEX:52019DC0640#document2>

ROPL Regulation on organic production, labelling and control 889/2008/EC

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32008R0889>

RSMLCF Regulation setting maximum levels for certain contaminants in foodstuffs 1881/2006/EC

<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32006R1881>

RWRA Water Reuse Regulation (EU) 2020/741

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R0741>

SSD Sewage Sludge Directive 86/278/EEC

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:31986L0278>

UWWTD Urban Waste Water Treatment Directive 91/271/EEC

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31991L0271>

WFD Water Framework Directive 2000/60/EC

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32000L0060>

