



## International Advisory Board engagement interim report Deliverable 6.3



This project has received funding from the European Union's Horizon H2020 innovation action programme under grant agreement 101003527.

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|-----------------------------|--|
| Deliverable Number and Name | D6.3 - International Advisory Board engagement interim report  |
| Work Package                | WP6 – Stakeholder Engagement   |
| Dissemination Level         | Public   |
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| Date Due                    | 30.11.2023   |
| Date Submitted              | 30.11.2023   |
| File Name                   | D6.3 International Advisory Board engagement interim report  |
| Status                      |  |
| Reviewed by (if applicable) | Pedro Carvalho, Jaime Nivala   |
| Suggested citation          | Pirazan-Palomar, Laura (2023) International Advisory Board engagement interim report .MULTISOURCE Deliverable 6.3, H2020 grant no. 101003527 |

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This document has been prepared in the framework of the European project MULTISOURCE. This project has received funding from the European Union’s Horizon 2020 innovation action programme under grant agreement no. 101003527.

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## List of Abbreviations

|       |  |
|-------|--|
| ENTS  | Enhanced Natural Treatment Solutions       |
| NBS   | Nature-Based Solutions                     |
| NBSWT | Nature-Based Solutions for Water Treatment |
| WP    | Work package                               |

## 1. Executive Summary

MULTISOURCE, focusing on advancing water treatment practices through Nature-based Solutions (NbS), has opened meaningful spaces for collaboration with the International Advisory Board (IAB). Comprising six distinguished members, the IAB plays a pivotal role in shaping the project's trajectory. Their diverse expertise aims significantly to enrich initiatives, foster a collaborative environment conducive to the project's success. This deliverable provides an overview of the key activities and outcomes during this period.

The report highlights two main activities that marked this period. Firstly, the IAB Virtual Meeting provided a collaborative platform for discussions, knowledge exchange, and presentations on project progress. The subsequent Annual Meeting 2023 served as a comprehensive review, incorporating valuable feedback from the IAB on topics ranging from work progress and pilot monitoring to business models and market potential screening.

Interactions with IAB members have revealed a keen interest in specific topics related to various Work Packages (WPs) and the NbS technical Pilots developed and being monitored within MULTISOURCE. This collaborative spirit underscores the shared commitment to exploring innovative solutions for water treatment challenges.

Looking ahead, the MULTISOURCE Project has launched the Splashdown series, a dynamic exchange channel where the IAB members will continue to actively engage in technical exchange, pilot projects, policy advocacy, and capacity building. This series represents the next phase in the projects collaborative efforts to advance NbS and address water challenges while raising awareness about the new research outcomes.

In conclusion, the collaboration with the IAB members is instrumental in steering the MULTISOURCE project towards impactful outcomes. As highlighted in this report, a continued commitment to the collective pursuit of sustainable and innovative approaches for the future of water treatment practices is determined.

## 2. Introduction

The International Advisory Board (IAB) within the MULTISOURCE project plays a vital role in advancing its objectives by leveraging global expertise and collaboration. The purpose of the IAB is to harness the collective knowledge and diverse perspectives of international experts in the field of water treatment in consideration of nature-based solutions. By fostering collaborative partnerships, the IAB members ensures a comprehensive understanding of water-related challenges at a global scale, encompassing various ecological, social, and economic contexts. These collaborations facilitate the refinement and optimisation of project methodologies, aligning them with the needs of different stakeholders at different levels of governance. Hence, the IAB serves as a catalyst for innovation, enabling the incorporation of proven approaches and best practices on the ground implementation.

Incorporating input from international experts in MULTISOURCE in the ongoing research on water treatment through nature-based solutions is of great importance. These experts bring a diverse range of perspectives, experiences, and expertise from different parts of the world, enriching the project with a global outlook. Their feedback serves as a crucial evaluative lens, enabling to refine the methodologies and approaches in different aspects the project addresses. Their insights help ensure that research is robust, comprehensive, and applicable in various international contexts. Additionally, this collaborative engagement fosters the exchange of knowledge and best practices, paving the way for innovative and sustainable solutions in the realm of water treatment. Ultimately, by involving international experts, it strives to develop research that is not only impactful within local context but also globally relevant and effective.

Moreover, international partnerships provide access to a wider spectrum of innovative technologies, methodologies, and best practices that have been successfully implemented elsewhere. This cross-pollination of ideas enables the adoption or adaptation of proven approaches, accelerating progress and reducing the learning curve associated with the implementation of sustainable water treatment solutions. It encourages a dynamic exchange of knowledge and expertise, fostering continuous learning and improvement in initiatives.

