

WP4: Transformation

Short Report of 2nd Water supply and Sanitation Sector Roundtable

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The H2020 MERLIN roundtables aim to build a community of practice linking the economic sector representatives with MERLIN scientific and implementation partners. Following a first roundtable with the [Water supply and Sanitation Sector](#) and [Sector Briefing](#), a second roundtable was held on the 12th of June 2023. This report captures the main discussion points of this roundtable. Findings from this roundtable will contribute to the third roundtable to be held in 2024, and subsequent policy briefings and sector strategies.

What we did

The second Water Supply and Sanitation Roundtable brought 17 experts together from the public and private sectors and NGOs, to **discuss the challenges, benefits and needs of applying Nature-based Solutions (NbS) within the Sector**. Following last year's roundtable, where many different aspects of how the Sector may use NbS, the MERLIN project narrowed down its aim to promote **working upstream on restoration using large-scale NbS**. This cooperation point was further discussed during the roundtable through three main topics:

1. What are the main barriers and constraints of working upstream?
2. Establishing partnerships upstream - who should be involved and who should coordinate it?
3. Good examples to share about upstream restoration.

Prior to the discussion, two presentations were given about the significance of NbS to the Sector, EU policies' role in mainstreaming NbS within the Sector. Later, two good examples were presented, showcasing whether restoration by different sectors can have a positive impact on the quality of water supply.

The second Roundtable is part of the knowledge-sharing and -gathering process which will eventually result in creating a **sectoral strategy** at the end of the MERLIN project. With the help of the sectoral experts, including their contribution during this event, we are aiming to produce a strategy that should support the Water supply and sanitation sector in **implementing NbS in their processes** and to do their part in realising the EU Green Deal's climate neutrality, resilience and nature restoration goals.

Themes discussed

The following points are not attributed to a specific participant or author and do not suggest a consensus among the participants.

As it was highlighted in the presentation of Aqua Publica Europea (APE), there are **3 main constraints for the Sector to implement NbS on a larger scale**:

1. Internally within water operators, there is a lack of practice with NbS. It is not yet fully part of operators' "toolbox" as they are originally engineering companies. They would need capacity and training to include it more.
2. The lack of robust methodologies to assess the cost-effectiveness of NbS compared to traditional solutions.



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3. Issue of governance set-up: it might not be clear who is entitled to carry out large-scale NbS and from which financial resources.

During the roundtable, these constraints arose on several occasions, as well as possible solutions and good examples.

Need for data on benefits and investment needs

There is a wide perception that NbS are good opportunities for the sector, as they can be more cost-effective, resilient and better for the environment compared to grey infrastructure. However, the **lack of robust methodologies for cost-benefit analysis** may hamper or slow the uptake of NbS. The potentials of NbS are not well known among water operators, and the skills to manage these new approaches are not widespread either.

The importance of sufficient data about NbS emerged during the presentations about the MERLIN restoration projects as well. One of the projects focuses on the restoration of a large-scale river (Danube in Hungary, while the other involves the rewetting of peatlands (Forth catchment in Scotland). Both of them concluded that their actions are **likely to result in water quality improvements for some determinands**, only that **there is not enough scientific evidence** to prove these results just yet. While several studies were published about the effects of peatland restoration and water quality, they do not often inspect places which are at scales of relevance for drinking water providers (i.e. at point of water abstraction). Therefore, as part of the former project, they are **improving the evidence-base of the connection between water quality and peatland restoration**. As for the latter, river restoration project, data was not properly evaluated on how water quality of local wells changed after the restoration measures were taken place. Nevertheless, based on experience, during restoration works such as dredging, water quality will worsen, but **over a longer time period, restoration can improve conditions**. Nevertheless, this project stands as a good example as it established a **strong cooperation with the water utility company** to restore a side-arm where a water pipeline was running.

Another prevalent issue during the discussion was **quantifying NbS investment needs**. While the cost and effectiveness of grey infrastructure are easier to determine, those of NbS (especially at rural sites) are more complex and harder to predict. For example, the benefits of installing a new water treatment plant can be better calculated, whereas upstream water restoration has less tangible results. Or in case of drought, the effectiveness of a grey solution for water retention is already known, but it is more challenging to calculate it for an NbS water retention measure. And since in this case, there is not enough data to do a cost-benefit analysis, getting funding for long term restoration projects is quite challenging. Moreover, water operators do not always have the capacity or the legal power to invest in or implement NbS. At the moment, **there is a large funding gap** (830 billion EUR) in NbS, despite the fact that 91% of NbS is publicly funded. Creating a **proper institutional architecture to mainstream NbS** would be helpful for the Sector, to better incentivise the private sector (e.g. insurance) who have a growing interest in investing in these solutions. Promoting public-public partnerships (PuP) in Europe for the sector could also lessen the funding gap.

Need for creating and facilitating partnerships

Upstream restoration requires a **strong coordination of stakeholders**. The water industry is not a leading partner in these discussions but are open to participate. **The sector is interested in taking part, but it needs support and mandate to tackle drought issues, flooding or water scarcity**, because it needs authorisation from local authorities and stakeholders. NGOs were mentioned as potential coordinators, who could bring in the initiative and help build a shared vision. **Cooperation with the insurance sector could be a key part of upstream restoration**. In Norway for example, insurance companies presented to municipalities how much operations cost during floods induced by old pipes. Municipalities knew where the most vulnerable areas were, where investment should take place, and could collaborate with water utility companies to change their equipment. During the MERLIN project, a cross-sectoral Roundtable is planned to be held, where these partnerships can be further discussed.



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What could MERLIN do?

The low hanging fruits for MERLIN to tackle include:

- Detailing the cooperation point of working upstream with regards to who should be involved at a national/watershed level.
- Providing guidance and tools to **compare NbS and grey solutions at specific sites**, while helping the sector to **attract private and public funding** in case of a funding gap.
- Initiating and facilitating **upstream partnership** to help water utility companies with restoration processes.
- Promoting the explicit consideration of the sector and its role in mainstreaming NbS and achieving net zero emission in EU and MS policies. Particularly, the sector's expertise should be highlighted.
- Compiling and sharing **case studies of upstream and cross-sectoral partnership** where NbS was implemented.

Next steps

- Obtain feedback from roundtable participants.
- Share findings from the roundtable with other parts of the MERLIN project.
- Begin plans for the Water supply and Sanitation Sector Strategy.
- Hold 3rd and final roundtable in 2024 to discuss the sector strategy.
- Hold the cross-sectoral roundtable.
- Consider and provide policy recommendations.

Please let us know if you have any comments or clarifications to add on this note. Please address your comments to fanni.nyiro@wwf.hu.



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