### 3. Advisory Board Members

The International Advisory Board (IAB) plays a pivotal role in the MULTISOURCE project, ensuring a co-design process at every stage and offering external perspectives for the project's work plan. They expand dissemination channels for project outcomes. The IAB conducts regular reviews, providing advice on nature-based solutions in urban water treatment. Their feedback enhances quality control and aligns project outcomes with real-world urban water management needs, considering geographical, economic, and social diversity and ensuring fair and equitable inclusion across genders and under-represented groups.

The International Advisory Board (IAB) consists of six global experts (see Table 1) representing prominent organizations such as the International Water Association (IWA), and The Nature Conservancy (TNC). Additionally, the board includes national experts from diverse sectors, including industry, research, and public agencies. Each IAB member has affirmed their commitment to the project through formal letters of support.

| Name            | Position and Institution   | Expertise  |
|-----------------|--|--|
| Paula Kehoe,    | Director of Water Resources - San Francisco Public Utilities Commission, USA.<br><br>Chair of the National Blue-Ribbon Commission for Non-potable Water Systems  | Sustainable urban water management, alternative water sources, public education<br><br>Developed regulatory framework and ordinance to allow and require onsite, decentralized water systems in large new buildings in San Francisco |
| Sudhir Pillay   | Research Manager - Water Research Commission, South Africa   | Sanitation and sustainable urban water, decentralized wastewater treatment.<br><br>Responsible for the strategic moulding of the non-sewered sanitation RDI portfolio.   |
| Trine Munk      | Head of Resilience – Rambøll, Denmark  | Water and climate resilience, urban planning, with a focus on moving from sustainability to regeneration.  |
| Katharine Cross | Strategy and Partnerships Lead - Australian Water Partnership.<br>Co-Chair – IWA Working Group – NbS for Water and Sanitation  | Building partnerships, Water governance and policy, Climate resilience and adaptation, Nature-based solutions, and Urban water   |
| Rob McDonald    | Lead Scientist for Nature-based Solutions - The Nature Conservancy (TNC), USA  | Urban conservation, role of green infrastructure in urban well-being.<br><br>Researches the impact and dependencies of communities on the natural world  |
| Xavier Le Roux  | Senior Scientist - INRAE<br>Director - Lyon Research Federation on Biodiversity, Water & Urban studies<br><br>Deputy Director - Microbial Ecology Centre of Lyon<br><br>Chair & Coordinator - EU programme Biodiversa (over 2008-2022) | Ecology and biodiversity sciences and program management & science society/policy interfacing.<br><br>Research on the relationships between soil/sediment biodiversity and ecosystem functioning and services, and on NbS            |

| Name | Position and Institution                              | Expertise |
|------|---|-----------|
|      | Chair PEPR SOLU-BIOD<br>(70 million EUR, 2023 – 2029) |           |

*Table 1 Members of the International Advisory Board (IAB)*

The members of the International Advisory Board (IAB) are involved in MULTISOURCE, aiming to facilitate a collaborative design approach throughout every phase of the project, incorporate external perspectives to enhance the project's work plan, and serve as a dynamic channel for sharing project outcomes and achievements. Their engagement ensures the thorough consideration of knowledge generated by existing initiatives, as well as novel ideas and emerging initiatives, contributing to the advancement of nature-based solutions for urban water treatment, storage, and reuse in line with the MULTISOURCE tools and business models.

Additionally, they contribute to the regular review of the project's progress, offering advice to accelerate synergies and opportunities for the uptake of these solutions. The IAB prioritizes inclusive representation, addressing diverse geographic, economic, and social circumstances while promoting equitable participation across genders and among under-represented and disadvantaged groups in urban water management and reuse scenarios.

## 4. Main methods of engagement

The methods of engagement with the International Advisory Board (IAB) have been strategically designed to ensure a collaborative and effective partnership. Two key mechanisms, namely the Memorandum of Understanding (MoU) and the Splashdown Series, serve as structured frameworks for interaction. The MoU outlines agreed-upon activities, offering a foundational structure, while the Splashdown Series provides a dynamic platform for ongoing discussions and exchanges. Below, this report will delve into the details of each, highlighting their contributions to fostering a meaningful collaboration between the MULTISOURCE project and the members of the IAB.

### 4.1. Memorandum of Understanding (MoU)

The Memorandum of Understanding (MoU) serves as the foundational document outlining the structured engagement of six globally recognized experts in water and wastewater management, as well as climate resilience, within the framework of MULTISOURCE. These experts, integral members of the project's International Advisory Board (IAB), bring diverse expertise from Europe, Africa, Asia, and North America. Functioning as 'critical friends' to the project, they maintain a close connection with the consortium while undertaking a defined set of responsibilities. Primarily, their engagement revolves around the evaluation of MULTISOURCE pilots and active participation in the co-design process for the project's models and tools, ensuring a collaborative and informed approach to the project's objectives.

The IAB members play a vital role in the evaluation and co-design processes across multiple Work Packages in the MULTISOURCE project, as follows:

- In WP1 &2, they contribute by providing additional insights to the evaluation of ENTS pilots' monitoring results and participate in activities related to risk assessment.
- In WP3, their focus is on the co-design of business models, ensuring replicability under diverse conditions.
- For WP4, they bring expertise to the co-design of the Technology Selection Tool, incorporating knowledge from existing initiatives.
- In WP5, the IAB members contribute to the co-design of the MULTISOURCE Planning Platform, ensuring its functionality for broader stakeholder use.
- In WP7, their role extends to establishing connections with additional experts and institutions to support outreach activities.



To operationalise the activities outlined in the MoU, the next phase involved initiating communication with the six IAB members. This entailed utilizing emails and online meetings to introduce the IAB to project partners and pilots. Additionally, efforts were made to engage them in the project's annual meeting, fostering interaction with consortium members and international partners.

## 4.2. Splashdown Series

The Splashdown Series was identified as one of the engagement methods, serving as a dynamic platform for in-depth technical discussions and knowledge exchange. Through monthly online meetings with MULTISOURCE partners and international partners, the IAB delves into the aspects of Nature-based Solutions for Water Treatment (NbS<sup>WT</sup>), fostering a multidimensional understanding of the challenges and opportunities in this field.

In determining the topics for each Splashdown session, careful consideration has been given to align with the objectives of each Work Package (WP), the thematic focus of individual project pilots, and the expertise of each International Advisory Board (IAB) member. This alignment is a result of the matchmaking process conducted after interactions in the online meeting and the annual meeting in Leipzig, Germany. This comprehensive approach ensures that the content of each session is not only relevant to the overarching project goals, but also tailored to the specific themes and areas of expertise represented within the consortium and the IAB. By integrating the aims of the project, the pilot themes, and the diverse profiles of the IAB, the Splashdown sessions are curated to provide a well-rounded exploration of NbS<sup>WT</sup>.

From the matchmaking process, the aim is for each of the speakers to have an affinity with the session's topic within the framework of the project. The speakers will be able to determine the detailed topic to be addressed, so that they can provide their insights, thus giving way to the co-creation of the splashdown. There will also be space for interaction with the webinar attendees.

To ensure interactive discussions in each session, allowing for engagement not only from the speakers but also from the audience, the following webinar structure is proposed:

### **Duration: 1 Hour**

#### **Introduction 5'**

- Welcome
- Introduction of the speakers/ topics
- Start recording.

#### **Presentations (MULTISOURCE/ International Partner) 30'**

- Speaker I 15'
- Speaker II 15'

#### **Exchange on the topic 20'**

- Speaker I & II have prepared one guiding question.
- Discussion moderated from ICLEI

#### **Closing remarks 5'**

- Provide key highlights from the sessions
- Announce the upcoming webinar topic and speakers
- Any other business

#### **Follow up in the webinar**

- Share the presentations (if made, and allowed to be shared)
- Share the recording
- Share the key highlights-minutes of the session

## 5. Main Engagement Activities

Since the kick off this project, engagement with IAB members has taken place in different formats and times. As first action of engagement with the IAB, is the Memorandum of Understanding (MoU), where the advisors' activities are agreed. Furthermore, continuous interaction with the IAB has been taking place through email communications, virtual meetings in March 2023 and a face-to-face meeting in July 2023. The engagement activities have been fostered, with the Splashdown Series, launched in July 2023, serving as an additional avenue for collaborative discussions and exchanges with the IAB. These meetings will be described below, and the main takeaways, challenges and opportunities will be listed in later chapters.

### 5.1. Memorandum of Understanding (MoU)

All six members of the International Advisory Board (IAB) have officially signed the Memorandum of Understanding (MoU) on their personal capacity, marking the formalization of their commitment to the project. With the MoU in place, the groundwork for various engagement activities has been established. This pivotal agreement serves as the foundation from which all collaborative efforts, interactions, and contributions of the IAB members unfold. Their signed commitment symbolizes a collaborative journey that significantly influences the project's impact and outcomes.

### 5.2. IAB kick off virtual meeting.

A virtual meeting, with moderation by ICLEI, took place on the 1st of March 2023, 8am - 9.30am (CET). This meeting was attended by all five of the six IAB members, the project coordinator, and all WP leads. During this meeting, each IAB member took the opportunity to introduce themselves, and their specific areas of expertise and focused interests. This introductory part of the meeting fostered a deeper understanding of the diverse perspectives within the group of the IAB.

Firstly, this first meeting aimed to provide IAB members with a comprehensive update on various aspects of the project, including work progress, the monitoring and assessment of pilots, outcomes, business models, and the screening of market potential. The intention was to ensure that all participants were well-informed and engaged in the evolving dynamics of the MULTISOURCE projects.

In addition to these discussions, the meeting provided an in-depth overview of planning platform and technology selection tool tailored for the design and selection of Nature-Based Solutions at multiple scales – from block to district and city levels. The focus during this meeting was on evaluating co-benefits through participatory processes, stakeholder mapping, the co-design framework, and addressing critical aspects such as social inclusion and gender mainstreaming. The dissemination and coordination strategies of the project were also highlighted, adding a layer of strategic insight to the comprehensive discussion.

In essence, the virtual meeting served as a rich and collaborative platform, not only fostering mutual understanding among participants but also providing a holistic update on the project's progress and future directions.

### 5.3. Annual Meeting 2023

#### **IAB Introductory Session**

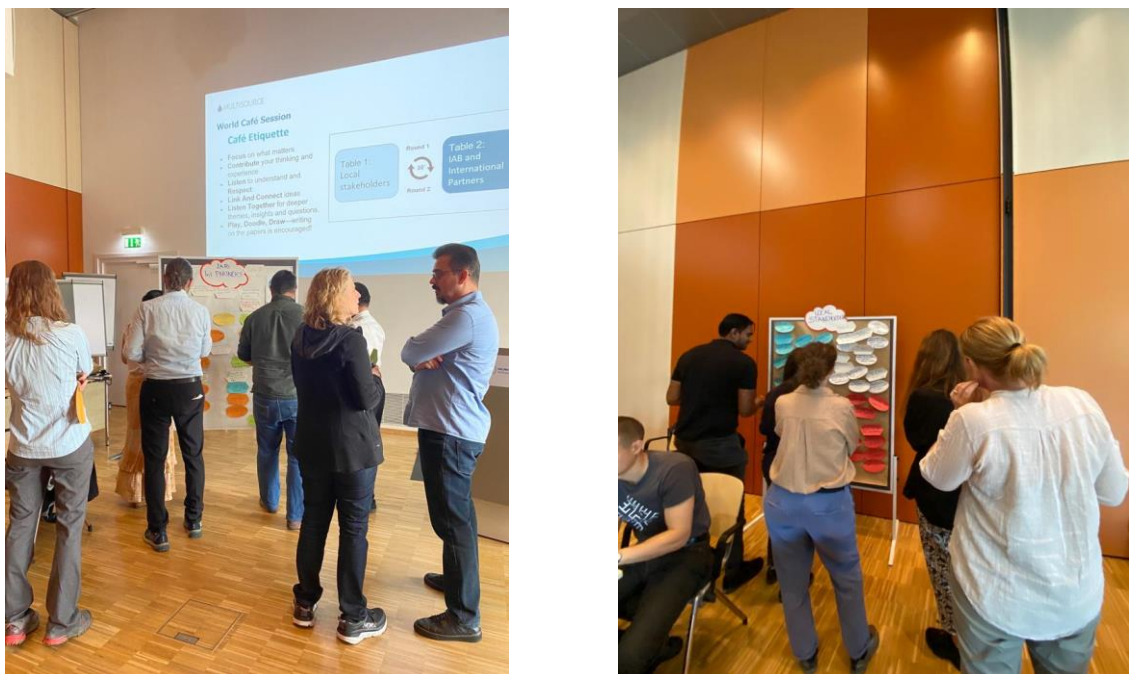
During the second annual meeting of the MULTISOURCE project, held in Leipzig, Germany from June 5th to 8th, 2023, a dedicated session was reserved for the presentation of the six IAB members. Of these, Paula Kehoe, Katharine Cross, and Sudhir Pillay were able to participate in person. ICLEI featured presentations on behalf of the three absent advisors—Trine Munk, Rob McDonald, and Xavier Le Roux—whose on-site participation was not possible, by providing insights into the advisors' perspectives, ensuring their contributions were represented. This introductory session served as a platform for them to showcase their experiences and accomplishments while also conveying their interests to the consortium members.

Beyond the introductory session, the three attending IAB members actively engaged in the workshops of various Work Packages (WPs). They actively participated in diverse activities, offering their insights, posing questions, and seeking synergies among their own work, international partners, consortium members, and, notably, gaining a more in-depth understanding of the development and progress of the MULTISOURCE project. This collaborative effort aimed to enhance communication and foster a deeper connection between all stakeholders involved in the event.

### Stakeholder engagement workshop

During the Stakeholder Engagement workshop at the annual meeting in Leipzig, an exploration into the different interest among International Advisory Board (IAB) members, international partners from the USA, Brazil, and Vietnam and consortium partners was on the focus. The agenda also encompassed discussions on lessons learned from the engagement with local stakeholders within each pilot, and the collective experiences in integrating a gender and social equity approach into the stakeholder engagement processes.

The workshop that was designed in a World Café format aimed to explore the diverse topics of interest identified by the participants, particularly those related to Nature-based Solutions for urban water treatment. This interactive session provided a platform for group and bilateral communications, fostering meaningful exchanges among participants. In detail, the workshop aimed to analyse lessons learned from stakeholder engagement and the integration of social equity and gender dimensions in the 2022-2023 period. It then focused on devising strategies for local stakeholder engagement in 2023-2024. Additionally, the workshop facilitated discussions and detailed planning for the engagement plan with international partners and the International Advisory Board, ensuring a comprehensive and collaborative approach for the MULTISOURCE project. Here, the expected outcomes were to share the lessons learnt from the actions with local stakeholders, define the objectives for interacting with the International Partners and the IAB, as well as to define the next steps for engaging the local stakeholders and the splashdown series 2023-2024.



*Figure 1. IAB participation in the Annual meeting 2023*

During the workshop, participants, including consortium partners, international partners, and IAB members, explored various topics within the MULTISOURCE project. To enhance engagement, the proposed approach involves a series of internal webinars serving as a platform for exchange among these

key stakeholder groups. Initially, attendees were prompted to brainstorm specific topics for knowledge sharing, identifying relevant partners at their tables. Subsequently, a voting process took place in the second stage, allowing participants to prioritize topics of greatest interest. This prioritization will guide the development of sessions in the upcoming Splashdown Series.



Figure 2 Splashdown series topics: exploration of topics in IAB workshop in the 2nd Annual Meeting

### 5.4. Splashdown I: NbS Innovation in wastewater treatment: a global exchange.

The first Splashdown session centred around the theme of "NbS Innovations in Wastewater Treatment," providing a platform for a global exchange of ideas. The first edition took place on the 21<sup>st</sup> of November 2023, at 12pm CET, making use of the online platform Microsoft Teams. An online invitation was sent out to the whole consortium to engage the interested partners (see Figure 3). The recording of the session can be found on the Sharepoint of Multisource ([Here](#)).



Figure 3. Online Splashdown invitation

For this first edition, two distinguished speakers participated in the discussion with their expertise. Dr. Sudhir Pillay as a member of the IAB and a global expert in water management. During his intervention

Dr. Sudhir Pillay navigated the audience through recent innovations in water management in South Africa, bringing the context of a developing country. He emphasized the importance of cross-cultural collaboration and shared insights on emerging technologies that hold the potential to revolutionize wastewater treatment on a global scale.

Mireille Martens, from SME Rietland, shared insights on sustainable wastewater treatment in Belgium and The Netherlands during the session. She highlighted the lessons learned from the monitoring of the Pilot within the MULTISOURCE project. Mireille emphasized Rietland's role in driving innovation and discussed the challenges and opportunities they encounter in promoting both environmental and economic sustainability.

## 6. Key Takeaways

The engagement with the International Advisory Board (IAB) has been marked by significant milestones, including the IAB kick-off, Annual Meeting 2023, and the launch of the Splashdown Series. These interactions have shaped the project's direction, fostering collaboration and insightful discussions. This overview highlights key takeaways from these impactful engagements, showcasing the valuable contributions and outcomes achieved through the collective efforts of the project team and the members of the IAB.

Beyond the activities specified in the signed MoU by the IAB, the interactions with IAB members have revealed a keen interest in particular topics related to various WPs and the specific Nature-based Solutions (NbS) developed in MULTISOURCE. Details of each advisor's interests are documented in the following table.

| IAB Name        | MULTISOURCE Topic related interests   |
|-----------------|---|
| Paula Kehoe     | Interest in the reports on risk assessment. Research on pathogens and water reuse. Keen to share some material on the topic with the team. Interested also in the WP3 Business models and lifecycle cost, and WP6 social and equity inclusion.  |
| Sudhir Pillay   | Interested in having a centralized link that compiles all the deliverables and reports generated by MULTISOURCE. Particularly eager to delve into the details of WP3 business models and explore the intricacies of the Life-Cycle Assessment.  |
| Trine Munk      | Interested in the co-benefits of the NBS (how they are identified and evaluated) and on gender mainstreaming for NBS for water treatment. WP1 monitoring of co-benefits, WP4 definition of co-benefits and gender mainstreaming for pilot in Girona, maybe also WP5                           |
| Katharine Cross | Interest in gender mainstreaming resources for team collaboration and seeking insights on financial instruments analysing clean water access in diverse contexts, the individual is particularly keen on risk reduction assessment. Focus on WP6 and WP1, with emphasis on gender indicators. |
| Rob McDonald    | Interested in NBS for sanitation and water quality, NBS for climate resilience, Real-world barriers to NBS planning, implementation, and maintenance, Policies and incentives for NBS   |
| Xavier Le Roux  | Interest in inclusion of socio-economic aspects and come up with holistic approaches from very early stages, as part of the design. Importance of evaluating the multifunctionality of the tool (WP4). Main interest in WP6 and WP4/5 to evaluate the tools.                                  |

*Table 2 IAB's MULTISOURCE topics of interest*

Building on the expressed interest and the outcomes of the IAB workshop during the second annual meeting, several new key topics emerged in relation to the Nature-based Solutions for Water Treatment (NbS<sup>WT</sup>). These and the initial given topics are listed in **Fehler! Verweisquelle konnte nicht gefunden werden.**, and will be considered in the design of the Splashdown series.

As highlight of the new topics that will be now included to Splashdowns series are:

Legislation and Policies: Exploring the legal and policy frameworks that impact the implementation of NbS<sup>WT</sup>. This involves understanding and navigating regulatory landscapes to ensure the effective and compliant deployment of nature-based solutions in water treatment.

- **Stakeholder Engagement & Social Equity:** Recognizing the significance of inclusive decision-making processes, this topic delves into strategies for meaningful stakeholder engagement and the promotion of social equity in the context of NbS<sup>WT</sup> projects. It aims to ensure that diverse voices are heard and that the benefits of these solutions are distributed equitably among communities.
- **Water Governance:** Addressing the governance structures and mechanisms necessary for the successful planning, implementation, and management of NbS<sup>WT</sup> initiatives. This involves considerations of institutional frameworks, coordination mechanisms, and collaborative efforts required for effective water governance. **Sustainability:** Examining the long-term environmental, economic, and social sustainability of NbS<sup>WT</sup> projects. This topic encompasses the assessment of ecological impacts, economic viability, and the overall resilience of nature-based solutions to ensure their sustained effectiveness over time.
- **Application of Multisource Tools:** Focusing on the practical application of the MULTISOURCE project's tools and methodologies. This topic explores how the project's innovative approaches can be effectively applied in real-world scenarios, considering factors such as scalability, adaptability, and replicability.

| MATCHMAKING TOPICS: Workshop Leipzig '23 |   |
|--|---|
| Given General Topics                     | Inputs from attendees (post- its)   |
| PRE-TREATED WASTEWATER                   | Challenges in pre-treatment   |
| RESEARCH ON PATOGENS AND WATER REUSE     | Recycling wastewater  |
| RAW WASTEWATER                           | Media properties for raw wastewater applications  |
|  | Behaviour of Contaminants of Emerging Concern (CECs)/ Plastics in raw systems   |
|  | Exchange of knowledge between stakeholders from Rietland pilot, and the pilots from Italy, France and Norway                      |
| ROAD RUNOFF                              | Bio retention models  |
|  | Design of bioretention under climate change conditions  |
|  | How to build raingardens for water treatment (filter medium, Plant choices, Climate related aspects, Biodiversity considerations) |
|  | Lessons learnt  |
|  | Retro-fitting opportunities and challenges  |
|  | Maintenance and care taking of the NbS  |
| COMBINED SEWER OVERFLOW                  | Combined Raw wastewater with CSO (combined sewer overflow) treatment  |
| BUSINESS MODELS                          | Connection b/w green spaces, Nb, results and incentives   |
|  | Who should pay for CCA in urban greening? Business models, cooperation, governance.   |

| <b>MATCHMAKING TOPICS: Workshop Leipzig '23</b> |   |
|---|---|
| Hybrid treatment: wetland treatment CSO         | Insights of the mandatory decentralized treatment in SP (Brazil)  |
|   | Functioning, requirements, challenges of NbS in Hybrid treatment  |
|   | Stakeholders in hybrid treatment: academia, citizens, private sector. How to involve them                         |
|   | Contaminants of Emerging Concern (CECs) detection, standardisation, regulation, training                          |
| GREYWATER                                       | Wet wall treatment greywater  |
|   | Water quality, supply and greywater   |
|   | CSO in wet wall treatment systems   |
|   | Current and/or upcoming water reuse regulations   |
| TOOLS   | Technical details of pre-treatment  |
|   | Promotion of the Multisource tools  |
| HIGH-STRENGTH WASTEWATER                        | Evaluation of the outcomes of the technology selection tool   |
|   | Septage Treatment   |
|   | FSM (Faecal Sludge Management)  |
| RAINWATER                                       | Vertical flow wetland treating High strength wastewater.  |
|   | Green-Roof  |
|   | Application to Urban Water management via water scarcity facilities and blue green city designs                   |
|   | Linkages between drainage/sewage system in urban areas  |
|   | CSO treatment, for re-use (irrigation)  |
|   | Incorporation of ecological function as a design component, into stormwater runoff - NbS or other source of water |
|   | Cost and benefits and project management  |
|   | Technical plants of road/sidewalk/raingarden of the rad runoff project  |
|   | Adaptation of experiences in other cities   |
| Intensity of the rain used for design           |   |
| <b>New topics raised in the workshop</b>        | <b>Inputs from attendees (post- its)</b>  |
| LEGISLATION AND POLICIES                        | Regulations in reuse  |
|   | Overview of different legislation in other countries: application, parameters,                                    |
|   | Experience of SF: management of qualities supplies to avoid.....  |
| STAKEHOLDER ENGAGEMENT & SOCIAL EQUITY          | Water Management in developing countries  |
| WATER GOVERNANCE                                | Water Governance  |
|   | Governance situation related onsite wastewater treatment  |
|   | Mandate of in-situ wastewater reuse (insights, lessons learnt)  |
|   | New stormwater charge/bill SFPUC: process approval of law   |
| STAKEHOLDER ENGAGEMENT & SOCIAL EQUITY          | CCA linkages to NbS for water management  |
| STAKEHOLDER ENGAGEMENT & SOCIAL EQUITY          | How can "carbon Lites" be used for enhancing mechanisms for NbS?  |

| MATCHMAKING TOPICS: Workshop Leipzig '23 |   |
|--|---|
|  | Engage local communities into NbS and enhance ownership   |
|  | Integration of gender (Disability) and social equity.   |
|  | Gender equity, social inclusion experts on practical application.   |
|  | CCA+Urban green: gentrification effects in urban greening. Examples from global north and global south                                    |
|  | Interaction between stakeholders  |
| SUSTAINABILITY                           | Connection with SDG   |
|  | Climate change adaptation using NbS   |
| Application of MULTISOURCE               | How and when to demonstrate MULTISOURCE tools in Brazil, Vietnam, USA? (Who can participate? Language barrier?)                           |
|  | Local demonstration of the pilots, tools, models, lessons learnt with international partners (involving decision makers and stakeholders) |
|  | Application of Multisource approaches in other geographies, climates, socio-economic contexts   |
|  | Upscaling beyond pilots: could bring other speakers   |
|  | What are specific projects in Brazil and Vietnam?   |

*Table 3 Matchmaking topics: Leipzig workshop- IAB table*

These identified topics serve as critical components of the Splashdowns series, enriching discussions and knowledge-sharing within the NbS<sup>WT</sup> community and contributing to the broader advancement of sustainable water treatment practices.

The first edition of splashdown session focusing on the collaborative exploration of innovative wastewater treatment solutions, led by the expertise of Dr. Sudhir Pillay and Mireille Martens. The session successfully delved into interdisciplinary approaches, with both speakers addressing the need for collaboration across different sectors. Discussions also revolved around the transfer and adoption of innovative technologies, shedding light on global perspectives and regional challenges. The dynamic exchange of ideas laid the groundwork for future discussions within the MULTISOURCE project, emphasizing the importance of global cooperation in shaping the future of water management.

## 7. Challenges and Opportunities

Engaging international experts, like the International Advisory Board (IAB) in the MULTISOURCE project, brings both challenges and opportunities. The project gains from diverse global perspectives, improving problem-solving and fostering innovative water treatment solutions. This expertise helps understand project challenges better, promoting adaptability.

### Challenges in IAB Engagement

Navigating collaboration in a multidisciplinary environment, where teams span various time zones and cultural backgrounds, presents several challenges. The constraints of time and limited resources can significantly influence both communication and workflow. To overcome these obstacles, careful and strategic management is essential. This involves finding efficient ways to bridge time gaps, fostering clear and inclusive communication, and optimising workflow processes within the constraints of varying capacities. The key is to create a well-coordinated collaborative environment that respects and adapts to the diverse factors at play.



### Opportunities in IAB Engagement

Collaborating with the IAB presents strategic opportunities, despite the challenges. Their diverse insights significantly improve project outcomes and help establish a robust international partnership focused on impactful water treatment solutions. Building this global alliance is vital for the project's impact. The IAB collaboration ensures that MULTISOURCE effectively tackles water treatment challenges through their research and the Pilot monitoring and delivers ground-breaking solutions on an international scale.

Within the project's pilots, the IAB's involvement is key, playing a vital role in providing insights and guidance. Collaborative efforts will focus on using the IAB's experience to refine the technical Pilots. The main topics for exchange as showcased in **Fehler! Verweisquelle konnte nicht gefunden werden.**, create a strategic pathway for exploring Nature-based Solutions for Water Treatment (NbS<sup>WT</sup>). This alignment happens within the dynamic Splashdowns Series, giving the IAB a platform to actively co-shape solutions within the framework of the MULTISOURCE project.

In conclusion, recognizing and addressing collaboration challenges are vital. This ensures that the MULTISOURCE project benefits from global collaboration with the IAB, achieving efficient and culturally sensitive outcomes.

## 8. Next Steps

As we propel into the next phase of engagement with the International Advisory Board (IAB), four key steps outline our strategic approach:

### 8.1. Technical exchange: Splashdown Sessions

The forthcoming Splashdown Series sessions will prominently feature the active involvement of the International Advisory Board (IAB). The IAB members will participate in these sessions, providing valuable insights, feedback, and guidance. Their expertise will enrich discussions on Nature-based Solutions for water treatment, ensuring a comprehensive exploration of challenges and opportunities. The collaborative exchange during these webinars will benefit from the diverse perspectives of both the IAB and project partners.

### 8.2. Conferences and Other Events

In conferences and external events, the International Advisory Board (IAB) will be actively sought after and invited to participate, leveraging their crucial role in representing the project's expertise. Their presence in discussions, presentations, and interactions will significantly enhance the project's visibility and impact within broader academic and professional circles. The IAB's insights will be instrumental in shaping the narrative around Nature-based Solutions, exerting influence in conversations on sustainable water treatment practices globally. Their participation in events will be strategically considered, ensuring that their involvement aligns with the attractiveness and significance of the conference or event. This proactive approach will maximize the IAB's contribution to the project's broader outreach and influence.

### 8.3. Annual Meetings – Milan 2024

The Annual Meeting in March 2024 will be organised in Milan, Italy, will be a key event for reconnecting with the IAB members to actively engage with project partners and international partners. Their input during discussions on project progress, updates, and future strategies will be instrumental. The collaborative environment of the Annual Meeting will provide the IAB with the opportunity to share their expertise, offer guidance, and foster synergies among project participants.

### 8.4. Final Conference – 2025

In the Final Conference in 2025, the IAB's involvement will be prominently highlighted. As critical contributors to the project's success, the IAB members will have a significant role in presenting conclusive findings, discussing the impact of nature-based solutions, and shaping the narrative around the project's achievements. The conference will showcase the collective efforts of the IAB, project partners, and stakeholders in advancing sustainable water treatment practices.

## 9. Conclusion

The outcomes of the Advisory Board meetings and exchanges have been instrumental in shaping the trajectory of the MULTISOURCE initiatives. Such as the topics of interest that are considered relevant for the exchange of knowledge and experiences among IABs, international partners and MULTISOURCE partners. The invaluable insights, guidance, and collaborative efforts of the Advisory Board members have significantly enriched the projects, providing a multifaceted perspective that extends beyond the agreed activities outlined in our MoU.

Underlining the significance of Nature-based Solutions for Water Treatment (NbS<sup>WT</sup>), these interactions, between the IAB and the international partners and the partners of the consortium, have emphasized the crucial role these solutions play in advancing global water treatment practices. The Splashdown series, functioning as a collaborative platform, showcases the shared commitment of the Advisory Board to address water challenges through sustainable and innovative approaches. Collectively will keep on tracing a course towards a more resilient and equitable water future, where nature-based solutions are fundamental in our joint endeavours to ensure the sustainable management and conservation of this vital resource.

## 10. Acknowledgments

The MULTISOURCE project extends sincere gratitude to the members of the Advisory Board for their invaluable insights, dedicated contributions, and unwavering commitment to advancing water treatment through nature-based solutions. The expertise of the Advisory Board has been instrumental in shaping the trajectory of the project and amplifying its overall impact. Their collaborative spirit and commitment to excellence have significantly elevated the collective efforts of the project. The success of this endeavour has been successful thanks to the time, energy, and expertise generously shared by the Advisory Board members. MULTISOURCE expresses profound appreciation for their crucial role in this journey towards a more sustainable future.

The overall goal of MULTISOURCE is to, together with local, national, and international stakeholders, demonstrate a variety of about Enhanced Natural Treatment Solutions (ENTS) treating a wide range of urban waters and to develop innovative tools, methods, and business models that support citywide planning and long-term operations and maintenance of nature-based solutions for water treatment, storage, and reuse in urban areas worldwide. The project includes seven pilots treating a wide range of urban waters. Two individual municipalities (Girona, Spain; Oslo, Norway), two metropolitan municipalities (Lyon, France; Milan, Italy), and international partners in Brazil, Vietnam, and the USA will contribute to each of the main project activities: ENTS pilots, risk assessment, business models, technology selection, and the MULTISOURCE Planning Platform. The use of urban archetypes in the Planning Platform will enable users to quickly classify regions (in both developed or developing countries) suitable for the application of nature-based solutions for water treatment (NBSWT) and compare scenarios both with and without NBSWT.



This project has received funding from the European Union's Horizon H2020 innovation action programme under grant agreement 101003527.